

State of New Mexico  
Oil Conservation Division

Incident ID	IRM 2015326612
District RP	
Facility ID	
Application ID	

## Remediation Plan

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

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** Each of the following items must be confirmed as part of any request for deferral of remediation.

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Karolanne Hudgens Title: HSE Remediation Specialist II  
 Signature: [Signature] Date: 7/15/2022  
 email: khudgens@paalp.com Telephone: 575.200.5517

### OCD Only

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

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature: Jennifer Nobui Date: 07/25/2022



12600 WEST CO RD 91  
MIDLAND, TX 79707  
OFFICE: 432.653.4203

July 15, 2022

Ms. Jennifer Nobui, P.G.  
Environmental Science & Specialist  
New Mexico Energy, Mineral and Natural Resources Department  
Oil Conservation Division  
5200 Oakland Avenue  
N.E. Suite 100  
Albuquerque, NM 87113

**Re: Requested Delineation Soil Sampling**  
**Mewbourne Toro 36 B3BO State Com #1H**  
**Unit Letter B, Section 36, Township 23S, Range 34E**  
**GPS: 32.26731992, -103.4220084**  
**Lea County, New Mexico**  
**NMOCD Incident # NRM2015326612**

Ms. Nobui,

Plains Pipeline, L.P. (Plains) has completed the delineation sampling as requested in an email dated June 6, 2022, in reference to the *Soil Remediation Activities Report and Risk Based Closure/Deferral Request*, previously submitted by Plains dated January 12, 2022. In addition, an updated site map indicating the sampling locations has also been included.

As requested by the NMOCD, delineation sampling was necessary for the sample locations collected by Dean Companies, Inc (Dean) to confirm the lateral extent of the release. Dean mobilized to the site on June 17, 2022, to install nine (9) additional boring locations (AH-3 through AH-11) and collect soil samples at one-foot intervals to a maximum depth of five (5) feet below ground surface (bgs). Utilizing a hand auger, soil samples were collected and submitted to Permian Basin Environmental Laboratory (PBELAB) of Midland, Texas for analysis of Total Petroleum Hydrocarbons (TPH) utilizing EPA Method 8015M. Analytical results for all soil samples collected at approximately one (1) foot bgs were below method detection limits (MDL) for TPH. See attached Table 1 for lab analysis results. As the TPH concentrations for all the soil samples at 1-foot depth for each boring indicated concentrations below 100 milligrams/Kilograms (mg/Kg), TPH analysis was not completed for samples collected at deeper depth intervals. With completion of the horizontal delineation, Plains respectfully requests the NMOCD consider incident no. NRM2015326612 for deferral.

If you have any questions, or if additional information is needed, please feel free to contact Elizabeth Stuart (email: elizabethstuart@deandigs.com, cell: 432.653.4203) or Jennifer Perez (email: jenniferperez@deandigs.com, cell: 432.664.3166).

Sincerely,



**Elizabeth Stuart**  
Project Manager



**Jennifer Perez, PG.**  
Professional Geologist



Delineation Chemistry Table  
 Concentrations of TPH in Soil  
 Plains Pipeline, LLC  
 Mewbourne Toro Release  
 Lea County, New Mexico

SAMPLE INFORMATION					METHOD: EPA 8015M			
SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	C6-C12 (mg/kg)	>C12-C28 (mg/kg)	>C28-C35 (mg/kg)	TOTAL TPH (mg/kg)
AH-3 @ 1'	6/27/2022	1 FT	GRAB	SOIL	<26.0	<26.0	<26.0	<26.0
AH-4 @ 1'	6/27/2022	1 FT	GRAB	SOIL	<25.5	<25.5	<25.5	<25.5
AH-5 @ 1'	6/27/2022	1 FT	GRAB	SOIL	<25.5	<25.5	<25.5	<25.5
AH-6 @ 1'	6/27/2022	1 FT	GRAB	SOIL	<25.5	<25.5	<25.5	<25.5
AH-7 @ 1'	6/27/2022	1 FT	GRAB	SOIL	<26.6	<26.6	<26.6	<26.6
AH-8 @ 1'	6/28/2022	1 FT	GRAB	SOIL	<26.3	<26.3	<26.3	<26.3
AH-9 @ 1'	6/28/2022	1 FT	GRAB	SOIL	<26.6	<26.6	<26.6	<26.6
AH-10 @ 1'	6/28/2022	1 FT	GRAB	SOIL	<27.2	<27.2	<27.2	<27.2
AH-11 @ 1'	6/28/2022	1 FT	GRAB	SOIL	<26.6	<26.6	<26.6	<26.6
NMOCD RECOMMENDED REMEDIATION ACTION LEVEL								100



## Horizontal Delineation

Plains Pipeline LLC  
Mewbourne Toro Release  
SRS: 2020-50  
GPS: 32.26731992, -103.4220084  
Lea County, NM

### Legend

Excavation and Release Area:



Sample Location:



Approximate area beneath  
Containment:



**DEAN**

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Elizabeth Stuart  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-22168

Location: Lea County, NM

Lab Order Number: 2F28002



**Current Certification**

Report Date: 07/05/22

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-3 @ 1'	2F28002-01	Soil	06/27/22 08:30	06-28-2022 15:23
AH-4 @ 1'	2F28002-06	Soil	06/27/22 08:56	06-28-2022 15:23
AH-5 @ 1'	2F28002-11	Soil	06/27/22 09:18	06-28-2022 15:23
AH-6 @ 1'	2F28002-16	Soil	06/27/22 09:38	06-28-2022 15:23
AH-7 @ 1'	2F28002-21	Soil	06/27/22 10:07	06-28-2022 15:23

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-3 @ 1'**  
**2F28002-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 15:48	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 15:48	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 15:48	TPH 8015M	
Surrogate: 1-Chlorooctane	81.1 %		70-130		P2F2903	06/29/22 09:44	06/29/22 15:48	TPH 8015M	
Surrogate: o-Terphenyl	86.7 %		70-130		P2F2903	06/29/22 09:44	06/29/22 15:48	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	06/29/22 09:44	06/29/22 15:48	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-4 @ 1'**  
**2F28002-06 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	2.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
C6-C12	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 17:42	TPH 8015M
>C12-C28	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 17:42	TPH 8015M
>C28-C35	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 17:42	TPH 8015M
Surrogate: 1-Chlorooctane	78.2 %	70-130			P2F2903	06/29/22 09:44	06/29/22 17:42	TPH 8015M
Surrogate: o-Terphenyl	82.3 %	70-130			P2F2903	06/29/22 09:44	06/29/22 17:42	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	06/29/22 09:44	06/29/22 17:42	calc

Permian Basin Environmental Lab, L.P.

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Dean  
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Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-5 @ 1'**  
**2F28002-11 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	2.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 20:20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 20:20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 20:20	TPH 8015M	
Surrogate: 1-Chlorooctane	81.9 %	70-130			P2F2903	06/29/22 09:44	06/29/22 20:20	TPH 8015M	
Surrogate: o-Terphenyl	85.7 %	70-130			P2F2903	06/29/22 09:44	06/29/22 20:20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	06/29/22 09:44	06/29/22 20:20	calc	

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-6 @ 1'**  
**2F28002-16 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	2.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 22:11	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 22:11	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P2F2903	06/29/22 09:44	06/29/22 22:11	TPH 8015M	
Surrogate: 1-Chlorooctane	85.2 %	70-130			P2F2903	06/29/22 09:44	06/29/22 22:11	TPH 8015M	
Surrogate: o-Terphenyl	89.1 %	70-130			P2F2903	06/29/22 09:44	06/29/22 22:11	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	06/29/22 09:44	06/29/22 22:11	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-7 @ 1'**  
**2F28002-21 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	6.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
C6-C12	ND	26.6	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 06:25	TPH 8015M
>C12-C28	ND	26.6	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 06:25	TPH 8015M
>C28-C35	ND	26.6	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 06:25	TPH 8015M
Surrogate: 1-Chlorooctane	83.7 %	70-130			P2F2904	06/29/22 10:20	07/01/22 06:25	TPH 8015M
Surrogate: o-Terphenyl	91.3 %	70-130			P2F2904	06/29/22 10:20	07/01/22 06:25	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	06/29/22 10:20	07/01/22 06:25	calc

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P2F2912 - *** DEFAULT PREP ***</b>										
<b>Blank (P2F2912-BLK1)</b>	Prepared & Analyzed: 06/29/22									
% Moisture	ND	0.1	%							
<b>Blank (P2F2912-BLK2)</b>	Prepared & Analyzed: 06/29/22									
% Moisture	ND	0.1	%							
<b>Blank (P2F2912-BLK3)</b>	Prepared & Analyzed: 06/29/22									
% Moisture	ND	0.1	%							
<b>Duplicate (P2F2912-DUP1)</b>	<b>Source: 2F28002-03</b>		Prepared & Analyzed: 06/29/22							
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P2F2912-DUP2)</b>	<b>Source: 2F28002-13</b>		Prepared & Analyzed: 06/29/22							
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P2F2912-DUP3)</b>	<b>Source: 2F28003-03</b>		Prepared & Analyzed: 06/29/22							
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P2F2912-DUP4)</b>	<b>Source: 2F28003-13</b>		Prepared & Analyzed: 06/29/22							
% Moisture	7.0	0.1	%		7.0			0.00	20	
<b>Duplicate (P2F2912-DUP5)</b>	<b>Source: 2F29004-05</b>		Prepared & Analyzed: 06/29/22							
% Moisture	1.0	0.1	%		1.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P2F2903 - TX 1005**

**Blank (P2F2903-BLK1)**

Prepared & Analyzed: 06/29/22

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	85.2		"	100		85.2	70-130			
Surrogate: o-Terphenyl	44.4		"	50.0		88.7	70-130			

**LCS (P2F2903-BS1)**

Prepared & Analyzed: 06/29/22

C6-C12	913	25.0	mg/kg	1000		91.3	75-125			
>C12-C28	1070	25.0	"	1000		107	75-125			
Surrogate: 1-Chlorooctane	120		"	100		120	70-130			
Surrogate: o-Terphenyl	44.7		"	50.0		89.3	70-130			

**LCS Dup (P2F2903-BS1)**

Prepared & Analyzed: 06/29/22

C6-C12	932	25.0	mg/kg	1000		93.2	75-125	2.05	20	
>C12-C28	1080	25.0	"	1000		108	75-125	1.46	20	
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	45.5		"	50.0		91.0	70-130			

**Calibration Check (P2F2903-CCV1)**

Prepared & Analyzed: 06/29/22

C6-C12	447	25.0	mg/kg	500		89.5	85-115			
>C12-C28	496	25.0	"	500		99.2	85-115			
Surrogate: 1-Chlorooctane	109		"	100		109	70-130			
Surrogate: o-Terphenyl	47.9		"	50.0		95.9	70-130			

**Calibration Check (P2F2903-CCV2)**

Prepared & Analyzed: 06/29/22

C6-C12	445	25.0	mg/kg	500		89.1	85-115			
>C12-C28	506	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	45.6		"	50.0		91.2	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P2F2903 - TX 1005**

<b>Matrix Spike (P2F2903-MS1)</b>	<b>Source: 2F28002-20</b>			Prepared: 06/29/22		Analyzed: 06/30/22				
C6-C12	1040	27.5	mg/kg dry	1100	17.3	93.0	75-125			
>C12-C28	1170	27.5	"	1100	ND	107	75-125			
Surrogate: 1-Chlorooctane	141		"	110		128	70-130			
Surrogate: o-Terphenyl	50.0		"	54.9		90.9	70-130			

<b>Matrix Spike Dup (P2F2903-MSD1)</b>	<b>Source: 2F28002-20</b>			Prepared: 06/29/22		Analyzed: 06/30/22				
C6-C12	1050	27.5	mg/kg dry	1100	17.3	94.2	75-125	1.26	20	
>C12-C28	1170	27.5	"	1100	ND	106	75-125	0.511	20	
Surrogate: 1-Chlorooctane	97.4		"	110		88.6	70-130			
Surrogate: o-Terphenyl	51.7		"	54.9		94.1	70-130			

**Batch P2F2904 - TX 1005**

<b>Blank (P2F2904-BLK1)</b>				Prepared: 06/29/22		Analyzed: 07/01/22				
C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	88.8		"	100		88.8	70-130			
Surrogate: o-Terphenyl	46.0		"	50.0		92.1	70-130			

<b>LCS (P2F2904-BS1)</b>				Prepared: 06/29/22		Analyzed: 07/01/22				
C6-C12	948	25.0	mg/kg	1000		94.8	75-125			
>C12-C28	1000	25.0	"	1000		100	75-125			
Surrogate: 1-Chlorooctane	94.5		"	100		94.5	70-130			
Surrogate: o-Terphenyl	51.8		"	50.0		104	70-130			

<b>LCS Dup (P2F2904-BSD1)</b>				Prepared: 06/29/22		Analyzed: 07/01/22				
C6-C12	959	25.0	mg/kg	1000		95.9	75-125	1.23	20	
>C12-C28	1010	25.0	"	1000		101	75-125	0.786	20	
Surrogate: 1-Chlorooctane	94.5		"	100		94.5	70-130			
Surrogate: o-Terphenyl	50.9		"	50.0		102	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P2F2904 - TX 1005**

**Calibration Check (P2F2904-CCV1)**

Prepared: 06/29/22 Analyzed: 07/02/22

C6-C12	431	25.0	mg/kg	500		86.2	85-115			
>C12-C28	446	25.0	"	500		89.2	85-115			
Surrogate: 1-Chlorooctane	95.5		"	100		95.5	70-130			
Surrogate: o-Terphenyl	51.4		"	50.0		103	70-130			

**Calibration Check (P2F2904-CCV2)**

Prepared: 06/29/22 Analyzed: 07/02/22

C6-C12	427	25.0	mg/kg	500		85.4	85-115			
>C12-C28	442	25.0	"	500		88.3	85-115			
Surrogate: 1-Chlorooctane	93.8		"	100		93.8	70-130			
Surrogate: o-Terphenyl	51.0		"	50.0		102	70-130			

**Calibration Check (P2F2904-CCV3)**

Prepared: 06/29/22 Analyzed: 07/02/22

C6-C12	441	25.0	mg/kg	500		88.2	85-115			
>C12-C28	441	25.0	"	500		88.1	85-115			
Surrogate: 1-Chlorooctane	93.7		"	100		93.7	70-130			
Surrogate: o-Terphenyl	50.4		"	50.0		101	70-130			

**Matrix Spike (P2F2904-MS1)**

Source: 2F28003-15

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	963	27.5	mg/kg dry	1100	12.0	86.5	75-125			
>C12-C28	1100	27.5	"	1100	15.5	98.4	75-125			
Surrogate: 1-Chlorooctane	129		"	110		118	70-130			
Surrogate: o-Terphenyl	48.2		"	54.9		87.8	70-130			

**Matrix Spike Dup (P2F2904-MSD1)**

Source: 2F28003-15

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	911	27.5	mg/kg dry	1100	12.0	81.8	75-125	5.62	20	
>C12-C28	1040	27.5	"	1100	15.5	93.3	75-125	5.35	20	
Surrogate: 1-Chlorooctane	123		"	110		112	70-130			
Surrogate: o-Terphenyl	45.9		"	54.9		83.5	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

### Notes and Definitions

ROI Received on Ice

NPBEL C Chain of Custody was not generated at PBELAB

BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/5/2022

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Elizabeth Stuart  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-22168

Location: Lea County, NM

Lab Order Number: 2F28003



**Current Certification**

Report Date: 07/05/22

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-8 @ 1'	2F28003-01	Soil	06/28/22 08:38	09-28-2022 16:05
AH-9 @ 1'	2F28003-06	Soil	06/28/22 08:57	09-28-2022 16:05
AH-10 @ 1'	2F28003-11	Soil	06/28/22 09:20	09-28-2022 16:05
AH-11 @ 1'	2F28003-16	Soil	06/28/22 10:02	09-28-2022 16:05

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-8 @ 1'**  
**2F28003-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	5.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M								
C6-C12	ND	26.3	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 08:21	TPH 8015M
>C12-C28	ND	26.3	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 08:21	TPH 8015M
>C28-C35	ND	26.3	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 08:21	TPH 8015M
Surrogate: 1-Chlorooctane	84.2 %	70-130			P2F2904	06/29/22 10:20	07/01/22 08:21	TPH 8015M
Surrogate: o-Terphenyl	87.6 %	70-130			P2F2904	06/29/22 10:20	07/01/22 08:21	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.3	mg/kg dry	1	[CALC]	06/29/22 10:20	07/01/22 08:21	calc

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-9 @ 1'**  
**2F28003-06 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	6.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
C6-C12	ND	26.6	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 11:06	TPH 8015M
>C12-C28	ND	26.6	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 11:06	TPH 8015M
>C28-C35	ND	26.6	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 11:06	TPH 8015M
Surrogate: 1-Chlorooctane	81.7 %	70-130			P2F2904	06/29/22 10:20	07/01/22 11:06	TPH 8015M
Surrogate: o-Terphenyl	86.2 %	70-130			P2F2904	06/29/22 10:20	07/01/22 11:06	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	06/29/22 10:20	07/01/22 11:06	calc

Permian Basin Environmental Lab, L.P.

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12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-10 @ 1'**  
**2F28003-11 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	8.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M								
C6-C12	ND	27.2	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 13:05	TPH 8015M
>C12-C28	ND	27.2	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 13:05	TPH 8015M
>C28-C35	ND	27.2	mg/kg dry	1	P2F2904	06/29/22 10:20	07/01/22 13:05	TPH 8015M
Surrogate: 1-Chlorooctane	76.8 %	70-130			P2F2904	06/29/22 10:20	07/01/22 13:05	TPH 8015M
Surrogate: o-Terphenyl	81.0 %	70-130			P2F2904	06/29/22 10:20	07/01/22 13:05	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	06/29/22 10:20	07/01/22 13:05	calc

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**AH-11 @ 1'**  
**2F28003-16 (Soil)**

Analyte	Reporting Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

% Moisture	6.0	0.1	%	1	P2F2912	06/29/22 15:52	06/29/22 16:01	ASTM D2216
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M								
C6-C12	ND	26.6	mg/kg dry	1	P2F2909	06/29/22 11:30	06/30/22 10:03	TPH 8015M
>C12-C28	ND	26.6	mg/kg dry	1	P2F2909	06/29/22 11:30	06/30/22 10:03	TPH 8015M
>C28-C35	ND	26.6	mg/kg dry	1	P2F2909	06/29/22 11:30	06/30/22 10:03	TPH 8015M
Surrogate: 1-Chlorooctane	86.9 %	70-130			P2F2909	06/29/22 11:30	06/30/22 10:03	TPH 8015M
Surrogate: o-Terphenyl	92.0 %	70-130			P2F2909	06/29/22 11:30	06/30/22 10:03	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	06/29/22 11:30	06/30/22 10:03	calc

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P2F2912 - *** DEFAULT PREP ***</b>										
<b>Blank (P2F2912-BLK1)</b>	Prepared & Analyzed: 06/29/22									
% Moisture	ND	0.1	%							
<b>Blank (P2F2912-BLK2)</b>	Prepared & Analyzed: 06/29/22									
% Moisture	ND	0.1	%							
<b>Blank (P2F2912-BLK3)</b>	Prepared & Analyzed: 06/29/22									
% Moisture	ND	0.1	%							
<b>Duplicate (P2F2912-DUP1)</b>	<b>Source: 2F28002-03</b>		Prepared & Analyzed: 06/29/22							
% Moisture	4.0	0.1	%		4.0			0.00	20	
<b>Duplicate (P2F2912-DUP2)</b>	<b>Source: 2F28002-13</b>		Prepared & Analyzed: 06/29/22							
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P2F2912-DUP3)</b>	<b>Source: 2F28003-03</b>		Prepared & Analyzed: 06/29/22							
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P2F2912-DUP4)</b>	<b>Source: 2F28003-13</b>		Prepared & Analyzed: 06/29/22							
% Moisture	7.0	0.1	%		7.0			0.00	20	
<b>Duplicate (P2F2912-DUP5)</b>	<b>Source: 2F29004-05</b>		Prepared & Analyzed: 06/29/22							
% Moisture	1.0	0.1	%		1.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P2F2904 - TX 1005**

**Blank (P2F2904-BLK1)**

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	88.8		"	100		88.8	70-130			
Surrogate: o-Terphenyl	46.0		"	50.0		92.1	70-130			

**LCS (P2F2904-BS1)**

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	948	25.0	mg/kg	1000		94.8	75-125			
>C12-C28	1000	25.0	"	1000		100	75-125			
Surrogate: 1-Chlorooctane	94.5		"	100		94.5	70-130			
Surrogate: o-Terphenyl	51.8		"	50.0		104	70-130			

**LCS Dup (P2F2904-BS1)**

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	959	25.0	mg/kg	1000		95.9	75-125	1.23	20	
>C12-C28	1010	25.0	"	1000		101	75-125	0.786	20	
Surrogate: 1-Chlorooctane	94.5		"	100		94.5	70-130			
Surrogate: o-Terphenyl	50.9		"	50.0		102	70-130			

**Calibration Check (P2F2904-CCV1)**

Prepared: 06/29/22 Analyzed: 07/02/22

C6-C12	431	25.0	mg/kg	500		86.2	85-115			
>C12-C28	446	25.0	"	500		89.2	85-115			
Surrogate: 1-Chlorooctane	95.5		"	100		95.5	70-130			
Surrogate: o-Terphenyl	51.4		"	50.0		103	70-130			

**Calibration Check (P2F2904-CCV2)**

Prepared: 06/29/22 Analyzed: 07/02/22

C6-C12	427	25.0	mg/kg	500		85.4	85-115			
>C12-C28	442	25.0	"	500		88.3	85-115			
Surrogate: 1-Chlorooctane	93.8		"	100		93.8	70-130			
Surrogate: o-Terphenyl	51.0		"	50.0		102	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P2F2904 - TX 1005**

**Calibration Check (P2F2904-CCV3)**

Prepared: 06/29/22 Analyzed: 07/02/22

C6-C12	441	25.0	mg/kg	500		88.2	85-115			
>C12-C28	441	25.0	"	500		88.1	85-115			
Surrogate: 1-Chlorooctane	93.7		"	100		93.7	70-130			
Surrogate: o-Terphenyl	50.4		"	50.0		101	70-130			

**Matrix Spike (P2F2904-MS1)**

Source: 2F28003-15

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	963	27.5	mg/kg dry	1100	12.0	86.5	75-125			
>C12-C28	1100	27.5	"	1100	15.5	98.4	75-125			
Surrogate: 1-Chlorooctane	129		"	110		118	70-130			
Surrogate: o-Terphenyl	48.2		"	54.9		87.8	70-130			

**Matrix Spike Dup (P2F2904-MSD1)**

Source: 2F28003-15

Prepared: 06/29/22 Analyzed: 07/01/22

C6-C12	911	27.5	mg/kg dry	1100	12.0	81.8	75-125	5.62	20	
>C12-C28	1040	27.5	"	1100	15.5	93.3	75-125	5.35	20	
Surrogate: 1-Chlorooctane	123		"	110		112	70-130			
Surrogate: o-Terphenyl	45.9		"	54.9		83.5	70-130			

**Batch P2F2909 - TX 1005**

**Blank (P2F2909-BLK1)**

Prepared: 06/29/22 Analyzed: 06/30/22

C6-C12	ND	25.0	mg/kg							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	91.9		"	100		91.9	70-130			
Surrogate: o-Terphenyl	47.9		"	50.0		95.8	70-130			

**LCS (P2F2909-BS1)**

Prepared: 06/29/22 Analyzed: 06/30/22

C6-C12	907	25.0	mg/kg	1000		90.7	75-125			
>C12-C28	1020	25.0	"	1000		102	75-125			
Surrogate: 1-Chlorooctane	128		"	100		128	70-130			
Surrogate: o-Terphenyl	47.1		"	50.0		94.2	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P2F2909 - TX 1005</b>										
<b>LCS Dup (P2F2909-BSD1)</b>				Prepared: 06/29/22 Analyzed: 06/30/22						
C6-C12	928	25.0	mg/kg	1000		92.8	75-125	2.24	20	
>C12-C28	1000	25.0	"	1000		100	75-125	2.31	20	
Surrogate: 1-Chlorooctane	92.0		"	100		92.0	70-130			
Surrogate: o-Terphenyl	52.4		"	50.0		105	70-130			
<b>Calibration Check (P2F2909-CCV1)</b>				Prepared: 06/29/22 Analyzed: 06/30/22						
C6-C12	442	25.0	mg/kg	500		88.4	85-115			
>C12-C28	506	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	106		"	100		106	70-130			
Surrogate: o-Terphenyl	45.7		"	50.0		91.5	70-130			
<b>Calibration Check (P2F2909-CCV2)</b>				Prepared: 06/29/22 Analyzed: 06/30/22						
C6-C12	484	25.0	mg/kg	500		96.8	85-115			
>C12-C28	520	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	48.9		"	50.0		97.8	70-130			
<b>Calibration Check (P2F2909-CCV3)</b>				Prepared: 06/29/22 Analyzed: 06/30/22						
C6-C12	439	25.0	mg/kg	500		87.9	85-115			
>C12-C28	507	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	46.5		"	50.0		93.0	70-130			
<b>Matrix Spike (P2F2909-MS1)</b>				<b>Source: 2F29004-04</b>		Prepared: 06/29/22 Analyzed: 06/30/22				
C6-C12	698	25.3	mg/kg dry	1010	24.2	66.7	75-125			QM-05
>C12-C28	805	25.3	"	1010	71.9	72.6	75-125			QM-05
Surrogate: 1-Chlorooctane	111		"	101		110	70-130			
Surrogate: o-Terphenyl	43.6		"	50.5		86.4	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P2F2909 - TX 1005**

**Matrix Spike Dup (P2F2909-MSD1)**

**Source: 2F29004-04**

Prepared: 06/29/22 Analyzed: 06/30/22

C6-C12	686	25.3	mg/kg dry	1010	24.2	65.5	75-125	1.88	20	QM-05
>C12-C28	856	25.3	"	1010	71.9	77.6	75-125	6.63	20	
Surrogate: 1-Chlorooctane	113		"	101		112	70-130			
Surrogate: o-Terphenyl	45.0		"	50.5		89.2	70-130			

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-22168  
Project Manager: Elizabeth Stuart

### Notes and Definitions

ROI Received on Ice

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

NPBEL C Chain of Custody was not generated at PBELAB

BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/5/2022

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

**PBB LAB**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Pg. 1 of 2

Project Manager: Elizabeth Stuart

Project Name: Newbourn Torino

Company Name: Dean

Project #: PP-22168

Company Address: 12600 WCR 91

Project Loc: Lea County, NM

City/State/Zip: Midland TX 79707

WORK ORDER #: 480411026-04 SRS: 2020-050

Telephone No: 432-230-0920

Fax No:

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Angel Medina

e-mail:

jenniferperrez@deandigs.com

cjbryant@paalp.com

(lab use only)

ORDER #: 2F28003

elizabethstuart@deandigs.com  
kaylanlongee@deanequip.com  
kneadgens@paalp.com

Analyze For:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250, ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCCLP BENZENE	CHLORIDES	TCCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015M (NEW MEXICO)	7 Day TAT	48 hour TAT
1	AH-801Ft	1Ft	1Ft	6/28/22	8:38		1	X									S												
2	AH-802Ft	2Ft	2Ft		8:41		1	X																					
3	AH-803Ft	3Ft	3Ft		8:44		1	X																					
4	AH-804Ft	4Ft	4Ft		8:46		1	X																					
5	AH-805Ft	5Ft	5Ft		8:49		1	X																					
6	AH-901Ft	1Ft	1Ft		8:57		1	X																					
7	AH-902Ft	2Ft	2Ft		9:03		1	X																					
8	AH-903Ft	3Ft	3Ft		9:06		1	X																					
9	AH-904Ft	4Ft	4Ft		9:11		1	X																					
10	AH-905Ft	5Ft	5Ft		9:14		1	X																					

Special Instructions:

Delamination: Run deeper sample for each AH if TPH ≥ 100 mg/kg

Relinquished by:	Date	Time	Received by:	Date	Time
Angel Medina	6/28/22	16:58			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Received by: *[Signature]* Date: 6/28/22 Time: 16:58

Temperature Upon Receipt: 49.9 °C Adjusted: 49.9 °C Factor: 1.04

by Courier? ☐ UPS ☐ DHL ☐ FedEx ☐ Lone Star

Labels on container(s) ☒ Custody seals on container(s) ☒ Custody seals on cooler(s) ☒ Sample Hand Delivered ☒ by Sampler/Client Rep? ☒

VOCs Free of Headspace? ☒

Sample Containers Intact? ☒

Laboratory Comments: *[Signature]*





12600 WEST CO RD 91

MIDLAND, TX 79707

OFFICE: 432.653.4203

## **SOIL REMEDIATION ACTIVITIES REPORT AND RISK BASED CLOSURE/DEFERRAL REQUEST**

PLAINS PIPELINE, L.P.

MEWBOURNE TORO 36 B3BO STATE COM #1H RELEASE

LEA COUNTY, NM

NMOCD INCIDENT #: NRM2015326612

SRS #: 2020-050



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7. NMOCD Variance and Deferral Request and Response
8. Initial Variance and Closure Request with NMOCD Response
9. Additional Delineation Sampling as Requested by NMOCD
10. Variance and Closure Request

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Appendix E. Photographic Documentation

Appendix F. Email Deferral Request and NMOCD Response

Appendix G. NMOCD Email Response to Variance Request

January 6, 2022

New Mexico Oil Conservation Division District 1

1625 N. French Drive

Hobbs, New Mexico 88240

**Re: Soil Remediation Activities Report and Risk Based Closure/Deferral Request**

**Mewbourne Toro 36 B3B0 State Com #1H Release**

**Unit Letter B, Section 36, Township 23S, Range 34E**

**GPS: N 32.26731992°, W -103.4220084°**

**Lea County, New Mexico**

**NMOCD Incident #: NRM2015326612**

**SRS #: 2020-050**

## **1. Introduction**

Dean Companies, Inc. (Dean) is pleased to present this Soil Remediation Activities Report and Risk Based Closure/Deferral Request on behalf of Plains Pipeline, L.P. (Plains) to document the field soil remediation activities that were conducted at the Mewbourne Toro 36 B3B0 State Com #1H Release site. The crude oil release occurred from a LACT unit, located approximately 16.97 miles northwest of Jal, Lea County, New Mexico in Unit Letter B, Section 36, Township 23S, and Range 34E. The GPS coordinates for the site is N 32.26731992° and W -103.4220084°. A "Site

Location Map” is provided as Figure 1 and “Topographic Map” as Figure 2. The release was located on privately held land.

## **2. Release Description and Response**

On May 23, 2020, a crude oil release occurred at the Mewbourne Toro 36 B3B0 State Com #1H and was attributed to an air eliminator failure on the LACT unit. Approximately ten and two-tenths (10.2) barrels (bbls) of crude oil was released with five (5) bbls recovered for a net loss of five and two-tenths (5.2) bbls of crude oil. The release was contained onsite adjacent to the LACT unit and upon the tank battery pad affecting an area measuring approximately forty-five (45) feet (ft) in length by thirty (30) ft in width to an estimated maximum depth of eleven (11) ft below ground surface (bgs) by the LACT unit and thirty (30) ft in length by three (3) ft in width to a depth of greater than nine (9) ft bgs adjacent and beneath the tank battery and affiliated berm and liner.

On May 29, 2020, Dean was assigned management oversight responsibilities for impacted soil delineation, remediation, soil sampling, site restoration, and reporting activities by Plains. On June 1, 2020, Plains submitted the initial C-141 Form to the NMOCD (Appendix A) and the landowner notified.

## **3. NMOCD Regulatory Limits**

NMOCD assessment and cleanup levels for hydrocarbon and produced water releases are based on depth to groundwater and follow the criteria in the revised August 2018 Title 19 Chapter 15 Part 29 New Mexico Administration Code (19.15.29 NMAC) regulations. Groundwater databases maintained by the New Mexico Office of the State Engineer (NMOSE), the New Mexico Bureau of Geology & Mineral Resources (NMBGMR), and The United States Geological Survey (USGS) were accessed to determine if any registered water wells were located in or near Unit Letter B, Section 36, Township 23S, and Range 34E. Neither of the three databases identified any registered water wells within a half mile of the site. The closest well (C 03620 POD1) was located

in Section 32, Township 23S, and Range 34E with a depth to groundwater at 130 feet bgs. See Appendix B for the referenced water well. At the request of the NMOCD, a soil boring was installed to a depth of eighty (80) ft bgs at the site on April 20, 2021. The boring was left open for 24 hours prior to being gauged with a water level indicator to determine if any water was located within the boring. The boring was found to be dry, then grouted to the surface with bentonite chips mixed with water. See Appendix C for Soil Boring Log. See Figures 4 and 5 for soil boring location. In addition, according to the Bureau of Land Management (BLM) the site is located in an area of low potential karst topography. See Figure 3 "Site Location Relative to Known Regional Karst Topography". As outlined in 19.15.29.12.B. (4) NMAC, the release does not occur in referenced sensitive areas, with the nearest water body feature being the Monument Draw located approximately 17.62 miles east of the site. Meeting the previous criteria, the NMOCD restoration and cleanup levels for soils impacted by hydrocarbons with low karst topography and groundwater greater than eighty (80) ft bgs is as follows:

- Chloride 10,000 mg/Kg
- TPH (Gro+Dro) 1,000 mg/Kg
- Total TPH 2,500 mg/Kg
- Benzene 10 mg/Kg
- Total BTEX 50 mg/Kg

#### **4. Soil Assessment Activities and Sample Analysis**

Between May 29 and July 30, 2020, Dean Personnel conducted soil assessment activities at the release site. A hand auger was utilized to collect soil samples from the site to determine depth of hydrocarbon and chloride impacts. Soil samples were collected at one (1) ft to two (2) ft intervals to a maximum depth of fifteen (15) feet bgs or until refusal was encountered due to underlying limestone. Seven (7) auger hole locations (AH-1, AH-1E, AH-1SE, AH-1NE, AH-2, NE Wall, and SE Wall) were installed at the site. Two (2) of the auger holes (AH-1 and AH-2) were installed

within the LACT unit area, while five (5) auger holes (AH-1E, AH-1SE, AH-1 NE, NE Wall, and SE Wall) were installed adjacent to and horizontally beneath the tank battery with all collected soils placed into laboratory-provided sample containers, labeled, stored on ice, and transported under proper chain-of-custody documentation to Permian Basin Environmental Labs (PBELAB) of Midland, Texas. Soil samples were analyzed for total petroleum hydrocarbons (TPH) utilizing Method SW-846 8015M, with select samples analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) utilizing Method SW-846 8021B, and chlorides utilizing Method E300.0. See Figure 4 "Site Details and Delineation Soil Sample Location Map". Benzene concentrations were above the NMOCD standards of 10 milligrams per kilogram (mg/Kg) for the following five (5) soil samples AH-1 @ 3' (20.1 mg/Kg), AH-1 @ 5' (22.7 mg/Kg), AH-1 @ 7' (10.1 mg/Kg), AH-2 @ 1' (11.3 mg/Kg) and AH-2 @ 3' (20 mg/Kg). All remaining soil samples were below the NMOCD standards of 10 mg/Kg Benzene. Total BTEX concentrations were above the NMOCD standards of 50 mg/Kg for the following eleven (11) soil samples AH-1 @ 1' (178.61 mg/Kg), AH-1 @ 3' (171.3 mg/Kg), AH-1 @ 5' (186.7 mg/Kg), AH-1 @ 7' (113.9 mg/Kg), AH-1E @ 3' (78.64 mg/Kg), AH-1 NE @ 5' (79.01 mg/Kg), AH-1 NE @ 7' (80.99 mg/Kg), AH-2 @ 1' (198.2 mg/Kg), AH-2 @ 3' (206.3 mg/Kg), AH-2 @ 5' (67.8 mg/Kg), and AH-2 @ 7' (127.17 mg/Kg). All remaining soil samples were below the NMOCD standards of 50 mg/Kg Total BTEX. The TPH (Gro + Dro) and Total TPH were above either or both the NMOCD standards of 1,000 mg/Kg (Gro + Dro) and 2,500 mg/Kg for Total TPH for soil samples AH-1 @ (1', 3', 5', 7', 9', and 11'), AH-1 E @ 3', AH-1 SE @ (5', 7', 8', and 9'), AH-1 NE @ (3', 5', 7', and 9'), AH-2 @ (1', 3', 5', 7', 11', and 13'), and NE Wall @ (1', 3', and 5'). The TPH (Gro + Dro) concentrations ranged from 1,186 mg/Kg for soil sample AH-2 @ 11' to 29,700 mg/Kg for soil sample AH-2 @ 3', while Total TPH concentrations ranged from 3,348 mg/Kg for soil sample AH-1 SE @ 7' to 32,490 mg/Kg for soil sample AH-2 @ 3'. All other remaining soil samples were below the NMOCD standards for TPH. Chloride concentrations were below the NMOCD standards of 10,000 mg/Kg for all soil samples analyzed and ranged from 11.1 mg/Kg for soil samples AH-1 @ 7' to 171 mg/Kg for soil sample SE Wall @

1'. See Table 1 for delineation analytical results. Laboratory reports containing analytical methods, results, and chain-of-custody documents are included in Appendix C. See site photographs documenting site conditions in Appendix D.

The area represented by auger hole AH-1 SE @ 9' was extended to a maximum depth of nine (9) ft bgs beneath the adjacent producer's tank battery and was not delineated due to auger refusal with the underlying limestone. The TPH (Gro + Dro) and Total TPH for AH-1 SE @ 9' exceeded the NMOCD standards of 1,000 mg/Kg (Gro + Dro) and 2,500 mg/Kg Total TPH with concentrations of 5,119 mg/Kg and 6,299 mg/Kg, respectively. In accordance with the soil boring SB-1, hard limestone was encountered at 10 ft bgs as found during installation of AH-1 SE. See site photograph 11 showing area represented by AH-1 SE with limited access.

#### **5. Soil Remediation and Confirmation Soil Sampling**

Between May 29 and September 16, 2020, third-party soil remediation activities were performed at the Mewbourne Toro Release site. Soil remediation commenced utilizing hand excavation of hydrocarbon impacted soils adjacent to the LACT unit and the onsite piping with the excavated soils stockpiled on plastic. Final dimensions of the excavation were approximately forty-five (45) ft in width by thirty (30) ft in length to a maximum depth of eight (8) ft bgs within and adjacent to the LACT unit and thirty (30) ft in width by three (3) ft in length to a depth of two (2) ft bgs adjacent to the producer's lined tank battery. Approximately 300 cubic yards of soil were removed and stockpiled on plastic at the site.

Due to limited accessibility and to ensure the structural integrity of the LACT unit, the site was excavated to a maximum depth of eight (8) ft bgs. To ensure the integrity of the vibrating equipment within the LACT unit and to prevent a possible collapse of soils around the unit, the remaining three (3) to five (5) ft of impacted soils (represented by AH-1 NE, NE Wall, and AH-1 SE) were left in-situ at the site along the east wall of the excavation, which abuts against the

producer's tank battery. Soils represented by AH-1 SE were not accessible due to narrow spacing of two (2) ft between tank battery and fencing. Plain's requests deferral remediation of these soils until time of abandonment or replacement/upgrade to the LACT unit or tank battery.

In addition, the hydrocarbons from the LACT unit release migrated beneath the adjacent lined steel berm of the producer's tank battery. (See photographs 8, 9, and 11 showing steel berm, liner, and location of tank battery. Grab soil samples were collected from auger holes AH-1 NE, NE Wall, and AH-1 SE installed adjacent and beneath the Mewbourne tank battery and liner. Since it is not technically feasible to remediate the soils with the existing equipment onsite, Plain's requests deferral of the remediation of the remaining impacted soils until time of abandonment or upgrade to the LACT unit and or the tank battery. See Figure 4 showing presumed impact of release beneath Mewbourne tank battery and liner.

On July 31, 2020, after initial excavation activities, one (1) composite bottom hole sample (BH-1 @ 4') along with seven (7) composite five (5) point wall samples (BH-1 NSW @ 2', BH-1 ESW @ 2', BH-1 WSW @ 2', BH-1 SSW @ 2', SSW @ 2', SSW @ 8' and WSW @ 2') were collected within two hundred (200) square ft of each other from the bottom and wall samples and submitted for analysis of TPH, BTEX, and Chlorides to PBELab. Soil sample BH-1 SSW @ 3' exceeded the NMOCD standard for Total BTEX of 50 mg/Kg with a concentration of 94.94 mg/Kg along with the TPH (Gro + Dro) and Total TPH standards of 1,000 mg/kg and 2,500 mg/Kg with concentrations of 10,170 mg/Kg and 11,094 mg/Kg, respectively. All other samples were below the NMOCD standards for both benzene, total BTEX, and TPH. Chlorides were below the NMOCD standards of 10,000 mg/Kg with concentrations ranging from 60.4 mg/K for soil sample BH-1 SSW @ 3' to 145 mg/Kg for soil sample BH-1 NSW @ 2'.

After further excavation in the vicinity of BH-1 SSW @ 3', the site was resampled on September 3, 2020. A soil sample was collected from BH-1 SSW @ 3' and submitted for analysis of BTEX and Total TPH. Analytical concentrations were below the NMOCD standards for benzene, Total

BTEX, and Total TPH. However, the TPH (Gro + Dro) exceeded the NMOCD standard with a concentration of 2,100 mg/Kg.

Additional soils were excavated in the vicinity of BH-1 SSW @ 3' and the area resampled on September 16, 2020. A composite soil sample was collected from BH-1 SSW @ 4' and submitted for analysis of Total TPH. Analytical concentrations were below the NMOCD standards for TPH (Gro + Dro) and Total TPH with results of <26.6 mg/Kg. See Figure 5 "Site Details & Confirmation Soil Sample Location Map" for soil sample location.

Due to limited accessibility, the site was excavated to depths ranging from three (3) ft bgs to eight (8) ft bgs within and adjacent to the LACT unit and associated tank battery. Mechanical means of excavation was not feasible at the site due to the tight quarters, underground piping, and berm restrictions. Thus, additional hydrocarbon impacted soils above NMOCD standards for BTEX and TPH could not be excavated to depth and were left in-situ in the areas near AH-1, AH-2 and underneath the tank battery represented by AH-1 NE and AH-1 SE which were installed horizontally. See Site Photographs in Appendix D. Final dimensions of the excavation were approximately forty-five (45) feet (ft) in length by thirty (30) ft in width to an estimated maximum depth of eight (8) ft bgs by the LACT unit and thirty (30) ft in length by three (3) ft in width to a depth of three (3) ft bgs adjacent to the tank battery.

## **6. Soil Disposal and Site Restoration**

After collecting requisite samples from the LACT unit excavation, Plains was onsite in September 2020 to backfill the excavation with locally sourced non-impacted soils and the site brought up to grade. Approximately 300 cubic yards of hydrocarbon impacted soils were transported offsite for disposal at Lacy Ace Landfarm, LLC in Eunice, New Mexico with waste manifests available upon request.



## **7. NMOCD Variance and Deferral Request and Response**

On September 30, 2020, Plains submitted an email to the NMOCD requesting a variance and deferral for the remaining hydrocarbons in the soils at the Plains NRM2015326612 Mewbourne Toro 36 B3B0 State Com #1H. In an email dated February 10, 2021, the NMOCD responded that the variance and deferral are denied since groundwater data found for the site was over a half mile (i.e. one mile) from location and data was greater than 25 years old. The NMOCD requested that a soil boring be installed at the facility in order to determine depth to groundwater, if any. See Appendix E for a copy of the email and NMOCD request.

To verify depth to groundwater, if any, Plains was onsite April 20, 2021 to install one (1) temporary soil boring adjacent to the site to a depth of eighty (80) ft bgs. The soil boring was logged and samples were collected at five (5) ft. intervals. The lithology of the boring consisted of a buff sandy limestone to ten (10) ft bgs, with fine grain well sorted sand intermixed with limestone to twenty (20) ft bgs. From twenty (20) ft bgs to the terminus of the boring at eighty (80) ft bgs the soils consisted of a dry, tan to red fine grain well sorted sand. See Appendix B for soil boring log.

On April 21, 2021, after leaving the boring open for 24-hours, the temporary boring was gauged with a water level indicator to determine depth to groundwater, if any. The boring was found to be dry at a depth of eighty (80) ft bgs and was subsequently grouted to the surface with bentonite chips and water.

## **8. Initial Variance and Closure Request With NMOCD Response**

In the original report submitted to the NMOCD dated August 20, 2021, Plains requested a variance to the current rules to include a deferral of cleanup/remediation for impacted soils remaining from 1 ft to 7 ft in areas represented by soil sampling in AH-1 and beneath Mewbourne's tank battery represented by AH-1 SE, AH-1 NE, and NE Wall, until time of abandonment, due to limited accessibility to soils (i.e. electrical piping, LACT unit, metallic berm location and liner) limited

confinement of hydrocarbons to LACT unit and narrow area within tank battery (approximately two (2) ft.). With the depth of groundwater greater than eighty (80) ft bgs, Plains believes the remaining inaccessible hydrocarbon impacted soil is not likely to impact the underlying groundwater.

In an email dated September 23, 2021, the NMOCD responded to Plain's request for a deferral with a denial based on obsolete samples and AH-SE nothing being fully delineated. A follow up phone conversation was held with the NMOCD representative, where it was explained that the NMOCD deemed the samples obsolete due to them being a year old. See Appendix G for NMOCD email response to variance request that determined previous sampling was obsolete due to age of samples.

#### **9. Additional Delineation Sampling as Requested by NMOCD**

On October 12, 2021, Dean personnel were onsite to resample areas AH-1, AH-1 E, AH-1 SE, AH-1 NE, and AH-2 to verify previous remediation efforts. A hand auger was utilized to collect the soil samples at two (2) ft intervals and submitted for analysis of BTEX, TPH, and chlorides to the lab. Auger hole AH-1 (A) was sampled at 5, 7, 9, and 11 ft bgs with BTEX and chlorides concentrations below the NMOCD standards. The TPH results were less than original sampling from May 29, 2020, but still exceeded NMOCD TPH standards at 5 ft bgs (7,546 mg/Kg), 7 ft bgs (6,190 mg/Kg) and 9 ft bgs (6,189 mg/Kg) and were below NMOCD standards at 11 ft bgs with a concentration of 77.7 mg/Kg indicating the TPH has not migrated vertically in this area. Auger hole AH-1 E was sampled at 3 ft (207.6 mg/Kg TPH), while auger hole AH-1 SE (A) was sampled at 5 (321.6 mg/Kg TPH), 7 (171 mg/Kg TPH), and 9 (708.8 mg/Kg TPH) ft bgs. Full delineation was achieved reflecting concentrations of BTEX, TPH, and chlorides below NMOCD standards for all analytes. Auger hole AH-1 NE (A) was sampled at 5, 7, 9, and 11 ft bgs with chlorides below NMOCD standards for all samples. Total BTEX exceeded the NMOCD standard of 50 mg/Kg for soil sample AH-1 NE (A) 9' with a concentration of 98.24 mg/Kg with all other samples below

standards. Total TPH exceeded the NMOCD standard of 2,500 mg/Kg for all samples from 7 to 11 ft bgs ranging in concentrations from 3,133.5 mg/Kg for soil sample AH-1 NE (A) @ 7' to 14,226 mg/Kg for soil sample AH-1 NE (A) @ 9'. Total TPH concentrations were not delineated in AH-1 NE (A) during initial sampling due to refusal at 11 ft bgs. Auger hole AH-2 (A) was sampled at 7 (<28.1 mg/Kg TPH) and 9 (<28.4 mg/Kg TPH) ft bgs with concentrations for all analytes below NMOCD standards indicating this area was remediated. Due to auger refusal further samples were not able to be collected in this vicinity.

On December 3, 2021, Dean Services was onsite to complete delineation of hydrocarbon impacts at auger hole AH-1 NE and to install a second auger hole AH-2 (B) near AH-2 to verify previous sampling have migrated vertically. Auger hole AH-1 NE was installed to a depth of 11.5 ft bgs and a sample collected and submitted for analysis of TPH. The total TPH analytical concentrations for the sample was <27.8 mg/Kg, indicating the hydrocarbons have not migrated vertically. Auger hole AH-2 (B) was installed north of AH-2 and AH-2 (A) and samples collected at depths of 7 (<28.4 mg/Kg TPH), 9 (<27.8 mg/Kg TPH), and 11 (<28.1 mg/Kg TPH) ft bgs for analysis. The analytical results for the benzene, total BTEX, chloride and TPH concentrations for these samples were below the NMOCD standards. See Table 1 for analytical results and Appendix D for laboratory reports.

## **10. Variance and Closure Request**

With completion of the vertical delineation, remediation of accessible soils, backfilling of the excavation with locally sourced non-impacted soils, and resampling of previous remediated and hydrocarbon impacted areas showing no vertical migration, Plains believes the site has been remediated to the extent currently practical and requests that the NMOCD consider the site for deferral, further remediation at this time is not feasible due to structural integrity of onsite equipment being compromised if attempted. Plains requests a variance to the current rules to include deferral of remediation in areas represented by soil sampling in AH-1, AH-1 SE, and AH-

1 NE until time of abandonment or upgrade to LACT/tank battery. A C-141 closure is attached to the front of this report.

If you have any questions, or if additional information is required, please feel free to contact Amber Groves (email: [ALGroves@paalp.com](mailto:ALGroves@paalp.com), cell: 575.200.7717) of Plains or Steve Casanova (email: [stevecasanova@deandigs.com](mailto:stevecasanova@deandigs.com), cell: 432.557.1968) or Jeff Kindley (email: [jeffreymkindley@deandigs.com](mailto:jeffreymkindley@deandigs.com) cell: 432.230.0920) of Dean.

Sincerely,



**Steve Casanova**

Project Manager



**Jeffrey Kindley, P.G.**

Professional Geologist

## **TABLES**



Chemistry Table 1  
Delineation - Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil  
Plains Pipeline, L.P.  
Mewbourne Toro Release  
Lea County, New Mexico  
SRS #2020-050

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
NMOCD Recommended Remediation Action Level					10	-	-	-	50	20,000	-	-	1,000	-	2,500
AH-1 @1'	05/29/20	1 ft	Grab	Soil	8.81	36.1	32.7	101	178.61	19.0	8,660	15,800	24,460	2,490	26,900
AH-1 @3'	05/29/20	3 ft	Grab	Soil	20.1	37.2	26.2	87.8	171.3	-	8,630	14,000	22,630	2,220	24,800
AH-1 @5'	05/29/20	5 ft	Grab	Soil	22.7	40.8	31.4	91.8	186.7	-	9,860	13,000	22,860	2,040	24,900
AH-1 (A) @5'	10/12/21	5 ft	Grab	Soil	0.199	7.8	4.33	35.3	47.629	38.6	1,810	4,870	6,680	866	7,546
AH-1 @7'	06/23/20	7 ft	Grab	Soil	10.1	24.4	20.8	58.6	113.9	70.6	3,470	4,560	8,030	530	8,560
AH-1 (A) @7'	10/12/21	7 ft	Grab	Soil	-	-	-	-	-	38.3	1,730	3,860	5,590	600	6,190
AH-1 @9'	06/23/20	9 ft	Grab	Soil	0.94	6.72	7.67	30.41	45.74	67.3	2,520	6,690	9,210	520	9,730
AH-1 (A) @9'	10/12/21	9 ft	Grab	Soil	-	-	-	-	-	-	2,030	3,560	5,590	599	6,189
AH-1 @11'	06/25/20	11 ft	Grab	Soil	0.101	0.657	1.51	6.15	8.418	61.7	707	2,510	3,217	228	3,445
AH-1 (A) @11'	10/12/21	11 ft	Grab	Soil	-	-	-	-	-	-	<27.8	77.7	77.7	<27.8	77.7
AH-1 @ 13'	07/13/20	13 ft	Grab	Soil	-	-	-	-	-	-	<26.3	226	226	40.3	266.3
AH-1 E @3'	06/30/20	3 ft	Grab	Soil	1.94	10.6	14.2	51.9	78.64	12.2	1,700	6,190	7,890	648	8,538
AH-1 E (A) @3'	10/12/21	3 ft	Grab	Soil	<0.00108	0.00167	<0.00108	0.00728	0.00895	19.9	<26.9	180	180	27.6	207.6
AH-1 E @5'	06/30/20	5 ft	Grab	Soil	<0.0230	0.0382	0.0308	0.1984	0.23302	11.2	<28.7	198	198	<28.7	198
AH-1 E @7'	06/30/20	7 ft	Grab	Soil	<0.0220	<0.0220	<0.0220	0.08290	0.08290	11.1	<27.5	261	261	28.3	289.3
AH-1 SE @3'	06/30/20	3 ft	Grab	Soil	<0.00104	0.00614	0.00539	0.03670	0.04823	24.0	35.1	786	821.1	87.6	908.7
AH-1 SE (A) @3'	10/12/21	3 ft	Grab	Soil	0.00337	0.00932	0.026	0.00750	0.04619	11.0	72.7	1,930	2,003	352	2,355
AH-1 SE @5'	06/30/20	5 ft	Grab	Soil	0.01040	0.06920	0.08860	0.43100	0.59920	27.8	329	2,950	3,279	300	3,579
AH-1 SE (A) @5'	10/12/21	5 ft	Grab	Soil	-	-	-	-	-	-	<29.1	266	266	55.6	321.6
AH-1 SE @7'	06/30/20	7 ft	Grab	Soil	0.00255	0.02780	0.03730	0.21010	0.27775	29.2	265	2,800	3,065	283	3,348
AH-1 SE (A) @7'	10/12/21	7 ft	Grab	Soil	-	-	-	-	-	-	<27.8	171	171	<27.8	171
AH-1 SE @8'	09/03/20	8ft	Grab	Soil	-	-	-	-	-	-	806	9,420	10,226	2,950	13,176
AH-1 SE @9'	09/03/20	9ft	Grab	Soil	-	-	-	-	-	-	299	4,820	5,119	1,180	6,299
AH-1 SE (A) @9'	10/12/21	9 ft	Grab	Soil	-	-	-	-	-	-	41.8	562	603.8	105	708.8
AH-1 NE @3'	06/30/20	3 ft	Grab	Soil	2.11	8.2	3.06	34.63	48	93.6	2,330	8,430	10,760	856	11,616
AH-1 NE @5'	06/30/20	5 ft	Grab	Soil	4.21	14.6	12.9	47.3	79.01	30.9	2,070	5,980	8,050	626	8,676
AH-1 NE (A) @5'	10/12/21	5 ft	Grab	Soil	<0.00114	<0.00114	<0.00114	<0.00114	<0.00227	64.8	<28.4	<28.4	<28.4	<28.4	<28.4



Chemistry Table 1

Delineation - Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil

Plains Pipeline, L.P.

Mewbourne Toro Release

Lea County, New Mexico

SRS #2020-050

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
NMOCD Recommended Remediation Action Level					10	-	-	-	50	20,000	-	-	1,000	-	2,500
AH-1 NE @7'	06/30/20	7 ft	Grab	Soil	2.79	14.3	14.7	49.2	80.99	14.4	4,220	10,600	14,820	1,090	15,910
AH-1 NE (A) @ 7'	10/12/21	7 ft	Grab	Soil	0.183	9.56	6.56	31.2	47.503	-	36.5	2,460	2,496.5	637	3,133.5
AH-1 NE @ 9'	06/30/20	9 ft	Grab	Soil	0.452	5.45	7.2	23.94	37.042	-	1,930	6,380	8,310	508	8,818
AH-1 NE (A) @ 9'	10/12/21	9 ft	Grab	Soil	1.54	38.1	16.0	42.6	98.24	-	336	11,300	11,636	2,590	14,226
AH-1 NE @11'	06/30/20	11 ft	Grab	Soil	-	-	-	-	-	-	30.2	402	432.2	42.6	474.8
AH-1 NE (A) @ 11'	10/12/21	11 ft	Grab	Soil	<0.00111	0.00577	0.00142	0.00754	0.01473	-	101	2,780	2,881	719	3,600
AH-1 NE (B) 11.5'	12/03/21	11.5'	Grab	Soil	-	-	-	-	-	-	<27.8	<27.8	<27.8	<27.8	<27.8
AH-2 @1'	05/29/20	1'	Grab	Soil	11.3	43.9	36.8	106.2	198.2	13.8	10,000	15,200	25,200	2,400	27,600
AH-2 @3"	05/29/20	3'	Grab	Soil	20.0	42.5	37.0	106.8	206.3	-	11,800	17,900	29,700	2,790	32,490
AH-2 @5'	05/29/20	5'	Grab	Soil	2.6	14.7	11.7	38.8	67.8	-	1,340	2,800	4,140	423	4,560
AH-2 @7'	06/23/20	7'	Grab	Soil	7.77	27.1	21.4	70.9	127.17	71.9	5,610	8,770	14,380	694	15,074
AH-2 (A) @7'	10/12/21	7'	Grab	Soil	<0.00112	<0.00112	<0.00112	<0.00112	<0.00225	56.9	<28.1	<28.1	<28.1	<28.1	<28.1
AH-2 (B) @ 7'	12/03/21	7'	Grab	Soil	<0.00114	<0.00114	<0.00114	<0.00227	<0.00114	59.0	<28.4	<28.4	<28.4	<28.4	<28.4
AH-2 @9'	06/23/20	9'	Grab	Soil	0.0163	0.0665	0.0746	0.3629	0.5203	53.8	175	796	971	63.1	1034.1
AH-2 (A) @9'	10/12/21	9'	Grab	Soil	<0.00114	<0.00114	<0.00114	<0.00114	<0.00227	67.2	<28.4	<28.4	<28.4	<28.4	<28.4
AH-2 (B) @ 9'	12/03/21	9'	Grab	Soil	-	-	-	-	-	-	<27.8	<27.8	<27.8	<27.8	<27.8
AH-2 @11'	06/25/20	11'	Grab	Soil	0.029	0.151	0.278	1.949	2.407	81.8	166	1,020	1,186	97.5	1283.5
AH-2 (B) @ 11'	12/03/21	11'	Grab	Soil	-	-	-	-	-	-	<28.1	<28.1	<28.1	<28.1	<28.1
AH-2 @ 13'	07/13/20	13'	Grab	Soil	-	-	-	-	-	-	237	4,680	4,917	1,210	6,127
AH-2 @ 14'	07/30/20	14'	Grab	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	68.5	<27.5	<27.5	<27.5	<27.5	<27.5
AH-2 @ 15'	07/30/20	15'	Grab	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	63.8	<27.2	<27.2	<27.2	<27.2	<27.2

Exceeds NMOCD Level



Chemistry Table 2  
Confirmation - Concentrations of Benzene, BTEX, TPH, and Chlorides in Soil  
Plains Pipeline, L.P.  
Mewbourne Toro Release  
Lea County, New Mexico  
SRS #2020-050

SAMPLE INFORMATION					METHODS: EPA SW 846-8021B, 5030					METHOD: E 300	METHODS: EPA SW 846-8015M				
SAMPLE ID	SAMPLE DATE	SAMPLE DEPTH	SAMPLE METHOD	MATRIX	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENE (mg/kg)	Total BTEX (mg/kg)	CHLORIDES (mg/kg)	GRO (mg/kg)	DRO (mg/kg)	GRO +DRO (mg/kg)	ORO (mg/kg)	TOTAL TPH (mg/kg)
NMOCD Recommended Remediation Action Level					10	-	-	-	50	20,000	-	-	1,000	-	2,500
BH-1 @ 4'	07/31/20	4'	Composite	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	86.1	<26.3	103	103	<26.3	103
BH-1 NSW @ 2'	07/31/20	2'	Composite	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	145	<25.5	<25.5	<25.5	<25.5	<25.5
BH-1 ESW @ 2'	07/31/20	2'	Composite	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	120	<25.8	<25.8	<25.8	<25.8	<25.8
BH-1 WSW @ 2'	07/31/20	2'	Composite	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	76.0	<26.0	<26.0	<26.0	<26.0	<26.0
BH-1 SSW @ 3'	07/31/20	3'	Composite	Soil	3.34	20.3	14.3	57	94.94	60.4	2530	7640	10,170	924	11,094
BH-1 SSW @ 3'	09/03/20	3'	Composite	Soil	0.0176	0.0218	0.00419	0.00962	0.05321	-	<25.3	2100	2,100	330	2,430
BH-1 SSW @ 4'	09/16/20	4'	Composite	Soil	-	-	-	-	-	-	<26.6	<26.6	<26.6	<26.6	<26.6
SSW @ 2'	07/31/20	2'	Composite	Soil	<0.00100	0.00183	0.00138	0.00898	0.01219	64.8	<25.5	41.6	41.6	<25.5	41.6
SSW @ 8'	07/31/20	8'	Composite	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	61.5	<26.9	<26.9	<26.9	<26.9	<26.9
WSW @ 2'	07/31/20	2'	Composite	Soil	<0.00100	<0.00100	<0.00100	<0.00200	<0.00200	84.7	<26.6	<26.6	<26.6	<26.6	<26.6
NE Wall @1'	06/25/20	1 ft	Grab	Soil	3.12	7.52	7.85	22.45	40.94	52.1	3430	7560	10,990	786	11,776
NE Wall @3'	06/25/20	3 ft	Grab	Soil	-	-	-	-	-	-	3660	7370	11,030	708	11,738
NE Wall (A) @3'	06/26/20	3 ft	Grab	Soil	0.0588	0.173	0.0801	0.3052	0.6171	9.60	107	2,350	2,457	492	2,949
NE Wall @ 5'	07/13/20	5 ft	Grab	Soil	-	-	-	-	-	-	260	1390	1,650	213	1863
NE Wall (A) @ 5'	07/14/20	5 ft	Grab	Soil	-	-	-	-	-	-	<27.8	304	304	47.6	351.6
NE Wall @ 7'	07/13/20	7 ft	Grab	Soil	-	-	-	-	-	-	<29.1	144	144	34.8	178.8
SE Wall @1'	06/25/20	1 ft	Grab	Soil	<0.00108	<0.00108	0.0053	0.01635	0.02165	171	37	761	798	73.7	871.7

Exceeds NMOCD Level



## **FIGURES**

Figure 1

Site Location Map

Plains Pipeline LLC

Mewbourne Toro Release

SRS: 2020-50

GPS: 32.267528, -103.42205

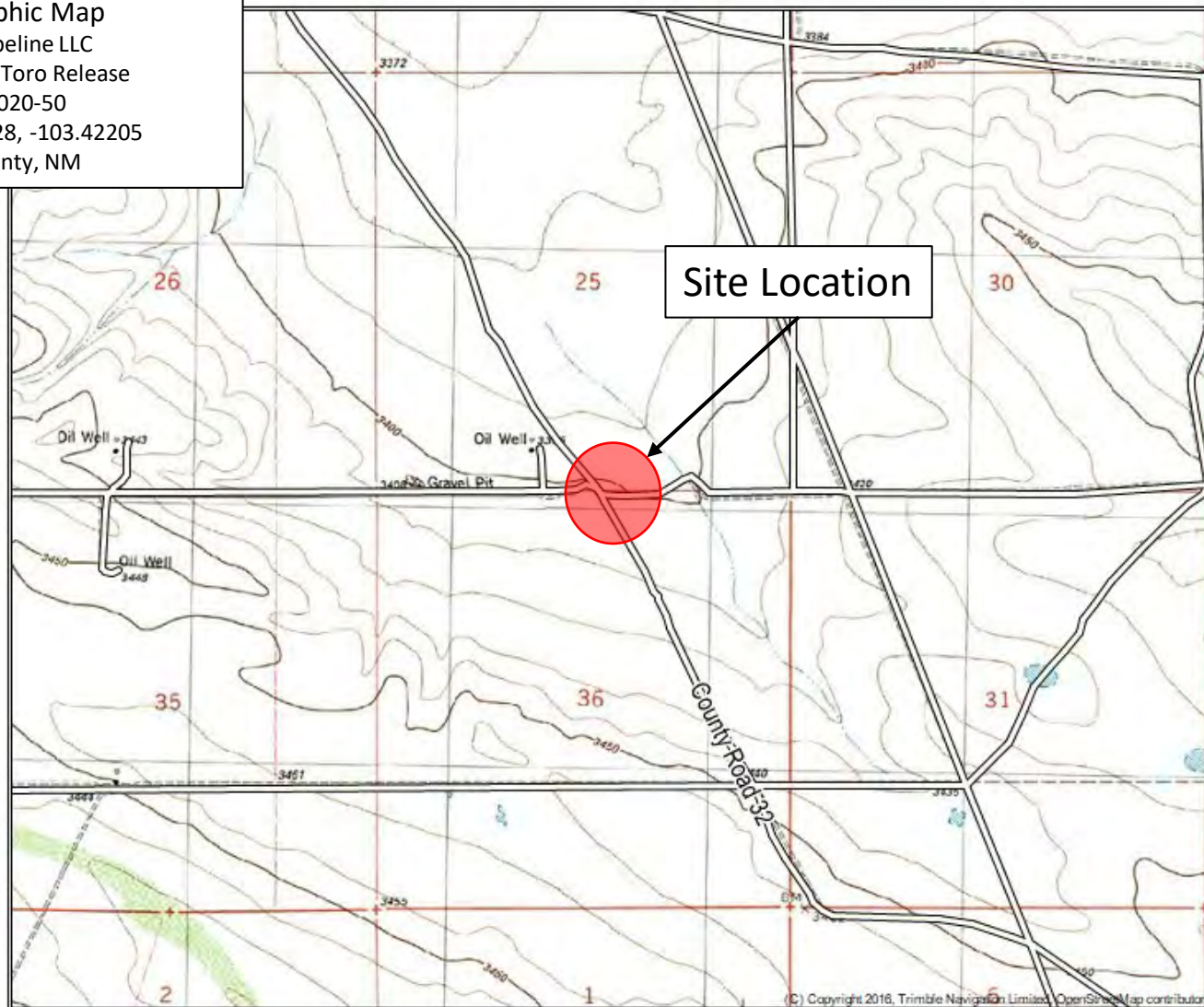
Lea County, NM



**DEAN**

Figure 2

Topographic Map  
Plains Pipeline LLC  
Mewbourne Toro Release  
SRS: 2020-50  
GPS: 32.267528, -103.42205  
Lea County, NM



**DEAN**

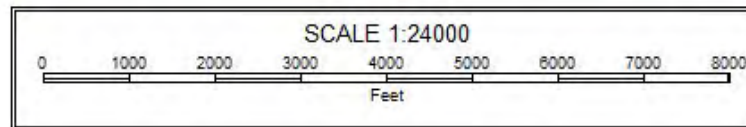
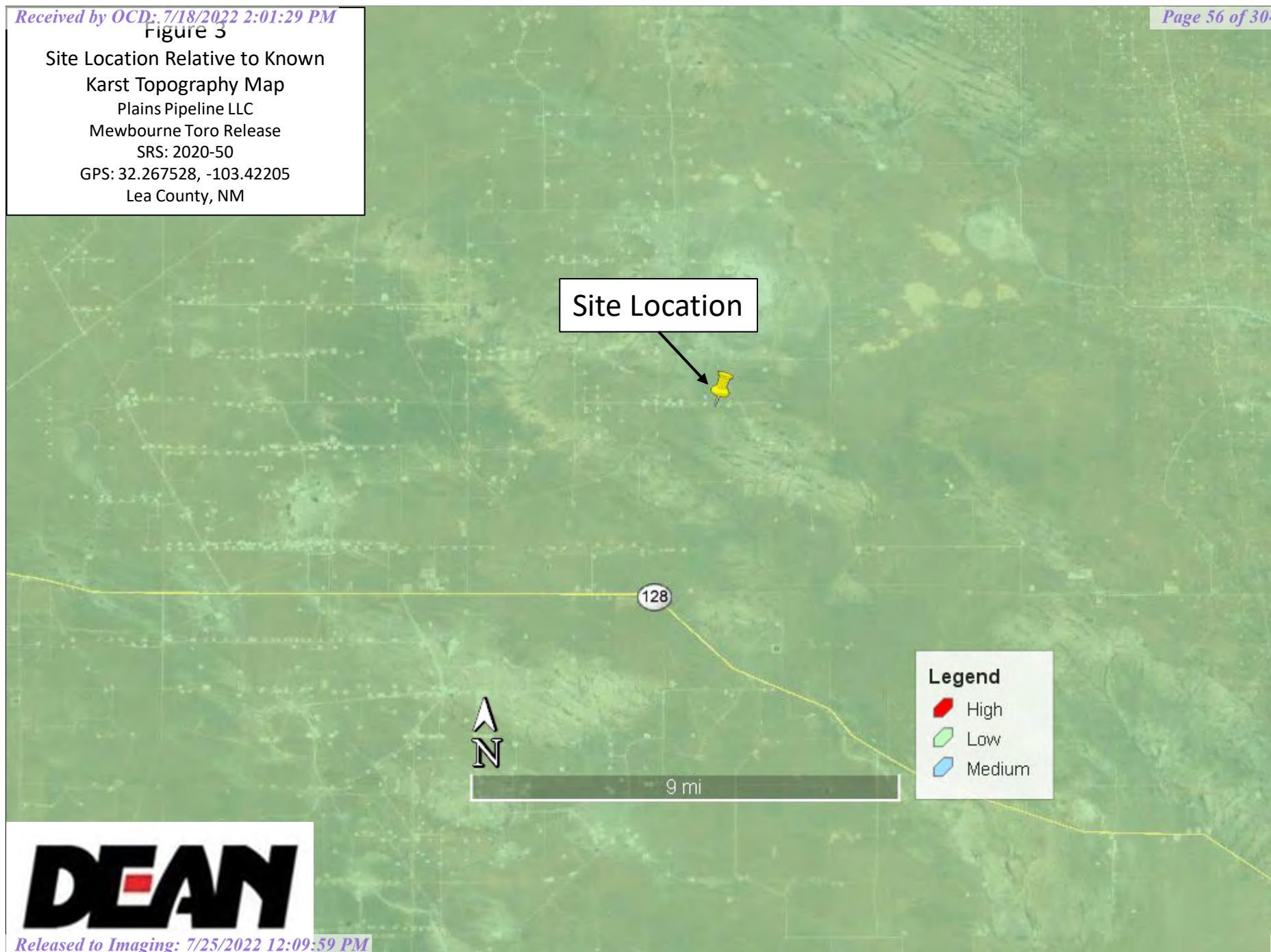




Figure 3

Site Location Relative to Known  
Karst Topography Map  
Plains Pipeline LLC  
Mewbourne Toro Release  
SRS: 2020-50  
GPS: 32.267528, -103.42205  
Lea County, NM



**DEAN**

## Figure 4

Site Details and Delineation  
Soil Sample Location Map  
Plains Pipeline LLC  
Mewbourne Toro Release  
SRS: 2020-50  
GPS: 32.26731992, -103.4220084  
Lea County, NM

### Legend

Excavation and Release Area:



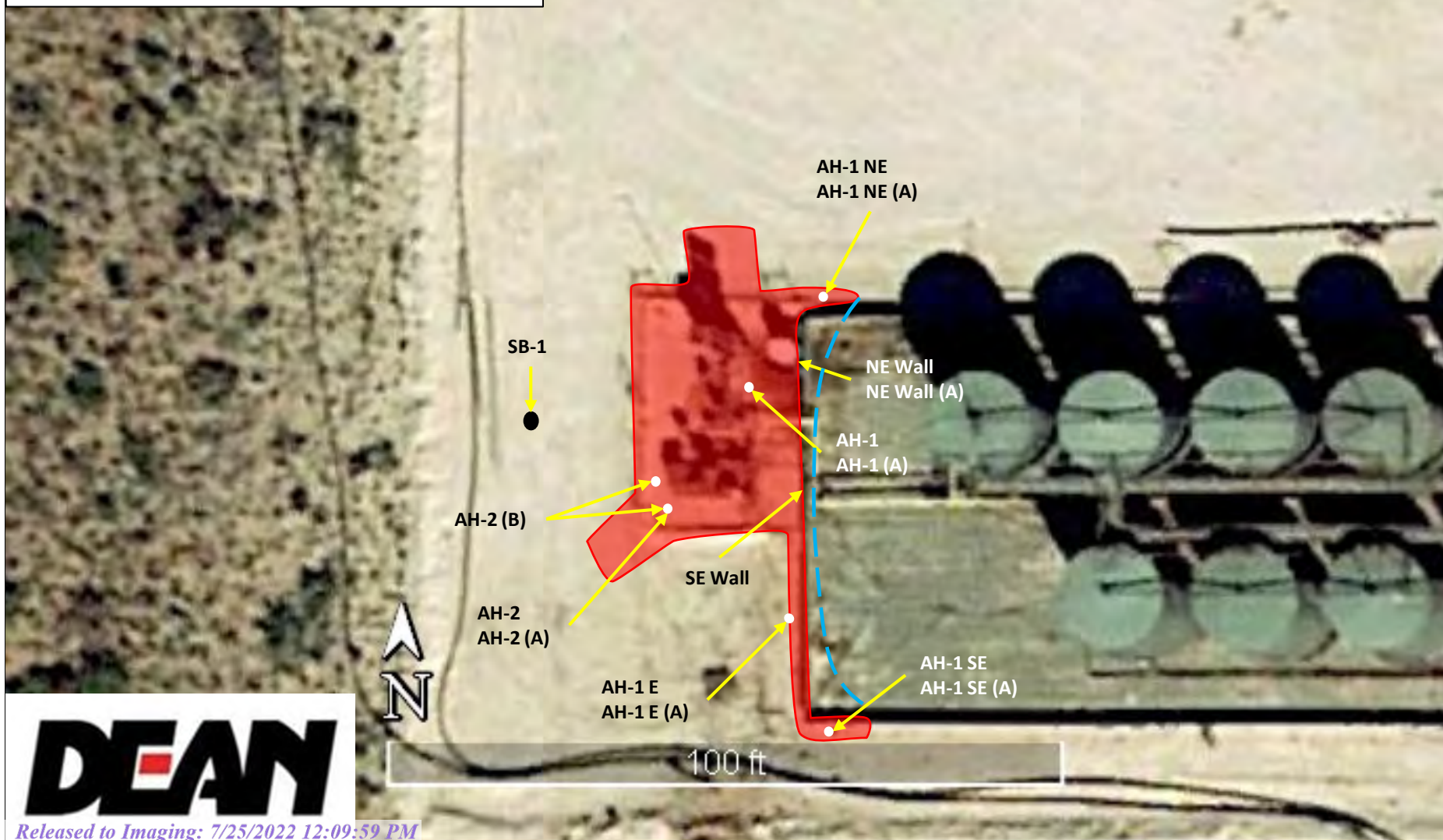
Sample Point:



Soil Boring:



Approximate area beneath  
Containment:



**DEAN**



Figure 5

Site Details and Confirmation  
Soil Sample Location Map  
Plains Pipeline LLC  
Mewbourne Toro Release  
SRS: 2020-50  
GPS: 32.26731992, -103.4220084  
Lea County, NM

Legend

Excavation and Release Area:



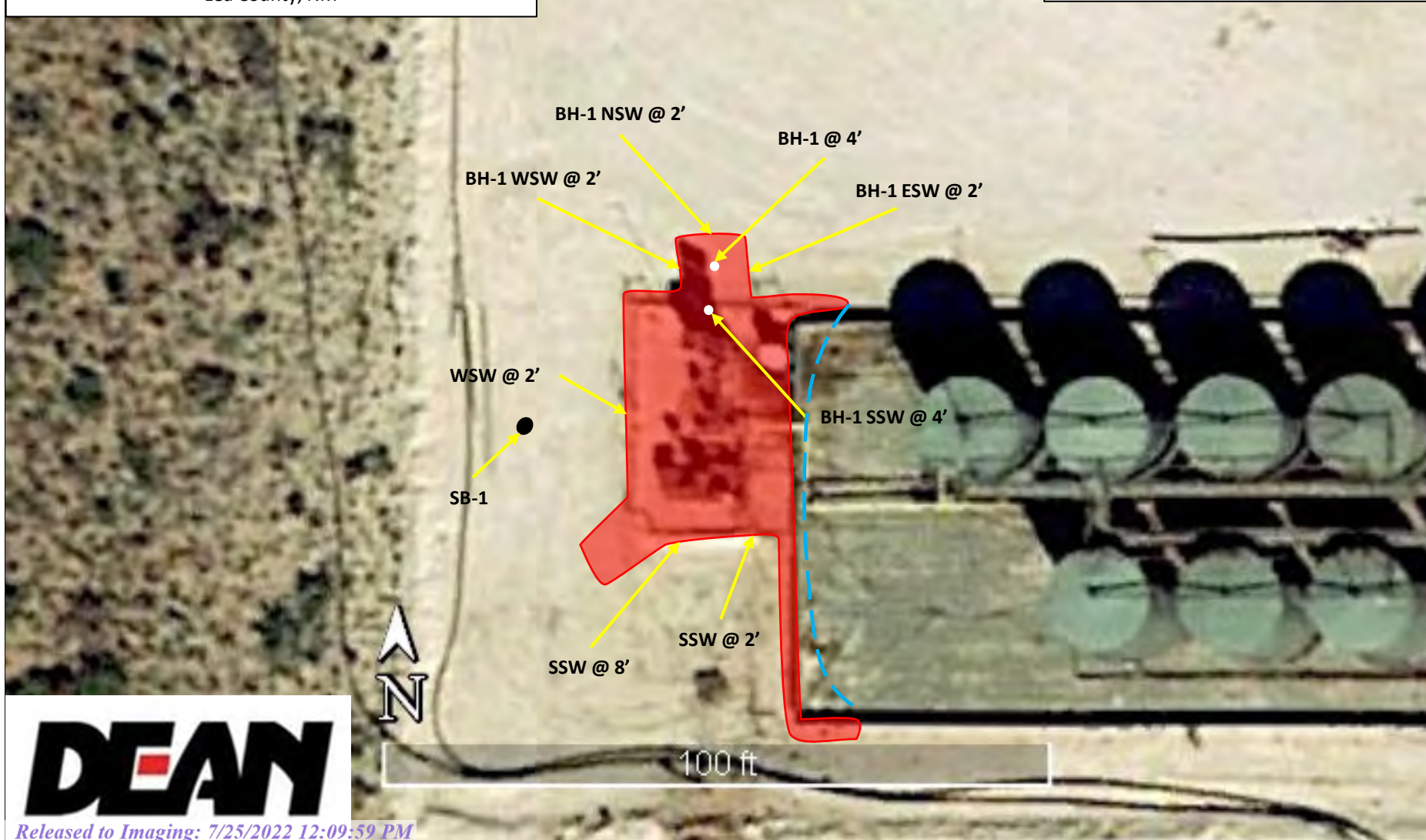
Sample Point:



Soil Boring:



Approximate area beneath  
Containment:



**APPENDIX A**  
**INITIAL C-141 FORM**

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

State of New Mexico  
Energy Minerals and Natural  
Resources Department

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

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

Incident ID	NRM2015326612
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Plains Pipeline, L.P.	OGRID 713291
Contact Name Amber Groves	Contact Telephone 575-200-5517
Contact email algroves@paalp.com	Incident # (assigned by OCD)
Contact mailing address 577 US HWY 385 N Seminole, TX 79360	

### Location of Release Source

Latitude 32.26731992 Longitude -103.4220084  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Plains Mewbourne Toro 36 B3BO State Com #1H	Site Type LACT Unit
Date Release Discovered 5/23/2020 @ 8:00 AM	API# (if applicable)

Unit Letter	Section	Township	Range	County
B	36	23S	34E	Lea

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (Name: BP Ranches)

### Nature and Volume of Release

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

<input checked="" type="checkbox"/> Crude Oil	Volume Released (bbls) 10.4 bbls	Volume Recovered (bbls) 5 bbls
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

#### Cause of Release

Air eliminator failure resulting in an approximate release of 10 bbls of crude oil.

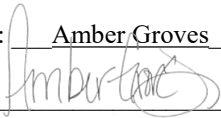


Incident ID	NRM2015326612
District RP	
Facility ID	
Application ID	

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

### Initial Response

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

<input checked="" type="checkbox"/> The source of the release has been stopped.	
<input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment.	
<input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.	
<input checked="" type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.	
If all the actions described above have <u>not</u> been undertaken, explain why:	
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.	
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.	
Printed Name: <u>Amber Groves</u>	Title: <u>Remediation Coordinator</u>
Signature: <u></u>	Date: _____
email: <u>algroves@paalp.com</u>	Telephone: <u>(575)200-5517</u>
<b><u>OCD Only</u></b>	
Received by: <u>Ramona Marcus</u>	Date: <u>6/1/2020</u>

**Amber L Groves**

---

NRM2015326612

**From:** Tommy J Bacon  
**Sent:** Thursday, May 28, 2020 12:34 PM  
**To:** Amber L Groves  
**Subject:** Spill Calculations for Toro 36

$20' \times 40' \times .85 \times 0.0154 = 10.4\text{bbls}$

Tommy Bacon  
District Manager  
Southwest Division PPW  
575-200-8025  
tjbacon@paalp.com

Incident ID	NRM2015326612
District RP	
Facility ID	
Application ID	

## Remediation Plan

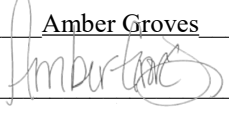
**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☒ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☒ Extents of contamination must be fully delineated.
- ☒ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Amber Groves Title: Remediation Specialist  
Signature:  Date: 8/24/2021  
email: algroves@paalp.com Telephone: 575-200-5517

**OCD Only**

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

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☐ Deferral Approved

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**APPENDIX B**  
**NMOSE WATER WELL**



# New Mexico Office of the State Engineer

## Point of Diversion Summary

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
C	03620 POD1	1	4	3	32	23S	34E	641790	3569941

<b>Driller License:</b> 1682	<b>Driller Company:</b> HUNGRY HORSE, LLC.	
<b>Driller Name:</b> NORRIS, JOHN D. (LD)		
<b>Drill Start Date:</b> 04/10/2013	<b>Drill Finish Date:</b> 04/29/2013	<b>Plug Date:</b>
<b>Log File Date:</b> 06/18/2013	<b>PCW Rev Date:</b>	<b>Source:</b> Shallow
<b>Pump Type:</b>	<b>Pipe Discharge Size:</b>	<b>Estimated Yield:</b>
<b>Casing Size:</b> 8.00	<b>Depth Well:</b> 480 feet	<b>Depth Water:</b> 130 feet

Water Bearing Stratifications:	Top	Bottom	Description
	14	30	Sandstone/Gravel/Conglomerate
	41	203	Shale/Mudstone/Siltstone
	203	215	Sandstone/Gravel/Conglomerate
	249	255	Sandstone/Gravel/Conglomerate
	362	367	Sandstone/Gravel/Conglomerate

Casing Perforations:	Top	Bottom
	0	480

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.

9/29/20 8:18 AM

POINT OF DIVERSION SUMMARY

## **APPENDIX C**

### **SOIL BORING LOG**



## SAMPLE LOG

**Boring/Well:** SB-1  
**Project Number:** PP-2061  
**Client:** Plains Pipeline, L.P.  
**SRS Number:** Mewbourne Toro Release  
**Location:** Lea County, New Mexico  
**GPS Coordinates:** 32.267528 -103.42205  
**Total Depth:** 80 feet bgs  
**Date Drilled:** 04/20/21  
**Date Completed:** 04/21/21  
**Logged by:** JWK

DEPTH (Ft)*	PID Readings	SAMPLE DESCRIPTION
10	-	Buff sandy limestone (No odor or staining)
20	-	Fine grain tan sand well sorted with limestone intermixed (No odor or staining)
30	-	Tan to red fine grain well sorted sand (No odor or staining)
40	-	Tan to red fine grain well sorted sand (No odor or staining)
50	-	Tan to red fine grain well sorted sand (No odor or staining)
60	-	Tan to red fine grain well sorted sand (No odor or staining)
70	-	Tan to red fine grain well sorted sand (No odor or staining)
75	-	Tan to red fine grain well sorted sand (No odor or staining) dry

Site was gauged on April 21, 2021 and was dry then backfilled with betonite chips

## **APPENDIX D**

### **LABORATORY ANALYTICAL REPORTS**



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Location: Jal, NM  
Lab Order Number: 0F01004



**NELAP/TCEQ # T104704516-17-8**

Report Date: 06/11/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 1'	0F01004-01	Soil	05/29/20 08:53	06-01-2020 13:39
AH-1 @ 3'	0F01004-02	Soil	05/29/20 08:50	06-01-2020 13:39
AH-1 @ 5'	0F01004-03	Soil	05/29/20 09:09	06-01-2020 13:39
AH-2 @ 1'	0F01004-04	Soil	05/29/20 09:36	06-01-2020 13:39
AH-2 @ 3'	0F01004-05	Soil	05/29/20 09:50	06-01-2020 13:39
AH-2 @ 5'	0F01004-06	Soil	05/29/20 10:00	06-01-2020 13:39

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 1'**  
**0F01004-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>8.81</b>	0.108	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Toluene</b>	<b>36.1</b>	0.538	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>32.7</b>	0.538	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>66.4</b>	0.538	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>34.6</b>	0.108	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		61.7 %		75-125	P0F0308	06/03/20	06/04/20	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene		94.0 %		75-125	P0F0308	06/03/20	06/04/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>19.0</b>	1.08	mg/kg dry	1	P0F0601	06/06/20	06/09/20	EPA 300.0	
<b>% Moisture</b>	<b>7.0</b>	0.1	%	1	P0F0301	06/03/20	06/03/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>8660</b>	269	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>15800</b>	269	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2490</b>	269	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
Surrogate: 1-Chlorooctane		78.5 %		70-130	P0F0208	06/02/20	06/05/20	TPH 8015M	
Surrogate: o-Terphenyl		129 %		70-130	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>26900</b>	269	mg/kg dry	10	[CALC]	06/02/20	06/05/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 3'**  
**0F01004-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>20.1</b>	0.110	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Toluene</b>	<b>37.2</b>	0.549	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>26.2</b>	0.549	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>57.2</b>	0.549	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>30.6</b>	0.110	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		88.3 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		55.1 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P0F0301	06/03/20	06/03/20	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>8630</b>	275	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>14000</b>	275	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2220</b>	275	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		72.0 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		107 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>24800</b>	275	mg/kg dry	10	[CALC]	06/02/20	06/05/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 5'**  
**0F01004-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>22.7</b>	0.112	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Toluene</b>	<b>40.8</b>	0.562	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>31.4</b>	0.562	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>60.2</b>	0.562	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>31.6</b>	0.112	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		81.0 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		48.5 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	P0F0301	06/03/20	06/03/20	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>9860</b>	281	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>13000</b>	281	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2040</b>	281	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		73.2 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		98.4 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>24900</b>	281	mg/kg dry	10	[CALC]	06/02/20	06/05/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 1'**  
**0F01004-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>11.3</b>	0.111	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Toluene</b>	<b>43.9</b>	0.556	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>36.8</b>	0.556	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>69.2</b>	0.556	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>37.0</b>	0.111	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		56.3 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		89.7 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>13.8</b>	1.11	mg/kg dry	1	P0F0601	06/06/20	06/09/20	EPA 300.0	
<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	P0F0301	06/03/20	06/03/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>10000</b>	278	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>15200</b>	278	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2400</b>	278	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		75.9 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		118 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>27600</b>	278	mg/kg dry	10	[CALC]	06/02/20	06/05/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 3'**  
**0F01004-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>20.0</b>	0.109	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Toluene</b>	<b>42.5</b>	0.543	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>37.0</b>	0.543	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>70.3</b>	0.543	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>36.5</b>	0.109	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		53.4 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		82.2 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>8.0</b>	0.1	%	1	P0F0301	06/03/20	06/03/20	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>11800</b>	272	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>17900</b>	272	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>2790</b>	272	mg/kg dry	10	P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		80.8 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		143 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	S-GC
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>32500</b>	272	mg/kg dry	10	[CALC]	06/02/20	06/05/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 5'**  
**0F01004-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>2.60</b>	0.112	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Toluene</b>	<b>14.7</b>	0.562	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>11.7</b>	0.562	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>28.8</b>	0.562	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>10.0</b>	0.112	mg/kg dry	100	P0F0308	06/03/20	06/04/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		81.9 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.9 %	75-125		P0F0308	06/03/20	06/04/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	P0F0301	06/03/20	06/03/20	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>1340</b>	28.1	mg/kg dry	1	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>2800</b>	28.1	mg/kg dry	1	P0F0208	06/02/20	06/05/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>423</b>	28.1	mg/kg dry	1	P0F0208	06/02/20	06/05/20	TPH 8015M	
Surrogate: 1-Chlorooctane		61.5 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	S-GC1
Surrogate: o-Terphenyl		64.8 %	70-130		P0F0208	06/02/20	06/05/20	TPH 8015M	S-GC1
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>4560</b>	28.1	mg/kg dry	1	[CALC]	06/02/20	06/05/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0308 - General Preparation (GC)****Blank (P0F0308-BLK1)**

Prepared &amp; Analyzed: 06/03/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00500	"							
Ethylbenzene	ND	0.00500	"							
Xylene (p/m)	ND	0.00500	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		99.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.121		"	0.120		101	75-125			

**LCS (P0F0308-BS1)**

Prepared &amp; Analyzed: 06/03/20

Benzene	0.0934	0.00100	mg/kg wet	0.100		93.4	70-130			
Toluene	0.0920	0.00500	"	0.100		92.0	70-130			
Ethylbenzene	0.104	0.00500	"	0.100		104	70-130			
Xylene (p/m)	0.202	0.00500	"	0.200		101	70-130			
Xylene (o)	0.103	0.00100	"	0.100		103	70-130			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	75-125			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.6	75-125			

**LCS Dup (P0F0308-BSD1)**

Prepared &amp; Analyzed: 06/03/20

Benzene	0.0972	0.00100	mg/kg wet	0.100		97.2	70-130	3.93	20	
Toluene	0.0971	0.00500	"	0.100		97.1	70-130	5.39	20	
Ethylbenzene	0.104	0.00500	"	0.100		104	70-130	0.355	20	
Xylene (p/m)	0.208	0.00500	"	0.200		104	70-130	3.27	20	
Xylene (o)	0.106	0.00100	"	0.100		106	70-130	3.63	20	
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		97.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	75-125			

**Calibration Blank (P0F0308-CCB1)**

Prepared &amp; Analyzed: 06/03/20

Benzene	0.00		mg/kg wet							
Toluene	0.720		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.370		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0308 - General Preparation (GC)****Calibration Blank (P0F0308-CCB2)**

Prepared &amp; Analyzed: 06/03/20

Benzene	0.00		mg/kg wet							
Toluene	0.500		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.540		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.7	75-125			

**Calibration Blank (P0F0308-CCB3)**

Prepared: 06/03/20 Analyzed: 06/04/20

Benzene	0.420		mg/kg wet							
Toluene	4.92		"							
Ethylbenzene	1.36		"							
Xylene (p/m)	3.58		"							
Xylene (o)	0.920		"							
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		99.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			

**Calibration Check (P0F0308-CCV1)**

Prepared &amp; Analyzed: 06/03/20

Benzene	0.0958	0.00100	mg/kg wet	0.100		95.8	80-120			
Toluene	0.0935	0.00500	"	0.100		93.5	80-120			
Ethylbenzene	0.0972	0.00500	"	0.100		97.2	80-120			
Xylene (p/m)	0.199	0.00500	"	0.200		99.6	80-120			
Xylene (o)	0.103	0.00100	"	0.100		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		99.1	75-125			
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		102	75-125			

**Calibration Check (P0F0308-CCV2)**

Prepared &amp; Analyzed: 06/03/20

Benzene	0.0994	0.00100	mg/kg wet	0.100		99.4	80-120			
Toluene	0.0918	0.00500	"	0.100		91.8	80-120			
Ethylbenzene	0.0937	0.00500	"	0.100		93.7	80-120			
Xylene (p/m)	0.191	0.00500	"	0.200		95.7	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		101	75-125			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		95.9	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0308 - General Preparation (GC)****Calibration Check (P0F0308-CCV3)**

Prepared: 06/03/20 Analyzed: 06/04/20

Benzene	0.0958	0.00100	mg/kg wet	0.100		95.8	80-120			
Toluene	0.0998	0.00500	"	0.100		99.8	80-120			
Ethylbenzene	0.0968	0.00500	"	0.100		96.8	80-120			
Xylene (p/m)	0.192	0.00500	"	0.200		96.0	80-120			
Xylene (o)	0.103	0.00100	"	0.100		103	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.2	75-125			

**Matrix Spike (P0F0308-MS1)**

Source: 0F01002-18

Prepared: 06/03/20 Analyzed: 06/04/20

Benzene	0.0736	0.00100	mg/kg dry	0.100	ND	73.6	80-120			QM-07
Toluene	0.0836	0.00500	"	0.100	0.000640	82.9	80-120			
Ethylbenzene	0.0847	0.00500	"	0.100	0.000910	83.8	80-120			
Xylene (p/m)	0.151	0.00500	"	0.200	0.00602	72.4	80-120			QM-07
Xylene (o)	0.0773	0.00100	"	0.100	0.00221	75.1	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	75-125			

**Matrix Spike Dup (P0F0308-MSD1)**

Source: 0F01002-18

Prepared: 06/03/20 Analyzed: 06/04/20

Benzene	0.0782	0.00100	mg/kg dry	0.100	ND	78.2	80-120	6.02	20	QM-07
Toluene	0.0867	0.00500	"	0.100	0.000640	86.0	80-120	3.66	20	
Ethylbenzene	0.0918	0.00500	"	0.100	0.000910	90.9	80-120	8.17	20	
Xylene (p/m)	0.166	0.00500	"	0.200	0.00602	79.8	80-120	9.66	20	QM-07
Xylene (o)	0.0849	0.00100	"	0.100	0.00221	82.7	80-120	9.62	20	
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.4	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0301 - \*\*\* DEFAULT PREP \*\*\*****Blank (P0F0301-BLK1)**

Prepared &amp; Analyzed: 06/03/20

% Moisture	ND	0.1	%
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**Duplicate (P0F0301-DUP1)**

Source: 0F01006-14

Prepared &amp; Analyzed: 06/03/20

% Moisture	10.0	0.1	%	10.0	0.00	20
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**Duplicate (P0F0301-DUP2)**

Source: 0F02002-13

Prepared &amp; Analyzed: 06/03/20

% Moisture	8.0	0.1	%	9.0	11.8	20
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**Duplicate (P0F0301-DUP3)**

Source: 0F02002-21

Prepared &amp; Analyzed: 06/03/20

% Moisture	10.0	0.1	%	10.0	0.00	20
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**Batch P0F0601 - \*\*\* DEFAULT PREP \*\*\*****Blank (P0F0601-BLK1)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	ND	1.00	mg/kg wet
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**LCS (P0F0601-BS1)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	431	1.00	mg/kg wet	400	108	80-120
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**LCS Dup (P0F0601-BSD1)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	432	1.00	mg/kg wet	400	108	80-120	0.306	20
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**Calibration Blank (P0F0601-CCB1)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	0.00		mg/kg wet
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**Calibration Blank (P0F0601-CCB2)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	0.00		mg/kg wet
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0601 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P0F0601-CCV1)**

Prepared: 06/06/20 Analyzed: 06/08/20

Chloride	21.4		mg/kg	20.0		107	0-200			
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**Calibration Check (P0F0601-CCV2)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	21.6		mg/kg	20.0		108	0-200			
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**Calibration Check (P0F0601-CCV3)**

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	22.0		mg/kg	20.0		110	0-200			
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**Matrix Spike (P0F0601-MS1)**

Source: 0F01006-01

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	7340	27.2	mg/kg dry	2720	4320	111	80-120			
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**Matrix Spike (P0F0601-MS2)**

Source: 0F01004-04

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	16900	55.6	mg/kg dry	5560	13.8	303	80-120			
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**Matrix Spike Dup (P0F0601-MSD1)**

Source: 0F01006-01

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	7360	27.2	mg/kg dry	2720	4320	112	80-120	0.303	20	
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**Matrix Spike Dup (P0F0601-MSD2)**

Source: 0F01004-04

Prepared: 06/06/20 Analyzed: 06/09/20

Chloride	16900	55.6	mg/kg dry	5560	13.8	304	80-120	0.414	20	
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Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0208 - TX 1005****Blank (P0F0208-BLK1)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	157		"	160		98.1	70-130			
Surrogate: o-Terphenyl	86.2		"	80.0		108	70-130			

**LCS (P0F0208-BS1)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	1830	25.0	mg/kg wet	1800		102	75-125			
>C12-C28	2140	25.0	"	1800		119	75-125			
Surrogate: 1-Chlorooctane	202		"	160		126	70-130			
Surrogate: o-Terphenyl	82.5		"	80.0		103	70-130			

**LCS Dup (P0F0208-BSD1)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	1810	25.0	mg/kg wet	1800		100	75-125	1.07	20	
>C12-C28	2130	25.0	"	1800		119	75-125	0.455	20	
Surrogate: 1-Chlorooctane	195		"	160		122	70-130			
Surrogate: o-Terphenyl	79.9		"	80.0		99.9	70-130			

**Calibration Blank (P0F0208-CCB1)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	19.1		mg/kg wet							
>C12-C28	10.6		"							
Surrogate: 1-Chlorooctane	153		"	160		95.6	70-130			
Surrogate: o-Terphenyl	84.2		"	80.0		105	70-130			

**Calibration Blank (P0F0208-CCB2)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	20.7		mg/kg wet							
>C12-C28	16.8		"							
Surrogate: 1-Chlorooctane	136		"	160		85.3	70-130			
Surrogate: o-Terphenyl	75.3		"	80.0		94.2	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F0208 - TX 1005****Calibration Check (P0F0208-CCV1)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	861	25.0	mg/kg wet	800		108	85-115			
>C12-C28	918	25.0	"	800		115	85-115			
Surrogate: 1-Chlorooctane	165		"	160		103	70-130			
Surrogate: o-Terphenyl	79.0		"	80.0		98.7	70-130			

**Calibration Check (P0F0208-CCV2)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	823	25.0	mg/kg wet	800		103	85-115			
>C12-C28	871	25.0	"	800		109	85-115			
Surrogate: 1-Chlorooctane	157		"	160		98.4	70-130			
Surrogate: o-Terphenyl	75.0		"	80.0		93.7	70-130			

**Calibration Check (P0F0208-CCV3)**

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	541	25.0	mg/kg wet	500		108	85-115			
>C12-C28	561	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	130		"	160		81.5	70-130			
Surrogate: o-Terphenyl	70.8		"	80.0		88.5	70-130			

**Duplicate (P0F0208-DUP1)**

Source: 0F02001-04

Prepared: 06/02/20 Analyzed: 06/05/20

C6-C12	14.0	25.5	mg/kg dry		14.2			1.45	20	
>C12-C28	12.5	25.5	"		11.8			5.69	20	
Surrogate: 1-Chlorooctane	148		"	163		90.8	70-130			
Surrogate: o-Terphenyl	84.8		"	81.6		104	70-130			

Permian Basin Environmental Lab, L.P.

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Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

S-GC1 Surrogate recovery outside of control limits. A second analysis confirmed the original results..

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

6/11/2020

Brent Barron, Laboratory Director/Technical Director



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Location: Lea County, NM  
Lab Order Number: 0F24012



**NELAP/TCEQ # T104704516-17-8**

Report Date: 07/05/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 7'	0F24012-01	Soil	06/23/20 11:05	06-24-2020 15:07
AH-1 @ 9'	0F24012-02	Soil	06/23/20 11:40	06-24-2020 15:07
AH-2 @ 7'	0F24012-03	Soil	06/23/20 09:00	06-24-2020 15:07
AH-2 @ 9'	0F24012-04	Soil	06/23/20 09:35	06-24-2020 15:07

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 7'**  
**0F24012-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>10.1</b>	0.111	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Toluene</b>	<b>24.4</b>	0.111	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>20.8</b>	0.111	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>43.8</b>	0.222	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (o)</b>	<b>14.8</b>	0.111	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		58.9 %		75-125	P0F2905	06/29/20	06/30/20	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene		89.5 %		75-125	P0F2905	06/29/20	06/30/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>70.6</b>	1.11	mg/kg dry	1	P0F2608	06/26/20	06/26/20	EPA 300.0	
<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	P0F2601	06/26/20	06/26/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>3470</b>	139	mg/kg dry	5	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>4560</b>	139	mg/kg dry	5	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>530</b>	139	mg/kg dry	5	P0F2502	06/25/20	06/25/20	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %		70-130	P0F2502	06/25/20	06/25/20	TPH 8015M	
Surrogate: o-Terphenyl		96.0 %		70-130	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>8570</b>	139	mg/kg dry	5	[CALC]	06/25/20	06/25/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 9'**  
**0F24012-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.940</b>	0.109	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Toluene</b>	<b>6.72</b>	0.109	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>7.67</b>	0.109	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>22.9</b>	0.217	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (o)</b>	<b>7.51</b>	0.109	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		88.7 %		75-125	P0F2905	06/29/20	06/30/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		61.5 %		75-125	P0F2905	06/29/20	06/30/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>67.3</b>	1.09	mg/kg dry	1	P0F2608	06/26/20	06/26/20	EPA 300.0	
<b>% Moisture</b>	<b>8.0</b>	0.1	%	1	P0F2601	06/26/20	06/26/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2520</b>	272	mg/kg dry	10	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>6690</b>	272	mg/kg dry	10	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>520</b>	272	mg/kg dry	10	P0F2502	06/25/20	06/25/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		112 %		70-130	P0F2502	06/25/20	06/25/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		104 %		70-130	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>9730</b>	272	mg/kg dry	10	[CALC]	06/25/20	06/25/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 7'**  
**0F24012-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>7.77</b>	0.114	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Toluene</b>	<b>27.1</b>	0.114	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>21.4</b>	0.114	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>52.8</b>	0.227	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (o)</b>	<b>18.1</b>	0.114	mg/kg dry	100	P0F2905	06/29/20	06/30/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		60.6 %	75-125		P0F2905	06/29/20	06/30/20	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		89.7 %	75-125		P0F2905	06/29/20	06/30/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>71.9</b>	1.14	mg/kg dry	1	P0F2608	06/26/20	06/26/20	EPA 300.0	
<b>% Moisture</b>	<b>12.0</b>	0.1	%	1	P0F2601	06/26/20	06/26/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>5610</b>	284	mg/kg dry	10	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>8770</b>	284	mg/kg dry	10	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>694</b>	284	mg/kg dry	10	P0F2502	06/25/20	06/25/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		120 %	70-130		P0F2502	06/25/20	06/25/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		105 %	70-130		P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>15100</b>	284	mg/kg dry	10	[CALC]	06/25/20	06/25/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 9'**  
**0F24012-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0163</b>	0.00111	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Toluene</b>	<b>0.0665</b>	0.00111	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0746</b>	0.00111	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.268</b>	0.00222	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0949</b>	0.00111	mg/kg dry	1	P0F2905	06/29/20	06/30/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		97.6 %	75-125		P0F2905	06/29/20	06/30/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		67.1 %	75-125		P0F2905	06/29/20	06/30/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>53.8</b>	1.11	mg/kg dry	1	P0F2608	06/26/20	06/26/20	EPA 300.0	
<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	P0F2601	06/26/20	06/26/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>175</b>	27.8	mg/kg dry	1	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>796</b>	27.8	mg/kg dry	1	P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>63.1</b>	27.8	mg/kg dry	1	P0F2502	06/25/20	06/25/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		110 %	70-130		P0F2502	06/25/20	06/25/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		104 %	70-130		P0F2502	06/25/20	06/25/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>1030</b>	27.8	mg/kg dry	1	[CALC]	06/25/20	06/25/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2905 - General Preparation (GC)****Blank (P0F2905-BLK1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.3	75-125			

**LCS (P0F2905-BS1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.0984	0.00100	mg/kg wet	0.100		98.4	70-130			
Toluene	0.0950	0.00100	"	0.100		95.0	70-130			
Ethylbenzene	0.103	0.00100	"	0.100		103	70-130			
Xylene (p/m)	0.197	0.00200	"	0.200		98.7	70-130			
Xylene (o)	0.103	0.00100	"	0.100		103	70-130			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.8	75-125			

**LCS Dup (P0F2905-BSD1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.103	0.00100	mg/kg wet	0.100		103	70-130	4.53	20	
Toluene	0.102	0.00100	"	0.100		102	70-130	7.31	20	
Ethylbenzene	0.104	0.00100	"	0.100		104	70-130	0.543	20	
Xylene (p/m)	0.207	0.00200	"	0.200		104	70-130	4.85	20	
Xylene (o)	0.109	0.00100	"	0.100		109	70-130	5.50	20	
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		86.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.4	75-125			

**Calibration Blank (P0F2905-CCB1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.00		mg/kg wet							
Toluene	0.420		"							
Ethylbenzene	0.330		"							
Xylene (p/m)	0.530		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		87.0	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2905 - General Preparation (GC)****Calibration Blank (P0F2905-CCB2)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.00		mg/kg wet							
Toluene	0.770		"							
Ethylbenzene	0.620		"							
Xylene (p/m)	1.12		"							
Xylene (o)	0.470		"							
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		92.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		93.8	75-125			

**Calibration Blank (P0F2905-CCB3)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.00		mg/kg wet							
Toluene	0.410		"							
Ethylbenzene	0.400		"							
Xylene (p/m)	1.03		"							
Xylene (o)	0.390		"							
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.6	75-125			

**Calibration Check (P0F2905-CCV1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.109	0.00100	"	0.100		109	80-120			
Xylene (p/m)	0.210	0.00200	"	0.200		105	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		96.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		87.0	75-125			

**Calibration Check (P0F2905-CCV2)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.104	0.00100	mg/kg wet	0.100		104	80-120			
Toluene	0.101	0.00100	"	0.100		101	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.197	0.00200	"	0.200		98.5	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.8	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2905 - General Preparation (GC)****Calibration Check (P0F2905-CCV3)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0970	0.00100	"	0.100		97.0	80-120			
Ethylbenzene	0.0973	0.00100	"	0.100		97.3	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.6	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.5	75-125			

**Matrix Spike (P0F2905-MS1)**

Source: 0F26003-01

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.0778	0.00110	mg/kg dry	0.110	ND	70.8	80-120			QM-07
Toluene	0.0679	0.00110	"	0.110	ND	61.8	80-120			QM-07
Ethylbenzene	0.0606	0.00110	"	0.110	ND	55.2	80-120			QM-07
Xylene (p/m)	0.158	0.00220	"	0.220	ND	71.9	80-120			QM-07
Xylene (o)	0.0859	0.00110	"	0.110	ND	78.2	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.120		"	0.132		91.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.132		96.4	75-125			

**Matrix Spike Dup (P0F2905-MSD1)**

Source: 0F26003-01

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.0898	0.00110	mg/kg dry	0.110	ND	81.7	80-120	14.2	20	
Toluene	0.0809	0.00110	"	0.110	ND	73.6	80-120	17.4	20	QM-07
Ethylbenzene	0.0733	0.00110	"	0.110	ND	66.7	80-120	19.0	20	QM-07
Xylene (p/m)	0.179	0.00220	"	0.220	ND	81.4	80-120	12.4	20	
Xylene (o)	0.0977	0.00110	"	0.110	ND	88.9	80-120	12.8	20	
Surrogate: 1,4-Difluorobenzene	0.128		"	0.132		97.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.120		"	0.132		91.0	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2601 - \*\*\* DEFAULT PREP \*\*\*****Blank (P0F2601-BLK1)**

Prepared &amp; Analyzed: 06/26/20

% Moisture	ND	0.1	%
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**Duplicate (P0F2601-DUP1)****Source: 0F25004-10**

Prepared &amp; Analyzed: 06/26/20

% Moisture	10.0	0.1	%	11.0	9.52	20
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**Batch P0F2608 - \*\*\* DEFAULT PREP \*\*\*****Blank (P0F2608-BLK1)**

Prepared &amp; Analyzed: 06/26/20

Chloride	ND	1.00	mg/kg wet
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**LCS (P0F2608-BS1)**

Prepared &amp; Analyzed: 06/26/20

Chloride	391	1.00	mg/kg wet	400	97.8	80-120
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**LCS Dup (P0F2608-BSD1)**

Prepared &amp; Analyzed: 06/26/20

Chloride	391	1.00	mg/kg wet	400	97.7	80-120	0.118	20
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**Calibration Blank (P0F2608-CCB2)**

Prepared &amp; Analyzed: 06/26/20

Chloride	0.00		mg/kg wet
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**Calibration Check (P0F2608-CCV1)**

Prepared &amp; Analyzed: 06/26/20

Chloride	19.0		mg/kg	20.0	95.2	0-200
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**Calibration Check (P0F2608-CCV2)**

Prepared &amp; Analyzed: 06/26/20

Chloride	19.2		mg/kg	20.0	95.8	0-200
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**Calibration Check (P0F2608-CCV3)**

Prepared: 06/26/20 Analyzed: 06/27/20

Chloride	21.0		mg/kg	20.0	105	0-200
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2608 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike (P0F2608-MS1)</b>		<b>Source: 0F24014-02</b>			Prepared & Analyzed: 06/26/20					
Chloride	14300	27.2	mg/kg dry	2720	11100	117	80-120			
<b>Matrix Spike (P0F2608-MS2)</b>		<b>Source: 0F25004-10</b>			Prepared & Analyzed: 06/26/20					
Chloride	551	1.12	mg/kg dry	562	36.5	91.6	80-120			
<b>Matrix Spike Dup (P0F2608-MSD1)</b>		<b>Source: 0F24014-02</b>			Prepared & Analyzed: 06/26/20					
Chloride	13900	27.2	mg/kg dry	2720	11100	102	80-120	3.06	20	
<b>Matrix Spike Dup (P0F2608-MSD2)</b>		<b>Source: 0F25004-10</b>			Prepared & Analyzed: 06/26/20					
Chloride	559	1.12	mg/kg dry	562	36.5	93.0	80-120	1.34	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2502 - TX 1005****Blank (P0F2502-BLK1)**

Prepared &amp; Analyzed: 06/25/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	46.4		"	50.0		92.7	70-130			

**LCS (P0F2502-BS1)**

Prepared &amp; Analyzed: 06/25/20

C6-C12	878	25.0	mg/kg wet	1000		87.8	75-125			
>C12-C28	928	25.0	"	1000		92.8	75-125			
Surrogate: 1-Chlorooctane	94.3		"	100		94.3	70-130			
Surrogate: o-Terphenyl	41.6		"	50.0		83.1	70-130			

**LCS Dup (P0F2502-BS1)**

Prepared &amp; Analyzed: 06/25/20

C6-C12	888	25.0	mg/kg wet	1000		88.8	75-125	1.11	20	
>C12-C28	1010	25.0	"	1000		101	75-125	8.32	20	
Surrogate: 1-Chlorooctane	95.2		"	100		95.2	70-130			
Surrogate: o-Terphenyl	41.6		"	50.0		83.1	70-130			

**Calibration Check (P0F2502-CCV1)**

Prepared &amp; Analyzed: 06/25/20

C6-C12	554	25.0	mg/kg wet	500		111	85-115			
>C12-C28	558	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	43.8		"	50.0		87.5	70-130			

**Calibration Check (P0F2502-CCV2)**

Prepared &amp; Analyzed: 06/25/20

C6-C12	560	25.0	mg/kg wet	500		112	85-115			
>C12-C28	564	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	45.6		"	50.0		91.1	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2502 - TX 1005****Calibration Check (P0F2502-CCV3)**

Prepared: 06/25/20 Analyzed: 06/26/20

C6-C12	546	25.0	mg/kg wet	500		109	85-115			
>C12-C28	566	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	47.3		"	50.0		94.6	70-130			

**Matrix Spike (P0F2502-MS1)**

Source: 0F24009-01

Prepared &amp; Analyzed: 06/25/20

C6-C12	1080	129	mg/kg dry	1030	109	93.7	75-125			
>C12-C28	3130	129	"	1030	2310	79.5	75-125			
Surrogate: 1-Chlorooctane	91.0		"	103		88.2	70-130			
Surrogate: o-Terphenyl	43.1		"	51.5		83.6	70-130			

**Matrix Spike Dup (P0F2502-MSD1)**

Source: 0F24009-01

Prepared &amp; Analyzed: 06/25/20

C6-C12	1080	129	mg/kg dry	1030	109	94.2	75-125	0.484	20	
>C12-C28	3080	129	"	1030	2310	75.0	75-125	5.94	20	
Surrogate: 1-Chlorooctane	91.4		"	103		88.7	70-130			
Surrogate: o-Terphenyl	43.1		"	51.5		83.7	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/5/2020

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

**PBBI LAB**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
10014 S. County Road 1213  
Midland, Texas 79706

Phone: 432-686-7235

Project Manager: Jeff KindleyProject Name: Newbrenda ToreCompany Name: Dean ServiceProject #: PP-2061Company Address: 12600 WCR 91Project Loc: Lee County, NMCity/State/Zip: Midland, TX 79707PO #: 2020-050Telephone No: 432-230-0920

Fax No:

Report Format

☒ Standard☐ TRRP☐ NPDESSampler Signature: Jeff Kindley

e-mail:

(lab use only)

ORDER #: 0724012

Preservation &amp; # of Containers

Matrix

Analyze For:

TCLP:

TOTAL:

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Ice

HNO<sub>3</sub>

HCl

H<sub>2</sub>SO<sub>4</sub>

NaOH

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW = Groundwater S=Soil/Solid

NP=Non-Potable Specify Other

TPH: TX 1005 TX 1006

Anions (Cl, SO<sub>4</sub>, Alkalinity)

BTEX 8021B/5030 BTEX 8260

TPH 8015 M

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs

Standard TAT

Special Instructions:

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

Sample Containers: Initial

VOCs Free of Headspace?

Custody seals on containers?

Sample Hand Delivered?

by Courier?

Temperature Upon Receipt:

Adjusted:

UPS

DHL

FedEx

Lone Star

N

N

N

N

N

N

N

N

N

N

N

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-2061

Location: Lea County, NM

Lab Order Number: 0F26019



NELAP/TCEQ # T104704516-17-8

Report Date: 07/10/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 @ 11'	0F26019-01	Soil	06/25/20 08:45	06-26-2020 13:00
AH-2 @ 11'	0F26019-02	Soil	06/25/20 09:15	06-26-2020 13:00
NE Wall @ 1'	0F26019-03	Soil	06/25/20 12:00	06-26-2020 13:00
NE Wall @ 3'	0F26019-04	Soil	06/25/20 12:15	06-26-2020 13:00
SE Wall @ 1'	0F26019-05	Soil	06/25/20 14:00	06-26-2020 13:00

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 11'**  
**0F26019-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.101</b>	0.0222	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Toluene</b>	<b>0.657</b>	0.0222	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>1.51</b>	0.0222	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>4.41</b>	0.0444	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Xylene (o)</b>	<b>1.74</b>	0.0222	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		65.3 %		75-125	P0F2907	06/29/20	07/01/20	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene		95.3 %		75-125	P0F2907	06/29/20	07/01/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>61.7</b>	1.11	mg/kg dry	1	P0F3003	06/30/20	07/01/20	EPA 300.0	
<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>707</b>	27.8	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>2510</b>	27.8	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>228</b>	27.8	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
Surrogate: 1-Chlorooctane		98.2 %		70-130	P0F2903	06/29/20	06/30/20	TPH 8015M	
Surrogate: o-Terphenyl		99.6 %		70-130	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>3450</b>	27.8	mg/kg dry	1	[CALC]	06/29/20	06/30/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 11'**  
**0F26019-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0290</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Toluene</b>	<b>0.151</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.278</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>1.49</b>	0.0449	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.459</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		97.8 %		75-125	P0F2907	06/29/20	07/01/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		99.0 %		75-125	P0F2907	06/29/20	07/01/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>81.8</b>	1.12	mg/kg dry	1	P0F3003	06/30/20	07/01/20	EPA 300.0	
<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>166</b>	28.1	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>1020</b>	28.1	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>97.5</b>	28.1	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		100 %		70-130	P0F2903	06/29/20	06/30/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		101 %		70-130	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>1290</b>	28.1	mg/kg dry	1	[CALC]	06/29/20	06/30/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**NE Wall @ 1'**  
**0F26019-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>3.12</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Toluene</b>	<b>7.52</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>7.85</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>14.1</b>	0.0449	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<b>Xylene (o)</b>	<b>8.35</b>	0.0225	mg/kg dry	20	P0F2907	06/29/20	07/01/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		95.7 %	75-125		P0F2907	06/29/20	07/01/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		57.5 %	75-125		P0F2907	06/29/20	07/01/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>52.1</b>	1.12	mg/kg dry	1	P0F3003	06/30/20	07/01/20	EPA 300.0	
<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>3430</b>	140	mg/kg dry	5	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>7560</b>	140	mg/kg dry	5	P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>786</b>	140	mg/kg dry	5	P0F2903	06/29/20	06/30/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		104 %	70-130		P0F2903	06/29/20	06/30/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		102 %	70-130		P0F2903	06/29/20	06/30/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>11800</b>	140	mg/kg dry	5	[CALC]	06/29/20	06/30/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**NE Wall @ 3'**  
**0F26019-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>13.0</b>	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>3660</b>	144	mg/kg dry	5	P0F2903	06/29/20	06/30/20	TPH 8015M
<b>&gt;C12-C28</b>	<b>7370</b>	144	mg/kg dry	5	P0F2903	06/29/20	06/30/20	TPH 8015M
<b>&gt;C28-C35</b>	<b>708</b>	144	mg/kg dry	5	P0F2903	06/29/20	06/30/20	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>		105 %	70-130		P0F2903	06/29/20	06/30/20	TPH 8015M
<i>Surrogate: o-Terphenyl</i>		102 %	70-130		P0F2903	06/29/20	06/30/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>11700</b>	144	mg/kg dry	5	[CALC]	06/29/20	06/30/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**SE Wall @ 1'**  
**0F26019-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00108	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Toluene	ND	0.00108	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Ethylbenzene	<b>0.00530</b>	0.00108	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Xylene (p/m)	<b>0.0147</b>	0.00215	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Xylene (o)	<b>0.00165</b>	0.00108	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		59.0 %	75-125		P0G0105	07/01/20	07/01/20	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene		98.8 %	75-125		P0G0105	07/01/20	07/01/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	<b>171</b>	1.08	mg/kg dry	1	P0F3003	06/30/20	07/01/20	EPA 300.0	
% Moisture	<b>7.0</b>	0.1	%	1	P0F2701	06/27/20	06/29/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	<b>37.0</b>	26.9	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
>C12-C28	<b>761</b>	26.9	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
>C28-C35	<b>73.7</b>	26.9	mg/kg dry	1	P0F2903	06/29/20	06/30/20	TPH 8015M	
Surrogate: 1-Chlorooctane		98.0 %	70-130		P0F2903	06/29/20	06/30/20	TPH 8015M	
Surrogate: o-Terphenyl		96.5 %	70-130		P0F2903	06/29/20	06/30/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	<b>871</b>	26.9	mg/kg dry	1	[CALC]	06/29/20	06/30/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2907 - General Preparation (GC)****Blank (P0F2907-BLK1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.0	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		90.2	75-125			

**LCS (P0F2907-BS1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.0999	0.00100	mg/kg wet	0.100		99.9	70-130			
Toluene	0.0957	0.00100	"	0.100		95.7	70-130			
Ethylbenzene	0.101	0.00100	"	0.100		101	70-130			
Xylene (p/m)	0.187	0.00200	"	0.200		93.3	70-130			
Xylene (o)	0.101	0.00100	"	0.100		101	70-130			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.8	75-125			

**LCS Dup (P0F2907-BSD1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.0974	0.00100	mg/kg wet	0.100		97.4	70-130	2.57	20	
Toluene	0.0946	0.00100	"	0.100		94.6	70-130	1.12	20	
Ethylbenzene	0.103	0.00100	"	0.100		103	70-130	1.85	20	
Xylene (p/m)	0.188	0.00200	"	0.200		94.2	70-130	1.00	20	
Xylene (o)	0.102	0.00100	"	0.100		102	70-130	0.895	20	
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.3	75-125			

**Calibration Blank (P0F2907-CCB1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.00		mg/kg wet							
Toluene	0.410		"							
Ethylbenzene	0.400		"							
Xylene (p/m)	1.03		"							
Xylene (o)	0.390		"							
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		94.6	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			

Permian Basin Environmental Lab, L.P.

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**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2907 - General Preparation (GC)****Calibration Blank (P0F2907-CCB2)**

Prepared: 06/29/20 Analyzed: 07/01/20

Benzene	0.00		mg/kg wet							
Toluene	0.380		"							
Ethylbenzene	0.360		"							
Xylene (p/m)	0.710		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.8	75-125			

**Calibration Blank (P0F2907-CCB3)**

Prepared: 06/29/20 Analyzed: 07/01/20

Benzene	0.00		mg/kg wet							
Toluene	0.540		"							
Ethylbenzene	0.340		"							
Xylene (p/m)	1.15		"							
Xylene (o)	0.340		"							
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		93.8	75-125			

**Calibration Check (P0F2907-CCV1)**

Prepared: 06/29/20 Analyzed: 06/30/20

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0970	0.00100	"	0.100		97.0	80-120			
Ethylbenzene	0.0973	0.00100	"	0.100		97.3	80-120			
Xylene (p/m)	0.185	0.00200	"	0.200		92.6	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.5	75-125			

**Calibration Check (P0F2907-CCV2)**

Prepared: 06/29/20 Analyzed: 07/01/20

Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0966	0.00100	"	0.100		96.6	80-120			
Ethylbenzene	0.0972	0.00100	"	0.100		97.2	80-120			
Xylene (p/m)	0.187	0.00200	"	0.200		93.5	80-120			
Xylene (o)	0.105	0.00100	"	0.100		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.111		"	0.120		92.1	75-125			

Permian Basin Environmental Lab, L.P.

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Midland TX, 79707

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Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2907 - General Preparation (GC)****Calibration Check (P0F2907-CCV3)**

Prepared: 06/29/20 Analyzed: 07/01/20

Benzene	0.105	0.00100	mg/kg wet	0.100		105	80-120			
Toluene	0.108	0.00100	"	0.100		108	80-120			
Ethylbenzene	0.107	0.00100	"	0.100		107	80-120			
Xylene (p/m)	0.212	0.00200	"	0.200		106	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.8	75-125			

**Matrix Spike (P0F2907-MS1)**

Source: 0F26003-10

Prepared: 06/29/20 Analyzed: 07/01/20

Benzene	0.0850	0.00100	mg/kg dry	0.100	ND	85.0	80-120			
Toluene	0.0759	0.00100	"	0.100	ND	75.9	80-120			QM-07
Ethylbenzene	0.0379	0.00100	"	0.100	ND	37.9	80-120			QM-07
Xylene (p/m)	0.0868	0.00200	"	0.200	ND	43.4	80-120			QM-07
Xylene (o)	0.0419	0.00100	"	0.100	ND	41.9	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.116		"	0.120		96.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.0781		"	0.120		65.1	75-125			S-GC

**Matrix Spike Dup (P0F2907-MSD1)**

Source: 0F26003-10

Prepared: 06/29/20 Analyzed: 07/01/20

Benzene	0.106	0.00100	mg/kg dry	0.100	ND	106	80-120	21.5	20	QM-07
Toluene	0.0972	0.00100	"	0.100	ND	97.2	80-120	24.6	20	QM-07
Ethylbenzene	0.0815	0.00100	"	0.100	ND	81.5	80-120	73.1	20	QM-07
Xylene (p/m)	0.128	0.00200	"	0.200	ND	63.9	80-120	38.2	20	QM-07
Xylene (o)	0.0669	0.00100	"	0.100	ND	66.9	80-120	46.0	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.0942		"	0.120		78.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		103	75-125			

**Batch P0G0105 - General Preparation (GC)****Blank (P0G0105-BLK1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.0	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.6	75-125			

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Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0105 - General Preparation (GC)****LCS (P0G0105-BS1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.0939	0.00100	mg/kg wet	0.100		93.9	70-130			
Toluene	0.0924	0.00100	"	0.100		92.4	70-130			
Ethylbenzene	0.0952	0.00100	"	0.100		95.2	70-130			
Xylene (p/m)	0.188	0.00200	"	0.200		93.8	70-130			
Xylene (o)	0.0975	0.00100	"	0.100		97.5	70-130			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.7	75-125			

**LCS Dup (P0G0105-BSD1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.100	0.00100	mg/kg wet	0.100		100	70-130	6.53	20	
Toluene	0.100	0.00100	"	0.100		100	70-130	8.04	20	
Ethylbenzene	0.0981	0.00100	"	0.100		98.1	70-130	2.91	20	
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130	8.30	20	
Xylene (o)	0.109	0.00100	"	0.100		109	70-130	10.7	20	
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		92.0	75-125			

**Calibration Blank (P0G0105-CCB1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.00		mg/kg wet							
Toluene	0.470		"							
Ethylbenzene	0.320		"							
Xylene (p/m)	0.640		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.3	75-125			

**Calibration Blank (P0G0105-CCB2)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.330		mg/kg wet							
Toluene	0.680		"							
Ethylbenzene	0.530		"							
Xylene (p/m)	3.19		"							
Xylene (o)	0.800		"							
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		93.8	75-125			

Permian Basin Environmental Lab, L.P.

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Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0105 - General Preparation (GC)****Calibration Blank (P0G0105-CCB3)**

Prepared: 07/01/20 Analyzed: 07/02/20

Benzene	0.00		mg/kg wet							
Toluene	0.940		"							
Ethylbenzene	0.830		"							
Xylene (p/m)	1.70		"							
Xylene (o)	0.690		"							
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.7	75-125			

**Calibration Check (P0G0105-CCV1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.0967	0.00100	mg/kg wet	0.100		96.7	80-120			
Toluene	0.0949	0.00100	"	0.100		94.9	80-120			
Ethylbenzene	0.0988	0.00100	"	0.100		98.8	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.4	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.7	75-125			

**Calibration Check (P0G0105-CCV2)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.0981	0.00100	mg/kg wet	0.100		98.1	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.0969	0.00100	"	0.100		96.9	80-120			
Xylene (p/m)	0.208	0.00200	"	0.200		104	80-120			
Xylene (o)	0.0996	0.00100	"	0.100		99.6	80-120			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		86.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.9	75-125			

**Calibration Check (P0G0105-CCV3)**

Prepared: 07/01/20 Analyzed: 07/02/20

Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.6	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			

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**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0105 - General Preparation (GC)**

<b>Matrix Spike (P0G0105-MS1)</b>		<b>Source: 0G01013-06</b>		Prepared: 07/01/20		Analyzed: 07/02/20				
Benzene	0.0887	0.00104	mg/kg dry	0.104	ND	85.1	80-120			
Toluene	0.0807	0.00104	"	0.104	0.00614	71.5	80-120			QM-10
Ethylbenzene	0.0840	0.00104	"	0.104	0.00539	75.5	80-120			QM-10
Xylene (p/m)	0.147	0.00208	"	0.208	0.0263	58.1	80-120			QM-10
Xylene (o)	0.0791	0.00104	"	0.104	0.0104	66.0	80-120			QM-10
Surrogate: 1,4-Difluorobenzene	0.122		"	0.125		97.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.125		87.1	75-125			

<b>Matrix Spike Dup (P0G0105-MSD1)</b>		<b>Source: 0G01013-06</b>		Prepared: 07/01/20		Analyzed: 07/02/20				
Benzene	0.0876	0.00104	mg/kg dry	0.104	ND	84.1	80-120	1.25	20	
Toluene	0.0790	0.00104	"	0.104	0.00614	69.9	80-120	2.29	20	QM-10
Ethylbenzene	0.0830	0.00104	"	0.104	0.00539	74.5	80-120	1.29	20	QM-10
Xylene (p/m)	0.146	0.00208	"	0.208	0.0263	57.4	80-120	1.20	20	QM-10
Xylene (o)	0.0800	0.00104	"	0.104	0.0104	66.8	80-120	1.24	20	QM-10
Surrogate: 1,4-Difluorobenzene	0.122		"	0.125		97.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.125		86.6	75-125			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2701 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0F2701-BLK1)</b>				Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	ND	0.1	%							
<b>Duplicate (P0F2701-DUP1)</b>				Source: 0F26003-14 Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	ND	0.1	%		ND				20	
<b>Duplicate (P0F2701-DUP2)</b>				Source: 0F26010-11 Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	6.0	0.1	%		6.0			0.00	20	
<b>Duplicate (P0F2701-DUP3)</b>				Source: 0F26010-38 Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P0F2701-DUP4)</b>				Source: 0F26015-11 Prepared: 06/27/20 Analyzed: 06/29/20						
% Moisture	ND	0.1	%		ND				20	

**Batch P0F3003 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0F3003-BLK1)</b>				Prepared: 06/30/20 Analyzed: 07/01/20						
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P0F3003-BS1)</b>				Prepared: 06/30/20 Analyzed: 07/01/20						
Chloride	411	1.00	mg/kg wet	400		103	80-120			
<b>LCS Dup (P0F3003-BSD1)</b>				Prepared: 06/30/20 Analyzed: 07/01/20						
Chloride	407	1.00	mg/kg wet	400		102	80-120	0.851	20	
<b>Calibration Check (P0F3003-CCV1)</b>				Prepared: 06/30/20 Analyzed: 07/01/20						
Chloride	19.4		mg/kg	20.0		97.0	0-200			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F3003 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P0F3003-CCV2)**

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	18.7		mg/kg	20.0		93.3	0-200			
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**Matrix Spike (P0F3003-MS1)**

**Source: 0F26018-07**

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	521	1.04	mg/kg dry	521	22.6	95.7	80-120			
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**Matrix Spike (P0F3003-MS2)**

**Source: 0F26022-03**

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	5040	11.4	mg/kg dry	1140	3540	132	80-120			QM-05
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**Matrix Spike Dup (P0F3003-MSD1)**

**Source: 0F26018-07**

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	499	1.04	mg/kg dry	521	22.6	91.4	80-120	4.43	20	
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**Matrix Spike Dup (P0F3003-MSD2)**

**Source: 0F26022-03**

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	4900	11.4	mg/kg dry	1140	3540	119	80-120	2.80	20	
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2903 - TX 1005****Blank (P0F2903-BLK1)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	90.4		"	100		90.4	70-130			
Surrogate: o-Terphenyl	42.0		"	50.0		84.0	70-130			

**LCS (P0F2903-BS1)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	826	25.0	mg/kg wet	1000		82.6	75-125			
>C12-C28	886	25.0	"	1000		88.6	75-125			
Surrogate: 1-Chlorooctane	83.7		"	100		83.7	70-130			
Surrogate: o-Terphenyl	38.3		"	50.0		76.6	70-130			

**LCS Dup (P0F2903-BSD1)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	831	25.0	mg/kg wet	1000		83.1	75-125	0.567	20	
>C12-C28	900	25.0	"	1000		90.0	75-125	1.50	20	
Surrogate: 1-Chlorooctane	83.9		"	100		83.9	70-130			
Surrogate: o-Terphenyl	38.4		"	50.0		76.7	70-130			

**Calibration Blank (P0F2903-CCB1)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	18.8		mg/kg wet							
>C12-C28	18.2		"							
Surrogate: 1-Chlorooctane	92.0		"	100		92.0	70-130			
Surrogate: o-Terphenyl	43.0		"	50.0		86.1	70-130			

**Calibration Blank (P0F2903-CCB2)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	20.7		mg/kg wet							
>C12-C28	13.7		"							
Surrogate: 1-Chlorooctane	94.7		"	100		94.7	70-130			
Surrogate: o-Terphenyl	44.4		"	50.0		88.8	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F2903 - TX 1005****Calibration Check (P0F2903-CCV1)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	518	25.0	mg/kg wet	500		104	85-115			
>C12-C28	520	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	75.6		"	100		75.6	70-130			
Surrogate: o-Terphenyl	34.8		"	50.0		69.5	70-130			S-GC

**Calibration Check (P0F2903-CCV2)**

Prepared &amp; Analyzed: 06/29/20

C6-C12	550	25.0	mg/kg wet	500		110	85-115			
>C12-C28	570	25.0	"	500		114	85-115			
Surrogate: 1-Chlorooctane	83.7		"	100		83.7	70-130			
Surrogate: o-Terphenyl	39.1		"	50.0		78.2	70-130			

**Calibration Check (P0F2903-CCV3)**

Prepared: 06/29/20 Analyzed: 06/30/20

C6-C12	530	25.0	mg/kg wet	500		106	85-115			
>C12-C28	574	25.0	"	500		115	85-115			
Surrogate: 1-Chlorooctane	85.8		"	100		85.8	70-130			
Surrogate: o-Terphenyl	39.8		"	50.0		79.7	70-130			

**Matrix Spike (P0F2903-MS1)**

Source: 0F26010-35

Prepared: 06/29/20 Analyzed: 06/30/20

C6-C12	1150	25.3	mg/kg dry	1010	17.7	112	75-125			
>C12-C28	1250	25.3	"	1010	16.4	122	75-125			
Surrogate: 1-Chlorooctane	93.2		"	101		92.3	70-130			
Surrogate: o-Terphenyl	42.9		"	50.5		85.0	70-130			

**Matrix Spike Dup (P0F2903-MSD1)**

Source: 0F26010-35

Prepared: 06/29/20 Analyzed: 06/30/20

C6-C12	1190	25.3	mg/kg dry	1010	17.7	116	75-125	3.94	20	
>C12-C28	1260	25.3	"	1010	16.4	123	75-125	0.623	20	
Surrogate: 1-Chlorooctane	95.2		"	101		94.3	70-130			
Surrogate: o-Terphenyl	43.8		"	50.5		86.8	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

QM-10 LCS/LCSD were analyzed in place of MS/MSD.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/10/2020

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: Plains Mewbourne Toro Project Number: PP-2061 Project Manager: Sylwia Reynolds	Fax:
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**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-2061

Location: Lea County, NM

Lab Order Number: 0G01013



NELAP/TCEQ # T104704516-17-8

Report Date: 07/15/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-1 E @ 3'	0G01013-01	Soil	06/30/20 11:03	07-01-2020 11:41
AH-1 E @ 5'	0G01013-02	Soil	06/30/20 11:08	07-01-2020 11:41
AH-1 E @ 7'	0G01013-03	Soil	06/30/20 11:17	07-01-2020 11:41
AH-1 SE @ 3'	0G01013-06	Soil	06/30/20 10:00	07-01-2020 11:41
AH-1 SE @ 5'	0G01013-07	Soil	06/30/20 10:21	07-01-2020 11:41
AH-1 SE @ 7'	0G01013-08	Soil	06/30/20 10:43	07-01-2020 11:41
AH-1 NE @ 3'	0G01013-09	Soil	06/30/20 11:47	07-01-2020 11:41
AH-1 NE @ 5'	0G01013-10	Soil	06/30/20 11:51	07-01-2020 11:41
AH-1 NE @ 7'	0G01013-11	Soil	06/30/20 12:00	07-01-2020 11:41
AH-1 NE @ 9'	0G01013-12	Soil	06/30/20 12:19	07-01-2020 11:41
AH-1 NE @ 11'	0G01013-13	Soil	06/30/20 12:58	07-01-2020 11:41



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 E @ 3'**  
**0G01013-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>1.94</b>	0.108	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Toluene</b>	<b>10.6</b>	0.108	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>14.2</b>	0.108	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>37.3</b>	0.215	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (o)</b>	<b>14.6</b>	0.108	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		62.5 %		75-125	P0G0105	07/01/20	07/02/20	EPA 8021B	S-GC
Surrogate: 1,4-Difluorobenzene		90.0 %		75-125	P0G0105	07/01/20	07/02/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>12.2</b>	1.08	mg/kg dry	1	P0G0401	07/04/20	07/04/20	EPA 300.0	
<b>% Moisture</b>	<b>7.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>1700</b>	134	mg/kg dry	5	P0G0203	07/02/20	07/04/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>6190</b>	134	mg/kg dry	5	P0G0203	07/02/20	07/04/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>648</b>	134	mg/kg dry	5	P0G0203	07/02/20	07/04/20	TPH 8015M	
Surrogate: 1-Chlorooctane		108 %		70-130	P0G0203	07/02/20	07/04/20	TPH 8015M	
Surrogate: o-Terphenyl		106 %		70-130	P0G0203	07/02/20	07/04/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>8530</b>	134	mg/kg dry	5	[CALC]	07/02/20	07/04/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 E @ 5'**  
**0G01013-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.0230	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Toluene</b>	<b>0.0382</b>	0.0230	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0308</b>	0.0230	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.163</b>	0.0460	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0354</b>	0.0230	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		94.5 %	75-125		P0G0105	07/01/20	07/02/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		85.9 %	75-125		P0G0105	07/01/20	07/02/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>11.2</b>	1.15	mg/kg dry	1	P0G0401	07/04/20	07/04/20	EPA 300.0	
<b>% Moisture</b>	<b>13.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.7	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>198</b>	28.7	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
>C28-C35	ND	28.7	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
Surrogate: 1-Chlorooctane		92.1 %	70-130		P0G0204	07/02/20	07/06/20	TPH 8015M	
Surrogate: o-Terphenyl		91.1 %	70-130		P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>198</b>	28.7	mg/kg dry	1	[CALC]	07/02/20	07/06/20	calc	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 E @ 7'**  
**0G01013-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.0220	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
Toluene	ND	0.0220	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
Ethylbenzene	ND	0.0220	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.0829</b>	0.0440	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
Xylene (o)	ND	0.0220	mg/kg dry	20	P0G0105	07/01/20	07/02/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		84.9 %	75-125		P0G0105	07/01/20	07/02/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.6 %	75-125		P0G0105	07/01/20	07/02/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>11.1</b>	1.10	mg/kg dry	1	P0G0401	07/04/20	07/04/20	EPA 300.0	
<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>261</b>	27.5	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>28.3</b>	27.5	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
Surrogate: 1-Chlorooctane		91.8 %	70-130		P0G0204	07/02/20	07/06/20	TPH 8015M	
Surrogate: o-Terphenyl		89.4 %	70-130		P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>289</b>	27.5	mg/kg dry	1	[CALC]	07/02/20	07/06/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 SE @ 3'**  
**0G01013-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00104	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Toluene	0.00614	0.00104	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Ethylbenzene	0.00539	0.00104	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Xylene (p/m)	0.0263	0.00208	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Xylene (o)	0.0104	0.00104	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		91.0 %	75-125		P0G0105	07/01/20	07/01/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		97.6 %	75-125		P0G0105	07/01/20	07/01/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	24.0	1.04	mg/kg dry	1	P0G0401	07/04/20	07/04/20	EPA 300.0	
% Moisture	4.0	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	35.1	26.0	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
>C12-C28	786	26.0	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
>C28-C35	87.6	26.0	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
Surrogate: 1-Chlorooctane		95.3 %	70-130		P0G0204	07/02/20	07/06/20	TPH 8015M	
Surrogate: o-Terphenyl		91.0 %	70-130		P0G0204	07/02/20	07/06/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	908	26.0	mg/kg dry	1	[CALC]	07/02/20	07/06/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 SE @ 5'**  
**0G01013-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0104</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Toluene</b>	<b>0.0692</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0886</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.315</b>	0.00227	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.116</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		98.8 %	75-125		P0G0105	07/01/20	07/01/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		62.9 %	75-125		P0G0105	07/01/20	07/01/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>27.8</b>	1.14	mg/kg dry	1	P0G0401	07/04/20	07/04/20	EPA 300.0	
<b>% Moisture</b>	<b>12.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>329</b>	142	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>2950</b>	142	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>300</b>	142	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		108 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		91.8 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>3580</b>	142	mg/kg dry	5	[CALC]	07/02/20	07/02/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 SE @ 7'**  
**0G01013-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00255</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Toluene</b>	<b>0.0278</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0373</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.158</b>	0.00227	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.0521</b>	0.00114	mg/kg dry	1	P0G0105	07/01/20	07/01/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		95.0 %		75-125	P0G0105	07/01/20	07/01/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		68.0 %		75-125	P0G0105	07/01/20	07/01/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>29.2</b>	1.14	mg/kg dry	1	P0G0702	07/07/20	07/07/20	EPA 300.0	
<b>% Moisture</b>	<b>12.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>265</b>	28.4	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>2800</b>	28.4	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>283</b>	28.4	mg/kg dry	1	P0G0204	07/02/20	07/06/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		101 %		70-130	P0G0204	07/02/20	07/06/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		95.1 %		70-130	P0G0204	07/02/20	07/06/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>3350</b>	28.4	mg/kg dry	1	[CALC]	07/02/20	07/06/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 NE @ 3'**  
**0G01013-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>2.11</b>	0.109	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Toluene</b>	<b>8.20</b>	0.109	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>3.06</b>	0.109	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>25.3</b>	0.217	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (o)</b>	<b>9.33</b>	0.109	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		93.2 %	75-125		P0G0105	07/01/20	07/02/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		62.4 %	75-125		P0G0105	07/01/20	07/02/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>93.6</b>	1.09	mg/kg dry	1	P0G0702	07/07/20	07/07/20	EPA 300.0	
<b>% Moisture</b>	<b>8.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2330</b>	136	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>8430</b>	136	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>856</b>	136	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		97.0 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		124 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>11600</b>	136	mg/kg dry	5	[CALC]	07/02/20	07/02/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 NE @ 5'**  
**0G01013-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>4.21</b>	0.119	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Toluene</b>	<b>14.6</b>	0.119	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>12.9</b>	0.119	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>34.6</b>	0.238	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (o)</b>	<b>12.7</b>	0.119	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		95.0 %		75-125	P0G0105	07/01/20	07/02/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		66.4 %		75-125	P0G0105	07/01/20	07/02/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>30.9</b>	1.19	mg/kg dry	1	P0G0702	07/07/20	07/07/20	EPA 300.0	
<b>% Moisture</b>	<b>16.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2070</b>	149	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>5980</b>	149	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>626</b>	149	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		121 %		70-130	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		94.5 %		70-130	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>8690</b>	149	mg/kg dry	5	[CALC]	07/02/20	07/02/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 NE @ 7'**  
**0G01013-11 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>2.79</b>	0.110	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Toluene</b>	<b>14.3</b>	0.110	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>14.7</b>	0.110	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>36.2</b>	0.220	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<b>Xylene (o)</b>	<b>13.0</b>	0.110	mg/kg dry	100	P0G0105	07/01/20	07/02/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		92.4 %		75-125	P0G0105	07/01/20	07/02/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		61.3 %		75-125	P0G0105	07/01/20	07/02/20	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>14.4</b>	1.10	mg/kg dry	1	P0G0702	07/07/20	07/07/20	EPA 300.0	
<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>4220</b>	137	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>10600</b>	137	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>1090</b>	137	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		114 %		70-130	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		102 %		70-130	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>15900</b>	137	mg/kg dry	5	[CALC]	07/02/20	07/02/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 NE @ 9'**  
**0G01013-12 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

<b>Benzene</b>	<b>0.452</b>	0.0200	mg/kg dry	20	P0G1301	07/13/20	07/13/20	EPA 8021B	
<b>Toluene</b>	<b>5.45</b>	0.0400	mg/kg dry	20	P0G1301	07/13/20	07/13/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>7.20</b>	0.0400	mg/kg dry	20	P0G1301	07/13/20	07/13/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>17.3</b>	0.0400	mg/kg dry	20	P0G1301	07/13/20	07/13/20	EPA 8021B	
<b>Xylene (o)</b>	<b>6.64</b>	0.0400	mg/kg dry	20	P0G1301	07/13/20	07/13/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		83.4 %	75-125		P0G1301	07/13/20	07/13/20	EPA 8021B	
<i>Surrogate: 1,4-Difluorobenzene</i>		87.7 %	75-125		P0G1301	07/13/20	07/13/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>1930</b>	139	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>6380</b>	139	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>508</b>	139	mg/kg dry	5	P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		118 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		98.6 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>8810</b>	139	mg/kg dry	5	[CALC]	07/02/20	07/02/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**AH-1 NE @ 11'**  
**0G01013-13 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>12.0</b>	0.1	%	1	P0G0202	07/02/20	07/02/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>30.2</b>	28.4	mg/kg dry	1	P0G0204	07/02/20	07/02/20	TPH 8015M
<b>&gt;C12-C28</b>	<b>402</b>	28.4	mg/kg dry	1	P0G0204	07/02/20	07/02/20	TPH 8015M
<b>&gt;C28-C35</b>	<b>42.6</b>	28.4	mg/kg dry	1	P0G0204	07/02/20	07/02/20	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>		97.4 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M
<i>Surrogate: o-Terphenyl</i>		104 %	70-130		P0G0204	07/02/20	07/02/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>475</b>	28.4	mg/kg dry	1	[CALC]	07/02/20	07/02/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0105 - General Preparation (GC)****Blank (P0G0105-BLK1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.0	75-125			

**LCS (P0G0105-BS1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.0939	0.00100	mg/kg wet	0.100		93.9	70-130			
Toluene	0.0924	0.00100	"	0.100		92.4	70-130			
Ethylbenzene	0.0952	0.00100	"	0.100		95.2	70-130			
Xylene (p/m)	0.188	0.00200	"	0.200		93.8	70-130			
Xylene (o)	0.0975	0.00100	"	0.100		97.5	70-130			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.120		89.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.7	75-125			

**LCS Dup (P0G0105-BSD1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.100	0.00100	mg/kg wet	0.100		100	70-130	6.53	20	
Toluene	0.100	0.00100	"	0.100		100	70-130	8.04	20	
Ethylbenzene	0.0981	0.00100	"	0.100		98.1	70-130	2.91	20	
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130	8.30	20	
Xylene (o)	0.109	0.00100	"	0.100		109	70-130	10.7	20	
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		92.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.5	75-125			

**Calibration Blank (P0G0105-CCB1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.00		mg/kg wet							
Toluene	0.470		"							
Ethylbenzene	0.320		"							
Xylene (p/m)	0.640		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		94.6	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0105 - General Preparation (GC)****Calibration Blank (P0G0105-CCB2)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.330		mg/kg wet							
Toluene	0.680		"							
Ethylbenzene	0.530		"							
Xylene (p/m)	3.19		"							
Xylene (o)	0.800		"							
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		93.8	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.4	75-125			

**Calibration Blank (P0G0105-CCB3)**

Prepared: 07/01/20 Analyzed: 07/02/20

Benzene	0.00		mg/kg wet							
Toluene	0.940		"							
Ethylbenzene	0.830		"							
Xylene (p/m)	1.70		"							
Xylene (o)	0.690		"							
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.4	75-125			

**Calibration Check (P0G0105-CCV1)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.0967	0.00100	mg/kg wet	0.100		96.7	80-120			
Toluene	0.0949	0.00100	"	0.100		94.9	80-120			
Ethylbenzene	0.0988	0.00100	"	0.100		98.8	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.4	80-120			
Xylene (o)	0.104	0.00100	"	0.100		104	80-120			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.7	75-125			
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			

**Calibration Check (P0G0105-CCV2)**

Prepared &amp; Analyzed: 07/01/20

Benzene	0.0981	0.00100	mg/kg wet	0.100		98.1	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.0969	0.00100	"	0.100		96.9	80-120			
Xylene (p/m)	0.208	0.00200	"	0.200		104	80-120			
Xylene (o)	0.0996	0.00100	"	0.100		99.6	80-120			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		86.4	75-125			

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Project: Plains Mewbourne Toro  
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**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0105 - General Preparation (GC)****Calibration Check (P0G0105-CCV3)**

Prepared: 07/01/20 Analyzed: 07/02/20

Benzene	0.103	0.00100	mg/kg wet	0.100		103	80-120			
Toluene	0.100	0.00100	"	0.100		100	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.6	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.2	75-125			

**Matrix Spike (P0G0105-MS1)**

Source: 0G01013-06

Prepared: 07/01/20 Analyzed: 07/02/20

Benzene	0.0887	0.00104	mg/kg dry	0.104	ND	85.1	80-120			
Toluene	0.0807	0.00104	"	0.104	0.00614	71.5	80-120			QM-10
Ethylbenzene	0.0840	0.00104	"	0.104	0.00539	75.5	80-120			QM-10
Xylene (p/m)	0.147	0.00208	"	0.208	0.0263	58.1	80-120			QM-10
Xylene (o)	0.0791	0.00104	"	0.104	0.0104	66.0	80-120			QM-10
Surrogate: 1,4-Difluorobenzene	0.122		"	0.125		97.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.109		"	0.125		87.1	75-125			

**Matrix Spike Dup (P0G0105-MSD1)**

Source: 0G01013-06

Prepared: 07/01/20 Analyzed: 07/02/20

Benzene	0.0876	0.00104	mg/kg dry	0.104	ND	84.1	80-120	1.25	20	
Toluene	0.0790	0.00104	"	0.104	0.00614	69.9	80-120	2.29	20	QM-10
Ethylbenzene	0.0830	0.00104	"	0.104	0.00539	74.5	80-120	1.29	20	QM-10
Xylene (p/m)	0.146	0.00208	"	0.208	0.0263	57.4	80-120	1.20	20	QM-10
Xylene (o)	0.0800	0.00104	"	0.104	0.0104	66.8	80-120	1.24	20	QM-10
Surrogate: 1,4-Difluorobenzene	0.122		"	0.125		97.4	75-125			
Surrogate: 4-Bromofluorobenzene	0.108		"	0.125		86.6	75-125			

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Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G1301 - General Preparation (GC)****Blank (P0G1301-BLK1)**

Prepared &amp; Analyzed: 07/13/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00200	"							
Ethylbenzene	ND	0.00200	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00200	"							
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		91.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		90.0	75-125			

**LCS (P0G1301-BS1)**

Prepared &amp; Analyzed: 07/13/20

Benzene	0.110	0.00100	mg/kg wet	0.100		110	80-120			
Toluene	0.102	0.00200	"	0.100		102	80-120			
Ethylbenzene	0.109	0.00200	"	0.100		109	80-120			
Xylene (p/m)	0.225	0.00200	"	0.200		112	80-120			
Xylene (o)	0.104	0.00200	"	0.100		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		87.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.5	75-125			

**Calibration Blank (P0G1301-CCB1)**

Prepared &amp; Analyzed: 07/13/20

Benzene	0.330		mg/kg wet							
Toluene	0.930		"							
Ethylbenzene	0.490		"							
Xylene (p/m)	0.860		"							
Xylene (o)	0.350		"							
Surrogate: 4-Bromofluorobenzene	0.103		"	0.120		85.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.109		"	0.120		90.7	75-125			

**Calibration Blank (P0G1301-CCB2)**

Prepared &amp; Analyzed: 07/13/20

Benzene	0.00		mg/kg wet							
Toluene	0.670		"							
Ethylbenzene	0.460		"							
Xylene (p/m)	0.800		"							
Xylene (o)	0.430		"							
Surrogate: 4-Bromofluorobenzene	0.0983		"	0.120		81.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.110		"	0.120		92.0	75-125			

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Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G1301 - General Preparation (GC)****Calibration Check (P0G1301-CCV1)**

Prepared &amp; Analyzed: 07/13/20

Benzene	0.0987	0.00100	mg/kg wet	0.100		98.7	80-120			
Toluene	0.0925	0.00200	"	0.100		92.5	80-120			
Ethylbenzene	0.0971	0.00200	"	0.100		97.1	80-120			
Xylene (p/m)	0.202	0.00200	"	0.200		101	80-120			
Xylene (o)	0.0932	0.00200	"	0.100		93.2	80-120			
Surrogate: 4-Bromofluorobenzene	0.104		"	0.120		86.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.112		"	0.120		93.7	75-125			

**Calibration Check (P0G1301-CCV2)**

Prepared &amp; Analyzed: 07/13/20

Benzene	0.105	0.00100	mg/kg wet	0.100		105	80-120			
Toluene	0.0960	0.00200	"	0.100		96.0	80-120			
Ethylbenzene	0.100	0.00200	"	0.100		100	80-120			
Xylene (p/m)	0.205	0.00200	"	0.200		103	80-120			
Xylene (o)	0.0973	0.00200	"	0.100		97.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.105		"	0.120		87.7	75-125			
Surrogate: 1,4-Difluorobenzene	0.114		"	0.120		95.2	75-125			

**Calibration Check (P0G1301-CCV3)**

Prepared: 07/13/20 Analyzed: 07/14/20

Benzene	0.107	0.00100	mg/kg wet	0.100		107	80-120			
Toluene	0.105	0.00200	"	0.100		105	80-120			
Ethylbenzene	0.109	0.00200	"	0.100		109	80-120			
Xylene (p/m)	0.219	0.00200	"	0.200		109	80-120			
Xylene (o)	0.107	0.00200	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.106		"	0.120		88.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		95.8	75-125			

**Matrix Spike (P0G1301-MS1)**

Source: 0G13005-01

Prepared: 07/13/20 Analyzed: 07/14/20

Benzene	0.0869	0.00100	mg/kg dry	0.109	ND	80.0	80-120			QM-07
Toluene	0.0686	0.00200	"	0.109	0.000511	62.6	80-120			QM-07
Ethylbenzene	0.0523	0.00200	"	0.109	0.000620	47.5	80-120			QM-07
Xylene (p/m)	0.150	0.00200	"	0.217	0.00307	67.5	80-120			QM-07
Xylene (o)	0.0718	0.00200	"	0.109	0.000707	65.4	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.122		"	0.130		93.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.126		"	0.130		97.0	75-125			

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1400 Rankin HWY Midland, TX 79701 432-686-7235



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Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G1301 - General Preparation (GC)**

<b>Matrix Spike Dup (P0G1301-MSD1)</b>		<b>Source: 0G13005-01</b>		Prepared: 07/13/20		Analyzed: 07/14/20				
Benzene	0.0825	0.00100	mg/kg dry	0.109	ND	75.9	80-120	5.24	20	QM-07
Toluene	0.0611	0.00200	"	0.109	0.000511	55.7	80-120	11.6	20	QM-07
Ethylbenzene	0.0502	0.00200	"	0.109	0.000620	45.6	80-120	4.17	20	QM-07
Xylene (p/m)	0.150	0.00200	"	0.217	0.00307	67.7	80-120	0.289	20	QM-07
Xylene (o)	0.0684	0.00200	"	0.109	0.000707	62.2	80-120	4.90	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.125		"	0.130		96.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.130		96.2	75-125			

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0202 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0G0202-BLK1)</b>	Prepared & Analyzed: 07/02/20									
% Moisture	ND	0.1	%							
<b>Blank (P0G0202-BLK2)</b>	Prepared & Analyzed: 07/02/20									
% Moisture	ND	0.1	%							
<b>Duplicate (P0G0202-DUP1)</b>	<b>Source: 0G01003-01</b>	Prepared & Analyzed: 07/02/20								
% Moisture	11.0	0.1	%		11.0			0.00	20	
<b>Duplicate (P0G0202-DUP2)</b>	<b>Source: 0G01003-11</b>	Prepared & Analyzed: 07/02/20								
% Moisture	7.0	0.1	%		7.0			0.00	20	
<b>Duplicate (P0G0202-DUP3)</b>	<b>Source: 0G01004-01</b>	Prepared & Analyzed: 07/02/20								
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P0G0202-DUP4)</b>	<b>Source: 0G01009-05</b>	Prepared & Analyzed: 07/02/20								
% Moisture	10.0	0.1	%		13.0			26.1	20	R
<b>Duplicate (P0G0202-DUP5)</b>	<b>Source: 0G01011-01</b>	Prepared & Analyzed: 07/02/20								
% Moisture	5.0	0.1	%		7.0			33.3	20	R
<b>Duplicate (P0G0202-DUP6)</b>	<b>Source: 0G01011-11</b>	Prepared & Analyzed: 07/02/20								
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P0G0202-DUP7)</b>	<b>Source: 0G01012-11</b>	Prepared & Analyzed: 07/02/20								
% Moisture	4.0	0.1	%		3.0			28.6	20	R
<b>Duplicate (P0G0202-DUP8)</b>	<b>Source: 0G01013-06</b>	Prepared & Analyzed: 07/02/20								
% Moisture	6.0	0.1	%		4.0			40.0	20	R

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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0202 - \*\*\* DEFAULT PREP \*\*\*****Duplicate (P0G0202-DUP9)****Source: 0G01013-14**

Prepared &amp; Analyzed: 07/02/20

% Moisture	8.0	0.1	%		7.0			13.3	20	
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**Batch P0G0401 - \*\*\* DEFAULT PREP \*\*\*****Blank (P0G0401-BLK1)**

Prepared &amp; Analyzed: 07/04/20

Chloride	ND	1.00	mg/kg wet							
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**LCS (P0G0401-BS1)**

Prepared &amp; Analyzed: 07/04/20

Chloride	520	1.00	mg/kg wet	500		104	80-120			
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**LCS Dup (P0G0401-BSD1)**

Prepared &amp; Analyzed: 07/04/20

Chloride	530	1.00	mg/kg wet	500		106	80-120	1.92	20	
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**Calibration Blank (P0G0401-CCB1)**

Prepared &amp; Analyzed: 07/04/20

Chloride	0.00		mg/kg wet							
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**Calibration Check (P0G0401-CCV1)**

Prepared &amp; Analyzed: 07/04/20

Chloride	18.8		mg/kg	20.0		94.2	0-200			
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**Calibration Check (P0G0401-CCV2)**

Prepared &amp; Analyzed: 07/04/20

Chloride	18.9		mg/kg	20.0		94.5	0-200			
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**Calibration Check (P0G0401-CCV3)**

Prepared &amp; Analyzed: 07/04/20

Chloride	20.3		mg/kg	20.0		102	0-200			
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**Matrix Spike (P0G0401-MS1)****Source: 0G01009-10**

Prepared &amp; Analyzed: 07/04/20

Chloride	2200	5.68	mg/kg dry	568	1560	113	80-120			
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**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0401 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike (P0G0401-MS2)</b>		<b>Source: 0G01011-10</b>			Prepared & Analyzed: 07/04/20					
Chloride	5840	10.4	mg/kg dry	1040	4730	106	80-120			
<b>Matrix Spike Dup (P0G0401-MSD1)</b>		<b>Source: 0G01009-10</b>			Prepared & Analyzed: 07/04/20					
Chloride	2110	5.68	mg/kg dry	568	1560	96.4	80-120	4.47	20	
<b>Matrix Spike Dup (P0G0401-MSD2)</b>		<b>Source: 0G01011-10</b>			Prepared & Analyzed: 07/04/20					
Chloride	5820	10.4	mg/kg dry	1040	4730	104	80-120	0.250	20	

**Batch P0G0702 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0G0702-BLK1)</b>		Prepared & Analyzed: 07/07/20								
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P0G0702-BS1)</b>		Prepared & Analyzed: 07/07/20								
Chloride	397	1.00	mg/kg wet	400		99.2	80-120			
<b>LCS Dup (P0G0702-BSD1)</b>		Prepared & Analyzed: 07/07/20								
Chloride	397	1.00	mg/kg wet	400		99.2	80-120	0.0454	20	
<b>Calibration Blank (P0G0702-CCB1)</b>		Prepared & Analyzed: 07/07/20								
Chloride	0.00		mg/kg wet							
<b>Calibration Check (P0G0702-CCV1)</b>		Prepared & Analyzed: 07/07/20								
Chloride	18.8		mg/kg	20.0		94.1	0-200			
<b>Calibration Check (P0G0702-CCV2)</b>		Prepared & Analyzed: 07/07/20								
Chloride	18.9		mg/kg	20.0		94.4	0-200			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0702 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P0G0702-CCV3)**

Prepared: 07/07/20 Analyzed: 07/08/20

Chloride	18.9		mg/kg	20.0		94.6	0-200			
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**Matrix Spike (P0G0702-MS1)**

**Source: 0G01013-08**

Prepared & Analyzed: 07/07/20

Chloride	561	1.14	mg/kg dry	568	29.2	93.6	80-120			
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**Matrix Spike (P0G0702-MS2)**

**Source: 0G02002-03**

Prepared & Analyzed: 07/07/20

Chloride	1680	1.11	mg/kg dry	778	824	110	80-120			
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**Matrix Spike Dup (P0G0702-MSD1)**

**Source: 0G01013-08**

Prepared & Analyzed: 07/07/20

Chloride	556	1.14	mg/kg dry	568	29.2	92.8	80-120	0.806	20	
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**Matrix Spike Dup (P0G0702-MSD2)**

**Source: 0G02002-03**

Prepared & Analyzed: 07/07/20

Chloride	1700	1.11	mg/kg dry	778	824	113	80-120	1.40	20	
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0203 - TX 1005****Blank (P0G0203-BLK1)**

Prepared &amp; Analyzed: 07/02/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	74.5		"	100		74.5	70-130			
Surrogate: o-Terphenyl	36.5		"	50.0		73.1	70-130			

**LCS (P0G0203-BS1)**

Prepared &amp; Analyzed: 07/02/20

C6-C12	958	25.0	mg/kg wet	1000		95.8	75-125			
>C12-C28	1040	25.0	"	1000		104	75-125			
Surrogate: 1-Chlorooctane	97.3		"	100		97.3	70-130			
Surrogate: o-Terphenyl	37.9		"	50.0		75.9	70-130			

**LCS Dup (P0G0203-BSD1)**

Prepared &amp; Analyzed: 07/02/20

C6-C12	914	25.0	mg/kg wet	1000		91.4	75-125	4.71	20	
>C12-C28	1000	25.0	"	1000		100	75-125	3.38	20	
Surrogate: 1-Chlorooctane	92.9		"	100		92.9	70-130			
Surrogate: o-Terphenyl	36.2		"	50.0		72.4	70-130			

**Calibration Check (P0G0203-CCV1)**

Prepared &amp; Analyzed: 07/02/20

C6-C12	537	25.0	mg/kg wet	500		107	85-115			
>C12-C28	561	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	95.7		"	100		95.7	70-130			
Surrogate: o-Terphenyl	41.8		"	50.0		83.6	70-130			

**Calibration Check (P0G0203-CCV2)**

Prepared: 07/02/20 Analyzed: 07/03/20

C6-C12	564	25.0	mg/kg wet	500		113	85-115			
>C12-C28	574	25.0	"	500		115	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	44.2		"	50.0		88.3	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0203 - TX 1005****Calibration Check (P0G0203-CCV3)**

Prepared: 07/02/20 Analyzed: 07/04/20

C6-C12	488	25.0	mg/kg wet	500		97.7	85-115			
>C12-C28	552	25.0	"	500		110	85-115			
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	45.2		"	50.0		90.5	70-130			

**Matrix Spike (P0G0203-MS1)**

Source: 0G01012-01

Prepared: 07/02/20 Analyzed: 07/04/20

C6-C12	977	25.3	mg/kg dry	1010	15.9	95.2	75-125			
>C12-C28	1070	25.3	"	1010	367	69.8	75-125			QM-07
Surrogate: 1-Chlorooctane	106		"	101		105	70-130			
Surrogate: o-Terphenyl	45.8		"	50.5		90.6	70-130			

**Matrix Spike Dup (P0G0203-MSD1)**

Source: 0G01012-01

Prepared: 07/02/20 Analyzed: 07/04/20

C6-C12	897	25.3	mg/kg dry	1010	15.9	87.3	75-125	8.67	20	
>C12-C28	1010	25.3	"	1010	367	64.0	75-125	8.68	20	QM-07
Surrogate: 1-Chlorooctane	121		"	101		120	70-130			
Surrogate: o-Terphenyl	43.4		"	50.5		85.9	70-130			

**Batch P0G0204 - TX 1005****Blank (P0G0204-BLK1)**

Prepared &amp; Analyzed: 07/02/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	99.7		"	100		99.7	70-130			
Surrogate: o-Terphenyl	45.3		"	50.0		90.5	70-130			

**LCS (P0G0204-BS1)**

Prepared &amp; Analyzed: 07/02/20

C6-C12	812	25.0	mg/kg wet	1000		81.2	75-125			
>C12-C28	903	25.0	"	1000		90.3	75-125			
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	41.0		"	50.0		82.1	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0G0204 - TX 1005</b>										
<b>LCS Dup (P0G0204-BSD1)</b>				Prepared & Analyzed: 07/02/20						
C6-C12	817	25.0	mg/kg wet	1000		81.7	75-125	0.627	20	
>C12-C28	905	25.0	"	1000		90.5	75-125	0.150	20	
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	40.6		"	50.0		81.3	70-130			
<b>Calibration Check (P0G0204-CCV1)</b>				Prepared & Analyzed: 07/02/20						
C6-C12	486	25.0	mg/kg wet	500		97.1	85-115			
>C12-C28	531	25.0	"	500		106	85-115			
Surrogate: 1-Chlorooctane	105		"	100		105	70-130			
Surrogate: o-Terphenyl	44.6		"	50.0		89.1	70-130			
<b>Calibration Check (P0G0204-CCV2)</b>				Prepared & Analyzed: 07/02/20						
C6-C12	476	25.0	mg/kg wet	500		95.1	85-115			
>C12-C28	523	25.0	"	500		105	85-115			
Surrogate: 1-Chlorooctane	113		"	100		113	70-130			
Surrogate: o-Terphenyl	44.6		"	50.0		89.3	70-130			
<b>Calibration Check (P0G0204-CCV3)</b>				Prepared: 07/02/20 Analyzed: 07/03/20						
C6-C12	511	25.0	mg/kg wet	500		102	85-115			
>C12-C28	556	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	110		"	100		110	70-130			
Surrogate: o-Terphenyl	46.7		"	50.0		93.4	70-130			
<b>Matrix Spike (P0G0204-MS1)</b>				Source: 0G02003-01		Prepared & Analyzed: 07/02/20				
C6-C12	1030	25.0	mg/kg dry	1000	ND	103	75-125			
>C12-C28	1240	25.0	"	1000	1140	9.85	75-125			QM-07
Surrogate: 1-Chlorooctane	119		"	100		119	70-130			
Surrogate: o-Terphenyl	52.0		"	50.0		104	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G0204 - TX 1005**

<b>Matrix Spike Dup (P0G0204-MSD1)</b>	<b>Source: 0G02003-01</b>			<b>Prepared &amp; Analyzed: 07/02/20</b>						
C6-C12	1230	25.0	mg/kg dry	1000	ND	123	75-125	17.1	20	
>C12-C28	1230	25.0	"	1000	1140	8.62	75-125	13.2	20	QM-07
Surrogate: 1-Chlorooctane	142		"	100		142	70-130			QM-07
Surrogate: o-Terphenyl	63.2		"	50.0		126	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Jeff Kindley

Fax:

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R The RPD exceeded the method control limit. The individual analyte QA/QC recoveries, however, were within acceptance limits.

QM-10 LCS/LCSD were analyzed in place of MS/MSD.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/15/2020

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: Plains Mewbourne Toro Project Number: PP-2061 Project Manager: Jeff Kindley	Fax:
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If you have received this material in error, please notify us immediately at 432-686-7235.



**PERMIAAP**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
10014 S. County Road 1213  
Midland, Texas 79706

Phone: 432-686-7235

Project Manager: Jeff KinleyCompany Name: Dean ServiceCompany Address: 12400 WCR 91City/State/Zip: Midland, TX 79707Telephone No.: 432-230-0920Sampler Signature: Jeff Kinley

e-mail:

(Lab use only)  
ORDER #: 0601013

Sylvia Reynolds  
Kylie Jones  
Elizabeth Stiles  
Jeff Kinley

Project Name: Plains Newbawn TereProject #: PD-2061Project Loc: Loc 6, NM

PO #:

Report Format:

☒ Standard☐ TRRP☐ NPDES

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: TX 1005 TX 1008	Antons (Cl, SO <sub>4</sub> , Alkalinity)	BTX 8021B/5030 or BTX 8280	TPH 8015 M	Chlorine	Matrix	Analyze For:	TOTAL:	TOTAL:	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT	
11	AH-1 NE 7'	7'	7'	06/30/20	1200		1																					
12	AH-1 NE 9'	9'	9'	06/30/20	1219		1																					
13	AH-1 NE 11'	11'	11'	06/30/20	1258		1																					
14	AH-1 NE 13'	13'	13'	06/30/20	1305		1																					

Special Instructions: If TP4 results are 1,000 ppm and/or total TPH is 2,500 ppm run next sample down for TPH. If Benzene is 3,000 ppm extract extra 2,500 ppm run next sample down for TPH.

Relinquished by: Jeff Kinley Date: 07/01/20 Time: 9:00 Received by: Elizabeth Stiles Date: 7/1/20 Time: 09:00

Relinquished by: Elizabeth Stiles Date: 7/1/20 Time: 11:41 Received by: Theresa Blewett Date: 7/1/20 Time: 11:41

Laboratory Comments: TPH 8015 M

Sample Containers Intact? Y

WOCs Free of Headspaces? Y

Labels on container(s) Y

Custody seals on container(s) Y

Sample held Delivered Y

by Courier? Y

by Sampler/Client Rep. Y

Temperature Upon Receipt 5 °C

Adjusted: 5 °C

Factor: 1.2

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-2061

Location: Lea County, NM

Lab Order Number: 0G13010



NELAP/TCEQ # T104704516-17-8

Report Date: 07/15/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
NE WALL @ 5'	0G13010-01	Soil	07/13/20 12:40	07-13-2020 16:50
NE WALL @ 7'	0G13010-02	Soil	07/13/20 13:00	07-13-2020 16:50
AH-1 @ 13'	0G13010-03	Soil	07/13/20 11:35	07-13-2020 16:50
AH-2 @ 13'	0G13010-05	Soil	07/13/20 09:45	07-13-2020 16:50

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**NE WALL @ 5'****0G13010-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****General Chemistry Parameters by EPA / Standard Methods**

% Moisture	9.0	0.1	%	1	P0G1501	07/15/20	07/15/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	260	27.5	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
>C12-C28	1390	27.5	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
>C28-C35	213	27.5	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
Surrogate: 1-Chlorooctane		88.0 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
Surrogate: o-Terphenyl		99.5 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	1870	27.5	mg/kg dry	1	[CALC]	07/14/20	07/14/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**NE WALL @ 7'**  
**0G13010-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>14.0</b>	0.1	%	1	P0G1501	07/15/20	07/15/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	29.1	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
>C12-C28	<b>144</b>	29.1	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
>C28-C35	<b>34.8</b>	29.1	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
Surrogate: 1-Chlorooctane		77.9 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
Surrogate: o-Terphenyl		94.0 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>179</b>	29.1	mg/kg dry	1	[CALC]	07/14/20	07/14/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 @ 13'**  
**0G13010-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>5.0</b>	0.1	%	1	P0G1501	07/15/20	07/15/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
>C12-C28	<b>226</b>	26.3	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
>C28-C35	<b>40.3</b>	26.3	mg/kg dry	1	P0G1411	07/14/20	07/14/20	TPH 8015M
Surrogate: 1-Chlorooctane		85.3 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
Surrogate: o-Terphenyl		97.2 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>267</b>	26.3	mg/kg dry	1	[CALC]	07/14/20	07/14/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 13'**  
**0G13010-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>4.0</b>	0.1	%	1	P0G1501	07/15/20	07/15/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>237</b>	130	mg/kg dry	5	P0G1411	07/14/20	07/14/20	TPH 8015M
<b>&gt;C12-C28</b>	<b>4680</b>	130	mg/kg dry	5	P0G1411	07/14/20	07/14/20	TPH 8015M
<b>&gt;C28-C35</b>	<b>1210</b>	130	mg/kg dry	5	P0G1411	07/14/20	07/14/20	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>		79.3 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
<i>Surrogate: o-Terphenyl</i>		93.7 %	70-130		P0G1411	07/14/20	07/14/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>6140</b>	130	mg/kg dry	5	[CALC]	07/14/20	07/14/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0G1501 - *** DEFAULT PREP ***</b>										
<b>Blank (P0G1501-BLK1)</b>	Prepared & Analyzed: 07/15/20									
% Moisture	ND	0.1	%							
<b>Blank (P0G1501-BLK2)</b>	Prepared & Analyzed: 07/15/20									
% Moisture	ND	0.1	%							
<b>Blank (P0G1501-BLK3)</b>	Prepared & Analyzed: 07/15/20									
% Moisture	ND	0.1	%							
<b>Duplicate (P0G1501-DUP1)</b>	<b>Source: 0G14002-04</b>		Prepared & Analyzed: 07/15/20							
% Moisture	9.0	0.1	%		10.0			10.5	20	
<b>Duplicate (P0G1501-DUP2)</b>	<b>Source: 0G14001-05</b>		Prepared & Analyzed: 07/15/20							
% Moisture	8.0	0.1	%		8.0			0.00	20	
<b>Duplicate (P0G1501-DUP3)</b>	<b>Source: 0G14001-20</b>		Prepared & Analyzed: 07/15/20							
% Moisture	10.0	0.1	%		10.0			0.00	20	
<b>Duplicate (P0G1501-DUP4)</b>	<b>Source: 0G14003-10</b>		Prepared & Analyzed: 07/15/20							
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P0G1501-DUP5)</b>	<b>Source: 0G14005-02</b>		Prepared & Analyzed: 07/15/20							
% Moisture	4.0	0.1	%		3.0			28.6	20	R3

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G1411 - TX 1005****Blank (P0G1411-BLK1)**

Prepared &amp; Analyzed: 07/14/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	90.0		"	100		90.0	70-130			
Surrogate: o-Terphenyl	47.4		"	50.0		94.9	70-130			

**LCS (P0G1411-BS1)**

Prepared &amp; Analyzed: 07/14/20

C6-C12	934	25.0	mg/kg wet	1000		93.4	75-125			
>C12-C28	1050	25.0	"	1000		105	75-125			
Surrogate: 1-Chlorooctane	77.6		"	100		77.6	70-130			
Surrogate: o-Terphenyl	36.8		"	50.0		73.6	70-130			

**LCS Dup (P0G1411-BSD1)**

Prepared &amp; Analyzed: 07/14/20

C6-C12	1010	25.0	mg/kg wet	1000		101	75-125	8.22	20	
>C12-C28	1180	25.0	"	1000		118	75-125	11.4	20	
Surrogate: 1-Chlorooctane	97.6		"	100		97.6	70-130			
Surrogate: o-Terphenyl	41.2		"	50.0		82.3	70-130			

**Calibration Check (P0G1411-CCV1)**

Prepared &amp; Analyzed: 07/14/20

C6-C12	487	25.0	mg/kg wet	500		97.4	85-115			
>C12-C28	519	25.0	"	500		104	85-115			
Surrogate: 1-Chlorooctane	75.7		"	100		75.7	70-130			
Surrogate: o-Terphenyl	37.6		"	50.0		75.2	70-130			

**Calibration Check (P0G1411-CCV2)**

Prepared &amp; Analyzed: 07/14/20

C6-C12	514	25.0	mg/kg wet	500		103	85-115			
>C12-C28	542	25.0	"	500		108	85-115			
Surrogate: 1-Chlorooctane	85.9		"	100		85.9	70-130			
Surrogate: o-Terphenyl	43.5		"	50.0		87.0	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0G1411 - TX 1005****Calibration Check (P0G1411-CCV3)**

Prepared: 07/14/20 Analyzed: 07/15/20

C6-C12	521	25.0	mg/kg wet	500		104	85-115			
>C12-C28	558	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	88.6		"	100		88.6	70-130			
Surrogate: o-Terphenyl	43.4		"	50.0		86.9	70-130			

**Matrix Spike (P0G1411-MS1)**

Source: 0G14001-04

Prepared: 07/14/20 Analyzed: 07/15/20

C6-C12	1150	25.3	mg/kg dry	1010	15.0	112	75-125			
>C12-C28	1250	25.3	"	1010	36.4	120	75-125			
Surrogate: 1-Chlorooctane	106		"	101		105	70-130			
Surrogate: o-Terphenyl	49.9		"	50.5		98.9	70-130			

**Matrix Spike Dup (P0G1411-MSD1)**

Source: 0G14001-04

Prepared: 07/14/20 Analyzed: 07/15/20

C6-C12	1220	25.3	mg/kg dry	1010	15.0	119	75-125	5.91	20	
>C12-C28	1350	25.3	"	1010	36.4	130	75-125	7.87	20	QM-05
Surrogate: 1-Chlorooctane	98.7		"	101		97.7	70-130			
Surrogate: o-Terphenyl	48.3		"	50.5		95.7	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

ROI Received on Ice

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/15/2020

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



**PERMIA LAB**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
10014 S. County Road 1213  
Midland, Texas 79706

Phone: 432-886-7235

Project Manager: Jeffrey KindleyCompany Name: Dean SavarisCompany Address: 12400 WCR 91City/State/Zip: Midland, TX 79707Telephone No: 432-230-0920Sampler Signature: Jeffrey KindleyFax No:  
e-mail:

Jeffrey Kindley  
Sylvia Reynolds  
Kayla Long  
Emily Smith  
Stuart

Project Name: Plans Newhouse T80Project #: P0-2061Project Loc: LaCru, New MexicoPO #: SRS # 2020-50

Report Format:

☒ Standard☐ TRRP☐ NPDES

(Lab use only)

ORDER #: 0613010

LAB # (Lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DW=Drinking Water SL=Sludge GW = Groundwater S=Solid NP=Non-Potable Specify Other	TPH: TX 1005 TX 1006 Anions (Cl, SO <sub>4</sub> , Alkalinity) BTEX 8021B/5030 or BTEX 8280	TPH 8015 m ext	Standard TAT
1	NE wall (5')	5'	5'	07/13/20	1240		1	✓											
2	NE wall (7') *	7'	7'	07/13/20	1300		1	✓											
3	AH-1 (13')	13'	13'	07/13/20	1135		1	✓											
4	AH-1 (14') *	14'	14'	07/13/20	1144		1	✓											
5	AH-2 (13')	13'	13'	07/13/20	945		1	✓											

Special Instructions: \* IF TPH DSD/600 n 2, 1, 200 and/or Total TPH 2 2500 run next sample down for TPH

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

VOCs Free of Headspace?

Sealed Containers intact?

Labels on Containers?

Custody seals on containers?

Sealed Containers?

Sample Hand Delivered?

by Courier?

Temperature Upon Receipt:

Adjusted:

Factor:

Received: 4/29

Factor: 0.91

Received: 4/29

Factor: 0.91

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-2061

Location: Jal, NM

Lab Order Number: 0G31008



**NELAP/TCEQ # T104704516-17-8**

Report Date: 08/10/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH-2 @ 15'	0G31008-01	Soil	07/30/20 14:45	07-31-2020 14:59
AH-2 @ 14'	0G31008-02	Soil	07/30/20 14:40	07-31-2020 14:59
BH-1 @ 4'	0G31008-03	Soil	07/31/20 10:30	07-31-2020 14:59
BH-1 NSW @ 2'	0G31008-04	Soil	07/31/20 09:40	07-31-2020 14:59
BH-1 ESW @ 2'	0G31008-05	Soil	07/31/20 09:52	07-31-2020 14:59
BH-1 WSW @ 2'	0G31008-06	Soil	07/31/20 09:35	07-31-2020 14:59
BH-1 SSW @ 3'	0G31008-07	Soil	07/31/20 10:35	07-31-2020 14:59
SSW @ 2'	0G31008-08	Soil	07/31/20 09:35	07-31-2020 14:59
SSW @ 8'	0G31008-09	Soil	07/31/20 10:36	07-31-2020 14:59
WSW @ 2'	0G31008-10	Soil	07/31/20 10:15	07-31-2020 14:59

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 15'**  
**0G31008-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		81.4 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.4 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	63.8	1.09	mg/kg dry	1	P0H0705	08/07/20	08/08/20	EPA 300.0	
% Moisture	8.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.2	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	27.2	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	27.2	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		84.1 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		102 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.2	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-2 @ 14'**  
**0G31008-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.9 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		89.0 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	68.5	1.10	mg/kg dry	1	P0H0705	08/07/20	08/08/20	EPA 300.0	
% Moisture	9.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	27.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	27.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		96.6 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	27.5	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 @ 4'**  
**0G31008-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.2 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.3 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	86.1	1.05	mg/kg dry	1	P0H0705	08/07/20	08/08/20	EPA 300.0	
% Moisture	5.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.3	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	103	26.3	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	26.3	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		93.3 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		110 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>103</b>	26.3	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 NSW @ 2'**  
**0G31008-04 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		98.4 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		90.4 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	145	1.02	mg/kg dry	1	P0H0705	08/07/20	08/08/20	EPA 300.0	
% Moisture	2.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	25.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		86.3 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		105 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.5	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 ESW @ 2'**  
**0G31008-05 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		94.1 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.6 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	120	1.03	mg/kg dry	1	P0H0705	08/07/20	08/08/20	EPA 300.0	
% Moisture	3.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.8	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	25.8	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	25.8	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		93.9 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		111 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	25.8	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 WSW @ 2'**  
**0G31008-06 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.0 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.8 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	76.0	1.04	mg/kg dry	1	P0H0705	08/07/20	08/08/20	EPA 300.0	
% Moisture	4.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.0	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	26.0	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	26.0	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		96.8 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		115 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.0	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 SSW @ 3'**  
**0G31008-07 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

<b>Benzene</b>	<b>3.34</b>	0.100	mg/kg dry	100	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Toluene</b>	<b>20.3</b>	0.100	mg/kg dry	100	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>14.3</b>	0.100	mg/kg dry	100	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>40.9</b>	0.200	mg/kg dry	100	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Xylene (o)</b>	<b>16.1</b>	0.100	mg/kg dry	100	P0H0302	08/03/20	08/03/20	EPA 8021B	
<i>Surrogate: 4-Bromofluorobenzene</i>		69.9 %		75-125	P0H0302	08/03/20	08/03/20	EPA 8021B	S-GC
<i>Surrogate: 1,4-Difluorobenzene</i>		90.5 %		75-125	P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>60.4</b>	1.08	mg/kg dry	1	P0H0803	08/08/20	08/08/20	EPA 300.0	
<b>% Moisture</b>	<b>7.0</b>	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2530</b>	134	mg/kg dry	5	P0H0306	08/03/20	08/03/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>7640</b>	134	mg/kg dry	5	P0H0306	08/03/20	08/03/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>924</b>	134	mg/kg dry	5	P0H0306	08/03/20	08/03/20	TPH 8015M	
<i>Surrogate: 1-Chlorooctane</i>		115 %		70-130	P0H0306	08/03/20	08/03/20	TPH 8015M	
<i>Surrogate: o-Terphenyl</i>		135 %		70-130	P0H0306	08/03/20	08/03/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>11100</b>	134	mg/kg dry	5	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**SSW @ 2'**  
**0G31008-08 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Toluene</b>	<b>0.00183</b>	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00138</b>	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00728</b>	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00170</b>	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		97.6 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		88.6 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>64.8</b>	1.02	mg/kg dry	1	P0H0803	08/08/20	08/08/20	EPA 300.0	
<b>% Moisture</b>	<b>2.0</b>	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	25.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>41.6</b>	25.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	25.5	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		130 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>41.6</b>	25.5	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**SSW @ 8'**  
**0G31008-09 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		92.9 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		92.2 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	61.5	1.08	mg/kg dry	1	P0H0803	08/08/20	08/08/20	EPA 300.0	
% Moisture	7.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.9	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	26.9	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	26.9	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		102 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		119 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.9	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**WSW @ 2'**  
**0G31008-10 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**Organics by GC**

Benzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Toluene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Xylene (o)	ND	0.00100	mg/kg dry	1	P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		93.9 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		91.7 %	75-125		P0H0302	08/03/20	08/03/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	84.7	1.06	mg/kg dry	1	P0H0803	08/08/20	08/08/20	EPA 300.0	
% Moisture	6.0	0.1	%	1	P0H0402	08/04/20	08/04/20	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C12-C28	ND	26.6	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
>C28-C35	ND	26.6	mg/kg dry	1	P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: 1-Chlorooctane		100 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Surrogate: o-Terphenyl		117 %	70-130		P0H0306	08/03/20	08/03/20	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	08/03/20	08/03/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0H0302 - General Preparation (GC)****Blank (P0H0302-BLK1)**

Prepared &amp; Analyzed: 08/03/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.109		"	0.120		90.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		89.9	75-125			

**LCS (P0H0302-BS1)**

Prepared &amp; Analyzed: 08/03/20

Benzene	0.108	0.00100	mg/kg wet	0.100		108	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120			
Xylene (p/m)	0.223	0.00200	"	0.200		111	80-120			
Xylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 4-Bromofluorobenzene	0.113		"	0.120		93.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.110		"	0.120		91.5	75-125			

**LCS Dup (P0H0302-BSD1)**

Prepared &amp; Analyzed: 08/03/20

Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120	5.82	20	
Toluene	0.110	0.00100	"	0.100		110	80-120	4.26	20	
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120	2.70	20	
Xylene (p/m)	0.222	0.00200	"	0.200		111	80-120	0.265	20	
Xylene (o)	0.115	0.00100	"	0.100		115	80-120	0.0524	20	
Surrogate: 4-Bromofluorobenzene	0.110		"	0.120		91.8	75-125			
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.7	75-125			

**Calibration Blank (P0H0302-CCB1)**

Prepared &amp; Analyzed: 08/03/20

Benzene	0.00		mg/kg wet							
Toluene	0.860		"							
Ethylbenzene	0.320		"							
Xylene (p/m)	0.720		"							
Xylene (o)	0.310		"							
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		90.1	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Organics by GC - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0H0302 - General Preparation (GC)****Calibration Check (P0H0302-CCV1)**

Prepared &amp; Analyzed: 08/03/20

Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0990	0.00100	"	0.100		99.0	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.210	0.00200	"	0.200		105	80-120			
Xylene (o)	0.109	0.00100	"	0.100		109	80-120			
Surrogate: 4-Bromofluorobenzene	0.114		"	0.120		95.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.111		"	0.120		92.4	75-125			

**Calibration Check (P0H0302-CCV2)**

Prepared &amp; Analyzed: 08/03/20

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0997	0.00100	"	0.100		99.7	80-120			
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.6	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.3	75-125			
Surrogate: 1,4-Difluorobenzene	0.113		"	0.120		94.3	75-125			

**Matrix Spike (P0H0302-MS1)**

Source: 0G31008-01

Prepared &amp; Analyzed: 08/03/20

Benzene	0.0848	0.00100	mg/kg dry	0.109	ND	78.0	80-120			QM-07
Toluene	0.0882	0.00100	"	0.109	ND	81.2	80-120			
Ethylbenzene	0.112	0.00100	"	0.109	ND	103	80-120			
Xylene (p/m)	0.180	0.00200	"	0.217	ND	82.8	80-120			
Xylene (o)	0.0906	0.00100	"	0.109	ND	83.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.121		"	0.130		93.1	75-125			
Surrogate: 1,4-Difluorobenzene	0.121		"	0.130		92.7	75-125			

**Matrix Spike Dup (P0H0302-MSD1)**

Source: 0G31008-01

Prepared &amp; Analyzed: 08/03/20

Benzene	0.0924	0.00100	mg/kg dry	0.109	ND	85.0	80-120	8.67	20	
Toluene	0.101	0.00100	"	0.109	ND	92.9	80-120	13.5	20	
Ethylbenzene	0.129	0.00100	"	0.109	ND	118	80-120	13.7	20	
Xylene (p/m)	0.206	0.00200	"	0.217	ND	94.6	80-120	13.2	20	
Xylene (o)	0.102	0.00100	"	0.109	ND	93.9	80-120	12.0	20	
Surrogate: 4-Bromofluorobenzene	0.128		"	0.130		98.3	75-125			
Surrogate: 1,4-Difluorobenzene	0.122		"	0.130		93.6	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0H0402 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0H0402-BLK1)</b>	Prepared & Analyzed: 08/04/20									
% Moisture	ND	0.1	%							
<b>Blank (P0H0402-BLK2)</b>	Prepared & Analyzed: 08/04/20									
% Moisture	ND	0.1	%							
<b>Blank (P0H0402-BLK3)</b>	Prepared & Analyzed: 08/04/20									
% Moisture	ND	0.1	%							
<b>Duplicate (P0H0402-DUP1)</b>	<b>Source: 0G30014-01</b>		Prepared & Analyzed: 08/04/20							
% Moisture	10.0	0.1	%		10.0			0.00	20	
<b>Duplicate (P0H0402-DUP2)</b>	<b>Source: 0G31001-06</b>		Prepared & Analyzed: 08/04/20							
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P0H0402-DUP3)</b>	<b>Source: 0G31007-02</b>		Prepared & Analyzed: 08/04/20							
% Moisture	8.0	0.1	%		8.0			0.00	20	
<b>Duplicate (P0H0402-DUP4)</b>	<b>Source: 0G31008-05</b>		Prepared & Analyzed: 08/04/20							
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P0H0402-DUP5)</b>	<b>Source: 0H03007-03</b>		Prepared & Analyzed: 08/04/20							
% Moisture	7.0	0.1	%		7.0			0.00	20	
<b>Duplicate (P0H0402-DUP6)</b>	<b>Source: 0H03007-13</b>		Prepared & Analyzed: 08/04/20							
% Moisture	2.0	0.1	%		2.0			0.00	20	
<b>Duplicate (P0H0402-DUP7)</b>	<b>Source: 0H03011-03</b>		Prepared & Analyzed: 08/04/20							
% Moisture	6.0	0.1	%		6.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0H0705 - \*\*\* DEFAULT PREP \*\*\*****LCS (P0H0705-BS1)**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	399	1.00	mg/kg wet	400		99.8	80-120			
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**LCS Dup (P0H0705-BSD1)**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	399	1.00	mg/kg wet	400		99.8	80-120	0.0125	20	
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**Calibration Check (P0H0705-CCV1)**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	20.4		mg/kg	20.0		102	0-200			
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**Calibration Check (P0H0705-CCV2)**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	20.4		mg/kg	20.0		102	0-200			
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**Calibration Check (P0H0705-CCV3)**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	19.7		mg/kg	20.0		98.6	0-200			
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**Matrix Spike (P0H0705-MS1)****Source: 0G31002-02**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	16800	54.3	mg/kg dry	5430	11100	105	80-120			
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**Matrix Spike (P0H0705-MS2)****Source: 0G31007-03**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	2320	5.43	mg/kg dry	543	1780	101	80-120			
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**Matrix Spike Dup (P0H0705-MSD1)****Source: 0G31002-02**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	16800	54.3	mg/kg dry	5430	11100	105	80-120	0.0226	20	
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**Matrix Spike Dup (P0H0705-MSD2)****Source: 0G31007-03**

Prepared: 08/07/20 Analyzed: 08/08/20

Chloride	2380	5.43	mg/kg dry	543	1780	110	80-120	2.27	20	
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**Batch P0H0803 - \*\*\* DEFAULT PREP \*\*\*****LCS (P0H0803-BS1)**

Prepared &amp; Analyzed: 08/08/20

Chloride	394	1.00	mg/kg wet	400		98.4	80-120			
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0H0803 - *** DEFAULT PREP ***</b>										
<b>LCS Dup (P0H0803-BSD1)</b>				Prepared & Analyzed: 08/08/20						
Chloride	394	1.00	mg/kg wet	400		98.6	80-120	0.246	20	
<b>Calibration Check (P0H0803-CCV1)</b>				Prepared & Analyzed: 08/08/20						
Chloride	20.1		mg/kg	20.0		101	0-200			
<b>Calibration Check (P0H0803-CCV2)</b>				Prepared & Analyzed: 08/08/20						
Chloride	20.0		mg/kg	20.0		100	0-200			
<b>Calibration Check (P0H0803-CCV3)</b>				Prepared: 08/08/20 Analyzed: 08/09/20						
Chloride	19.8		mg/kg	20.0		99.0	0-200			
<b>Matrix Spike (P0H0803-MS1)</b>				<b>Source: 0G31008-07</b>		Prepared & Analyzed: 08/08/20				
Chloride	667	1.08	mg/kg dry	538	60.4	113	80-120			
<b>Matrix Spike (P0H0803-MS2)</b>				<b>Source: 0H03007-05</b>		Prepared: 08/08/20 Analyzed: 08/09/20				
Chloride	8820	26.0	mg/kg dry	2600	5920	111	80-120			
<b>Matrix Spike Dup (P0H0803-MSD1)</b>				<b>Source: 0G31008-07</b>		Prepared & Analyzed: 08/08/20				
Chloride	594	1.08	mg/kg dry	538	60.4	99.3	80-120	11.5	20	
<b>Matrix Spike Dup (P0H0803-MSD2)</b>				<b>Source: 0H03007-05</b>		Prepared: 08/08/20 Analyzed: 08/09/20				
Chloride	8530	26.0	mg/kg dry	2600	5920	100	80-120	3.37	20	

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0H0306 - TX 1005****Blank (P0H0306-BLK1)**

Prepared &amp; Analyzed: 08/03/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	91.7		"	100		91.7	70-130			
Surrogate: o-Terphenyl	50.5		"	50.0		101	70-130			

**LCS (P0H0306-BS1)**

Prepared &amp; Analyzed: 08/03/20

C6-C12	918	25.0	mg/kg wet	1000		91.8	75-125			
>C12-C28	1120	25.0	"	1000		112	75-125			
Surrogate: 1-Chlorooctane	114		"	100		114	70-130			
Surrogate: o-Terphenyl	52.9		"	50.0		106	70-130			

**LCS Dup (P0H0306-BSD1)**

Prepared &amp; Analyzed: 08/03/20

C6-C12	854	25.0	mg/kg wet	1000		85.4	75-125	7.25	20	
>C12-C28	1060	25.0	"	1000		106	75-125	5.15	20	
Surrogate: 1-Chlorooctane	107		"	100		107	70-130			
Surrogate: o-Terphenyl	49.8		"	50.0		99.7	70-130			

**Calibration Check (P0H0306-CCV1)**

Prepared &amp; Analyzed: 08/03/20

C6-C12	469	25.0	mg/kg wet	500		93.9	85-115			
>C12-C28	535	25.0	"	500		107	85-115			
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	51.2		"	50.0		102	70-130			

**Calibration Check (P0H0306-CCV2)**

Prepared &amp; Analyzed: 08/03/20

C6-C12	485	25.0	mg/kg wet	500		96.9	85-115			
>C12-C28	543	25.0	"	500		109	85-115			
Surrogate: 1-Chlorooctane	106		"	100		106	70-130			
Surrogate: o-Terphenyl	51.8		"	50.0		104	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0H0306 - TX 1005****Calibration Check (P0H0306-CCV3)**

Prepared: 08/03/20 Analyzed: 08/04/20

C6-C12	465	25.0	mg/kg wet	500		93.0	85-115			
>C12-C28	517	25.0	"	500		103	85-115			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	51.0		"	50.0		102	70-130			

**Matrix Spike (P0H0306-MS1)**

Source: 0H03006-03

Prepared: 08/03/20 Analyzed: 08/04/20

C6-C12	1050	25.8	mg/kg dry	1030	13.5	101	75-125			
>C12-C28	1990	25.8	"	1030	861	110	75-125			
Surrogate: 1-Chlorooctane	122		"	103		119	70-130			
Surrogate: o-Terphenyl	65.7		"	51.5		127	70-130			

**Matrix Spike Dup (P0H0306-MSD1)**

Source: 0H03006-03

Prepared: 08/03/20 Analyzed: 08/04/20

C6-C12	1050	25.8	mg/kg dry	1030	13.5	101	75-125	0.134	20	
>C12-C28	1730	25.8	"	1030	861	84.3	75-125	26.4	20	R3
Surrogate: 1-Chlorooctane	122		"	103		119	70-130			
Surrogate: o-Terphenyl	63.9		"	51.5		124	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

8/10/2020

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: Plains Mewbourne Toro Project Number: PP-2061 Project Manager: Sylwia Reynolds	Fax:
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If you have received this material in error, please notify us immediately at 432-686-7235.



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-2061

Location: Lea County, NM

Lab Order Number: 0I04004



NELAP/TCEQ # T104704516-17-8

Report Date: 09/08/20



Dean	Project: Plains Mewbourne Toro	Fax:
12600 W County Rd 91	Project Number: PP-2061	
Midland TX, 79707	Project Manager: Sylwia Reynolds	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 SSW @ 3'	0I04004-01	Soil	09/03/20 07:19	09-04-2020 10:09
AH-1 SE @ 8'	0I04004-02	Soil	09/03/20 12:55	09-04-2020 10:09
AH-1 SE @ 9'	0I04004-03	Soil	09/03/20 12:57	09-04-2020 10:09

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 SSW @ 3'****0104004-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

<b>Benzene</b>	<b>0.0176</b>	0.00101	mg/kg dry	1	P010408	09/04/20	09/04/20	EPA 8021B	
<b>Toluene</b>	<b>0.0218</b>	0.00101	mg/kg dry	1	P010408	09/04/20	09/04/20	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.00419</b>	0.00101	mg/kg dry	1	P010408	09/04/20	09/04/20	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00584</b>	0.00202	mg/kg dry	1	P010408	09/04/20	09/04/20	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00378</b>	0.00101	mg/kg dry	1	P010408	09/04/20	09/04/20	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		81.4 %	75-125		P010408	09/04/20	09/04/20	EPA 8021B	
Surrogate: 1,4-Difluorobenzene		93.9 %	75-125		P010408	09/04/20	09/04/20	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>1.0</b>	0.1	%	1	P010802	09/08/20	09/08/20	ASTM D2216	
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>ND</b>	25.3	mg/kg dry	1	P010406	09/04/20	09/04/20	TPH 8015M	
<b>&gt;C12-C28</b>	<b>2100</b>	25.3	mg/kg dry	1	P010406	09/04/20	09/04/20	TPH 8015M	
<b>&gt;C28-C35</b>	<b>330</b>	25.3	mg/kg dry	1	P010406	09/04/20	09/04/20	TPH 8015M	
Surrogate: 1-Chlorooctane		110 %	70-130		P010406	09/04/20	09/04/20	TPH 8015M	
Surrogate: o-Terphenyl		127 %	70-130		P010406	09/04/20	09/04/20	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>2430</b>	25.3	mg/kg dry	1	[CALC]	09/04/20	09/04/20	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 SE @ 8'****0104004-02 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>8.0</b>	0.1	%	1	P010802	09/08/20	09/08/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>806</b>	136	mg/kg dry	5	P010406	09/04/20	09/04/20	TPH 8015M
<b>&gt;C12-C28</b>	<b>9420</b>	136	mg/kg dry	5	P010406	09/04/20	09/04/20	TPH 8015M
<b>&gt;C28-C35</b>	<b>2950</b>	136	mg/kg dry	5	P010406	09/04/20	09/04/20	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>		99.9 %	70-130		P010406	09/04/20	09/04/20	TPH 8015M
<i>Surrogate: o-Terphenyl</i>		125 %	70-130		P010406	09/04/20	09/04/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>13200</b>	136	mg/kg dry	5	[CALC]	09/04/20	09/04/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**AH-1 SE @ 9'****0104004-03 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P010801	09/08/20	09/08/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>299</b>	137	mg/kg dry	5	P010406	09/04/20	09/04/20	TPH 8015M
<b>&gt;C12-C28</b>	<b>4820</b>	137	mg/kg dry	5	P010406	09/04/20	09/04/20	TPH 8015M
<b>&gt;C28-C35</b>	<b>1180</b>	137	mg/kg dry	5	P010406	09/04/20	09/04/20	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>		103 %	70-130		P010406	09/04/20	09/04/20	TPH 8015M
<i>Surrogate: o-Terphenyl</i>		126 %	70-130		P010406	09/04/20	09/04/20	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>6300</b>	137	mg/kg dry	5	[CALC]	09/04/20	09/04/20	calc

Permian Basin Environmental Lab, L.P.

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Midland TX, 79707

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Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P010408 - General Preparation (GC)****Blank (P010408-BLK1)**

Prepared &amp; Analyzed: 09/04/20

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.105		"	0.120		87.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.103		"	0.120		85.5	75-125			

**LCS (P010408-BS1)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.108	0.00100	mg/kg wet	0.100		108	70-130			
Toluene	0.102	0.00100	"	0.100		102	70-130			
Ethylbenzene	0.106	0.00100	"	0.100		106	70-130			
Xylene (p/m)	0.215	0.00200	"	0.200		107	70-130			
Xylene (o)	0.108	0.00100	"	0.100		108	70-130			
Surrogate: 1,4-Difluorobenzene	0.107		"	0.120		89.1	75-125			
Surrogate: 4-Bromofluorobenzene	0.102		"	0.120		85.2	75-125			

**LCS Dup (P010408-BSD1)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.0962	0.00100	mg/kg wet	0.100		96.2	70-130	11.3	20	
Toluene	0.0890	0.00100	"	0.100		89.0	70-130	13.8	20	
Ethylbenzene	0.101	0.00100	"	0.100		101	70-130	4.32	20	
Xylene (p/m)	0.189	0.00200	"	0.200		94.5	70-130	12.7	20	
Xylene (o)	0.0937	0.00100	"	0.100		93.7	70-130	14.1	20	
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		89.9	75-125			
Surrogate: 4-Bromofluorobenzene	0.100		"	0.120		83.4	75-125			

**Calibration Blank (P010408-CCB1)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.00		mg/kg wet							
Toluene	0.680		"							
Ethylbenzene	0.420		"							
Xylene (p/m)	0.650		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.101		"	0.120		84.2	75-125			
Surrogate: 4-Bromofluorobenzene	0.101		"	0.120		84.0	75-125			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P010408 - General Preparation (GC)****Calibration Blank (P010408-CCB2)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.00		mg/kg wet							
Toluene	0.320		"							
Ethylbenzene	0.430		"							
Xylene (p/m)	0.810		"							
Xylene (o)	0.380		"							
Surrogate: 4-Bromofluorobenzene	0.107		"	0.120		89.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.103		"	0.120		85.6	75-125			

**Calibration Check (P010408-CCV1)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.102	0.00100	mg/kg wet	0.100		102	80-120			
Toluene	0.0979	0.00100	"	0.100		97.9	80-120			
Ethylbenzene	0.103	0.00100	"	0.100		103	80-120			
Xylene (p/m)	0.205	0.00200	"	0.200		102	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 4-Bromofluorobenzene	0.101		"	0.120		84.1	75-125			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.120		90.0	75-125			

**Calibration Check (P010408-CCV2)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.0958	0.00100	mg/kg wet	0.100		95.8	80-120			
Toluene	0.0887	0.00100	"	0.100		88.7	80-120			
Ethylbenzene	0.0901	0.00100	"	0.100		90.1	80-120			
Xylene (p/m)	0.181	0.00200	"	0.200		90.4	80-120			
Xylene (o)	0.0909	0.00100	"	0.100		90.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.0991		"	0.120		82.6	75-125			
Surrogate: 1,4-Difluorobenzene	0.107		"	0.120		89.0	75-125			

**Calibration Check (P010408-CCV3)**

Prepared &amp; Analyzed: 09/04/20

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.0966	0.00100	"	0.100		96.6	80-120			
Ethylbenzene	0.0995	0.00100	"	0.100		99.5	80-120			
Xylene (p/m)	0.188	0.00200	"	0.200		93.9	80-120			
Xylene (o)	0.0973	0.00100	"	0.100		97.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.0965		"	0.120		80.4	75-125			
Surrogate: 1,4-Difluorobenzene	0.107		"	0.120		89.5	75-125			

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0I0408 - General Preparation (GC)**

<b>Matrix Spike (P0I0408-MS1)</b>		<b>Source: 0I04004-01</b>			<b>Prepared &amp; Analyzed: 09/04/20</b>					
Benzene	0.0712	0.00101	mg/kg dry	0.101	0.0176	53.0	80-120			QM-07
Toluene	0.0538	0.00101	"	0.101	0.0218	31.7	80-120			QM-07
Ethylbenzene	0.0475	0.00101	"	0.101	0.00419	42.8	80-120			QM-07
Xylene (p/m)	0.0771	0.00202	"	0.202	0.00584	35.2	80-120			QM-07
Xylene (o)	0.0385	0.00101	"	0.101	0.00378	34.4	80-120			QM-07
Surrogate: 1,4-Difluorobenzene	0.113		"	0.121		93.3	75-125			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.121		95.9	75-125			

<b>Matrix Spike Dup (P0I0408-MSD1)</b>		<b>Source: 0I04004-01</b>			<b>Prepared &amp; Analyzed: 09/04/20</b>					
Benzene	0.0757	0.00101	mg/kg dry	0.101	0.0176	57.6	80-120	8.17	20	QM-07
Toluene	0.0583	0.00101	"	0.101	0.0218	36.2	80-120	13.3	20	QM-07
Ethylbenzene	0.0493	0.00101	"	0.101	0.00419	44.7	80-120	4.16	20	QM-07
Xylene (p/m)	0.0776	0.00202	"	0.202	0.00584	35.5	80-120	0.805	20	QM-07
Xylene (o)	0.0358	0.00101	"	0.101	0.00378	31.7	80-120	8.20	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.0994		"	0.121		82.0	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.121		95.1	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0I0801 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0I0801-BLK1)</b>	Prepared & Analyzed: 09/08/20									
% Moisture	ND	0.1	%							
<b>Duplicate (P0I0801-DUP1)</b>	Source: 0104007-05 Prepared & Analyzed: 09/08/20									
% Moisture	6.0	0.1	%		8.0			28.6	20	R3
<b>Duplicate (P0I0801-DUP2)</b>	Source: 0104008-01 Prepared & Analyzed: 09/08/20									
% Moisture	1.0	0.1	%		1.0			0.00	20	

**Batch P0I0802 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P0I0802-BLK1)</b>	Prepared & Analyzed: 09/08/20									
% Moisture	ND	0.1	%							
<b>Blank (P0I0802-BLK2)</b>	Prepared & Analyzed: 09/08/20									
% Moisture	ND	0.1	%							
<b>Blank (P0I0802-BLK3)</b>	Prepared & Analyzed: 09/08/20									
% Moisture	ND	0.1	%							
<b>Blank (P0I0802-BLK4)</b>	Prepared & Analyzed: 09/08/20									
% Moisture	ND	0.1	%							
<b>Blank (P0I0802-BLK5)</b>	Prepared & Analyzed: 09/08/20									
% Moisture	ND	0.1	%							
<b>Duplicate (P0I0802-DUP1)</b>	Source: 0103016-05 Prepared & Analyzed: 09/08/20									
% Moisture	3.0	0.1	%		4.0			28.6	20	R3

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0I0802 - \*\*\* DEFAULT PREP \*\*\***

<b>Duplicate (P0I0802-DUP2)</b>	<b>Source: 0I03016-15</b>		Prepared & Analyzed: 09/08/20							
% Moisture	5.0	0.1	%		5.0			0.00	20	
<b>Duplicate (P0I0802-DUP3)</b>	<b>Source: 0I03017-11</b>		Prepared & Analyzed: 09/08/20							
% Moisture	11.0	0.1	%		10.0			9.52	20	
<b>Duplicate (P0I0802-DUP4)</b>	<b>Source: 0I03017-21</b>		Prepared & Analyzed: 09/08/20							
% Moisture	11.0	0.1	%		10.0			9.52	20	
<b>Duplicate (P0I0802-DUP5)</b>	<b>Source: 0I03017-36</b>		Prepared & Analyzed: 09/08/20							
% Moisture	11.0	0.1	%		11.0			0.00	20	
<b>Duplicate (P0I0802-DUP6)</b>	<b>Source: 0I04001-06</b>		Prepared & Analyzed: 09/08/20							
% Moisture	14.0	0.1	%		15.0			6.90	20	
<b>Duplicate (P0I0802-DUP7)</b>	<b>Source: 0I04003-03</b>		Prepared & Analyzed: 09/08/20							
% Moisture	4.0	0.1	%		10.0			85.7	20	R3
<b>Duplicate (P0I0802-DUP8)</b>	<b>Source: 0I04003-06</b>		Prepared & Analyzed: 09/08/20							
% Moisture	16.0	0.1	%		16.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch P0I0406 - TX 1005****Blank (P0I0406-BLK1)**

Prepared &amp; Analyzed: 09/04/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	57.5		"	50.0		115	70-130			

**LCS (P0I0406-BS1)**

Prepared &amp; Analyzed: 09/04/20

C6-C12	980	25.0	mg/kg wet	1000		98.0	75-125			
>C12-C28	1130	25.0	"	1000		113	75-125			
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	57.7		"	50.0		115	70-130			

**LCS Dup (P0I0406-BSD1)**

Prepared &amp; Analyzed: 09/04/20

C6-C12	971	25.0	mg/kg wet	1000		97.1	75-125	0.967	20	
>C12-C28	1150	25.0	"	1000		115	75-125	1.88	20	
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	58.2		"	50.0		116	70-130			

**Calibration Check (P0I0406-CCV1)**

Prepared &amp; Analyzed: 09/04/20

C6-C12	507	25.0	mg/kg wet	500		101	85-115			
>C12-C28	573	25.0	"	500		115	85-115			
Surrogate: 1-Chlorooctane	116		"	100		116	70-130			
Surrogate: o-Terphenyl	59.0		"	50.0		118	70-130			

**Calibration Check (P0I0406-CCV2)**

Prepared &amp; Analyzed: 09/04/20

C6-C12	472	25.0	mg/kg wet	500		94.4	85-115			
>C12-C28	535	25.0	"	500		107	85-115			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	55.5		"	50.0		111	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

**Batch P0I0406 - TX 1005****Matrix Spike (P0I0406-MS1)****Source: 0104004-01**

Prepared &amp; Analyzed: 09/04/20

C6-C12	954	25.3	mg/kg dry	1010	14.5	93.0	75-125			
>C12-C28	2710	25.3	"	1010	2100	60.1	75-125			QM-07
Surrogate: 1-Chlorooctane	124		"	101		123	70-130			
Surrogate: o-Terphenyl	56.8		"	50.5		113	70-130			

**Matrix Spike Dup (P0I0406-MSD1)****Source: 0104004-01**

Prepared &amp; Analyzed: 09/04/20

C6-C12	996	25.3	mg/kg dry	1010	14.5	97.2	75-125	4.38	20	
>C12-C28	2810	25.3	"	1010	2100	70.6	75-125	16.1	20	QM-07
Surrogate: 1-Chlorooctane	107		"	101		106	70-130			
Surrogate: o-Terphenyl	57.3		"	50.5		113	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

ROI Received on Ice

R3 The RPD exceeded the acceptance limit due to sample matrix effects.

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

9/8/2020

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

**Peritritian Basin Environmental Lab, L.P.  
10014 S. County Road 1213  
Midland, Texas 79706**

**Phone: 432-686-7235**

Project Manager: Sylvia A. Reynolds

Company Name Deen Xavier

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79701

Telephone No: 432-230-6920 Fax No: \_\_\_\_\_

Sampler Signature: Cesar Gonzalez

**(Lab use only)**

ORDER # 0104004

37 rue Raymond  
34 Kankay

Rayburn West 80  
Elegant Street  
Amherst County, Virginia

Project Name: Plains Memorial

Project #: PP-200

Project Loc: Los County, New Mexico

RS# 2020-050

## Report Formats

**Standard 11.**

二

**INDEX**

(lab use only)  
 Sampler Signature: Cesar Gonzalez  
 ORDER #: 0104004

LAB # (lab use only)		FIELD CODE		Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub>	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None	Other (Specify)	DIW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH: TX 1005 TX 1006	Anions (Cl, SO <sub>4</sub> , Alkalinity)	BTEX 8021B/803D or BTEX 828D	TPH 8015 M	
1	BH-1 SSW @ 3'	3'	3'	09/03/20	0719				11									Soil					
2	AH-1 SE @ 8'	8'	8'	09/03/20	1255				11									Soil					
3	AH-1 SE @ 9' Hold	9'	9'	09/03/20	1257				11									Soil					

Special Instructions: \* IF DRILLED TO 1000 gpm and ON TROT TTA TO 2,500 gpm run next day's sample down on 24 hr turn around.

Relinquished by:	Date	Time	Received by:	Date	Time
MIRE BALLARD	9-4-20	10:09			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:  
 Sample containers intact?  
 VOCs Free of Headspaces?  
 Custody seals on container(s)  
 Correctly sealed on container(s)  
 Sample Hand Delivered  
 by Courier? UPS DHL FedEx  
 Temperature Upon Receipt: 46 °C  
 Adjusted: 56 °C Factor

Analyze For:

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs  
 Standard TAT

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



# Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Location: Lea County, NM  
Lab Order Number: 0I16014



**NELAP/TCEQ # T104704516-17-8**

Report Date: 09/17/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**ANALYTICAL REPORT FOR SAMPLES**

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH-1 SSW @ 4'	0116014-01	Soil	09/16/20 10:15	09-16-2020 15:25



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**BH-1 SSW @ 4'****0I16014-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****General Chemistry Parameters by EPA / Standard Methods**

% Moisture	6.0	0.1	%	1	P011701	09/17/20	09/17/20	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.6	mg/kg dry	1	P011605	09/16/20	09/17/20	TPH 8015M
>C12-C28	ND	26.6	mg/kg dry	1	P011605	09/16/20	09/17/20	TPH 8015M
>C28-C35	ND	26.6	mg/kg dry	1	P011605	09/16/20	09/17/20	TPH 8015M
Surrogate: 1-Chlorooctane		104 %	70-130		P011605	09/16/20	09/17/20	TPH 8015M
Surrogate: o-Terphenyl		111 %	70-130		P011605	09/16/20	09/17/20	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	26.6	mg/kg dry	1	[CALC]	09/16/20	09/17/20	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P011701 - *** DEFAULT PREP ***</b>										
<b>Blank (P011701-BLK1)</b>				Prepared & Analyzed: 09/17/20						
% Moisture	ND	0.1	%							
<b>Blank (P011701-BLK2)</b>				Prepared & Analyzed: 09/17/20						
% Moisture	ND	0.1	%							
<b>Duplicate (P011701-DUP1)</b>				<b>Source: 0116001-10</b>		Prepared & Analyzed: 09/17/20				
% Moisture	6.0	0.1	%		6.0			0.00	20	
<b>Duplicate (P011701-DUP2)</b>				<b>Source: 0116003-31</b>		Prepared & Analyzed: 09/17/20				
% Moisture	12.0	0.1	%		12.0			0.00	20	
<b>Duplicate (P011701-DUP3)</b>				<b>Source: 0116005-04</b>		Prepared & Analyzed: 09/17/20				
% Moisture	8.0	0.1	%		8.0			0.00	20	
<b>Duplicate (P011701-DUP4)</b>				<b>Source: 0116016-03</b>		Prepared & Analyzed: 09/17/20				
% Moisture	5.0	0.1	%		5.0			0.00	20	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P011605 - TX 1005****Blank (P011605-BLK1)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	85.0		"	100		85.0	70-130			
Surrogate: o-Terphenyl	44.2		"	50.0		88.3	70-130			

**LCS (P011605-BS1)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	944	25.0	mg/kg wet	1000		94.4	75-125			
>C12-C28	990	25.0	"	1000		99.0	75-125			
Surrogate: 1-Chlorooctane	97.5		"	100		97.5	70-130			
Surrogate: o-Terphenyl	45.8		"	50.0		91.7	70-130			

**LCS Dup (P011605-BSD1)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	949	25.0	mg/kg wet	1000		94.9	75-125	0.505	20	
>C12-C28	1000	25.0	"	1000		100	75-125	1.10	20	
Surrogate: 1-Chlorooctane	98.5		"	100		98.5	70-130			
Surrogate: o-Terphenyl	46.5		"	50.0		93.0	70-130			

**Calibration Blank (P011605-CCB1)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	16.1		mg/kg wet							
>C12-C28	16.9		"							
Surrogate: 1-Chlorooctane	85.2		"	100		85.2	70-130			
Surrogate: o-Terphenyl	43.8		"	50.0		87.6	70-130			

**Calibration Blank (P011605-CCB2)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	15.4		mg/kg wet							
>C12-C28	18.2		"							
Surrogate: 1-Chlorooctane	87.3		"	100		87.3	70-130			
Surrogate: o-Terphenyl	45.0		"	50.0		90.1	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P011605 - TX 1005****Calibration Check (P011605-CCV1)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	481	25.0	mg/kg wet	500		96.2	85-115			
>C12-C28	504	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	91.0		"	100		91.0	70-130			
Surrogate: o-Terphenyl	44.5		"	50.0		89.0	70-130			

**Calibration Check (P011605-CCV2)**

Prepared: 09/16/20 Analyzed: 09/17/20

C6-C12	481	25.0	mg/kg wet	500		96.2	85-115			
>C12-C28	478	25.0	"	500		95.6	85-115			
Surrogate: 1-Chlorooctane	94.2		"	100		94.2	70-130			
Surrogate: o-Terphenyl	45.1		"	50.0		90.2	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains: Mewborne Toro  
Project Number: PP-2061/SRS#2020-050  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

ROI Received on Ice  
BULK Samples received in Bulk soil containers  
DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference  
LCS Laboratory Control Spike  
MS Matrix Spike  
Dup Duplicate

Report Approved By:



Date:

9/17/2020

Brent Barron, Laboratory Director/Technical Director

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
10014 S. County Road 1213  
Midland, Texas 79706

Phone: 432-686-7235

Project Manager: Sylvia ReynoldsCompany Name: Area ServiceCompany Address: 12600 WCR 61City/State/Zip: Midland, TX 79707Telephone No: 432-280-0920

Fax No:

Sampler Signature: Cessa Campbell

e-mail:

Sylvia ReynoldsKayla LongElizabeth SmithJill Kinley, Area ServiceProject Name: Plains Fore MeasurementsProject #: PP-2061Project Loc: Lea County, NMPO #: PP 2020-050

Report Format:

☒ Standard☐ TRRP☐ NPDES

(lab use only)

ORDER #: 0116014

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Ice

HNO<sub>3</sub>

HCl

H<sub>2</sub>SO<sub>4</sub>

NaOH

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW=Groundwater S=Soil/Solid

NP=Non-Potable Specify Other

TPH: TX 1005 TX 1006

Anions (Cl, SO<sub>4</sub>, Alkalinity)

BTEX 8021B/5030 or BTEX 8260

TPH 8015 M

Preservation &amp; # of Containers

Matrix

Analyze For:

TCLP:

TOTAL:

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs

Standard TAT

Special Instructions: \* IF 680 + DED on 3,1,000 ppm on Total TPH is 2,500 ppm on next larger sample

until both are below

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

Sample Contained Inert?

VOCs Free of Headspace?

Custody seals on container(s)?

Custody seals on container(s)?

Sample Hand Delivered?

by Courier? UPS DHL FedEx

Temperature Upon Receipt:

Adjusted: 11.5 °C Factor

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

N

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N

N

N

N

N

N

N

**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report Rev. 2

**Prepared for:**

Jeff Kindley  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-21199

Location: Lea County, NM

Lab Order Number: 1J13006



**Current Certification**

Report Date: 11/24/21

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

## ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
AH 1(A) @ 5'	1J13006-01	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 (A) @ 7'	1J13006-02	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 (A) @ 9'	1J13006-03	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 (A) @ 11'	1J13006-04	Soil	10/12/21 00:00	10-13-2021 14:30
NE Wall (A) @ 3'	1J13006-05	Soil	10/12/21 00:00	10-13-2021 14:30
NE Wall (A) @ 5'	1J13006-06	Soil	10/12/21 00:00	10-13-2021 14:30
AH 2 (A) @ 7'	1J13006-07	Soil	10/12/21 00:00	10-13-2021 14:30
AH 2 (A) @ 9'	1J13006-08	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 SE (A) @ 3'	1J13006-09	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 SE (A) @ 5'	1J13006-10	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 SE (A) @ 7'	1J13006-11	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 SE (A) @ 9'	1J13006-12	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 E (A) @ 3'	1J13006-13	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 NE (A) @ 5'	1J13006-16	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 NE (A) @ 7'	1J13006-17	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 NE (A) @ 9'	1J13006-18	Soil	10/12/21 00:00	10-13-2021 14:30
AH 1 NE (A) @ 11'	1J13006-19	Soil	10/12/21 00:00	10-13-2021 14:30

Per Client request on 11-15-2021, additional TPH analysis were reported for AH-1 SE (A) @ 7' (1J13006-11), AH-1 SE (A) @ 9' (1J13006-12), AH-1 NE (A) @ 7' (1J13006-17), AH-1 NE (A) @ 9' (1J13006-18), AH-1 NE (A) @ 11' (1J13006-19). The revised report is attached below, as well as any corresponding documentation immediately following the report.

Per Client request on 11-18-2021 additional BTEX analysis were reported for AH-1 NE (A) @ 7' (1J13006-02), AH-1 NE (A) @ 9' (1J13006-03), and AH-1 NE (A) @ 11' (1J13006-04). The revised report is attached below, as well as any corresponding documentation immediately following the report.



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1(A) @ 5'**  
**1J13006-01 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>38.6</b>	1.10	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 08:59	EPA 300.0
<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>1810</b>	137	mg/kg dry	5	P1J1508	10/15/21 11:30	10/16/21 19:56	TPH 8015M
<b>&gt;C12-C28</b>	<b>4870</b>	137	mg/kg dry	5	P1J1508	10/15/21 11:30	10/16/21 19:56	TPH 8015M
<b>&gt;C28-C35</b>	<b>866</b>	137	mg/kg dry	5	P1J1508	10/15/21 11:30	10/16/21 19:56	TPH 8015M
Surrogate: 1-Chlorooctane	98.0 %	70-130			P1J1508	10/15/21 11:30	10/16/21 19:56	TPH 8015M
Surrogate: o-Terphenyl	103 %	70-130			P1J1508	10/15/21 11:30	10/16/21 19:56	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>7550</b>	137	mg/kg dry	5	[CALC]	10/15/21 11:30	10/16/21 19:56	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1(A) @ 5'**  
**1J13006-01RE1 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.199</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:32	EPA 8021B
<b>Toluene</b>	<b>7.80</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:32	EPA 8021B
<b>Ethylbenzene</b>	<b>4.33</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:32	EPA 8021B
<b>Xylene (p/m)</b>	<b>22.3</b>	0.110	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:32	EPA 8021B
<b>Xylene (o)</b>	<b>13.0</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:32	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>86.2 %</i>	<i>80-120</i>		<i>P1J1503</i>	<i>10/15/21 09:02</i>	<i>10/18/21 12:32</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>109 %</i>	<i>80-120</i>		<i>P1J1503</i>	<i>10/15/21 09:02</i>	<i>10/18/21 12:32</i>	<i>EPA 8021B</i>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 (A) @ 7'****1J13006-02 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>38.3</b>	1.10	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 09:14	EPA 300.0
<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>1730</b>	137	mg/kg dry	5	P1J1508	10/15/21 11:30	10/16/21 21:02	TPH 8015M
<b>&gt;C12-C28</b>	<b>3860</b>	137	mg/kg dry	5	P1J1508	10/15/21 11:30	10/16/21 21:02	TPH 8015M
<b>&gt;C28-C35</b>	<b>600</b>	137	mg/kg dry	5	P1J1508	10/15/21 11:30	10/16/21 21:02	TPH 8015M
Surrogate: 1-Chlorooctane	96.6 %	70-130			P1J1508	10/15/21 11:30	10/16/21 21:02	TPH 8015M
Surrogate: o-Terphenyl	102 %	70-130			P1J1508	10/15/21 11:30	10/16/21 21:02	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>6190</b>	137	mg/kg dry	5	[CALC]	10/15/21 11:30	10/16/21 21:02	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 (A) @ 7'**  
**1J13006-02RE1 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.183</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:53	EPA 8021B
<b>Toluene</b>	<b>9.56</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:53	EPA 8021B
<b>Ethylbenzene</b>	<b>6.56</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:53	EPA 8021B
<b>Xylene (p/m)</b>	<b>16.9</b>	0.110	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:53	EPA 8021B
<b>Xylene (o)</b>	<b>14.3</b>	0.0549	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 12:53	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>87.5 %</i>	<i>80-120</i>			<i>P1J1503</i>	<i>10/15/21 09:02</i>	<i>10/18/21 12:53</i>	<i>EPA 8021B</i>
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>107 %</i>	<i>80-120</i>			<i>P1J1503</i>	<i>10/15/21 09:02</i>	<i>10/18/21 12:53</i>	<i>EPA 8021B</i>

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 (A) @ 9'****1J13006-03 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>12.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2030</b>	284	mg/kg dry	10	P1J1508	10/15/21 11:30	10/16/21 21:24	TPH 8015M
<b>&gt;C12-C28</b>	<b>3560</b>	284	mg/kg dry	10	P1J1508	10/15/21 11:30	10/16/21 21:24	TPH 8015M
<b>&gt;C28-C35</b>	<b>599</b>	284	mg/kg dry	10	P1J1508	10/15/21 11:30	10/16/21 21:24	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>	<i>95.5 %</i>	<i>70-130</i>			<i>P1J1508</i>	<i>10/15/21 11:30</i>	<i>10/16/21 21:24</i>	<i>TPH 8015M</i>
<i>Surrogate: o-Terphenyl</i>	<i>101 %</i>	<i>70-130</i>			<i>P1J1508</i>	<i>10/15/21 11:30</i>	<i>10/16/21 21:24</i>	<i>TPH 8015M</i>
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>6190</b>	284	mg/kg dry	10	[CALC]	10/15/21 11:30	10/16/21 21:24	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 (A) @ 9'**  
**1J13006-03RE1 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>1.54</b>	0.0568	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 13:14	EPA 8021B
<b>Toluene</b>	<b>38.1</b>	0.114	mg/kg dry	100	P1J1503	10/15/21 09:02	10/18/21 15:08	EPA 8021B
<b>Ethylbenzene</b>	<b>16.0</b>	0.0568	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 13:14	EPA 8021B
<b>Xylene (p/m)</b>	<b>31.9</b>	0.114	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 13:14	EPA 8021B
<b>Xylene (o)</b>	<b>10.7</b>	0.0568	mg/kg dry	50	P1J1503	10/15/21 09:02	10/18/21 13:14	EPA 8021B
<i>Surrogate: 4-Bromofluorobenzene</i>	<i>83.8 %</i>	<i>80-120</i>		<i>P1J1503</i>	<i>10/15/21 09:02</i>	<i>10/18/21 13:14</i>	<i>EPA 8021B</i>	
<i>Surrogate: 1,4-Difluorobenzene</i>	<i>94.0 %</i>	<i>80-120</i>		<i>P1J1503</i>	<i>10/15/21 09:02</i>	<i>10/18/21 13:14</i>	<i>EPA 8021B</i>	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 (A) @ 11'**  
**1J13006-04 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	PIJ1508	10/15/21 11:30	10/16/21 21:46	TPH 8015M
<b>&gt;C12-C28</b>	<b>77.7</b>	27.8	mg/kg dry	1	PIJ1508	10/15/21 11:30	10/16/21 21:46	TPH 8015M
>C28-C35	ND	27.8	mg/kg dry	1	PIJ1508	10/15/21 11:30	10/16/21 21:46	TPH 8015M
Surrogate: 1-Chlorooctane	92.5 %	70-130			PIJ1508	10/15/21 11:30	10/16/21 21:46	TPH 8015M
Surrogate: o-Terphenyl	95.7 %	70-130			PIJ1508	10/15/21 11:30	10/16/21 21:46	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>77.7</b>	27.8	mg/kg dry	1	[CALC]	10/15/21 11:30	10/16/21 21:46	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 (A) @ 11'**  
**1J13006-04RE1 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00111	mg/kg dry	1	P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B
<b>Toluene</b>	<b>0.00577</b>	0.00111	mg/kg dry	1	P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B
<b>Ethylbenzene</b>	<b>0.00142</b>	0.00111	mg/kg dry	1	P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B
<b>Xylene (p/m)</b>	<b>0.00600</b>	0.00222	mg/kg dry	1	P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B
<b>Xylene (o)</b>	<b>0.00154</b>	0.00111	mg/kg dry	1	P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B
Surrogate: 1,4-Difluorobenzene	105 %	80-120		P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	107 %	80-120		P1J1503	10/15/21 09:02	10/18/21 12:11	EPA 8021B	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**NE Wall (A) @ 3'**  
**1J13006-05 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.0588</b>	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B
<b>Toluene</b>	<b>0.173</b>	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B
<b>Ethylbenzene</b>	<b>0.0801</b>	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B
<b>Xylene (p/m)</b>	<b>0.229</b>	0.00225	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B
<b>Xylene (o)</b>	<b>0.0762</b>	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B
Surrogate: 1,4-Difluorobenzene	104 %	80-120		P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	81.1 %	80-120		P1J1503	10/15/21 09:02	10/15/21 20:15	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>9.60</b>	1.12	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 10:00	EPA 300.0
<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>107</b>	28.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:08	TPH 8015M
<b>&gt;C12-C28</b>	<b>2350</b>	28.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:08	TPH 8015M
<b>&gt;C28-C35</b>	<b>492</b>	28.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:08	TPH 8015M
Surrogate: 1-Chlorooctane	93.1 %	70-130		P1J1508	10/15/21 11:30	10/16/21 22:08	TPH 8015M	
Surrogate: o-Terphenyl	115 %	70-130		P1J1508	10/15/21 11:30	10/16/21 22:08	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>2950</b>	28.1	mg/kg dry	1	[CALC]	10/15/21 11:30	10/16/21 22:08	calc

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**NE Wall (A) @ 5'**  
**1J13006-06 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	27.8	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:30	TPH 8015M
>C12-C28	<b>304</b>	27.8	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:30	TPH 8015M
>C28-C35	<b>47.6</b>	27.8	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:30	TPH 8015M
Surrogate: 1-Chlorooctane	94.3 %	70-130			P1J1508	10/15/21 11:30	10/16/21 22:30	TPH 8015M
Surrogate: o-Terphenyl	97.2 %	70-130			P1J1508	10/15/21 11:30	10/16/21 22:30	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>351</b>	27.8	mg/kg dry	1	[CALC]	10/15/21 11:30	10/16/21 22:30	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 2 (A) @ 7'****1J13006-07 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

Benzene	ND	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B
Toluene	ND	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B
Ethylbenzene	ND	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B
Xylene (p/m)	ND	0.00225	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B
Xylene (o)	ND	0.00112	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B
Surrogate: 4-Bromofluorobenzene	105 %	80-120			P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B
Surrogate: 1,4-Difluorobenzene	103 %	80-120			P1J1503	10/15/21 09:02	10/15/21 20:57	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	56.9	1.12	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 10:30	EPA 300.0
% Moisture	11.0	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:53	TPH 8015M
>C12-C28	ND	28.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:53	TPH 8015M
>C28-C35	ND	28.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 22:53	TPH 8015M
Surrogate: 1-Chlorooctane	94.9 %	70-130			P1J1508	10/15/21 11:30	10/16/21 22:53	TPH 8015M
Surrogate: o-Terphenyl	97.2 %	70-130			P1J1508	10/15/21 11:30	10/16/21 22:53	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	28.1	mg/kg dry	1	[CALC]	10/15/21 11:30	10/16/21 22:53	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 2 (A) @ 9'****1J13006-08 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.****BTEX by 8021B**

Benzene	ND	0.00114	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B
Toluene	ND	0.00114	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B
Ethylbenzene	ND	0.00114	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B
Xylene (o)	ND	0.00114	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B
Surrogate: 1,4-Difluorobenzene	103 %	80-120		P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	104 %	80-120		P1J1503	10/15/21 09:02	10/15/21 21:18	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	67.2	1.14	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 10:45	EPA 300.0
% Moisture	12.0	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 23:15	TPH 8015M
>C12-C28	ND	28.4	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 23:15	TPH 8015M
>C28-C35	ND	28.4	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 23:15	TPH 8015M
Surrogate: 1-Chlorooctane	94.0 %	70-130		P1J1508	10/15/21 11:30	10/16/21 23:15	TPH 8015M	
Surrogate: o-Terphenyl	97.3 %	70-130		P1J1508	10/15/21 11:30	10/16/21 23:15	TPH 8015M	
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	10/15/21 11:30	10/16/21 23:15	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 SE (A) @ 3'**  
**1J13006-09 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

<b>Benzene</b>	<b>0.00337</b>	0.00110	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	
<b>Toluene</b>	<b>0.00932</b>	0.00110	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	
<b>Ethylbenzene</b>	<b>0.0260</b>	0.00110	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	
<b>Xylene (p/m)</b>	<b>0.00417</b>	0.00220	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	
<b>Xylene (o)</b>	<b>0.00333</b>	0.00110	mg/kg dry	1	P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	
Surrogate: 1,4-Difluorobenzene	101 %	80-120			P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	79.0 %	80-120			P1J1503	10/15/21 09:02	10/15/21 21:40	EPA 8021B	S-GC

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>11.0</b>	1.10	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 11:31	EPA 300.0	
<b>% Moisture</b>	<b>9.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216	

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>72.7</b>	27.5	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 23:37	TPH 8015M	
<b>&gt;C12-C28</b>	<b>1930</b>	27.5	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 23:37	TPH 8015M	
<b>&gt;C28-C35</b>	<b>352</b>	27.5	mg/kg dry	1	P1J1508	10/15/21 11:30	10/16/21 23:37	TPH 8015M	
Surrogate: 1-Chlorooctane	85.6 %	70-130			P1J1508	10/15/21 11:30	10/16/21 23:37	TPH 8015M	
Surrogate: o-Terphenyl	107 %	70-130			P1J1508	10/15/21 11:30	10/16/21 23:37	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>2360</b>	27.5	mg/kg dry	1	[CALC]	10/15/21 11:30	10/16/21 23:37	calc	

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 SE (A) @ 5'**  
**1J13006-10 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>14.0</b>	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
C6-C12	ND	29.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/17/21 00:00	TPH 8015M
>C12-C28	<b>266</b>	29.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/17/21 00:00	TPH 8015M
>C28-C35	<b>55.6</b>	29.1	mg/kg dry	1	P1J1508	10/15/21 11:30	10/17/21 00:00	TPH 8015M
Surrogate: 1-Chlorooctane	83.2 %		70-130		P1J1508	10/15/21 11:30	10/17/21 00:00	TPH 8015M
Surrogate: o-Terphenyl	86.8 %		70-130		P1J1508	10/15/21 11:30	10/17/21 00:00	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>321</b>	29.1	mg/kg dry	1	[CALC]	10/15/21 11:30	10/17/21 00:00	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 SE (A) @ 7'**  
**1J13006-11 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>10.0</b>	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
C6-C12	ND	27.8	mg/kg dry	1	PIJ1508	10/15/21 11:30	10/17/21 00:22	TPH 8015M
>C12-C28	171	27.8	mg/kg dry	1	PIJ1508	10/15/21 11:30	10/17/21 00:22	TPH 8015M
>C28-C35	ND	27.8	mg/kg dry	1	PIJ1508	10/15/21 11:30	10/17/21 00:22	TPH 8015M
Surrogate: 1-Chlorooctane	93.0 %	70-130			PIJ1508	10/15/21 11:30	10/17/21 00:22	TPH 8015M
Surrogate: o-Terphenyl	96.7 %	70-130			PIJ1508	10/15/21 11:30	10/17/21 00:22	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>171</b>	27.8	mg/kg dry	1	[CALC]	10/15/21 11:30	10/17/21 00:22	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 SE (A) @ 9'**  
**1J13006-12 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>41.8</b>	28.1	mg/kg dry	1	PIJ1509	10/15/21 13:30	10/16/21 11:14	TPH 8015M
<b>&gt;C12-C28</b>	<b>562</b>	28.1	mg/kg dry	1	PIJ1509	10/15/21 13:30	10/16/21 11:14	TPH 8015M
<b>&gt;C28-C35</b>	<b>105</b>	28.1	mg/kg dry	1	PIJ1509	10/15/21 13:30	10/16/21 11:14	TPH 8015M
<i>Surrogate: 1-Chlorooctane</i>	<i>99.1 %</i>	<i>70-130</i>			<i>PIJ1509</i>	<i>10/15/21 13:30</i>	<i>10/16/21 11:14</i>	<i>TPH 8015M</i>
<i>Surrogate: o-Terphenyl</i>	<i>108 %</i>	<i>70-130</i>			<i>PIJ1509</i>	<i>10/15/21 13:30</i>	<i>10/16/21 11:14</i>	<i>TPH 8015M</i>
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>708</b>	28.1	mg/kg dry	1	[CALC]	10/15/21 13:30	10/16/21 11:14	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 E (A) @ 3'**  
**1J13006-13 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00108	mg/kg dry	1	PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B
<b>Toluene</b>	<b>0.00167</b>	0.00108	mg/kg dry	1	PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B
Ethylbenzene	ND	0.00108	mg/kg dry	1	PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B
<b>Xylene (p/m)</b>	<b>0.00431</b>	0.00215	mg/kg dry	1	PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B
<b>Xylene (o)</b>	<b>0.00297</b>	0.00108	mg/kg dry	1	PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B
Surrogate: 1,4-Difluorobenzene	103 %	80-120		PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B	
Surrogate: 4-Bromofluorobenzene	103 %	80-120		PIJ1503	10/15/21 09:02	10/15/21 23:04	EPA 8021B	

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>19.9</b>	1.08	mg/kg dry	1	PIJ1805	10/18/21 16:05	10/19/21 13:03	EPA 300.0
<b>% Moisture</b>	<b>7.0</b>	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	26.9	mg/kg dry	1	PIJ1509	10/15/21 13:30	10/16/21 11:37	TPH 8015M
<b>&gt;C12-C28</b>	<b>180</b>	26.9	mg/kg dry	1	PIJ1509	10/15/21 13:30	10/16/21 11:37	TPH 8015M
<b>&gt;C28-C35</b>	<b>27.6</b>	26.9	mg/kg dry	1	PIJ1509	10/15/21 13:30	10/16/21 11:37	TPH 8015M
Surrogate: 1-Chlorooctane	103 %	70-130		PIJ1509	10/15/21 13:30	10/16/21 11:37	TPH 8015M	
Surrogate: o-Terphenyl	113 %	70-130		PIJ1509	10/15/21 13:30	10/16/21 11:37	TPH 8015M	
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>208</b>	26.9	mg/kg dry	1	[CALC]	10/15/21 13:30	10/16/21 11:37	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 NE (A) @ 5'**  
**1J13006-16 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**BTEX by 8021B**

Benzene	ND	0.00114	mg/kg dry	1	P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B
Toluene	ND	0.00114	mg/kg dry	1	P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B
Ethylbenzene	ND	0.00114	mg/kg dry	1	P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B
Xylene (p/m)	ND	0.00227	mg/kg dry	1	P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B
Xylene (o)	ND	0.00114	mg/kg dry	1	P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B
Surrogate: 4-Bromofluorobenzene	107 %	80-120			P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B
Surrogate: 1,4-Difluorobenzene	106 %	80-120			P1J1909	10/19/21 13:55	10/20/21 07:50	EPA 8021B

**General Chemistry Parameters by EPA / Standard Methods**

Chloride	64.8	1.14	mg/kg dry	1	P1J1805	10/18/21 16:05	10/19/21 13:49	EPA 300.0
% Moisture	12.0	0.1	%	1	P1J1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

C6-C12	ND	28.4	mg/kg dry	1	P1J1509	10/15/21 13:30	10/16/21 12:44	TPH 8015M
>C12-C28	ND	28.4	mg/kg dry	1	P1J1509	10/15/21 13:30	10/16/21 12:44	TPH 8015M
>C28-C35	ND	28.4	mg/kg dry	1	P1J1509	10/15/21 13:30	10/16/21 12:44	TPH 8015M
Surrogate: 1-Chlorooctane	104 %	70-130			P1J1509	10/15/21 13:30	10/16/21 12:44	TPH 8015M
Surrogate: o-Terphenyl	114 %	70-130			P1J1509	10/15/21 13:30	10/16/21 12:44	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	ND	28.4	mg/kg dry	1	[CALC]	10/15/21 13:30	10/16/21 12:44	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 NE (A) @ 7'**  
**1J13006-17 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>17.0</b>	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
<b>C6-C12</b>	<b>36.5</b>	30.1	mg/kg dry	1	PIJ1802	10/18/21 12:30	10/19/21 13:13	TPH 8015M
<b>&gt;C12-C28</b>	<b>2460</b>	30.1	mg/kg dry	1	PIJ1802	10/18/21 12:30	10/19/21 13:13	TPH 8015M
<b>&gt;C28-C35</b>	<b>637</b>	30.1	mg/kg dry	1	PIJ1802	10/18/21 12:30	10/19/21 13:13	TPH 8015M
Surrogate: 1-Chlorooctane	100 %	70-130			PIJ1802	10/18/21 12:30	10/19/21 13:13	TPH 8015M
Surrogate: o-Terphenyl	114 %	70-130			PIJ1802	10/18/21 12:30	10/19/21 13:13	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>3130</b>	30.1	mg/kg dry	1	[CALC]	10/18/21 12:30	10/19/21 13:13	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean	Project: Plains Mewbourne Toro
12600 W County Rd 91	Project Number: PP-21199
Midland TX, 79707	Project Manager: Jeff Kindley

AH 1 NE (A) @ 9'  
1J13006-18 (Soil)

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Permian Basin Environmental Lab, L.P.

General Chemistry Parameters by EPA / Standard Methods

% Moisture	14.0	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
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Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M

C6-C12	336	145	mg/kg dry	5	PIJ1802	10/18/21 12:30	10/20/21 15:33	TPH 8015M
>C12-C28	11300	145	mg/kg dry	5	PIJ1802	10/18/21 12:30	10/20/21 15:33	TPH 8015M
>C28-C35	2590	145	mg/kg dry	5	PIJ1802	10/18/21 12:30	10/20/21 15:33	TPH 8015M
Surrogate: 1-Chlorooctane	103 %	70-130			PIJ1802	10/18/21 12:30	10/20/21 15:33	TPH 8015M
Surrogate: o-Terphenyl	104 %	70-130			PIJ1802	10/18/21 12:30	10/20/21 15:33	TPH 8015M
Total Petroleum Hydrocarbon C6-C35	14200	145	mg/kg dry	5	[CALC]	10/18/21 12:30	10/20/21 15:33	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**AH 1 NE (A) @ 11'**  
**1J13006-19 (Soil)**

Analyte	Limit Result	Reporting Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>% Moisture</b>	<b>11.0</b>	0.1	%	1	PIJ1504	10/15/21 09:48	10/15/21 09:53	ASTM D2216
<b>Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M</b>								
<b>C6-C12</b>	<b>101</b>	28.1	mg/kg dry	1	PIJ1802	10/18/21 12:30	10/19/21 13:57	TPH 8015M
<b>&gt;C12-C28</b>	<b>2780</b>	28.1	mg/kg dry	1	PIJ1802	10/18/21 12:30	10/19/21 13:57	TPH 8015M
<b>&gt;C28-C35</b>	<b>719</b>	28.1	mg/kg dry	1	PIJ1802	10/18/21 12:30	10/19/21 13:57	TPH 8015M
Surrogate: 1-Chlorooctane	97.5 %	70-130			PIJ1802	10/18/21 12:30	10/19/21 13:57	TPH 8015M
Surrogate: o-Terphenyl	104 %	70-130			PIJ1802	10/18/21 12:30	10/19/21 13:57	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>3600</b>	28.1	mg/kg dry	1	[CALC]	10/18/21 12:30	10/19/21 13:57	calc

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1503 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1J1503-BLK1)**

Prepared & Analyzed: 10/15/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	0.126		"	0.120		105	80-120			
Surrogate: 1,4-Difluorobenzene	0.127		"	0.120		106	80-120			

**LCS (P1J1503-BS1)**

Prepared & Analyzed: 10/15/21

Benzene	0.0923	0.00100	mg/kg wet	0.100		91.9	70-130			
Toluene	0.0915	0.00100	"	0.100		91.1	70-130			
Ethylbenzene	0.0864	0.00100	"	0.100		86.1	70-130			
Xylene (p/m)	0.175	0.00200	"	0.201		87.2	70-130			
Xylene (o)	0.0915	0.00100	"	0.100		91.2	70-130			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.3	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		96.7	80-120			

**LCS Dup (P1J1503-BSD1)**

Prepared & Analyzed: 10/15/21

Benzene	0.104	0.00100	mg/kg wet	0.100		104	70-130	11.9	20	
Toluene	0.103	0.00100	"	0.100		103	70-130	12.7	20	
Ethylbenzene	0.101	0.00100	"	0.100		101	70-130	15.5	20	
Xylene (p/m)	0.204	0.00200	"	0.200		102	70-130	15.8	20	
Xylene (o)	0.106	0.00100	"	0.100		106	70-130	15.4	20	
Surrogate: 1,4-Difluorobenzene	0.119		"	0.120		98.9	80-120			
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		98.1	80-120			

**Calibration Blank (P1J1503-CCB1)**

Prepared & Analyzed: 10/15/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120		102	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1503 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Blank (P1J1503-CCB2)**

Prepared & Analyzed: 10/15/21

Benzene	0.00		mg/kg wet							
Toluene	1.43		"							B
Ethylbenzene	0.380		"							
Xylene (p/m)	1.92		"							
Xylene (o)	0.450		"							
Surrogate: 1,4-Difluorobenzene	0.123		"	0.120		103	80-120			
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120		103	80-120			

**Calibration Blank (P1J1503-CCB3)**

Prepared: 10/15/21 Analyzed: 10/16/21

Benzene	0.00		mg/kg wet							
Toluene	0.320		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.390		"							
Xylene (o)	0.00		"							
Surrogate: 1,4-Difluorobenzene	0.122		"	0.120		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.122		"	0.120		101	80-120			

**Calibration Check (P1J1503-CCV1)**

Prepared & Analyzed: 10/15/21

Benzene	0.109	0.00100	mg/kg wet	0.100		109	80-120			
Toluene	0.107	0.00100	"	0.100		107	80-120			
Ethylbenzene	0.105	0.00100	"	0.100		105	80-120			
Xylene (p/m)	0.207	0.00200	"	0.200		103	80-120			
Xylene (o)	0.110	0.00100	"	0.100		110	80-120			
Surrogate: 4-Bromofluorobenzene	0.116		"	0.120		96.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.2	75-125			

**Calibration Check (P1J1503-CCV2)**

Prepared & Analyzed: 10/15/21

Benzene	0.101	0.00100	mg/kg wet	0.100		101	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.212	0.00200	"	0.200		106	80-120			
Xylene (o)	0.113	0.00100	"	0.100		113	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.123		"	0.120		102	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1503 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1J1503-CCV3)**

Prepared: 10/15/21 Analyzed: 10/16/21

Benzene	0.0936	0.00100	mg/kg wet	0.100		93.6	80-120			
Toluene	0.0950	0.00100	"	0.100		95.0	80-120			
Ethylbenzene	0.0921	0.00100	"	0.100		92.1	80-120			
Xylene (p/m)	0.193	0.00200	"	0.200		96.3	80-120			
Xylene (o)	0.102	0.00100	"	0.100		102	80-120			
Surrogate: 4-Bromofluorobenzene	0.119		"	0.120		99.5	75-125			
Surrogate: 1,4-Difluorobenzene	0.115		"	0.120		96.0	75-125			

**Matrix Spike (P1J1503-MS1)**

Source: 1J14007-41

Prepared & Analyzed: 10/15/21

Benzene	0.0570	0.00103	mg/kg dry	0.0773	ND	73.8	80-120			QM-07
Toluene	0.0584	0.00103	"	0.0773	ND	75.6	80-120			QM-07
Ethylbenzene	0.0445	0.00103	"	0.0773	ND	57.6	80-120			QM-07
Xylene (p/m)	0.120	0.00206	"	0.155	ND	77.5	80-120			QM-07
Xylene (o)	0.0655	0.00103	"	0.0773	ND	84.8	80-120			
Surrogate: 1,4-Difluorobenzene	0.0909		"	0.0927		98.0	80-120			
Surrogate: 4-Bromofluorobenzene	0.0936		"	0.0927		101	80-120			

**Matrix Spike Dup (P1J1503-MSD1)**

Source: 1J14007-41

Prepared: 10/15/21 Analyzed: 10/16/21

Benzene	0.0751	0.00103	mg/kg dry	0.0917	ND	81.9	80-120	10.4	20	
Toluene	0.0771	0.00103	"	0.0917	ND	84.1	80-120	10.7	20	
Ethylbenzene	0.0584	0.00103	"	0.0917	ND	63.7	80-120	10.1	20	QM-07
Xylene (p/m)	0.156	0.00206	"	0.183	ND	85.1	80-120	9.33	20	
Xylene (o)	0.0861	0.00103	"	0.0917	ND	93.9	80-120	10.1	20	
Surrogate: 4-Bromofluorobenzene	0.113		"	0.110		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.108		"	0.110		98.1	80-120			

**Batch P1J1909 - \*\*\* DEFAULT PREP \*\*\***

**Blank (P1J1909-BLK1)**

Prepared: 10/19/21 Analyzed: 10/20/21

Benzene	ND	0.00100	mg/kg wet							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 1,4-Difluorobenzene	0.130		"	0.120		108	80-120			
Surrogate: 4-Bromofluorobenzene	0.145		"	0.120		121	80-120			S-GC

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1909 - \*\*\* DEFAULT PREP \*\*\***

**LCS (P1J1909-BS1)**

Prepared & Analyzed: 10/19/21

Benzene	0.0998	0.00100	mg/kg wet	0.100		99.8	70-130			
Toluene	0.0981	0.00100	"	0.100		98.1	70-130			
Ethylbenzene	0.0929	0.00100	"	0.100		92.9	70-130			
Xylene (p/m)	0.189	0.00200	"	0.200		94.3	70-130			
Xylene (o)	0.0976	0.00100	"	0.100		97.6	70-130			
Surrogate: 4-Bromofluorobenzene	0.115		"	0.120		96.2	80-120			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.3	80-120			

**Calibration Blank (P1J1909-CCB1)**

Prepared & Analyzed: 10/19/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120		103	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			

**Calibration Blank (P1J1909-CCB2)**

Prepared: 10/19/21 Analyzed: 10/20/21

Benzene	0.00		mg/kg wet							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	0.124		"	0.120		103	80-120			
Surrogate: 1,4-Difluorobenzene	0.125		"	0.120		104	80-120			

**Calibration Check (P1J1909-CCV1)**

Prepared & Analyzed: 10/19/21

Benzene	0.0973	0.00100	mg/kg wet	0.100		97.3	80-120			
Toluene	0.0940	0.00100	"	0.100		94.0	80-120			
Ethylbenzene	0.0948	0.00100	"	0.100		94.8	80-120			
Xylene (p/m)	0.190	0.00200	"	0.200		95.1	80-120			
Xylene (o)	0.0975	0.00100	"	0.100		97.5	80-120			
Surrogate: 4-Bromofluorobenzene	0.117		"	0.120		97.2	75-125			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.5	75-125			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**BTEX by 8021B - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1909 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P1J1909-CCV2)**

Prepared: 10/19/21 Analyzed: 10/20/21

Benzene	0.105	0.00100	mg/kg wet	0.100		105	80-120			
Toluene	0.103	0.00100	"	0.100		103	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.201	0.00200	"	0.200		101	80-120			
Xylene (o)	0.107	0.00100	"	0.100		107	80-120			
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		97.9	75-125			
Surrogate: 1,4-Difluorobenzene	0.117		"	0.120		97.9	75-125			

**Calibration Check (P1J1909-CCV3)**

Prepared: 10/19/21 Analyzed: 10/20/21

Benzene	0.109	0.00100	mg/kg wet	0.100		109	80-120			
Toluene	0.105	0.00100	"	0.100		105	80-120			
Ethylbenzene	0.104	0.00100	"	0.100		104	80-120			
Xylene (p/m)	0.199	0.00200	"	0.200		99.6	80-120			
Xylene (o)	0.106	0.00100	"	0.100		106	80-120			
Surrogate: 1,4-Difluorobenzene	0.118		"	0.120		98.5	75-125			
Surrogate: 4-Bromofluorobenzene	0.118		"	0.120		98.7	75-125			

**Matrix Spike (P1J1909-MS1)**

Source: 1J19003-01

Prepared: 10/19/21 Analyzed: 10/20/21

Benzene	0.0831	0.00111	mg/kg dry	0.111	ND	74.8	80-120			QM-07
Toluene	0.0785	0.00111	"	0.111	ND	70.7	80-120			QM-07
Ethylbenzene	0.0734	0.00111	"	0.111	ND	66.0	80-120			QM-07
Xylene (p/m)	0.153	0.00222	"	0.222	ND	69.0	80-120			QM-07
Xylene (o)	0.0789	0.00111	"	0.111	ND	71.0	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	0.136		"	0.133		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.133		"	0.133		99.9	80-120			

**Matrix Spike Dup (P1J1909-MSD1)**

Source: 1J19003-01

Prepared: 10/19/21 Analyzed: 10/20/21

Benzene	0.0906	0.00111	mg/kg dry	0.111	ND	81.5	80-120	8.60	20	
Toluene	0.0870	0.00111	"	0.111	ND	78.3	80-120	10.3	20	QM-07
Ethylbenzene	0.0810	0.00111	"	0.111	ND	72.9	80-120	9.92	20	QM-07
Xylene (p/m)	0.166	0.00222	"	0.222	ND	74.8	80-120	8.09	20	QM-07
Xylene (o)	0.0869	0.00111	"	0.111	ND	78.2	80-120	9.66	20	QM-07
Surrogate: 4-Bromofluorobenzene	0.135		"	0.133		102	80-120			
Surrogate: 1,4-Difluorobenzene	0.133		"	0.133		99.6	80-120			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1J1504 - *** DEFAULT PREP ***</b>										
<b>Blank (P1J1504-BLK1)</b>	Prepared & Analyzed: 10/15/21									
% Moisture	ND	0.1	%							
<b>Blank (P1J1504-BLK2)</b>	Prepared & Analyzed: 10/15/21									
% Moisture	ND	0.1	%							
<b>Blank (P1J1504-BLK3)</b>	Prepared & Analyzed: 10/15/21									
% Moisture	ND	0.1	%							
<b>Blank (P1J1504-BLK4)</b>	Prepared & Analyzed: 10/15/21									
% Moisture	ND	0.1	%							
<b>Duplicate (P1J1504-DUP1)</b>	<b>Source: 1J13006-05</b>		Prepared & Analyzed: 10/15/21							
% Moisture	12.0	0.1	%		11.0			8.70	20	
<b>Duplicate (P1J1504-DUP2)</b>	<b>Source: 1J13006-15</b>		Prepared & Analyzed: 10/15/21							
% Moisture	10.0	0.1	%		9.0			10.5	20	
<b>Duplicate (P1J1504-DUP3)</b>	<b>Source: 1J13009-10</b>		Prepared & Analyzed: 10/15/21							
% Moisture	14.0	0.1	%		14.0			0.00	20	
<b>Duplicate (P1J1504-DUP4)</b>	<b>Source: 1J14001-03</b>		Prepared & Analyzed: 10/15/21							
% Moisture	9.0	0.1	%		9.0			0.00	20	
<b>Duplicate (P1J1504-DUP5)</b>	<b>Source: 1J14005-11</b>		Prepared & Analyzed: 10/15/21							
% Moisture	9.0	0.1	%		10.0			10.5	20	
<b>Duplicate (P1J1504-DUP6)</b>	<b>Source: 1J14005-21</b>		Prepared & Analyzed: 10/15/21							
% Moisture	11.0	0.1	%		10.0			9.52	20	

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1805 - \*\*\* DEFAULT PREP \*\*\***

<b>Blank (P1J1805-BLK1)</b>				Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P1J1805-BS1)</b>				Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	412	1.00	mg/kg wet	404		102	90-110			
<b>LCS Dup (P1J1805-BSD1)</b>				Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	412	1.00	mg/kg wet	404		102	90-110	0.0196	10	
<b>Calibration Blank (P1J1805-CCB1)</b>				Prepared & Analyzed: 10/18/21						
Chloride	0.00		mg/kg wet							
<b>Calibration Blank (P1J1805-CCB2)</b>				Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	-0.188		mg/kg wet							
<b>Calibration Check (P1J1805-CCV1)</b>				Prepared & Analyzed: 10/18/21						
Chloride	20.4		mg/kg	20.0		102	90-110			
<b>Calibration Check (P1J1805-CCV2)</b>				Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	19.1		mg/kg	20.0		95.5	90-110			
<b>Calibration Check (P1J1805-CCV3)</b>				Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	18.3		mg/kg	20.0		91.4	90-110			
<b>Matrix Spike (P1J1805-MS1)</b>				Source: 1J13005-02 Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	3970	26.6	mg/kg dry	2710	1230	101	80-120			
<b>Matrix Spike (P1J1805-MS2)</b>				Source: 1J13006-09 Prepared: 10/18/21 Analyzed: 10/19/21						
Chloride	529	1.10	mg/kg dry	555	11.0	93.4	80-120			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1805 - \*\*\* DEFAULT PREP \*\*\***

<b>Matrix Spike Dup (P1J1805-MSD1)</b>		<b>Source: 1J13005-02</b>		Prepared: 10/18/21		Analyzed: 10/19/21				
Chloride	4180	26.6	mg/kg dry	2610	1230	113	80-120	5.08	20	
<b>Matrix Spike Dup (P1J1805-MSD2)</b>		<b>Source: 1J13006-09</b>		Prepared: 10/18/21		Analyzed: 10/19/21				
Chloride	1060	1.10	mg/kg dry	1070	11.0	98.5	80-120	67.0	20	QM-07

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1508 - TX 1005**

**Blank (P1J1508-BLK1)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	96.8		"	100		96.8	70-130			
Surrogate: o-Terphenyl	50.0		"	50.0		99.9	70-130			

**LCS (P1J1508-BS1)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	983	25.0	mg/kg wet	1000		98.3	75-125			
>C12-C28	979	25.0	"	1000		97.9	75-125			
Surrogate: 1-Chlorooctane	104		"	100		104	70-130			
Surrogate: o-Terphenyl	54.2		"	50.0		108	70-130			

**LCS Dup (P1J1508-BS1)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	975	25.0	mg/kg wet	1000		97.5	75-125	0.805	20	
>C12-C28	959	25.0	"	1000		95.9	75-125	2.04	20	
Surrogate: 1-Chlorooctane	102		"	100		102	70-130			
Surrogate: o-Terphenyl	51.6		"	50.0		103	70-130			

**Calibration Check (P1J1508-CCV1)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	461	25.0	mg/kg wet	500		92.3	85-115			
>C12-C28	505	25.0	"	500		101	85-115			
Surrogate: 1-Chlorooctane	124		"	100		124	70-130			
Surrogate: o-Terphenyl	54.2		"	50.0		108	70-130			

**Calibration Check (P1J1508-CCV2)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	444	25.0	mg/kg wet	500		88.8	85-115			
>C12-C28	466	25.0	"	500		93.1	85-115			
Surrogate: 1-Chlorooctane	124		"	100		124	70-130			
Surrogate: o-Terphenyl	53.9		"	50.0		108	70-130			

Permian Basin Environmental Lab, L.P.

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Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1508 - TX 1005**

**Calibration Check (P1J1508-CCV3)**

Prepared: 10/15/21 Analyzed: 10/17/21

C6-C12	447	25.0	mg/kg wet	500		89.4	85-115			
>C12-C28	495	25.0	"	500		99.0	85-115			
Surrogate: 1-Chlorooctane	123		"	100		123	70-130			
Surrogate: o-Terphenyl	53.4		"	50.0		107	70-130			

**Matrix Spike (P1J1508-MS1)**

Source: 1J13006-11

Prepared: 10/15/21 Analyzed: 10/17/21

C6-C12	841	27.8	mg/kg dry	1110	21.2	73.8	75-125			QM-05
>C12-C28	911	27.8	"	1110	171	66.6	75-125			QM-05
Surrogate: 1-Chlorooctane	122		"	111		110	70-130			
Surrogate: o-Terphenyl	44.1		"	55.6		79.3	70-130			

**Matrix Spike Dup (P1J1508-MSD1)**

Source: 1J13006-11

Prepared: 10/15/21 Analyzed: 10/17/21

C6-C12	841	27.8	mg/kg dry	1110	21.2	73.7	75-125	0.0896	20	QM-05
>C12-C28	913	27.8	"	1110	171	66.7	75-125	0.142	20	QM-05
Surrogate: 1-Chlorooctane	124		"	111		112	70-130			
Surrogate: o-Terphenyl	46.7		"	55.6		84.0	70-130			

**Batch P1J1509 - TX 1005**

**Blank (P1J1509-BLK1)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	93.0		"	100		93.0	70-130			
Surrogate: o-Terphenyl	50.7		"	50.0		101	70-130			

**LCS (P1J1509-BS1)**

Prepared: 10/15/21 Analyzed: 10/16/21

C6-C12	1170	25.0	mg/kg wet	1000		117	75-125			
>C12-C28	984	25.0	"	1000		98.4	75-125			
Surrogate: 1-Chlorooctane	103		"	100		103	70-130			
Surrogate: o-Terphenyl	58.7		"	50.0		117	70-130			

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P1J1509 - TX 1005</b>										
<b>LCS Dup (P1J1509-BSD1)</b>				Prepared: 10/15/21 Analyzed: 10/16/21						
C6-C12	1130	25.0	mg/kg wet	1000		113	75-125	2.84	20	
>C12-C28	933	25.0	"	1000		93.3	75-125	5.29	20	
Surrogate: 1-Chlorooctane	97.2		"	100		97.2	70-130			
Surrogate: o-Terphenyl	55.8		"	50.0		112	70-130			
<b>Calibration Check (P1J1509-CCV1)</b>				Prepared: 10/15/21 Analyzed: 10/16/21						
C6-C12	510	25.0	mg/kg wet	500		102	85-115			
>C12-C28	474	25.0	"	500		94.8	85-115			
Surrogate: 1-Chlorooctane	115		"	100		115	70-130			
Surrogate: o-Terphenyl	53.1		"	50.0		106	70-130			
<b>Calibration Check (P1J1509-CCV2)</b>				Prepared: 10/15/21 Analyzed: 10/16/21						
C6-C12	500	25.0	mg/kg wet	500		99.9	85-115			
>C12-C28	462	25.0	"	500		92.5	85-115			
Surrogate: 1-Chlorooctane	111		"	100		111	70-130			
Surrogate: o-Terphenyl	52.3		"	50.0		105	70-130			
<b>Calibration Check (P1J1509-CCV3)</b>				Prepared: 10/15/21 Analyzed: 10/16/21						
C6-C12	538	25.0	mg/kg wet	500		108	85-115			
>C12-C28	501	25.0	"	500		100	85-115			
Surrogate: 1-Chlorooctane	119		"	100		119	70-130			
Surrogate: o-Terphenyl	55.5		"	50.0		111	70-130			
<b>Matrix Spike (P1J1509-MS1)</b>				<b>Source: 1J13005-01</b>		Prepared: 10/15/21 Analyzed: 10/16/21				
C6-C12	1000	26.0	mg/kg dry	1040	40.2	91.9	75-125			
>C12-C28	872	26.0	"	1040	1320	NR	75-125			QM-05
Surrogate: 1-Chlorooctane	116		"	104		111	70-130			
Surrogate: o-Terphenyl	49.1		"	52.2		94.0	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1509 - TX 1005**

<b>Matrix Spike Dup (P1J1509-MSD1)</b>	<b>Source: 1J13005-01</b>			Prepared: 10/15/21		Analyzed: 10/16/21				
C6-C12	1000	26.0	mg/kg dry	1050	40.2	91.8	75-125	0.135	20	
>C12-C28	875	26.0	"	1050	1320	NR	75-125	NR	20	QM-05
Surrogate: 1-Chlorooctane	116		"	105		111	70-130			
Surrogate: o-Terphenyl	46.5		"	52.3		89.0	70-130			

**Batch P1J1802 - TX 1005**

<b>Blank (P1J1802-BLK1)</b>				Prepared: 10/18/21		Analyzed: 10/19/21				
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	56.9		"	50.0		114	70-130			

<b>LCS (P1J1802-BS1)</b>				Prepared: 10/18/21		Analyzed: 10/19/21				
C6-C12	997	25.0	mg/kg wet	1000		99.7	75-125			
>C12-C28	1020	25.0	"	1000		102	75-125			
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	59.8		"	50.0		120	70-130			

<b>LCS Dup (P1J1802-BSD1)</b>				Prepared: 10/18/21		Analyzed: 10/19/21				
C6-C12	1020	25.0	mg/kg wet	1000		102	75-125	1.92	20	
>C12-C28	989	25.0	"	1000		98.9	75-125	2.86	20	
Surrogate: 1-Chlorooctane	112		"	100		112	70-130			
Surrogate: o-Terphenyl	58.9		"	50.0		118	70-130			

<b>Calibration Check (P1J1802-CCV1)</b>				Prepared: 10/18/21		Analyzed: 10/19/21				
C6-C12	432	25.0	mg/kg wet	500		86.4	85-115			
>C12-C28	457	25.0	"	500		91.4	85-115			
Surrogate: 1-Chlorooctane	106		"	100		106	70-130			
Surrogate: o-Terphenyl	56.4		"	50.0		113	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P1J1802 - TX 1005**

**Calibration Check (P1J1802-CCV2)**

Prepared: 10/18/21 Analyzed: 10/19/21

C6-C12	437	25.0	mg/kg wet	500		87.5	85-115			
>C12-C28	429	25.0	"	500		85.7	85-115			
Surrogate: 1-Chlorooctane	127		"	100		127	70-130			
Surrogate: o-Terphenyl	57.4		"	50.0		115	70-130			

**Matrix Spike (P1J1802-MS1)**

Source: 1J18003-01

Prepared: 10/18/21 Analyzed: 10/19/21

C6-C12	1050	26.0	mg/kg dry	1040	18.8	99.9	75-125			
>C12-C28	1320	26.0	"	1040	183	109	75-125			
Surrogate: 1-Chlorooctane	119		"	104		115	70-130			
Surrogate: o-Terphenyl	58.0		"	51.9		112	70-130			

**Matrix Spike Dup (P1J1802-MSD1)**

Source: 1J18003-01

Prepared: 10/18/21 Analyzed: 10/19/21

C6-C12	1040	26.0	mg/kg dry	1040	18.8	98.2	75-125	1.65	20	
>C12-C28	1230	26.0	"	1040	183	100	75-125	8.59	20	
Surrogate: 1-Chlorooctane	117		"	104		112	70-130			
Surrogate: o-Terphenyl	60.6		"	52.1		116	70-130			

Permian Basin Environmental Lab, L.P.

*The results in this report apply to the samples analyzed in accordance with the samples received in the laboratory. This analytical report must be reproduced in its entirety, with written approval of Permian Basin Environmental Lab.*

1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

### Notes and Definitions

S-GC Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.

ROI Received on Ice

QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

NPBEL C Chain of Custody was not generated at PBELAB

BULK Samples received in Bulk soil containers may be biased low in the nC6-C12 TPH Range

B Analyte is found in the associated blank as well as in the sample (CLP B-flag).

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date: 11/24/2021

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-21199  
Project Manager: Jeff Kindley

This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

**PBETLAB****CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

Pg. 1 of 2

Project Manager: Jeff Kindley

Project Name: Newbourne Toro

Company Name: Dean

Project #: PP-21199

Company Address: 12600 WCR 91

Project Loc: Lea County, New Mexico

City/State/Zip: Midland TX 79707

WORK ORDER #: SRS # 2020-050

Telephone No: 432-230-0920

Report Format: ☒ Standard ☐ TRRP ☐ NPDES

Sampler Signature: Chelsie Forsan

e-mail:

jeffkindley@deandis.com  
stevacasanova@deandis.com  
kaylanlongee@deandis.com  
elizabethstuart@deandis.com

Analyze For:

(lab use only)  
ORDER #: 1513006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT
1	AH-1 (A) @ 5'	5'	5'	10/12/21			1	X									Soil	X	X										
2	AH-1 (A) @ 7'	7'	7'	10/12/21			1	X									Soil	X	X										
3	AH-1 (A) @ 9'	9'	9'	10/12/21			1	X									Soil	X	X										
4	AH-1 (A) @ 11'	11'	11'	10/12/21			1	X									Soil	X	X										
5	NE Wall (A) @ 3'	3'	3'	10/12/21			1	X									Soil	X	X										
6	NE Wall (A) @ 5'	5'	5'	10/12/21			1	X									Soil	X	X										
7	AH-2 (A) @ 7'	7'	7'	10/12/21			1	X									Soil	X	X										
8	AH-2 (A) @ 9'	9'	9'	10/12/21			1	X									Soil	X	X										
9	AH-1 SE (A) @ 3'	3'	3'	10/12/21			1	X									Soil	X	X										
10	AH-1 SE (A) @ 5'	5'	5'	10/12/21			1	X									Soil	X	X										

**Special Instructions:**  
\* If Benzene is > or = 10 ppm of total BTEX is > = 50 ppm, then run next deeper sample. If TPH Dwg/Gro is > = 1000 ppm or Total TPH is > = 2,500 ppm then run next deeper sample. If Chlorides are > = 10,000 ppm, then run next deeper sample

Relinquished by: Jeff Kindley Date: 10/13/21 Time: 1430  
Received by: Chelsie Forsan Date: 10/13/21 Time: 1430

Relinquished by: Chelsie Forsan Date: 10/13/21 Time: 1430  
Received by: Chelsie Forsan Date: 10/13/21 Time: 1430

**Laboratory Comments:**  
Sample Containers intact? ☒  
VOCs Free of Headspace? ☒  
Labels on container(s) ☒  
Custody seals on container(s) ☒  
Sample Hand Delivered by Sampler/Client Rep? ☒  
Temperature Upon Receipt: 36 °C  
by Courier? ☒ UPS ☒ DHL ☒ FedEx ☒ Lone Star ☒  
Adjusted: 146 °C Factor CFH

**PBETLAB****CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST**Permian Basin Environmental Lab, LP  
1400 Rankin Hwy  
Midland, Texas 79701

Phone: 432-686-7235

PG. 2 of 2

Project Manager: Jeff Kindley

Company Name: Dean

Company Address: 12600 WCR 91

City/State/Zip: Midland TX 79707

Telephone No: 432-230-0920

Sampler Signature: Chelsea Forsan

Fax No:

e-mail:

jeffkindley@deandigs.com  
stevacasanova@deandigs.com  
kavlanlongee@deandigs.com  
elizabethstuart@deandigs.comReport Format: ☒ Standard☐ TRRP☐ NPDES

WORK ORDER #: SRS # 2020-050

Project Loc: Lea County, New Mexico

Project Name: Newbourne Toro

Project #: PP-21199

(lab use only)  
ORDER #: 1713006

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Ice	HNO <sub>3</sub> 250 ml Poly	HCl	H <sub>2</sub> SO <sub>4</sub>	NaOH	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	None 1L Poly	NaOH/ZnAc	DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	TPH TX1005 EXT (TEXAS)	BTEX 8021 B	TCLP BENZENE	CHLORIDES	TCLP METALS	NORM	PAINT FILTER	TOX	RCI	pH	TPH 8015 M (NEW MEXICO)	7 Day TAT	24 hour TAT
11	AH-1 SE (A) @ 7'	7'	7'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
12	AH-1 SE (A) @ 9'	9'	9'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
13	AH-1 E (A) @ 3'	3'	3'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
14	AH-1 E (A) @ 5'	5'	5'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
15	AH-1 E (A) @ 7'	7'	7'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
16	AH-1 NE (A) @ 5'	5'	5'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
17	AH-1 NE (A) @ 7'	7'	7'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
18	AH-1 NE (A) @ 9'	9'	9'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			
19	AH-1 NE (A) @ 11'	11'	11'	10/12/21			1	X								Soil	*	*	*	*	*	*	*	*	*	*			

**Special Instructions:**

\* If Benzene is &gt; or = to 10 ppm or total BTEX is &gt; = 50 ppm, then run next deeper sample. If TPH Dtd/Gro is &gt; = 1000 ppm or Total TPH is &gt; = 2,500 ppm then run next deeper sample. If Chlorides are &gt; = 10,000 ppm, then run next deeper sample

Relinquished by:	Date	Time	Received by:	Date	Time
Jeff Kindley	10/13/21	1430			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:  
 Sample Containers intact? ☒  
 VOCs Free of Headspaces? ☒  
 Labels on container(s) ☒  
 Custody seals on container(s) ☒  
 Custody seals on cooler(s) ☒  
 Sample Hand Delivered ☒  
 by Sampler/Client Rep? ☒  
 by Courier? ☒  
 Temperature upon Receipt: 15.0 °C  
 Adjusted: 14.0 °C Factor: 0.91  
 UPS ☒ DHL ☒ FedEx ☒ Lone Star ☒



DOC #: PBEL\_REV\_SUBMISSION

REVISION #: PBEL\_2021\_1

REVISION Date: 10/29/2021

EFFECTIVE DATE: 10/29/2021

## REVISION/SUBMISSION FORM

Please fill in the required fields below with any requested revisions. In the event that there are multiple workorders or projects to be amended each workorder or project **MUST** have a separate form filled out entirely. An amended COC must be submitted in addition to the Revision/Submission Form in order for the amendments to be processed. Amended COC's do not replace the requirement of this form. If a revision is required due to errors or omissions on our part this form is still required for the necessary Non-Conformance documentation. Rerun requests will incur additional charges.

Client: Plains

Project: Newbourne Toro PP-21199  
Lab order 1113006

Revision Request:

Need to Repeat Following TPH Results

Lab Sample 11 (AH-1 SE (A) @ 7')	Lab Sample 18 (AH-1 NE (A) @ 9')
Lab Sample 12 (AH-1 SE (A) @ 9')	Lab Sample 19 (AH-1 NE (A) @ 11')
Lab Sample 17 (AH-1 NE (A) @ 7')	

Submitted by (Name and Date):

*Jeff Kinley* November 15, 2021





DOC #: PBEL\_REV\_SUBMISSION

REVISION #: PBEL\_2021\_1

REVISION Date: 10/29/2021

EFFECTIVE DATE: 10/29/2021

## REVISION/SUBMISSION FORM

Please fill in the required fields below with any requested revisions. In the event that there are multiple workorders or projects to be amended each workorder or project MUST have a separate form filled out entirely. An amended COC must be submitted in addition to the Revision/Submission Form in order for the amendments to be processed. Amended COC's do not replace the requirement of this form. If a revision is required due to errors or omissions on our part this form is still required for the necessary Non-Conformance documentation. Rerun requests will incur additional charges.

Client: Plains M.

Project: Newbourne Toro PP- 21199  
Lab ORDER 15 130006

Revision Request:

Need to add BTEX for

Lab 02	AH-1 NE (A) 7'
Lab 03	AH-1 NE (A) 9'
Lab 04	AH-1 NE (A) 11'

Submitted by (Name and Date): Jeffy Kndly November 18, 2021



**PERMIAN BASIN  
ENVIRONMENTAL LAB, LP  
1400 Rankin Hwy  
Midland, TX 79701**



## Analytical Report

**Prepared for:**

Sylwia Reynolds  
Dean  
12600 W County Rd 91  
Midland, TX 79707

Project: Plains Mewbourne Toro

Project Number: PP-2061

Location: Lea County, NM

Lab Order Number: 0F26020



**Current Certification**

Report Date: 07/17/20

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
WC-1	0F26020-01	Soil	06/25/20 15:15	06-26-2020 13:00

TCLP Benzene, TCLP Metals and RCI analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:

[https://www.tceq.texas.gov/assets/public/compliance/compliance\\_support/qa/labs/als\\_svcs\\_houston.pdf](https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf)

NORM analysis were subcontracted to ARS International, Port Allen LA. Their report is attached to the email due to incompatibility issues with our LIMS.

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**WC-1**  
**0F26020-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**General Chemistry Parameters by EPA / Standard Methods**

<b>Chloride</b>	<b>86.4</b>	1.06	mg/kg dry	1	P0F3003	06/30/20 14:41	07/01/20 16:11	EPA 300.0	
Reactive Cyanide	ND	100	mg/kg	1	P0G1001	07/08/20 14:15	07/08/20 14:15	SW846 9010B	SUB-13
Ignitability by Flashpoint	> 212		°F	1	P0G1001	07/06/20 14:00	07/06/20 14:00	ASTM D93-80	SUB-13
<b>pH</b>	<b>7.80</b>	0.10	pH Units	1	P0G1001	07/08/20 14:18	07/08/20 14:18	EPA 9045B	SUB-13
<b>% Moisture</b>	<b>6.0</b>	0.1	%	1	P0F2701	06/27/20 10:22	06/29/20 09:44	ASTM D2216	
Reactive Sulfide	ND	100	mg/kg	1	P0G1001	07/08/20 13:10	07/08/20 13:10	SW846 9030B	SUB-13

**Naturally Occurring Radioactive Material (N.O.R.M.)**

Radium 226	ND	2.05	pCi/g	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12
<b>Radium 228</b>	<b>0.43</b>	0.26	pCi/g	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12
Lead 210	ND	1.72	pCi/g	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12
<b>Total Gamma</b>	<b>10.0</b>		pCi/g	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12
<b>Lead 210 Analysis Error</b>	<b>1.15</b>	+/- 2	Sigma	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12
<b>Radium 226 Analysis Error</b>	<b>1.14</b>	+/- 2	Sigma	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12
<b>Radium 228 Analysis Error</b>	<b>0.24</b>	+/- 2	Sigma	1	P0G1704	07/02/20 12:34	07/10/20 11:57	EPA 901.1	SUB12

**TCLP Metals 1311 by EPA / Standard Methods**

Mercury	ND	0.000200	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 17:05	EPA 7470A	SUB-13
Chromium	ND	0.0500	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13
Arsenic	ND	0.0500	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13
Selenium	ND	0.0500	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13
Silver	ND	0.0500	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13
Cadmium	ND	0.0500	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13
<b>Barium</b>	<b>0.823</b>	0.200	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13
Lead	ND	0.0500	mg/L	1	P0G1001	07/02/20 14:00	07/06/20 15:24	EPA 6020A	SUB-13

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**WC-1**  
**0F26020-01 (Soil)**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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**Permian Basin Environmental Lab, L.P.**

**TCLP Volatile Organic Compounds by EPA Method 1311/8260B**

Benzene	ND	100	ug/l	1	P0G1001	07/02/20 07:00	07/07/20 17:34	EPA 8260B	SUB-13
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**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M**

<b>C6-C12</b>	<b>2590</b>	133	mg/kg dry	5	P0F3004	06/30/20 15:42	06/30/20 18:32	TPH 8015M
<b>&gt;C12-C28</b>	<b>7640</b>	133	mg/kg dry	5	P0F3004	06/30/20 15:42	06/30/20 18:32	TPH 8015M
<b>&gt;C28-C35</b>	<b>826</b>	133	mg/kg dry	5	P0F3004	06/30/20 15:42	06/30/20 18:32	TPH 8015M
Surrogate: 1-Chlorooctane	97.8 %		70-130		P0F3004	06/30/20 15:42	06/30/20 18:32	TPH 8015M
Surrogate: o-Terphenyl	96.5 %		70-130		P0F3004	06/30/20 15:42	06/30/20 18:32	TPH 8015M
<b>Total Petroleum Hydrocarbon C6-C35</b>	<b>11100</b>	133	mg/kg dry	5	[CALC]	06/30/20 15:42	06/30/20 18:32	calc

**Physical Parameters by APHA/ASTM/EPA Methods**

Free Liquid	PASS		N/A	1	P0G1001	06/29/20 08:00	06/29/20 08:15	EPA 9095
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
<b>Batch P0F2701 - *** DEFAULT PREP ***</b>										
<b>Blank (P0F2701-BLK1)</b>	Prepared: 06/27/20 Analyzed: 06/29/20									
% Moisture	ND	0.1	%							
<b>Duplicate (P0F2701-DUP1)</b>	Source: 0F26003-14 Prepared: 06/27/20 Analyzed: 06/29/20									
% Moisture	ND	0.1	%		ND				20	
<b>Duplicate (P0F2701-DUP2)</b>	Source: 0F26010-11 Prepared: 06/27/20 Analyzed: 06/29/20									
% Moisture	6.0	0.1	%		6.0			0.00	20	
<b>Duplicate (P0F2701-DUP3)</b>	Source: 0F26010-38 Prepared: 06/27/20 Analyzed: 06/29/20									
% Moisture	3.0	0.1	%		3.0			0.00	20	
<b>Duplicate (P0F2701-DUP4)</b>	Source: 0F26015-11 Prepared: 06/27/20 Analyzed: 06/29/20									
% Moisture	ND	0.1	%		ND				20	
<b>Batch P0F3003 - *** DEFAULT PREP ***</b>										
<b>Blank (P0F3003-BLK1)</b>	Prepared: 06/30/20 Analyzed: 07/01/20									
Chloride	ND	1.00	mg/kg wet							
<b>LCS (P0F3003-BS1)</b>	Prepared: 06/30/20 Analyzed: 07/01/20									
Chloride	411	1.00	mg/kg wet	400		103	80-120			
<b>LCS Dup (P0F3003-BSD1)</b>	Prepared: 06/30/20 Analyzed: 07/01/20									
Chloride	407	1.00	mg/kg wet	400		102	80-120	0.851	20	
<b>Calibration Check (P0F3003-CCV1)</b>	Prepared: 06/30/20 Analyzed: 07/01/20									
Chloride	19.4		mg/kg	20.0		97.0	0-200			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**General Chemistry Parameters by EPA / Standard Methods - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F3003 - \*\*\* DEFAULT PREP \*\*\***

**Calibration Check (P0F3003-CCV2)**

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	18.7		mg/kg	20.0		93.3	0-200			
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**Matrix Spike (P0F3003-MS1)**

Source: 0F26018-07

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	521	1.04	mg/kg dry	521	22.6	95.7	80-120			
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**Matrix Spike (P0F3003-MS2)**

Source: 0F26022-03

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	5040	11.4	mg/kg dry	1140	3540	132	80-120			QM-05
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**Matrix Spike Dup (P0F3003-MSD1)**

Source: 0F26018-07

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	499	1.04	mg/kg dry	521	22.6	91.4	80-120	4.43	20	
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**Matrix Spike Dup (P0F3003-MSD2)**

Source: 0F26022-03

Prepared: 06/30/20 Analyzed: 07/01/20

Chloride	4900	11.4	mg/kg dry	1140	3540	119	80-120	2.80	20	
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Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F3004 - TX 1005****Blank (P0F3004-BLK1)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	79.5		"	100		79.5	70-130			
Surrogate: o-Terphenyl	38.7		"	50.0		77.5	70-130			

**LCS (P0F3004-BS1)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	993	25.0	mg/kg wet	1000		99.3	75-125			
>C12-C28	1060	25.0	"	1000		106	75-125			
Surrogate: 1-Chlorooctane	97.1		"	100		97.1	70-130			
Surrogate: o-Terphenyl	40.7		"	50.0		81.3	70-130			

**LCS Dup (P0F3004-BSD1)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	1050	25.0	mg/kg wet	1000		105	75-125	5.33	20	
>C12-C28	1100	25.0	"	1000		110	75-125	3.79	20	
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	41.9		"	50.0		83.7	70-130			

**Calibration Blank (P0F3004-CCB1)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	10.6		mg/kg wet							
>C12-C28	19.4		"							
Surrogate: 1-Chlorooctane	85.2		"	100		85.2	70-130			
Surrogate: o-Terphenyl	41.5		"	50.0		82.9	70-130			

**Calibration Blank (P0F3004-CCB2)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	12.2		mg/kg wet							
>C12-C28	22.5		"							
Surrogate: 1-Chlorooctane	91.7		"	100		91.7	70-130			
Surrogate: o-Terphenyl	44.1		"	50.0		88.3	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

**Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control**  
**Permian Basin Environmental Lab, L.P.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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**Batch P0F3004 - TX 1005****Calibration Check (P0F3004-CCV1)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	535	25.0	mg/kg wet	500		107	85-115			
>C12-C28	559	25.0	"	500		112	85-115			
Surrogate: 1-Chlorooctane	95.4		"	100		95.4	70-130			
Surrogate: o-Terphenyl	40.3		"	50.0		80.7	70-130			

**Calibration Check (P0F3004-CCV2)**

Prepared &amp; Analyzed: 06/30/20

C6-C12	549	25.0	mg/kg wet	500		110	85-115			
>C12-C28	565	25.0	"	500		113	85-115			
Surrogate: 1-Chlorooctane	99.5		"	100		99.5	70-130			
Surrogate: o-Terphenyl	42.2		"	50.0		84.3	70-130			

**Calibration Check (P0F3004-CCV3)**

Prepared: 06/30/20 Analyzed: 07/01/20

C6-C12	549	25.0	mg/kg wet	500		110	85-115			
>C12-C28	555	25.0	"	500		111	85-115			
Surrogate: 1-Chlorooctane	101		"	100		101	70-130			
Surrogate: o-Terphenyl	42.7		"	50.0		85.3	70-130			

**Matrix Spike (P0F3004-MS1)**

Source: 0F30004-01

Prepared: 06/30/20 Analyzed: 07/01/20

C6-C12	1530	129	mg/kg dry	1030	205	129	75-125			QM-05
>C12-C28	5730	129	"	1030	5060	64.7	75-125			QM-05
Surrogate: 1-Chlorooctane	122		"	103		118	70-130			
Surrogate: o-Terphenyl	53.8		"	51.5		104	70-130			

**Matrix Spike Dup (P0F3004-MSD1)**

Source: 0F30004-01

Prepared: 06/30/20 Analyzed: 07/01/20

C6-C12	1550	129	mg/kg dry	1030	205	131	75-125	1.53	20	QM-05
>C12-C28	5370	129	"	1030	5060	29.9	75-125	73.6	20	QM-05
Surrogate: 1-Chlorooctane	128		"	103		124	70-130			
Surrogate: o-Terphenyl	58.0		"	51.5		113	70-130			

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235



Dean  
12600 W County Rd 91  
Midland TX, 79707

Project: Plains Mewbourne Toro  
Project Number: PP-2061  
Project Manager: Sylwia Reynolds

Fax:

### Notes and Definitions

SUB-13 Subcontract of analyte/analysis to ALS Houston.

SUB12 Analysis was subcontracted to ARS Port Allen Lousiana.

ROI Received on Ice

QM-05 The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.

BULK Samples received in Bulk soil containers

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

LCS Laboratory Control Spike

MS Matrix Spike

Dup Duplicate

Report Approved By:



Date:

7/17/2020

Brent Barron, Laboratory Director/Technical Director

Permian Basin Environmental Lab, L.P.

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1400 Rankin HWY Midland, TX 79701 432-686-7235

Dean 12600 W County Rd 91 Midland TX, 79707	Project: Plains Mewbourne Toro Project Number: PP-2061 Project Manager: Sylwia Reynolds	Fax:
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This material is intended only for the use of the individual (s) or entity to whom it is addressed, and may contain information that is privileged and confidential.

If you have received this material in error, please notify us immediately at 432-686-7235.

**PBBLAB**

## CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
10014 S. County Road 1213  
Midland, Texas 79706

Phone: 432-686-7235

Project Manager: Jeffery KindleyCompany Name: Dean ServiceCompany Address: 12600 WCR 91City/State/Zip: Midland, TX 79707Telephone No: 432-230-0920Sampler Signature: Robert M. MillerFax No:  
e-mail:

Sylvia Russell  
Eligible Student  
Kaylon Long  
Jeff Kindley

Report Format:

☒ Standard☐ TRAP☐ NPDESProject Name: Newbourne Tera (Plains)Project #: PR-2061Project Loc: La Ge, NMPO #: 2020-051

(lab use only)

ORDER #: 0F26020

LAB # (lab use only)

FIELD CODE

Beginning Depth

Ending Depth

Date Sampled

Time Sampled

Field Filtered

Total #. of Containers

Ice

HNO<sub>3</sub>

HCl

H<sub>2</sub>SO<sub>4</sub>

NaOH

Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

None

Other (Specify)

DW=Drinking Water SL=Sludge

GW = Groundwater S=Soil/Solid

NP=Non-Potable Specify Other

TPH: TX 1005 TX 1006

Anions (Cl, SO<sub>4</sub>, Alkalinity)

BTEX 8021B/5030 or BTEX 8260

TPH 8015 m Ext

Chlorides

RCE

TCLP Benzene

TCLP Metals

Paint Filter

NORM

RUSH TAT (Pre-Schedule) 24, 48, 72 hrs

Standard TAT

Preservation &amp; # of Containers

Matrix

Analyze For:

TCLP:

TOTAL:

Special Instructions:

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Relinquished by:

Date

Time

Received by:

Date

Time

Laboratory Comments:

Sample Containers Intact?

VOCs Free of Headspaces?

Labels on container(s)?

Custody seals on container(s)?

Custody seals on cooler(s)?

Sample Hand Delivered?

by Carrier? UPS DHL FedEx

Temperature Upon Receipt: 41 °C 105 °FAdjusted: 5.1 °C Factor



---

10450 Stancliff Rd. Suite 210  
Houston, TX 77099  
T: +1 281 530 5656  
F: +1 281 530 5887

July 08, 2020

Brent Barron  
Permian Basin Environmental Lab, LP  
10014 SCR 1213  
Midland, TX 79706

Work Order: **HS20070019**

Laboratory Results for: **0F26020-1**

Dear Brent Barron,

ALS Environmental received 1 sample(s) on Jul 01, 2020 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: COREY.GRANDITS

Andy C. Neir

ALS Houston, US

Date: 08-Jul-20

Client: Permian Basin Environmental Lab, LP  
Project: 0F26020-1  
Work Order: HS20070019

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS20070019-01	0F26020-1	Solid		25-Jun-2020 15:15	01-Jul-2020 09:40	<input type="checkbox"/>

**ALS Houston, US**

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**Work Order:** HS20070019

**CASE NARRATIVE**

---

**GCMS Volatiles by Method SW8260****Batch ID: 155044**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**Metals by Method SW7470****Batch ID: 155166**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**Metals by Method SW1311/6020****Batch ID: 155093**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**WetChemistry by Method SW7.3.4.2****Batch ID: R364724**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**WetChemistry by Method SW7.3.3.2****Batch ID: R364726**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**WetChemistry by Method SW9045D****Batch ID: R364721**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

---

**WetChemistry by Method ASTM D92-12b****Batch ID: R364548**

- The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.
-

## ALS Houston, US

Date: 08-Jul-20

Client: Permian Basin Environmental Lab, LP  
 Project: 0F26020-1  
 Sample ID: 0F26020-1  
 Collection Date: 25-Jun-2020 15:15

## ANALYTICAL REPORT

WorkOrder:HS20070019  
 Lab ID:HS20070019-01  
 Matrix:Solid

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
<b>TCLP VOLATILES</b>						
	<b>Method:SW8260</b>		Leache:SW1311 / 02-Jul-2020	Prep:SW1311 / 02-Jul-2020	Analyst: PC	
Benzene	ND		0.10	mg/L	20	04-Jul-2020 22:10
Surr: 1,2-Dichloroethane-d4	92.3		70-126	%REC	20	04-Jul-2020 22:10
Surr: 4-Bromofluorobenzene	95.7		82-124	%REC	20	04-Jul-2020 22:10
Surr: Dibromofluoromethane	99.1		77-123	%REC	20	04-Jul-2020 22:10
Surr: Toluene-d8	96.8		82-127	%REC	20	04-Jul-2020 22:10
<b>TCLP METALS BY SW6020A</b>						
	<b>Method:SW1311/6020</b>		Leache:SW1311 / 02-Jul-2020	Prep:SW3010A / 02-Jul-2020	Analyst: JHD	
Arsenic	ND		0.0500	mg/L	1	06-Jul-2020 15:24
Barium	0.823		0.200	mg/L	1	06-Jul-2020 15:24
Cadmium	ND		0.0500	mg/L	1	06-Jul-2020 15:24
Chromium	ND		0.0500	mg/L	1	06-Jul-2020 15:24
Lead	ND		0.0500	mg/L	1	06-Jul-2020 15:24
Selenium	ND		0.0500	mg/L	1	06-Jul-2020 15:24
Silver	ND		0.0500	mg/L	1	06-Jul-2020 15:24
<b>TCLP MERCURY BY SW7470A</b>						
	<b>Method:SW7470</b>		Leache:SW1311 / 02-Jul-2020	Prep:SW7470 / 06-Jul-2020	Analyst: FO	
Mercury	ND		0.000200	mg/L	1	06-Jul-2020 17:05
<b>FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B</b>						
	<b>Method:ASTM D92-12b</b>		Analyst: TH			
Flash Point	> 212	n	50.0	°F	1	06-Jul-2020 14:00
<b>REACTIVE CYANIDE</b>						
	<b>Method:SW7.3.3.2</b>		Prep:SW7.3.3.2		Analyst: KVL	
Reactive Cyanide	ND	n	100	mg/Kg	1	08-Jul-2020 14:15
<b>REACTIVE SULFIDE</b>						
	<b>Method:SW7.3.4.2</b>		Analyst: KVL			
Reactive Sulfide	ND	n	100	mg/Kg	1	08-Jul-2020 13:10
<b>PH SOIL BY SW9045D</b>						
	<b>Method:SW9045D</b>		Analyst: JAC			
pH	7.80	H	0.100	pH Units	1	08-Jul-2020 14:18
Temp Deg C @pH	24.0	H	0	°C	1	08-Jul-2020 14:18

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 08-Jul-20

## Weight / Prep Log

Client: Permian Basin Environmental Lab, LP

Project: 0F26020-1

WorkOrder: HS20070019

<b>Batch ID:</b> 155042	<b>Start Date:</b> 01 Jul 2020 14:00	<b>End Date:</b> 02 Jul 2020 07:00
<b>Method:</b> TCLP MERCURY EXTRACTION BY SW1311	<b>Prep Code:</b> 1311LHG EXT	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20070019-01		100 (grams)	2000 (mL)	20

<b>Batch ID:</b> 155043	<b>Start Date:</b> 01 Jul 2020 14:00	<b>End Date:</b> 02 Jul 2020 07:00
<b>Method:</b> TCLP METALS EXTRACTION BY SW1311	<b>Prep Code:</b> 1311LM EXT	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20070019-01		100 (grams)	2000 (mL)	20

<b>Batch ID:</b> 155044	<b>Start Date:</b> 01 Jul 2020 14:00	<b>End Date:</b> 02 Jul 2020 07:00
<b>Method:</b> TCLP ZHE (VOL EXTRACTION)	<b>Prep Code:</b> 1311ZHE	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20070019-01		25 (g)	500 (mL)	20

<b>Batch ID:</b> 155093	<b>Start Date:</b> 02 Jul 2020 16:00	<b>End Date:</b> 02 Jul 2020 16:00
<b>Method:</b> TCLP LEACHATE DIGESTION BY SW3010A	<b>Prep Code:</b> 3010A_TCLP	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20070019-01		1 (mL)	10 (mL)	10

<b>Batch ID:</b> 155166	<b>Start Date:</b> 06 Jul 2020 11:30	<b>End Date:</b> 06 Jul 2020 13:30
<b>Method:</b> MERCURY TCLP PREP BY SW7470A	<b>Prep Code:</b> 1311_HGPR	

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS20070019-01		10 (mL)	10 (mL)	1



ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

**DATES REPORT**

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
<b>Batch ID:</b> 155044 ( 0 )		<b>Test Name :</b> TCLP VOLATILES			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15	02 Jul 2020 11:04	02 Jul 2020 11:10	04 Jul 2020 22:10	20
<b>Batch ID:</b> 155093 ( 0 )		<b>Test Name :</b> TCLP METALS BY SW6020A			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15	02 Jul 2020 07:00	02 Jul 2020 16:00	06 Jul 2020 15:24	1
<b>Batch ID:</b> 155166 ( 0 )		<b>Test Name :</b> TCLP MERCURY BY SW7470A			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15	02 Jul 2020 07:00	06 Jul 2020 11:30	06 Jul 2020 17:05	1
<b>Batch ID:</b> R364548 ( 0 )		<b>Test Name :</b> FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15			06 Jul 2020 14:00	1
<b>Batch ID:</b> R364721 ( 0 )		<b>Test Name :</b> PH SOIL BY SW9045D			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15			08 Jul 2020 14:18	1
<b>Batch ID:</b> R364724 ( 0 )		<b>Test Name :</b> REACTIVE SULFIDE			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15			08 Jul 2020 13:10	1
<b>Batch ID:</b> R364726 ( 0 )		<b>Test Name :</b> REACTIVE CYANIDE			<b>Matrix:</b> Solid	
HS20070019-01	0F26020-1	25 Jun 2020 15:15			08 Jul 2020 14:15	1

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: 155093 ( 0 )		Instrument: ICPMS04		Method: TCLP METALS BY SW6020A						
MBLK	Sample ID: MBLKT2-155093	Units: mg/L			Analysis Date: 02-Jul-2020 22:03					
Client ID:	Run ID: ICPMS04_364390		SeqNo: 5651510		PrepDate: 02-Jul-2020		DF: 1			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual	

Arsenic	ND	0.0500
Barium	ND	0.200
Cadmium	ND	0.0500
Chromium	ND	0.0500
Lead	ND	0.0500
Selenium	ND	0.0500
Silver	ND	0.0500

<b>MBLK</b>	Sample ID: <b>MBLKT4-155093</b>	Units: <b>mg/L</b>		Analysis Date: <b>02-Jul-2020 22:07</b>					
Client ID:	Run ID: <b>ICPMS04_364390</b>		SeqNo: <b>5651512</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	ND	0.0500
Barium	ND	0.200
Cadmium	ND	0.0500
Chromium	ND	0.0500
Lead	ND	0.0500
Selenium	ND	0.0500
Silver	ND	0.0500

<b>MBLK</b>	Sample ID: <b>MBLKT3-155093</b>	Units: <b>mg/L</b>		Analysis Date: <b>02-Jul-2020 22:05</b>					
Client ID:	Run ID: <b>ICPMS04_364390</b>		SeqNo: <b>5651511</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	ND	0.0500
Barium	ND	0.200
Cadmium	ND	0.0500
Chromium	ND	0.0500
Lead	ND	0.0500
Selenium	ND	0.0500
Silver	ND	0.0500

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: 155093 ( 0 )		Instrument: ICPMS04		Method: TCLP METALS BY SW6020A					
<b>MBLK</b>	Sample ID: <b>MBLKT1-155093</b>	Units: <b>mg/L</b>		Analysis Date: <b>02-Jul-2020 22:00</b>					
Client ID:	Run ID: <b>ICPMS04_364390</b>	SeqNo: <b>5651509</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	ND	0.0500							
Barium	ND	0.200							
Cadmium	ND	0.0500							
Chromium	ND	0.0500							
Lead	ND	0.0500							
Selenium	ND	0.0500							
Silver	ND	0.0500							

<b>MBLK</b>	Sample ID: <b>MBLK-155093</b>	Units: <b>mg/L</b>		Analysis Date: <b>02-Jul-2020 21:58</b>					
Client ID:	Run ID: <b>ICPMS04_364390</b>	SeqNo: <b>5651524</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	ND	0.00500							
Barium	ND	0.0200							
Cadmium	ND	0.00500							
Chromium	ND	0.00500							
Lead	ND	0.00500							
Selenium	ND	0.00500							
Silver	ND	0.00500							

<b>LCS</b>	Sample ID: <b>LCS-155093</b>	Units: <b>mg/L</b>		Analysis Date: <b>02-Jul-2020 22:09</b>					
Client ID:	Run ID: <b>ICPMS04_364390</b>	SeqNo: <b>5651513</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual

Arsenic	0.04753	0.00500	0.05	0	95.1	80 - 120			
Barium	0.04696	0.0200	0.05	0	93.9	80 - 120			
Cadmium	0.04853	0.00500	0.05	0	97.1	80 - 120			
Chromium	0.04691	0.00500	0.05	0	93.8	80 - 120			
Lead	0.0456	0.00500	0.05	0	91.2	80 - 120			
Selenium	0.04835	0.00500	0.05	0	96.7	80 - 120			
Silver	0.04688	0.00500	0.05	0	93.8	80 - 120			

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: 155093 ( 0 )		Instrument: ICPMS04		Method: TCLP METALS BY SW6020A					
<b>MS</b>		Sample ID: HS20061449-01MS		Units: mg/L		Analysis Date: 02-Jul-2020 22:19			
Client ID:		Run ID: ICPMS04_364390		SeqNo: 5651516		PrepDate: 02-Jul-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.5326	0.0500	0.5	0.00192	106	80 - 120			
Barium	1.207	0.200	0.5	0.6406	113	80 - 120			
Cadmium	0.5151	0.0500	0.5	0.00149	103	80 - 120			
Chromium	0.5093	0.0500	0.5	0.00109	102	80 - 120			
Lead	0.5042	0.0500	0.5	0.00517	99.8	80 - 120			
Selenium	0.5413	0.0500	0.5	0.00517	107	80 - 120			
Silver	0.4944	0.0500	0.5	0.00018	98.8	80 - 120			

<b>MSD</b>		Sample ID: HS20061449-01MSD		Units: mg/L		Analysis Date: 02-Jul-2020 22:21			
Client ID:		Run ID: ICPMS04_364390		SeqNo: 5651517		PrepDate: 02-Jul-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	0.5029	0.0500	0.5	0.00192	100	80 - 120	0.5326	5.74	20
Barium	1.159	0.200	0.5	0.6406	104	80 - 120	1.207	4.04	20
Cadmium	0.5056	0.0500	0.5	0.00149	101	80 - 120	0.5151	1.85	20
Chromium	0.4792	0.0500	0.5	0.00109	95.6	80 - 120	0.5093	6.09	20
Lead	0.482	0.0500	0.5	0.00517	95.4	80 - 120	0.5042	4.5	20
Selenium	0.5101	0.0500	0.5	0.00517	101	80 - 120	0.5413	5.93	20
Silver	0.4767	0.0500	0.5	0.00018	95.3	80 - 120	0.4944	3.64	20

<b>PDS</b>		Sample ID: HS20061449-01PDS		Units: mg/L		Analysis Date: 02-Jul-2020 22:23			
Client ID:		Run ID: ICPMS04_364390		SeqNo: 5651518		PrepDate: 02-Jul-2020		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Arsenic	1.062	0.0500	1	0.00192	106	75 - 125			
Barium	1.671	0.200	1	0.6406	103	75 - 125			
Cadmium	1.034	0.0500	1	0.00149	103	75 - 125			
Chromium	1.009	0.0500	1	0.00109	101	75 - 125			
Lead	1.007	0.0500	1	0.00517	100	75 - 125			
Selenium	1.075	0.0500	1	0.00517	107	75 - 125			
Silver	0.9849	0.0500	1	0.00018	98.5	75 - 125			

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: 155093 ( 0 )		Instrument: ICPMS04		Method: TCLP METALS BY SW6020A						
<b>SD</b>		Sample ID: <b>HS20061449-01SD</b>		Units: <b>mg/L</b>		Analysis Date: <b>02-Jul-2020 22:17</b>				
Client ID:		Run ID: <b>ICPMS04_364390</b>		SeqNo: <b>5651515</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>5</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%D	%D Limit	Qual
Arsenic	ND	0.250					0.00192	0	10	
Barium	0.6091	1.00					0.6406	0	10	J
Cadmium	ND	0.250					0.00149	0	10	
Chromium	ND	0.250					0.00109	0	10	
Lead	ND	0.250					0.00517	0	10	
Selenium	ND	0.250					0.00517	0	10	
Silver	ND	0.250					0.00018	0	10	

The following samples were analyzed in this batch: HS20070019-01

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: 155166 ( 0 )		Instrument: HG03		Method: TCLP MERCURY BY SW7470A					
<b>MBLK</b>	Sample ID: <b>MBLKT1-155166</b>	Units: <b>mg/L</b>		Analysis Date: <b>06-Jul-2020 17:02</b>					
Client ID:	Run ID: <b>HG03_364560</b>		SeqNo: <b>5651866</b>		PrepDate: <b>06-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	ND	0.000200							
<b>MBLK</b>	Sample ID: <b>MBLK-155166</b>	Units: <b>mg/L</b>		Analysis Date: <b>06-Jul-2020 16:53</b>					
Client ID:	Run ID: <b>HG03_364560</b>		SeqNo: <b>5651861</b>		PrepDate: <b>06-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	ND	0.000200							
<b>LCS</b>	Sample ID: <b>LCS-155166</b>	Units: <b>mg/L</b>		Analysis Date: <b>06-Jul-2020 16:55</b>					
Client ID:	Run ID: <b>HG03_364560</b>		SeqNo: <b>5651862</b>		PrepDate: <b>06-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	0.00504	0.000200	0.005	0	101	80 - 120			
<b>MS</b>	Sample ID: <b>HS20061508-01MS</b>	Units: <b>mg/L</b>		Analysis Date: <b>06-Jul-2020 16:58</b>					
Client ID:	Run ID: <b>HG03_364560</b>		SeqNo: <b>5651864</b>		PrepDate: <b>06-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	0.00507	0.000200	0.005	0.000022	101	75 - 125			
<b>MSD</b>	Sample ID: <b>HS20061508-01MSD</b>	Units: <b>mg/L</b>		Analysis Date: <b>06-Jul-2020 17:00</b>					
Client ID:	Run ID: <b>HG03_364560</b>		SeqNo: <b>5651865</b>		PrepDate: <b>06-Jul-2020</b>		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Mercury	0.00495	0.000200	0.005	0.000022	98.6	75 - 125	0.00507	2.4	20
The following samples were analyzed in this batch: HS20070019-01									

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: 155044 ( 0 )		Instrument: VOA9		Method: TCLP VOLATILES					
<b>MBLK</b>	Sample ID: <b>MBLK-155044</b>	Units: <b>ug/L</b>		Analysis Date: <b>04-Jul-2020 21:21</b>					
Client ID:	Run ID: <b>VOA9_364526</b>	SeqNo: <b>5650720</b>		PrepDate: <b>02-Jul-2020</b>		DF: <b>20</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	ND	100							
Surr: 1,2-Dichloroethane-d4	944.2	100	1000	0	94.4	70 - 130			
Surr: 4-Bromofluorobenzene	934.7	100	1000	0	93.5	82 - 115			
Surr: Dibromofluoromethane	984.8	100	1000	0	98.5	73 - 126			
Surr: Toluene-d8	977.3	100	1000	0	97.7	81 - 120			
<b>LCS</b>	Sample ID: <b>VLCSW-155044</b>	Units: <b>ug/L</b>		Analysis Date: <b>04-Jul-2020 12:18</b>					
Client ID:	Run ID: <b>VOA9_364526</b>	SeqNo: <b>5650716</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	17.54	5.0	20	0	87.7	74 - 120			
Surr: 1,2-Dichloroethane-d4	45.55	5.0	50	0	91.1	70 - 130			
Surr: 4-Bromofluorobenzene	50.76	5.0	50	0	102	82 - 115			
Surr: Dibromofluoromethane	48.64	5.0	50	0	97.3	73 - 126			
Surr: Toluene-d8	49.15	5.0	50	0	98.3	81 - 120			
<b>MS</b>	Sample ID: <b>HS20070069-03MS</b>	Units: <b>ug/L</b>		Analysis Date: <b>04-Jul-2020 17:14</b>					
Client ID:	Run ID: <b>VOA9_364526</b>	SeqNo: <b>5650719</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Benzene	21.39	5.0	20	0	107	70 - 127			
Surr: 1,2-Dichloroethane-d4	46.42	5.0	50	0	92.8	70 - 126			
Surr: 4-Bromofluorobenzene	49.55	5.0	50	0	99.1	82 - 124			
Surr: Dibromofluoromethane	48.8	5.0	50	0	97.6	77 - 123			
Surr: Toluene-d8	49.58	5.0	50	0	99.2	82 - 127			
The following samples were analyzed in this batch: HS20070019-01									

ALS Houston, US

Date: 08-Jul-20

Client: Permian Basin Environmental Lab, LP

Project: 0F26020-1

WorkOrder: HS20070019

## QC BATCH REPORT

Batch ID: R364548 ( 0 )		Instrument: WetChem_HS		Method: FLASH POINT BY CLEVELAND OPEN CUP ASTM D92-12B					
DUP	Sample ID: HS20061508-01DUP	Units: °F		Analysis Date: 06-Jul-2020 14:00					
Client ID:	Run ID: WetChem_HS_364548		SeqNo: 5651166		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
Flash Point	> 212	50.0					0	0	30

The following samples were analyzed in this batch: HS20070019-01



## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: R364721 ( 0 )		Instrument: WetChem_HS		Method: PH SOIL BY SW9045D					
<b>DUP</b>	Sample ID: HS20070019-01DUP	Units: pH Units		Analysis Date: 08-Jul-2020 14:18					
Client ID: 0F26020-1	Run ID: WetChem_HS_364721		SeqNo: 5654791		PrepDate:		DF: 1		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit Qual
pH	7.77	0.100					7.8	0.385	10
Temp Deg C @pH	24	0					24	0	10

The following samples were analyzed in this batch: HS20070019-01

## ALS Houston, US

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

## QC BATCH REPORT

Batch ID: R364724 ( 0 )		Instrument: WetChem_HS		Method: REACTIVE SULFIDE					
<b>MBLK</b>	Sample ID: <b>MBLK-R364724</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>08-Jul-2020 13:10</b>					
Client ID:	Run ID: <b>WetChem_HS_364724</b>		SeqNo: <b>5654832</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	ND	100							

<b>LCS</b>	Sample ID: <b>LCS-R364724</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>08-Jul-2020 13:10</b>					
Client ID:	Run ID: <b>WetChem_HS_364724</b>		SeqNo: <b>5654831</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	72	100	100	0	72.0	20 - 120			J

<b>MS</b>	Sample ID: <b>HS20070019-01MS</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>08-Jul-2020 13:10</b>					
Client ID: <b>0F26020-1</b>	Run ID: <b>WetChem_HS_364724</b>		SeqNo: <b>5654833</b>		PrepDate:		DF: <b>1</b>		
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Sulfide	64	100	100	0	64.0	20 - 120			J

The following samples were analyzed in this batch: HS20070019-01

## ALS Houston, US

Date: 08-Jul-20

Client: Permian Basin Environmental Lab, LP

Project: 0F26020-1

WorkOrder: HS20070019

## QC BATCH REPORT

Batch ID: R364726 ( 0 )		Instrument: UV-2450		Method: REACTIVE CYANIDE					
<b>MBLK</b>	Sample ID: <b>MBLK-R364726</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>08-Jul-2020 14:15</b>					
Client ID:	Run ID: <b>UV-2450_364726</b>	SeqNo: <b>5654848</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Cyanide	ND	100							
<b>LCS</b>	Sample ID: <b>LCS-R364726</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>08-Jul-2020 14:15</b>					
Client ID:	Run ID: <b>UV-2450_364726</b>	SeqNo: <b>5654847</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Cyanide	0.62	100	10	0	6.20	5 - 100			J
<b>MS</b>	Sample ID: <b>HS20070019-01MS</b>	Units: <b>mg/Kg</b>		Analysis Date: <b>08-Jul-2020 14:15</b>					
Client ID: <b>0F26020-1</b>	Run ID: <b>UV-2450_364726</b>	SeqNo: <b>5654849</b>		PrepDate:		DF: <b>1</b>			
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	RPD %RPD	RPD Limit Qual
Reactive Cyanide	0.65	100	10	0	6.50	5 - 100			J
The following samples were analyzed in this batch: HS20070019-01									

**ALS Houston, US**

Date: 08-Jul-20

**Client:** Permian Basin Environmental Lab, LP  
**Project:** 0F26020-1  
**WorkOrder:** HS20070019

**QUALIFIERS,  
ACRONYMS, UNITS**

<b>Qualifier</b>	<b>Description</b>
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

<b>Acronym</b>	<b>Description</b>
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitation Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

<b>Unit Reported</b>	<b>Description</b>
Date	
mg/L	Milligrams per Liter

ALS Houston, US

Date: 08-Jul-20

---

**CERTIFICATIONS,ACCREDITATIONS & LICENSES**

---

Agency	Number	Expire Date
Arkansas	20-030-0	26-Mar-2021
Dept of Defense	ANAB L2231 V009	22-Dec-2021
Illinois	2000322020-4	09-May-2021
Kansas	E-10352 2019-2020	31-Jul-2020
North Carolina	624-2020	31-Dec-2020
Oklahoma	2019-141	31-Aug-2020
Texas	T104704231-20-26	30-Apr-2021

## ALS Houston, US

Date: 08-Jul-20

## Sample Receipt Checklist

Work Order ID: HS20070019

Date/Time Received: 01-Jul-2020 09:40

Client Name: Permian Basin Lab

Received by: Paresh M. Giga

Completed By: /S/ Bernadette A. Fini

01-Jul-2020 12:19

Reviewed by:

eSignature

Date/Time

eSignature

Date/Time

Matrices: **solid**Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?

Yes ☒No ☐Not Present ☐

Custody seals intact on shipping container/cooler?

Yes ☐No ☐Not Present ☒

Custody seals intact on sample bottles?

Yes ☐No ☐Not Present ☒

VOA/TX1005/TX1006 Solids in hermetically sealed vials?

Yes ☐No ☐Not Present ☒

Chain of custody present?

Yes ☒No ☐

1 Page(s)

Chain of custody signed when relinquished and received?

Yes ☒No ☐

COC IDs:0F26020

Samplers name present on COC?

Yes ☒No ☐

Chain of custody agrees with sample labels?

Yes ☒No ☐

Samples in proper container/bottle?

Yes ☒No ☐

Sample containers intact?

Yes ☒No ☐

Sufficient sample volume for indicated test?

Yes ☒No ☐

All samples received within holding time?

Yes ☒No ☐

Container/Temp Blank temperature in compliance?

Yes ☒No ☐

Temperature(s)/Thermometer(s):

1.5,1.5 uc/c

IR25

Cooler(s)/Kit(s):

red

Date/Time sample(s) sent to storage:

7-1-20 13:00

Water - VOA vials have zero headspace?

Yes ☐No ☐No VOA vials submitted ☒

Water - pH acceptable upon receipt?

Yes ☐No ☐N/A ☒

pH adjusted?

Yes ☐No ☐N/A ☒

pH adjusted by:

Login Notes:

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

Corrective Action:

### CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP  
1400 Rankin HWY  
Midland, Texas 79701

Phone: 432-686-7235  
PBELAB\_SUB\_COC V2

Project Manager: Brent Barron

Company Name PBEL

Company Address: 1400 Rankin HWY

City/State/Zip: Midland Texas 79701

Telephone No: 432-661-4184

Fax No:

e-mail: [brentbarron@pbelab.com](mailto:brentbarron@pbelab.com)

**HS20070019**

Permian Basin Environmental Lab. LP  
0F26020-1

[illegible]

Red

**FedEx** WED - 01 JUL AA  
TRK# 8147 4810 4662 STANDARD OVERNIGHT  
0200

**AB SGRA** Red 77099  
TX-US IAH



TID 5818442 5811028 MM A 56022/1717/8542



## **APPENDIX E**

### **PHOTOGRAPHIC DOCUMENTATION**

**Photograph No. 1**

Date: May 27, 2020

Direction: North

Description: View of release area.

**Photograph No. 2**

Date: May 27, 2020

Direction: North East

Description: View of release area.





**Photograph No. 3**

Date: May 27, 2020

Direction: South East

Description: View of release area.



**Photograph No. 4**

Date: May 27, 2020

Direction: South

Description: View of release area.





**Photograph No. 5**

Date: June 19, 2020

Direction: South East

Description: View of area during excavation.

**Photograph No. 6**

Date: June 19, 2020

Direction: North East

Description: View of area during excavation.





**Photograph No. 7**

Date: June 22, 2020

Direction: South

Description: View of release area during excavation.

**Photograph No. 8**

Date: June 23, 2020

Direction: South East

Description: View of release area during excavation.





**Photograph No. 9**

Date: June 30, 2020

Direction: North

Description: View of area during excavation.



**Photograph No.10**

Date: July 30, 2020

Direction: East

Description: View of area during excavation.





**Photograph No.11**

Date: September 25, 2020

Direction: North

Description: View of sample location "AH-1 SE" area.

**Photograph No.12**

Date: September 25, 2020

Direction: East

Description: View of the excavation area.





**Photograph No 13.**

Date: June 8, 2021

Direction: East

Description: View of backfilled site.

**Photograph No 14.**

Date: June 8, 2021

Direction: North

Description: View of backfilled remediation.





**Photograph No 15.**

Date: April 20, 2021

Direction: West

Description: View of installation of soil boring.



**Photograph No 16.**

Date: June 8, 2021

Direction: South

Description: View of grouted soil boring location.



**APPENDIX F**  
**EMAIL DEFERRAL REQUEST OF NMOCD RESPONSE**

**Jeff Kindley**

---

**From:** Amber L Groves <ALGroves@paalp.com>  
**Sent:** Thursday, July 8, 2021 12:17 PM  
**To:** Jeff Kindley  
**Subject:** FW: [EXT] RE: 2nd Re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request

**From:** Amber L Groves  
**Sent:** Wednesday, April 14, 2021 2:33 PM  
**To:** 'Eads, Cristina, EMNRD' <Cristina.Eads@state.nm.us>; Hamlet, Robert, EMNRD <Robert.Hamlet@state.nm.us>; Venegas, Victoria, EMNRD <Victoria.Venegas@state.nm.us>  
**Cc:** Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>; Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Camille J Bryant <CJBryant@paalp.com>  
**Subject:** RE: [EXT] RE: 2nd Re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request [External]

Good Afternoon, Cristina,

After extensive groundwater searches, Plains will be installing a soil bore to approximately 75' bgs on Tuesday April 20<sup>th</sup> per NMOCD request.

To address your questions below, this was an above-ground release. Release volumes are not calculated by our remediation group and are the sole responsibility of operations, typically the district manager. For this release in particular, Tommy Bacon ([tjbacon@paalp.com](mailto:tjbacon@paalp.com)) would need to be reached to answer how the release volume was calculated.

Plains endeavors to maintain a status of being a top-notch operator in terms of remediation so in-situ and any other options are always considered. Unfortunately, due to the presence and nature of equipment, as well as unintended outcomes of some in-situ methods currently used in the industry, there is not an adequate method that this site would be candidate for. We have certainly run pilot projects on smaller projects to determine effectiveness through the years with miniscule returns on desired end results. Please feel free to give me call if you would like to discuss!

Thank you,

*Amber L. Groves  
 Remediation Coordinator  
 Plains All American  
 3112 W. US Hwy 82  
 Lovington, NM 88260  
 575-200-5517*

**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Sent:** Wednesday, February 10, 2021 3:39 PM  
**To:** Amber L Groves <[ALGroves@paalp.com](mailto:ALGroves@paalp.com)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>

**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Camille J Bryant <[CJBryant@paalp.com](mailto:CJBryant@paalp.com)>  
**Subject:** RE: [EXT] RE: 2nd Re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H  
 Variance/Deferral Request [External]

Amber,

You are correct that variance requests are not required to be submitted through the fee portal and can be submitted via email. However, since this is also a deferral request it should have been submitted through the fee portal along with the completion of pages 3-5 of the C-141. The information that is required for a remediation plan/closure request is similar for a deferral request, thus requiring a similar review process.

After taking a look at the attachment you included with your original email, the variance request and deferral request are denied for the following reason:

- Vertical delineation has not been achieved in multiple locations because the depth to groundwater has not been adequately established. The wells you referenced in your attachment were over a mile away from the site. When nearby wells are used to determine depth to groundwater, the wells should be no further than ½ mile away from the site, and data should be no more than 25 years old, and well construction information should be provided. Unless you can find a well or well data that meets this criteria, a soil boring will need to be installed.

Aside from the depth to water being established, I have a couple of questions and comments regarding this release and remediation -- Did this release happen at the surface or below ground? And if below ground, at what depth? How was the volume of release calculated? It seems that a large volume of material was impacted for a 10 bbl release. Based on the concentration of contaminants you are requested leaving in place, has an in-situ remediation method been considered?

I would also like to note that if the deferral request were to be approved, the incident would remain open until the release was properly remediated.

Please let me know if you have any additional questions.

Thank you,

**Cristina Eads** • Environmental Specialist - A  
 Environmental Bureau  
 EMNRD - Oil Conservation Division  
 5200 Oakland Ave, Suite100 | Albuquerque, NM 87113  
 505.670.5601 | [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

**From:** Amber L Groves <[ALGroves@paalp.com](mailto:ALGroves@paalp.com)>  
**Sent:** Wednesday, February 10, 2021 1:31 PM  
**To:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Camille J Bryant <[CJBryant@paalp.com](mailto:CJBryant@paalp.com)>  
**Subject:** [EXT] RE: 2nd Re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H  
 Variance/Deferral Request

Good Afternoon, Cristina,

I do not have a PO. Since it is a variance request, it has been my understanding that as it doesn't have a portion of the C-141 for association, it could be submitted via e-mail. I fully intend to include the variance and deferral in the closure report and submit through the online portal.

Thank you,

Amber

**From:** Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Sent:** Wednesday, February 10, 2021 2:22 PM  
**To:** Amber L Groves <[ALGroves@paalp.com](mailto:ALGroves@paalp.com)>; Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Camille J Bryant <[CJBryant@paalp.com](mailto:CJBryant@paalp.com)>  
**Subject:** RE: 2nd Re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request [External]

Amber,

Do you have a PO for this submittal? I checked the incident file and see that we only have record of the Initial C-141 being submitted on 5/28/2020.

Thanks,

**Cristina Eads** • Environmental Specialist - A  
 Environmental Bureau  
 EMNRD - Oil Conservation Division  
 5200 Oakland Ave, Suite100 | Albuquerque, NM 87113  
 505.670.5601 | [Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)  
<http://www.emnrd.state.nm.us/OCD/>

**From:** Amber L Groves <[ALGroves@paalp.com](mailto:ALGroves@paalp.com)>  
**Sent:** Wednesday, February 10, 2021 1:02 PM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>; Venegas, Victoria, EMNRD <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Camille J Bryant <[CJBryant@paalp.com](mailto:CJBryant@paalp.com)>  
**Subject:** [EXT] 2nd Re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request

Good Afternoon,

Please consider this as the second re-submittal of NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request. This was originally submitted on September 30<sup>th</sup> and re-submitted on December 1<sup>st</sup>. Please feel free to give me a call should you have any questions.

Thank you,

*Amber L. Groves*  
*Remediation Coordinator*  
*Plains All American*  
*3112 W. US Hwy 82*



Lovington, NM 88260  
575-200-5517

**From:** Amber L Groves  
**Sent:** Tuesday, December 1, 2020 2:00 PM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; 'Venegas, Victoria, EMNRD' <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>; Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; 'Billings, Bradford, EMNRD' <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Camille J Bryant <[CJBryant@paalp.com](mailto:CJBryant@paalp.com)>  
**Subject:** FW: NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request

Good Afternoon,

Please consider this as a re-submittal for the below and attached request that was sent on September 30<sup>th</sup> and would now be considered in automatic denial. Please feel free to give me a call at 575-200-5517 should you have any questions.

Thank you,

*Amber L. Groves*  
 Remediation Coordinator  
 Plains All American  
 3112 W. US Hwy 82  
 Lovington, NM 88260  
 575-200-5517

**From:** Amber L Groves  
**Sent:** Wednesday, September 30, 2020 3:43 PM  
**To:** Hamlet, Robert, EMNRD <[Robert.Hamlet@state.nm.us](mailto:Robert.Hamlet@state.nm.us)>; 'Venegas, Victoria, EMNRD' <[Victoria.Venegas@state.nm.us](mailto:Victoria.Venegas@state.nm.us)>; Eads, Cristina, EMNRD <[Cristina.Eads@state.nm.us](mailto:Cristina.Eads@state.nm.us)>  
**Cc:** Bratcher, Mike, EMNRD <[mike.bratcher@state.nm.us](mailto:mike.bratcher@state.nm.us)>; Billings, Bradford, EMNRD <[Bradford.Billings@state.nm.us](mailto:Bradford.Billings@state.nm.us)>; Camille J Bryant <[CJBryant@paalp.com](mailto:CJBryant@paalp.com)>  
**Subject:** NRM2015326612 Plains Mewbourne Toro 36 B3BO State Com #1H Variance/Deferral Request

Good Afternoon,

On May 23, 2020 Plains had an approximate 10.4 bbl crude oil release at the Mewbourne Toro 36 B3BO State Com #1H with initial C-141 filed and subsequently approved. Incident #NRM2015326612 was assigned for tracking purposes. The release area is located in low Karst with depth to groundwater at approximately 265' bgs. A Karst map and NMOSE and USGS groundwater data can be found in the attachment. Initial delineation samples were taken on May 29<sup>th</sup> in conjunction with excavation activities. Delineation samples AH-1 and AH-2 were taken inside the LACT unit area to achieve vertical delineation of the release area. AH-1 was terminated at a depth of 13' bgs with a result of 266.3 mg/kg TPH. A trench was utilized for AH-2 and vertical delineation achieved at 14' bgs with a result of <27.2 mg/kg TPH. The LACT unit area was excavated to a depth of 4' bgs with confirmation wall samples shown on the map in Figure 4 with corresponding concentrations in the attached chemistry table. The excavation was taken to the extent practicable to the east, against Mewbourne's containment. Additional horizontal delineation of impact was taken underneath Mewbourne's containment to the east at 1', 3', 5' and 7'. Additional vertical delineation samples were taken of the approximate 1' wide area that ran outside of Plains LACT unit, up against and under Mewbourne's containment. Vertical

delineation was accomplished with all sample points, with the exception of AH-1 SE where limestone refusal was met at 9' bgs. Due to the proximity of Plains' release to Mewbourne's metal containment, Plains is unable to utilize equipment safely in this area and would like to respectfully request a deferral of delineation until time of Mewbourne facility abandonment. Please see photo #11 for reference. In addition to the request for deferral of AH-1 SE delineation, Plains would also like to request deferral of the remaining impact to the LACT area and underneath Mewbourne's containment due to equipment currently in place and is proposing the installation of a 20 mil liner to mitigate migration. Maps, chemistry table, photos and groundwater information can be found in the attachment and all laboratory reports will be submitted with final closure/deferral request that will be submitted to NMOCD online. Please feel free to give me a call should you have any questions.

Thank you,

*Amber L. Groves*  
*Remediation Coordinator*  
*Plains All American*  
*3112 W. US Hwy 82*  
*Lovington, NM 88260*  
*575-200-5517*

Attention:

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**APPENDIX G**  
**NMOCD EMAIL RESPONSE TO VARIANCE REQUEST**

**Elizabeth Stuart**

---

**From:** Amber L Groves <ALGroves@paalp.com>  
**Sent:** Tuesday, December 28, 2021 4:10 PM  
**To:** Elizabeth Stuart; Jeff Kindley  
**Subject:** FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 44187

---

**From:** Amber L Groves  
**Sent:** Tuesday, October 5, 2021 8:27 AM  
**To:** Kaylan Longee <kaylanlongee@deanequip.com>; Steve Casanova <stevecasanova@deandigs.com>; Jeff Kindley <jeffreykindley@deandigs.com>; Elizabeth Stuart <elizabethstuart@deandigs.com>  
**Subject:** FW: The Oil Conservation Division (OCD) has rejected the application, Application ID: 44187 [External]

Good Morning,

OCD has determined that since the samples are a year old they are obsolete and that we will have to try again on AH-1 SE. What is the availability of having the 18' hand auger and a couple of people go to Mewbourne Toro this week?

Thank you,

Amber

---

**From:** [OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us) <[OCDOnline@state.nm.us](mailto:OCDOnline@state.nm.us)>  
**Sent:** Thursday, September 23, 2021 3:38 PM  
**To:** Amber L Groves <[ALGroves@paalp.com](mailto:ALGroves@paalp.com)>  
**Subject:** The Oil Conservation Division (OCD) has rejected the application, Application ID: 44187 [External]

To whom it may concern (c/o Amber Groves for PLAINS MARKETING L.P.),

The OCD has rejected the submitted *Application for administrative approval of a release notification and corrective action* (C-141), for incident ID (n#) nRM2015326612, for the following reasons:

- **The OCD finds the laboratory analyzed samples to be obsolete and would impact the decision for the deferral.**
- **AH-1 SE has not been fully delineated.**

The rejected C-141 can be found in the OCD Online: Permitting - Action Status, under the Application ID: 44187. Please review and make the required correction(s) prior to resubmitting.

If you have any questions why this application was rejected or believe it was rejected in error, please contact me prior to submitting an additional C-141.

Thank you,  
Chad Hensley  
Environmental Science & Specialist

575-703-1723

[Chad.Hensley@state.nm.us](mailto:Chad.Hensley@state.nm.us)

**New Mexico Energy, Minerals and Natural Resources Department**

1220 South St. Francis Drive

Santa Fe, NM 87505

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If you no longer wish to receive electronic messages from this sender, please respond and advise accordingly in your return email.

**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  
  
Action 126225

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID: 34053
	Action Number: 126225
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Deferral Request Approved.	7/25/2022