Received by OCD: 3/24 Review of 2021 Annual Groundwater Monitoring Report: **Content satisfactory** 

> Contractor recommendations approved by NMOCD and are as follows;

- Continue quarter MDPE events in monitor well MW-7
- Conduct LNAPL abatement via hand-bailing on a monthly basis for monitor wells that have a measurable amount of LNAPL
- Continue NMOCD-approved quarterly groundwater sampling events for BTEX by Method 8021B for all monitor wells located on-site
- Continue NMOCD-approved annual groundwater sampling event for PAH by Method 8270CSIM for MW-8 and MW-9. MW-7 and MW-12 will need to be sampled once the LNAPL is no longer present

Submit the Annual Groundwater Monitoring Report to the NMOCD no later than March 31, 2023.

2021 Annual Groundwater Monitoring Report

Chevron Grayburg 6-Inch Sec. 6 (Historical) Lea County, New Mexico SRS Chevron Grayburg 6-Inch Historical NMOCD Remediation Permit Number 1RP-2637

Incident ID #: nAPP2108849308

Plains All American Pipeline, LP



By Nelson Velez at 8:58 am, Jul 22, 2022









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### Introduction

GHD Services, Inc. (GHD), on behalf of Plains All American Pipeline, L.P. (Plains), submits this 2021 Annual Groundwater Monitoring Report (Report) in compliance with New Mexico Oil Conservation Division (NMOCD) requirements. The Site falls under NMOCD Remediation Permit Number 1RP-2637. This Report provides the quarterly results of groundwater sampling events and remediation activities completed at Chevron Grayburg 6-inch Sec 6. (Historical) SRS #: Chevron Grayburg 6-inch Historical (Site).

The Site is located at NW ¼, NE ¼, Section 6, Township 18 South, Range 35 East in Lea County, New Mexico. The GPS coordinates are 32.7810858° N latitude and 103.4924927° W longitude. The property affected by the release is owned by the State of New Mexico and administered by the New Mexico State Land Office (NMSLO). A Site Location Map is provided as Figure 1. The remediation area and site details are depicted on Figure 2, Site Details Map.

### 1.1 Site Location History

Remediation at the Site is currently the responsibility of Plains. The release of crude oil was caused by an excavator striking a tee connected to the Chevron Grayburg pipeline during line replacement. The release was immediately reported to the NMOCD District 1 office in Hobbs, New Mexico on October 8, 2010. A copy to the NMOCD Form C-141, Release Notification and Corrective Action, for this incident, is provided in Appendix A.

Beginning on October 22, 2010, project management responsibilities were conducted by Basin Environmental Technologies, LLC (Basin Environmental). GHD assumed remediation and project management responsibilities on October 1, 2016.

There are 14 groundwater monitoring wells at the Site. They are MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14, which were constructed with NMOCD approval. Wells MW-1, MW-2, MW-3, and MW-4 were installed between June 14 and June 18, 2012. Wells MW-5, MW-6, and MW-7 were installed on March 4 and March 5, 2013. Wells MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, and MW-14 were installed between November 13 and November 16, 2017. All monitor wells are shown on Figure 2. Professional surveying of the monitoring wells was performed on March 8, 2013 and January 8, 2018.

### 2. Regulatory Framework

The Site was assigned Remediation Permit Number 1RP-2637 by the NMOCD. The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined by the New Mexico Water Quality Control Commission (NMWQCC) Standards 20.6.2.3103 Section A, which provide Human Health Standards for Groundwater. The constituents of concern (COCs) in affected groundwater at the Site are benzene, toluene, ethylbenzene, and total xylenes (BTEX); benzo(a)pyrene; and combined naphthalene and monomethylnapthalenes. NMWQCC standards as shown in Table 2.1 are used to guide assessment and remediation of the Site:



Table 2.1 NMWOCC Human Health Standards

Analyte	NMWQCC Human Health Standard
Benzene	0.01 mg/L
Toluene	0.75 mg/L
Ethylbenzene	0.75 mg/L
Total Xylenes	0.62 mg/L
Benzo(a)pyrene	0.0002 mg/L
Combined Naphthalene and Monomethylnaphthalenes	0.03 mg/L

### 3. 2021 Groundwater Sampling Events

GHD conducted quarterly groundwater sampling events for 14 monitor wells located on-site. Sample locations can be viewed in the Site Details Map provided on Figure 2. All on-site monitor wells were sampled in accordance with the following groundwater sampling schedule as approved by the NMOCD:

Table 2 NMOCD-Approved Groundwater Sampling Schedule

Sample Location ID	Groundwater Sampling Schedule
MW-1, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-14	Quarterly

MW-8 and MW-9, were sampled in accordance with the NMOCD's email correspondence to Plains, dated December 12, 2012, regarding polycyclic aromatic hydrocarbons (PAH) which provided the following directive:

"Annual sampling of wells that have BTEX concentrations above the respective NMWQCC standard; wells where LNAPL has been removed and is no longer present; and continued sampling of each well for at least two consecutive years until each of the PAHs are at a concentration of 0.001 mg/L or less (for PAHs that do not have a NMWQCC standard) and at or below NMWQCC standard for PAHs that have a standard (if applicable)."

#### 3.1 Groundwater Monitoring Methodology

The purged groundwater was stored into an above-ground storage tank (AST) located at the Site. The AST was periodically emptied by a vacuum truck, which disposed all fluids at a licensed disposal facility as directed by Plains.

Each well cap was removed to allow fluid levels to stabilize. Static fluid levels were measured with an oil-water interface probe to the nearest hundredth of a foot. Monitor wells not containing measurable thicknesses of LNAPL were purged of three casing volumes of groundwater. Samples of groundwater were collected using new, disposable polyvinyl chloride (PVC) bailers. A duplicate sample was generally collected every twelve (12) wells. Laboratory supplied sample containers were filled directly from the bailers. Groundwater samples were placed on ice immediately after collection



and chilled to a maximum temperature of 4°C. All groundwater samples were analyzed by Pace Analytical Laboratory in Mt. Juliet, Tennessee. Analyses of benzene, toluene, ethylbenzene, and total xylenes (BTEX) were conducted according by method EPA SW846-8021B. Analyses of PAH compounds in selected wells were conducted according to method EPA 846-8270C-SIM during the fourth quarter event. Certified Laboratory Reports and Chain-of-Custody are provided in Appendix E. Monitor wells containing measurable amounts of Light-Aqueous Phase Liquids (LNAPL) were not sampled.

#### 3.2 Laboratory Analytical Results Summary

BTEX analytical results for groundwater sampling events conducted during 2020 and 2021 are included in Table 2, BTEX Analytical Results for Groundwater Sampling Events 2020-2021. BTEX concentrations for the quarterly groundwater sampling events conducted in 2021 are shown in Figure 7, Figure 8, Figure 9, and Figure 10. A summary of PAH analytical results is shown in Table 3, Polycyclic Aromatic Hydrocarbons Analytical Results. All analytical results are summarized using the NMWQCC Human Health Standards found in Table 2.1.

#### 3.2.1 First Quarter Summary

On February 25, 2021, GHD collected groundwater samples from twelve (12) monitor wells. Approximately 150 gallons of groundwater were purged and stored in the on-site AST. Analytical results indicated benzene concentrations were above 0.01 mg/L in MW-8 and MW-11. Toluene concentrations were above 0.75 mg/L in MW-8. No other Site wells exceeded the benzene or toluene standards. None of the Site wells exhibited ethylbenzene or total xylenes above the NMWQCC criteria. Results for the MW-1 analyses of the initial and field duplicate groundwater samples were within acceptable ranges.

No groundwater samples were collected at MW-7 and MW-12 due to measurable amounts of LNAPL gauged in the wells.

#### 3.2.2 Second Quarter Summary

On May 12, 2021, GHD collected groundwater samples from twelve (12) monitor wells. Approximately 143 gallons of groundwater were purged and stored into the on-site AST. Analytical results indicated benzene concentrations were above 0.01 mg/L in MW-1, MW-8, and MW-11. No other Site wells exceeded the benzene standard. None of the Site wells exhibited toluene, ethylbenzene, or total xylenes concentrations above the NMWQCC criteria. Results for the MW-8 analyses of the initial and field duplicate groundwater samples were within acceptable ranges.

No groundwater samples were collected at MW-7 and MW-12 due to measurable amounts of LNAPL gauged in the wells.

#### 3.2.3 Third Quarter Summary

On August 25, 2021, GHD collected groundwater samples from twelve (12) monitor wells. Approximately 84 gallons of groundwater were purged and stored into the on-site AST. Analytical results indicated benzene concentrations were above 0.01 mg/L in MW-1 and MW-8. No other Site wells exceeded the benzene standard. MW-8 also exhibited toluene and total xylenes above 0.75 mg/L and 0.62 mg/L, respectively. None of the other Site wells exhibited toluene, ethylbenzene, or



total xylenes concentrations above the NMWQCC criteria. Results for the analyses of the MW-1 initial and field duplicate groundwater samples were within acceptable ranges.

No groundwater samples were collected at MW-7 and MW-12 due to measurable amounts of LNAPL gauged in the wells.

#### 3.2.4 Fourth Quarter Summary

On November 16, 2021, GHD collected groundwater samples from twelve (12) monitor wells. Approximately 128 gallons of groundwater were purged and stored into the on-site AST. Analytical results indicated benzene concentrations were above 0.01 mg/L in MW-1, MW-8, and MW-11. No other Site wells exceeded the benzene standard. None of the Site wells exhibited toluene, ethylbenzene, or total xylenes concentrations above the NMWQCC criteria. Results for the MW-11 analyses of the initial and field duplicate groundwater samples were within acceptable ranges.

No groundwater samples were collected at MW-7 and MW-12 due to measurable amounts of LNAPL gauged in the wells.

### Potentiometric Surface and Gradient Summary

During the quarterly groundwater sampling events, GHD conducted gauging events prior to the groundwater sample collection. All fluid level measurements were from tops of casings which were professionally surveyed. Elevations of the potentiometric surface were calculated using a specific gravity of 0.81 of LNAPL, where present. Groundwater flow is generally toward the west-southwest, which is consistent with historical data. The average gradient of the potentiometric surface during 2021 is 0.0011 feet per foot (ft./ft.). The elevation of the potentiometric surface indicates an average decline of 0.04 ft during 2021. Monthly gauging and elevation of the potentiometric surface data for 2020-2021 are provided in Table 1. Quarterly groundwater gradient maps are provided in Figure 3, Figure 4, Figure 5, and Figure 6.

### 5. Remediation Activities

Quarterly mobile dual phase extraction (MDPE) events were conducted by Talon-LPE (Talon) of Amarillo, Texas. Each MDPE event was conducted for twelve (12) hours each at MW-7 on March 10, June 29, September 14, and December 8, 2021. According to Talon, total recovery of liquid hydrocarbons collected during these events was approximately 62 gallons (1.48 bbls); total recovery of hydrocarbon vapor was equivalent to approximately 96 gallons (2.29 bbls). All fluids recovered from MDPE events were disposed at a licensed disposal facility, and all hydrocarbon vapors were destroyed in a thermal oxidizer within the emissions limits established by the PI-7 Permit for the oxidizer unit. The Talon 2021 Annual MDPE Report is enclosed in Appendix D.



### Summary of Findings

Based on groundwater sampling events and remedial activities performed at the Site in 2021, the following summary of findings is presented:

- Groundwater flow direction is toward the west-southwest and is consistent with previous monitoring events. The average gradient of the potentiometric surface during 2021 is 0.0011 ft./ft.
- The elevation of the potentiometric surface indicates an average decline of 0.04 ft. during 2021.
- LNAPL is present in 2 monitor wells (MW-7 and MW-12). The average LNAPL thickness was 6.35 ft. at MW-7 and 0.90 ft. at MW-12. Charts of LNAPL Thickness Versus Time are provided in Appendix B.
  - o Talon operates quarterly MDPE events at MW-7.
- Benzene concentrations are consistently above NMWQCC criteria for MW-1, MW-8, and MW-11. Charts of Dissolved Benzene Concentrations Versus Time are provided in Appendix C.
  - MW-2, MW-3, MW-6, MW-9, and MW-10 historically have had benzene concentrations above the NMWQCC criteria, but groundwater samples have exhibited benzene concentrations below the NMWQCC criteria since February 2018, July 2019, July 2019, October 2019, and February 2020 respectively.
- Fluctuations in the elevation of the potentiometric surface can be attributed to the on-site removal of groundwater.
- Analytical results indicate 2 years of consecutive PAH concentrations below the NMWQCC
  Human Health Standards for all sampleable wells, except MW-8 and MW-9. MW-7 and MW12 cannot be sampled due to measurable amounts of LNAPL being present.

### 7. Recommendations

Based upon the data and conclusions presented in this Report, the following are recommended for 2022:

- Continue operation of the MDPE events at MW-7 on a quarterly basis to reduce hydrocarbon source in groundwater and mitigate dissolved phase plume expansion.
- Conduct LNAPL abatement via hand-bailing on a monthly basis for monitor wells that have a
  measurable amount of LNAPL.
- Continue NMOCD-approved quarterly groundwater sampling events for BTEX by Method 8021B for all monitor wells located on-site.
- Continue NMOCD-approved annual groundwater sampling event for PAH by Method 8270C-SIM for MW-8 and MW-9. MW-7 and MW-12 will need to be sampled once the LNAPL is no longer present.



All of which is Respectfully Submitted,

Rebecca Haskell

**GHD** 

Becky Haskell

Senior Project Manager

Tom Larson

Midland Operations Manager

Thomas Clayon



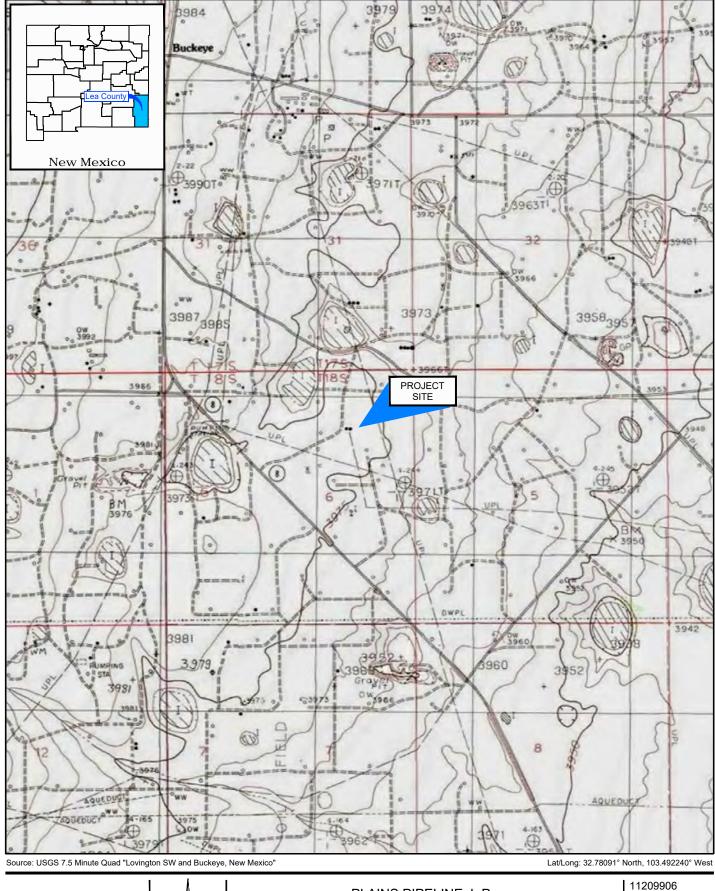
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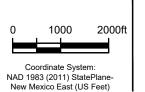
GHD is one of the world's leading professional services companies operating in the global markets of water, energy and resources, environment, property and buildings, and transportation. We provide engineering, environmental, and construction services to private and public sector clients.

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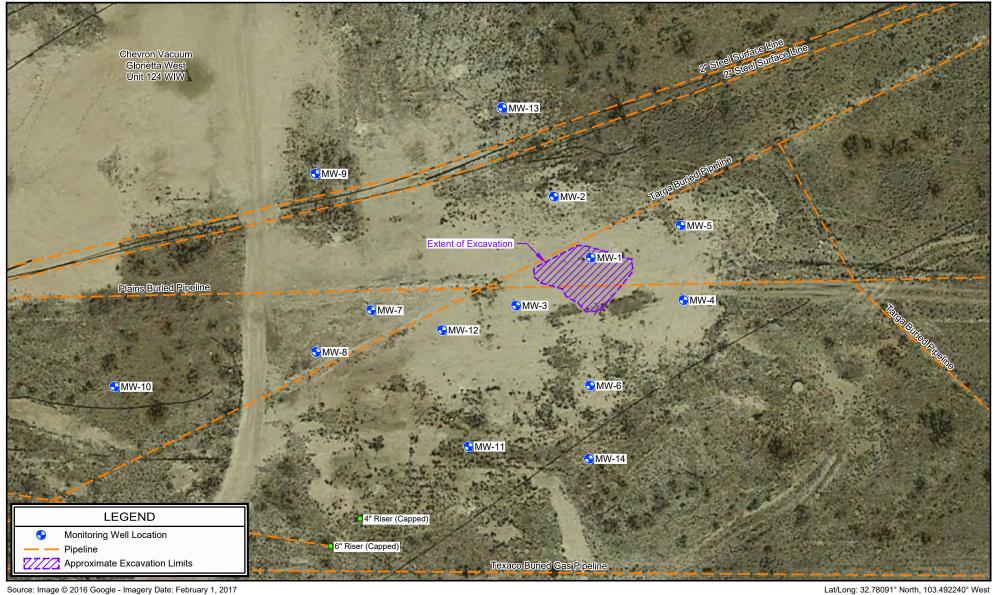


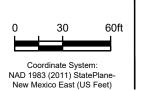


PLAINS PIPELINE, L.P.
LEA COUNTY, NEW MEXICO
CHEVRON GRAYBURG 6-INCH HISTORICAL

Feb 4, 2021

SITE LOCATION MAP





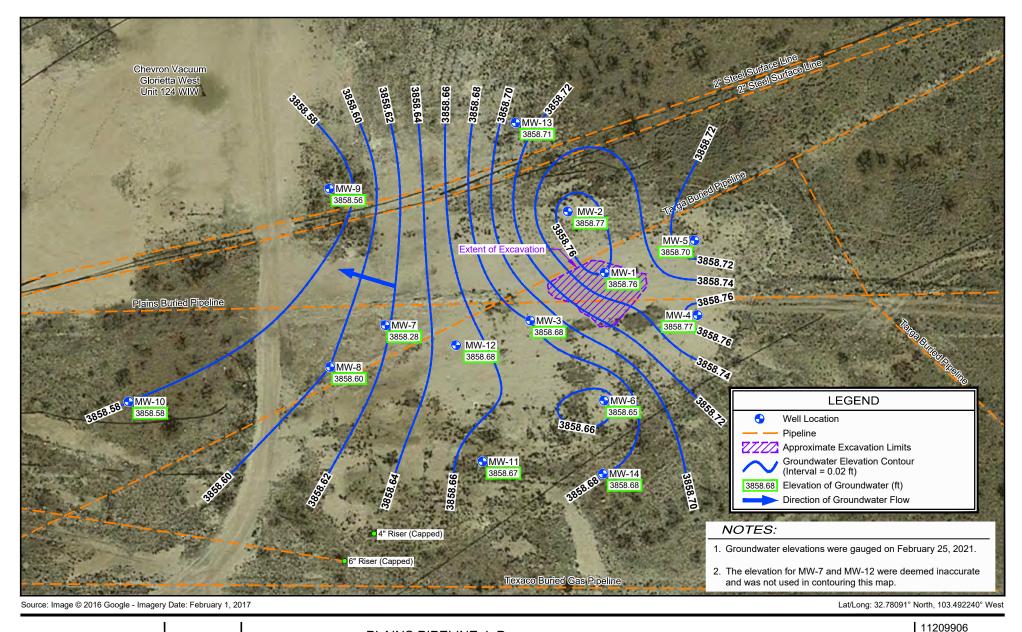




PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL

SITE DETAILS MAP

11209906 Feb 4, 2021



Coordinate System: NAD 1983 (2011) StatePlane-New Mexico East (US Feet)

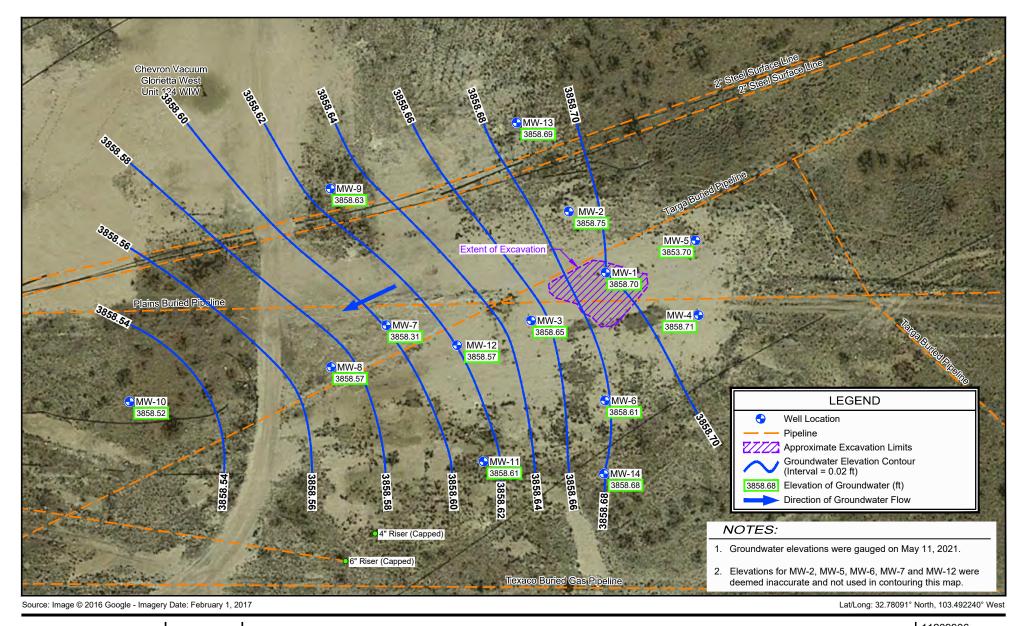


PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL

FIGURE 3

Oct 8, 2021

GROUNDWATER GRADIENT MAP - FEBRUARY 25, 2021



O 30 60ft

Coordinate System:

NAD 1983 (2011) StatePlaneNew Mexico East (US Feet)

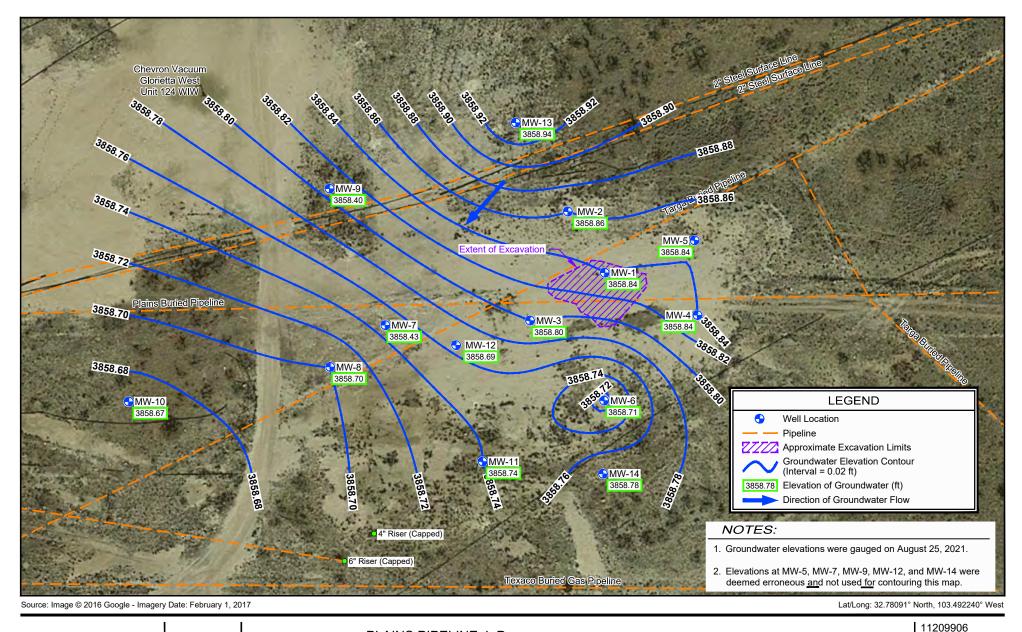


GHD

PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL

GROUNDWATER GRADIENT MAP - MAY 11, 2021

11209906 May 26, 2021



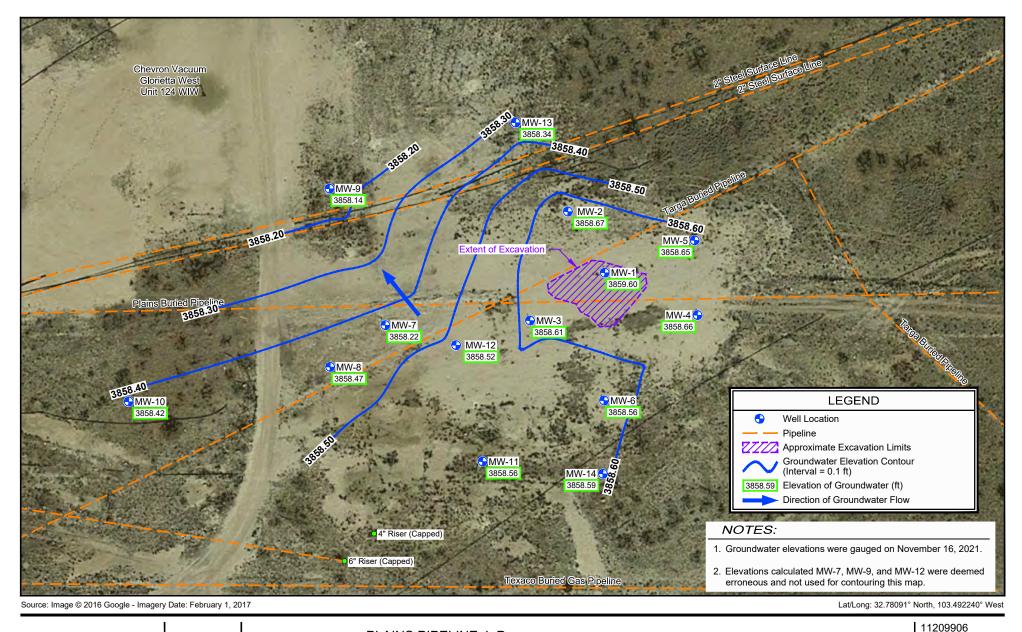
Coordinate System: NAD 1983 (2011) StatePlane-New Mexico East (US Feet)



PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL

GROUNDWATER GRADIENT MAP - AUGUST 24, 2021

Dec 3, 2021



O 30 60ft

Coordinate System:
NAD 1983 (2011) StatePlaneNew Mexico East (US Feet)

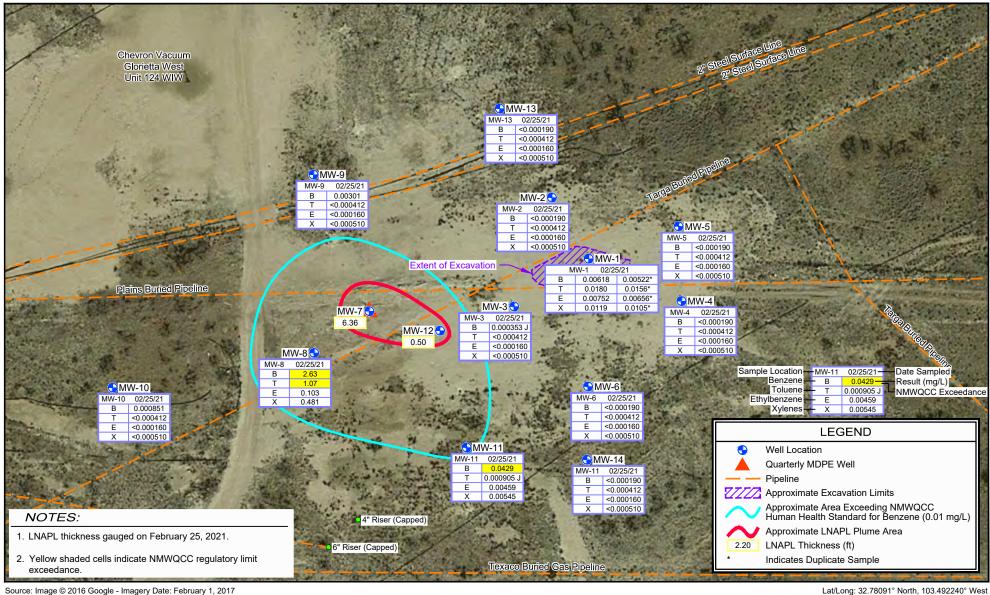


GHD

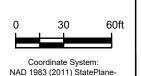
PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL

Jan 5, 2022

GROUNDWATER GRADIENT MAP - NOVEMBER 16, 2021



Source: Image © 2016 Google - Imagery Date: February 1, 2017



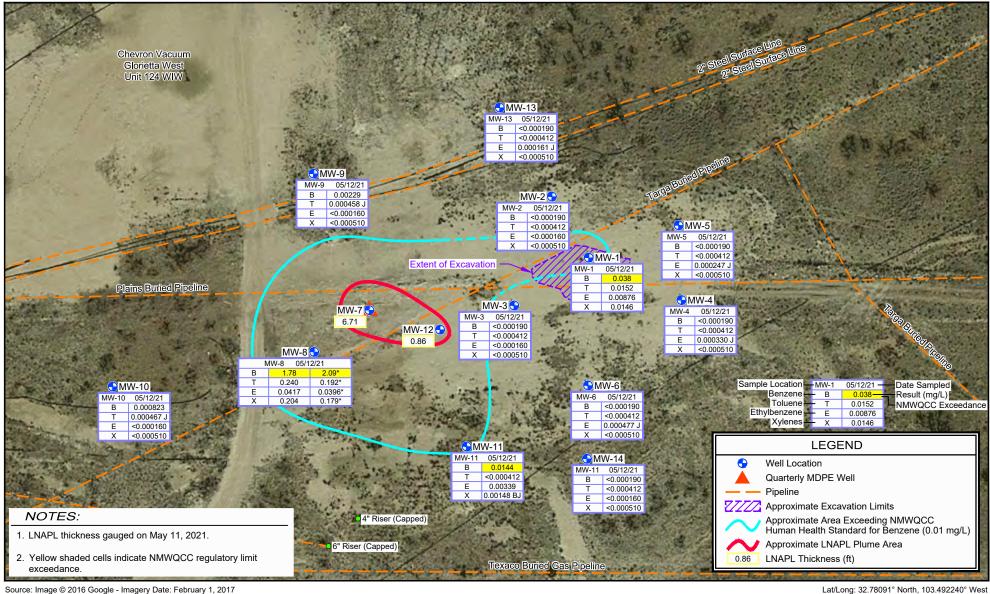
New Mexico East (US Feet)

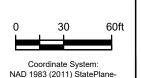




PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL LNAPL THICKNESS AND GROUNDWATER BTEX **CONCENTRATION MAP - FEBRUARY 2021** 

11209906 Jan 21, 2022





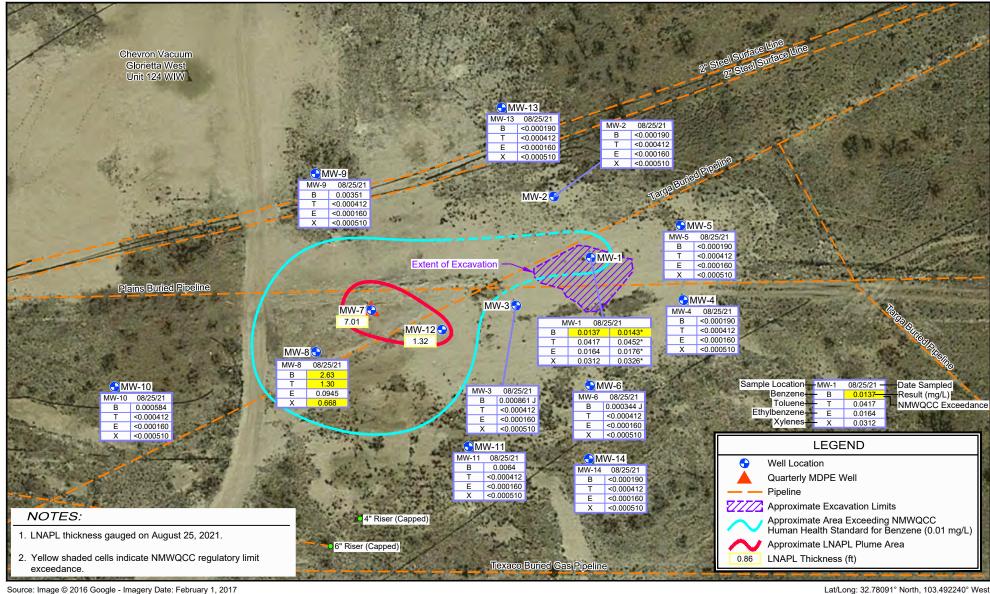
New Mexico East (US Feet)

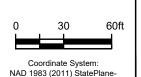




PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL LNAPL THICKNESS AND GROUNDWATER BTEX **CONCENTRATION MAP - MAY 2021** 

11209906 Jan 21, 2022





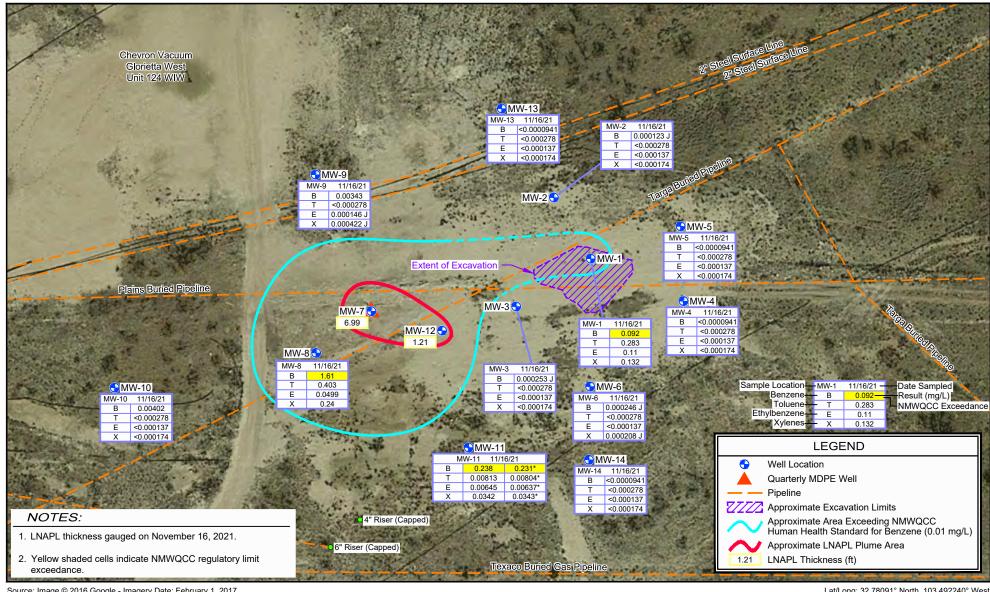
New Mexico East (US Feet)





PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL LNAPL THICKNESS AND GROUNDWATER BTEX **CONCENTRATION MAP - AUGUST 2021** 

11209906 Jan 21, 2022

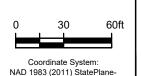


Source: Image © 2016 Google - Imagery Date: February 1, 2017

Lat/Long: 32.78091° North, 103.492240° West

11209906

Jan 21, 2022



New Mexico East (US Feet)





PLAINS PIPELINE, L.P. LEA COUNTY, NEW MEXICO CHEVRON GRAYBURG 6-INCH HISTORICAL LNAPL THICKNESS AND GROUNDWATER BTEX **CONCENTRATION MAP - NOVEMBER 2021** 

Table 1

	Elevation of Top of Casing		Depth to Groundwater	Depth to LNAPL	LNAPL Thickness	Elevation of Potentiometric	Measured Well Depth	Well Screen Interval (fbgs) Well Diameter	Volume LNAPL Bailed	Volume of Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-1	3982.09	1/10/20	-	-	-	-	-	-	0	3.0
MW-1	3982.09	2/19/20	-	-	-	-	-	-	0	3.0
MW-1	3982.09	2/24/20	123.07	-	-	3859.02	135.59	-	0	2.8
MW-1	3982.09	3/13/20	-	-	-	-	-	-	-	3.0
MW-1	3982.09	4/29/20	123.24	-	0.00	3858.85	-	-	-	-
MW-1	3982.09	5/26/20	123.14	-	0.00	3858.95	-	-	-	6.0
MW-1	3982.09	6/16/20	123.13	-	0.00	3858.96	-	-	-	-
MW-1	3982.09	7/30/20	123.14	-	0.00	3858.95	-	-	-	-
MW-1	3982.09	8/26/20	123.05	-	0.00	3859.04	-	-	-	-
MW-1	3982.09	9/17/20	123.18	-	0.00	3858.91	128.90	-	-	3.8
MW-1	3982.09	10/21/20	123.20	-	0.00	3858.89	-	-	-	-
MW-1	3982.09	11/4/20	123.26	-	0.00	3858.83	-	-	-	5.0
MW-1	3982.09	12/9/20	123.22	-	0.00	3858.87	-	-	-	-
MW-1	3982.09	1/28/21	123.31	-	0.00	3858.78	-	-	-	-
MW-1	3982.09	2/25/21	123.33	-	0.00	3858.76	128.97	-	-	2.0
MW-1	3982.09	3/24/21	123.33	-	0.00	3858.76	-	-	-	-
MW-1	3982.09	4/30/21	123.33	-	0.00	3858.76	-	-	-	-
MW-1	3982.09	5/11/21	123.39	-	0.00	3858.70	-	-	-	2.0
MW-1	3982.09	6/28/21	123.33	-	0.00	3858.76	-	-	-	-
MW-1	3982.09	7/27/21	123.26	-	0.00	3858.83	-	-	-	-
MW-1	3982.09	8/24/21	123.25	-	0.00	3858.84	-	-	-	2.8
MW-1	3982.09	9/30/21	123.40	-	0.00	3858.69	128.97	-	-	-
MW-1	3982.09	10/28/21	123.45	-	0.00	3858.64	128.97	-	-	-
MW-1	3982.09	11/16/21	122.49	-	0.00	3859.60	128.97	-	-	3.0
MW-2	3981.21	2/24/20	122.19	-	0.00	3859.02	127.41	-	0	1.5
MW-2	3981.21	4/29/20	122.35	-	0.00	3858.86	-	-	-	-
MW-2	3981.21	5/26/20	122.22	-	0.00	3858.99	-	-	-	2.5
MW-2	3981.21	6/16/20	123.50	-	0.00	3857.71	-	-	-	-
MW-2	3981.21	7/30/20	122.23	-	0.00	3858.98	-	-	-	-
MW-2	3981.21	8/26/20	123.52	-	0.00	3857.69	-	-	-	-
MW-2	3981.21	9/17/20	122.29	-	0.00	3858.92	127.38	-	-	3.3
MW-2	3981.21	10/21/20	122.27	-	0.00	3858.94	-	=	-	-

Table 1

	Elevation			Depth				Well Screen	Volume	
	of Top of		Depth to	to	LNAPL	Elevation of	Measured	Interval (fbgs)	LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-2	3981.21	11/4/20	122.35	-	0.00	3858.86	-	-	-	2.0
MW-2	3981.21	12/9/20	122.29	-	0.00	3858.92	-	-	-	-
MW-2	3981.21	1/28/21	122.38	-	0.00	3858.83	-	-	-	-
MW-2	3981.21	2/25/21	122.44	-	0.00	3858.77	127.65	-	-	7.5
MW-2	3981.21	3/24/21	122.43	-	0.00	3858.78	-	-	-	-
MW-2	3981.21	4/30/21	122.45	-	0.00	3858.76	-	-	-	-
MW-2	3981.21	5/11/21	122.46	-	0.00	3858.75	-	-	-	2.5
MW-2	3981.21	6/28/21	122.41	-	0.00	3858.80	-	-	-	-
MW-2	3981.21	7/27/21	122.35	-	0.00	3858.86	-	-	-	-
MW-2	3981.21	8/24/21	122.35	-	0.00	3858.86	-	-	-	3.5
MW-2	3981.21	9/30/21	122.49	-	0.00	3858.72	127.65	-	-	-
MW-2	3981.21	10/28/21	122.54	-	0.00	3858.67	127.65	-	-	-
MW-2	3981.21	11/16/21	122.54	-	0.00	3858.67	127.65	-	-	2.5
MW-3	3982.31	1/10/20	-	-	-	-	-	-	0	3.0
MW-3	3982.31	2/19/20	-	-	-	-	-	-	0	3.0
MW-3	3982.31	2/24/20	123.39	-	0.00	3858.92	131.76	-	0	3.5
MW-3	3982.31	3/13/20	-	-	-	-	-	-	-	3.0
MW-3	3982.31	4/29/20	123.51	-	0.00	3858.80	-	-	-	-
MW-3	3982.31	5/26/20	123.40	-	0.00	3858.91	-	-	-	4.0
MW-3	3982.31	6/16/20	123.40	-	0.00	3858.91	-	-	-	-
MW-3	3982.31	7/30/20	123.40	-	0.00	3858.91	-	-	-	-
MW-3	3982.31	8/26/20	123.42	-	0.00	3858.89	-	-	-	-
MW-3	3982.31	9/15/20	123.44	-	0.00	3858.87	-	-	-	-
MW-3	3982.31	9/15/20	123.47	-	0.00	3858.84	-	-	-	-
MW-3	3982.31	9/17/20	123.45	-	0.00	3858.86	131.45	-	-	5.1
MW-3	3982.31	10/21/20	123.46	-	0.00	3858.85	-	-	-	-
MW-3	3982.31	11/4/20	123.57	-	0.00	3858.74	-	-	-	4.0
MW-3	3982.31	12/9/20	123.50	-	0.00	3858.81	-	-	-	-
MW-3	3982.31	1/28/21	123.63	-	0.00	3858.68	-	-	-	-
MW-3	3982.31	2/25/21	123.63	-	0.00	3858.68	131.47	-	-	3.5
MW-3	3982.31	3/24/21	123.59	-	0.00	3858.72	-	-	-	-
MW-3	3982.31	4/30/21	123.61		0.00	3858.70	-	-	-	-

Table 1

	Elevation			Depth				Well Screen	Volume	
	of Top of		Depth to	to	LNAPL	Elevation of	Measured	Interval (fbgs)	LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-3	3982.31	5/11/21	123.66	-	0.00	3858.65	-	-	-	4.0
MW-3	3982.31	6/28/21	123.60	-	0.00	3858.71	-	-	-	-
MW-3	3982.31	7/27/21	123.52	-	0.00	3858.79	-	-	-	-
MW-3	3982.31	8/24/21	123.51	-	0.00	3858.80	-	-	-	3.0
MW-3	3982.31	9/30/21	123.67	-	0.00	3858.64	131.47	-	-	-
MW-3	3982.31	10/28/21	123.72	-	0.00	3858.59	131.47	-	-	-
MW-3	3982.31	11/16/21	123.70	-	0.00	3858.61	131.47	-	-	3.5
MW-4	3982.48	2/24/20	123.45	-	0.00	3859.03	135.59	=	-	27.0
MW-4	3982.48	4/29/20	123.70	-	0.00	3858.78	-	-	-	-
MW-4	3982.48	5/26/20	123.50	-	0.00	3858.98	-	-	-	24.0
MW-4	3982.48	6/16/20	122.23	-	0.00	3860.25	-	-	-	-
MW-4	3982.48	7/30/20	123.53	-	0.00	3858.95	-	-	-	-
MW-4	3982.48	8/26/20	122.24	-	0.00	3860.24	-	-	-	-
MW-4	3982.48	9/17/20	123.57	-	0.00	3858.91	135.65	-	-	20.0
MW-4	3982.48	10/21/20	123.57	-	0.00	3858.91	-	-	-	-
MW-4	3982.48	11/4/20	123.60	-	0.00	3858.88	-	-	-	21.0
MW-4	3982.48	12/9/20	123.60	-	0.00	3858.88	-	-	-	-
MW-4	3982.48	1/28/21	123.69	-	0.00	3858.79	-	=	-	-
MW-4	3982.48	2/25/21	123.71	-	0.00	3858.77	135.71	-	-	24.0
MW-4	3982.48	3/24/21	123.70	-	0.00	3858.78	-	-	-	-
MW-4	3982.48	4/30/21	123.70	-	0.00	3858.78	-	-	-	-
MW-4	3982.48	5/11/21	123.77	-	0.00	3858.71	-	-	-	24.0
MW-4	3982.48	6/28/21	123.71	-	0.00	3858.77	-	-	-	-
MW-4	3982.48	7/27/21	123.64	-	0.00	3858.84	-	-	-	-
MW-4	3982.48	8/24/21	123.64	-	0.00	3858.84	-	-	-	15.0
MW-4	3982.48	9/30/21	123.77	-	0.00	3858.71	135.71	-	-	-
MW-4	3982.48	10/28/21	123.81	-	0.00	3858.67	135.71	-	-	-
MW-4	3982.48	11/16/21	123.82	-	0.00	3858.66	135.71	-	-	23.0
MW-5	3981.45	2/24/20	122.44	<u> </u>	0.00	3859.01	136.32		_	1.5
MW-5	3981.45	4/29/20	122.61	<del>-</del>	0.00	3858.84	-	<u> </u>	_	- 1.0
MW-5	3981.45	5/26/20	122.50	<del>                                     </del>	0.00	3858.95	-	<u>-</u>		7.0
MW-5	3981.45	6/16/20	122.47	<del>-</del>	0.00	3858.98	_		_	7.0

Table 1

	Elevation			Depth				Well Screen	Volume	
	of Top of		Depth to	to	LNAPL	Elevation of	Measured	Interval (fbgs)	LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-5	3981.45	7/30/20	122.48	-	0.00	3858.97	-	-	-	-
MW-5	3981.45	8/26/20	122.50	-	0.00	3858.95	-	-	-	-
MW-5	3981.45	9/17/20	122.55	-	0.00	3858.90	136.29	-	-	8.5
MW-5	3981.45	10/21/20	122.55	-	0.00	3858.90	-	-	-	-
MW-5	3981.45	11/4/20	122.63	-	0.00	3858.82	-	-	-	7.0
MW-5	3981.45	12/9/20	122.58	-	0.00	3858.87	-	-	-	-
MW-5	3981.45	1/28/21	122.66	-	0.00	3858.79	-	-	-	-
MW-5	3981.45	2/25/21	122.75	-	0.00	3858.70	136.42	-	-	7.0
MW-5	3981.45	3/24/21	122.69	-	0.00	3858.76	-	-	-	-
MW-5	3981.45	4/30/21	122.72	-	0.00	3858.73	-	-	-	-
MW-5	3981.45	5/11/21	127.75	-	0.00	3853.70	-	-	-	4.0
MW-5	3981.45	6/28/21	122.69	-	0.00	3858.76	-	-	-	-
MW-5	3981.45	7/27/21	122.60	-	0.00	3858.85	-	-	-	-
MW-5	3981.45	8/24/21	122.61	-	0.00	3858.84	-	-	-	5.3
MW-5	3981.45	9/30/21	122.74	-	0.00	3858.71	136.42	-	-	-
MW-5	3981.45	10/28/21	122.79	-	0.00	3858.66	136.42	-	-	-
MW-5	3981.45	11/16/21	122.80	-	0.00	3858.65	136.42	-	-	6.5
NA)A/ C	2000.07	4/40/00								0.0
MW-6	3982.27	1/10/20	-	-	-	-	-	-	0	3.0
MW-6	3982.27	2/19/20	-	-	-	-	-	-	0	3.0
MW-6	3982.27	2/24/20	123.40	-	0.00	3858.87	139.87	-	0	5.0
MW-6	3982.27	3/13/20	-	-	-	-	-	-	-	3.0
MW-6	3982.27	4/29/20	123.51	-	0.00	3858.76	-	-	-	-
MW-6	3982.27	5/26/20	123.41	-	0.00	3858.86	-	-	-	8.0
MW-6	3982.27	6/16/20	123.41	-	0.00	3858.86	-	-	-	-
MW-6	3982.27	7/30/20	123.41	-	0.00	3858.86	-	-	-	-
MW-6	3982.27	8/26/20	123.44	-	0.00	3858.83	-	-	-	-
MW-6	3982.27	9/17/20	123.44	-	0.00	3858.83	139.72	-	-	10.0
MW-6	3982.27	10/21/20	123.46	-	0.00	3858.81	-	-	-	-
MW-6	3982.27	11/4/20	123.50	-	0.00	3858.77	-	-	-	8.0
MW-6	3982.27	12/9/20	123.50	-	0.00	3858.77	-	-	-	-
MW-6	3982.27	1/28/21	123.56	-	0.00	3858.71	-	-	-	-
MW-6	3982.27	2/25/21	123.62	-	0.00	3858.65	139.70	-		8.0

Table 1

	Elevation			Depth				Well Screen	Volume	
	of Top of		Depth to	to	LNAPL	Elevation of	Measured	Interval (fbgs)	LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-6	3982.27	3/24/21	123.60	-	0.00	3858.67	-	-	-	-
MW-6	3982.27	4/30/21	123.63	-	0.00	3858.64	-	-	-	-
MW-6	3982.27	5/11/21	123.66	-	0.00	3858.61	-	-	-	8.0
MW-6	3982.27	6/28/21	123.62	-	0.00	3858.65	-	-	-	-
MW-6	3982.27	7/27/21	123.55	-	0.00	3858.72	-	-	-	-
MW-6	3982.27	8/24/21	123.56	-	0.00	3858.71	-	-	-	2.5
MW-6	3982.27	9/30/21	123.65	-	0.00	3858.62	139.70	-	-	-
MW-6	3982.27	10/28/21	123.70	-	0.00	3858.57	139.70	-	-	-
MW-6	3982.27	11/16/21	123.71	-	0.00	3858.56	139.70	-	-	7.5
N 4) A / -7	0004.74	4/40/00	407.00	400.40	4.00	0050.00				0.0
MW-7	3981.71	1/10/20	127.08	122.18	4.90	3858.86	-	-	3	0.0
MW-7	3981.71	2/19/20	127.79	121.99	5.80	3858.93	-	-	1.2	0.0
MW-7	3981.71	2/24/20	125.47	122.38	3.09	3858.91	-	-	-	-
MW-7	3981.71	3/13/20	122.86	122.86	0.00	3858.85	-	-	-	3.0
MW-7	3981.71	4/29/20	127.80	122.15	5.65	3858.79	-	-	1.5	0.5
MW-7	3981.71	5/26/20	127.53	122.07	5.46	3858.89	-	-	-	-
MW-7	3981.71	6/11/20	128.02	122.01	6.01	3858.88	-	-	-	-
MW-7	3981.71	6/12/20	122.85	-	0.00	3858.86	-	-	-	-
MW-7	3981.71	6/16/20	123.11	122.81	0.30	3858.86	-	-	-	-
MW-7	3981.71	7/30/20	127.77	122.00	5.77	3858.92	-	-	1.4	-
MW-7	3981.71	8/26/20	127.84	122.01	5.83	3858.59	-	-	-	-
MW-7	3981.71	9/15/20	127.09	122.06	5.03	3858.69	-	-	-	-
MW-7	3981.71	9/15/20	122.78	-	0.00	3858.93	-	-	-	-
MW-7	3981.71	9/17/20	122.92	122.89	0.03	3858.81	-	-	-	-
MW-7	3981.71	10/21/20	127.30	122.17	5.13	3858.57	-	-	-	-
MW-7	3981.71	11/4/20	126.64	122.35	4.29	3858.54	-	-	-	-
MW-7	3981.71	12/9/20	128.37	122.07	6.30	3858.44	-	-	-	-
MW-7	3981.71	1/28/21	128.70	122.12	6.58	3858.34	-	-	-	-
MW-7	3981.71	2/25/21	128.58	122.22	6.36	3858.28	133.11	-	-	-
MW-7	3981.71	3/24/21	127.19	122.33	4.86	3858.46	-	-	-	-
MW-7	3981.71	4/30/21	128.65	122.11	6.54	3858.36	-	-	-	-
MW-7	3981.71	5/11/21	128.84	122.13	6.71	3858.31	-	-	-	-
MW-7	3981.71	6/28/21	128.90	122.04	6.86	3858.37	-	-	-	-

Table 1

	Elevation of Top of		Depth to	Depth to	LNAPL	Elevation of	Measured	Well Screen Interval (fbgs)	Volume LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-7	3981.71	7/27/21	128.67	121.99	6.68	3858.45	-	-	-	-
MW-7	3981.71	8/24/21	128.96	121.95	7.01	3858.43	-	-	2.25	-
MW-7	3981.71	9/30/21	127.92	122.30	5.62	3858.34	133.11	-	-	-
MW-7	3981.71	10/28/21	127.97	122.35	5.62	3858.29	133.11	-	-	-
MW-7	3981.71	11/16/21	129.15	122.16	6.99	3858.22	133.11	-	1.5	-
MW-8	3981.20	1/10/20	-	-	-	-	-	-	0	3.0
MW-8	3981.20	2/19/20	-	-	-	-	-	-	0	3.0
MW-8	3981.20	2/24/20	122.34	-	0.00	3858.86	136.44	-	0	23.0
MW-8	3981.20	3/13/20	-	-	-	-	-	-	-	3.0
MW-8	3981.20	4/29/20	122.49	-	0.00	3858.71	-	-	-	-
MW-8	3981.20	5/26/20	122.39	-	0.00	3858.81	-	-	-	28.0
MW-8	3981.20	6/16/20	122.40	-	0.00	3858.80	-	-	-	-
MW-8	3981.20	7/30/20	122.39	-	0.00	3858.81	-	-	-	-
MW-8	3981.20	8/26/20	122.42	-	0.00	3858.78	-	-	-	-
MW-8	3981.20	9/15/20	122.42	-	0.00	3858.78	-	-	-	-
MW-8	3981.20	9/15/20	122.47	-	0.00	3858.73	-	-	-	-
MW-8	3981.20	9/17/20	122.40	-	0.00	3858.80	136.40	-	-	23.0
MW-8	3981.20	10/21/20	122.45	-	0.00	3858.75	-	-	-	-
MW-8	3981.20	11/4/20	122.51	-	0.00	3858.69	-	-	-	6.5
MW-8	3981.20	12/9/20	122.51	-	0.00	3858.69	-	-	-	-
MW-8	3981.20	1/28/21	122.57	-	0.00	3858.63	-	-	-	-
MW-8	3981.20	2/25/21	122.60	-	0.00	3858.60	136.44	=	-	26.0
MW-8	3981.20	3/24/21	122.58	-	0.00	3858.62	-	=	-	-
MW-8	3981.20	4/30/21	122.58	-	0.00	3858.62	-	=	-	-
MW-8	3981.20	5/11/21	122.63	-	0.00	3858.57	-	-	-	26.0
MW-8	3981.20	6/28/21	122.55	-	0.00	3858.65	-	-	-	-
MW-8	3981.20	7/27/21	122.50	-	0.00	3858.70	-	-	-	-
MW-8	3981.20	8/24/21	122.50	-	0.00	3858.70	-	-	-	12.0
MW-8	3981.20	9/30/21	122.66	-	0.00	3858.54	136.44	-	-	-
MW-8	3981.20	10/28/21	122.71	-	0.00	3858.49	136.44	-	-	-
MW-8	3981.20	11/16/21	122.73	-	0.00	3858.47	136.44	-	-	22
									_	
MW-9	3980.44	1/10/20	-	-	-	-	-	-	0	3.0

Table 1

	Elevation			Depth				Well Screen	Volume	
	of Top of		Depth to	to	LNAPL	Elevation of	Measured	Interval (fbgs)	LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-9	3980.44	2/19/20	-	-	-	-	-	=	0	3.0
MW-9	3980.44	2/24/20	121.56	-	0.00	3858.88	140.78	-	0	6.0
MW-9	3980.44	3/13/20	•	-	-	-	-	=	-	3.0
MW-9	3980.44	4/29/20	121.69	-	0.00	3858.75	-	=	-	-
MW-9	3980.44	5/26/20	121.59	-	0.00	3858.85	-	=	-	10.0
MW-9	3980.44	6/16/20	121.57	-	0.00	3858.87	-	-	-	-
MW-9	3980.44	7/30/20	121.55	-	0.00	3858.89	-	-	-	-
MW-9	3980.44	8/26/20	121.60	-	0.00	3858.84	-	-	-	-
MW-9	3980.44	9/17/20	121.64	-	0.00	3858.80	140.51	-	-	12.0
MW-9	3980.44	10/21/20	121.63	-	0.00	3858.81	-	-	-	-
MW-9	3980.44	11/4/20	121.70	-	0.00	3858.74	-	-	-	9.0
MW-9	3980.44	12/9/20	121.66	-	0.00	3858.78	-	-	-	-
MW-9	3980.44	1/28/21	121.77	-	0.00	3858.67	-	-	-	-
MW-9	3980.44	2/25/21	121.88	-	0.00	3858.56	140.68	-	-	9.0
MW-9	3980.44	3/24/21	121.74	-	0.00	3858.70	-	-	-	-
MW-9	3980.44	4/30/21	121.80	-	0.00	3858.64	-	-	-	-
MW-9	3980.44	5/11/21	121.81	-	0.00	3858.63	-	-	-	9.0
MW-9	3980.06	6/28/21	121.73	-	0.00	3858.33	-	-	-	-
MW-9	3980.06	7/27/21	122.66	-	0.00	3857.40	-	-	-	-
MW-9	3980.06	8/24/21	121.66	-	0.00	3858.40	-	-	-	9.5
MW-9	3980.06	9/30/21	121.85	-	0.00	3858.21	140.68	-	-	-
MW-9	3980.06	10/28/21	121.90	-	0.00	3858.16	140.68	-	-	-
MW-9	3980.06	11/16/21	121.92	-	0.00	3858.14	140.68	-	-	9.0
MW-10	3980.06	1/10/20	-	-	-	-	-	-	0	3.0
MW-10	3980.06	2/19/20	-	-	-	-	-	-	0	3.0
MW-10	3980.06	2/24/20	121.26	-	0.00	3858.80	141.52	=	0	5.0
MW-10	3980.06	3/13/20	-	-	-	-	-	-	-	3.0
MW-10	3980.06	4/29/20	121.41	-	0.00	3858.65	-	-	-	-
MW-10	3980.06	5/26/20	121.31	-	0.00	3858.75	-	-	-	5.0
MW-10	3980.06	6/16/20	121.29	-	0.00	3858.77	-	-	-	-
MW-10	3980.06	7/30/20	121.28	-	0.00	3858.78	-	-	-	-
MW-10	3980.06	8/26/20	121.32	-	0.00	3858.74	-	-	-	-

Table 1

	Elevation			Depth				Well Screen	Volume	
	of Top of		Depth to	to	LNAPL	Elevation of	Measured	Interval (fbgs)	LNAPL	Volume of
	Casing		Groundwater	LNAPL	Thickness	Potentiometric	Well Depth	Well Diameter	Bailed	Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-10	3980.06	9/17/20	121.34	-	0.00	3858.72	141.48	-	-	13.0
MW-10	3980.06	10/21/20	121.37	-	0.00	3858.69	-	-	-	-
MW-10	3980.06	11/4/20	121.42	-	0.00	3858.64	-	-	-	10.0
MW-10	3980.06	12/9/20	121.42	-	0.00	3858.64	-	-	-	-
MW-10	3980.06	1/28/21	121.49	-	0.00	3858.57	-	-	-	-
MW-10	3980.06	2/25/21	121.48	-	0.00	3858.58	141.30	-	-	10.0
MW-10	3980.06	3/24/21	121.46	-	0.00	3858.60	-	-	-	-
MW-10	3980.06	4/30/21	121.50	-	0.00	3858.56	-	-	-	-
MW-10	3980.06	5/11/21	121.54	-	0.00	3858.52	-	-	-	10.0
MW-10	3980.06	6/28/21	121.46	-	0.00	3858.60	-	-	-	-
MW-10	3980.06	7/27/21	121.37	-	0.00	3858.69	-	-	-	-
MW-10	3980.06	8/24/21	121.39	-	0.00	3858.67	-	-	-	9.5
MW-10	3980.06	9/30/21	121.56	-	0.00	3858.50	141.30	-	-	-
MW-10	3980.06	10/28/21	121.63	-	0.00	3858.43	141.30	-	-	-
MW-10	3980.06	11/16/21	121.64	-	0.00	3858.42	141.30	-	-	9.0
MW-11	3981.92	2/24/20	123.00	-	0.00	3858.92	142.94	-	-	38.8
MW-11	3981.92	4/29/20	123.16	-	0.00	3858.76	-	-	-	-
MW-11	3981.92	5/26/20	123.05	-	0.00	3858.87	-	-	-	38.0
MW-11	3981.92	6/16/20	123.05	-	0.00	3858.87	-	-	-	-
MW-11	3981.92	7/30/20	123.05	-	0.00	3858.87	-	-	-	-
MW-11	3981.92	8/26/20	123.08	-	0.00	3858.84	-	-	-	-
MW-11	3981.92	9/17/20	123.07	-	0.00	3858.85	141.79	-	-	30.5
MW-11	3981.92	10/21/20	123.11	-	0.00	3858.81	-	-	-	-
MW-11	3981.92	11/4/20	123.18	-	0.00	3858.74	-	-	-	31.5
MW-11	3981.92	12/9/20	123.19	-	0.00	3858.73	-	-	-	-
MW-11	3981.92	1/28/21	123.23	-	0.00	3858.69	-	-	-	-
MW-11	3981.92	2/25/21	123.25	-	0.00	3858.67	141.70	-	-	35.0
MW-11	3981.92	3/24/21	123.23	-	0.00	3858.69	-	-	-	-
MW-11	3981.92	4/30/21	123.24	-	0.00	3858.68	-	-	-	-
MW-11	3981.92	5/11/21	123.31	-	0.00	3858.61	-	-	-	35.0
MW-11	3981.92	6/28/21	123.24	-	0.00	3858.68	-	-	-	-
MW-11	3981.92	7/27/21	123.17	-	0.00	3858.75	-	-	-	

Table 1

	Elevation of Top of Casing		Depth to Groundwater	Depth to LNAPL	LNAPL Thickness	Elevation of Potentiometric	Measured Well Depth	Well Screen Interval (fbgs) Well Diameter	Volume LNAPL Bailed	Volume of Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-11	3981.92	8/24/21	123.18	-	0.00	3858.74	-	-	-	9.0
MW-11	3981.92	9/30/21	123.30	-	0.00	3858.62	141.70	-	-	-
MW-11	3981.92	10/28/21	123.37	-	0.00	3858.55	141.70	-	-	-
MW-11	3981.92	11/16/21	123.36	-	0.00	3858.56	141.70	-	-	24.0
MW-12	3982.15	1/10/20	123.48	123.25	0.23	3858.86	-	-	0.5	2.0
MW-12	3982.15	2/19/20	123.54	123.20	0.34	3858.89	-	=	0.1	0.4
MW-12	3982.15	2/24/20	123.38	123.20	0.18	3858.92	-	=	-	-
MW-12	3982.15	3/13/20	123.50	123.24	0.26	3858.86	-	=	0.1	2.9
MW-12	3982.15	4/29/20	123.76	123.34	0.42	3858.73	-	-	0.5	3.5
MW-12	3982.15	5/26/20	123.56	123.23	0.33	3858.86	-	-	-	-
MW-12	3982.15	6/16/20	123.65	123.22	0.43	3858.85	-	-	-	-
MW-12	3982.15	7/30/20	123.70	123.23	0.47	3858.83	-	-	0.3	-
MW-12	3982.15	8/26/20	123.66	123.25	0.41	3858.82	-	-	-	-
MW-12	3982.15	9/15/20	123.41	123.25	0.16	3858.87	-	-	-	-
MW-12	3982.15	9/15/20	123.71	123.32	0.39	3858.76	-	-	-	-
MW-12	3982.15	9/17/20	123.57	123.27	0.30	3858.82	-	-	-	-
MW-12	3982.15	10/21/20	123.80	123.28	0.52	3858.77	-	-	-	-
MW-12	3982.15	11/4/20	123.74	123.35	0.39	3858.73	-	-	-	-
MW-12	3982.15	12/9/20	123.91	123.34	0.57	3858.70	-	-	-	-
MW-12	3982.15	1/28/21	123.90	123.40	0.50	3858.66	-	-	-	-
MW-12	3982.15	2/25/21	123.88	123.38	0.50	3858.68	142.01	-	-	-
MW-12	3982.15	3/24/21	123.98	123.37	0.61	3858.66	-	-	-	-
MW-12	3982.15	4/30/21	124.19	123.37	0.82	3858.62	-	-	-	-
MW-12	3982.15	5/11/21	124.28	123.42	0.86	3858.57	-	-	-	-
MW-12	3982.15	6/28/21	124.36	123.31	1.05	3858.64		-	-	-
MW-12	3982.15	7/27/21	124.38	123.21	1.17	3858.72	-	-	-	-
MW-12	3982.15	8/24/21	124.53	123.21	1.32	3858.69	-	-	1.0	-
MW-12	3982.15	9/30/21	124.35	123.43	0.92	3858.55	142.01	-	-	-
MW-12	3982.15	10/28/21	124.40	123.48	0.92	3858.50	142.01	-	-	-
MW-12	3982.15	11/16/21	124.61	123.40	1.21	3858.52	142.01	-	1.3	-
MW-13	2000.00	2/24/20	101.01		0.00	3859.01	141.26			0.5
MW-13	3980.82 3980.82	4/29/20	121.81 122.00	-	0.00	3859.01	141.36	-	-	9.5
10100-13	3980.82	4/29/20	122.00	-	0.00	3838.82	-	-	-	_

Table 1

	Elevation of Top of Casing		Depth to Groundwater	Depth to LNAPL	LNAPL Thickness	Elevation of Potentiometric	Measured Well Depth	Well Screen Interval (fbgs) Well Diameter	Volume LNAPL Bailed	Volume of Groundwater
Well ID	(famsl)	Date	(fbtoc)	(fbtoc)	(ft.)	Surface (famsl)	(fbtoc)	(in.)	(gal.)	Bailed (gal.)
MW-13	3980.82	5/26/20	121.88	-	0.00	3858.94	-	=	-	10.0
MW-13	3980.82	6/16/20	121.89	-	0.00	3858.93	-	=	-	-
MW-13	3980.82	7/30/20	121.87	-	0.00	3858.95	-	-	-	-
MW-13	3980.82	8/26/20	121.90	-	0.00	3858.92	-	-	-	-
MW-13	3980.82	9/17/20	121.92	-	0.00	3858.90	141.31	-	-	7.5
MW-13	3980.82	10/21/20	121.93	-	0.00	3858.89	-	-	-	-
MW-13	3980.82	11/4/20	122.01	-	0.00	3858.81	-	-	-	9.0
MW-13	3980.82	12/9/20	121.97	-	0.00	3858.85	-	-	-	-
MW-13	3980.82	1/28/21	122.05	-	0.00	3858.77	-	-	-	-
MW-13	3980.82	2/25/21	122.11	-	0.00	3858.71	141.42	-	-	9.0
MW-13	3980.82	3/24/21	122.06	-	0.00	3858.76	-	-	-	-
MW-13	3980.82	4/30/21	122.10	-	0.00	3858.72	-	-	-	-
MW-13	3980.82	5/11/21	122.13	-	0.00	3858.69	-	-	-	9.0
MW-13	3980.82	6/28/21	122.27	-	0.00	3858.55	-	-	-	-
MW-13	3980.82	7/27/21	121.97	-	0.00	3858.85	-	-	-	-
MW-13	3980.82	8/24/21	121.88	-	0.00	3858.94	-	-	-	9.0
MW-13	3980.82	9/30/21	122.37	-	0.00	3858.45	141.42	-	-	-
MW-13	3980.82	10/28/21	122.40	-	0.00	3858.42	141.42	-	-	-
MW-13	3980.82	11/16/21	122.48	-	0.00	3858.34	141.42	-	-	9.0
MW-14	3981.35	2/24/20	122.38	-	0.00	3858.97	141.49	-	-	2.5
MW-14	3981.35	4/29/20	122.53	-	0.00	3858.82	-	-	-	-
MW-14	3981.35	5/26/20	122.42	-	0.00	3858.93	-	-	-	10.0
MW-14	3981.35	6/16/20	122.42	-	0.00	3858.93	-	-	-	-
MW-14	3981.35	7/30/20	122.42	-	0.00	3858.93	-	-	-	-
MW-14	3981.35	8/26/20	122.44	-	0.00	3858.91	-	-	-	-
MW-14	3981.35	9/17/20	122.48	-	0.00	3858.87	141.44	-	-	12.0
MW-14	3981.35	10/21/20	122.48	-	0.00	3858.87	-	-	-	-
MW-14	3981.35	11/4/20	122.55	-	0.00	3858.80	-	-	-	9.0
MW-14	3981.35	12/9/20	122.52	_	0.00	3858.83	-	-	-	-
MW-14	3981.35	1/28/21	122.65	-	0.00	3858.70	-	=	-	-
MW-14	3981.35	2/25/21	122.67	-	0.00	3858.68	141.41	=		9.0
MW-14	3981.35	3/24/21	122.61	-	0.00	3858.74	-	-	-	-

Table 1

Well ID	elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of Potentiometric Surface (famsl)		Well Screen Interval (fbgs) Well Diameter (in.)	Volume LNAPL Bailed (gal.)	Volume of Groundwater Bailed (gal.)
MW-14	3981.35	4/30/21	122.64	-	0.00	3858.71	-	-	-	-
MW-14	3981.35	5/11/21	122.67	-	0.00	3858.68	-	-	-	9.0
MW-14	3981.35	6/28/21	122.62	-	0.00	3858.73	-	-	-	-
MW-14	3981.35	7/27/21	122.55	-	0.00	3858.80	-	-	-	-
MW-14	3981.35	8/24/21	122.57	-	0.00	3858.78	-	-	-	3.0
MW-14	3981.35	9/30/21	122.68	-	0.00	3858.67	141.41	-	-	-
MW-14	3981.35	10/28/21	122.74	-	0.00	3858.61	141.41	-	-	-
MW-14	3981.35	11/16/21	122.76	-	0.00	3858.59	141.41	-	-	9.0

#### Notes:

- 1. famsl feet above mean sea level
- 2. fbtoc feet below top of casing
- 3. LNAPL Light non-aqueous phase liquid.
- 4. fbgs feet below ground surface.
- 5. Elevations of the potentiometric surface were calculated using 0.81 as the factor for the specific gravity of LNAPL. 6. MW-9, MW-10, MW-11, MW-12, MW-13 and MW-14 were installed in November 2017

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Table 2
BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, LP
Chevron Grayberg 6-Inch Sec. 6 (Historical)

Lea County, New Mexico

Lea County, New Mexico												
		Benzene		Ethylbenzene	Total Xylenes							
	Commis	(mg/L)	Toluene (mg/L)	(mg/L)	(mg/L)							
Sample ID	Sample		NMWQCC Human	Health Standard	ls							
	Date	0.01	0.75	0.75	0.62							
MW-1	2/25/20	0.0537	0.105	0.0472	0.0830							
MW-1 (Dup2)	2/25/20	0.0529	0.0876	0.0398	0.0696							
MW-1	5/27/20	0.0213	0.0462	0.0175	0.0201							
MW-1	9/18/20	0.0263	0.0523	0.0204	0.0362							
MW-1 (DUP)	9/18/20	0.0243	0.0493	0.019	0.0337							
MW-1	11/4/20	0.0192	0.0275	0.0115	0.0151							
MW-1	2/25/21	0.00618	0.0180	0.00752	0.0131							
MW-1 (Dup-1)	2/25/21	0.00522	0.0156	0.00752	0.0119							
MW-1	5/12/21	0.0380	0.0152	0.00876	0.0146							
MW-1	8/25/21	0.0380	0.0417	0.00876	0.0312							
MW-1 (DUP-1)	8/25/21	0.0137	0.0417	0.0176	0.0312							
MW-1	11/16/21	0.0920		0.0176	0.0326							
IVIVV - I	11/10/21	0.0920	0.283	V.11	0.132							
MW-2	2/25/20	0.000297 J	<0.000412	<0.000160	<0.000510							
MW-2	5/27/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-2	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-2	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-2	2/25/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-2	5/12/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-2	8/25/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-2	11/16/21	0.000123 J	<0.000278	<0.000137	<0.000174							
	,, = .	0.000.120	0.000=.0	0.000.01	0.000							
MW-3	2/25/20	0.000820	<0.000412	<0.000160	<0.000510							
MW-3	5/27/20	0.000825	<0.000412	<0.000160	<0.000510							
MW-3	9/18/20	0.000475 J	0.000542 J	0.000615	0.00165							
MW-3	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-3	2/25/21	0.000353 J	<0.000412	<0.000160	<0.000510							
MW-3	5/12/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-3	8/25/21	0.000861	<0.000412	<0.000160	<0.000510							
MW-3	11/16/21	0.000253 J	<0.000278	<0.000137	<0.000174							
N 40 A / 4	0/04/00	0.000.00	.0.000440	0 000000 D I	0.000740.1							
MW-4	2/24/20	0.000580	<0.000412	0.000283 B J	0.000512 J							
MW-4	5/27/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-4	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-4	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-4	2/25/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-4	5/12/21	<0.000190	<0.000412	0.000330 J	<0.000510							
MW-4	8/24/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-4	11/16/21	<0.0000941	<0.000278	<0.000137	<0.000174							
MW-5	2/25/20	0.000247 J	<0.000412	<0.000160	<0.000510							
MW-5	5/27/20	<0.000247 3	<0.000412	<0.000160	<0.000510							
MW-5	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-5	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510							
MW-5	2/25/21	<0.000190	<0.000412	<0.000160	<0.000510							
MW-5	5/12/21			0.000160 0.000247 J	<0.000510							
G-VVIVI	J/ 12/2 I	<0.000190	<0.000412	U.UUU24/ J	~U.UUU31U							

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Table 2
BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, LP
Chevron Grayberg 6-Inch Sec. 6 (Historical)

Lea County, New Mexico

Lea County, New Mexico    Benzene   Ethylbenzene   Total Xylenes													
		Benzene		Ethylbenzene									
	Sample	(mg/L)	Toluene (mg/L)	(mg/L)	(mg/L)								
Sample ID	Date		NMWQCC Human Health Standa										
	Date	0.01	0.75	0.75	0.62								
MW-5	8/25/21	<0.000190	< 0.000412	<0.000160	<0.000510								
MW-5	11/16/21	<0.0000941	<0.000278	<0.000137	<0.000174								
MW-6	2/25/20	<0.000190	<0.000412	<0.000160	<0.000510								
MW-6	5/27/20	<0.000190	<0.000412	0.000208 J	0.000709 J								
MW-6	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510								
MW-6	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510								
MW-6	2/25/21	<0.000190	<0.000412	<0.000160	<0.000510								
MW-6	5/12/21	<0.000190	<0.000412	0.000477 J	<0.000510								
MW-6	8/25/21	0.000344 J	<0.000412	<0.000160	<0.000510								
MW-6	11/16/21	0.000246 J	<0.000278	<0.000137	0.000208 J								
1 A) A / O	0/04/00	0.00	0.500	2 2222	0.440								
MW-8	2/24/20	2.22	0.783	0.0990	0.412								
MW-8	5/27/20	3.06	0.876	0.0507	0.232								
MW-8	9/17/20	2.01	0.0873	0.0371	0.187								
MW-8	11/4/20	2.42	0.751	0.0879	0.344								
MW-8	2/25/21	2.63	1.070	0.103	0.481								
MW-8	5/12/21	1.78	0.240	0.0417	0.204								
MW-8 (DUP-1)	5/12/21	2.09	0.192	0.0396	0.179								
MW-8	8/24/21	2.63	1.30	0.0945	0.668								
MW-8	11/16/21	1.61	0.403	0.0499	0.240								
MW-9	2/25/20	0.00571	<0.000412	<0.000160	<0.000510								
MW-9 (Dup-1)	2/25/20	0.00609	<0.000412	<0.000160	<0.000510								
MW-9	5/27/20	0.00401	<0.000412	<0.000160	<0.000510								
MW-9 (DUP-2)	5/27/20	0.00984	<0.000412	0.000192 BJ	0.00115 J								
MW-9	9/18/20	0.00530	<0.000412	<0.000160	<0.000510								
MW-9	11/4/20	0.00318	<0.000412	<0.000160	<0.000510								
MW-9 (DUP-1)	11/4/20	0.00281	0.000463 J	0.000172 J	<0.000510								
MW-9	2/25/21	0.00301	<0.000412	<0.000160	<0.000510								
MW-9	5/12/21	0.00229	0.000458 J	<0.000160	<0.000510								
MW-9	8/25/21	0.00351	<0.000412	<0.000160	<0.000510								
MW-9	11/16/21	0.00343	<0.000278	0.000146 J	0.000422 J								
	,,	0.000.10	0.000	0.0001.00	0.000 .== 0								
MW-10	2/25/20	0.00353	<0.000412	<0.000160	<0.000510								
MW-10	5/27/20	0.00258	<0.000412	<0.000160	<0.000510								
MW-10	9/17/20	0.00220	<0.000412	<0.000160	<0.000510								
MW-10	11/4/20	0.00164	<0.000412	<0.000160	<0.000510								
MW-10	2/25/21	0.000851	<0.000412	<0.000160	<0.000510								
MW-10	5/12/21	0.000823	0.000467 J	<0.000160	<0.000510								
MW-10	8/25/21	0.000584	<0.000412	<0.000160	<0.000510								
MW-10	11/16/21	0.00402	<0.000278	<0.000137	<0.000174								
MW-11	2/24/20	0.117	0.00785	0.00500	0.0305								
MW-11	5/27/20	0.00193	<0.000412	0.000191 J	<0.000510								
MW-11	9/17/20	0.00287	<0.000412	0.00243	0.000799 J								
MW-11	11/4/20	0.0138	<0.000412	0.00177	0.00142 J								
MW-11	2/25/21	0.0429	0.000905 J	0.00459	0.00545								

11209906

Page 3 of 3

### Table 2 BTEX Analytical Results for Groundwater Sampling Events 2020-2021 Plains Pipeline, LP Chevron Grayberg 6-Inch Sec. 6 (Historical)

Lea County, New Mexico

		Benzene		Ethylbenzene	Total Xylenes	
	0	(mg/L)	Toluene (mg/L)	(mg/L)	(mg/L)	
Sample ID	Sample		NMWQCC Human	Health Standard	ls	
	Date	0.01	0.75	0.75	0.62	
MW-11	5/12/21	0.0144	<0.000412	0.00339	0.00148 B J	
MW-11	8/25/21	0.00644	<0.000412	<0.000160	<0.000510	
MW-11	11/16/21	0.238	0.00813	0.00645	0.0342	
MW-11 (DUP)	11/16/21	0.231	0.00804	0.00637	0.0343	
MW-13	2/25/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-13	5/27/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-13 (DUP-1)	5/27/20	0.000720	<0.000412	<0.000160	<0.000510	
MW-13	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-13	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-13	2/25/21	<0.000190	<0.000412	<0.000160	<0.000510	
MW-13	5/12/21	<0.000190	<0.000412	0.000161 J	<0.000510	
MW-13	8/25/21	<0.000190	<0.000412	<0.000160	<0.000510	
MW-13	11/16/21	<0.0000941	<0.000278	< 0.000137	<0.000174	
MW-14	2/25/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	5/27/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	11/4/20	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	2/25/21	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	5/12/21	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	8/25/21	<0.000190	<0.000412	<0.000160	<0.000510	
MW-14	11/16/21	<0.0000941	<0.000278	<0.000137	<0.000174	

#### Notes:

- 1. Yellow shaded cells indicate New Mexico Water Quality Control Commission Regulatory Limit exceedances.
- 2. Bold indicates detection. BTEX analyses by EPA Method 8021B.
- 3. MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, & MW-14 drilled and completed in November 2017
- 4. J flag indicates that the identification of the analyte is acceptable. The reported value is an estimate.
- 5. B flag indicates the same analyte is found in the associated blank.
- 6. The NMWQCC Human Health Standard for toluene listed at the top of the table is from NMAC 20.6.2.3103 and became effective on December 11, 2018.

#### Table 3 Polycyclic Aromatic Hydrocarbons Analytical Results Plains Pipeline, LP Chevron Grayburg 6-Inch Sec. 6 (Historical)

Lea County, New Mexico																				
Sample ID	Sample Date	Anthracene (mg/L)	Acenaphthene (mg/L)	Acenaphthyle ne (mg/L)	Benzo(a)anthr acene (mg/L)	Benzo(a)pyrer e (mg/L)	Benzo(b)fluoranth ene (mg/L)	Benzo(g,h,i)pery lene (mg/L)	Benzo(k)fluor anthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)a nthracene (mg/L)	Dibenzofuran (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3- cd)pyrene (mg/L)	Naphthalene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	1- Methylnaphthalene (mg/L)	2- Methylnaphthalene (mg/L)
עו											Standards or N	WQCC Toxic Pollutant S								
		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.03	0.001	0.001	0.03	0.03
MW-1	11/29/17	< 0.000183	< 0.000183	< 0.000183	0.000331	0.000355	0.000428	0.000453	0.000580	0.000449	0.000525	0.000343	0.000132 J	0.000646	0.000563	0.00252	0.000619	0.000173 J	0.00185 K	0.00207 K
MW-1	11/15/18	0.0000551	0.0000435 J	< 0.0000120	< 0.00000410	< 0.0000116	0.00000549 J	0.00000294 J	< 0.0000136	0.0000125 J	< 0.00000396	0.000171	< 0.0000157	0.000289	<0.0000148	0.000655	0.000158	0.0000279 J	0.00154	0.000366
MW-2	10/16/19	<0.0000280	<0.0000200	<0.0000240	<0.00000820	<0.0000232	<0.00000424	<0.0000454	<0.0000272	<0.0000216	<0.0000792	0.00000625 B J	<0.0000314	<0.0000170	<0.0000296	<0.0000396	<0.0000164	< 0.0000234	<0.000164	<0.000180
MW-2	11/4/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000121	<0.0000184	<0.0000272	<0.0000179	<0.0000160	<0.0000191	<0.0000270	< 0.00001169	<0.0000158	<0.0000917	<0.0000180	< 0.0000169	<0.000687	<0.000074
19177-2	11/4/20	10.0000100	10.0000100	-0.00001111	-0.0000 <u>2</u> 00	10.0000104	10.0000100	10.0000104	-0.0000202	-0.0000173	10.0000100	10.0000101	-0.0000270	-0.0000103	40.0000100	-0.0000011	-0.0000100	40.0000100	-0.0000007	10.0000014
MW-3	11/15/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.000136	<0.000108	<0.00000396	0.000318	<0.0000157	0.000213	<0.0000148	0.000793	0.0000760	<0.0000117	0.000752	<0.00000902
MW-3	10/16/19	<0.0000140	0.0000136 J	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	0.000328	<0.0000157	0.000144	<0.0000148	0.000383	0.0000916	<0.0000117	0.000377	0.0000142 J
MW-4	11/15/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	0.00000120 B J	<0.0000157	<0.00000850	<0.0000148	0.000148 B J	<0.00000820	<0.0000117	0.00000905 J	<0.00000902
MW-4	10/17/19	< 0.0000140	< 0.0000100	< 0.0000120	< 0.00000410	< 0.0000116	< 0.00000212	< 0.00000227	< 0.0000136	<0.0000108	< 0.00000396	0.00000512 B J	< 0.0000157	< 0.00000850	< 0.0000148	0.0000354 J	<0.00000820	< 0.0000117	0.0000108 J	0.0000110 B J
MW-5	10/17/19	< 0.0000140	< 0.0000100	< 0.0000120	< 0.00000410	< 0.0000116	<0.00000212	< 0.00000227	< 0.0000136	<0.0000108	< 0.00000396	0.00000465 B J	< 0.0000157	< 0.00000850	< 0.0000148	0.0000242 J	<0.00000820	< 0.0000117	<0.00000821	<0.0000902
MW-5	11/4/20	<0.0000110	<0.0000190	<0.0000171	<0.0000203	<0.0000116	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.000070	< 0.0000169	<0.0000116	<0.0000917	<0.0000180	<0.0000111	<0.000687	<0.0000674
14144-0	11/4/20	10.0000100	40.0000100	40.0000171	-0.0000200	10.0000104	10.0000100	-0.000010-	-0.0000202	-0.0000173	10.0000100	-0.0000181	-0.0000270	40.0000103	40.0000100	-0.0000011	10.0000100	40.0000100	-0.0000001	10:0000014
MW-6	10/16/19	<0.000140	<0.000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.0000227	<0.000136	<0.000108	<0.00000396	0.00000614 B J	<0.0000157	<0.00000850	<0.0000148	0.0000337 J	<0.00000820	<0.0000117	<0.0000821	<0.0000902
MW-6			<0.0000100									<0.0000014 B J								
IVI VV -6	11/4/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.000168	<0.0000184	<0.0000202	<0.000179	<0.0000160	<0.0000191	<0.00000270	<0.0000169	<0.0000158	<0.0000917	<0.0000180	<0.0000169	<0.0000687	<0.0000674
MW-7	3/8/13	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	<0.0102	0.0058	<0.0102	0.00408	<0.0102	0.0652	0.00537	<0.0102	NA	0.0535
MW-8	11/4/20	0.000112	0.000355	0.0005030	< 0.0000203	<0.0000184	<0.0000168	<0.000184	< 0.0000202	< 0.0000179	< 0.0000160	0.00504	<0.0000270	0.00332	<0.0000158	0.0663	0.00313	< 0.0000169	0.0737	0.0471
MW-8	11/16/21	<0.0000190	0.000543	< 0.0000171	< 0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	0.0000319 J	< 0.0000160	0.00388	0.0000372 J	0.00332	<0.0000158	0.0552	0.00297	0.0000344 J	0.0542	0.0272
MW-9	11/4/20	< 0.0000190	0.0000267 J	0.0000656	< 0.0000203	< 0.0000184	<0.000168	< 0.0000184	< 0.0000202	< 0.0000179	< 0.0000160	0.00123	< 0.0000270	0.000476	<0.0000158	0.00113	0.000438	< 0.0000169	0.00126	< 0.0000674
MW-9	11/16/21	< 0.000183	<0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	< 0.000183	0.000614	< 0.0000270	0.000209	< 0.0000158	0.000334	0.000252	< 0.0000169	0.000339 J4	<0.0000674 J4
MW-10	11/15/18	<0.000140	<0.0000100	<0.000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.000108	< 0.00000396	<0.0000105	<0.0000157	<0.00000850	<0.000148	0.000214 B J	<0.00000820	<0.0000117	<0.0000821	<0.00000902
MW-10	10/16/19	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000100	< 0.00000396	0.000443	<0.0000157	0.000122	<0.0000148	0.000214 8 0	0.000190	<0.0000117	0.00255	0.0000355 J
19199-10	10/10/13	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000110	<0.0000021Z	~0.00000221	<0.0000130	<0.0000100	<0.00000330	0.000443	<0.0000131	0.000122	<0.0000140	0.000703	0.000130	VO.0000117	0.00233	0.00002333
MW-11	11/15/18	0.0000142 J	<0.0000100	<0.0000120	<0.00000410	<0.0000116	0.00000386 J	<0.00000227	<0.000136	<0.0000108	< 0.00000396	0.00000319 B J	<0.0000157	<0.0000850	<0.000148	0.0000571 B J	0.0000111 J	0.0000206 J	<0.0000821	<0.00000902
MW-11	10/16/19	<0.0000140	0.0000316 J	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	0.000202	<0.0000157	0.000147	<0.0000148	0.000887	0.0000995	<0.0000117	0.00176	0.000774
MW-12	11/30/17	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	<0.000180	0.000190	<0.000180	0.000456	0.000338	<0.000180	NA	NA
MW-12	11/15/18	< 0.0000140	0.0000333 J	< 0.0000120	< 0.00000410	< 0.0000116	< 0.00000212	< 0.00000227	< 0.0000136	<0.0000108	< 0.00000396	0.000307	< 0.0000157	0.000239	<0.000148	0.00387	0.000123	< 0.0000117	0.00356	0.000992
MW-13	11/30/17	< 0.000185	< 0.000185	<0.000185	<0.000185	<0.000185	<0.000185	< 0.000185	<0.000185	<0.000185	< 0.000185	< 0.000185	<0.000185	<0.000185	<0.000185	< 0.000370	0.000257	<0.000185	<0.000111 U K	0.000630 K
MW-13	11/15/18	< 0.0000140	< 0.0000100	< 0.0000120	< 0.00000410	< 0.0000116	0.00000233 J	< 0.00000227	< 0.0000136	<0.000108	< 0.00000396	0.00000169 B J	< 0.0000157	<0.0000850	< 0.0000148	0.0000813 B J	<0.00000820	< 0.0000117	<0.0000821	< 0.00000902
										1							1			1
MW-14	11/30/17	< 0.000182	< 0.000182	< 0.000182	<0.000182	< 0.000182	< 0.000182	< 0.000182	<0.000182	< 0.000182	< 0.000182	<0.000182	< 0.000182	0.000131 J	< 0.000182	0.000148 J	0.000323	< 0.000182	<0.000109 U K	0.000734 K
MW-14	11/15/18	<0.000102	<0.000102	<0.000102	<0.000102	<0.000102	<0.000102	<0.000102	<0.000102	<0.000102	<0.0000102	<0.000102	<0.000102	<0.0001313	<0.000102	0.0001403 0.0000956 B J	<0.000323	<0.000102	<0.000103 0 10	<0.000734 K
191 9 4 - 14	11/13/10	~0.0000140	~0.0000100	~0.0000120	~0.00000410	~0.0000110	~0.00000212	~0.00000221	~0.0000130	₹0.0000108	~0.000000390	~0.00000103	~0.0000137	~0.00000000	~0.0000140	0.0000336 B J	~0.00000620	~0.0000117	~0.0000002 I	~0.00000902

- Yellow shaded cells indicate New Mexico Oil Conservation Division Regulatory Limit exceedance. Requires additional sampling.
   Bold indicates detection. PAH analyses by EPA Method 8270C.
   Samples collected and results dated between 2012 and 2014 were collected and reported by Basin Environmental Service Technologies,
- LLC.

  4. J-flag indicates that the identification of the analyte is acceptable. The reported value is an estimate.

  5. K-flag indicates that sample was analyzed outside of recommended hold time.

  6. B-flag indicates the same analyte is found in the associated blank.

- 8. NA indicates that analyte was not detected.
  8. NA indicates analyte not analyzed.
  9. NMWQCC Human Health Standard for naphthalenes + monmethylnaphthalenes is 0.03 mg/l, as noted in NMAC 20.6.2.3103(A.)(1)(jj).

### Appendices

## Appendix A Release Notification and Corrective Action NMOCD Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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

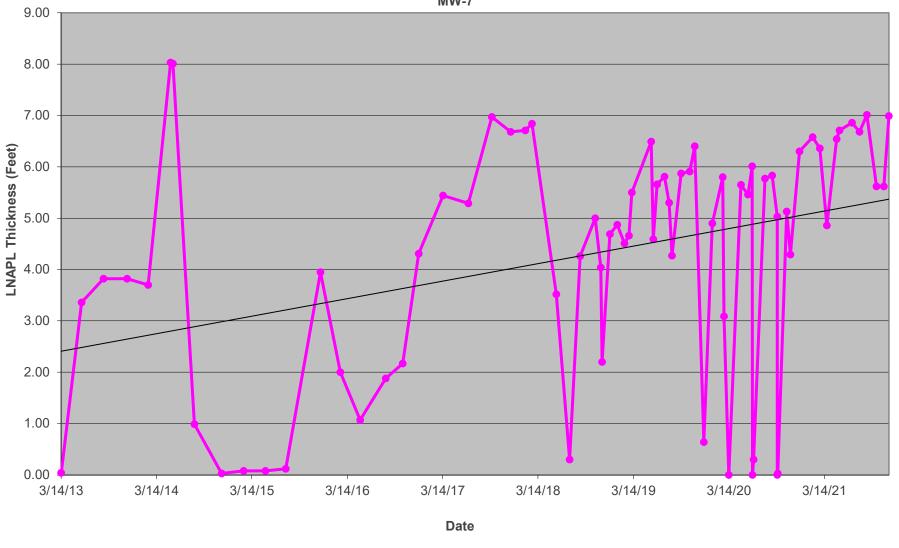
Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-14 Revised October 10, 200

Submit 2 Copies to appropriat District Office in accordanc with Rule 116 on bac side of for

		Rel	ease Notifi	cation	and Co	rrective A	ction_					
				_	OPERA'	ror	(B	Initia	al Report	Final Rep		
Name of Company Address	Plains Pipe				Contact	Jason Henr						
Facility Name			er City, TX 7932 6-inch Sec. 6		Facility Type	No. (575) 441-1 be Pipeline	1099					
		rayburg			raculty Typ	e Pipeline						
Surface Owner NM	SLO		Mineral (	Owner				Lease N	lo.			
					OF RE	LEASE	East/Wes					
Unit Letter Section B 6	Township 18S	Range 35E	Feet from the	North	South Line	County Lea						
		L	atitude N 32.7	810858	<sup>o</sup> Longitude	W 103.49249	27°		2 2			
			NAT	URE	OF REL	EASE			WTR 80			
	ude Oil					Release 120 bbl			ecovered 115 bb			
Source of Release 6	" Steel Pipelin	e			Date and H 10/08/2010	Our of Occurrence			Hour of Discovery			
Was Immediate Notice			<del></del>		If YES, To	Whom?	110	0/00/201	0@10:00			
Yes No Not Required Larry Johnson												
By Whom? Jason Henry Date and Hour 10/08/2010 @ 11:30												
Was a Watercourse Rea		Yes 🗵	l No		If YES, Vo	lume Impacting the	he Waterco	ourse.	-			
IC - Water - I				-			REC	CEN	/ED			
it a watercourse was it	If a Watercourse was Impacted, Describe Fully.*											
							OCT	15				
							HOB	BSU	UU UU			
Excavator struck a tec bbls/day and the oper- concentration in the co	sting pressure rude is less tha	of the pip in 10 ppm	peline is 50 psi. 1 and the gravity	The dept	th of the pipe	elease of crude o line at the releas	il. Through the point is	ghput fo approxi	r the subject line mately 2' bgs. Th	is 2,000 e H2S		
Describe Area Affected The released crude poremediated per applic	oled in the tres able guidelines	nch next ( s.	to the pipeline ar									
I hereby certify that the regulations all operators public health or the env should their operations or the environment. In federal, state, or local la	s are required to ironment. The have failed to a addition, NMO	report an acceptance dequately CD accep	id/or file certain r ce of a C-141 repo- investigate and r	elease no ort by the emediate	otifications ar NMOCD ma contamination	id perform correct arked as "Final Re on that pose a thre	tive actions port" does eat to group	s for rele not relie	ases which may en eve the operator of surface water, hun	danger liability		
Signature:	m He	' 'nu	/			OIL CONS	SERVAT	TION	DIVISION	Ŋ		
Printed Name. Jason I	lenry				Approved by	District Superviso	MMENT	TAL EN	IGINEER  Date: 12.15.16  Attached	4.33		
Title: Remediation Co	ordinator				Approval Dat	e: 10.15·10	Ехр	iration [	Date: 12.15.16	p		
E-mail Address: jhenr	y@paalp.com		<u></u>	(	Conditions of	Approval:			Attached □	3/202		
Date: 10-15-20	910	Phone:	(575) 441-1099		SUBMIT F	NAL C. 141 .	2 (Does	84	1884 10 10.	2637		
* Attach Additional She	ets If Necessa	ary						U. 123-600		Released to Imaging		

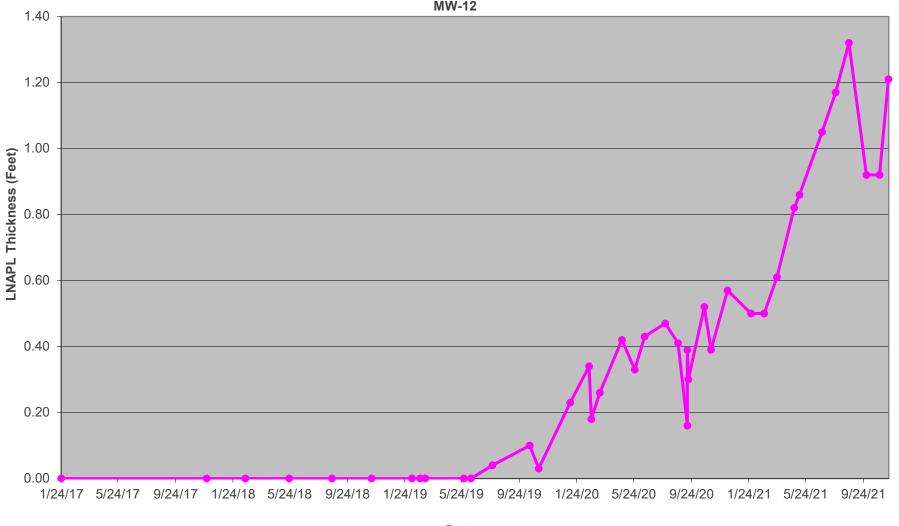
Appendix B
Charts of LNAPL Thicknesses in MW-7and
MW-12 vs. Time

### CHEVRON GRAYBERG, 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 LNAPL THICKNESS vs. TIME MW-7



→ LNAPL Thickness — Trendline

### CHEVRON GRAYBERG, 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 LNAPL THICKNESS vs. TIME MW-12

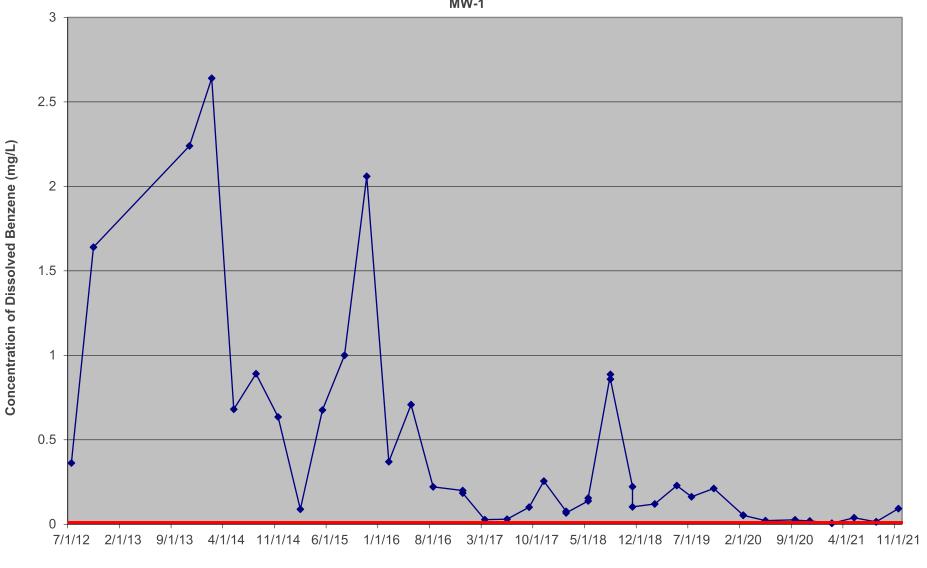


Date

→ LNAPL Thickness

Received by OCD: 3/24/2022 2:40:53 PM	Page 42 of 209

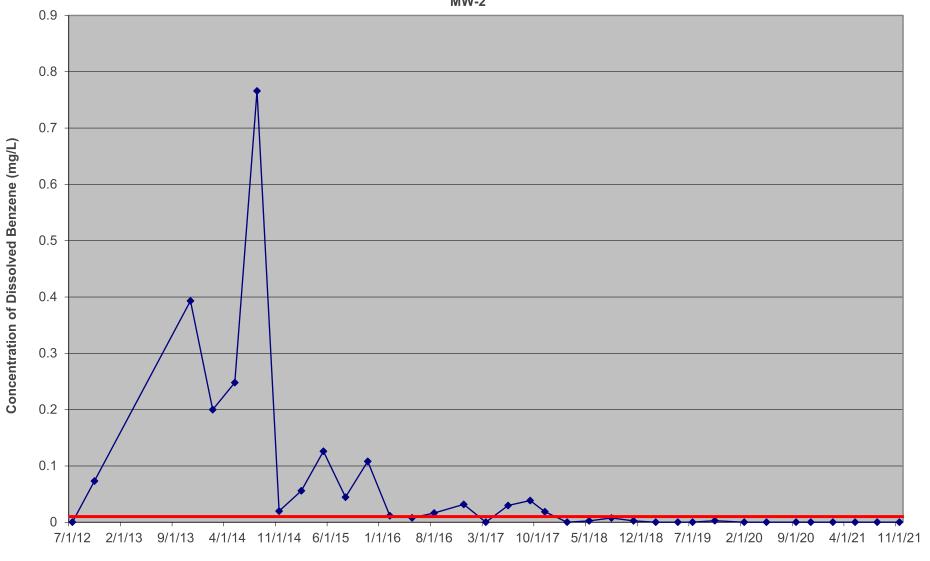
## CHEVRON GRAYBURG 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-1



Date

→ Benzene → NMWQCC Human Health Standard

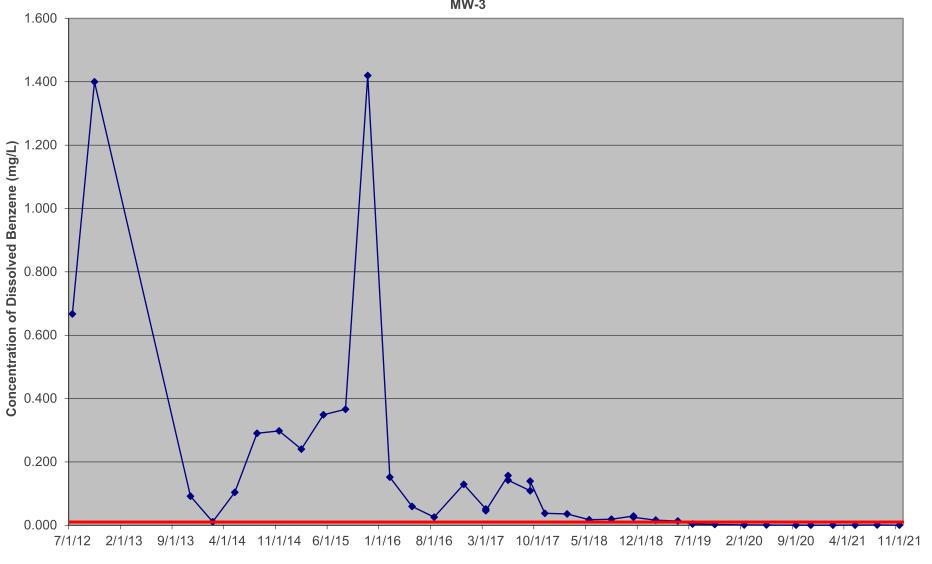
## CHEVRON GRAYBURG 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-2



→ Benzene —NMWQCC Human Health Standard

Date

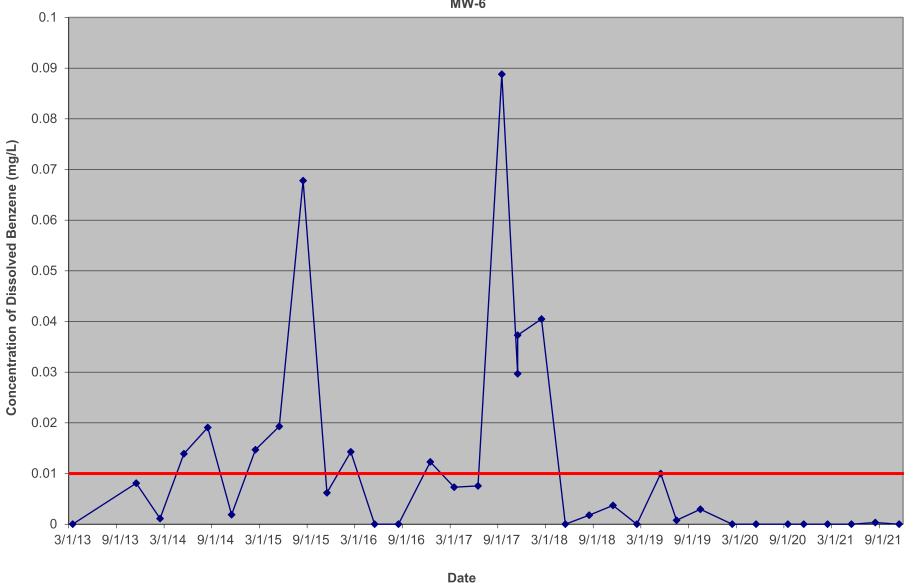
## CHEVRON GRAYBURG 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-3



Date

→ Benzene —NMWQCC Human Health Standard

### **CHEVRON GRAYBURG 6-INCH HISTORICAL** LEA COUNTY, NEW MEXICO **NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME** MW-6

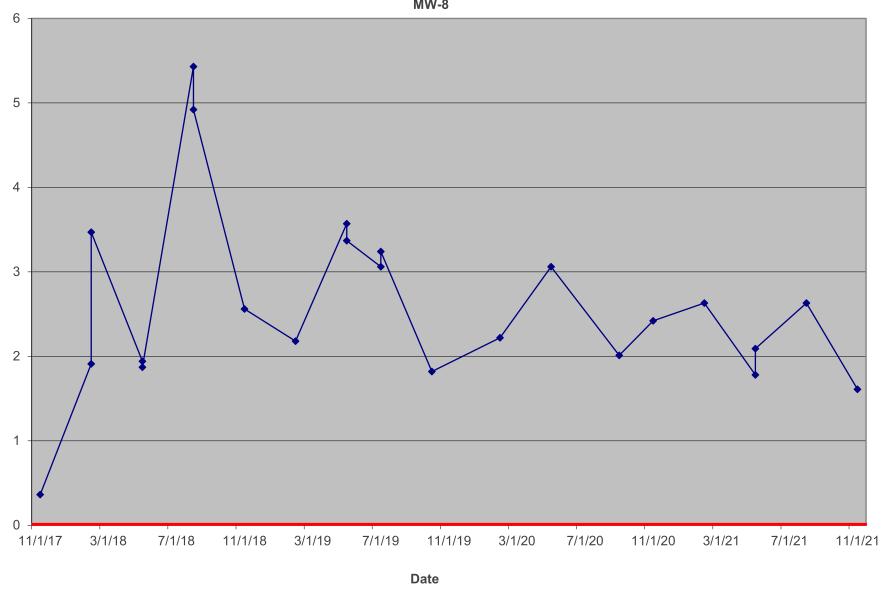


NMWQCC Human Health Standard → Benzene

Concentration of Dissolved Benzene (mg/L)

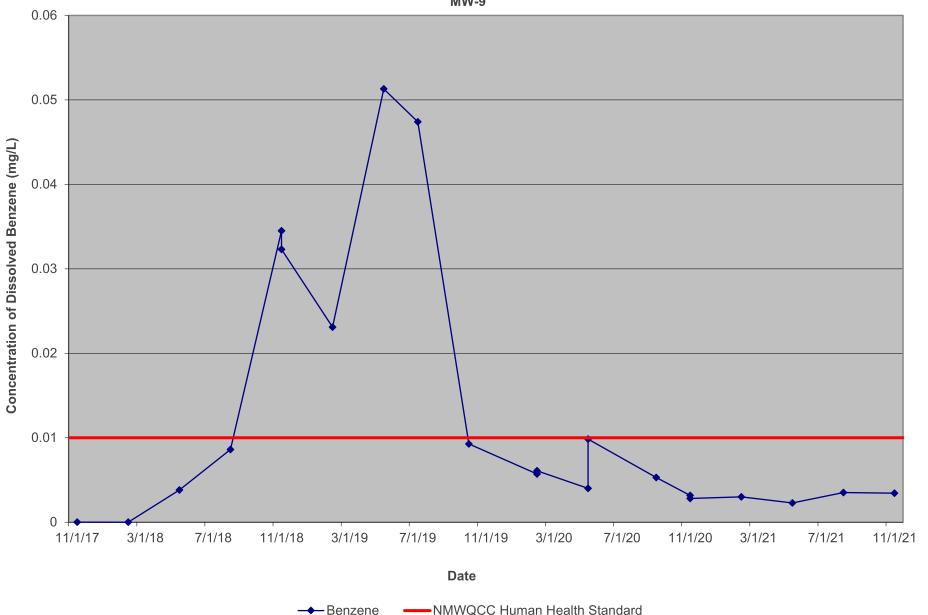
# Received by OCD: 3/24/2022 2:40:53 PM

### **CHEVRON GRAYBURG 6-INCH HISTORICAL** LEA COUNTY, NEW MEXICO **NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-8**



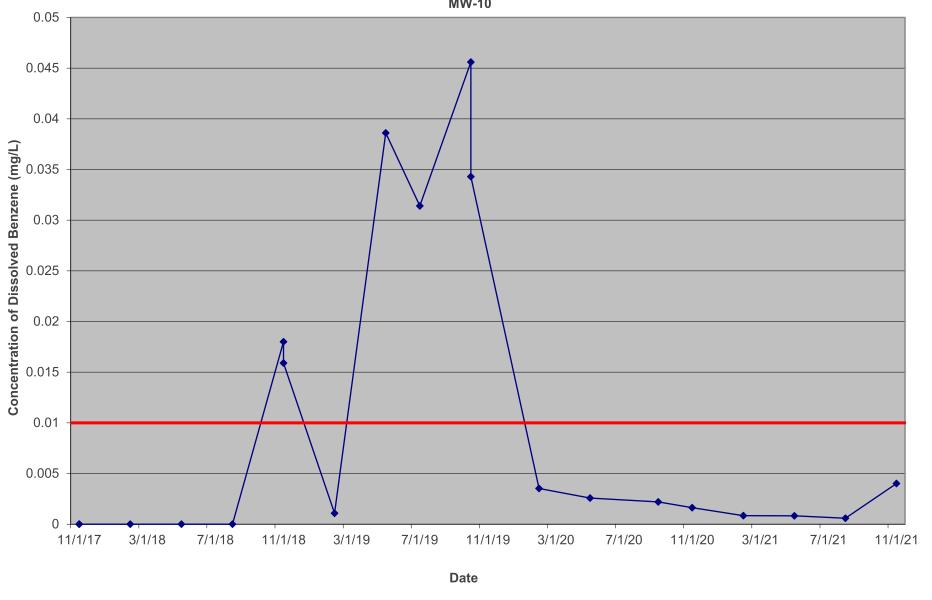
NMWQCC Human Health Standard → Benzene

### **CHEVRON GRAYBURG 6-INCH HISTORICAL** LEA COUNTY, NEW MEXICO **NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME** MW-9



→ Benzene

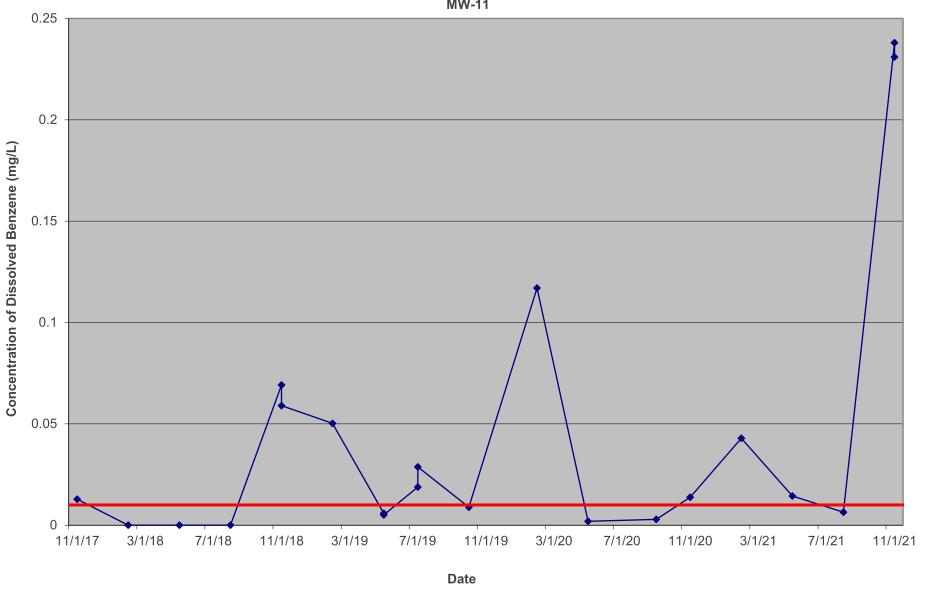
## CHEVRON GRAYBURG 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-10



→ Benzene

NMWQCC Human Health Standard

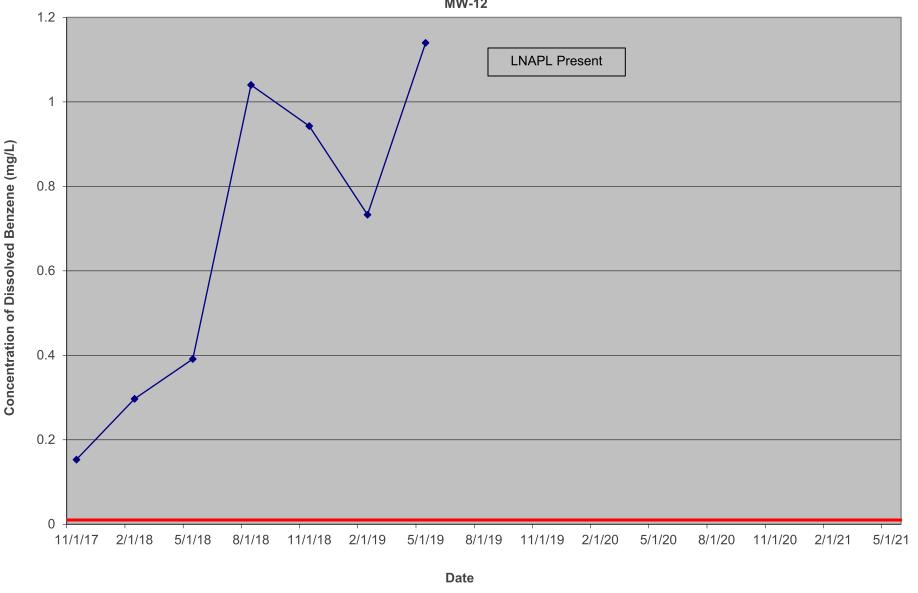
## CHEVRON GRAYBURG 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-11



→ Benzene

NMWQCC Human Health Standard

## CHEVRON GRAYBURG 6-INCH HISTORICAL LEA COUNTY, NEW MEXICO NMOCD 1RP-2637 CONCENTRATION OF DISSOLVED BENZENE vs. TIME MW-12



→ Benzene

NMWQCC Human Health Standard

### Appendix D Talon 2021 Annual MDPE Report







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MOBILE DUAL PHASE EXTRACTION REPORT CHEVRON - GRAYBURG BUCKEYE, LEA COUNTY, NEW MEXICO SRS CHEVRON GRAYBURG 6 – INCH, HISTORICAL 2021 MDPE EVENTS

PREPARED FOR: PLAINS MARKETING, L.P. 333 CLAY STREET SUITE 1600 HOUSTON, TEXAS 77002

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### **DISTRIBUTION:**

COPY 1 - PLAINS MARKETING, L.P. – DENVER CITY COPY 2 - PLAINS MARKETING, L.P. – HOUSTON

January 28, 2022

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### **Attachments:**

Attachment 1 - MDPE Field Logs Attachment 2 - Laboratory Analytical Results

Attachment 3 – Oxidizer Charts

Chevron-Grayburg-700376.274 - SRS Chevron Grayburg - 2021 MDPE Events

### I. MDPE SUMMARY REPORT AND WASTE DISPOSITION

### A. MDPE Results

The following report summarizes data collected during the four (4) 12-hour High Vacuum Multi-Phase Extraction (MDPE) events conducted during 2021 at the Chevron-Grayburg release site, located in Buckeye, Lea County, New Mexico. The objective of the MDPE treatment was to remove both vapor and liquid phase separated hydrocarbons (PSH) from onsite groundwater wells. Talon/LPE utilized an MDPE unit which consisted of a Soil Vapor Extraction (SVE) pump capable of generating vacuum up to 25 inHg. Off-gas vapors extracted from the extraction wells were destroyed using a propane-fired 1000-SCFM thermal oxidizer capable of processing 172.96 lbs/hr of gasoline.

A total of two (2) days of PSH recovery was performed on MW-7.

Prior to and immediately following the events, the groundwater wells were gauged for groundwater elevation and PSH. Depth to groundwater ranges were measured in feet below the top of casing. Refer to Attachment 1 for a summary of data collected during the MDPE events.

The volume of PSH removed during the MDPE events is shown to reflect the portions of PSH in the liquid phase and as off-gas vapor. Air removal rates were calculated from velocity measurements recorded at the influent manifold prior to entry into the MDPE unit. PSH recovery and air flow data has been detailed and is contained in Table 1 through Table 4. Influent air samples were collected over the course of the events. These samples were submitted for laboratory testing in order to compare the predicted vapor concentrations (based on field-screening or calculated based on fuel consumption) to the actual vapor concentrations. All influent samples were tested for Total-Gas Analysis (Hydrocarbon Composition) by GPA 2261M. Laboratory analytical results can be found in Attachment 2.

Based on a combination of field vapor screening and collected laboratory samples, a combined estimated total of 160.44 equivalent gallons of hydrocarbons (Total) were removed during the events. The combined volume of hydrocarbons was comprised of approximately 62.00 gallons of PSH (liquid phase) and approximately 98.44 gallons as off-gas vapor. The calculations used to estimate the off-gas vapor mass recovered reflect the mass of total hydrocarbons recovered and does not necessarily equate to an equal mass of the product released. The mass recovery calculations may be affected by variations in the specific gravity of product released, age of release, activity of aerobic and/or anaerobic processes, and site-specific geochemical factors.

### Chevron-Grayburg - 700376.274 - SRS Chevron Grayburg - 2021 MDPE Events

The cumulative air flow measurements for the MDPE event was calculated using a combination of field data measurements and Preso® B+ manufacturer provided formulas. Air flow rates extracted from the recovery wells averaged 140.53 **SCFM** during the events.

### В. **Air Quality**

Influent air samples were collected during the event. These samples were submitted for laboratory testing in order to compare the predicted vapor concentrations (based on field-screening or calculated based on fuel consumption) to the actual vapor concentrations. The maximum concentration in air influent was recorded as 36,960 ppmv for Hydrocarbon Composition. Laboratory analytical results can be found in Attachment 2.

### C. **Waste Management and Disposition**

A cumulative total of 315 gallons of fluid were generated during the events. The fluids were transferred to an on-site storage tank prior to being transported offsite to a licensed disposal facility.

### II. SYSTEM OPERATION DATA AND MASS RECOVERY CALCULATIONS

### Formulae:

Concentration (C mg/l) = C ppmv x Mol. wt. in mg(estimated) x 1000 x 0.000001 0.0821 x Temp (K) Recovery Rate (lbs/hr) = (C mg/l) x 2.2 x (Flowrate) x 60 x 28.32 1.000.000

Recovery (lbs) = (lbs/hr) x (hrs)

Correction Factor (CF) = FID/PID Reading (ppmv) FID/PID Reading at Time of Laboratory Analysis

8.34 lbs x 0.82 average specific gravity of light crude = 6.84 lbs light crude gallon water (estimated) gallon

10.64 gallons

72.76

10.64

88.92

13.00

161.68 lbs

23.64 gallons

gallons

gallons

lbs

Table 1
System Operation Data and Mass Recovery Calculations 3/10/2021

Time	Period (hours)	Influent Temp. (°F)	Vacuum (inHg)	Vacuum (inH <sub>2</sub> 0)	Differential pressure (inH <sub>2</sub> 0)	Flow (SCFM)	FID Readings (ppm)	Lab Result (ppmv)	Assigned Lab Result (ppmv)	Correction Factor (CF)	Adjusted Lab Result (ppmv)	Adjusted Lab Result (mg/L)	Recovery (lbs/hr)	Recovery in Period (lbs)	Total Recovery (lbs)
7:30	1	60	18.0	244.96	29.5	121.10	50000	13500.00	13500.00	1.00	13500	16.41	7.43	7.43	7.43
8:30	1	64	18.0	244.96	26.1	113.47	50000	-	13500.00	1.00	13500	16.28	6.91	6.91	14.34
9:30	1	72	18.0	244.96	25.5	111.31	50000	-	13500.00	1.00	13500	16.04	6.67	6.67	21.01
10:30	1	80	18.0	244.96	27.3	114.32	50000	-	13500.00	1.00	13500	15.80	6.75	6.75	27.76
11:30	1	80	18.0	244.96	25.1	109.61	50000	-	13500.00	1.00	13500	15.80	6.47	6.47	34.24
12:30	1	82	18.0	244.96	23.6	106.09	50000	-	13500.00	1.00	13500	15.74	6.24	6.24	40.48
13:30	1	82	18.0	244.96	22.7	104.05	50000	-	12360.00	1.00	12360	14.38	5.59	5.59	46.07
14:30	1	86	18.0	244.96	21.8	101.59	50000	-	12360.00	1.00	12360	14.27	5.42	5.42	51.49
15:30	1	88	18.0	244.96	17.6	91.11	50000	-	12360.00	1.00	12360	14.22	4.84	4.84	56.34
16:30	1	86	18.0	244.96	20.6	98.75	50000	-	12360.00	1.00	12360	14.27	5.27	5.27	61.60
17:30	1	84	18.0	244.96	21.5	101.07	50000	12360.00	12360.00	1.00	12360	14.32	5.41	5.41	67.02
18:30	1	80	18.0	244.96	23.7	106.51	50000	-	12360.00	1.00	12360	14.43	5.75	5.75	72.76
Averages:		78.67	18.00	244.96	23.75	106.58	50000.00						Total	72.76	

PSH Mass Recovered in Vapor Phase =

PSH Mass Recovered in Vapor Phase =

PSH Mass Recovered in Liquid Phase =

**Total Hydrocarbon Recovery** 

TOTAL =

FID maximum Concentration = 50,000 PPM

Ex: Conversion	on from ppmv	to mg/L (influ	ent 1)			
Measured Conc.	Molecular Wt.	Pressure	Gas Constant	Temp.	Temp.	Conc.
(ppmv)	(Grams)	(atm)	(atm.liter/K.mole)	(F)	(K)	( C_mg/l)
13500	28.7959	1	0.0821	60	288.555556	16.4093786

Inputs are the green values.

Calculated values are yellow.

Constants are purple values.

Outpus are the blue values.

### Liquid-phase Hydrocarbon Recovery

∏ \* r2 \* h = volume

Gallons removed determined at tir	ne of pick up
PSH Volume in Gallons=	13.00
PSH Mass in Pounds=	88.92

% V/	ol. (Wt. %) Hydrocarbon to	nnmy - Influ	ont 1		Molecular Weight Calculations			
/6 <b>V</b> C	oi. (vvi. ///) riyurocarbon to	ppinv - min	ient i		component	Molecular Weight (g/mol)	mol%	
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	96.3890	
Methane (CH4)	16.04	0.000		0.00	Methane (CH4)	16.0425	0.0000	
Ethane (C2H6)	30.07	0.000		0.00	Carbon Dioxide (CO2)	44.011	3.1880	
Propane (C3H8)	44.10	0.000		0.00	Ethane (C2H6)	30.069	0.0000	
Iso-Butane (C4H10)	58.12	0.000		0.00	Propane (C3H8)	44.0956	0.0000	
N-Butane (C4H10)	58.12	0.000		0.00	Iso-Butane (C4H10)	58.1222	0.0000	
Iso-Pentane (C4H12)	72.15	0.020		200.00	N-Butane (C4H10)	58.1222	0.0000	
N-Pentane (C5H12)	72.15	0.048		480.00	Iso-Pentane (C4H12)	72.1488	0.0080	
Hexane+ (C6H14)	93.19	1.282		12820.00	N-Pentane (C5H12)	72.1488	0.0190	
			Total	13500.00	Hexane+ (C6H14)	93.1887	0.3960	
*Havenet is	treated as 60% bayenes 20 % b		0.0/			Total	100	
nexarie+ is	treated as 60% hexanes, 30 % h	epianes, and i	0 % octanes			Calculated MW	28.7959	

9/ V/	ol. (Wt. %) Hydrocarbon to	nnmy Influ	ont 2		Molecula	r Weight Calculations	
/6 <b>V</b> C	oi. (vvi. %) nyurocarbon to	ppinv - minu	ent 2		component	Molecular Weight (g/mol)	mol%
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	96.7270
Methane (CH4)	16.04	0		0.00	Methane (CH4)	16.0425	0.0000
Ethane (C2H6)	30.07	0		0.00	Carbon Dioxide (CO2)	44.011	2.8870
Propane (C3H8)	44.10	0		0.00	Ethane (C2H6)	30.069	0.0000
Iso-Butane (C4H10)	58.12	0		0.00	Propane (C3H8)	44.0956	0.0000
N-Butane (C4H10)	58.12	0		0.00	Iso-Butane (C4H10)	58.1222	0.0000
Iso-Pentane (C4H12)	72.15	0.013		130.00	N-Butane (C4H10)	58.1222	0.0000
N-Pentane (C5H12)	72.15	0.045		450.00	Iso-Pentane (C4H12)	72.1488	0.0050
Hexane+ (C6H14)	93.19	1.178		11780.00	N-Pentane (C5H12)	72.1488	0.0180
			Total	12360.00	Hexane+ (C6H14)	93.1887	0.3630
*! levene! ie	treated as 60% havenes 20 % h		) (/t			Total	100
"Hexane+ is	treated as 60% hexanes, 30 % h	iepiaries, and 10	76 Octanes			Calculated MW	28.7245

Calculated MW= sum (individual component MW x their reported mol%)
100

ppmv= % Vol x 10,000

3

14.80 gallons

Table 2
System Operation Data and Mass Recovery Calculations 6/29/2021

Time	Period (hours)	Influent Temp. (°F)	Vacuum (inHg)	Vacuum (inH <sub>2</sub> 0)	Differential pressure (inH <sub>2</sub> 0)	Flow (SCFM)	PID Readings (ppm)	Lab Result (ppmv)	Assigned Lab Result (ppmv)	Correction Factor (CF)	Adjusted Lab Result (ppmv)	Adjusted Lab Result (mg/L)	Recovery (lbs/hr)	Recovery in Period (lbs)	Total Recovery (lbs)
16:30	1	80	17.0	231.35	37.4	139.28	3368	14940.00	14940.00	1.00	14940	17.60	9.16	9.16	9.16
17:30	1	80	17.0	231.35	37.5	139.47	3329	-	14940.00	0.99	14767	17.39	9.07	9.07	18.23
18:30	1	80	18.0	244.96	37.2	133.44	3302	-	14940.00	0.98	14647	17.25	8.61	8.61	26.84
19:30	1	78	18.0	244.96	36.9	133.15	3265	-	14940.00	0.97	14483	17.12	8.52	8.52	35.36
20:30	1	76	18.0	244.96	36.3	132.31	3217	-	14940.00	0.96	14270	16.94	8.38	8.38	43.74
21:30	1	74	18.0	244.96	35.8	131.64	3165	-	14940.00	0.94	14040	16.72	8.23	8.23	51.97
22:30	1	72	18.0	244.96	35.4	131.15	3011	-	13510.00	1.15	15586	18.55	9.10	9.10	61.06
23:30	1	72	18.0	244.96	35.6	131.52	2893	-	13510.00	1.11	14975	17.83	8.76	8.76	69.83
0:30	1	72	18.0	244.96	34.9	130.22	2763	-	13510.00	1.06	14302	17.03	8.29	8.29	78.12
1:30	1	72	18.0	244.96	34.5	129.47	2715	-	13510.00	1.04	14054	16.73	8.10	8.10	86.21
2:30	1	70	18.0	244.96	33.1	127.06	2610	13510.00	13510.00	1.00	13510	16.14	7.67	7.67	93.88
3:30	1	70	18.0	244.96	32.3	125.51	2523	-	13510.00	0.97	13060	15.61	7.32	7.32	101.20
Averages:		74.67	17.83	242.69	35.58	132.02	3013.42						Total	101.20	

Ex: Conversion from ppmv to mg/L (influent 1) Molecular Measured Temp. Temp. Gas Constant Conc. Wt. (atm.liter/K.mole) (ppmv) (Grams) (atm) (K) ( C\_mg/l) 28.9805 14940 0.0821 80 299.666667 17.598451

Inputs are the green values.

Calculated values are yellow.

Constants are purple values.

Outpus are the blue values.

Liquid-phase Hydrocarbon Recovery

∏ \* r2 \* h = volume

Total Hydroca	rbon Rec	overy	
PSH Mass Recovered in Vapor Phase =		101.20	lbs
		14.80	gallons
PSH Mass Recovered in Liquid Phase =		88.92	lbs
		13.00	gallons
	TOTAL =	190.12 27.80	lbs gallons

PSH Mass Recovered in Vapor Phase =

PSH Volume in Gallons=
PSH Mass in Pounds=

13.00
88.92

9/ V	ol. (Wt. %) Hydrocarbon to	nnmy Influ	ont 1		Molecula	r Weight Calculations	
/6 V	oi. (vvi. 16) Hydrocarbon to	ppiliv - illilu	enti		component	Molecular Weight (g/mol)	mol%
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	95.3850
Methane (CH4)	16.04	0.000		0.00	Methane (CH4)	16.0425	0.0000
Ethane (C2H6)	30.07	0.000		0.00	Carbon Dioxide (CO2)	44.011	4.1450
Propane (C3H8)	44.10	0.000		0.00	Ethane (C2H6)	30.069	0.0000
Iso-Butane (C4H10)	58.12	0.000		0.00	Propane (C3H8)	44.0956	0.0000
N-Butane (C4H10)	58.12	0.000		0.00	Iso-Butane (C4H10)	58.1222	0.0000
Iso-Pentane (C4H12)	72.15	0.012		120.00	N-Butane (C4H10)	58.1222	0.0000
N-Pentane (C5H12)	72.15	0.045		450.00	Iso-Pentane (C4H12)	72.1488	0.0050
Hexane+ (C6H14)	93.19	1.437		14370.00	N-Pentane (C5H12)	72.1488	0.0180
			Total	14940.00	Hexane+ (C6H14)	93.19	0.4470
***************************************			2.0/		` '	Total	100
*Hexane+ is	s treated as 60% hexanes, 30 % h		Calculated MW	28 980			

9/ V	ol. (Wt. %) Hydrocarbon to	nnmy Influ	ont 2		Molecula	r Weight Calculations	
/6 <b>V</b> ·	oi. (vvi. 16) Hydrocarbon to	ppiliv - illilu	ent z		component	Molecular Weight (g/mol)	mol%
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	96.0380
Methane (CH4)	16.04	0		0.00	Methane (CH4)	16.0425	0.0000
Ethane (C2H6)	30.07	0		0.00	Carbon Dioxide (CO2)	44.011	3.5390
Propane (C3H8)	44.10	0		0.00	Ethane (C2H6)	30.069	0.0000
Iso-Butane (C4H10)	58.12	0		0.00	Propane (C3H8)	44.0956	0.0000
N-Butane (C4H10)	58.12	0		0.00	Iso-Butane (C4H10)	58.1222	0.0000
Iso-Pentane (C4H12)	72.15	0.013		130.00	N-Butane (C4H10)	58.1222	0.0000
N-Pentane (C5H12)	72.15	0.04		400.00	Iso-Pentane (C4H12)	72.1488	0.0050
Hexane+ (C6H14)	93.19	1.298		12980.00	N-Pentane (C5H12)	72.1488	0.0160
			Total	13510.00	Hexane+ (C6H14)	93.1887	0.4020
*1.1			2.0/			Total	100
*Hexane+ is	s treated as 60% hexanes, 30 % h	eptanes, and 10	J % octanes			Calculated MW	28.8533

Calculated MW= sum (individual component MW x their reported mol%)
100

ppmv= % Vol x 10,000

44.95 gallons

Table 3
System Operation Data and Mass Recovery Calculations 9/14/2021

Time	Period (hours)	Influent Temp. (°F)	Vacuum (inHg)	Vacuum (inH <sub>2</sub> 0)	Differential pressure (inH <sub>2</sub> 0)	Flow (SCFM)	PID Readings (ppm)	Lab Result (ppmv)	Assigned Lab Result (ppmv)	Correction Factor (CF)	Adjusted Lab Result (ppmv)	Adjusted Lab Result (mg/L)	Recovery (lbs/hr)	Recovery in Period (lbs)	Total Recovery (lbs)
19:00	1	80	17.0	231.35	54.9	168.75	1695	33040.00	33040.00	1.00	33040	39.36	24.83	24.83	24.83
20:00	1	80	17.0	231.35	54.3	167.83	1682	-	33040.00	0.99	32787	39.06	24.51	24.51	49.34
21:00	1	78	17.0	231.35	53.9	167.52	1691	-	33040.00	1.00	32962	39.42	24.68	24.68	74.02
22:00	1	76	17.0	231.35	53.7	167.52	1688	-	33040.00	1.00	32904	39.49	24.73	24.73	98.75
23:00	1	74	17.0	231.35	53.2	167.05	1679	-	33040.00	0.99	32728	39.43	24.62	24.62	123.37
0:00	1	72	17.0	231.35	53.6	167.99	1684	-	33040.00	0.99	32826	39.70	24.93	24.93	148.30
1:00	1	72	17.0	231.35	52.0	165.46	1685	-	36960.00	1.01	37270	45.29	28.01	28.01	176.31
2:00	1	72	17.0	231.35	49.9	162.09	1681	-	36960.00	1.01	37181	45.18	27.38	27.38	203.69
3:00	1	72	17.0	231.35	48.2	159.30	1684	-	36960.00	1.01	37248	45.26	26.95	26.95	230.64
4:00	1	72	17.0	231.35	45.9	155.46	1679	-	36960.00	1.00	37137	45.13	26.22	26.22	256.87
5:00	1	72	17.0	231.35	43.7	151.68	1671	36960.00	36960.00	1.00	36960	44.91	25.47	25.47	282.33
6:00	1	72	17.0	231.35	42.5	149.59	1673	-	36960.00	1.00	37004	44.96	25.14	25.14	307.47
Averages:		74.33	17.00	231.35	50.48	162.52	1682.67						Total	307.47	

 Ex: Conversion from ppmv to mg/L (influent 1)

 Measured Conc.
 Molecular Wt.
 Pressure
 Gas Constant
 Temp.
 Temp.
 Conc.

 (ppmv)
 (Grams)
 (atm)
 (atm.liter/K.mole)
 (F)
 (K)
 ( C\_mg/l)

 33040
 29.3107
 1
 0.0821
 80
 299.666667
 39.3627047

Inputs are the green values.

Calculated values are yellow.

Constants are purple values.

Outpus are the blue values.

Liquid-phase Hydrocarbon Recovery

∏ \* r2 \* h = volume

Total Hydrocarbon Red	covery	
PSH Mass Recovered in Vapor Phase =	307.47	lbs 
PSH Mass Recovered in Liquid Phase =	44.95 136.80	gallons lbs
	20.00	gallons
TOTAL =		lbs
	64.95	gallons

PSH Mass Recovered in Vapor Phase =

Gallons removed determined at time of pick up									
PSH Volume in Gallons=	20.00								
PSH Mass in Pounds=	136.8								

9/ Ma	ol. (Wt. %) Hydrocarbon to	nnmy Influ	ont 1		Molecular Weight Calculations			
/6 <b>V</b> C	oi. (Wt. 76) Hydrocarbon to	ppiniv - ininu	ent i		component	Molecular Weight (g/mol)	mol%	
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	95.0750	
Methane (CH4)	16.04	0.000		0.00	Methane (CH4)	16.0425	0.0000	
Ethane (C2H6)	30.07	0.000		0.00	Carbon Dioxide (CO2)	44.011	3.8770	
Propane (C3H8)	44.10	0.000		0.00	Ethane (C2H6)	30.069	0.0000	
Iso-Butane (C4H10)	58.12	0.000		0.00	Propane (C3H8)	44.0956	0.0000	
N-Butane (C4H10)	58.12	0.000		0.00	Iso-Butane (C4H10)	58.1222	0.0000	
Iso-Pentane (C4H12)	72.15	0.025		250.00	N-Butane (C4H10)	58.1222	0.0000	
N-Pentane (C5H12)	72.15	0.074		740.00	Iso-Pentane (C4H12)	72.1488	0.0100	
Hexane+ (C6H14)	93.18	3.205		32050.00	N-Pentane (C5H12)	72.1488	0.0300	
			Total	33040.00	Hexane+ (C6H14)	93.1887	1.0080	
*! !===== ! !=	treated as 60% hexanes, 30 % he		) (/t			Total	100	
nexalle+ is	treated as 60% flexaries, 30 % fle	epianes, and it	% octanes			Calculated MW	29.3107	

9/ V	ol. (Wt. %) Hydrocarbon to	nnmy Influ	ont 2		Molecular Weight Calculations			
/0 <b>V</b>	oi. (vvi. 16) Hydrocarbon to	ppiliv - ililiu	ent 2		component	Molecular Weight (g/mol)	mol%	
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	94.5900	
Methane (CH4)	16.04	0		0.00	Methane (CH4)	16.0425	0.0000	
Ethane (C2H6)	30.07	0		0.00	Carbon Dioxide (CO2)	44.011	4.2320	
Propane (C3H8)	44.10	0		0.00	Ethane (C2H6)	30.069	0.0000	
Iso-Butane (C4H10)	58.12	0		0.00	Propane (C3H8)	44.0956	0.0000	
N-Butane (C4H10)	58.12	0		0.00	Iso-Butane (C4H10)	58.1222	0.0000	
Iso-Pentane (C4H12)	72.15	0.027		270.00	N-Butane (C4H10)	58.1222	0.0000	
N-Pentane (C5H12)	72.15	0.081		810.00	Iso-Pentane (C4H12)	72.1488	0.0110	
Hexane+ (C6H14)	93.18	3.588		35880.00	N-Pentane (C5H12)	72.1488	0.0330	
			Total	36960.00	Hexane+ (C6H14)	93.1887	1.1340	
*I levene i is	s treated as 60% hexanes, 30 % he		0.0/+			Total	100	
"Hexane+ is	s treated as 60% nexanes, 30 % no	epianes, and 10	76 Octanes			Calculated MW	29.4514	

Calculated MW= sum (individual component MW x their reported mol%)
100

ppmv= % Vol x 10,000

28.05 gallons

Table 4
System Operation Data and Mass Recovery Calculations 12/8/2021

									,						
Time	Period (hours)	Influent Temp. (°F)	Vacuum (inHg)	Vacuum (inH <sub>2</sub> 0)	Differential pressure (inH <sub>2</sub> 0)	Flow (SCFM)	PID Readings (ppm)	Lab Result (ppmv)	Assigned Lab Result (ppmv)	Correction Factor (CF)	Adjusted Lab Result (ppmv)	Adjusted Lab Result (mg/L)	Recovery (lbs/hr)	Recovery in Period (lbs)	Total Recovery (lbs)
19:00	1	62	18.0	244.96	29.9	121.68	1703	6990.00	6990.00	1.00	6990	8.28	3.77	3.77	3.77
20:00	1	62	18.0	244.96	33.6	128.99	1705	-	6990.00	1.00	6998	8.29	4.00	4.00	7.76
21:00	1	62	18.0	244.96	39.7	140.21	1698	-	6990.00	1.00	6969	8.26	4.33	4.33	12.09
22:00	1	58	18.0	244.96	41.6	144.08	1700	-	6990.00	1.00	6978	8.33	4.49	4.49	16.58
23:00	1	58	18.0	244.96	45.5	150.68	1684	-	6990.00	0.99	6912	8.25	4.65	4.65	21.22
0:00	1	56	18.0	244.96	49.7	157.79	1675	-	6990.00	0.98	6875	8.24	4.86	4.86	26.08
1:00	1	56	18.0	244.96	50.8	159.52	1662	-	32520.00	1.02	33057	40.93	24.41	24.41	50.49
2:00	1	54	18.0	244.96	55.1	166.46	1659	-	32520.00	1.01	32997	41.01	25.52	25.52	76.01
8:00	1	54	16.0	217.74	61.5	190.00	1671	-	32520.00	1.02	33236	41.31	29.34	29.34	105.36
9:00	1	54	16.0	217.74	61.9	190.62	1642	-	32520.00	1.00	32659	40.59	28.93	28.93	134.28
10:00	1	54	16.0	217.74	62.0	190.77	1635	32520.00	32520.00	1.00	32520	40.42	28.83	28.83	163.11
11:00	1	54	16.0	217.74	62.2	191.08	1629	-	32520.00	1.00	32401	40.27	28.77	28.77	191.87
Averages:		57.00	17.33	235.89	49.46	160.99	1671.92						Total	191.87	

Ex: Conversion from ppmv to mg/L (influent 1) Molecular Measured Gas Constant Temp. Temp. Conc. Wt. (atm.liter/K.mole) (ppmv) (Grams) (atm) (F) (K) ( C\_mg/l) 28.1695 6990 0.0821 62 289.666667 8.27969462

Inputs are the green values.

Calculated values are yellow.

Constants are purple values.

Outpus are the blue values.

Liquid-phase Hydrocarbon Recovery

∏ \* r2 \* h = volume

Total Hydrocarbon Re	covery	
PSH Mass Recovered in Vapor Phase =	191.87	lbs
	28.05	gallons
PSH Mass Recovered in Liquid Phase =	109.44	lbs
	16.00	gallons
TOTAL =	301.31 44.05	lbs gallons

PSH Mass Recovered in Vapor Phase =

Gallons removed determined at time of pick up									
PSH Volume in Gallons=	16.00								
PSH Mass in Pounds=	109.44								

0/ V	ol. (Wt. %) Hydrocarbon to	nnmy Influ	ont 1		Molecular Weight Calculations			
/6 <b>V</b> (	oi. (vvi. 76) Hydrocarbon to	ppiliv - ililiu	enti		component	Molecular Weight (g/mol)	mol%	
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	99.6870	
Methane (CH4)	16.04	0.000		0.00	Methane (CH4)	16.0425	0.0000	
Ethane (C2H6)	30.07	0.000		0.00	Carbon Dioxide (CO2)	44.011	0.1010	
Propane (C3H8)	44.10	0.000		0.00	Ethane (C2H6)	30.069	0.0000	
Iso-Butane (C4H10)	58.12	0.000		0.00	Propane (C3H8)	44.0956	0.0000	
N-Butane (C4H10)	58.12	0.000		0.00	Iso-Butane (C4H10)	58.1222	0.0000	
Iso-Pentane (C4H12)	72.15	0.003		30.00	N-Butane (C4H10)	58.1222	0.0000	
N-Pentane (C5H12)	72.15	0.008		80.00	Iso-Pentane (C4H12)	72.1488	0.0010	
Hexane+ (C6H14)	93.19	0.688		6880.00	N-Pentane (C5H12)	72.1488	0.0030	
			Total	6990.00	Hexane+ (C6H14)	93.1887	0.2080	
*1.1			2.0/		1	Total	100	
*Hexane+ is	s treated as 60% hexanes, 30 % h	eptanes, and 10	J % octanes			Calculated MW	28.1695	

% V/	ol. (Wt. %) Hydrocarbon to	nnmy - Influ	ont 2		Molecular Weight Calculations			
/6 <b>V</b> (	oi. (vvi. /6) riyurocarbon to	ppiliv - ililiu	CIIL Z		component	Molecular Weight (g/mol)	mol%	
Compound	Molecular Weight (g/mol)	Wt. %	=	ppmv	Nitrogen (N2)	28.016	96.2870	
Methane (CH4)	16.04	0		0.00	Methane (CH4)	16.0425	0.0000	
Ethane (C2H6)	30.07	0		0.00	Carbon Dioxide (CO2)	44.011	2.6900	
Propane (C3H8)	44.10	0		0.00	Ethane (C2H6)	30.069	0.0000	
Iso-Butane (C4H10)	58.12	0		0.00	Propane (C3H8)	44.0956	0.0000	
N-Butane (C4H10)	58.12	0		0.00	Iso-Butane (C4H10)	58.1222	0.0000	
Iso-Pentane (C4H12)	72.15	0.02		200.00	N-Butane (C4H10)	58.1222	0.0000	
N-Pentane (C5H12)	72.15	0.059		590.00	Iso-Pentane (C4H12)	72.1488	0.0080	
Hexane+ (C6H14)	93.19	3.173		31730.00	N-Pentane (C5H12)	72.1488	0.0240	
			Total	32520.00	Hexane+ (C6H14)	93.1887	0.9910	
*Havenet is	s treated as 60% hexanes, 30 % he		0.0/			Total	100	
nexarie+ is	s treated as 60% riexaries, 50 % rie	epianes, and it	0 % octanes			Calculated MW	29.1062	

Calculated MW= sum (individual component MW x their reported mol%)
100

opmv= % Vol x 10,000

Chevron-Grayburg- 700376.274 - SRS Chevron Grayburg - 2021 MDPE Events

### **ATTACHMENT 1**

MDPE Field Logs

	MDPE FIELD NOTES									
Site Name:	Plains Chevron - Grayburg	Event #:								
Location:	Buckeye, NM			Arrive at site:	6:00					
Date:	3/10/2021									
Job#:	700376.274.06	LPST#:		Start Vac:	6:30					
Phase:		Unit:	1107	Stop Vac:	18:30					
Onsite Personnel:	L. Bridges & T. Macklin			Leave Site:	19:00					

					GAUGI	NG DATA	
WELL#		BEFORE			AFTER		COMMENTS
	PSH	GW	PSH-T	PSH	GW	PSH-T	
MW-7	122.03	128.51	6.48	-	125.52	0.00	Stinger at 122'
WASTE:	H <sub>2</sub> O:	5	51	PSH:	1	3	TOTAL (GAL): 64

Sample	Name	Analysis	Date:	Time:	Comments:	Bottle #	Start Vac	End Vac
INFLUENT	#1	C6+	10-Mar-21	7:30	FID = >50k			
INFLUENT	#2	C6+	10-Mar-21	17:30	FID = >50k			

Notes:								
Tank	T 2 1/2	PSH 2	T 64	PSH 13 H <sub>2</sub> O	51			
Propar	ne: Start 75	%						
	Finish 6	5%						
				_				_

Start Date:	3/10/2021	700	0376.274.0	6 Plains	All American	Pipeline, L	P.; Plains C	hevron - Graybu	rg - Buckeye, NM	(12HRS)	1107 Pg. 1	of 1
		W	ell Flow							Well Data		
Time	Sample	Influent Temp.	Diff.	Vac	FID	Propane	Exhaust			COMMENTS:		
	Taken	(°F)	Pressure	(inHg)	Composite	Tank	Temp	MW-7				
			(inH <sub>2</sub> 0)		(ppm)	(%-size)	(°F)	VAC (inH <sub>2</sub> 0)				
6:30			2" Preso			500 Gal.		V710 (IIII 120)	V710 (IIII 120)	V/10 (IIII 120)	V710 (IIII 120)	V710 (IIII 120)
7:30	*	60	29.5	18.0	> 50k		1575	17.8				
8:30		64	26.1	18.0	> 50k		1529	17.9				
9:30		72	25.5	18.0	> 50k		1515	17.4				
10:30		80	27.3	18.0	> 50k		1521	17.5				
11:30		80	25.1	18.0	> 50k		1516	17.6				
12:30		82	23.6	18.0	> 50k		1527	18.1				
13:30		82	22.7	18.0	> 50k		1530	17.5				
14:30		86	21.8	18.0	> 50k		1509	17.9				
15:30		88	17.6	18.0	> 50k		1490	17.2				
16:30		86	20.6	18.0	> 50k		1508	18.0				
17:30	**	84	21.5	18.0	> 50k		1499	18.5				
18:30		80	23.7	18.0	> 50k		1501	18.9				

		MDPE F	IELD NOTES		
Site Name:	Plains Chevron - Grayburg			Event #:	
Location:	Buckeye, NM			Arrive at site:	15:00
Date:	6/29/2021				
Job#:	700376.274.07	LPST#:		Start Vac:	15:30
Phase:		Unit:	1107	Stop Vac:	3:30
Onsite Personnel:	L. Bridges & T.Chambers			Leave Site:	4:00

					GAUGI	NG DATA	
WELL#		BEFORE			AFTER		COMMENTS
	PSH	GW	PSH-T	PSH	GW	PSH-T	
MW-7	121.96	128.82	6.86	-	126.15	0.00	Stinger at 122'
WASTE:	H <sub>2</sub> O:	6	64	PSH:	1	3	TOTAL (GAL): 77

Sample	Name	Analysis	Date:	Time:	Comments:	Bottle #	Start Vac	End Vac
INFLUENT	#1	C6+	29-Jun-21	16:30	PID=3368			
INFLUENT	#2	C6+	30-Jun-21	2:30	PID=2610			

Notes:																				
Tank	Т 3	3	PSH	2	1/2	Т	77	PSH	l 13	H <sub>2</sub> O	64									
Propan	e: St	art (	65%																	
	Fir	ish	45%																	

Start Date:	6/29/2021	70	0376.274.0	7 Plains	All American	Pipeline, L	P.; Plains C	hevron - Graybui	rg - Buckeye, NM	(12HRS)	1107 Pg. 1	of 1
		W	/ell Flow							Well Data		
Time	Sample	Influent Temp.	Diff.	Vac	PID	Propane	Exhaust			COMMENTS:		
	Taken	(°F)	Pressure	(inHg)	Composite	Tanlk	Temp	MW-7				
			(inH <sub>2</sub> 0)		(ppm)	(%-size)	(°F)	VAC (inH <sub>2</sub> 0)	VAC (inH <sub>2</sub> 0)	VAC (inH <sub>2</sub> 0)	VAC (inH₂0)	VAC (inH <sub>2</sub> 0)
15:30			2" Preso			500 Gal.		- ( 2-)	- ( 2-7	- ( 2-)	- ( 2-)	- ( 2-)
16:30	*	80	37.4	17.0	3368		1527	20.0				
17:30		80	37.5	17.0	3329		1586	19.7				
18:30		80	37.2	18.0	3302		1606	19.1				
19:30		78	36.9	18.0	3265		1605	19.3				
20:30		76	36.3	18.0	3217		1608	19.0				
21:30		74	35.8	18.0	3165		1612	18.9				
22:30		72	35.4	18.0	3011		1611	18.8				
23:30		72	35.6	18.0	2893		1614	18.4				
0:30		72	34.9	18.0	2763		1616	18.9				
1:30		72	34.5	18.0	2715		1615	18.3				
2:30	**	70	33.1	18.0	2610		1618	18.6				
3:30		70	32.3	18.0	2523		1622	18.3				

		MDPE FI	ELD NOTES		
Site Name:	Plains Chevron - Grayburg			Event #:	
Location:	Buckeye, NM			Arrive at site:	17:30
Date:	9/14/2021				
Job#:	700376.274.08	LPST#:		Start Vac:	18:00
Phase:		Unit:	1107/3099	Stop Vac:	6:00
Onsite Personnel:	L. Bridges and T. Chambers			Leave Site:	6:30

					GAUGI	NG DATA	
WELL#		BEFORE			AFTER		COMMENTS
	PSH	GW	PSH-T	PSH	GW	PSH-T	
MW-7	122.00	128.49	6.49	-	124.51	0.00	Stinger at 122'
WASTE:	H <sub>2</sub> O:	6	64	PSH:	2	0	TOTAL (GAL): 84

Sample	Name	Analysis	Date:	Time:	Comments:	Bottle #	Start Vac	End Vac
INFLUENT	#1	C6+	14-Sep-21	19:00	PID=1695			
INFLUENT	#2	C6+	15-Sep-21	5:00	PID=1671			

Notes:										
Tank	T 3 1/4	PSH	2 1/2	T	84	PSH	20	H <sub>2</sub> O	64	
Propan	ne: Start 40	%								
	Finish 30	0%								

Start Date:	9/14/2021	70037	76.274.08	Plains All	American Pi	peline, L.P.	; Plains Che	vron - Grayburg	Buckeye, NM	(12HRS) 1	.107/3099 P	g. 1 of 1
			/ell Flow							Well Data		
Time	Sample	Influent Temp.	Diff.	Vac	PID	Propane	Exhaust			COMMENTS:		
	Taken	(°F)	Pressure	(inHg)	Composite	Tank	Temp	MW-7				
			(inH <sub>2</sub> 0)		(ppm)	(%-size)	(°F)	VAC (inH <sub>2</sub> 0)				
18:00			2" Preso			500 Gal.		VAC (IIII1 <u>2</u> 0)	VAC (IIII <u>2</u> 0)	VAC (IIIH <u>2</u> 0)	VAC (IIII120)	VAC (IIII <u>2</u> 0)
19:00	*	80	54.9	17.0	1695		1540	20.9				
20:00		80	54.3	17.0	1682		1565	21.5				
21:00		78	53.9	17.0	1691		1587	21.8				
22:00		76	53.7	17.0	1688		1602	22.0				
23:00		74	53.2	17.0	1679		1632	22.3				
0:00		72	53.6	17.0	1684		1617	22.3				
1:00		72	52.0	17.0	1685		1615	22.1				
2:00		72	49.9	17.0	1681		1592	22.4				
3:00		72	48.2	17.0	1684		1601	22.3				
4:00		72	45.9	17.0	1679		1568	22.6				
5:00	**	72	43.7	17.0	1671		1575	22.5				
6:00		72	42.5	17.0	1673		1542	22.4				

	MDPE FIELD NOTES											
Site Name:	Plains Chevron - Grayburg			Event #:								
Location:	Buckeye, NM			Arrive at site:	17:30							
Date:	12/8/2021											
Job#:	700376.274.09	LPST#:		Start Vac:	18:00							
Phase:		Unit:	1107/3099	Stop Vac:	6:00							
Onsite Personnel:	L. Bridges and B. Huntington			Leave Site:	11:30							

					GAUGI	NG DATA	
WELL#		BEFORE			AFTER		COMMENTS
	PSH	GW	PSH-T	PSH	GW	PSH-T	
MW-7	122.26	128.72	6.46	-	125.61	0.00	Stinger at 122'
WASTE:	H <sub>2</sub> O:	7	<b>'</b> 4	PSH:	1	6	TOTAL (GAL): 90

Sample	Name	Analysis	Date:	Time:	Comments:	Bottle #	Start Vac	End Vac
INFLUENT	#1	C6+	8-Dec-21	19:00	PID=1703			
INFLUENT	#2	C6+	9-Dec-21	10:00	PID=1635			

Notes:																	
Tank	Т :	3 1/2	PSH	2 7/8	Т	90	PSH	16	H <sub>2</sub> O	74							
Propar	ne: St	art 30	%														
	Fir	nish 5	%														

Start Date:	12/8/2021	70	0376.274.0	9 Plains <i>i</i>	All American	Pipeline, L.	P.; Plains Ch	nevron - Grayburg	g Buckeye, NM	(12HRS)	1107/3099	Pg. 1 of 1
		١	Well Flow							Well Data		
Time	Sample	Inflent Temp.	Diff.	Vac	PID	Propane	Exhaust			COMMENTS:		
	Taken	(°F)	Pressure	(inHg)	Composite	Tank	Temp (°F)	MW-7				
			(inH <sub>2</sub> 0)		(ppm)	(%-size)		VAC (inH <sub>2</sub> 0)				
18:00			2" Preso			500 Gal.		VAO (IIII 1 <u>2</u> 0)	VAO (IIII 120)	VAO (IIII 1 <u>2</u> 0)	VAO (IIII 1 <u>2</u> 0)	VAO (IIII 120)
19:00	*	62	29.9	18.0	1703		1493	17.3				
20:00		62	33.6	18.0	1705		1464	17.8				
21:00		62	39.7	18.0	1698		1413	17.7				
22:00		58	41.6	18.0	1700		1422	17.4				
23:00		58	45.5	18.0	1684		1415	17.5				
0:00		56	49.7	18.0	1675		1418	17.6				
1:00		56	50.8	18.0	1662		1421	17.9				
2:00		54	55.1	18.0	1659		1419	18.0				
8:00		54	61.5	16.0	1671		1425	19.0				
9:00		54	61.9	16.0	1642		1429	19.5				
10:00	**	54	62.0	16.0	1635		1436	19.4				
11:00		54	62.2	16.0	1629		1437	19.6				

Chevron-Grayburg- 700376.274 - SRS Chevron Grayburg - 2021 MDPE Events

### **ATTACHMENT 2**

**Laboratory Analytical Results** 



### Certificate of Analysis

Number: 1030-21030626-001A

Houston Laboratories 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE 921 N Bivins Amarillo, TX 79107

Sampled By: LB

Sample Of: Gas Spot Sample Date: 03/10/2021 07:30

Apr. 19, 2021

Sample Conditions:

Method: GPA-2261M

Station Name: Influent # 1 Station Number: 700376.274.06 Station Location: Buckeye, NM

Sample Point: Chevron Grayburg

Analyzed: 03/16/2021 07:37:13 by PTW

### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen Methane Carbon Dioxide Ethane Propane Iso-butane n-Butane Iso-pentane n-Pentane Hexanes Plus	96.389 NIL 3.188 NIL NIL NIL NIL 0.008 0.019 0.396 100.000	93.777 NIL 4.873 NIL NIL NIL NIL 0.020 0.048 1.282	NIL NIL NIL NIL 0.003 0.007 0.172	GPM TOTAL C2+ GPM TOTAL C3+ GPM TOTAL iC5+	0.182 0.182 0.182	
Calculated Physica Relative Density Rea Calculated Molecula Compressibility Fact GPA 2172 Calculat Calculated Gross E Real Gas Dry BTU Water Sat. Gas Bas	al Gas r Weight or ion: BTU per ft³ @		Total 0.9942 28.79 0.9996 a & 60°F 21 21	<b>C6+</b> 3.2176 93.19  5113 5024		



Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



### Certificate of Analysis

Number: 1030-21030626-002A

Houston Laboratories 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE 921 N Bivins Amarillo, TX 79107

Apr. 19, 2021

Station Name: Influent # 2 Station Number: 700376.274.06 Station Location: Buckeye, NM

Sample Of: Gas Spot Sample Date: 03/10/2021 17:30

LB

Sample Point: Chevron Grayburg

Sample Conditions: Method: GPA-2261M

Analyzed: 03/16/2021 07:50:30 by PTW

Metriod. Of A-2

Sampled By:

### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen	96.727	94.340		GPM TOTAL C2+	0.166	
Methane Carbon Dioxide	NIL 2.887	NIL 4.424		GPM TOTAL C3+ GPM TOTAL iC5+	0.166 0.166	
Ethane	2.007 NIL	4.424 NIL	NIL	GPW TOTAL ICS+	0.166	
Propane	NIL	NIL	NIL			
Iso-butane	NIL	NIL	NIL			
n-Butane	NIL	NIL	NIL			
Iso-pentane	0.005	0.013	0.002			
n-Pentane	0.018	0.045	0.006			
Hexanes Plus	0.363	1.178	<u>0.158</u>			
	100.000	100.000	0.166			
Calculated Physica	I Properties		Total	C6+		
Relative Density Rea	al Gas		0.9917	3.2176		
Calculated Molecula			28.72	93.19		
Compressibility Fact			0.9996			
GPA 2172 Calculati						
Calculated Gross E	BIU per ft <sup>3</sup> @	2 14.65 psi		F440		
Real Gas Dry BTU Water Sat. Gas Base	o DTII		19 19	5113 5024		
water Sat. Gas Das	BIU		19	JU2 <del>4</del>		



Hydrocarbon Laboratory Manager

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

#### SPL, Inc.

### Analysis Request Chain of Custody Record

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#### Certificate of Analysis

Number: 1030-21070163-001A

**Houston Laboratories** 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE 921 N Bivins Amarillo, TX 79107

Station Name: Influent # 1

Sample Point:

Analyzed:

Station Number: 700376.274.07

Chevron Grayburg

07/07/2021 09:38:08 by PTW

Station Location: Buckeye, NM

Sampled By:

TC

Sample Of: Gas Sample Date:

Spot 06/29/2021 16:30

July 07, 2021

Sample Conditions:

Method: GPA-2261M

#### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen Methane Carbon Dioxide Ethane Propane Iso-butane n-Butane Iso-pentane n-Pentane Hexanes Plus	95.385 NIL 4.145 NIL NIL NIL NIL 0.005 0.018 0.447 100.000	92.211 NIL 6.295 NIL NIL NIL 0.012 0.045 1.437 100.000	NIL NIL NIL NIL 0.002 0.006 0.194	GPM TOTAL C2+ GPM TOTAL C3+ GPM TOTAL iC5+	0.202 0.202 0.202	
Calculated Physica Relative Density Rea Calculated Molecula Compressibility Fact GPA 2172 Calculate Calculated Gross E Real Gas Dry BTU Water Sat. Gas Base	al Gas r Weight or ion: BTU per ft³ @		Total 1.0006 28.98 0.9996 a & 60°F 24 23	<b>C6+</b> 3.2176 93.19  5113 5024		

Data reviewed by: Patrick Weber, Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



#### Certificate of Analysis

Number: 1030-21070163-002A

**Houston Laboratories** 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE 921 N Bivins

July 07, 2021

Amarillo, TX 79107 Station Name: Influent # 2

Station Number: 700376.274.07 Station Location: Buckeye, NM Sample Point:

Chevron Grayburg

07/07/2021 09:51:18 by PTW Analyzed:

Sampled By: TC

Sample Of:

Sample Date:

Gas Spot 06/30/2021 02:30

Sample Conditions:

Method: GPA-2261M

#### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen	96.038	93.251		GPM TOTAL C2+	0.182	
Methane	NIL	NIL		GPM TOTAL C3+	0.182	
Carbon Dioxide	3.539	5.398		GPM TOTAL iC5+	0.182	
Ethane	NIL	NIL	NIL			
Propane	NIL	NIL	NIL			
Iso-butane	NIL	NIL	NIL			
n-Butane	NIL	NIL	NIL			
Iso-pentane	0.005	0.013	0.002			
n-Pentane	0.016	0.040	0.006			
Hexanes Plus	0.402	1.298	0.174			
	100.000	100.000	0.182			
Calculated Physica	I Properties		Total	C6+		
Relative Density Rea	al Gas		0.9962	3.2176		
Calculated Molecula	r Weight		28.85	93.19		
Compressibility Fact			0.9996			
<b>GPA 2172 Calculati</b>	on:					
<b>Calculated Gross B</b>	TU per ft <sup>3</sup> @	14.65 psi	a & 60°F			
Real Gas Dry BTU	•	•	21	5113		
Water Sat. Gas Base	BTU		21	5024		

Data reviewed by: Patrick Weber, Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

## SPL, Inc. Analysis Request Chain of Custody Record

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#### Certificate of Analysis

Number: 1030-21090695-001A

**Houston Laboratories** 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE 921 N Bivins Amarillo, TX 79107

Station Name: Influent # 1

Station Location: Hobbs, NM

Analyzed:

Station Number: 700376.274.08

Sampled By: TC

Sample Of: Gas Spot Sample Date: 09/14/2021 19:00

Sep. 28, 2021

Sample Conditions:

Method: GPA-2261M

Sample Point: Chevron Grayburg 09/27/2021 06:45:59 by PTW

#### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen Methane Carbon Dioxide Ethane Propane Iso-butane n-Butane Iso-pentane n-Pentane Hexanes Plus	95.075 NIL 3.877 NIL NIL NIL NIL 0.010 0.030 1.008	90.874 NIL 5.822 NIL NIL NIL 0.025 0.074 3.205	NIL NIL NIL NIL 0.004 0.011 0.438 0.453	GPM TOTAL C2+ GPM TOTAL C3+ GPM TOTAL iC5+	0.453 0.453 0.453	
Calculated Physica Relative Density Rea Calculated Molecula Compressibility Fact GPA 2172 Calculat Calculated Gross E Real Gas Dry BTU Water Sat. Gas Bas	al Gas r Weight or ion: BTU per ft³ @		Total 1.0120 29.31 0.9995 a & 60°F 53 52	<b>C6+</b> 3.2176 93.19  5113 5024		

Data reviewed by: Patrick Weber, Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



#### Certificate of Analysis

Number: 1030-21090695-002A

Houston Laboratories 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Sep. 28, 2021

Jason Shubert Talon/LPE 921 N Bivins Amarillo, TX 79107

Station Name: Influent # 2 Station Number: 700376.274.08 Station Location: Hobbs, NM

Sample Point: Chevron Grayburg

Analyzed: 09/27/2021 07:00:11 by CDK

Sampled By: TC

Sample Of: Gas Spot Sample Date: 09/15/2021 05:00

Sample Conditions:

Method: GPA-2261M

#### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen	94.590	89.980		GPM TOTAL C2+	0.508	
Methane	NIL 4 222	NIL C 224		GPM TOTAL C3+	0.508	
Carbon Dioxide	4.232	6.324	AIII	GPM TOTAL iC5+	0.508	
Ethane	NIL	NIL	NIL			
Propane	NIL	NIL	NIL			
Iso-butane	NIL	NIL	NIL			
n-Butane	NIL	NIL	NIL			
Iso-pentane	0.011	0.027	0.004			
n-Pentane	0.033	0.081	0.012			
Hexanes Plus	1.134	3.588	0.492			
	100.000	100.000	0.508			
Calculated Physica	I Properties		Total	C6+		
Relative Density Rea	al Gas		1.0169	3.2176		
Calculated Molecula	r Weight		29.45	93.19		
Compressibility Fact	or		0.9995			
<b>GPA 2172 Calculati</b>	on:					
Calculated Gross E	TU per ft <sup>3</sup> @	14.65 psi	a & 60°F			
Real Gas Dry BTU	-	•	60	5113		
Water Sat. Gas Base	e BTU		59	5024		

Data reviewed by: Patrick Weber, Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Analysis	Request	Chain	of Custody	Record

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#### Certificate of Analysis

Number: 1030-21120596-001A

Houston Laboratories 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE 921 N Bivins Amarillo, TX 79107

Station Name: Influent #1 Station Number: 700376.274.09

Station Number: 700376.274.09
Station Location: Buckeye, NM
Sample Point: Chevron Greyburg

Sample Point: C Analyzed: 1

12/21/2021 09:23:23 by PTW

Sampled By: LB

Sample Of: Gas Spot Sample Date: 12/08/2021 19:00

Dec. 22, 2021

Sample Conditions:

Method: GPA-2261M

#### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen Methane Carbon Dioxide Ethane Propane Iso-butane n-Butane Iso-pentane n-Pentane Hexanes Plus	99.687 NIL 0.101 NIL NIL NIL 0.001 0.003 0.208	99.143 NIL 0.158 NIL NIL NIL 0.003 0.008 0.688	NIL NIL NIL NIL 0.001 0.090	GPM TOTAL C2+ GPM TOTAL C3+ GPM TOTAL iC5+	0.091 0.091 0.091	
Calculated Physica Relative Density Rea Calculated Molecula Compressibility Fact GPA 2172 Calculate Calculated Gross E Real Gas Dry BTU Water Sat. Gas Bas	al Gas r Weight or ion: BTU per ft³ @		Total 0.9724 28.17 0.9997 a & 60°F 11 11	<b>C6+</b> 3.2176 93.19  5113 5024		

Data reviewed by: Patrick Weber, Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.



#### Certificate of Analysis

Number: 1030-21120596-002A

**Houston Laboratories** 8820 Interchange Drive Houston, TX 77054 Phone 713-660-0901

Jason Shubert Talon/LPE

921 N Bivins Amarillo, TX 79107

Station Name: Influent #2 Station Number: 700376.274.09 Station Location: Buckeye, NM

Sample Point: Chevron Greyburg

12/21/2021 09:37:05 by PTW Analyzed:

Sampled By: LB

Sample Of: Gas Spot Sample Date: 12/09/2021 10:00

Dec. 22, 2021

Sample Conditions:

Method: GPA-2261M

#### **Analytical Data**

Components	Mol. %	Wt. %	GPM at 14.65 psia			
Nitrogen Methane Carbon Dioxide Ethane Propane Iso-butane n-Butane Iso-pentane n-Pentane Hexanes Plus	96.287 NIL 2.690 NIL NIL NIL NIL 0.008 0.024	92.680 NIL 4.068 NIL NIL NIL O.020 0.059 3.173	NIL NIL NIL NIL 0.003 0.009 0.430	GPM TOTAL C2+ GPM TOTAL C3+ GPM TOTAL iC5+	0.442 0.442 0.442	
	100.000	100.000	0.442			
Calculated Physica Relative Density Rea Calculated Molecula Compressibility Fact	al Gas r Weight		<b>Total</b> 1.0049 29.10 0.9995	<b>C6+</b> 3.2176 93.19		
GPA 2172 Calculate Calculated Gross E Real Gas Dry BTU Water Sat. Gas Base	BTU per ft <sup>3</sup> @	2 14.65 psi	a <b>&amp; 60°F</b> 52 51	5113 5024		

Data reviewed by: Patrick Weber, Analyst

Quality Assurance:

The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

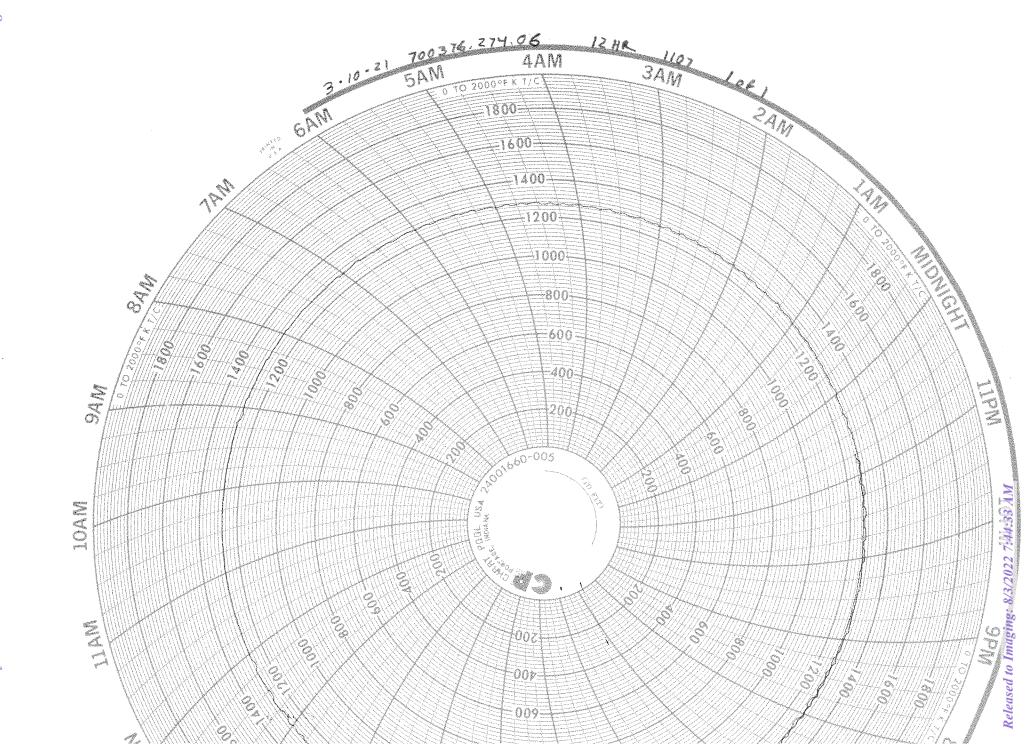
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eport To: Company Name):	Talon LPE					P	roject/Statio	n Name;		Project/	Station	Nur	mber:	Project	/Station I	ocation:		0	Requ	ested TAT
ddress				_	_	_	1		1					10						24hr*
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lty/State/Zip	Amarillo, Texa	-		_		- 8	pecial Instru	Ictions:	3										Ш	48hr*
ontact:	Jason Shuber			_																72hr *
none: Ivoice To:	808-467-0607		Fax: 8	05-457	7-0622															1-0
Company Name):	Talon LPE								Net 30 da	y Acct.			Check #		Cas	h Recvid	S.	14		Standard
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ity/State/2lp	Amerillo, Tex	rae 70167					Tarms: Cyllr 510/cyl, All cyl				_	_	Reo	uested	Analy	sis				
ontact:	Jason Shuba	-		-	_	1	to be returned	within 21 c	lays.	-	-	T	-		-	П	-	$\top$	-	
Phone:	806-467-060	7	Fax:	805-48	7-0622		whether they of Cylinders not	contain san returned af	nple or not. ter 30 days											9
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Contract/Proposal #:				_														١.		
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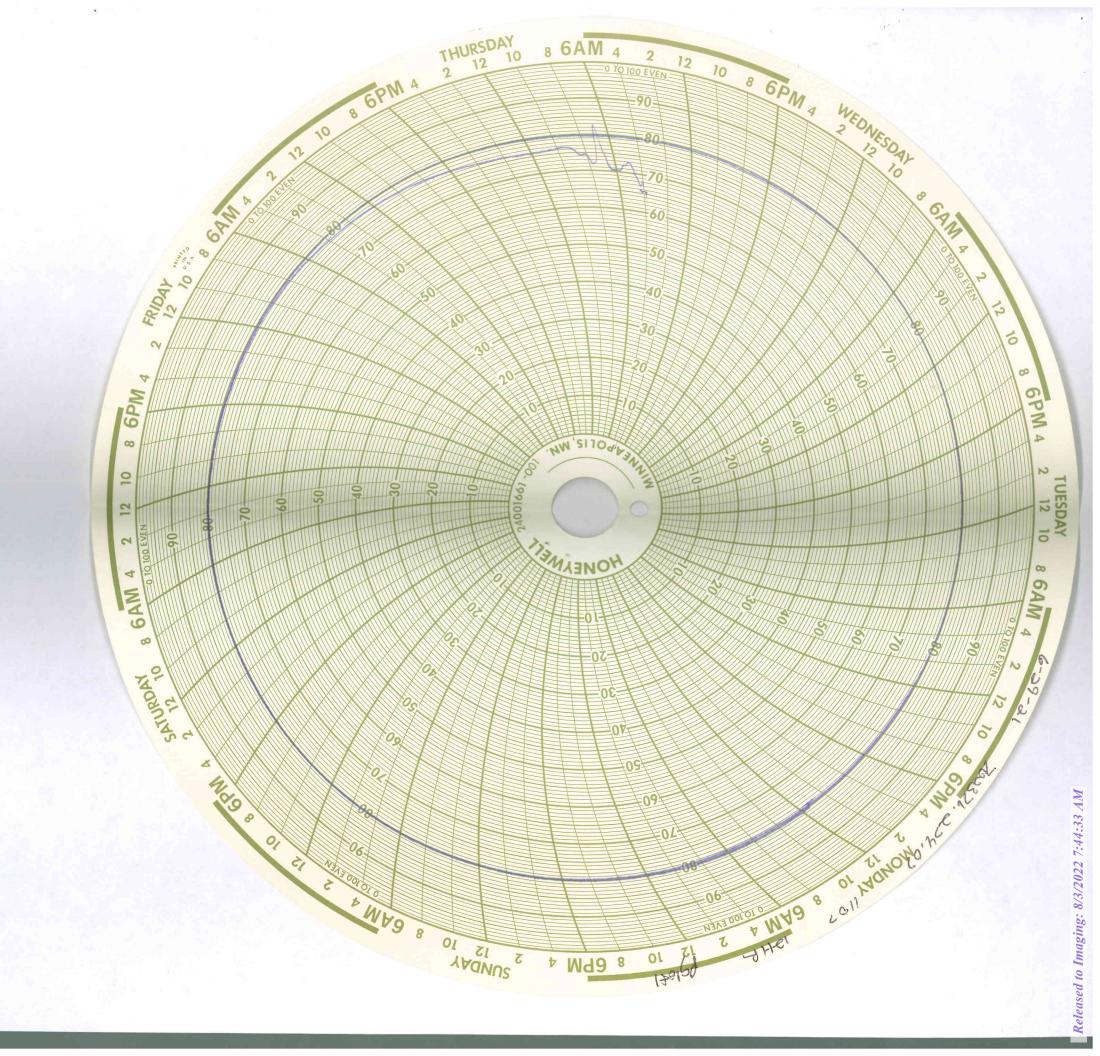
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Chevron-Grayburg- 700376.274 - SRS Chevron Grayburg - 2021 MDPE Events

#### **ATTACHMENT 3**

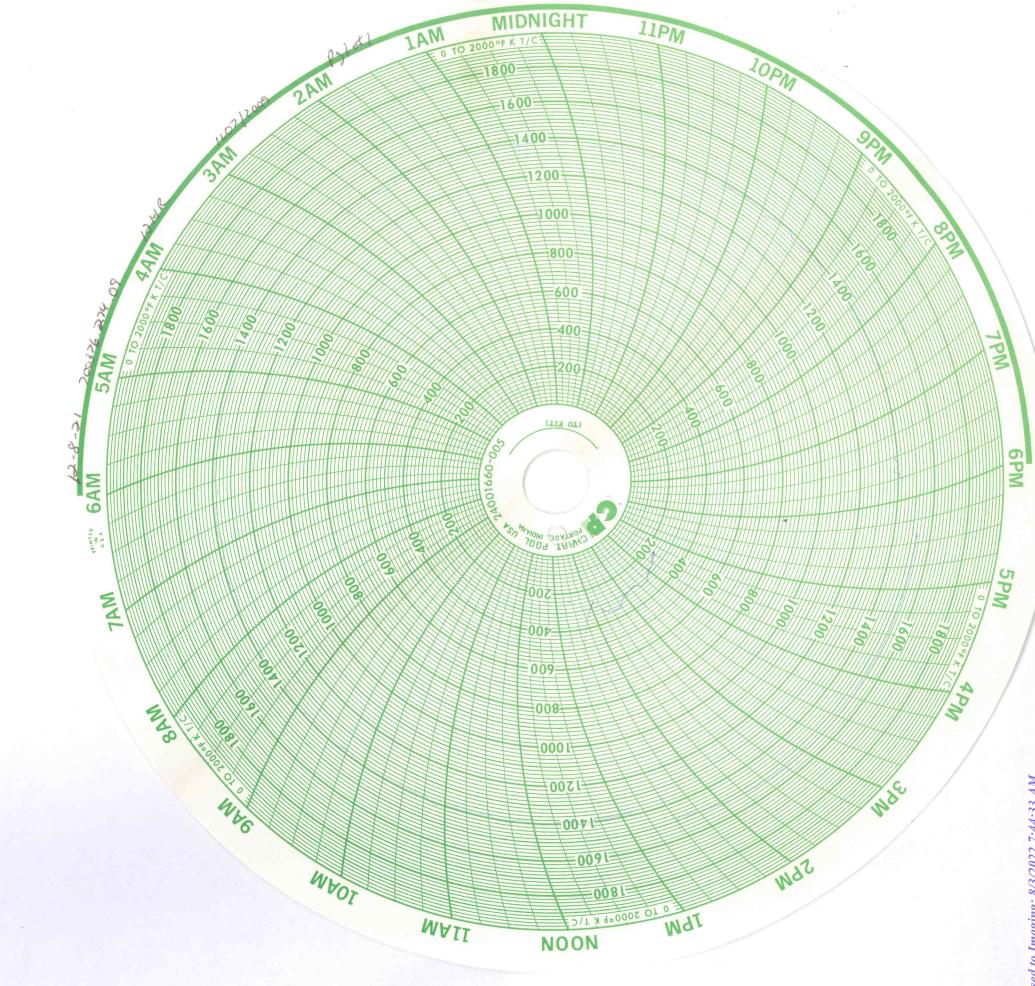
Oxidizer Charts





wined by OCD: 3/24/2022 2:40.53 P

Received by OCD: 3/24/2022 2:40:53 PM



# Appendix E Certified Laboratory Reports and Chain-ofCustody (omitted in draft)



## ANALYTICAL REPORT

March 09, 2021

## Plains All American, LP - GHD

Sample Delivery Group: L1320813 Samples Received: 02/26/2021

Project Number:

Description: Cheveron Grayburd 6-Inch Sec. 6 Historical

Site: CHEVRON GRAYBURG

Report To: Becky Haskell

2135 S Loop 250 W

Midland, TX 79703

Entire Report Reviewed By:

Mark W. Beasley Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

<sup>2</sup>Tc

















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Sc: Sample Chain of Custody

27

#### SAMPLE SUMMARY



MW-5 L1320813-01 GW			Collected by Zach Comino	Collected date/time 02/25/21 08:45	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 18:43	03/05/2118:43	ВМВ	Mt. Juliet, TN
MW-4 L1320813-02 GW			Collected by Zach Comino	Collected date/time 02/25/21 09:30	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1628808	1	03/05/21 19:05	03/05/2119:05	ВМВ	Mt. Juliet, TN
MW-2 L1320813-03 GW			Collected by Zach Comino	Collected date/time 02/25/2110:10	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/05/21 23:45	03/05/21 23:45	BMB	Mt. Juliet, TN
MW-6 L1320813-04 GW			Collected by Zach Comino	Collected date/time 02/25/2110:50	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 00:07	03/06/21 00:07	ВМВ	Mt. Juliet, TN
MW-14 L1320813-05 GW			Collected by Zach Comino	Collected date/time 02/25/21 11:35	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 00:29	03/06/21 00:29	ВМВ	Mt. Juliet, TN
MW-3 L1320813-06 GW			Collected by Zach Comino	Collected date/time 02/25/2112:20	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 00:50	03/06/21 00:50	ВМВ	Mt. Juliet, TN
MW-13 L1320813-07 GW			Collected by Zach Comino	Collected date/time 02/25/2113:00	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 01:12	03/06/21 01:12	ВМВ	Mt. Juliet, TN
MW-10 L1320813-08 GW			Collected by Zach Comino	Collected date/time 02/25/2113:35	Received dat 02/26/21 09:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location





















Volatile Organic Compounds (GC) by Method 8021B

WG1630109

03/06/21 01:34

03/06/21 01:34

BMB

Mt. Juliet, TN

			Collected by	Collected date/time	Received da	te/time
MW-9 L1320813-09 GW			Zach Comino	02/25/21 14:10	02/26/21 09	:55
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 01:56	03/06/21 01:56	BMB	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-11 L1320813-10 GW			Zach Comino	02/25/21 14:50	02/26/21 09	:55
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 02:17	03/06/21 02:17	BMB	Mt. Juliet, TN
MW-1 L1320813-11 GW			Collected by Zach Comino	Collected date/time 02/25/2115:35	Received date/time 02/26/21 09:55	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/06/21 02:39	03/06/21 02:39	ВМВ	Mt. Juliet, TN
MW-8 L1320813-12 GW			Collected by Zach Comino	Collected date/time 02/25/2116:00	Received da 02/26/21 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	20	03/06/21 04:06	03/06/21 04:06	BMB	Mt. Juliet, TN
DUP-1 L1320813-13 GW			Collected by Zach Comino	Collected date/time 02/25/21 00:00	Received da 02/26/21 09	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location

WG1630109





















Volatile Organic Compounds (GC) by Method 8021B

03/06/21 03:01

03/06/21 03:01

BMB

Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

<sup>1</sup>Cp





















This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley Project Manager

#### Laboratory Review Checklist: Reportable Data



Lab	orato	ry Name: Pace Analytical National	LRC Date: 03/09/2021 08:48					
	ject N torica	lame: Cheveron Grayburd 6-Inch Sec. 6	Laboratory Job Number: L1320813-01, 02, 03, 04, 05	, 06, 0	7, 08, (	09, 10,	11, 12 a	nd 13
Rev	viewe	Name: Mark W. Beasley	Prep Batch Number(s): WG1628808 and WG1630109					
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>
R1	OI	Chain-of-custody (C-O-C)						
		Did samples meet the laboratory's standard conditions of	of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described	in an exception report?			Х		
R2	OI	Sample and quality control (QC) identification						
	•	Are all field sample ID numbers cross-referenced to the	laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the co	prresponding QC data?	X				
R3	OI	Test reports	<u> </u>			•		
		Were all samples prepared and analyzed within holding	times?	Ιx		I	Ι	
		Other than those results < MQL, were all other raw value		X				
		Were calculations checked by a peer or supervisor?		X	1	1	1	
		Were all analyte identifications checked by a peer or sup	pervisor?	$\frac{\lambda}{x}$			t	
		Were sample detection limits reported for all analytes no		X		t	<del>                                     </del>	
		Were all results for soil and sediment samples reported		X		1	<del>                                     </del>	
		Were % moisture (or solids) reported for all soil and sedi		<del>  ^</del>	1	X	$\vdash$	<u> </u>
		Were bulk soils/solids samples for volatile analysis extra		<del>                                     </del>	1	X	<del>                                     </del>	1
		If required for the project, are TICs reported?	icted with methanol per 3wo+o method 3033:	<del>                                     </del>	1	X	<del>                                     </del>	1
R4	О	Surrogate recovery data			1			
117	10	Were surrogates added prior to extraction?		Ιx	T	T	Т	I
		Were surrogate percent recoveries in all samples within	the laboratory OC limits?	l $\hat{x}$		+	1	
R5	OI	Test reports/summary forms for blank samples	the laboratory QC limits:			<u> </u>	<u> </u>	
KJ	101	Were appropriate type(s) of blanks analyzed?		Х	I	T	T	
		Were blanks analyzed at the appropriate frequency?		l $\hat{x}$	1	1	<del>                                     </del>	
		Were method blanks taken through the entire analytical cleanup procedures?	process, including preparation and, if applicable,	X				
		Were blank concentrations < MQL?		X		1	<del>                                     </del>	
R6	OI	Laboratory control samples (LCS):				1		
NO	J 01	Were all COCs included in the LCS?		Ιx	I	T	Τ	Τ
		Was each LCS taken through the entire analytical proces	dure including prep and cleanup steps?	X		1	<del>                                     </del>	
		Were LCSs analyzed at the required frequency?	date, metaling prop and electric steps.	X	1	1	<u> </u>	
		Were LCS (and LCSD, if applicable) %Rs within the laboration	atory QC limits?	X		1	<del>                                     </del>	
		Does the detectability check sample data document the used to calculate the SDLs?	· · · · · · · · · · · · · · · · · · ·	X				
		Was the LCSD RPD within QC limits?		X		1	<del>                                     </del>	
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data				1	1	1
		Were the project/method specified analytes included in	the MS and MSD?	Т	T	Ιx	Т	1
		Were MS/MSD analyzed at the appropriate frequency?		t	1	X	1	
		Were MS (and MSD, if applicable) %Rs within the laborat	tory QC limits?	<u> </u>		X	1	
		Were MS/MSD RPDs within laboratory QC limits?		<u> </u>		X	1	
R8	OI	Analytical duplicate data		•			•	
		Were appropriate analytical duplicates analyzed for each	h matrix?	Τ	T	X	Т	Ι
		Were analytical duplicates analyzed at the appropriate fi				X		
		Were RPDs or relative standard deviations within the lab		<b>†</b>		X	<b>†</b>	<u> </u>
R9	OI	Method quantitation limits (MQLs):	The second secon			1		
		Are the MQLs for each method analyte included in the la	aboratory data package?	X			Ι	
		Do the MQLs correspond to the concentration of the low		X		1	T T	1
		Are unadjusted MQLs and DCSs included in the laborate		X		1	İ	
R10	OI	Other problems/anomalies						
		Are all known problems/anomalies/special conditions no	oted in this LRC and ER?	Х				
		Was applicable and available technology used to lower the sample results?		Х				
		Is the laboratory NELAC-accredited under the Texas Lab and methods associated with this laboratory data packa	poratory Accreditation Program for the analytes, matrices ge?	Х				
1 1+0			/ data package submitted in the TRRP-required report(s)	14 :	-l +: C: -			"C"

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

 <sup>2.</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;

<sup>4.</sup> NR = Not reviewed;

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Revised May 2010 Laboratory Review Checklist: Supporting Data



Lab	orato	ory Name: Pace Analytical National	LRC Date: 03/09/2021 08:48										
	ject N torica	Name: Cheveron Grayburd 6-Inch Sec. 6 Il	Laboratory Job Number: L1320813-01, 02, 03, 04	, 05, 06, 07	7, 08,	09, 10,	11, 12 a	nd 13					
Rev	iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1628808 and WG1630109										
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>					
S1	OI	Initial calibration (ICAL)											
		Were response factors and/or relative response factor	ors for each analyte within QC limits?			Х							
		Were percent RSDs or correlation coefficient criteria	met?	Х									
		Was the number of standards recommended in the r	method used for all analytes?	Х									
		Were all points generated between the lowest and h	righest standard used to calculate the curve?	X									
		Are ICAL data available for all instruments used?	<u> </u>	X									
		Has the initial calibration curve been verified using a	X										
S2	OI	Initial and continuing calibration verification (ICCV an											
	10.	Was the CCV analyzed at the method-required frequ	T x		I	T	1						
		Were percent differences for each analyte within the	·	$\frac{\lambda}{X}$		1	<del>                                     </del>						
		Was the ICAL curve verified for each analyte?	. montos requires se ininio.	$\frac{\hat{x}}{x}$	$\vdash$	+-	$\vdash$						
		Was the absolute value of the analyte concentration	in the inergenic CCP < MDI 2	^		X	<del>                                     </del>	<del> </del>					
S3	0	·	III the morganic CCB \ MDL:				1						
33	10	Mass spectral tuning	I for tuning?		ı	TV	Т	l					
		Was the appropriate compound for the method used			X	<del>                                     </del>							
0.4	1.	Were ion abundance data within the method-require			Х	<u> </u>							
S4	0	Internal standards (IS)			1	т —	ı						
		Were IS area counts and retention times within the m	X										
S5	OI	Raw data (NELAC Section 5.5.10)	T	_	1								
		Were the raw data (for example, chromatograms, spe	X										
		Were data associated with manual integrations flagg	ed on the raw data?	X			<u> </u>						
S6	0	Dual column confirmation											
		Did dual column confirmation results meet the method	od-required QC?			X							
S7	0	Tentatively identified compounds (TICs)					,						
		If TICs were requested, were the mass spectra and T	FIC data subject to appropriate checks?			Х							
S8	1	Interference Check Sample (ICS) results											
		Were percent recoveries within method QC limits?				Х							
S9	1	Serial dilutions, post digestion spikes, and method or	f standard additions										
		Were percent differences, recoveries, and the linear	ity within the QC limits specified in the method?			Х							
S10	OI	Method detection limit (MDL) studies											
		Was a MDL study performed for each reported analy	rte?	Х									
		Is the MDL either adjusted or supported by the analy	vsis of DCSs?	Х									
S11	OI	Proficiency test reports											
		Was the laboratory's performance acceptable on the	applicable proficiency tests or evaluation studies?	Х									
S12	OI	Standards documentation	· · · · · · · · · · · · · · · · · · ·	•									
		Are all standards used in the analyses NIST-traceable	e or obtained from other appropriate sources?	X									
S13	OI	Compound/analyte identification procedures	· · ·										
		Are the procedures for compound/analyte identificat	X										
S14	OI	Demonstration of analyst competency (DOC)					•						
	•	Was DOC conducted consistent with NELAC Chapte	r 5?	X			I						
		Is documentation of the analyst's competency up-to-		X		1	<del>                                     </del>						
S15	OI	Verification/validation documentation for methods (N				1							
313	101	Are all the methods used to generate the data docur		X		T	П	I					
S16	OI	Laboratory standard operating procedures (SOPs)	menteu, vermeu, anu vanuateu, where applicable:			1							
310	TOI	Are laboratory SOPs current and on file for each met	thad parformed			T	Т						
		Are laboratory SOPS current and on the for each met	пои реполнеи	X	<u> </u>	1		<u> </u>					

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 NA = Not applicable;
 NR = Not reviewed;

<sup>5.</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Revised May 2010 Laboratory Review Checklist: Exception Reports

	Page 97 NATIONWIDE.	of 209
ONE LAB.	NATIONWIDE.	

Laboratory Name: Pace Analytical National	LRC Date: 03/09/2021 08:48						
Project Name: Cheveron Grayburd 6-Inch Sec. 6 Historical	Laboratory Job Number: L1320813-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13						
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1628808 and WG1630109						
ER #1 Description	·						

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

- 1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

  2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

  3. NA = Not applicable;

  4. NR = Not reviewed;

- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

ONE LAB. NATRAGA 98 of 209

Collected date/time: 02/25/21 08:45

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/05/2021 18:43	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 18:43	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 18:43	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 18:43	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	104				79.0-125		03/05/2021 18:43	WG1628808





















ONE LAB. NAT Bage 99. of 209

Collected date/time: 02/25/21 09:30

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/05/2021 19:05	WG1628808
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 19:05	WG1628808
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 19:05	WG1628808
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 19:05	WG1628808
(S) a,a,a-Trifluorotoluene(PID)	104				79.0-125		03/05/2021 19:05	WG1628808





















ONE LAB. NAPagev100 of 209

Collected date/time: 02/25/21 10:10

L1320813

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/05/2021 23:45	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 23:45	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 23:45	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 23:45	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		03/05/2021 23:45	WG1630109





















ONE LAB. NAPage 101 of 209

Collected date/time: 02/25/2110:50

L1320813

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/06/2021 00:07	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/06/2021 00:07	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/06/2021 00:07	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/06/2021 00:07	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	104				79.0-125		03/06/2021 00:07	WG1630109





















ONE LAB. NAPagev102 of 209

Collected date/time: 02/25/21 11:35

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/06/2021 00:29	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/06/2021 00:29	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/06/2021 00:29	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/06/2021 00:29	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	104				79.0-125		03/06/2021 00:29	WG1630109





















ONE LAB. NAPagev103 of 209

Collected date/time: 02/25/21 12:20

L1320813

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000353	J	0.000190	0.000500	0.000500	1	03/06/2021 00:50	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/06/2021 00:50	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/06/2021 00:50	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/06/2021 00:50	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		03/06/2021 00:50	WG1630109





















ONE LAB. NAPagev104 of 209

Collected date/time: 02/25/21 13:00

L1320813

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/06/2021 01:12	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/06/2021 01:12	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/06/2021 01:12	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/06/2021 01:12	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	104				79.0-125		03/06/2021 01:12	WG1630109





















ONE LAB. NAPage 105 of 209

Collected date/time: 02/25/21 13:35

L1320813

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000851		0.000190	0.000500	0.000500	1	03/06/2021 01:34	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/06/2021 01:34	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/06/2021 01:34	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/06/2021 01:34	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		03/06/2021 01:34	WG1630109





















ONE LAB. NAPagev106 of 209

Collected date/time: 02/25/21 14:10

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00301		0.000190	0.000500	0.000500	1	03/06/2021 01:56	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/06/2021 01:56	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/06/2021 01:56	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/06/2021 01:56	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		03/06/2021 01:56	WG1630109





















ONE LAB. NAPagev107 of 209

Collected date/time: 02/25/21 14:50

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0429		0.000190	0.000500	0.000500	1	03/06/2021 02:17	WG1630109
Toluene	0.000905	J	0.000412	0.00100	0.00100	1	03/06/2021 02:17	WG1630109
Ethylbenzene	0.00459		0.000160	0.000500	0.000500	1	03/06/2021 02:17	WG1630109
Total Xylene	0.00545		0.000510	0.00150	0.00150	1	03/06/2021 02:17	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		03/06/2021 02:17	WG1630109





















ONE LAB. NAPage 198 of 209

Collected date/time: 02/25/21 15:35

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00618		0.000190	0.000500	0.000500	1	03/06/2021 02:39	WG1630109
Toluene	0.0180		0.000412	0.00100	0.00100	1	03/06/2021 02:39	WG1630109
Ethylbenzene	0.00752		0.000160	0.000500	0.000500	1	03/06/2021 02:39	WG1630109
Total Xylene	0.0119		0.000510	0.00150	0.00150	1	03/06/2021 02:39	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/06/2021 02:39	WG1630109





















## SAMPLE RESULTS - 12

ONE LAB. NAPagev109 of 209

Collected date/time: 02/25/21 16:00

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	2.63		0.00380	0.000500	0.0100	20	03/06/2021 04:06	WG1630109
Toluene	1.07		0.00824	0.00100	0.0200	20	03/06/2021 04:06	WG1630109
Ethylbenzene	0.103		0.00320	0.000500	0.0100	20	03/06/2021 04:06	WG1630109
Total Xylene	0.481		0.0102	0.00150	0.0300	20	03/06/2021 04:06	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		03/06/2021 04:06	WG1630109





















## SAMPLE RESULTS - 13

ONE LAB. NAPage 110 of 209

Collected date/time: 02/25/21 00:00

=	•	-						
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00522		0.000190	0.000500	0.000500	1	03/06/2021 03:01	WG1630109
Toluene	0.0156		0.000412	0.00100	0.00100	1	03/06/2021 03:01	WG1630109
Ethylbenzene	0.00656		0.000160	0.000500	0.000500	1	03/06/2021 03:01	WG1630109
Total Xylene	0.0105		0.000510	0.00150	0.00150	1	03/06/2021 03:01	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		03/06/2021 03:01	WG1630109





















### QUALITY CONTROL SUMMARY

ONE LAB. NA Page 111 of 209

Volatile Organic Compounds (GC) by Method 8021B

L1320813-01,02

#### Method Blank (MB)

(MB) R3627779-3 03/05	/21 10:50			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	103			79.0-125

#### Laboratory Control Sample (LCS)

(LCS) R3627779-1 03/05	(LCS) R3627779-1 03/05/21 09:22							
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier			
Analyte	mg/l	mg/l	%	%				
Benzene	0.0500	0.0498	99.6	77.0-122				
Toluene	0.0500	0.0495	99.0	80.0-121				
Ethylbenzene	0.0500	0.0499	99.8	80.0-123				
Total Xylene	0.150	0.150	100	47.0-154				
(S) a,a,a-Trifluorotoluene(PID)			103	79.0-125				























#### QUALITY CONTROL SUMMARY

ONE LAB. NA Page 112 of 209

Volatile Organic Compounds (GC) by Method 8021B L1320813-03,04,05,06,07,08,09,10,11,12,13

#### Method Blank (MB)

(MB) R3628064-3 03/05	5/21 21:13			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	103			79.0-125



(LCS) R3628064-1 03/05	5/21 19:48				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0486	97.2	77.0-122	
Toluene	0.0500	0.0473	94.6	80.0-121	
Ethylbenzene	0.0500	0.0471	94.2	80.0-123	
Total Xylene	0.150	0.141	94.0	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			103	79.0-125	





















#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Jnadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the resure ported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

#### Qualifier Description

The identification of the analyte is acceptable; the reported value is an estimate.

<sup>1</sup>Cp

<sup>2</sup>Tc



















Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.

\* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

\* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

#### Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN, 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
ldaho	TN00003	Ohio-VAP	CL0069
llinois	200008	Oklahoma	9915
ndiana	C-TN-01	Oregon	TN200002
owa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
ouisiana	Al30792	Tennessee 1 4	2006
ouisiana.	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

<sup>&</sup>lt;sup>1</sup> Drinking Water <sup>2</sup> Underground Storage Tanks <sup>3</sup> Aquatic Toxicity <sup>4</sup> Chemical/Microbiological <sup>5</sup> Mold <sup>6</sup> Wastewater n/a Accreditation not applicable





















Received by OCD: 3/24/2022-2:40:53 PM Billing		Billing Info	nformation:					Analysis / Con		Chain of Custody Pages 115 of 20			
Camil 2135 S. Loop 250 W			1106 Gr	e Bryant riffith Drive d, TX 79706								Pace	nalytical *
Report to:  Becky Haskell			Email To: becky.h	askell@ghd.	arks)						12065 Lebanon Rd Mount Juliet, TN 371		
Project Description: Chevron Grayburg 6-Inch Historical				City/State Collected:								Phone: 615-758-5859 Phone: 800-767-5859 Fax: 615-758-5859	
Phone: <b>432-250-7917</b> Fax: Collected by (print):	SRS #: Inch Hi	Client Project # SRS #: Chevron Grayburg 6- Inch Historical Site/Facility ID #			Lab Project #							L# U32	
Collected by (signature):	Rusi Sa	Rush? (Lab MUST Be Notified)Same Day Pive Day			Quote #							Acctnum: Plair Template: Prelogin:	ns GHD
Immediately Packed on Ice N Y Sample ID	Tw	Next Day 5 Day (Rad Only)Two Day 10 Day (Rad Only)Three Day			Date Results Needed							TSR: PB: Shipped Via:	
	1/1	GW Matrix *	Depth	Date	Time		BT					Remarks	Sample # (lab only)
MW-5	Gny	GW	-		1 0845	3	X						-01
MW-4 WW-2	Gral	GW	+	02/25/203	10930	12	X						-02
	1	GW	1	+	1010	++	1						-03
MW-6	1	GW		+	1050	++	1					- 2	-04
4W-14		GW	-	+ +	1135	+							-0S
4W-3					1220	+							-d6
MW-13		GW			1300	+	1						-07
MW-10	$\rightarrow$	GW			1335	1							-08
MW-9	1	GW			1410	1					_	1	-09
MW.11	4	GW		Y	1450	V	V						-10
Matrix: S - Soil AIR - Air F - Filter W - Groundwater B - Bioassay /W - WasteWater W - Drinking Water	x:   AIR - Air					@paalp	p.cor	n,	pH	Temp	COC Seal COC Signe Bottles a Correct b	mple Receipt Che Present/Intact: d/Accurate: crive intact: cottles used:	
T - Other	Samples returned via:UPSFedExCourier				Tracking #	192	2	081-	2 107+	5		t volume sent:  If Applicable	2 - N
Relinquished by : (Signature)	11	Date:	/2021	1600	Received by: (Signa	ature)	-	000	Trip Blank Re	ceived: Yes / No HCL / MeoH TBR Bottles Received:	Preservat	Headspace: ion Correct/Chec	
emiduated by . (alguardice)	Date:			inite.	ne: Received by: (Signature)				Temps:	Bottles Received:	If preservation required by Login: Date/Time		
Released to Imaging: 8/3	3/2022 7:44	Date: 4:33 AM	1	Time:	Received for lab by				Date: 2/26	Time: 4:55	Hold:		Condition: NCF / OK

sceived by OCD: 3/24/2022 2:40:53 PM		Billing Info	Billing Information:			Analysis / Container / Preservative							Chain of Custody Page 116 of 20				
2135 S. Loop 250 W Midland, TX 79703	. GIID		1106 G	Bryant riffith Drive d, TX 79706		Pres Chk									Pace National C	Analytical* anter for Testing & Innovatio	
Report to:  Becky Haskell			Email To:	askell@ghd.c	com (sao rom	anks)									065 Lebanon Rd	■後背■	
Project Description: Chevron Grayburg 6-Inch Historical			осску.п	City/State Collected:	om (see rem	iarks)								Pho Pho	ount Juliet, TN 37 one: 615-758-58 one: 800-767-58 c: 615-758-5859	8	
Phone: <b>432-250-7917</b> Fax: Collected by (print):	Client Project # SRS #: Chevron Grayburg Inch Historical Site/Facility ID #			Lab Project #										L#	L# L/30813		
Collected by (signature):	Chern	on Gray (Lab MUSTUBE	Luy Noticel	P.O. # Quote #			10m/Amb-HCL						Acctnum: Plains Template:		ns GHD		
mmediately Packed on Ice N Y	Same Day Five D Next Day 5 Day		Day	y Rad Only) Date Results Need		esults Needed No.									elogin: R:		
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTEX							Sh	ipped Via:	Sample # (lab only)	
MW-1	Gras	GW		02/25/2001	1535	3	×									-11	
MW.8 Dup-1	Gno	GW		02/25/202	1600	3	7									-12	
Orgo 1	1	GW		*	-	1	7									-13	
		GW										1					
		GW															
		GW															
		GW															
		GW		245.7										-			
Matrix: - Soil AIR - Air F - Filter W - Groundwater B - Bioassay W - WasteWater  Remarks: Email final report to beck algroves@paalp.com and				skell@ghd.co ochoa@paalp	om, cjbryan@ .com	paalp	o.com	,	pł Flo	H	Temp		COC S Bottl	Seal Prese Signed/Acc	mple Receipt Checklist Present/Intact: V N dd/Accurate: N		
- Other	Samples return	ned via: dEx Couri	er	Tra	acking#								Suffi	cient vol	lume sent: f Applicab	le Zy	
inquished by : (Signature)	Date:			20	ceived by: (Signa				Trip Bl	Trip Blank Received: Yes / No HCL / MeoH TBR Temp: C Bottles Received:			Prese	VOA Zero Headspace:  Preservation Correct/Checked: _Y _N  If preservation required by Login: Date/Time			
		Date:	Tir	ne: Rec	ceived by: (Signa	ture)			Temp:				If pres				
linquished by: (Signature)  Released to Imaging: 8/3/20	7.44.22	Date:	Tin	ne: Red	Served for lab by				Date:	,1-,0	Time	9.5	Hold:			Condition: NCF / OK	



# Pace Analytical® ANALYTICAL REPORT

May 24, 2021

Revised Report

#### Plains All American, LP - GHD

Sample Delivery Group: L1352416 Samples Received: 05/13/2021 Project Number: 11209906/02

Description: Cheveron Grayburd 6-Inch Sec. 6 Historical

Site: CHEVERON GRAYBURD

Report To: Becky Haskell

2135 S Loop 250 W

Midland, TX 79703

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Entire Report Reviewed By:

Mark W. Beasley

Project Manager Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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Sc: Sample Chain of Custody

28

## SAMPLE SUMMARY

MW-14 L1352416-01 GW			Collected by Zach Comino	Collected date/time 05/12/21 09:10	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 05:12	05/17/21 05:12	TPR	Mt. Juliet, TN
MW-6 L1352416-02 GW			Collected by Zach Comino	Collected date/time 05/12/21 09:25	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 05:34	05/17/21 05:34	TPR	Mt. Juliet, TN
MW-4 L1352416-03 GW			Collected by Zach Comino	Collected date/time 05/12/21 09:40	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 05:56	05/17/21 05:56	TPR	Mt. Juliet, TN
MW-5 L1352416-04 GW			Collected by Zach Comino	Collected date/time 05/12/21 09:55	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 06:18	05/17/21 06:18	TPR	Mt. Juliet, TN
MW-2 L1352416-05 GW			Collected by Zach Comino	Collected date/time 05/12/21 10:20	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 06:40	05/17/21 06:40	TPR	Mt. Juliet, TN
MW-13 L1352416-06 GW			Collected by Zach Comino	Collected date/time 05/12/21 10:35	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 07:02	05/17/21 07:02	TPR	Mt. Juliet, TN
MW-3 L1352416-07 GW			Collected by Zach Comino	Collected date/time 05/12/21 10:40	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1670713	1	05/17/21 07:24	05/17/21 07:24	TPR	Mt. Juliet, TN
MW-10 L1352416-08 GW			Collected by Zach Comino	Collected date/time 05/12/21 11:25	Received da 05/13/21 10:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location





















Volatile Organic Compounds (GC) by Method 8021B

WG1671666

05/16/21 18:06

05/16/21 18:06

JAH

Mt. Juliet, TN

### SAMPLE SUMMARY

			Collected by	Collected date/time	Received dat	:e/time
MW-9 L1352416-09 GW			Zach Comino	05/12/21 12:10	05/13/21 10:0	0
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1671666	1	05/16/21 18:28	05/16/21 18:28	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received dat	e/time
MW-11 L1352416-10 GW			Zach Comino	05/12/21 13:05	05/13/21 10:0	0
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1671666	1	05/16/21 18:50	05/16/21 18:50	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received dat	e/time
MW-1 L1352416-11 GW			Zach Comino	05/12/21 13:30	05/13/21 10:0	0
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1671666	1	05/16/21 19:11	05/16/21 19:11	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received dat	e/time
MW-8 L1352416-12 GW			Zach Comino	05/12/21 14:20	05/13/21 10:0	0
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1671666	20	05/17/21 00:17	05/17/21 00:17	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received dat	e/time
DUP-1 L1352416-13 GW			Zach Comino	05/12/21 00:00	05/13/21 10:0	0
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1671666	1	05/16/21 19:33	05/16/21 19:33	JAH	Mt. Juliet, TN

WG1672916

20

05/19/21 10:07

05/19/21 10:07

 $\mathsf{BMB}$ 

Mt. Juliet, TN





















All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.























Report Revision History

Mark W. Beasley

Project Manager

Level II Report - Version 1: 05/24/21 14:54

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Mark W. Beasley

Lab	orato	ory Name: Pace Analytical National	LRC Date: 05/24/2021 16:11					
	ject N torica	Name: Cheveron Grayburd 6-Inch Sec. 6	Laboratory Job Number: L1352416-01, 02, 03, 04, 09	5, 06, 0	7, 08, (	09, 10,	11, 12 a	nd 13
Rev	/iewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1671666, WG1670713 and	WG1672	2916			
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER#5
R1	OI	Chain-of-custody (C-O-C)		1	1	1	1	
		Did samples meet the laboratory's standard conditio	ns of sample acceptability upon receipt?	Τx	T	T	Τ	
		Were all departures from standard conditions describ				X	<u> </u>	
R2	OI	Sample and quality control (QC) identification	· ·				•	
	•	Are all field sample ID numbers cross-referenced to	the laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the	e corresponding QC data?	Х				
R3	OI	Test reports			•	•	•	
	•	Were all samples prepared and analyzed within hold	ing times?	X				
		Other than those results < MQL, were all other raw v	alues bracketed by calibration standards?	Х				
		Were calculations checked by a peer or supervisor?		Х				
		Were all analyte identifications checked by a peer or	supervisor?	Х				
		Were sample detection limits reported for all analyte	s not detected?	Х				
		Were all results for soil and sediment samples report	ted on a dry weight basis?	Х				
		Were % moisture (or solids) reported for all soil and s	sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis e	xtracted with methanol per SW846 Method 5035?			Х		
		If required for the project, are TICs reported?				Х		
R4	0	Surrogate recovery data						
		Were surrogates added prior to extraction?		Х				
		Were surrogate percent recoveries in all samples wit	thin the laboratory QC limits?	Х				
R5	OI	Test reports/summary forms for blank samples						
		Were appropriate type(s) of blanks analyzed?		Х				
		Were blanks analyzed at the appropriate frequency?		Х				
		Were method blanks taken through the entire analyt cleanup procedures?	ical process, including preparation and, if applicable,	Х				
		Were blank concentrations < MQL?		Х				
R6	OI	Laboratory control samples (LCS):						
		Were all COCs included in the LCS?		Х				
		Was each LCS taken through the entire analytical pro	ocedure, including prep and cleanup steps?	Х				
		Were LCSs analyzed at the required frequency?		Х				
		Were LCS (and LCSD, if applicable) %Rs within the la		Х				
		Does the detectability check sample data document used to calculate the SDLs?	the laboratory's capability to detect the COCs at the MDL	Х				
		Was the LCSD RPD within QC limits?		Х				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) d	ata					
		Were the project/method specified analytes included	d in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequence	y?	X				
		Were MS (and MSD, if applicable) %Rs within the lab	oratory QC limits?	X				
		Were MS/MSD RPDs within laboratory QC limits?		X				
R8	OI	Analytical duplicate data						
		Were appropriate analytical duplicates analyzed for	each matrix?			X		
		Were analytical duplicates analyzed at the appropria	te frequency?			X	ļ	
		Were RPDs or relative standard deviations within the	e laboratory QC limits?			Х	<u> </u>	<u> </u>
R9	OI	Method quantitation limits (MQLs):					,	,
		Are the MQLs for each method analyte included in the	ne laboratory data package?	X	<u> </u>		Ļ	<u> </u>
		Do the MQLs correspond to the concentration of the		X			ļ	
		Are unadjusted MQLs and DCSs included in the laborated materials and DCSs included materials a	oratory data package?	X			<u> </u>	
R10	OI	Other problems/anomalies					,	
		Are all known problems/anomalies/special condition		X		<u> </u>	<u> </u>	<u> </u>
		Was applicable and available technology used to low the sample results?	ver the SDL to minimize the matrix interference effects on	Х				

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

and methods associated with this laboratory data package?

Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices

 <sup>2.</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;

<sup>4.</sup> NR = Not reviewed;

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## Revised May 2010 Laboratory Review Checklist: Supporting Data

Lab	orato	ory Name: Pace Analytical National	LRC Date: 05/24/2021 16:11					
	ject N torica	Name: Cheveron Grayburd 6-Inch Sec. 6 al	Laboratory Job Number: L1352416-01, 02, 03, 04	, 05, 06, 07	7, 08, (	09, 10, <sup>-</sup>	11, 12 a	nd 13
Rev	viewe	r Name: Mark W. Beasley	Prep Batch Number(s): WG1671666, WG1670713 a	ınd WG1672	2916			
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>	
S1	OI	Initial calibration (ICAL)		•				
		Were response factors and/or relative response factor	ors for each analyte within QC limits?			Х		
		Were percent RSDs or correlation coefficient criteria	met?	Х				
		Was the number of standards recommended in the n	nethod used for all analytes?	Х				
		Were all points generated between the lowest and h	ighest standard used to calculate the curve?	Х		1		
		Are ICAL data available for all instruments used?		Х				
		Has the initial calibration curve been verified using a	n appropriate second source standard?	Х				
S2	OI	Initial and continuing calibration verification (ICCV an					•	
_		Was the CCV analyzed at the method-required frequ		Х		T	Ι	I
		Were percent differences for each analyte within the	·	X		1		
		Was the ICAL curve verified for each analyte?	· · · · · · · · · · · · · · · · · · ·	X		†	t	
		Was the absolute value of the analyte concentration	in the inorganic CCB < MDI ?			Х		
S3	0	Mass spectral tuning		I		1 '`		
		Was the appropriate compound for the method used	I for tuning?			Τx	Τ	
		Were ion abundance data within the method-require				X	<del>                                     </del>	
S4	0	Internal standards (IS)	d de illilis.			1 /	<u> </u>	
54		Were IS area counts and retention times within the m	nethod-required OC limits?	T X	Ι	Т	Т	I
S5	OI	Raw data (NELAC Section 5.5.10)	ietilod-required &C iiiilits:					
33	T OI	Were the raw data (for example, chromatograms, spe	X	Г	1	I	I	
		Were data associated with manual integrations flagg		X		+	<u> </u>	-
S6	То	Dual column confirmation	ed on the raw data:					
30	10	Did dual column confirmation results meet the metho	ad required OC2		Г	Ιx	I	I
S7	То	Tentatively identified compounds (TICs)	ou-required QC:			1 ^	<u> </u>	
3/	10	If TICs were requested, were the mass spectra and T	TC data subject to appropriate shocks?	I	I	ΙX	T	
S8		Interference Check Sample (ICS) results	ic data subject to appropriate checks:				1	
30	] !	Were percent recoveries within method QC limits?			1	Τx	Т	1
50		•	f standard additions				<u> </u>	<u> </u>
S9		Serial dilutions, post digestion spikes, and method of			Ι	TV	Т	Г
S10	OI	Were percent differences, recoveries, and the lineari	ny within the QC limits specified in the method:			X		
310	Oi	Method detection limit (MDL) studies	+-2		Г	Т	Т	1
		Was a MDL study performed for each reported analy		X		+	<u> </u>	
C11	Lou	Is the MDL either adjusted or supported by the analy	ISIS OT DCSS?					
S11	OI	Proficiency test reports		T v	T	<del></del>	Т	1
C40	Lou	Was the laboratory's performance acceptable on the	applicable proficiency tests or evaluation studies?	X			<u> </u>	
S12	OI	Standards documentation			1	T	Т	
C40	Lo	Are all standards used in the analyses NIST-traceable	X		1	<u> </u>		
S13	OI	Compound/analyte identification procedures	ion de como de d2			T	1	ı
C1.1		Are the procedures for compound/analyte identificat	lion documented?	X		1	<u> </u>	
S14	OI	Demonstration of analyst competency (DOC)	- F2	T	1	1	T	
		Was DOC conducted consistent with NELAC Chapte		X	-	+	├	-
0/-	1	Is documentation of the analyst's competency up-to-		X			<u> </u>	
S15	OI	Verification/validation documentation for methods (N		T .			,	
		Are all the methods used to generate the data docur	mented, verified, and validated, where applicable?	X	L		<u> </u>	
S16	OI	Laboratory standard operating procedures (SOPs)					_	
		Are laboratory SOPs current and on file for each met	thod performed	X		1		

Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 NA = Not applicable;
 NR = Not reviewed;

<sup>5.</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Revised May 2010 Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 05/24/2021 16:11
Project Name: Cheveron Grayburd 6-Inch Sec. 6 Historical	Laboratory Job Number: L1352416-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1671666, WG1670713 and WG1672916
ED #1 Description	

ER# Description

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

- 1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
  3. NA = Not applicable;
  4. NR = Not reviewed;

- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

## O1 Page 126 of 209

SAMPLE RESULTS - 01

Collected date/time: 05/12/21 09:10

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 05:12	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 05:12	WG1670713
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/17/2021 05:12	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 05:12	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 05:12	WG1670713





















Collected date/time: 05/12/21 09:25

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## SAMPLE RESULTS - 02

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 05:34	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 05:34	WG1670713
Ethylbenzene	0.000477	<u>J</u>	0.000160	0.000500	0.000500	1	05/17/2021 05:34	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 05:34	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 05:34	WG1670713





















Collected date/time: 05/12/21 09:40

## SAMPLE RESULTS - 03

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 05:56	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 05:56	WG1670713
Ethylbenzene	0.000330	<u>J</u>	0.000160	0.000500	0.000500	1	05/17/2021 05:56	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 05:56	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 05:56	WG1670713





















Collected date/time: 05/12/21 09:55

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## SAMPLE RESULTS - 04

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 06:18	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 06:18	WG1670713
Ethylbenzene	0.000247	<u>J</u>	0.000160	0.000500	0.000500	1	05/17/2021 06:18	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 06:18	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 06:18	WG1670713





















Collected date/time: 05/12/21 10:20

#### Page 130 of 209

## SAMPLE RESULTS - 05

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 06:40	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 06:40	WG1670713
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/17/2021 06:40	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 06:40	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 06:40	WG1670713





















Collected date/time: 05/12/21 10:35

#### Page 131 of 209

## SAMPLE RESULTS - 06

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 07:02	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 07:02	WG1670713
Ethylbenzene	0.000161	<u>J</u>	0.000160	0.000500	0.000500	1	05/17/2021 07:02	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 07:02	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 07:02	WG1670713





















#### Page 132 of 209

## SAMPLE RESULTS - 07

L1352416

Collected date/time: 05/12/21 10:40

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/17/2021 07:24	WG1670713
Toluene	U		0.000412	0.00100	0.00100	1	05/17/2021 07:24	WG1670713
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/17/2021 07:24	WG1670713
Total Xylene	U		0.000510	0.00150	0.00150	1	05/17/2021 07:24	WG1670713
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/17/2021 07:24	WG1670713





















Collected date/time: 05/12/21 11:25

#### Page 133 of 209

## SAMPLE RESULTS - 08

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000823		0.000190	0.000500	0.000500	1	05/16/2021 18:06	WG1671666
Toluene	0.000467	<u>J</u>	0.000412	0.00100	0.00100	1	05/16/2021 18:06	WG1671666
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/16/2021 18:06	WG1671666
Total Xylene	U		0.000510	0.00150	0.00150	1	05/16/2021 18:06	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/16/2021 18:06	WG1671666





















Collected date/time: 05/12/21 12:10

#### Page 134 of 209

## SAMPLE RESULTS - 09

L1352416

#### Volatile Organic Compounds (GC) by Method 8021B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00229		0.000190	0.000500	0.000500	1	05/16/2021 18:28	WG1671666
Toluene	0.000458	<u>J</u>	0.000412	0.00100	0.00100	1	05/16/2021 18:28	WG1671666
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/16/2021 18:28	WG1671666
Total Xylene	U		0.000510	0.00150	0.00150	1	05/16/2021 18:28	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		05/16/2021 18:28	WG1671666

















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Collected date/time: 05/12/21 13:05

#### Page 135 of 209

SAMPLE RESULTS - 10

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0144		0.000190	0.000500	0.000500	1	05/16/2021 18:50	WG1671666
Toluene	U		0.000412	0.00100	0.00100	1	05/16/2021 18:50	WG1671666
Ethylbenzene	0.00339		0.000160	0.000500	0.000500	1	05/16/2021 18:50	WG1671666
Total Xylene	0.00148	BJ	0.000510	0.00150	0.00150	1	05/16/2021 18:50	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		05/16/2021 18:50	WG1671666





















## SAMPLE RESULTS - 11 Page 136 of 209

Collected date/time: 05/12/21 13:30

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0380		0.000190	0.000500	0.000500	1	05/16/2021 19:11	WG1671666
Toluene	0.0152		0.000412	0.00100	0.00100	1	05/16/2021 19:11	WG1671666
Ethylbenzene	0.00876		0.000160	0.000500	0.000500	1	05/16/2021 19:11	WG1671666
Total Xylene	0.0146		0.000510	0.00150	0.00150	1	05/16/2021 19:11	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		05/16/2021 19:11	WG1671666





















Collected date/time: 05/12/21 14:20

#### Page 137 of 209

SAMPLE RESULTS - 12

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	1.78		0.00380	0.000500	0.0100	20	05/17/2021 00:17	WG1671666
Toluene	0.240		0.00824	0.00100	0.0200	20	05/17/2021 00:17	WG1671666
Ethylbenzene	0.0417		0.00320	0.000500	0.0100	20	05/17/2021 00:17	WG1671666
Total Xylene	0.204		0.0102	0.00150	0.0300	20	05/17/2021 00:17	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		05/17/2021 00:17	WG1671666





















## SAMPLE RESULTS - 13 Page 138 of 209

Collected date/time: 05/12/21 00:00

L1352416

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	2.09		0.00380	0.000500	0.0100	20	05/19/2021 10:07	WG1672916
Toluene	0.192		0.000412	0.00100	0.00100	1	05/16/2021 19:33	WG1671666
Ethylbenzene	0.0396		0.000160	0.000500	0.000500	1	05/16/2021 19:33	WG1671666
Total Xylene	0.179		0.000510	0.00150	0.00150	1	05/16/2021 19:33	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	92.5				79.0-125		05/16/2021 19:33	WG1671666
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		05/19/2021 10:07	WG1672916





















Volatile Organic Compounds (GC) by Method 8021B

#### QUALITY CONTROL SUMMARY

Page 139 of 209

L1352416-01,02,03,04,05,06,07

#### Method Blank (MB)

(MB) R3657656-3 05/17/21 00:46 MB RDL MB Result MB Qualifier MB MDL Analyte mg/l mg/l mg/l Benzene U 0.000190 0.000500 0.000412 0.00100 Toluene Ethylbenzene U 0.000160 0.000500 Total Xylene U 0.000510 0.00150 (S) a,a,a-Trifluorotoluene(PID) 102 79.0-125









#### Laboratory Control Sample (LCS)

(LCS) R3657656-1 05/16/	CS) R3657656-1 05/16/21 23:40								
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier				
Analyte	mg/l	mg/l	%	%					
Benzene	0.0500	0.0487	97.4	77.0-122					
Toluene	0.0500	0.0477	95.4	80.0-121					
Ethylbenzene	0.0500	0.0481	96.2	80.0-123					
Total Xylene	0.150	0.154	103	47.0-154					
(S) a,a,a-Trifluorotoluene(PID)			102	79.0-125					



Sr









(OS) L1352416-07 05/17/21 07:24 • (MS) R3657656-4 05/17/21 08:31 • (MSD) R3657656-5 05/17/21 08:53

	Spike Amount	Original Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	mg/l	mg/l	mg/l	mg/l	%	%		%			%	%
Benzene	0.0500	U	0.0357	0.0401	71.4	80.2	1	10.0-160			11.6	21
Toluene	0.0500	U	0.0349	0.0391	69.8	78.2	1	12.0-148			11.4	21
Ethylbenzene	0.0500	U	0.0353	0.0389	70.6	77.8	1	22.0-149			9.70	21
Total Xylene	0.150	U	0.112	0.123	74.7	82.0	1	13.0-155			9.36	21
(S) a.a.a-Trifluorotoluene(PID)					101	101		79.0-125				

## QUALITY CONTROL SUMMARY

Page 140 of 209

Volatile Organic Compounds (GC) by Method 8021B

L1352416-08,09,10,11,12,13

#### Method Blank (MB)

(MB) R3655959-3 05/16/	/21 14:19			
	MB Result	MB Qualifier	MB MDL	MB RDL
Analyte	mg/l		mg/l	mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	U		0.000160	0.000500
Total Xylene	0.000899	<u>J</u>	0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	102			79.0-125

#### Laboratory Control Sample (LCS)

(LCS) R3655959-1 05/16	/21 13:14				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0455	91.0	77.0-122	
Toluene	0.0500	0.0470	94.0	80.0-121	
Ethylbenzene	0.0500	0.0500	100	80.0-123	
Total Xylene	0.150	0.131	87.3	47.0-154	
(S) a.a.a-Trifluorotoluene(PID)			102	79.0-125	























#### QUALITY CONTROL SUMMARY

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L1352416-13

Volatile Organic Compounds (GC) by Method 8021B

#### Method Blank (MB)

(MB) R3657969-3 05/19/	′21 08:40				
	MB Result	MB Qualifier	MB MDL	MB RDL	
Analyte	mg/l		mg/l	mg/I	
Benzene	U		0.000190	0.000500	
(S) a,a,a-Trifluorotoluene(PID)	104			79.0-125	

#### Laboratory Control Sample (LCS)

(LCS) R3657969-1 05/19/	21 07:24				
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
Analyte	mg/l	mg/l	%	%	
Benzene	0.0500	0.0550	110	77.0-122	
(S) a,a,a-Trifluorotoluene(PID)			105	79.0-125	



¹Cn





#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

Appreviations and	a Definitions
MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

В	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable: the reported value is an estimate







Ss

















Pace Analytical National	12065 Lebanon Rd Mount Juli	et TN 37122
i ace Analytical National	12000 Lebanon Na Mount Jun	

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina 1	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky 16	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	Al30792	Tennessee 1 4	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas <sup>5</sup>	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234



<sup>\*</sup> Not all certifications held by the laboratory are applicable to the results reported in the attached report.

TN00003

EPA-Crypto





















 $<sup>^* \, \</sup>text{Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.} \\$ 

Plains All American, LP - GHD  2135 S Loop 250 W Midland, TX 79703		Billing Information:							An	Chain of Custo	ody Page_	of							
		Camille Bryant				Pres Chk										10	nce Analy		
Report to: Becky Haskell	Email To: becky.hasl	becky.haskell@ghd.com;glenn.quinney@ghd				d.co									Submitting a sample	Mount Juliet, TN 371: e via this chain of cust	stody		
Project Description:		City/State	- Maria Waller			Please Circle:											Pace Terms and Cor	ledgment and accepta nditions found at: bs.com/hubfs/pas-star	
Cheveron Grayburd 6-Inch Sec. 6 Hi	377.55	Collected:		1		PT MT (	CT ET				-						terms.pdf		
Phone: <b>432-250-7917</b>	Client Project # 11209906/02			PLAINSGHD-11209906													SDC F	1116 35 24	
Collected by (print):	Site/Facility	/	1	P.O. #													Acctnum: PL	HUSUSUMAN	
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Immediately Packed on Ice NY	Next D		y (Rad Only) ay (Rad Only)	Date	Results N	ts Needed No		40mlAmb-HC									PM: 134 - Ma	PM: 134 - Mark W. Beasl PB:	
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OT - Other	UPSFedEx				Tracking #	11	110	)	Dle	00	Tatally le	100	0				If Applica eadspace: on Correct/Cl		1
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Plains All American, L	ins All American, LP - GHD		Billing Info	Bryant			Pres Chk		Analysis / Container / Preservative							Chain of Custody Page of		
2135 S Loop 250 W Midland, TX 79703				Dr., Ste. 5 , TX 79705			CIIK									- P	ace A	Analytical
Report to: Becky Haskell			Email To: becky.hasl	kell@ghd.con	n;glenn	.quinney@	ghd.co									12065 Lebanon Ri Submitting a sam	ole via this o	iliet, TN 37122 chain of custody and acceptance of the
Project Description: Cheveron Grayburd 6-Inch Sec. 6 Hist	torical	City/State Collected:	1			Please Ci PT MT C										Pace Terms and C	Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-	
Phone: <b>432-250-7917</b>	Client Project 11209906					209906										SDG#	SDG# U752418	
Collected by (print):	Site/Facility I	/	ml.	P.O.#					5							Table # Acctnum: P	Table # Acctnum: PLAINSGHD	
Collected by (signature):	Rush?	(Lab MUST Be	Notified	Quote#				nb-HCI								Template: T		
Immediately Packed on Ice N Y		ay 5 Day ay 10 Day		Date R	esults N	Veeded	No.	40mlAmb-								PM: <b>134 - N</b> PB:	lark W.	. Beasley
Sample ID	Comp/Grab	Matrix *	Depth	Date		Time	Cntrs	BTEX								Shipped Via	-	X Ground
MW-1	Grah	GW		oslula	150	1330	3	2										41
MW-8	K	GW		10		1420	X	X								4		-02
Dup-1	$\sim$	GW		10			b	20										-67
/		GW																
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* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks:							I Service of	40.8	0	oH	Tem			COC Seal COC Sign Bottles	ample Receipt Present/Intaged/Accurate: arrive intact bottles used;	t: _	Mst NP X
DW - Drinking Water DT - Other	Samples returned UPSFedEx			Tr	acking i	. 78	70	6	1699	14	OSC	2			Sufficie	nt volume sen If Applic Headspace:		1
Relinquished by : (Signature)		ate:	Time:	30 Re	ceived	by: (Signatu	ire)		8.14	Trip	Blank Rec	eived: \	res / No HCL / Med TBR		Preserva	tion Correct/Gen <0.5 mR/hr		d: Y
Relinquished by : (Signature)		até:	Time:		ceived	by: (Signatu	ire)			Temp		0	tles Receive	ed:	f preserva	tion required by	.ogin: D	ate/Time
Relinquished by : (Signature)	Da	ate:	Time:	Re	ceived	for lab by: (	Signat	ure)	t.	Date	7/2/2	Tin W.			Hold:			Condition NCF / OK



# Pace Analytical\* ANALYTICAL REPORT

September 08, 2021

### Plains All American, LP - GHD

Sample Delivery Group: L1395862 Samples Received: 08/27/2021 Project Number: 11209906

Description: Cheveron Grayburd 6-Inch Sec. 6 Historical

Report To: Becky Haskell

2135 S Loop 250 W

Midland, TX 79703

Entire Report Reviewed By:

Olivia Studebaker Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

Pace Analytical National

12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com



















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Sc: Sample Chain of Custody

29

## SAMPLE SUMMARY

MW-2-082521 L1395862-01 GW			Collected by DF/JM	Collected date/time 08/25/2111:40	Received da 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1732419	1	09/01/21 02:01	09/01/21 02:01	ВМВ	Mt. Juliet, TN
MW-4-082421 L1395862-02 GW			Collected by DF/JM	Collected date/time 08/24/21 11:50	Received da: 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1734999	1	09/05/21 00:24	09/05/21 00:24	ACG	Mt. Juliet, TN
MW-5-082521 L1395862-03 GW			Collected by DF/JM	Collected date/time 08/25/21 11:20	Received da 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1735434	1	09/05/21 13:17	09/05/21 13:17	ACG	Mt. Juliet, TN
MW-13-082521 L1395862-04 GW			Collected by DF/JM	Collected date/time 08/25/2111:20	Received da: 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1735434	1	09/05/21 13:39	09/05/21 13:39	ACG	Mt. Juliet, TN
MW-14-082521 L1395862-05 GW			Collected by DF/JM	Collected date/time 08/25/2110:10	Received da: 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1735434	1	09/05/21 14:00	09/05/21 14:00	ACG	Mt. Juliet, TN
MW-6-082521 L1395862-06 GW			Collected by DF/JM	Collected date/time 08/25/2110:40	Received da: 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1735434	1	09/05/21 14:22	09/05/21 14:22	ACG	Mt. Juliet, TN
MW-3-082521 L1395862-07 GW			Collected by DF/JM	Collected date/time 08/25/2112:00	Received da 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1735434	1	09/05/21 14:44	09/05/21 14:44	ACG	Mt. Juliet, TN
MW-10-082521 L1395862-08 GW			Collected by DF/JM	Collected date/time 08/25/2110:20	Received da: 08/27/21 08:	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location





















Volatile Organic Compounds (GC) by Method 8021B

WG1735434

09/05/21 15:06

09/05/21 15:06

ACG

Mt. Juliet, TN

## SAMPLE SUMMARY

			Collected by	Collected date/time	Received da	te/time
MW-9-082521 L1395862-09 GW			DF/JM	08/25/21 10:50	08/27/21 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1733706	1	09/03/21 09:00	09/03/21 09:00	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-11-082421 L1395862-10 GW			DF/JM	08/24/21 11:40	08/27/21 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1733706	1	09/03/21 09:22	09/03/21 09:22	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-1-082521 L1395862-11 GW			DF/JM	08/25/21 12:00	08/27/21 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1733706	1	09/03/2110:06	09/03/21 10:06	JAH	Mt. Juliet, TN
			Collected by	Collected date/time	Received da	te/time
MW-8-082421 L1395862-12 GW			DF/JM	08/24/21 12:30	08/27/21 08:	00
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Volatile Organic Compounds (GC) by Method 8021B	WG1733706	20	date/time 09/03/21 13:26	09/03/21 13:26	JAH	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1733706	20				·
Volatile Organic Compounds (GC) by Method 8021B  DUP-082521 L1395862-13 GW	WG1733706	20	09/03/21 13:26	09/03/2113:26		te/time
	WG1733706 Batch	20 Dilution	09/03/2113:26  Collected by	09/03/2113:26  Collected date/time	Received da	te/time

WG1733706





















Volatile Organic Compounds (GC) by Method 8021B

09/03/21 10:27

09/03/21 10:27

JAH

Mt. Juliet, TN

Olivia Studebaker

Project Manager

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.





















This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Olivia Studebaker Project Manager

Lab	orato	ory Name: Pace Analytical National	LRC Date: 09/08/2021 11:13					
	ject N torica	Name: Cheveron Grayburd 6-Inch Sec. 6	Laboratory Job Number: L1395862-01, 02, 03, 04, 09	5, 06, 0	7, 08,	09, 10,	11, 12 a	and 13
Rev	viewe	r Name: Olivia Studebaker	Prep Batch Number(s): WG1732419, WG1734999, WG	173370	6 and	WG1735	5434	
# <sup>1</sup>	A <sup>2</sup>	Description	1	Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>
<i>"</i> R1	OI	Chain-of-custody (C-O-C)		1	1	1.0.	1	1
	101	Did samples meet the laboratory's standard condition	s of sample acceptability upon receipt?	Тх	Τ	Т	Τ	Т
		Were all departures from standard conditions describe		<del>  ^</del>		X	<del>                                     </del>	_
R2	OI	Sample and quality control (QC) identification	еч п чп елеорионторон.		1	<u> </u>	1	
	101	Are all field sample ID numbers cross-referenced to the	ne laboratory ID numbers?	Тх	Τ	Т	Τ	$\top$
		Are all laboratory ID numbers cross-referenced to the	•	<del>  X</del>		1	<del>                                     </del>	+
R3	OI	Test reports	corresponding de data.	1 ^			<u>.                                    </u>	
110	101	Were all samples prepared and analyzed within holding	na times?	Тх	Τ	Т	Τ	$\top$
		Other than those results < MQL, were all other raw val		<del>  X</del>			<del>                                     </del>	+-
		Were calculations checked by a peer or supervisor?	des blacketed by calibration standards.	$\frac{1}{x}$			<del>                                     </del>	<del>                                     </del>
		Were all analyte identifications checked by a peer or s	supervisor?	$\frac{1}{x}$		1	<del>                                     </del>	+-
		Were sample detection limits reported for all analytes		<del>  ^</del>	+	1	+	+
		Were all results for soil and sediment samples reported		T X	1	1	+	†
		Were % moisture (or solids) reported for all soil and se		+ ^	_	X	<del>                                     </del>	+
		Were bulk soils/solids samples for volatile analysis ex		+	-	X	<del>                                     </del>	+
		If required for the project, are TICs reported?	tracted with methanol per SW846 Method 5055:	+		T X	1	+
R4	Το	Surrogate recovery data				1 ^		
Κ4	10	Were surrogates added prior to extraction?		TV	Т	Т	T	т —
			sin the Jaharatany OC limite?	X	-	-	<del> </del>	+
DE	Toi	Were surrogate percent recoveries in all samples with	in the laboratory QC limits?	1 ^				
R5	OI	Test reports/summary forms for blank samples		TV	т —	т —	Т	
		Were appropriate type(s) of blanks analyzed?		X		-	<u> </u>	+
		Were blanks analyzed at the appropriate frequency?	and a second control of the second control o	X	_	-	<del>                                     </del>	┿
		Were method blanks taken through the entire analytic cleanup procedures?	cal process, including preparation and, if applicable,	X				
		Were blank concentrations < MQL?		X				
R6	OI	Laboratory control samples (LCS):						
		Were all COCs included in the LCS?		X				
		Was each LCS taken through the entire analytical pro-	cedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?		X				
		Were LCS (and LCSD, if applicable) %Rs within the lab	oratory QC limits?	X				
		Does the detectability check sample data document t	he laboratory's capability to detect the COCs at the MDL	X				
		used to calculate the SDLs?		↓			<u> </u>	↓
		Was the LCSD RPD within QC limits?		X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) da	ta					
		Were the project/method specified analytes included		X			<u> </u>	
		Were MS/MSD analyzed at the appropriate frequency		X				<b>↓</b>
		Were MS (and MSD, if applicable) %Rs within the labor	ratory QC limits?	X		<u> </u>	ļ	↓
		Were MS/MSD RPDs within laboratory QC limits?		X				
R8	OI	Analytical duplicate data						
		Were appropriate analytical duplicates analyzed for ea	ach matrix?			X	<u> </u>	↓
		Were analytical duplicates analyzed at the appropriate		↓		X	Ļ	1
		Were RPDs or relative standard deviations within the	aboratory QC limits?	<u> </u>		X	<u> </u>	
R9	OI	Method quantitation limits (MQLs):					,	
		Are the MQLs for each method analyte included in the	e laboratory data package?	X		1	<u> </u>	
		Do the MQLs correspond to the concentration of the I		X		1	ļ	
		Are unadjusted MQLs and DCSs included in the labor	atory data package?	X				
R10	OI	Other problems/anomalies						
		Are all known problems/anomalies/special conditions	noted in this LRC and ER?	Х				
			er the SDL to minimize the matrix interference effects on	l x		1		
		the sample results?	aboratory Accreditation Program for the analytics matrices	+ -	1	+	├	┼

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

and methods associated with this laboratory data package?

Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices

 <sup>2.</sup> O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
 3. NA = Not applicable;

NR = Not reviewed;

ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Rev	viewe	r Name: Olivia Studebaker	Prep Batch Number(s): WG1732419, WG1734999, WG	173370	6 and $1$	NG1735	5434	
<b>#</b> <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>
S1	OI	Initial calibration (ICAL)						
		Were response factors and/or relative response factors	s for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria m	et?	X				
		Was the number of standards recommended in the me	thod used for all analytes?	X				
		Were all points generated between the lowest and high	hest standard used to calculate the curve?	X				
		Are ICAL data available for all instruments used?		X				
		Has the initial calibration curve been verified using an a	appropriate second source standard?	X				
52	OI	Initial and continuing calibration verification (ICCV and	CCV) and continuing calibration blank (CCB):	•		•		
		Was the CCV analyzed at the method-required frequer		T X				
		Were percent differences for each analyte within the m	•	X				
		Was the ICAL curve verified for each analyte?	·	X				
		Was the absolute value of the analyte concentration in	the inorganic CCB < MDL?			×		
53	0	Mass spectral tuning	5					
		Was the appropriate compound for the method used for	or tunina?	T		Ιx		
		Were ion abundance data within the method-required	-			X		
54	О	Internal standards (IS)						
		Were IS area counts and retention times within the met	thod-required QC limits?	Τx		I		
S5	OI	Raw data (NELAC Section 5.5.10)			<u> </u>			
		Were the raw data (for example, chromatograms, spect	tral data) reviewed by an analyst?	Τ×		Ι		
		Were data associated with manual integrations flagged	, , ,	X		1		$\vdash$
66	О	Dual column confirmation	Ton the fair data.	<u> </u>		<u> </u>		<u> </u>
		Did dual column confirmation results meet the method-	required QC?	T		Ιx		I
57	О	Tentatively identified compounds (TICs)	required do.		ı			
		If TICs were requested, were the mass spectra and TIC	data subject to appropriate checks?	Τ	l	Ιx	I	
88		Interference Check Sample (ICS) results	data subject to appropriate checks.			1 /	1	
	<u>'</u>	Were percent recoveries within method QC limits?		Τ	l	Ιx		
 59	l <sub>1</sub>	Serial dilutions, post digestion spikes, and method of si	tandard additions			<u> </u>	<u> </u>	
,,	1	Were percent differences, recoveries, and the linearity		Т	I	Ιx	Г	Т
510	OI	Method detection limit (MDL) studies	within the Ge limits specified in the method.					
310	I OI	Was a MDL study performed for each reported analyte	?	Ιx		1	Ι	Т
		Is the MDL either adjusted or supported by the analysis		T X				
S11	OI	Proficiency test reports	3 Of DC33:	<u> </u>	J			Ь
<i>-</i>	101	Was the laboratory's performance acceptable on the a	onlicable proficiency tests or evaluation studies?	Τx	1	Г	T	
512	OI	Standards documentation	pplicable proficiency tests of evaluation studies:	<u> </u>	J			
712	] 01	Are all standards used in the analyses NIST-traceable of	or obtained from other appropriate sources?	Тх	1	Г	Π	г
513	OI	Compound/analyte identification procedures	obtained from other appropriate sources:	1 ^		<u> </u>	L	
رار	101	Are the procedures for compound/analyte identification	n documented?	Тх	T T	I	Г	Т
514	ОІ	Demonstration of analyst competency (DOC)	T documented:	<u> </u>	<u> </u>	<u> </u>		
<i>-</i> 1→	101	Was DOC conducted consistent with NELAC Chapter 5	?	Ιx	1	T	T	Т
		Is documentation of the analyst's competency up-to-da		<del>  ^</del>	<del> </del>	<u> </u>		<del>                                     </del>
S15	ОІ	Verification/validation documentation for methods (NEL						
טוט	U		Тх	I	T	T		
516	Тоі	Are all the methods used to generate the data docume	anteu, verilleu, anu valluateu, where applicable:				L	
סוכ	J	Laboratory standard operating procedures (SOPs)	ad parformed	T v	I	Г	Г	
- 14		Are laboratory SOPs current and on file for each metho	not performed	X	1	<u> </u>	<u> </u>	<u>"C"</u>

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

<sup>5.</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Received by OCD: 3/24/2022 2:40:53 PM Revised May 2010 Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 09/08/2021 11:13
Project Name: Cheveron Grayburd 6-Inch Sec. 6 Historical	Laboratory Job Number: L1395862-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1732419, WG1734999, WG1733706 and WG1735434
ED #1 Description	•

| Description ER#

The Exception Report intentionally left blank, there are no exceptions applied to this SDG.

- 1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
   NA = Not applicable;
   NR = Not reviewed;

- 5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Collected date/time: 08/25/21 11:40

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## SAMPLE RESULTS - 01

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	09/01/2021 02:01	WG1732419
Toluene	U		0.000412	0.00100	0.00100	1	09/01/2021 02:01	WG1732419
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/01/2021 02:01	WG1732419
Total Xylene	U		0.000510	0.00150	0.00150	1	09/01/2021 02:01	WG1732419
(S) a,a,a-Trifluorotoluene(PID)	99.2				79.0-125		09/01/2021 02:01	WG1732419





















Collected date/time: 08/24/21 11:50

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## SAMPLE RESULTS - 02

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	09/05/2021 00:24	WG1734999
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 00:24	WG1734999
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 00:24	WG1734999
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 00:24	WG1734999
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		09/05/2021 00:24	WG1734999





















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## SAMPLE RESULTS - 03

Collected date/time: 08/25/21 11:20

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	09/05/2021 13:17	WG1735434
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 13:17	WG1735434
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 13:17	WG1735434
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 13:17	WG1735434
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		09/05/2021 13:17	WG1735434





















Collected date/time: 08/25/21 11:20

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## SAMPLE RESULTS - 04

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	09/05/2021 13:39	WG1735434
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 13:39	WG1735434
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 13:39	WG1735434
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 13:39	WG1735434
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		09/05/2021 13:39	WG1735434





















Collected date/time: 08/25/21 10:10

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## SAMPLE RESULTS - 05

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	09/05/2021 14:00	WG1735434
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 14:00	WG1735434
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 14:00	WG1735434
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 14:00	WG1735434
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		09/05/2021 14:00	WG1735434





















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## SAMPLE RESULTS - 06

Collected date/time: 08/25/21 10:40

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000344	<u>J</u>	0.000190	0.000500	0.000500	1	09/05/2021 14:22	WG1735434
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 14:22	WG1735434
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 14:22	WG1735434
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 14:22	WG1735434
(S) a,a,a-Trifluorotoluene(PID)	103				79.0-125		09/05/2021 14:22	WG1735434





















Collected date/time: 08/25/21 12:00

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## SAMPLE RESULTS - 07

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000861		0.000190	0.000500	0.000500	1	09/05/2021 14:44	WG1735434
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 14:44	WG1735434
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 14:44	WG1735434
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 14:44	WG1735434
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		09/05/2021 14:44	WG1735434





















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Collected date/time: 08/25/21 10:20

## SAMPLE RESULTS - 08

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000584		0.000190	0.000500	0.000500	1	09/05/2021 15:06	WG1735434
Toluene	U		0.000412	0.00100	0.00100	1	09/05/2021 15:06	WG1735434
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/05/2021 15:06	WG1735434
Total Xylene	U		0.000510	0.00150	0.00150	1	09/05/2021 15:06	WG1735434
(S) a,a,a-Trifluorotoluene(PID)	102				79.0-125		09/05/2021 15:06	WG1735434





















Collected date/time: 08/25/21 10:50

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## SAMPLE RESULTS - 09

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00351		0.000190	0.000500	0.000500	1	09/03/2021 09:00	WG1733706
Toluene	U		0.000412	0.00100	0.00100	1	09/03/2021 09:00	WG1733706
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/03/2021 09:00	WG1733706
Total Xylene	U		0.000510	0.00150	0.00150	1	09/03/2021 09:00	WG1733706
(S) a,a,a-Trifluorotoluene(PID)	99.6				79.0-125		09/03/2021 09:00	WG1733706





















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SAMPLE RESULTS - 10

Collected date/time: 08/24/21 11:40

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00644		0.000190	0.000500	0.000500	1	09/03/2021 09:22	WG1733706
Toluene	U		0.000412	0.00100	0.00100	1	09/03/2021 09:22	WG1733706
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/03/2021 09:22	WG1733706
Total Xylene	U		0.000510	0.00150	0.00150	1	09/03/2021 09:22	WG1733706
(S) a,a,a-Trifluorotoluene(PID)	99.3				79.0-125		09/03/2021 09:22	WG1733706





















Collected date/time: 08/25/21 12:00

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## SAMPLE RESULTS - 11

L1395862

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0137		0.000190	0.000500	0.000500	1	09/03/2021 10:06	WG1733706
Toluene	0.0417		0.000412	0.00100	0.00100	1	09/03/2021 10:06	WG1733706
Ethylbenzene	0.0164		0.000160	0.000500	0.000500	1	09/03/2021 10:06	WG1733706
Total Xylene	0.0312		0.000510	0.00150	0.00150	1	09/03/2021 10:06	WG1733706
(S) a,a,a-Trifluorotoluene(PID)	98.0				79.0-125		09/03/2021 10:06	WG1733706





















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Collected date/time: 08/24/21 12:30

## SAMPLE RESULTS - 12

	, ,							
	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	2.63		0.00380	0.000500	0.0100	20	09/03/2021 13:26	WG1733706
Toluene	1.30		0.00824	0.00100	0.0200	20	09/03/2021 13:26	WG1733706
Ethylbenzene	0.0945		0.00320	0.000500	0.0100	20	09/03/2021 13:26	WG1733706
Total Xylene	0.668		0.0102	0.00150	0.0300	20	09/03/2021 13:26	WG1733706
(S) a,a,a-Trifluorotoluene(PID)	101				79.0-125		09/03/2021 13:26	WG1733706





















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Collected date/time: 08/25/21 00:00

## SAMPLE RESULTS - 13

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0143		0.000190	0.000500	0.000500	1	09/03/2021 10:27	WG1733706
Toluene	0.0452		0.000412	0.00100	0.00100	1	09/03/2021 10:27	WG1733706
Ethylbenzene	0.0176		0.000160	0.000500	0.000500	1	09/03/2021 10:27	WG1733706
Total Xylene	0.0326		0.000510	0.00150	0.00150	1	09/03/2021 10:27	WG1733706
(S) a,a,a-Trifluorotoluene(PID)	98.2				79.0-125		09/03/2021 10:27	WG1733706





















**PAGE**: 23 of 30

**DATE/TIME:** 09/08/21 11:13

**SDG**: L1395862

PROJECT: 11209906

ACCOUNT: Plains All American, LP - GHD

WG1732419	pounds (GC) b	y Method 80	021B	QU	QUALITY CONTROL SUMMARY	Rece
pMethod Blank (ME	()					ived 1
(MB) R3700660-3 08/31	/21 13:42 MR Pesult	MR Qualifier	MR	MR POL		by O
agus Analyte	mg/l		mg/l	mg/l		CD:
<b>Su</b> Benzene	Ω		0.000190	0.000500		3/2
8/3/2	Π		0.000412	0.00100		24/g
Ethylbenzene	n		0.000160	0.000500		202
<b>27</b> 0tal Xylene	D		0.000510	0.00150		2 2
(S) 2.7.47:33	100			79.0-125		540:53 P
Laboratory Control Sample (LCS)	Sample (LC	CS)				M
(LCS) R3700660-1 08/31/2112:37	/21 12:37					Ŝ
	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier	
Analyte	l/gm	l/gm	%	%		70
Benzene	0.0500	0.0481	96.2	77.0-122		y y
Toluene	0.0500	0.0492	98.4	80.0-121		
Ethylbenzene	0.0500	0.0479	95.8	80.0-123		<u></u>
Total Xylene	0.150	0.168	112	47.0-154		
a,a,a-Trifluorotoluene(PID)			0.66	79.0-125		SC SC

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**DATE/TIME**: 09/08/21 11:13

**SDG**: L1395862

PROJECT: 11209906

Plains All American, LP - GHD

ACCOUNT:

90ZEZ133Z06				UMMARY	Re
alvolatile Organic Comp	ounds (GC) t	by Method 80	)21B	<u>L1395862-09,10,11,12,13</u>	cei
pse Method Blank (MB)					ved (
(MB) R3700727-3 09/03/	21 03:21				by (
ma	MB Result	MB Qualifier	MB MDL	MB RDL	<b>0</b> €
Analyte mg/l	mg/l		l/gm	mg/l	D:
Senzene	n		0.000190	0.000500	3/2
8/3	n		0.000412	0.00100	4/2 E
Ethylbenzene	Π		0.000160	0.000500	02
727 Total Xylene	n		0.000510	0.00150	4
(S) 7.473.a.a.Trifluorotoluene(PID)	001			79.0-125	540:53 <u>I</u>
A_aboratory Control Sample (LCS)	Sample (L	CS)			<b>PM</b> ©

107

L1395862-12 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

Sc

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LCS Qualifier

Rec. Limits

LCS Rec.

Spike Amount LCS Result

(LCS) R3700727-1 09/03/21 02:17

mg/l

mg/l

80.0-121 80.0-123 47.0-154 79.0-125

93.8

0.0456 0.0469 0.0460

0.0500 0.0500 0.0500

Ethylbenzene Total Xylene

Benzene Toluene

Analyte

0.160

0.150

(S) a,a,a-Trifluorotoluene(PID)

77.0-122

91.2

(OS) L1395862-12 09/03/2113:26 • (MS) R3700727-4 09/03/2114:08 • (MSD) R3700727-5 09/03/2114:29	/2113:26 • (MS) R	33700727-4 09	3/03/2114:08 •	(MSD) R37007	727-5 09/03/2	114:29						
	Spike Amount	Spike Amount Original Result MS Result	MS Result	MSD Result	MS Rec.	MSD Rec.	Dilution	Rec. Limits	MS Qualifier	MSD Qualifier	RPD	RPD Limits
Analyte	l/gm	mg/l	mg/l	l/gm		%		%			%	%
Benzene	1.00	2.63	3.04	2.89	41.0	26.0	20	10.0-160			5.06	21
Toluene	1.00	1.30	1.95	1.84	65.0	54.0		12.0-148			5.80	21
Ethylbenzene	1.00	0.0945	0.975	0.905	88.1	81.0	20	22.0-149			7.45	21
Total Xylene	3.00	0.668	3.66	3.42	2.66	91.7		13.0-155			6.78	21
(S) a,a,a-Trifluorotoluene(PID)					102	101		79.0-125				

**PAGE**: 25 of 30

**DATE/TIME:** 09/08/2111:13

**SDG**: L1395862

PROJECT: 11209906

ACCOUNT:
Plains All American, LP - GHD

WG1734999	Method 80	218	OO	QUALITY CONTROL SUMMARY		Rece
od Blank (MB)						ived
3700707-2 09/04/21 21:10 MB Result	MB Qualifier	MB MDL	MB RDL			by OC
- l/ɓw		l/gm	l/gm		L <sub>2</sub>	CD:
e 0.000264		0.000190	0.000500			3/2
U National N		0.000412	0.00100		S <sub>E</sub>	24/J
U U		0.000160	0.000500		ח	<b>20</b> 2
/lene U		0.000510	0.00150		4	22 2
. (S) 102 7:47:3.			79.0-125			540:53 s
W-aboratory Control Sample (LCS)	(S)				_	PM
(LCS) R3700707-1 09/04/21 20:26					S	Sr
Spike Amount LCS Result	CS Result	LCS Rec.	Rec. Limits	LCS Qualifier		
Analyte mg/l n	mg/l	%	%			700
Benzene 0.0500 0	0.0590	118	77.0-122			) )
Toluene 0.0500 0	0.0563	113	80.0-121		8	8
Ethylbenzene 0.0500 0	0.0600	120	80.0-123		0	<u></u>
Total Xylene 0.150 0	0.177	118	47.0-154			
(S) a,a,a-Trifluorotoluene(PID)		101	79.0-125		<b>V</b>	ا ا
r-Trifluorotoluene(PID)		101	79.0-175			

Rece	ived	by (	OCD ~	): 3/	<b>24</b> /	(20.	22 7	<b>2540</b> :	<b>33 P</b>	M	Sr	-	QC		<sub>∞</sub> (	5		SC SC			Page	e 171 oj	f 209
																							<b>PAGE</b> : 26 of 30
																							DATE/TIME: 09/08/21 11:13
QUALITY CONTROL SUMMARY																							SDG: L1395862
QUALITY CC			MB RDL	0.000500	0.00100	0.000500	0.00150	79.0-125				Rec. Limits LCS Qualifier	%	77.0-122	80.0-121	80.0-123	47.0-154	79.0-125					PROJECT: 11209906
1218			MB MDL	0.000190	0.000412	0.000160	0.000510					LCS Rec.	%	106	102	109	107	103					
y Method 80			MB Qualifier							(S)		LCS Result	mg/l	0.0530	0.0510	0.0545	0.160						
<b>†</b> mpounds (GC) b	B)	)5/2112:08	MB Result		) =	> =				ol Sample (LC	)5/2111:03	Amount	mg/l	0.0500	0.0500	0.0500	0.150						ACCOUNT: Plains All American, LP - GHD
WG1735434	per Method Blank (M	(MB) R3700782-3 09/C	MB Result	Surjene Benzene	8/Tolliene	S/Ethylbenzene	7027 Total Xylene	7. (S) 7. (A) Trifluorotoluene(PID)	4:33	Laboratory Control Sample (LCS)	(LCS) R3700782-1 09/05/2111:03		Analyte	Benzene	Toluene	Ethylbenzene	Total Xylene	(S) a,a,a-Trifluorotoluene(PID)					• Plains A

#### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

#### Abbreviations and Definitions

detected in all environmental media.  U Not detected at the Sample Detection Limit.  Unadj. MQL Unadjusted Method Quantitation Limit.  The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyte reported.  If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field result reported has already been corrected for this factor.  These are the target % recovery ranges or % difference value that the laboratory has historically determined as norm for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.  Original Sample  The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality consample. The Original Sample may not be included within the reported SDG.  This column provides a letter and/or number designation that corresponds to additional information concerning the reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.  The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL	Appreviations and	i Deliniuons
RDL Reported Detection Limit.  Rec. Recovery.  RPD Relative Percent Difference.  SDG Sample Delivery Group.  SDL Sample Detection Limit.  Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to detected in all environmental media.  U Not detected at the Sample Detection Limit.  Unadj. MQL Unadjusted Method Quantitation Limit.  Analyte The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyte reported.  If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field result reported has already been corrected for this factor.  These are the target % recovery ranges or % difference value that the laboratory has historically determined as norm for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.  Original Sample  The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality consample. The Original Sample may not be included within the reported SDG.  This column provides a letter and/or number designation that corresponds to additional information concerning the reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.  The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there no measurable result returned for a specific analyte, the result	MDL	Method Detection Limit.
Rec. Recovery.  RPD Relative Percent Difference.  SDG Sample Delivery Group.  SDL Sample Detection Limit.  Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to detected in all environmental media.  U Not detected in all environmental media.  U Inadj. MQL Unadjusted Method Quantitation Limit.  The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyte reported.  If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field result reported has already been corrected for this factor.  These are the target % recovery ranges or % difference value that the laboratory has historically determined as norm for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.  Original Sample  The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality consample. The Original Sample may not be included within the reported SDG.  This column provides a letter and/or number designation that corresponds to additional information concerning the reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.  The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there no measurable result returned for a specific analyte, the result column may state "NDP" (NOt Detected) or	MQL	Method Quantitation Limit.
RPD Relative Percent Difference.  SDG Sample Delivery Group.  SDL Sample Detection Limit.  (S) Sample Detection Limit.  Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to detected in all environmental media.  U Not detected at the Sample Detection Limit.  Unadj. MQL Unadjusted Method Quantitation Limit.  Analyte The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyte reported.  If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field result reported has already been corrected for this factor.  These are the target % recovery ranges or % difference value that the laboratory has historically determined as norn for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.  Original Sample  The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality color sample. The Original Sample may not be included within the clossary and Definitions page and potentially a discussion of possible implications of the Qualifier is provided within the clossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.  The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL (Rebot Detectable Levels). The information in the resu	RDL	Reported Detection Limit.
SDG Sample Delivery Group.  SDL Sample Detection Limit.  Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to detected in all environmental media.  U Not detected at the Sample Detection Limit.  Unadj. MQL Unadjusted Method Quantitation Limit.  The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyte reported.  If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field result reported has already been corrected for this factor.  These are the target % recovery ranges or % difference value that the laboratory has historically determined as norm for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.  Original Sample  The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality consample. The Original Sample may not be included within the reported SDG.  This column provides a letter and/or number designation that corresponds to additional information concerning the reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.  The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) Levels). The information in the results colu	Rec.	Recovery.
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(S) Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to detected in all environmental media.  U Not detected at the Sample Detection Limit.  Unadj. MQL Unadjusted Method Quantitation Limit.  The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analyte reported.  If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field result reported has already been corrected for this factor.  These are the target % recovery ranges or % difference value that the laboratory has historically determined as norn for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.  Original Sample  The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality consample. The Original Sample may not be included within the reported SDG.  This column provides a letter and/or number designation that corresponds to additional information concerning the reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.  The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detector lavel of 2 sigma.	SDL	Sample Detection Limit.
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no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL Result (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could do or report for this analyte.  Uncertainty  Confidence level of 2 sigma.	Qualifier	
	Result	(Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect
		Confidence level of 2 sigma.
A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there we be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.	Case Narrative (Cn)	observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will
Quality Control Summary (Qc)  This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are no being performed on your samples typically, but on laboratory generated material.		analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not
Sample Chain of date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. T		This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
This section of your report will provide the results of all testing performed on your samples. These results are provide by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section each sample will provide the name and method number for the analysis reported.	Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)  This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates times of preparation and/or analysis.	Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

#### Qualifier Description

The identification of the analyte is acceptable; the reported value is an estimate.

















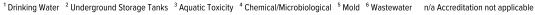






Pace Analytical National	12065 Lebanon Rd I	Mount Juliet TN 37122
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Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	Al30792	Tennessee 14	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234



<sup>\*</sup> Not all certifications held by the laboratory are applicable to the results reported in the attached report.

TN00003

EPA-Crypto





















 $<sup>^* \, \</sup>text{Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.} \\$ 

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Report to:			Email To:	haskelle g	ghdo com										12065 Lebanon Rd Mount Juliet, TN 3	
Becky Haskell Project Description: SRS 2000	-142				ea County,										Phone: 615-758-58 Phone: 800-767-58 Fax: 615-758-5859	
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MW-6-082521		3 -		8-25	1040											-06
mw-3-082521				8-25	1200		34									-07
mw-10-082521			2 0	8-25	1020	8										- c8
MW-9-082521	V	V	V	8-25	1050	V	V									-09
mw-11-082421	-C-	CW	-	8-24	1140	3	χ									-10
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Becky Haskel Project Description: SRS 2006	192		July	City/State Collected:	teg Co.											Phone: 615-758-58 Phone: 800-767-58 Fax: 615-758-5859	" <b>***</b>
Phone: 432-250-7917 Fax:	Client Project Chevron Historic	# - Gray k					218									L# U3	नि5862
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# Pace Analytical\* ANALYTICAL REPORT

December 02, 2021





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### Plains All American, LP - GHD

Sample Delivery Group: L1433771 Samples Received: 11/19/2021

Project Number: SRS CHEVRON GRAYBURG

Description: Chevron Grayburg 6-inch Historical

Site: SRS CHEVRON GRAYBURG

2135 S Loop 250 W

Becky Haskell

Midland, TX 79703

Entire Report Reviewed By:

Report To:

Olivia Studebaker

Project Manager Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received. Pace Analytical National

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Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	25
GI: Glossary of Terms	29





















Al: Accreditations & Locations

Sc: Sample Chain of Custody

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31

## SAMPLE SUMMARY

					_	
MW-2-111621 L1433771-01 GW			Collected by DF/JM	Collected date/time 11/16/21 12:00	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/27/21 22:14	11/27/21 22:14	ACG	Mt. Juliet, TN
MW-4-111621 L1433771-02 GW			Collected by DF/JM	Collected date/time 11/16/21 12:15	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/27/21 22:34	11/27/21 22:34	ACG	Mt. Juliet, TN
MW-5-111621 L1433771-03 GW			Collected by DF/JM	Collected date/time 11/16/21 12:30	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/27/21 22:55	11/27/21 22:55	ACG	Mt. Juliet, TN
MW-13-111621 L1433771-04 GW			Collected by DF/JM	Collected date/time 11/16/21 12:45	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/27/21 23:15	11/27/21 23:15	ACG	Mt. Juliet, TN
MW-14-111621 L1433771-05 GW			Collected by DF/JM	Collected date/time 11/16/21 13:00	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/27/21 23:35	11/27/21 23:35	ACG	Mt. Juliet, TN
MW-6-111621 L1433771-06 GW			Collected by DF/JM	Collected date/time 11/16/21 13:15	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/27/21 23:56	11/27/21 23:56	ACG	Mt. Juliet, TN
MW-10-111621 L1433771-07 GW			Collected by DF/JM	Collected date/time 11/16/21 11:45	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/28/21 00:16	11/28/21 00:16	ACG	Mt. Juliet, TN
MW-3-111621 L1433771-08 GW			Collected by DF/JM	Collected date/time 11/16/21 13:30	Received da 11/19/21 09:0	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location





















Volatile Organic Compounds (GC/MS) by Method 8260B

WG1780339

11/28/21 00:36

11/28/21 00:36

ACG

Mt. Juliet, TN

### SAMPLE SUMMARY

MW-11-111621 L1433771-09 GW			Collected by DF/JM	Collected date/time 11/16/21 14:00	Received dat 11/19/21 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/28/21 00:57	11/28/21 00:57	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1781131	10	11/29/21 20:27	11/29/21 20:27	ВМВ	Mt. Juliet, TN
DUP-111621 L1433771-10 GW			Collected by DF/JM	Collected date/time 11/16/21 00:00	Received dat 11/19/21 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/28/21 01:17	11/28/21 01:17	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1781131	10	11/29/21 20:48	11/29/21 20:48	ВМВ	Mt. Juliet, TN
MW-1-111621 L1433771-11 GW			Collected by DF/JM	Collected date/time 11/16/21 14:15	Received dat 11/19/21 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/28/21 01:38	11/28/21 01:38	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1781131	10	11/29/21 21:09	11/29/21 21:09	BMB	Mt. Juliet, TN
MW-9-111621 L1433771-12 GW			Collected by DF/JM	Collected date/time 11/16/21 13:45	Received dat 11/19/21 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/28/21 01:58	11/28/21 01:58	ACG	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1781131	1	11/29/21 19:22	11/29/21 19:22	BMB	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1778019	1	11/22/21 23:32	11/23/21 13:34	LEA	Mt. Juliet, TN
MW-8-111621 L1433771-13 GW			Collected by DF/JM	Collected date/time 11/17/21 11:40	Received dat 11/19/21 09:00	
Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC/MS) by Method 8260B	WG1780339	1	11/28/21 02:18	11/28/21 02:18	ACG	Mt. Juliet, TN

25

1

11/29/21 21:31

11/24/21 00:28

WG1781131

WG1778249























Volatile Organic Compounds (GC/MS) by Method 8260B

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

вмв

LEA

11/29/21 21:31

11/24/21 09:39

Mt. Juliet, TN

Mt. Juliet, TN

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.























Olivia Studebaker

Project Manager

This data package consists of this signature page, the laboratory review checklist, and the following reportable data as applicable:

- R1 Field chain-of-custody documentation;
- R2 Sample identification cross-reference;
- R3 Test reports (analytical data sheets) for each environmental sample that includes:
  - a. Items consistent with NELAC Chapter 5,
  - b. dilution factors,
  - c. preparation methods,
  - d. cleanup methods, and
  - e. if required for the project, tentatively identified compounds (TICs).
- R4 Surrogate recovery data including:
  - a. Calculated recovery (%R), and
  - b. The laboratory's surrogate QC limits.
- R5 Test reports/summary forms for blank samples;
- R6 Test reports/summary forms for laboratory control samples (LCSs) including:
  - a. LCS spiking amounts,
  - b. Calculated %R for each analyte, and
  - c. The laboratory's LCS QC limits.
- R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
  - a. Samples associated with the MS/MSD clearly identified,
  - b. MS/MSD spiking amounts,
  - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
  - d. Calculated %Rs and relative percent differences (RPDs), and
  - e. The laboratory's MS/MSD QC limits
- R8 Laboratory analytical duplicate (if applicable) recovery and precision:
  - a. The amount of analyte measured in the duplicate,
  - b. The calculated RPD, and
  - c. The laboratory's QC limits for analytical duplicates.
- R9 List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix.
- R10 Other problems or anomalies.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Olivia Studebaker

Lab	orato	ory Name: Pace Analytical National	LRC Date: 12/02/2021 11:57					
Pro	ject N	Name: Chevron Grayburg 6-inch Historical	Laboratory Job Number: L1433771-01, 02, 03, 04, 05,	06, 07	', 08, 0	)9, 10, 1	1, 12 ar	nd 13
Rev	viewe	r Name: Olivia Studebaker	Prep Batch Number(s): WG1778249, WG1780339, WG	1781131	l and V		019	
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>
R1	OI	Chain-of-custody (C-O-C)						
		Did samples meet the laboratory's standard condition	s of sample acceptability upon receipt?	X				
		Were all departures from standard conditions describ	ed in an exception report?			Х		
R2	OI	Sample and quality control (QC) identification						
		Are all field sample ID numbers cross-referenced to the	ne laboratory ID numbers?	X				
		Are all laboratory ID numbers cross-referenced to the	corresponding QC data?	X				
R3	OI	Test reports						
		Were all samples prepared and analyzed within holding	ng times?	X				
		Other than those results < MQL, were all other raw va	lues bracketed by calibration standards?	Х				
		Were calculations checked by a peer or supervisor?		X				
		Were all analyte identifications checked by a peer or	supervisor?	X				
		Were sample detection limits reported for all analytes	not detected?	Х			Ĭ	
		Were all results for soil and sediment samples reported		X				
		Were % moisture (or solids) reported for all soil and se		İ		X	İ	
		Were bulk soils/solids samples for volatile analysis ex				Х	i i	
		If required for the project, are TICs reported?	<u>'</u>			X		1
R4	То	Surrogate recovery data		•			•	
		Were surrogates added prior to extraction?		Ιx		I	T	
		Were surrogate percent recoveries in all samples with	nin the laboratory QC limits?	<del>  ^</del>	X	1	<del>                                     </del>	1
R5	OI	Test reports/summary forms for blank samples	in the laboratory do limits.		<u> </u>			'
N3	101	Were appropriate type(s) of blanks analyzed?		Ιx	Г	T	Т	Ι
		Were blanks analyzed at the appropriate frequency?		T X	$\vdash$	<del> </del>	<del>                                     </del>	
		Were method blanks taken through the entire analytic cleanup procedures?	cal process, including preparation and, if applicable,	X				
		Were blank concentrations < MQL?		X		+		
R6	ОІ	Laboratory control samples (LCS):			1	L	l .	
NO	101	Were all COCs included in the LCS?		Ιx	Г	T	Т	Ι
		Was each LCS taken through the entire analytical pro	cedure including prep and cleanup steps?	T X	$\vdash$	<del> </del>	<del>                                     </del>	
		Were LCSs analyzed at the required frequency?	cedure, melading prep and cleanup steps.	T X	<del>                                     </del>	+	<del>                                     </del>	
		Were LCS and LCSD, if applicable) %Rs within the lab	poratory OC limits?	<del>  ^</del>	Х		<del> </del>	2
			he laboratory's capability to detect the COCs at the MDL	X	<u> </u>			
		Was the LCSD RPD within QC limits?		X				
R7	ОІ		ta.					
K/	T OI	Matrix spike (MS) and matrix spike duplicate (MSD) da Were the project/method specified analytes included		T	Т	TV	T	I
				<del>                                     </del>		X	<del>                                     </del>	
		Were MS/MSD analyzed at the appropriate frequency		-	├	T X	$\vdash$	1
		Were MS (and MSD, if applicable) %Rs within the labo	ratory QC limits:	-	-	_	╁	
DO	Lou	Were MS/MSD RPDs within laboratory QC limits?		Ц	<u> </u>	X	L	
R8	OI	Analytical duplicate data	and weather 2	Т	т —	TV	Т	ı
		Were appropriate analytical duplicates analyzed for e		-	-	X	├	
		Were analytical duplicates analyzed at the appropriate	•	<u> </u>		X	<b>├</b>	
DC	1 6:	Were RPDs or relative standard deviations within the	iadoratory QC limits?	<u> </u>		X		L
R9	OI	Method quantitation limits (MQLs):		T			T	1
		Are the MQLs for each method analyte included in the		X		1	<u> </u>	
		Do the MQLs correspond to the concentration of the		X	<u> </u>	1		<b> </b>
	-	Are unadjusted MQLs and DCSs included in the labor	atory data package?	X	<u> </u>	1	<u> </u>	L
R10	OI	Other problems/anomalies		1	_		_	
		Are all known problems/anomalies/special conditions		X	—	1	<u> </u>	ļ
		the sample results?	er the SDL to minimize the matrix interference effects on	X				
		and methods associated with this laboratory data pac	0	Х				
4 14-			on, data package submitted in the TDDD required report(s)			ad by th		"~"

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

<sup>4.</sup> NR = Not reviewed;

<sup>5.</sup> ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Name: Pace Analytical National	LRC Date: 12/02/2021 11:57
Project Name: Chevron Grayburg 6-inch Historical	Laboratory Job Number: L1433771-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1778249, WG1780339, WG1781131 and WG1778019

Rev	viewe	r Name: Olivia Studebaker	Prep Batch Number(s): WG1778249, WG1780339, WG1781131 and WG1778019								
# <sup>1</sup>	A <sup>2</sup>	Description		Yes	No	NA <sup>3</sup>	NR⁴	ER# <sup>5</sup>			
S1	OI	Initial calibration (ICAL)									
		Were response factors and/or relative response factors	for each analyte within QC limits?	X				1			
		Were percent RSDs or correlation coefficient criteria m	et?	Х							
		Was the number of standards recommended in the me	thod used for all analytes?	Х							
		Were all points generated between the lowest and high	nest standard used to calculate the curve?	X				1			
		Are ICAL data available for all instruments used?	Х								
		Has the initial calibration curve been verified using an a	appropriate second source standard?	Х							
S2	OI	Initial and continuing calibration verification (ICCV and	CCV) and continuing calibration blank (CCB):								
		Was the CCV analyzed at the method-required frequer	icy?	X							
		Were percent differences for each analyte within the m	ethod-required QC limits?	X							
		Was the ICAL curve verified for each analyte?	·	X			i –	1			
		Was the absolute value of the analyte concentration in	s the absolute value of the analyte concentration in the inorganic CCB < MDL?								
S3	0	Mass spectral tuning				•					
		Was the appropriate compound for the method used for	or tuning?	X				T			
		Were ion abundance data within the method-required	· ·	X							
S4	0	Internal standards (IS)		<u> </u>			•				
		Were IS area counts and retention times within the met	hod-required QC limits?	X			T	T			
S5	OI	Raw data (NELAC Section 5.5.10)									
		Were the raw data (for example, chromatograms, spect	Τx	Τ	T	Т	Т				
		Were data associated with manual integrations flagged	X			1	†				
S6	О	Dual column confirmation		1	-	1					
		Did dual column confirmation results meet the method-	T	Τ	Тх	Τ					
S7	О	Tentatively identified compounds (TICs)	required &c.		<u> </u>	1 ^					
<u> </u>	10	If TICs were requested, were the mass spectra and TIC	data subject to appropriate checks?		Т	Ιx	Т	Т			
S8	Ti	Interference Check Sample (ICS) results	data subject to appropriate checks:			1 ^					
<u> </u>		Were percent recoveries within method QC limits?			Т	Ιx	Т	Т			
S9	Ti	Serial dilutions, post digestion spikes, and method of si	tandard additions			1 ^	т—				
<u> </u>	1'	Were percent differences, recoveries, and the linearity			Т	Тх	Т	Т			
S10	ОІ	Method detection limit (MDL) studies	within the QC limits specified in the method:			1 ^					
310	101	Was a MDL study performed for each reported analyte	2	Ιx	Т	1	T	T			
		Is the MDL either adjusted or supported by the analysis		$\frac{1}{x}$	+		+	+			
S11	OI	Proficiency test reports	3 01 DC35:								
311	JOI	Was the laboratory's performance acceptable on the a	aplicable proficiones tosts or evaluation studios?	Τx	1	T	Т	1			
S12	ОІ	Standards documentation	oplicable proficiency tests of evaluation studies:								
312	T OI		or obtained from other appropriate courses?	Ιx	Т	T	T	Т			
S13	OI	Are all standards used in the analyses NIST-traceable of	or obtained from other appropriate sources:								
313	JOI	Compound/analyte identification procedures	a de cumento d?	Тх	Т	1	т —	Т			
C11	Loi	Are the procedures for compound/analyte identification		1	ļ						
S14	OI	Demonstration of analyst competency (DOC)	ΙV	1	1	1					
		Was DOC conducted consistent with NELAC Chapter 5	X	+	+	+	+-				
C1E	Lou	Is documentation of the analyst's competency up-to-da	X								
S15	OI	Verification/validation documentation for methods (NEL	1 1/	1		1					
040	1 6:	Are all the methods used to generate the data docume	X			<u> </u>					
S16	OI	Laboratory standard operating procedures (SOPs)	1			T					
		Are laboratory SOPs current and on file for each metho	·	X		ĺ		. "C"			

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Received by OCD: 3/24/2022 2:40:53 PM Revised May 2010 Laboratory Review Checklist: Exception Reports

Laborato	ory Name: Pace Analytical National	LRC Date: 12/02/2021 11:57						
Project N	Name: Chevron Grayburg 6-inch Historical	Laboratory Job Number: L1433771-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13						
Reviewe	er Name: Olivia Studebaker	Prep Batch Number(s): WG1778249, WG1780339, WG1781131 and WG1778019						
ER #1	Description							
1	8260B WG1781131 1,2-Dichloroethane-d4 L14	433771-09: Percent Recovery is outside of established control limits.						
2	8260B WG1781131 1,2-Dichloroethane-d4 L1433771-09: Percent Recovery is outside of established control limits.  8270C-SIM WG1778019 1-Methylnaphthalene, 2-Methylnaphthalene: Percent Recovery is outside of established control limits.							

<sup>1.</sup> Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

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5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

# SAMPLE RESULTS - 01

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Collected date/time: 11/16/21 12:00

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000123	<u>J</u>	0.0000941	0.00100	0.00100	1	11/27/2021 22:14	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/27/2021 22:14	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/27/2021 22:14	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/27/2021 22:14	WG1780339
(S) Toluene-d8	108				80.0-120		11/27/2021 22:14	WG1780339
(S) 4-Bromofluorobenzene	100				77.0-126		11/27/2021 22:14	WG1780339
(S) 1,2-Dichloroethane-d4	124				70.0-130		11/27/2021 22:14	WG1780339





















# SAMPLE RESULTS - 02 Page 186 of 209

Collected date/time: 11/16/21 12:15

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	0.00100	1	11/27/2021 22:34	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/27/2021 22:34	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/27/2021 22:34	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/27/2021 22:34	WG1780339
(S) Toluene-d8	107				80.0-120		11/27/2021 22:34	WG1780339
(S) 4-Bromofluorobenzene	98.4				77.0-126		11/27/2021 22:34	WG1780339
(S) 1,2-Dichloroethane-d4	124				70.0-130		11/27/2021 22:34	WG1780339





















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# SAMPLE RESULTS - 03

Collected date/time: 11/16/21 12:30

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	0.00100	1	11/27/2021 22:55	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/27/2021 22:55	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/27/2021 22:55	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/27/2021 22:55	WG1780339
(S) Toluene-d8	108				80.0-120		11/27/2021 22:55	WG1780339
(S) 4-Bromofluorobenzene	99.6				77.0-126		11/27/2021 22:55	WG1780339
(S) 1,2-Dichloroethane-d4	123				70.0-130		11/27/2021 22:55	WG1780339





















Collected date/time: 11/16/21 12:45

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# SAMPLE RESULTS - 04

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	0.00100	1	11/27/2021 23:15	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/27/2021 23:15	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/27/2021 23:15	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/27/2021 23:15	WG1780339
(S) Toluene-d8	107				80.0-120		11/27/2021 23:15	WG1780339
(S) 4-Bromofluorobenzene	98.9				77.0-126		11/27/2021 23:15	WG1780339
(S) 1,2-Dichloroethane-d4	124				70.0-130		11/27/2021 23:15	WG1780339





















Collected date/time: 11/16/21 13:00

## Page 189 of 209

# SAMPLE RESULTS - 05

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.0000941	0.00100	0.00100	1	11/27/2021 23:35	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/27/2021 23:35	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/27/2021 23:35	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/27/2021 23:35	WG1780339
(S) Toluene-d8	108				80.0-120		11/27/2021 23:35	WG1780339
(S) 4-Bromofluorobenzene	101				77.0-126		11/27/2021 23:35	WG1780339
(S) 1,2-Dichloroethane-d4	127				70.0-130		11/27/2021 23:35	WG1780339





















# SAMPLE RESULTS - 06

Collected date/time: 11/16/21 13:15

## Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000246	<u>J</u>	0.0000941	0.00100	0.00100	1	11/27/2021 23:56	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/27/2021 23:56	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/27/2021 23:56	WG1780339
Total Xylenes	0.000208	<u>J</u>	0.000174	0.00300	0.00300	1	11/27/2021 23:56	WG1780339
(S) Toluene-d8	107				80.0-120		11/27/2021 23:56	WG1780339
(S) 4-Bromofluorobenzene	94.8				77.0-126		11/27/2021 23:56	WG1780339
(S) 1,2-Dichloroethane-d4	122				70.0-130		11/27/2021 23:56	WG1780339



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# SAMPLE RESULTS - 07

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Collected date/time: 11/16/21 11:45

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00402		0.0000941	0.00100	0.00100	1	11/28/2021 00:16	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/28/2021 00:16	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/28/2021 00:16	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/28/2021 00:16	WG1780339
(S) Toluene-d8	107				80.0-120		11/28/2021 00:16	WG1780339
(S) 4-Bromofluorobenzene	98.8				77.0-126		11/28/2021 00:16	WG1780339
(S) 1,2-Dichloroethane-d4	122				70.0-130		11/28/2021 00:16	WG1780339





















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Collected date/time: 11/16/21 13:30

# SAMPLE RESULTS - 08

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000253	<u>J</u>	0.0000941	0.00100	0.00100	1	11/28/2021 00:36	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/28/2021 00:36	WG1780339
Ethylbenzene	U		0.000137	0.00100	0.00100	1	11/28/2021 00:36	WG1780339
Total Xylenes	U		0.000174	0.00300	0.00300	1	11/28/2021 00:36	WG1780339
(S) Toluene-d8	107				80.0-120		11/28/2021 00:36	WG1780339
(S) 4-Bromofluorobenzene	99.5				77.0-126		11/28/2021 00:36	WG1780339
(S) 1,2-Dichloroethane-d4	125				70.0-130		11/28/2021 00:36	WG1780339





















Collected date/time: 11/16/21 14:00

# SAMPLE RESULTS - 09

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.238		0.000941	0.00100	0.0100	10	11/29/2021 20:27	WG1781131
Toluene	0.00813		0.000278	0.00100	0.00100	1	11/28/2021 00:57	WG1780339
Ethylbenzene	0.00645		0.000137	0.00100	0.00100	1	11/28/2021 00:57	WG1780339
Total Xylenes	0.0342		0.000174	0.00300	0.00300	1	11/28/2021 00:57	WG1780339
(S) Toluene-d8	106				80.0-120		11/28/2021 00:57	WG1780339
(S) Toluene-d8	90.9				80.0-120		11/29/2021 20:27	WG1781131
(S) 4-Bromofluorobenzene	101				77.0-126		11/28/2021 00:57	WG1780339
(S) 4-Bromofluorobenzene	91.9				77.0-126		11/29/2021 20:27	WG1781131
(S) 1,2-Dichloroethane-d4	119				70.0-130		11/28/2021 00:57	WG1780339
(S) 1,2-Dichloroethane-d4	131	J1			70.0-130		11/29/2021 20:27	WG1781131





















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SAMPLE RESULTS - 10

Collected date/time: 11/16/21 00:00

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	<del></del>
Benzene	0.231		0.000941	0.00100	0.0100	10	11/29/2021 20:48	WG1781131
Toluene	0.00804		0.000278	0.00100	0.00100	1	11/28/2021 01:17	WG1780339
Ethylbenzene	0.00637		0.000137	0.00100	0.00100	1	11/28/2021 01:17	WG1780339
Total Xylenes	0.0343		0.000174	0.00300	0.00300	1	11/28/2021 01:17	WG1780339
(S) Toluene-d8	107				80.0-120		11/28/2021 01:17	WG1780339
(S) Toluene-d8	90.3				80.0-120		11/29/2021 20:48	WG1781131
(S) 4-Bromofluorobenzene	98.8				77.0-126		11/28/2021 01:17	WG1780339
(S) 4-Bromofluorobenzene	93.1				77.0-126		11/29/2021 20:48	WG1781131
(S) 1,2-Dichloroethane-d4	122				70.0-130		11/28/2021 01:17	WG1780339
(S) 1,2-Dichloroethane-d4	125				70.0-130		11/29/2021 20:48	WG1781131





















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# SAMPLE RESULTS - 11

Collected date/time: 11/16/21 14:15

L1433771

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0920		0.0000941	0.00100	0.00100	1	11/28/2021 01:38	WG1780339
Toluene	0.283		0.00278	0.00100	0.0100	10	11/29/2021 21:09	WG1781131
Ethylbenzene	0.110		0.000137	0.00100	0.00100	1	11/28/2021 01:38	WG1780339
Total Xylenes	0.132		0.000174	0.00300	0.00300	1	11/28/2021 01:38	WG1780339
(S) Toluene-d8	107				80.0-120		11/28/2021 01:38	WG1780339
(S) Toluene-d8	96.3				80.0-120		11/29/2021 21:09	WG1781131
(S) 4-Bromofluorobenzene	99.0				77.0-126		11/28/2021 01:38	WG1780339
(S) 4-Bromofluorobenzene	94.3				77.0-126		11/29/2021 21:09	WG1781131
(S) 1,2-Dichloroethane-d4	119				70.0-130		11/28/2021 01:38	WG1780339
(S) 1,2-Dichloroethane-d4	129				70.0-130		11/29/2021 21:09	WG1781131





















# SAMPLE RESULTS - 12

Collected date/time: 11/16/21 13:45

## Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00343		0.0000941	0.00100	0.00100	1	11/28/2021 01:58	WG1780339
Toluene	U		0.000278	0.00100	0.00100	1	11/29/2021 19:22	WG1781131
Ethylbenzene	0.000146	<u>J</u>	0.000137	0.00100	0.00100	1	11/28/2021 01:58	WG1780339
Total Xylenes	0.000422	<u>J</u>	0.000174	0.00300	0.00300	1	11/28/2021 01:58	WG1780339
(S) Toluene-d8	107				80.0-120		11/28/2021 01:58	WG1780339
(S) Toluene-d8	96.9				80.0-120		11/29/2021 19:22	WG1781131
(S) 4-Bromofluorobenzene	100				77.0-126		11/28/2021 01:58	WG1780339
(S) 4-Bromofluorobenzene	99.8				77.0-126		11/29/2021 19:22	WG1781131
(S) 1,2-Dichloroethane-d4	123				70.0-130		11/28/2021 01:58	WG1780339
(S) 1,2-Dichloroethane-d4	128				70.0-130		11/29/2021 19:22	WG1781131







# Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Dibenzofuran	0.000614		0.0000191	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/23/2021 13:34	WG1778019
Fluorene	0.000209		0.0000169	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Naphthalene	0.000334		0.0000917	0.000250	0.000250	1	11/23/2021 13:34	WG1778019
Phenanthrene	0.000252		0.0000180	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/23/2021 13:34	WG1778019
1-Methylnaphthalene	0.000339	<u>J4</u>	0.0000687	0.000250	0.000250	1	11/23/2021 13:34	WG1778019
2-Methylnaphthalene	U	<u>J4</u>	0.0000674	0.000250	0.000250	1	11/23/2021 13:34	WG1778019
(S) Nitrobenzene-d5	86.8				31.0-160		11/23/2021 13:34	WG1778019
(S) 2-Fluorobiphenyl	92.6				48.0-148		11/23/2021 13:34	WG1778019
(S) p-Terphenyl-d14	117				37.0-146		11/23/2021 13:34	WG1778019

### Sample Narrative:

L1433771-12 WG1778019: Duplicate Analysis performed due to QC failure. Results confirm; reporting in hold data













# SAMPLE RESULTS - 13

Collected date/time: 11/17/21 11:40

## Volatile Organic Compounds (GC/MS) by Method 8260B

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	1.61		0.00235	0.00100	0.0250	25	11/29/2021 21:31	WG1781131
Toluene	0.403		0.00695	0.00100	0.0250	25	11/29/2021 21:31	WG1781131
Ethylbenzene	0.0499		0.000137	0.00100	0.00100	1	11/28/2021 02:18	WG1780339
Total Xylenes	0.240		0.000174	0.00300	0.00300	1	11/28/2021 02:18	WG1780339
(S) Toluene-d8	103				80.0-120		11/28/2021 02:18	WG1780339
(S) Toluene-d8	94.6				80.0-120		11/29/2021 21:31	WG1781131
(S) 4-Bromofluorobenzene	98.3				77.0-126		11/28/2021 02:18	WG1780339
(S) 4-Bromofluorobenzene	94.9				77.0-126		11/29/2021 21:31	WG1781131
(S) 1,2-Dichloroethane-d4	122				70.0-130		11/28/2021 02:18	WG1780339
(S) 1,2-Dichloroethane-d4	126				70.0-130		11/29/2021 21:31	WG1781131

# 3 Ss







# Semi Volatile Organic Compounds $\,$ (GC/MS) by Method 8270C-SIM $\,$

	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	<u>Batch</u>
Analyte	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Acenaphthene	0.000543		0.0000190	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Chrysene	0.0000319	<u>J</u>	0.0000179	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Dibenzofuran	0.00388		0.0000191	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Fluoranthene	0.0000372	<u>J</u>	0.0000270	0.000100	0.000100	1	11/24/2021 09:39	WG1778249
Fluorene	0.00332		0.0000169	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Naphthalene	0.0552		0.0000917	0.000250	0.000250	1	11/24/2021 09:39	WG1778249
Phenanthrene	0.00297		0.0000180	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
Pyrene	0.0000344	<u>J</u>	0.0000169	0.0000500	0.0000500	1	11/24/2021 09:39	WG1778249
1-Methylnaphthalene	0.0542		0.0000687	0.000250	0.000250	1	11/24/2021 09:39	WG1778249
2-Methylnaphthalene	0.0272		0.0000674	0.000250	0.000250	1	11/24/2021 09:39	WG1778249
(S) Nitrobenzene-d5	124				31.0-160		11/24/2021 09:39	WG1778249
(S) 2-Fluorobiphenyl	103				48.0-148		11/24/2021 09:39	WG1778249
(S) p-Terphenyl-d14	115				37.0-146		11/24/2021 09:39	WG1778249











**PAGE**: 23 of 33

**DATE/TIME:** 12/02/21 11:57

SDG: L1433771

PROJECT: SRS CHEVRON GRAYBURG

ACCOUNT: Plains All American, LP - GHD

WG1780339	(GC/I	MS) by Metho	d 8260B	QUALITY CONTROL SUMMARY L1433771-01,02,03,04,05,06,07,08,09,10,11,12,13	Recei
passing (MB)					ived (
(MB) R3734599-3 11/27/21 21:33	1 21:33				by (
ma	MB Result	MB Qualifier	MB MDL	MB RDL	0 C.
Analyte	l/gm		mg/l	l/gm	D:
Senzene	n		0.0000941	0.00100	3/2
Sethylbenzene	Π		0.000137	0.00100	<b>4</b> /4
enene <u>Z</u> Zoluene	n		0.000278	0.00100	3 <i>0</i> 2
Xylenes, Total	Π		0.000174	0.00300	22 2
(S) Toluene-d8	109			80.0-120	<b>27</b>
(S) 4-Bromofluorobenzene	97.9			77.0-126	0:5
S) 1,2-Dichloroethane-d4	122			70.0-130	3 PM
Laboratory Control	Sample (L	.CS) • Labo	ratory Con	Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)	Sr

	-									
(LCS) R3734599-1 11/27/21 20:32 • (LCSD) R3734599-2 11/27/21 20:53	21 20:32 • (LCSD	n) R3734599-2	11/27/21 20:53							
	Spike Amount LCS Result	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCS Qualifier LCSD Qualifier RPD	RPD Limits	ts
Analyte	mg/l	l/bm	l/gm	%	%	%		%	%	
Benzene	0.00500	0.00548	0.00538	110	108	70.0-123		1.84	20	
Ethylbenzene	0.00500	0.00531	0.00513	106	103	79.0-123		3.45	20	
Toluene	0.00500	0.00523	0.00499	105	8.66	79.0-120		4.70	20	
Xylenes, Total	0.0150	0.0149	0.0145	99.3	2.96	79.0-123		2.72	20	
(S) Toluene-d8				601	901	80.0-120				
(S) 4-Bromofluorobenzene				99.2	99.2	77.0-126				
(S) 1,2-Dichloroethane-d4				126	124	70.0-130				

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**PAGE**: 24 of 33

DATE/TIME: 12/02/21 11:57

SDG: L1433771

PROJECT: SRS CHEVRON GRAYBURG

ACCOUNT: Plains All American, LP - GHD

WG1781131 Palvolatile Organic Compounds (GC/MS) by Method 8260B	ounds (GC/MS	) by Methoo	d 8260B	g	QUALITY	CONTROL SUMMARY	OL SUM	MARY		Rece
hod Blank (MB										ived (
R3734978-3 11/29/2	113:13 MB Result	MB Qualifier	MB MDI	MB RDI						by O
/te	mg/l		mg/l	mg/l						CD:
rene	n		0.0000941	0.00100						3/2
//Toluene	D		0.000278	0.00100						<b>24</b> /1
(S) Toluene-d8	91.2			80.0-120						202
(S) 4-Bromofluorobenzene	93.0			77.0-126						22 2
25.1.2-Dichloroethane-d4 128 70.0-130	128			70.0-130						2540:53 in
boratory Contro	I Sample (LC	S) • Labor	atory Contr	ol Sample	• Duplicate	(LCSD)				<i>PM</i> ⊢
S) R3734978-1 11/29/2	112:09 • (LCSD) F	33734978-2	1/29/21 12:30							9
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier RPD	RPD Limits	Sr
lyte	mg/l	mg/l	l/gm	%	%	%		%	%	7
Benzene	0.00500	0.00485	0.00502	97.0	100	70.0-123		3.44	20	, Qc
Toluene	0.00500	0.00479	0.00419	95.8	83.8	79.0-120		13.4	20	
(S) Toluene-d8				1.96	0.06	80.0-120				_را
(S) 4-Bromofluorobenzene				100	97.6	77.0-126				5
(S) 1,2-Dichloroethane-d4				729	92.0	70.0-130				SC SC

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**DATE/TIME:** 12/02/21 11:57

SDG: L1433771

SRS CHEVRON GRAYBURG PROJECT:

Plains All American, LP - GHD ACCOUNT:

# QUALITY CONTROL SUMMARY 11433771-12

Received by OCD: 3/24/202

**53** <u>P</u>M

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Sc

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WG1778019
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM
PMethod Blank (MB)

		1.15
1		11/12/11/1E
3		C VOV
		NAD 3070EADA
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	MB Result M	MB Qualifier	MB MDL	MB RDL
ng and a second and a second a			mg/l	l/gm
Anthracene	Π		0.00000190	0.0000500
Acenaphthene	Π		0.0000190	0.0000500
Acenaphthylene	n		0.0000171	0.0000500
Benzo(a)anthracene	Π		0.0000203	0.0000500
ABenzo(a)pyrene	n		0.0000184	0.0000500
Benzo(b)fluoranthene	Π		0.0000168	0.0000500
Benzo(g,h,i)perylene	n		0.0000184	0.0000500
Benzo(k)fluoranthene	Π		0.0000202	0.0000500
Chrysene	n		0.0000179	0.0000500
Dibenz(a,h)anthracene	Π		0.0000160	0.0000500
Fluoranthene	n		0.0000270	0.000100
Fluorene	Π		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	n		0.0000158	0.0000500
Naphthalene	Π		0.0000917	0.000250
Phenanthrene	n		0.0000180	0.0000500
Pyrene	Π		0.0000169	0.0000500
1-Methylnaphthalene	n		0.0000687	0.000250
2-Methylnaphthalene	Π		0.0000674	0.000250
Dibenzofuran	Π		0.0000191	0.0000500
(S) Nitrobenzene-d5	88.0			31.0-160
(S) 2-Fluorobiphenyl	84.5			48.0-148
(S) p-Terphenyl-d14	98.0			37.0.146

# Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3735494-1 11/23/2110:35 • (LCSD) R3735494-2 11/23/2110:55	3/21 10:35 • (LCSL	J) R3735494-2	11/23/21 10:55							
	Spike Amoun	Spike Amount LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier		RPD Limits
Analyte	l/gm	l/gm	mg/l	%	%	%			%	%
Dibenzofuran	0.00200	0.00166	0.00145	83.0	72.5	67.0-134			13.5	20
Anthracene	0.00200	0.00160	0.00147	80.0	73.5	67.0-150			8.47	20
Acenaphthene	0.00200	0.00168	0.00147	84.0	73.5	65.0-138			13.3	20
Acenaphthylene	0.00200	0.00169	0.00150	84.5	75.0	66.0-140			11.9	20
Benzo(a)anthracene	0.00200	0.00155	0.00163	77.5	81.5	61.0-140			5.03	20
Benzo(a)pyrene	0.00200	0.00142	0.00152	71.0	76.0	60.0-143			08.9	20
Benzo(b)fluoranthene	0.00200	0.00154	0.00162	77.0	81.0	58.0-141			5.06	20
Benzo(g,h,i)perylene	0.00200	0.00131	0.00140	65.5	70.0	52.0-153			6.64	20
Benzo(k)fluoranthene	0.00200	0.00151	0.00167	75.5	83.5	58.0-148			10.1	20
Chrysene	0.00200	0.00164	0.00175	82.0	87.5	64.0-144			6.49	20
Dibenz(a,h)anthracene	0.00200	0.00123	0.00136	61.5	0.89	52.0-155			10.0	20

**PAGE**: 26 of 33

**DATE/TIME:** 12/02/21 11:57

SDG: L1433771

SRS CHEVRON GRAYBURG

Plains All American, LP - GHD ACCOUNT:

PROJECT:

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WG1778019 Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	Compounds	(GC/MS) by I	Method 82700		QUALITY (	CONTRO L1433771-12	CONTROL SUMMARY	MARY		Rece
PLaboratory Control Sample (LCS) • Laboratory Control Sample Duplicate	I Sample (LC	S) • Labor	atory Contr	ol Sample	Duplicate	(LCSD)				ived (
(LCS) R3735494-1 11/23/2110:35 • (LCSD) R3735494-2 11/23/2110:55	110:35 • (LCSD) I	R3735494-2 1	1/23/21 10:55							by (
ma	Spike Amount LCS Result	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier RPD	RPD Limits	O C.
Analyte	l/gm	mg/l	mg/l	%	%	%		%	%	D:
Fluoranthene	0.00200	0.00151	0.00141	75.5	70.5	69.0-153		6.85	20	3/2
8/3/Fluorene	0.00200	0.00165	0.00148	82.5	74.0	64.0-136		10.9	20	24/2 E
Indeno(1,2,3-cd)pyrene	0.00200	0.00121	0.00132	60.5	0.99	54.0-153		8.70	20	02
Naphthalene	0.00200	0.00154	0.00132	77.0	0.99	61.0-137		15.4	20	2 2
Phenanthrene	0.00200	0.00178	0.00165	0.68	82.5	62.0-137		7.58	20	254
44 byrene	0.00200	0.00213	0.00202	106	101	60.0-142		5.30	20	0:5
Methylnaphthalene	0.00200	0.00148	0.00127	74.0	63.5	66.0-142		<u>J4</u> 15.3	20	3 <u>I</u>
2-Methylnaphthalene	0.00200	0.00138	0.00115	0.69	57.5	62.0-136		18.2	20	PM
(S) Nitrobenzene-d5				87.5	85.5	31.0-160				9
(S) 2-Fluorobiphenyl				85.5	76.5	48.0-148				Ş
(S) p-Terphenyl-d14				0.96	102	37.0-146				

27 of 33 PAGE:

12/02/21 11:57 DATE/TIME:

SDG: L1433771

SRS CHEVRON GRAYBURG PROJECT:

Plains All American, LP - GHD ACCOUNT:

# QUALITY CONTROL SUMMARY

Received by OCD: 3/24/202

WG1778249
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM
PWethod Blank (MB)

(	11/24/21 09:19
	(MB) R3733537-3 11/24/21 09:19
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	MB Qualifier	MB MDL mg/l	MB RDL mg/l
		0.0000190	0.0000500
		0.0000171	0.0000500
		0.0000184	0.0000500
		0.0000168	0.0000500
		0.0000184	0.0000500
		0.0000202	0.0000500
		0.0000179	0.0000500
		0.0000160	0.0000500
		0.0000270	0.000100
		0.0000169	0.0000500
		0.0000158	0.0000500
		0.0000917	0.000250
		0.0000180	0.0000500
		0.0000169	0.0000500
		0.0000687	0.000250
		0.0000674	0.000250
31.0.160 48.0.148 37.0.146		0.0000191	0.0000500
48.0-148 37.0-146			31.0-160
37.0-146			48.0-148
			37.0-146

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# Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3733537-1 11/24/21 08:39 • (LCSD) R3733537-2 11/24/21 08:59

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	LCSD Result LCS Rec. LCSD Rec. Rec. Limits LCS Qualiffer mg/l % % % 0.00221 106 111 67.0-134
150	102 106
-138 -140	0.00214 104 107 65.0-138 0.00208 100 104 66.0-140
140	90.5 87.0
-143 -141	0.00133 /3.0 66.5 60.0-143 0.00139 72.5 69.5 58.0-141
-153	0.00125 70.5 62.5 52.0-153
-148	0.00124 69.5 62.0 58.0-148
-144	0.00165 87.0 82.5 64.0-144
-155	0.00130 73.5 65.0 52.0-155

**PAGE**: 28 of 33

**DATE/TIME:** 12/02/21 11:57

SDG: L1433771

SRS CHEVRON GRAYBURG

Plains All American, LP - GHD ACCOUNT:

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WG1778249 Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	Compounds (	GC/MS) by	Method 8270		QUALITY (	CONTROL SUMMARY L1433771-13	DL SUM	MARY		Rece
Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate	I Sample (LC	S) • Labor	atory Cont	rol Sampl	e Duplicate	(LCSD)				
CLCS) R3733537-1 11/24/2	1 08:39 • (LCSD) F	33733537-2	11/24/21 08:59							
Spike Amount LCS Result LCSD Result	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier RPD	RPD Limits	
Analyte	l/gm	mg/l	mg/l	%	%	%		%	%	
S Fluoranthene	0.00200	0.00218	0.00221	109	111	69.0-153		1.37	20	
8/3/Fluorene	0.00200	0.00227	0.00236	114	118	64.0-136		3.89	20	
Indeno(1,2,3-cd)pyrene	0.00200	0.00144	0.00129	72.0	64.5	54.0-153		11.0	20	
Naphthalene	0.00200	0.00195	0.00200	97.5	100	61.0-137		2.53	20	
Phenanthrene	0.00200	0.00214	0.00222	107	111	62.0-137		3.67	20	
by Pyrene	0.00200	0.00197	0.00203	98.5	102	60.0-142		3.00	20	0:5
Methylnaphthalene	0.00200	0.00202	0.00209	101	105	66.0-142		3.41	20	
2-Methylnaphthalene	0.00200	0.00192	0.00199	0.96	99.5	62.0-136		3.58	20	
(S) Nitrobenzene-d5				0.86	102	31.0-160				
(S) 2-Fluorobiphenyl				111	115	48.0-148				
(S) p-Terphenyl-d14				93.5	87.5	37.0-146				

# **GLOSSARY OF TERMS**

### Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

### Abbreviations and Definitions

Appreviations and	a Definitions
MDL	Method Detection Limit.
MQL	Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
SDL	Sample Detection Limit.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Sample Detection Limit.
Unadj. MQL	Unadjusted Method Quantitation Limit.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
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J	The identification of the analyte is acceptable; the reported value is an estimate.
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.
J4	The associated batch QC was outside the established quality control range for accuracy.

















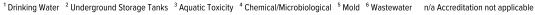






Pace Analytical Nationa	I 12065 Lebanon Rd	Mount Juliet	TN 37122
T acc Allarytical Nations	1 12005 ECDUITOTI NU	Would Juliet,	111 0/122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey-NELAP	TN002
California	2932	New Mexico <sup>1</sup>	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina <sup>1</sup>	DW21704
Georgia	NELAP	North Carolina <sup>3</sup>	41
Georgia <sup>1</sup>	923	North Dakota	R-140
Idaho	TN00003	Ohio-VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
lowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky <sup>1 6</sup>	KY90010	South Carolina	84004002
Kentucky <sup>2</sup>	16	South Dakota	n/a
Louisiana	Al30792	Tennessee 14	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas ⁵	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 <sup>5</sup>	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234



<sup>\*</sup> Not all certifications held by the laboratory are applicable to the results reported in the attached report.

TN00003

EPA-Crypto





















 $<sup>^*\,</sup>Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.$ 

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Plains All American, LP - GHD		Billing Information:						Analysis /	Containe		Chain of Custody Page 1 of 2			
2135 S Loop 250 W Midland, TX 79703			Attn: Camille Bryant 10 Desta Dr., Ste. 550E Midland, TX 79705			Pres Chk								ace Analytical*
												-	Nati	onal Center for Testing & Innovation
Report to: Becky Haskell				Email To: becky.haskell@ghd.com				TA					12065 Leban Mount Juliet, Phone: 615-7	TN 37122
Project Chevron Grayburg 6-Inch Historical Description:				City/State Bud			res-					Phone: 800-7 Fax: 615-758	67-5859	
Phone: 432-250-7917 Fax:  Client Project # SRS Chevron Graybo 6-Inch Historical			urg	SRS Chevro 6-Inch Histo	n Grayburg orical		7	40mLAmb-NoPres-WT	Jon-de				L+ /	955/71
Collected by (print):  David Fletcher  Joe Mireles  Site/Facility ID #  SRS Chevron Grayb			urg	P.O. #		о-нс	nLAr					Acctnum:		
Collected by (signature):  Rush? (Lab MUST Be Same DayFive			Quote #			Am						Template Prelogin:		
Immediately Packed on Ice N Y	Next Da	y 5 Day y 10 Da	(Rad Only) y (Rad Only)		AT Per SSOW	No.	BTEX 40mLAmb-HCL	PAHSIMLVI					TSR: PB:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTE)	PAH					Shipped V	
MW-2-111621	G	GW	-	11-16-21	1200	3	X							-01
MW-4-111621		1		1	1215	1	1							-02
mw-5-111621					1230									-03
mw-13-11/621					1245									-04
MW-14-111621					1300									-05
MW-6-111621					1315									-06
mw-10-11/621					1145	1								-07
mw-3-111621					1330	1	1							-08
MW-11-11/621	V	V	1	V	1400	V	V							1-09
D4P-111621	6	GW	_	11-16-2	.1	3	X							-10
* Matrix: SS - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater				imated conce -11209906					pH		Temp	COC S Bottl	Sample Receip Seal Present/In Signed/Accurate es arrive inta	tact: _NP _Y VN : _N _N ct:N
DW - Drinking Water OT - Other	Samples retur	ned via:	rier	T	racking #								ct bottles use cient volume s If Appl	ent: X_N
Relinquished by: (Signature)		Date: //-/7.	Т		eceived by (Signat	ture	9		Trip Blar	nk Receive	d: YESY No HCL Meol	Prese	ero Headspace: rvation Correc	VI_N
Relinquished by : (Signature)		Date: 11-18		ime: R	eceived by: (Signat				Temp: 2.6	°c to=2	Bottles Received:	lf pres	ervation required	by Login: Date/Time
Relinquished by : (Signature)		Date:		ime: R	eceived for lab by:	(Signat	dre)		Date:	1/21	Time: 900	Hold:		Condition: NCF OK

Page 206 of 209

Plains All American, LP - GHD		Attn: Camille Bryant 10 Desta Dr., Ste. 550E Midland, TX 79705			T		Analysis / Container / Preservative							10	Chain of Custody	Page 2 of 2		
2135 S Loop 250 W Midland, TX 79703	Pres Chk														Pace National C	nalytical®		
Report to: Becky Haskell				Email To: becky.haskell@ghd.com				TV								1	12065 Lebanon Rd Mount Juliet, TN 37	
Project Chevron Grayburg Description:	6-Inch Histo	orical		City/State Buckeye, NM				res-l	3								Phone: 615-758-58 Phone: 800-767-58 ax: 615-758-5859	
Phone: 432-250-7917 Fax:  Collected by (print): Joe Marting David Fletcher	Client Project SRS Chevr 6-Inch His Site/Facility ID SRS Chevr	on Grayb torical		Lab Project # SRS Chevro 6-Inch Histo P.O. #	vron Grayburg		-HCL	PAHSIMLVI 40mLAmb-NoPres-WT	ding								# 1 4 Table #	3377
Collected by (signature):  The Muller  Immediately  Packed on Ice NY		10 Da			ults Needed AT Per SSOW	No.	BTEX 40mLAmb-HCL	SIMLVI 40n	mpera.							F	Prelogin: PSR:	
Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	BTE	PAH	10							S	hipped Via:	Sample # (lab only)
mw-1-1116-21	6	PW	_	11-16-21	1415	3	X											1-11
MW-9-11/621	1	0-W	1	11-16-21	1345	6	X	X	145	1	1	21						-12
73	6	a4 a	-	11-17-2)	1140	12	X	X	X	Er,	m	11-18	74					-13
Matrix: S - Soil AIR - Air F - Filter GW - Groundwater B - Bioassay WW - WasteWater	Remarks: 1. Report to SDLs; 2. Flag estimated concentrations; 3. Lab Project #: PLAINSGHD-11209906										_ Tem	C		COC Si	Sample Receipt Checklist COC Seal Present/Intact: _NP _Y V COC Signed/Accurate: Bottles arrive intact:			
OW - Drinking Water OT - Other	Samples returned via: Tracking #						Correct Sufficient						t bottl	es used: lume sent: If Applicab	le N			
Relinquished by : (Signature) Date:			ime: Re	Received by (Signature)				Trip Blank Rece				eived: Ves / No HCL / MeoH TBR			VOA Zero Headspace: Preservation Correct/Check			
Relinquished by : (Signature) Date:		Ti	Time: Received by: (Signature)						Temp: °C Bottles Received: 260=2.0 45				ed:	If preservation required by Login: Date/Time			in: Date/Time	
Relinquished by : (Signature)	a de la companya de l	Date:	Ti	me: Ré	(Signati	Signature)			Date: Time: 11/19/21 900			)	Hold:		Condition: NCF / OK			

@9:00

LM 33771

Tracking	T
Numbers	Temperature
	2.6+0=2.6
	29+0=2.9
	The state of the s

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

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 93007

### **CONDITIONS**

Operator:	OGRID:					
PLAINS MARKETING L.P.	34053					
333 Clay Street Suite 1900	Action Number:					
Houston, TX 77002	93007					
	Action Type:					
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)					

### CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2021 Annual Groundwater Monitoring Report: Content satisfactory Contractor recommendations approved by NMOCD and are as follows; 1. Continue quarter MDPE events in monitor well MW-7 2. Conduct LNAPL abatement via hand-bailing on a monthly basis for monitor wells that have a measurable amount of LNAPL 3. Continue NMOCD-approved quarterly groundwater sampling events for BTEX by Method 8021B for all monitor wells located on-site 4. Continue NMOCD-approved annual groundwater sampling event for PAH by Method 8270CSIM for MW-8 and MW-9. MW-7 and MW-12 will need to be sampled once the LNAPL is no longer present 5. Submit the Annual Monitoring Report to the NMOCD no later than March 31, 2023.	8/3/2022