REVIEWED
By Nelson Velez at 8:02 am, Jul 19, 2022

2021 Annual Groundwater Monitoring Report

Darr Angell #1, SRS #Darr Angell #1

NW/4, SE/4 of Section 11, T15S, R37E

Lea County, New Mexico

NMOCD AP-007

Incident ID #: nAPP2108851028

Plains All American Pipeline, L.P.

Review of 2021 Annual Groundwater Monitoring Report: Content satisfactory
Contractor recommendations approved by NMOCD and are as follows;

1. Continue the operation and maintenance of the system in various monitor and recovery wells on a weekly basis.
2. Conduct LNAPL abatement via hand-bailing on a weekly basis for monitor and recovery wells that have a measurable amount of LNAPL, but no pump installed.
3. Continue NMOCD-approved quarterly GWSEs for BTEX by Method 8021B for all monitor and recovery wells located on-site.
4. MW-11R, MW-16R, MW-21R, MW-24, and MW-25 have established 2 consecutive years below the NMWQCC criteria for PAH, therefore NMOCD approves the removal from the annual PAH sampling schedule unless they are re-impacted by LNAPL.
5. Sample monitor well MW-2 (if there is sufficient water) for PAH compounds during the fourth quarter of 2022. Additionally, sample any wells that cease to have LNAPL for PAH compounds.
6. Submit the Annual Monitoring Report to the NMOCD no later than March 31, 2023.

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TABLES

APPENDICES

1. Introduction

GHD Services, Inc. (GHD), on behalf of Plains All American Pipeline, L.P. (Plains), submits this Annual Groundwater Monitoring Report (Report) in compliance with New Mexico Oil Conservation Division (NMOCD) requirements. The Site falls under NMOCD Abatement Plan number AP-007. This Report provides the quarterly results of groundwater sampling events (GWSEs) and remediation activities completed at Darr Angell #1 SRS #Darr Angell #1 (Site) during 2021.

The Site is located in NW ¼, SE ¼, Section 11, Township 15 South, Range 37 East in Lea County, New Mexico. The GPS coordinates are 33.026600° N latitude and 103.166600° W longitude. 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 History

The Site was formerly the responsibility of Enron Oil Trading and Transportation (EOTT) and is currently the responsibility of Plains. A pipeline release was discovered by EOTT employees and details were submitted on a Release Notification and Corrective Action Form (C-141) to the New Mexico Oil Conservation Division (NMOCD) on May 1, 1997. According to the release report, approximately 25 barrels of crude oil were released and 15 barrels were recovered during initial response actions. The release was reported to have occurred from an eight-inch EOTT pipeline and was attributed to internal corrosion.

Beginning on May 29, 2004, project management responsibilities were conducted by Nova Training and Environmental. Monitor wells MW-1 through MW-20 and recovery wells RW-1 through RW-10 were installed at the Site between 2000 and 2011.

GHD took over monitoring, remedial activities, and project management on May 2, 2011. A trailer-mounted mobile dual-phase extraction unit was installed and began operating at the Site in October 2012. The system included four AP4 bottom loading pumps, a vapor-liquid separator, an air compressor, a vacuum extraction manifold, and an above-ground tank for storage of extracted Light Non-Aqueous Phase Liquid (LNAPL) and groundwater.

Monitoring wells MW-17, MW-19, and MW-20 were plugged and abandoned with NMOCD approval in October 2014. Replacement monitoring wells MW-17R, MW-19R, and MW-20R, and recovery wells RW-13 and RW-14 were drilled and constructed with NMOCD approval in October 2014. Wells installed in 2014 were professionally surveyed on November 11, 2014.

Monitoring wells MW-12, MW-15, MW-16 and MW-18 were plugged and abandoned with NMOCD approval in February 2017. Monitoring and recovery wells MW-12R, MW-16R, MW-18R, MW-22, MW-23, and RW-12 were installed with NMOCD approval in February 2017. Wells installed in 2017 were professionally surveyed on June 28, 2017.

In July 2019, a Work Plan for Installation of Additional Wells and Plugging Dry Wells was submitted to the NMOCD. The work plan proposed to plug and abandon five monitor wells and two recovery wells and installing four new monitor wells and six new recovery wells. The work plan was proposed because fluid levels in several wells had declined making LNAPL recovery no longer feasible and

delineation of the contaminant plume could no longer be demonstrated using the existing wells. On February 19, 2020, monitor wells MW-3, MW-11, MW-13, MW-14, and MW-21 and recovery wells RW-1 and RW-2 were plugged and abandoned. From February 26 through March 3, 2020, monitoring and recovery wells MW-11R, MW-21R, MW-24, MW-25, RW-1R, and RW-15 through RW-19 were installed at the site.

Currently at the site there are twenty-one (21) monitor wells, MW-1, MW-2, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11R, MW-12R, MW-16R, MW-17R, MW-18R, MW-19R, MW-20R, MW-21R, MW-22, MW-23, MW-24, and MW-25, and eighteen (18) recovery wells, RW-1R, RW-3, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18 and RW-19. The new well locations were professionally surveyed on September 17, 2020.

2. Regulatory Framework

The Site was assigned Remediation Permit Number AP-007 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 NMWQCC 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 GWSEs for 21 monitor wells and 18 recovery wells located on-site. Sample locations can be viewed in the Site Details Map provided as Figure 2. All on-site monitor and recovery wells were sampled in accordance with the following groundwater sampling schedule as approved by the NMOCD:

Table 3.1 NMOCD-Approved Groundwater Sampling Schedule

Sample Location ID	Groundwater Sampling Schedule
MW-1, MW-2, MW-5, MW-6, MW-8, MW-9, MW-10, MW-11R, MW-12R, MW-16R, MW-17R, MW-18R, MW-19R, MW-20R, MW-21R, MW-22, MW-23, MW-24, MW-25, RW-1R, RW-3, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, RW-19	Quarterly
MW-7	Semi-Annually
MW-4	Annually

MW-1, MW-5, MW-8, MW-9, MW-10, MW-11R, MW-16R, MW-21R, MW-24, MW-25, RW-4, RW-5, RW-6, RW-7, RW-8, RW-9, RW-10, and RW-11 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 Sampling Methodology

Static fluid levels were gauged with an oil-water interface probe to the nearest hundredth of a foot for all on-site monitor and recovery wells. Wells not containing LNAPL with sufficient water for sampling were purged of three (3) well volumes of groundwater. Hand-bailing, using clean disposable polyvinyl chloride (PVC) bailers, was the method used for groundwater purging. The purged groundwater was stored in an above-ground storage tank (AST) located at the Site.

Laboratory-supplied containers were filled with groundwater directly from the PVC bailer used for purging, then placed on ice and chilled to a temperature of approximately 4° C. All groundwater samples were analyzed for BTEX by Method 8021B. A duplicate sample was generally collected every 12 wells and analyzed for BTEX by Method 8021B. During the fourth quarter of 2021, select sample locations were analyzed for PAH by Method 8270C-SIM. All groundwater samples were analyzed by Pace Analytical Laboratory in Mt. Juliet, Tennessee. Certified Laboratory Reports and Chain-of-Custody are provided in Appendix C. Monitor and recovery wells containing measurable amounts of light-aqueous phase liquids (LNAPL) were not sampled.

3.2 Laboratory Analytical Results Summary

BTEX analytical results for GWSEs conducted during 2020 and 2021 are included on Table 2, BTEX Analytical Results for Groundwater Sampling Events 2020-2021. BTEX concentrations for the quarterly GWSEs conducted in 2021 are shown on Figure 7, Figure 8, Figure 9, and Figure 10. A summary of PAH analytical results is shown on 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 22, 2021, GHD collected groundwater samples for 13 monitor wells and 1 recovery well. Approximately 129 gallons (gals) of groundwater were purged and stored in the on-site AST. None of the Site wells exhibited BTEX concentrations above the NMWQCC criteria. Results for the analyses of the initial and field duplicate groundwater samples collected at MW-6 and MW-16R were within acceptable ranges.

No groundwater samples were collected at MW-1, MW-5, MW-8, MW-9, MW-10, MW-23, RW-1R, RW-3, RW-4, RW-7, RW-9, RW-10, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, and RW-19 due to measurable amounts of LNAPL gauged in the wells. RW-5, RW-6, and RW-8 were not sampled due to having an insufficient amount of groundwater.

3.2.2 Second Quarter Summary

On May 14, 2021, GHD collected groundwater samples for 13 monitor wells and 1 recovery well. Approximately 131 gals of groundwater were purged and stored in the on-site AST. None of the Site wells exhibited BTEX concentrations above the NMWQCC criteria. Ethylbenzene and xylene was detected in the initial groundwater sample at a concentration below the NMWQCC criteria in MW-12R, but was not detected in the field duplicate. GHD determined this difference was negligible, therefore did not implement any corrective actions. MW-21R exhibited ethylbenzene in both the parent and duplicate sample. Results for the analyses of the initial and field duplicate groundwater samples were within acceptable ranges for benzene, toluene, and total xylenes.

No groundwater samples were collected at MW-1, MW-5, MW-8, MW-9, MW-10, MW-23, RW-1R, RW-4, RW-5, RW-7, RW-9, RW-10, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, and RW-19 due to measurable amounts of LNAPL gauged in the wells. MW-2, MW-10, RW-3, RW-6, and RW-8 were not sampled due to having an insufficient amount of groundwater. MW-7 was sampled as part of the NMOCD-approved semi-annual schedule.

3.2.3 Third Quarter Summary

On August 11, 2021, GHD collected groundwater samples for 13 monitor wells and 1 recovery well. Approximately 124 gals of groundwater were purged and stored in the on-site AST. Analytical results indicated benzene concentrations above 0.01 mg/L in MW-2, with no other Site wells exceeding the benzene standard. None of the Site wells exhibited toluene, ethylbenzene, or total xylenes concentrations above the NMWQCC criteria. Results for the analyses of the initial and field duplicate groundwater samples were within acceptable ranges.

No groundwater samples were collected at MW-1, MW-5, MW-8, MW-9, MW-23, RW-1R, RW-4, RW-7, RW-9, RW-10, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, and RW-19 due to measurable amounts of LNAPL gauged in the wells. MW-10, RW-3, RW-5, RW-6, and RW-8 were not sampled due to having an insufficient amount of groundwater.

3.2.4 Fourth Quarter Summary

On November 11, 2021, GHD collected groundwater samples for 14 monitor wells and 1 recovery well. Approximately 119 gals of groundwater were purged and stored into the on-site AST. Analytical results indicated benzo(a)pyrene concentrations above 0.0002 mg/L, along with combined naphthalene and monomethylnapthalenes concentrations above 0.03 mg/L, in MW-2; with no other Site wells exceeding the PAH standards. None of the Site wells exhibited BTEX concentrations above the NMWQCC criteria. Benzene, toluene, and ethylbenzene were detected in the field duplicate at concentrations below the NMWQCC criteria, but not detected in the initial groundwater sample, at MW-2. GHD determined this difference was negligible, therefore did not implement any corrective actions. Results for the analyses of the initial and field duplicate groundwater samples were within acceptable ranges for total xylenes.

No groundwater samples were collected at MW-1, MW-5, MW-8, MW-23, RW-1R, RW-4, RW-7, RW-9, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, and RW-19 due to measurable amounts of LNAPL gauge in the wells. MW-4, MW-9, MW-10, RW-3, RW-5, RW-6, RW-8, and RW-10 were not sampled due to having an insufficient amount of groundwater. MW-7 was sampled as part of the NMOCD-approved schedule for semi-annual and annual sampling, respectively.

4. Potentiometric Surface and Gradient Summary

During the quarterly GWSEs, 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 southeast, which is consistent with historical data. The average gradient of the potentiometric surface during 2021 is 0.0014 feet per foot (ft./ft.). The annual elevation of the potentiometric surface indicates an average decline of 0.17 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 as Figure 3, Figure 4, Figure 5, and Figure 6.

5. Remediation Activities

Remediation at the Site consists of recovery of soil-vapor by a trailer-mounted automated system which also operated total-fluid pumps in a number of wells. Fluids recovered are transferred to an on-site AST from which fluids are periodically removed for disposal at a licensed facility per directives of Plains. Fluid levels in the AST are gauged periodically to calculate total volumes of fluids recovered at the site. Total volumes recovered less amounts removed for disposal indicate that approximately 1,251.35 gallons of LNAPL were recovered during 2021.

The trailer-mounted groundwater system operated at the Site for a total of 215 days during 2021. The system operates three pumps which are moved between various wells on a quarterly basis based on an assessment of LNAPL thicknesses during gauging events. Soil vapor and total fluids were recovered from RW-1R, RW-13, RW-14, RW-16, and RW-18 during 2021. GHD personnel conducted operation and maintenance (O&M) activities each week to maintain efficient soil vapor and fluid recovery. O&M activities included inspections of well-heads and flow lines, servicing pneumatic total fluid pumps and air compressor, adjustment of depths of total fluid pumps, and gauging of recovered fluids in the storage tank, and general housekeeping tasks.

Samples of emissions from the remediation system were collected on March 15, June 21, August 30 and December 6, 2021, and used to calculate emission rates and total emissions from the remediation system. Using a standard flow rate of 40 cubic ft. per minute, the maximum rate of emissions during 2021 was 4.3710 TPH lb./hour. Total mass of emissions during 2021 was 7.69 tons of TPH, which is below the 10 ton per year limit.

The total volume of LNAPL recovered since the start of the LNAPL abatement program in 1999 is approximately 84,874.09 gallons (2020.81 barrels).

6. Summary of Findings

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

- Wells MW-4, MW-9, MW-10, RW-3, RW-5, RW-6, RW-8, and RW-10 are dry wells.
- Groundwater flow direction is toward the southeast and is consistent with previous monitoring events. The average gradient of the potentiometric surface during 2021 is 0.0014 feet per foot (ft./ft.).
- The annual elevation of the potentiometric surface indicates an average decline of 0.17 ft. during 2021.
- LNAPL was present at 6 monitor wells (MW-1, MW-5, MW-8, MW-9, MW-10, and MW-23) and 15 recovery wells (RW-1R, RW-3, RW-4, RW-5, RW-7, RW-9, RW-10, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18, and RW-19). The average LNAPL thickness is 4.19 ft. The maximum LNAPL thickness was at RW-16 in February 2021, which was 9.27 ft. The minimum LNAPL thickness was at RW-09 in May 2021, which was 0.19 ft. Charts of LNAPL Thickness Versus Time are provided in Appendix A.
    - MW-10, RW-3, RW-6, RW-8, and RW-10 historically have LNAPL at TD; but have gauged dry since March 2021, May 2021, August 2020, January 2021, and October 2021, respectively.
- Pumps are currently operating in RW-13, RW-16, and RW-18.
- No benzene concentrations are consistently above NMWQCC criteria. Charts of Dissolved Benzene Versus Time are provided in Appendix B.

- In 2021, benzene concentrations for MW-2 exceed NMWQCC criteria in August, but not in any other quarterly GWSE. Data for this well varies between below and above NMWQCC criteria. Historically, MW-2 has contained measurable amounts of LNAPL, but no LNAPL has been observed since August of 2018.
- MW-6, MW-7, and RW-12 historically had benzene concentrations exceeding NMWQCC criteria, but all the groundwater samples have exhibited BTEX concentrations below the NMWQCC criteria since September 2020, November 2020, and August 2018, respectively.
- MW-23 had benzene concentrations above the NMWQCC criteria in March 2017, but that was the only GWSE GHD was able to collect groundwater samples. The well has had a measurable amount of LNAPL present subsequent to the March 2017 sampling event. The LNAPL thickness has been increasing since May 2017 and have risen above 5 ft. in 2021.

- Fluctuations in the elevation of the potentiometric surface can be attributed to the on-site removal of groundwater and LNAPL.
- MW-11R, MW-16R, MW-21R, MW-24, and MW-25 have established 2 consecutive years below the NMWQCC criteria for PAH. MW-9, MW-10, RW-3, RW-5, RW-6, RW-8, and RW-10 cannot be sampled due to being dry.
- The total volume of LNAPL recovered since the start of the LNAPL abatement program in 1999 is approximately 84,874.09 gallons (2020.81 barrels).

7. Recommendations

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

- Continue the operation and maintenance of the system in various monitor and recovery wells on a weekly basis.
- Conduct LNAPL abatement via hand-bailing on a weekly basis for monitor and recovery wells that have a measurable amount of LNAPL, but no pump installed.
- Continue NMOCD-approved quarterly GWSEs for BTEX by Method 8021B for all monitor and recovery wells located on-site.
- MW-11R, MW-16R, MW-21R, MW-24, and MW-25 have established 2 consecutive years below the NMWQCC criteria for PAH, therefore these wells will be removed from the annual PAH sampling schedule unless they are re-impacted by LNAPL. Monitor well MW-2 (if there is sufficient water) will be sampled for PAH compounds during the fourth quarter of 2022. Additionally, any wells that cease to have LNAPL will be sampled for PAH compounds.

All of Which is Respectfully Submitted,

GHD

Rebecca Haskell

Senior project Manager

Thomas C Larson

Midland Operations Manger

about GHD

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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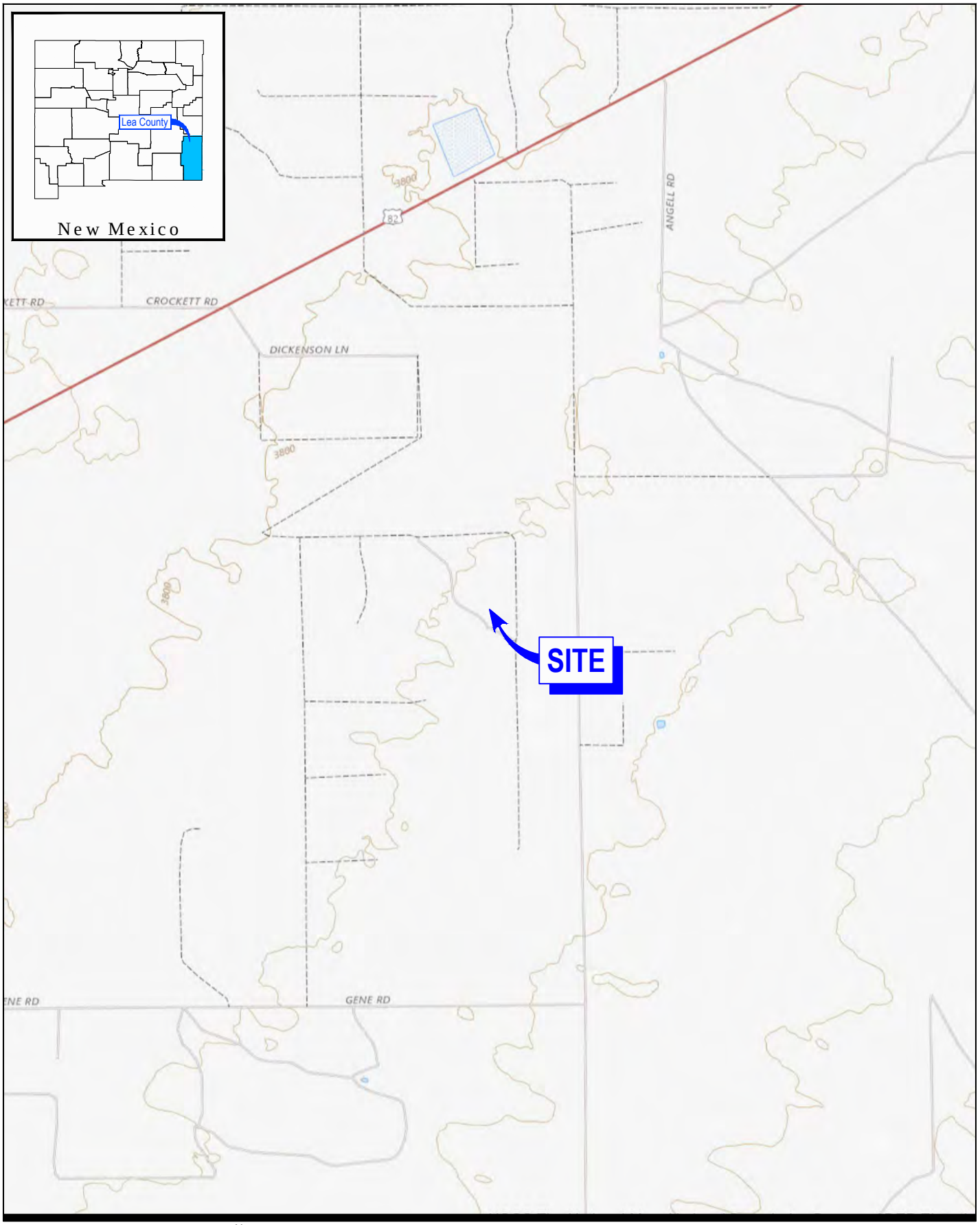
Figures



0 1000 2000 ft

N

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

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

Project No. **11209885**
Date **May 2021**

SITE LOCATION MAP

FIGURE 1

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
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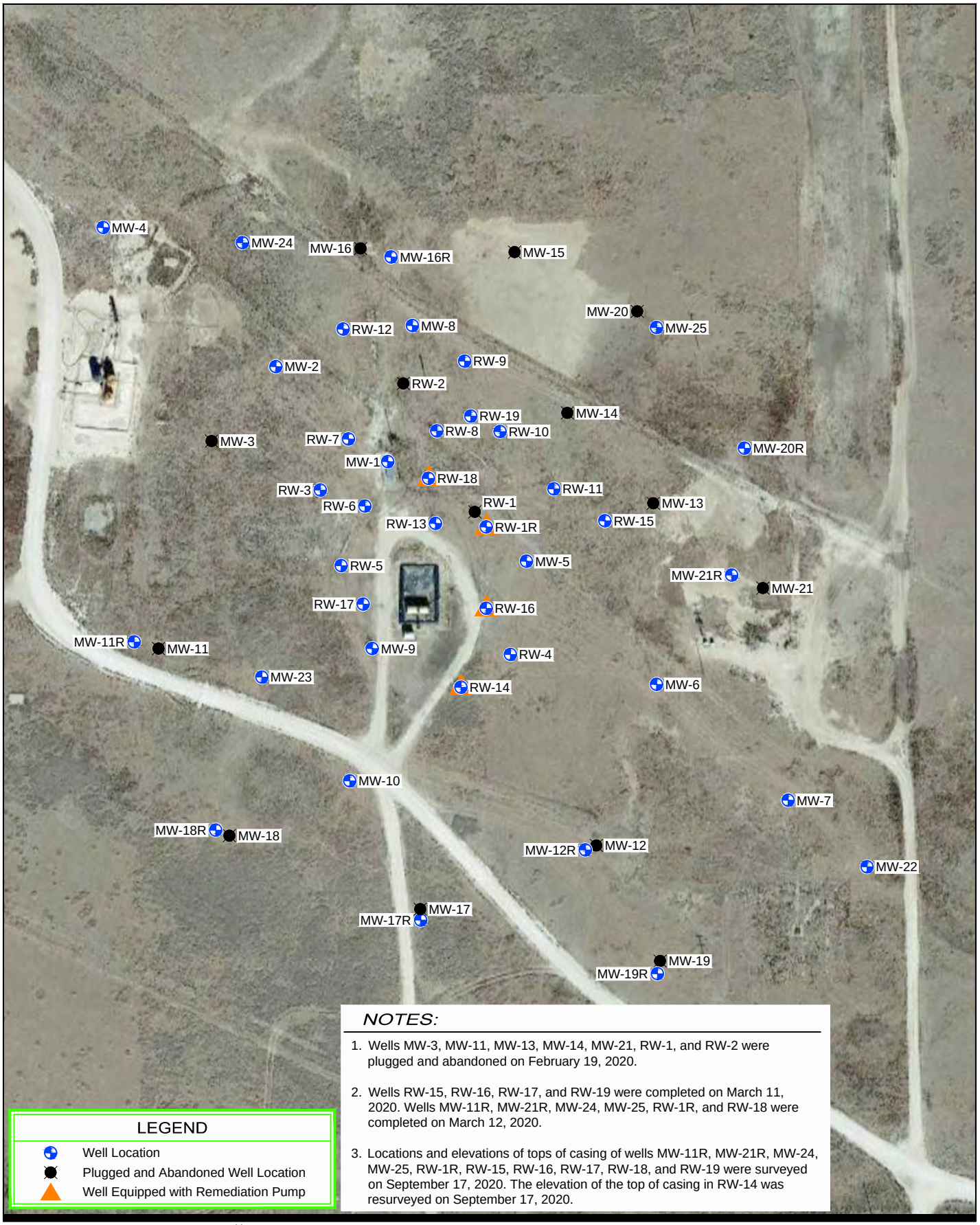

NOTES:

1. Wells MW-3, MW-11, MW-13, MW-14, MW-21, RW-1, and RW-2 were plugged and abandoned on February 19, 2020.
2. Wells RW-15, RW-16, RW-17, and RW-19 were completed on March 11, 2020. Wells MW-11R, MW-21R, MW-24, MW-25, RW-1R, and RW-18 were completed on March 12, 2020.
3. Locations and elevations of tops of casing of wells MW-11R, MW-21R, MW-24, MW-25, RW-1R, RW-15, RW-16, RW-17, RW-18, and RW-19 were surveyed on September 17, 2020. The elevation of the top of casing in RW-14 was resurveyed on September 17, 2020.

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump

0 75 150 ft

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

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

Project No. **11209885**
Date **May 2021**

SITE DETAILS MAP

FIGURE 2

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
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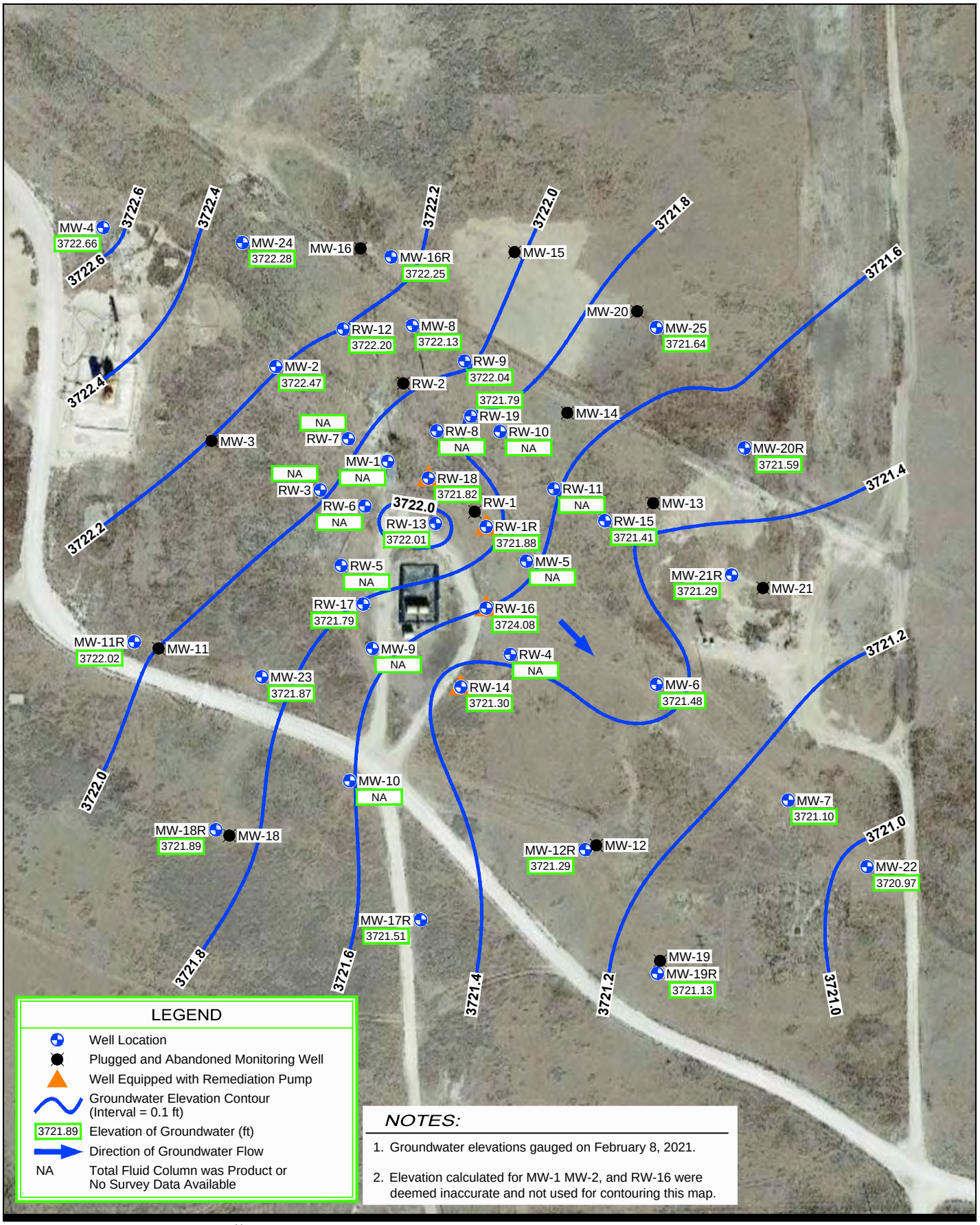

0 75 150 ft

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

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

GROUNDWATER GRADIENT MAP
FEBRUARY 8, 2021

Project No. 11209885
Date January 2022

FIGURE 3

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
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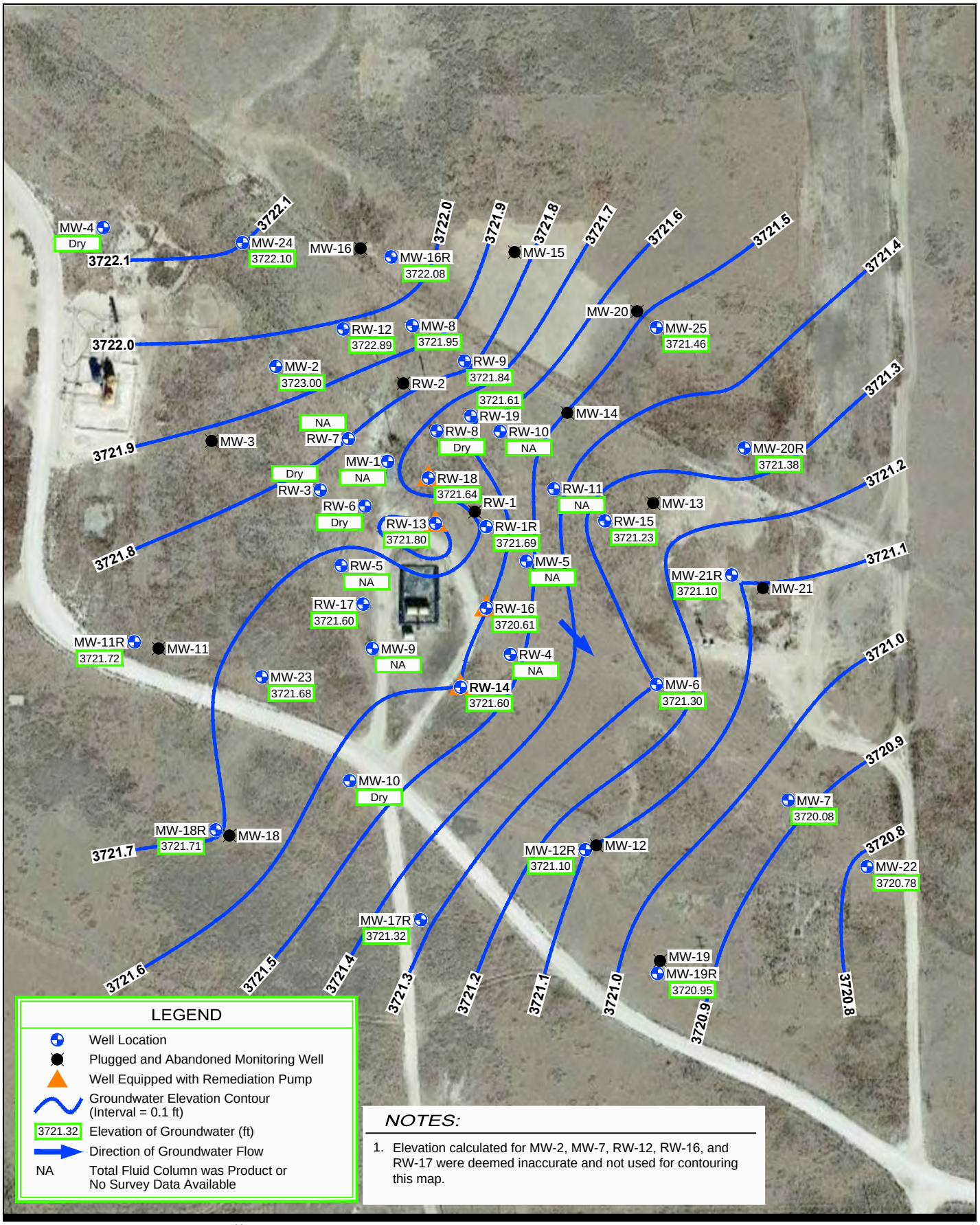

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

GROUNDWATER GRADIENT MAP
MAY 10, 2021

Project No. 11209885
Date October 2021

FIGURE 4

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
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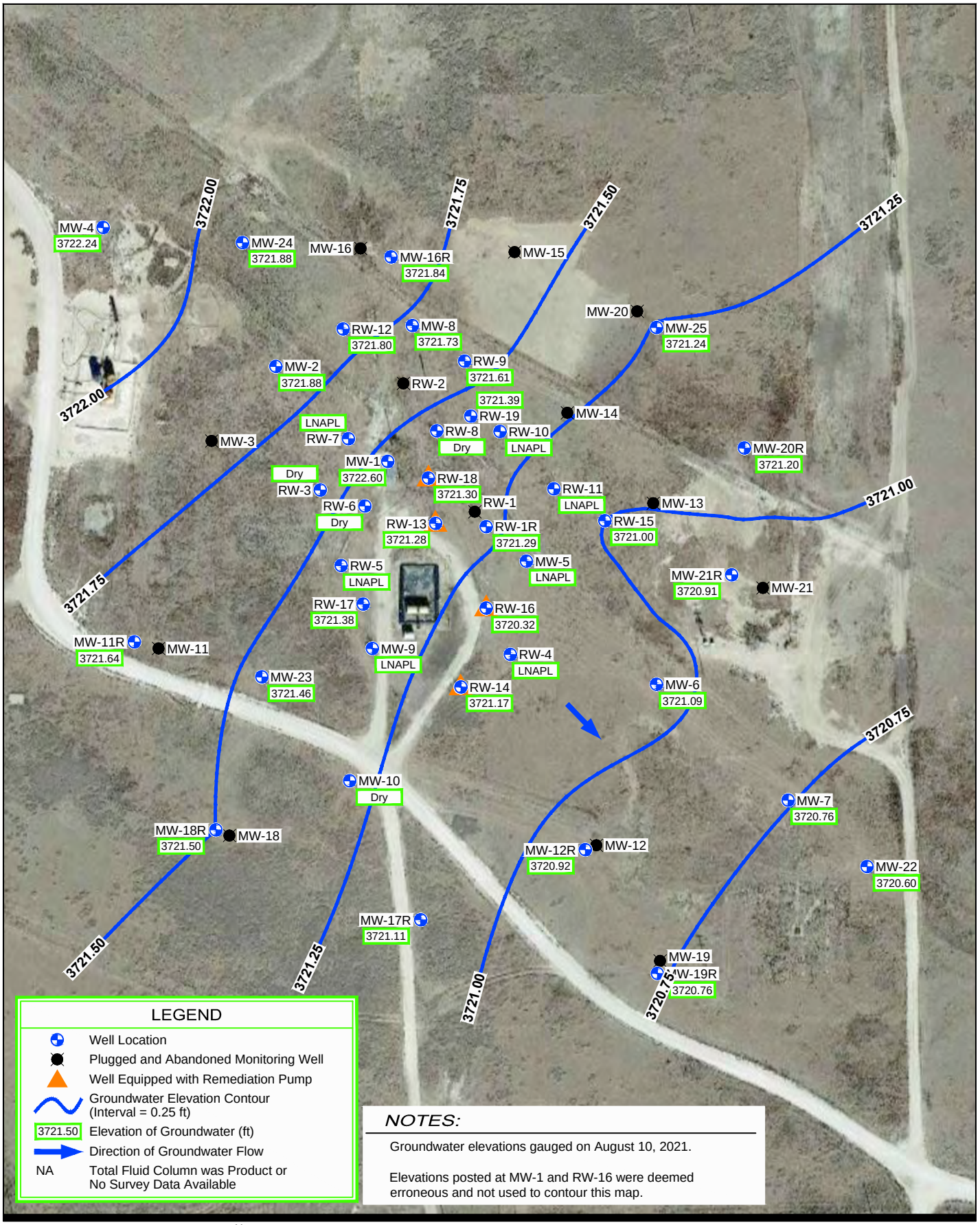

LEGEND

- Well Location
- Plugged and Abandoned Monitoring Well
- Well Equipped with Remediation Pump
- Groundwater Elevation Contour (Interval = 0.25 ft)
- 3721.50 — Elevation of Groundwater (ft)
- Direction of Groundwater Flow
- NA — Total Fluid Column was Product or No Survey Data Available

NOTES:

Groundwater elevations gauged on August 10, 2021.

Elevations posted at MW-1 and RW-16 were deemed erroneous and not used to contour this map.

0 75 150 ft

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

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

GROUNDWATER GRADIENT MAP
AUGUST 10, 2021

Project No. **11209885**
Date **October 2021**

FIGURE 5

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
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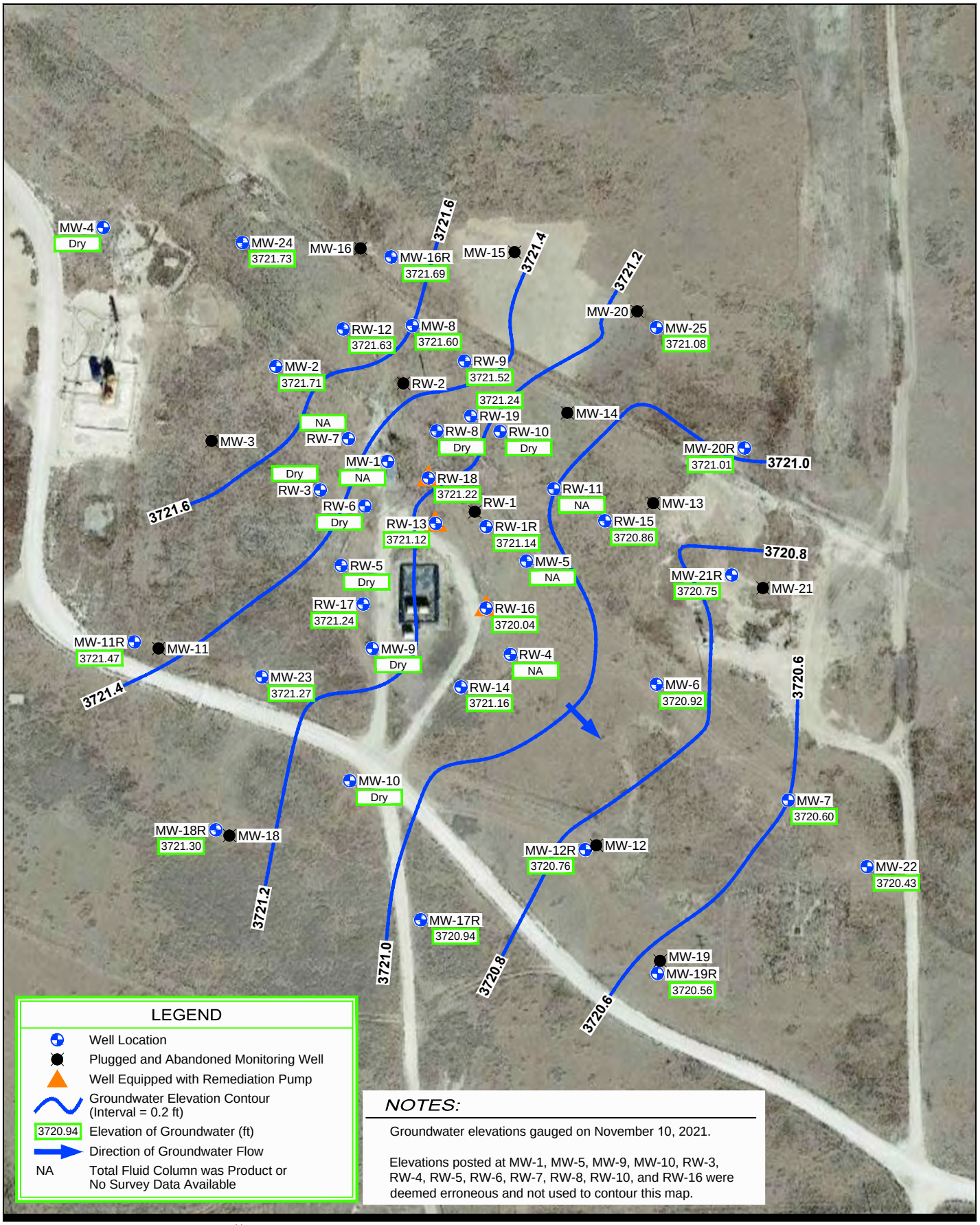


LEGEND

- Well Location
- Plugged and Abandoned Monitoring Well
- Well Equipped with Remediation Pump
- Groundwater Elevation Contour (Interval = 0.2 ft)
- 3720.94 — Elevation of Groundwater (ft)
- Direction of Groundwater Flow
- NA — Total Fluid Column was Product or No Survey Data Available

NOTES:

Groundwater elevations gauged on November 10, 2021.

Elevations posted at MW-1, MW-5, MW-9, MW-10, RW-3, RW-4, RW-5, RW-6, RW-7, RW-8, RW-10, and RW-16 were deemed erroneous and not used to contour this map.

0 75 150 ft

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

N

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

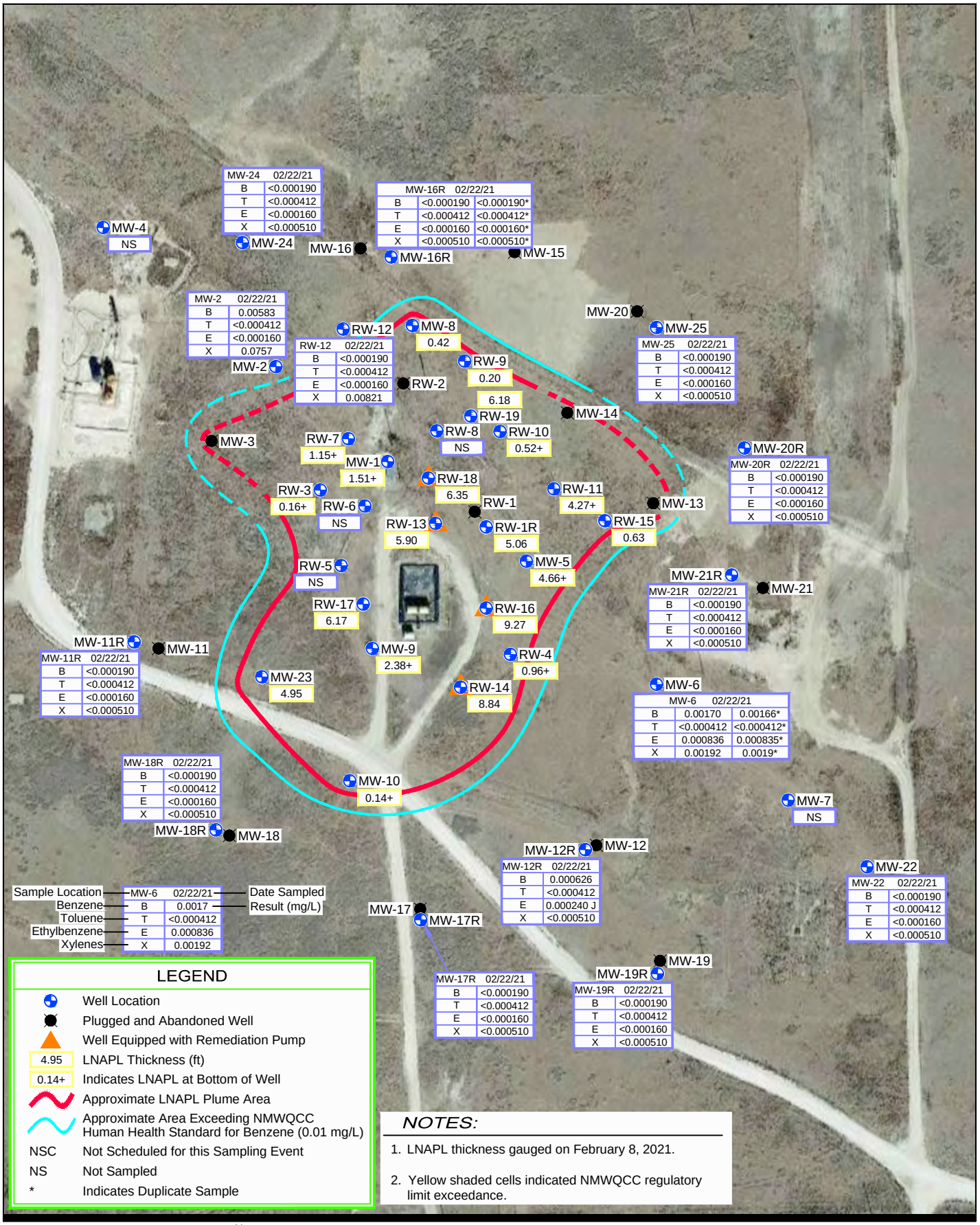
GROUNDWATER GRADIENT MAP
NOVEMBER 10, 2021

Project No. **11209885**
Date **January 2022**

FIGURE 6

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
Plot Date: 28 January 2022 3:24 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0266° North, 103.1666° West



PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

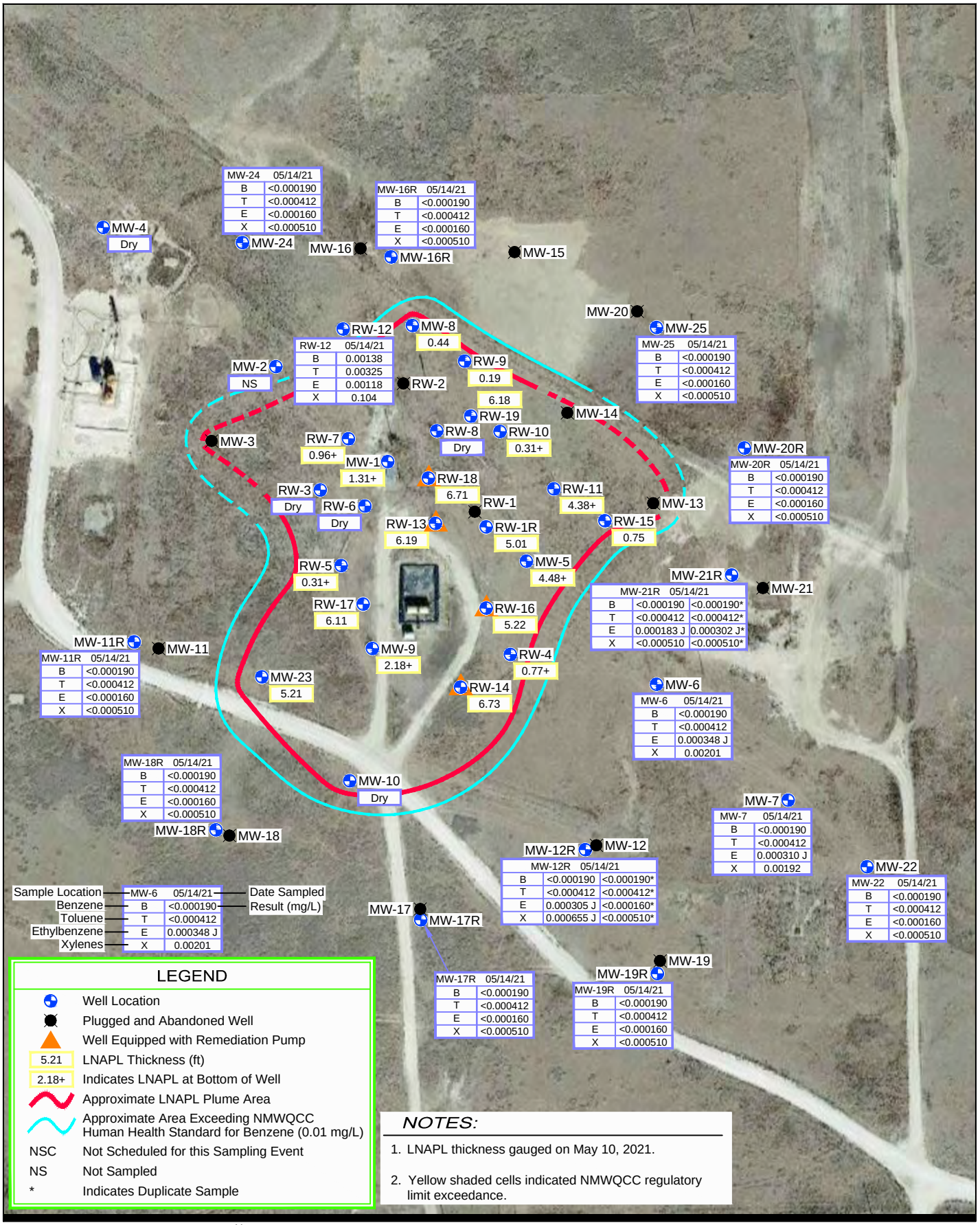
LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP FEBRUARY 22, 2021

Project No. **11209885**
Date **January 2022**

FIGURE 7

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
Plot Date: 20 January 2022 3:12 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0266° North, 103.1666° West



PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

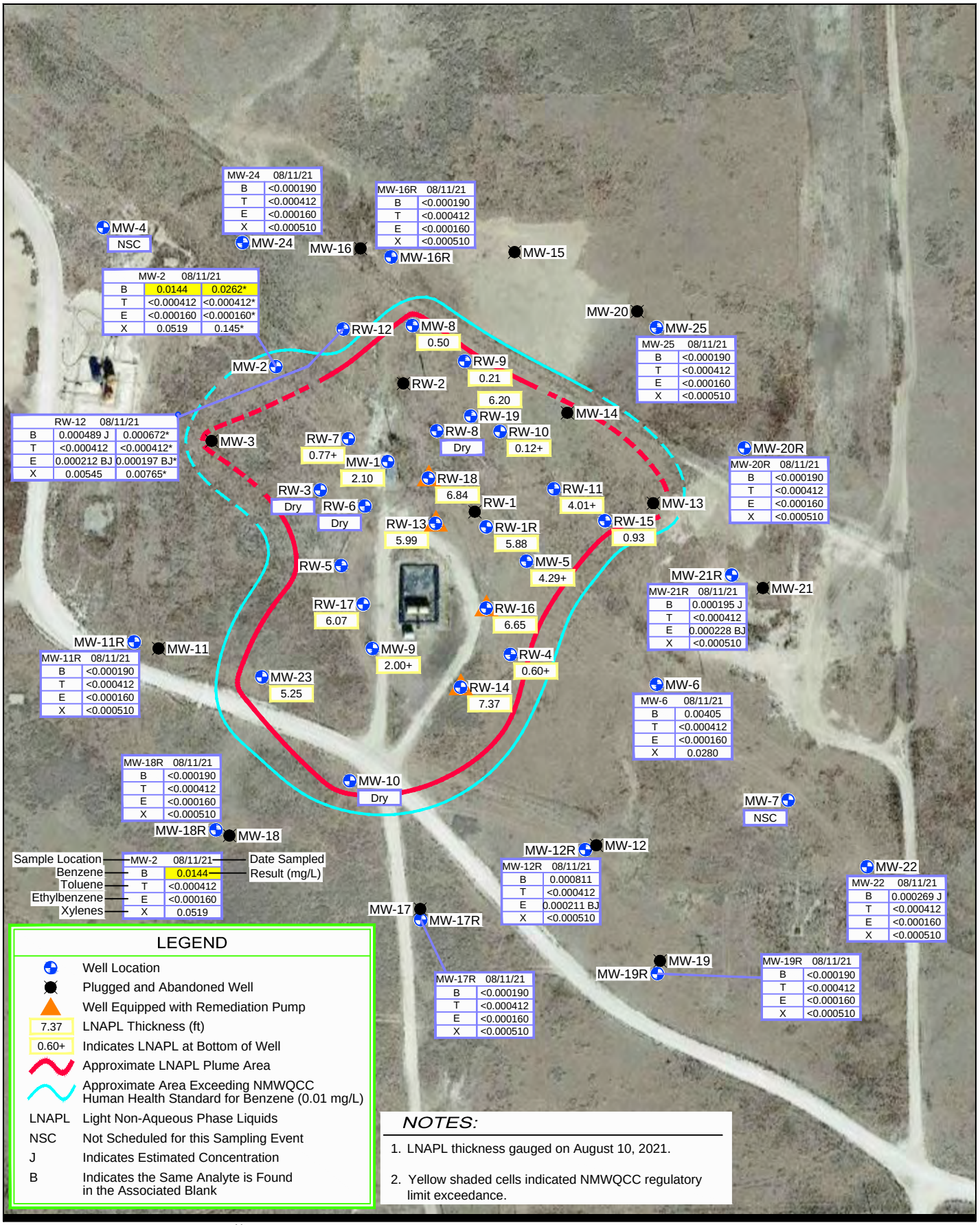
LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP
MAY 14, 2021

Project No. **11209885**
Date **January 2022**

FIGURE 8

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg
Plot Date: 20 January 2022 3:11 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0266° North, 103.1666° West



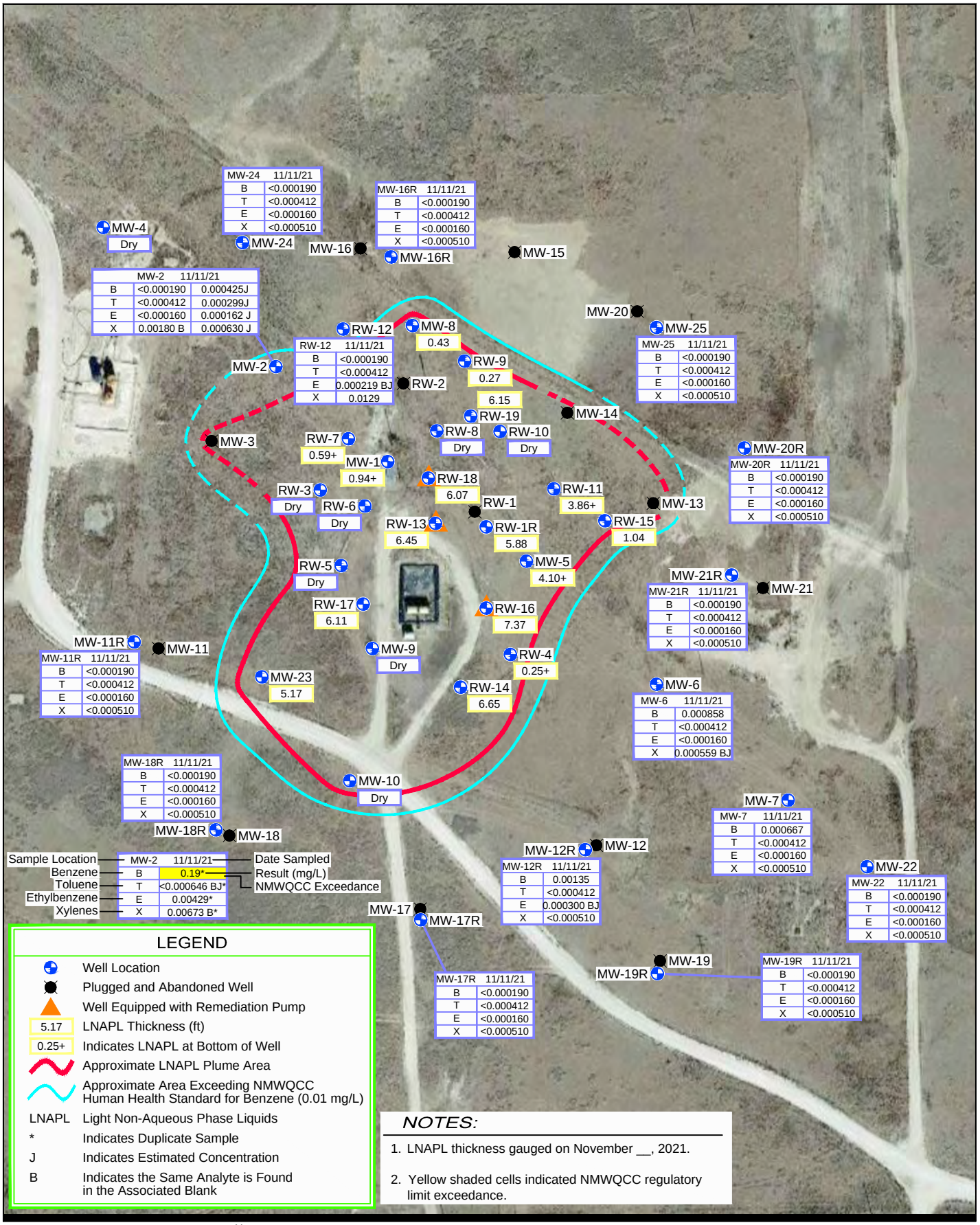
PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP AUGUST 10 AND 11, 2021

Project No. **11209885**
Date **January 2022**

FIGURE 9

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Plot Date: 20 January 2022 3:11 PM
Lat/Long: 33.0266° North, 103.1666° West



PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.1

LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP NOVEMBER 11, 2021

Project No. **11209885**
Date **January 2022**

FIGURE 10

Filename: \\ghdnet\ghd\US\Midland\Projects\562\11209885\Digital_Design\ACAD 2018\Figures\11209885(GWR 2021)\11209885-GHD-0000-RPT-EN-0101_DL-001.dwg Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Plot Date: 28 January 2022 3:23 PM
Lat/Long: 33.0266° North, 103.1666° West

Tables

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-01	3790.02	1/8/20	-	-	-	-	-	-	1.5	0.0	-
MW-01	3790.02	1/15/20	-	-	-	-	-	-	2.0	0.0	-
MW-01	3790.02	1/29/20	-	-	-	-	-	-	1.5	0.0	-
MW-01	3790.02	2/11/20	-	66.85	2.05+	LNAPL at TD	68.90	50-70 (4 in.)	-	-	-
MW-01	3790.02	4/28/20	-	66.17	1.93+	LNAPL at TD	68.10	-	-	-	-
MW-01	3790.02	5/12/20	-	67.17	1.73+	LNAPL at TD	68.90	-	-	-	-
MW-01	3790.02	6/19/20	-	67.25	1.65+	LNAPL at TD	68.90	-	-	-	-
MW-01	3790.02	7/29/20	-	67.36	1.84+	LNAPL at TD	69.20	-	-	-	-
MW-01	3790.02	8/27/20	-	67.41	1.60+	LNAPL at TD	69.01	-	-	-	-
MW-01	3790.02	9/14/20	-	66.48	1.85+	LNAPL at TD	68.33	-	-	-	-
MW-01	3790.02	10/29/20	-	66.59	1.77+	LNAPL at TD	68.36	-	-	-	-
MW-01	3790.02	12/7/20	-	67.63	1.45+	LNAPL at TD	69.08	-	-	-	-
MW-01	3790.02	1/25/21	-	67.77	1.25+	LNAPL at TD	69.02	-	-	-	-
MW-01	3790.02	2/8/21	-	67.80	1.51+	LNAPL at TD	69.31	-	-	-	-
MW-01	3790.02	3/22/21	-	66.90	1.42+	LNAPL at TD	68.32	-	-	-	-
MW-01	3790.02	5/3/21	-	68.00	1.02+	LNAPL at TD	69.02	-	-	-	-
MW-01	3790.02	5/10/21	-	67.99	1.31+	LNAPL at TD	69.30	-	-	-	-
MW-01	3790.02	7/28/21	-	68.19	0.83+	LNAPL at TD	69.02	-	-	-	-
MW-01	3790.02	8/10/21	-	67.21	2.10+	LNAPL at TD	69.31	-	-	-	-
MW-01	3790.02	9/29/21	-	68.33	0.98+	LNAPL at TD	69.31	-	-	-	-
MW-01	3790.02	10/27/21	-	68.37	0.94+	LNAPL at TD	69.31	-	-	-	-
MW-01	3790.02	11/10/21	-	68.37	0.94+	LNAPL at TD	69.31	-	-	-	
MW-01	3790.02	12/21/21	-	68.49	0.82+	LNAPL at TD	69.31	-	-	-	-
MW-02	3790.83	2/11/20	67.61	-	0.00	3723.22	74.01	50-70 (4 in.)	-	-	-
MW-02	3790.83	3/17/20	-	-	-	-	-	-	-	3.0	-
MW-02	3790.83	4/28/20	68.06	-	0.00	3722.77	-	-	-	-	-
MW-02	3790.83	5/12/20	67.92	-	0.00	3722.91	-	-	-	0.2	-
MW-02	3790.83	6/19/20	67.83	-	0.00	3723.00	-	-	-	-	-
MW-02	3790.83	7/29/20	68.12	-	0.00	3722.71	-	-	-	-	-
MW-02	3790.83	8/27/20	68.18	-	0.00	3722.65	-	-	-	-	-
MW-02	3790.83	9/14/20	68.22	-	0.00	3722.61	-	-	-	0.2	-
MW-02	3790.83	10/29/20	68.30	-	0.00	3722.53	-	-	-	-	-
MW-02	3790.83	12/7/20	68.21	-	0.00	3722.62	-	-	-	-	-
MW-02	3790.83	1/25/21	68.32	-	0.00	3722.51	-	-	-	-	-
MW-02	3790.83	2/8/21	68.36	-	0.00	3722.47	71.49	-	-	6.0	-
MW-02	3790.83	3/22/21	68.64	-	0.00	3722.19	-	-	-	-	-
MW-02	3790.83	5/3/21	68.53	-	0.00	3722.30	-	-	-	-	-
MW-02	3790.83	5/10/21	67.83	-	0.00	3723.00	-	-	-	-	-
MW-02	3790.83	7/28/21	68.93	-	0.00	3721.90	-	-	-	-	-
MW-02	3790.83	8/10/21	68.95	-	0.00	3721.88	71.53	-	-	5.0	-
MW-02	3790.83	9/29/21	69.08	-	0.00	3721.75	71.53	-	-	-	-
MW-02	3790.83	10/27/21	69.12	-	0.00	3721.71	71.53	-	-	-	-
MW-02	3790.83	11/10/21	69.12	-	0.00	3721.71	71.53	-	-	5.5	
MW-02	3790.83	12/21/21	69.20	-	0.00	3721.63	71.53	-	-	-	-
MW-03	P&A	2/19/20									
MW-04	3792.51	2/11/20	69.06	-	0.00	3723.45	74.09	50-70 (4 in.)	-	-	-
MW-04	3792.51	4/28/20	69.21	-	0.00	3723.30	-	-	-	-	-
MW-04	3792.51	5/12/20	69.24	-	0.00	3723.27	-	-	-	-	-
MW-04	3792.51	6/19/20	69.34	-	0.00	3723.17	-	-	-	-	-
MW-04	3792.51	7/29/20	69.40	-	0.00	3723.11	-	-	-	-	-
MW-04	3792.51	8/27/20	69.48	-	0.00	3723.03	-	-	-	-	-
MW-04	3792.51	9/14/20	69.52	-	0.00	3722.99	-	-	-	-	-
MW-04	3792.51	10/29/20	69.61	-	0.00	3722.90	69.94	-	-	Pull sample	-
MW-04	3792.51	12/7/20	69.70	-	0.00	3722.81	-	-	-	-	-
MW-04	3792.51	1/25/21	69.81	-	0.00	3722.70	-	-	-	-	-
MW-04	3792.51	2/8/21	69.85	-	0.00	3722.66	69.95	-	-	-	-
MW-04	3792.51	3/22/21	-	-	0.00	Dry	69.96	-	-	-	-
MW-04	3792.51	5/3/21	70.04	-	0.00	3722.47	-	-	-	-	-
MW-04	3792.51	5/10/21	-	-	0.00	Dry	69.95	-	-	-	-
MW-04	3792.51	7/28/21	-	-	-	Dry	69.94	-	-	-	-
MW-04	3792.51	8/10/21	70.27	-	0.00	3722.24	71.77	-	-	-	-
MW-04	3792.51	9/29/21	69.90	-	0.00	3722.61	69.95	-	-	-	-
MW-04	3792.51	10/27/21	-	-	-	Dry	69.95	-	-	-	-
MW-04	3792.51	11/10/21	-	-	-	Dry	69.95	-	-	-	-
MW-04	3792.51	12/21/21	-	-	-	Dry	69.95	-	-	-	-
MW-05	3789.50	1/29/20	-	-	-	-	-	-	1	1.2	-
MW-05	3789.50	2/11/20	67.76	66.84	0.92	3722.49	73.85	50-70 (4 in.)	-	-	-
MW-05	3789.50	4/28/20	69.07	66.74	2.33	3722.32	-	-	-	-	-
MW-05	3789.50	5/12/20	69.26	66.70	2.56	3722.31	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-05	3789.50	6/19/20	69.94	66.66	3.28	3722.22	-	-	-	-	-
MW-05	3789.50	7/29/20	70.70	66.62	4.08	3722.10	-	-	-	-	-
MW-05	3789.50	8/27/20	71.16	66.59	4.57	3722.04	-	-	-	-	-
MW-05	3789.50	9/14/20	-	66.58	4.73+	LNAPL at TD	71.31	-	-	-	-
MW-05	3789.50	10/29/20	-	66.47	4.88+	LNAPL at TD	71.35	-	-	-	-
MW-05	3789.50	12/7/20	-	66.49	4.98+	LNAPL at TD	71.47	-	-	-	-
MW-05	3789.50	1/25/21	-	66.61	4.68+	LNAPL at TD	71.29	-	-	-	-
MW-05	3789.50	2/8/21	-	66.64	4.66+	LNAPL at TD	71.3	-	-	-	-
MW-05	3789.50	3/22/21	-	66.71	4.59+	LNAPL at TD	71.3	-	-	-	-
MW-05	3789.50	5/3/21	71.28	66.80	4.48	3721.85	-	-	-	-	-
MW-05	3789.50	5/10/21	-	66.82	4.48+	LNAPL at TD	71.30	-	-	-	-
MW-05	3789.50	7/28/21	-	66.99	4.31+	LNAPL at TD	71.30	-	-	-	-
MW-05	3789.50	8/10/21	-	67.01	4.29+	LNAPl at TD	71.30	-	-	-	-
MW-05	3789.50	9/29/21	-	67.10	4.20+	LNAPL at TD	71.30	-	-	-	-
MW-05	3789.50	10/27/21	-	67.18	4.12+	LNAPL at TD	71.30	-	-	-	-
MW-05	3789.50	11/10/21	-	67.20	4.10+	LNAPL at TD	71.30	-	-	-	
MW-05	3789.50	12/21/21	-	67.28	4.02+	LNAPL at TD	71.30	-	-	-	-
MW-06	3789.27	2/11/20	67.01	-	0.00	3722.26	74.3	50-70 (4 in.)	-	14.0	-
MW-06	3789.27	3/17/20	-	-	-	-	-	-	-	3.0	-
MW-06	3789.27	4/28/20	67.19	-	0.00	3722.08	-	-	-	-	-
MW-06	3789.27	5/12/20	67.20	-	0.00	3722.07	-	-	-	10.0	-
MW-06	3789.27	6/19/20	67.28	-	0.00	3721.99	-	-	-	-	-
MW-06	3789.27	7/29/20	67.43	-	0.00	3721.84	-	-	-	-	-
MW-06	3789.27	8/27/20	67.42	-	0.00	3721.85	-	-	-	-	-
MW-06	3789.27	9/14/20	67.45	-	0.00	3721.82	-	-	-	10.0	-
MW-06	3789.27	10/29/20	67.55	-	0.00	3721.72	-	-	-	2.5	-
MW-06	3789.27	12/7/20	67.63	-	0.00	3721.64	-	-	-	-	-
MW-06	3789.27	1/25/21	67.73	-	0.00	3721.54	-	-	-	-	-
MW-06	3789.27	2/8/21	67.79	-	0.00	3721.48	71.55	-	-	8.0	-
MW-06	3789.27	3/22/21	67.87	-	0.00	3721.40	-	-	-	-	-
MW-06	3789.27	5/3/21	67.95	-	0.00	3721.32	-	-	-	-	-
MW-06	3789.27	5/10/21	67.97	-	0.00	3721.30	-	-	-	8.0	-
MW-06	3789.27	7/28/21	68.15	-	0.00	3721.12	-	-	-	-	-
MW-06	3789.27	8/10/21	68.18	-	0.00	3721.09	71.68	-	-	3.0	-
MW-06	3789.27	9/29/21	68.29	-	0.00	3720.98	71.68	-	-	-	-
MW-06	3789.27	10/27/21	68.34	-	0.00	3720.93	71.68	-	-	-	-
MW-06	3789.27	11/10/21	68.35	-	0.00	3720.92	71.68	-	-	0.5	
MW-06	3789.27	12/21/21	68.44	-	0.00	3720.83	71.68	-	-	-	-
MW-07	3789.26	2/11/20	67.41	-	0.00	3721.85	75.36	50-70 (4 in.)	-	-	-
MW-07	3789.26	4/28/20	67.51	-	0.00	3721.75	-	-	-	-	-
MW-07	3789.26	5/12/20	67.52	-	0.00	3721.74	-	-	-	14	-
MW-07	3789.26	6/19/20	67.61	-	0.00	3721.65	-	-	-	-	-
MW-07	3789.26	7/29/20	67.70	-	0.00	3721.56	-	-	-	-	-
MW-07	3789.26	8/27/20	67.75	-	0.00	3721.51	-	-	-	-	-
MW-07	3789.26	9/14/20	67.77	-	0.00	3721.49	-	-	-	14	-
MW-07	3789.26	10/29/20	67.89	-	0.00	3721.37	-	-	-	3.5	-
MW-07	3789.26	12/7/20	67.96	-	0.00	3721.30	-	-	-	-	-
MW-07	3789.26	1/25/21	68.08	-	0.00	3721.18	-	-	-	-	-
MW-07	3789.26	2/8/21	68.16	-	0.00	3721.10	73.11	-	-	0	-
MW-07	3789.26	3/22/21	68.20	-	0.00	3721.06	-	-	-	-	-
MW-07	3789.26	5/3/21	68.29	-	0.00	3720.97	-	-	-	-	-
MW-07	3789.26	5/10/21	69.18	-	0.00	3720.08	-	-	-	8	-
MW-07	3789.26	7/28/21	68.49	-	0.00	3720.77	-	-	-	-	-
MW-07	3789.26	8/10/21	68.50	-	0.00	3720.76	73.44	-	-	-	-
MW-07	3789.26	9/29/21	68.60	-	0.00	3720.66	73.11	-	-	-	-
MW-07	3789.26	10/27/21	68.66	-	0.00	3720.60	73.11	-	-	-	-
MW-07	3789.26	11/10/21	68.66	-	0.00	3720.60	73.11	-	-	1	-
MW-07	3789.26	12/21/21	68.73	-	0.00	3720.53	73.11	-	-	-	-
MW-08	3790.66	2/11/20	67.82	67.72	0.10	3722.92	74.35	50-70 (4 in)	-	-	-
MW-08	3790.66	4/28/20	68.04	67.86	0.18	3722.77	-	-	-	-	-
MW-08	3790.66	5/12/20	68.06	67.84	0.22	3722.78	-	-	-	-	-
MW-08	3790.66	6/19/20	68.19	67.94	0.25	3722.67	-	-	-	-	-
MW-08	3790.66	7/29/20	68.34	68.04	0.30	3722.56	-	-	-	-	-
MW-08	3790.66	8/27/20	68.43	68.07	0.36	3722.52	-	-	-	-	-
MW-08	3790.66	9/14/20	68.50	68.13	0.37	3722.46	-	-	-	-	-
MW-08	3790.66	10/29/20	68.62	68.21	0.41	3722.37	-	-	-	-	-
MW-08	3790.66	12/7/20	68.74	68.27	0.47	3722.30	-	-	-	-	-
MW-08	3790.66	1/25/21	68.85	68.40	0.45	3722.17	-	-	-	-	-
MW-08	3790.66	2/8/21	68.87	68.45	0.42	3722.13	72.72	-	-	-	-
MW-08	3790.66	3/22/21	69.01	68.54	0.47	3722.03	-	-	-	-	-
MW-08	3790.66	5/3/21	69.08	68.63	0.45	3721.94	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-08	3790.66	5/10/21	69.07	68.63	0.44	3721.95	-	-	-	-	-
MW-08	3790.66	7/28/21	69.31	68.80	0.51	3721.76	-	-	-	-	-
MW-08	3790.66	8/10/21	69.34	68.84	0.50	3721.73	-	-	-	-	-
MW-08	3790.66	9/29/21	69.43	68.94	0.49	3721.63	72.72	-	-	-	-
MW-08	3790.66	10/27/21	69.41	68.98	0.43	3721.60	72.72	-	-	-	-
MW-08	3790.66	11/10/21	69.41	68.98	0.43	3721.60	72.72	-	-		-
MW-08	3790.66	12/21/21	69.60	69.12	0.48	3721.45	72.72	-	-	-	-
MW-09	3790.94	1/29/20	-	-	-	-	-	-	0.2	0	-
MW-09	3790.94	2/11/20	-	67.51	3.29+	LNAPL at TD	70.80	50-70 (4 in.)	-	-	-
MW-09	3790.94	3/11/20	-	67.58	3.22+	LNAPL at TD	70.80	-	-	-	-
MW-09	3790.94	4/8/20	-	67.66	3.14+	LNAPL at TD	70.80	-	-	-	-
MW-09	3790.94	4/28/20	-	67.26	3.09+	LNAPL at TD	70.35	-	-	-	-
MW-09	3790.94	5/12/20	-	67.21	5.56+	LNAPL at TD	72.77	-	-	-	-
MW-09	3790.94	6/19/20	-	67.36	5.41+	LNAPL at TD	72.77	-	-	-	-
MW-09	3790.94	7/29/20	-	67.25	3.15+	LNAPL at TD	70.40	-	-	-	-
MW-09	3790.94	8/27/20	70.32	67.53	2.79	3722.88	-	-	-	-	-
MW-09	3790.94	9/14/20	-	67.56	2.70+	LNAPL at TD	70.26	-	-	-	-
MW-09	3790.94	10/29/20	70.39	67.68	2.71	3722.75	-	-	-	-	-
MW-09	3790.94	12/7/20	-	67.77	2.63+	LNAPL at TD	70.40	-	-	-	-
MW-09	3790.94	1/25/21	-	67.88	2.39+	LNAPL at TD	70.27	-	-	-	-
MW-09	3790.94	2/8/21	-	67.89	2.38+	LNAPL at TD	70.27	-	-	-	-
MW-09	3790.94	3/22/21	-	67.99	2.29+	LNAPL at TD	70.28	-	-	-	-
MW-09	3790.94	5/3/21	-	68.06	2.21+	LNAPL at TD	70.27	-	-	-	-
MW-09	3790.94	5/10/21	-	68.10	2.18+	LNAPL at TD	70.28	-	-	-	-
MW-09	3790.94	7/28/21	-	68.24	2.04+	LNAPL at TD	70.28	-	-	-	-
MW-09	3790.94	8/10/21	-	68.29	2.00+	LNAPL at TD	70.29	-	-	-	-
MW-09	3790.94	9/29/21	-	68.30	1.97+	LNAPL at TD	70.27	-	-	-	-
MW-09	3790.94	10/27/21	-	-	-	Dry	70.27	-	-	-	-
MW-09	3790.94	11/10/21	-	-	-	Dry	70.27	-	-	-	-
MW-09	3790.94	12/21/21	-	68.55	1.72+	LNAPL at TD	70.27	-	-	-	-
MW-10	3790.94	2/11/20	67.64	-	0.00	3723.30	69.77	40-65 (2 in.)	-	-	-
MW-10	3790.94	4/28/20	-	67.82	0.90+	LNAPL at TD	68.72	-	-	-	-
MW-10	3790.94	5/12/20	68.63	67.83	0.80	3722.96	68.72	-	-	-	-
MW-10	3790.94	6/19/20	-	67.93	0.79+	LNAPL at TD	68.72	-	-	-	-
MW-10	3790.94	7/29/20	68.76	68.01	0.75	LNAPL at TD	68.72	-	-	-	-
MW-10	3790.94	8/27/20	68.72	68.08	0.64	3722.74	-	-	-	-	-
MW-10	3790.94	9/14/20	-	68.23	0.40+	LNAPL at TD	68.63	-	-	-	-
MW-10	3790.94	10/29/20	-	68.26	0.49+	LNAPL at TD	68.75	-	-	-	-
MW-10	3790.94	12/7/20	-	68.33	0.41+	LNAPL at TD	68.74	-	-	-	-
MW-10	3790.94	1/25/21	-	68.48	0.13+	LNAPL at TD	68.61	-	-	-	-
MW-10	3790.94	2/8/21	-	68.52	0.14+	LNAPL at TD	68.66	-	-	-	-
MW-10	3790.94	3/22/21	-	-	-	DRY	68.62	-	-	-	-
MW-10	3790.94	5/3/21	-	68.64	0.02+	LNAPL at TD	68.66	-	-	-	-
MW-10	3790.94	5/10/21	-	-	-	Dry	68.73	-	-	-	-
MW-10	3790.94	7/28/21	-	-	-	Dry	68.68	-	-	-	-
MW-10	3790.94	8/10/21	-	-	-	Dry	68.69	-	-	-	-
MW-10	3790.94	9/29/21	-	-	-	Dry	68.66	-	-	-	-
MW-10	3790.94	10/27/21	-	-	-	Dry	68.66	-	-	-	-
MW-10	3790.94	11/10/21	-	-	-	Dry	68.66	-	-	-	-
MW-10	3790.94	12/21/21	-	-	-	Dry	68.66	-	-	-	-
MW-11	P&A	2/19/20									
MW-11R	3790.62	2/26/20	-	-	-	-	-	-	-	15	-
MW-11R	3790.62	3/12/20	67.76	-	0.00	3722.86	90.02	-	-	-	-
MW-11R	3790.62	3/23/20	67.88	-	0.00	3722.74	90.02	-	-	-	-
MW-11R	3790.62	4/28/20	67.95	-	0.00	3722.67	-	-	-	-	-
MW-11R	3790.62	5/12/20	67.96	-	0.00	3722.66	-	-	-	12	-
MW-11R	3790.62	6/19/20	68.03	-	0.00	3722.59	-	-	-	-	-
MW-11R	3790.62	7/29/20	69.14	-	0.00	3721.48	-	-	-	-	-
MW-11R	3790.62	8/27/20	68.19	-	0.00	3722.43	-	-	-	-	-
MW-11R	3790.62	9/14/20	68.26	-	0.00	3722.36	-	-	-	12	-
MW-11R	3790.62	10/29/20	68.34	-	0.00	3722.28	-	-	-	10	-
MW-11R	3790.62	12/7/20	68.42	-	0.00	3722.20	-	-	-	-	-
MW-11R	3790.62	1/25/21	68.54	-	0.00	3722.08	-	-	-	-	-
MW-11R	3790.62	2/8/21	68.60	-	0.00	3722.02	90.10	-	-	11	-
MW-11R	3790.62	3/22/21	68.68	-	0.00	3721.94	-	-	-	-	-
MW-11R	3790.62	5/3/21	68.77	-	0.00	3721.85	-	-	-	-	-
MW-11R	3790.62	5/10/21	68.90	-	0.00	3721.72	-	-	-	11	-
MW-11R	3790.62	7/28/21	68.94	-	0.00	3721.68	-	-	-	-	-
MW-11R	3790.62	8/10/21	68.98	-	0.00	3721.64	90.13	-	-	10.5	-
MW-11R	3790.62	9/29/21	69.10	-	0.00	3721.52	90.10	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-11R	3790.62	10/27/21	69.16	-	0.00	3721.46	90.10	-	-	-	-
MW-11R	3790.62	11/10/21	69.15	-	0.00	3721.47	90.10	-	-	10.5	-
MW-11R	3790.62	12/21/21	69.25	-	0.00	3721.37	90.10	-	-	-	-
MW-12R	3789.55	2/11/20	67.49	-	0.00	3722.06	87.65	-	-	10.0	-
MW-12R	3789.55	4/28/20	67.65	-	0.00	3721.90	-	-	-	-	-
MW-12R	3789.55	5/12/20	67.63	-	0.00	3721.92	-	-	-	10.0	-
MW-12R	3789.55	6/19/20	67.72	-	0.00	3721.83	-	-	-	-	-
MW-12R	3789.55	7/29/20	67.80	-	0.00	3721.75	-	-	-	-	-
MW-12R	3789.55	8/27/20	67.88	-	0.00	3721.67	-	-	-	-	-
MW-12R	3789.55	9/14/20	67.93	-	0.00	3721.62	-	-	-	10.0	-
MW-12R	3789.55	10/29/20	68.03	-	0.00	3721.52	-	-	-	5.0	-
MW-12R	3789.55	12/7/20	68.08	-	0.00	3721.47	-	-	-	-	-
MW-12R	3789.55	1/25/21	68.20	-	0.00	3721.35	-	-	-	-	-
MW-12R	3789.55	2/8/21	68.26	-	0.00	3721.29	84.89	-	-	8.0	-
MW-12R	3789.55	3/22/21	68.34	-	0.00	3721.21	-	-	-	-	-
MW-12R	3789.55	5/3/21	68.41	-	0.00	3721.14	-	-	-	-	-
MW-12R	3789.55	5/10/21	68.45	-	0.00	3721.10	-	-	-	8.0	-
MW-12R	3789.55	7/28/21	68.61	-	0.00	3720.94	-	-	-	-	-
MW-12R	3789.55	8/10/21	68.63	-	0.00	3720.92	85.01	-	-	8.0	-
MW-12R	3789.55	9/29/21	68.74	-	0.00	3720.81	85.01	-	-	-	-
MW-12R	3789.55	10/27/21	68.79	-	0.00	3720.76	85.01	-	-	-	-
MW-12R	3789.55	11/10/21	68.79	-	0.00	3720.76	85.01	-	-	8.5	-
MW-12R	3789.55	12/21/21	68.87	-	0.00	3720.68	85.01	-	-	-	-
MW-13	P&A	2/19/20									
MW-14	P&A	2/19/20									
MW-16R	3791.21	2/11/20	68.19	-	0.00	3723.02	85.51	-	-	8.3	-
MW-16R	3791.21	4/28/20	68.32	-	0.00	3722.89	-	-	-	-	-
MW-16R	3791.21	5/12/20	68.32	-	0.00	3722.89	-	-	-	9.0	-
MW-16R	3791.21	6/19/20	68.45	-	0.00	3722.76	-	-	-	-	-
MW-16R	3791.21	7/29/20	68.50	-	0.00	3722.71	-	-	-	-	-
MW-16R	3791.21	8/27/20	68.63	-	0.00	3722.58	-	-	-	-	-
MW-16R	3791.21	9/14/20	68.63	-	0.00	3722.58	-	-	-	9.0	-
MW-16R	3791.21	10/29/20	68.71	-	0.00	3722.50	-	-	-	8.0	-
MW-16R	3791.21	12/7/20	68.79	-	0.00	3722.42	-	-	-	-	-
MW-16R	3791.21	1/25/21	68.89	-	0.00	3722.32	-	-	-	-	-
MW-16R	3791.21	2/8/21	68.96	-	0.00	3722.25	84.30	-	-	8.0	-
MW-16R	3791.21	3/22/21	69.04	-	0.00	3722.17	-	-	-	-	-
MW-16R	3791.21	5/3/21	69.15	-	0.00	3722.06	-	-	-	-	-
MW-16R	3791.21	5/10/21	69.13	-	0.00	3722.08	-	-	-	8.0	-
MW-16R	3791.21	7/28/21	69.34	-	0.00	3721.87	-	-	-	-	-
MW-16R	3791.21	8/10/21	69.37	-	0.00	3721.84	84.50	-	-	7.5	-
MW-16R	3791.21	9/29/21	69.48	-	0.00	3721.73	84.30	-	-	-	-
MW-16R	3791.21	10/27/21	69.52	-	0.00	3721.69	84.30	-	-	-	-
MW-16R	3791.21	11/10/21	69.52	-	0.00	3721.69	84.30	-	-	7.5	-
MW-16R	3791.21	12/21/21	69.6	-	0.00	3721.61	84.30	-	-	-	-
MW-17R	3790.20	2/11/20	67.94	-	0.00	3722.26	79.15	-	-	5.3	-
MW-17R	3790.20	4/28/20	68.06	-	0.00	3722.14	-	-	-	-	-
MW-17R	3790.20	5/12/20	68.09	-	0.00	3722.11	-	-	-	6.0	-
MW-17R	3790.20	6/19/20	68.17	-	0.00	3722.03	-	-	-	-	-
MW-17R	3790.20	7/29/20	68.26	-	0.00	3721.94	-	-	-	-	-
MW-17R	3790.20	8/27/20	68.33	-	0.00	3721.87	-	-	-	-	-
MW-17R	3790.20	9/14/20	68.37	-	0.00	3721.83	-	-	-	6.0	-
MW-17R	3790.20	10/29/20	68.47	-	0.00	3721.73	-	-	-	5.0	-
MW-17R	3790.20	12/7/20	68.55	-	0.00	3721.65	-	-	-	-	-
MW-17R	3790.20	1/25/21	68.65	-	0.00	3721.55	-	-	-	-	-
MW-17R	3790.20	2/8/21	68.69	-	0.00	3721.51	78.71	-	-	5.0	-
MW-17R	3790.20	3/22/21	68.78	-	0.00	3721.42	-	-	-	-	-
MW-17R	3790.20	5/3/21	68.87	-	0.00	3721.33	-	-	-	-	-
MW-17R	3790.20	5/10/21	68.88	-	0.00	3721.32	-	-	-	5.0	-
MW-17R	3790.20	7/28/21	69.05	-	0.00	3721.15	-	-	-	-	-
MW-17R	3790.20	8/10/21	69.09	-	0.00	3721.11	78.80	-	-	5.0	-
MW-17R	3790.20	9/29/21	69.2	-	0.00	3721.00	78.71	-	-	-	-
MW-17R	3790.20	10/27/21	69.26	-	0.00	3720.94	78.71	-	-	-	-
MW-17R	3790.20	11/10/21	69.26	-	0.00	3720.94	78.71	-	-	4.5	-
MW-17R	3790.20	12/21/21	69.35	-	0.00	3720.85	78.71	-	-	-	-
MW-18R	3791.04	2/11/20	68.39	-	0.00	3722.65	81.94	-	-	6.0	-
MW-18R	3791.04	4/28/20	68.52	-	0.00	3722.52	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-18R	3791.04	5/12/20	68.52	-	0.00	3722.52	-	-	-	7.0	-
MW-18R	3791.04	6/19/20	68.62	-	0.00	3722.42	-	-	-	-	-
MW-18R	3791.04	7/29/20	68.70	-	0.00	3722.34	-	-	-	-	-
MW-18R	3791.04	8/27/20	68.77	-	0.00	3722.27	-	-	-	-	-
MW-18R	3791.04	9/14/20	68.83	-	0.00	3722.21	-	-	-	7.0	-
MW-18R	3791.04	10/29/20	68.91	-	0.00	3722.13	-	-	-	6.0	-
MW-18R	3791.04	12/7/20	69.00	-	0.00	3722.04	-	-	-	-	-
MW-18R	3791.04	1/25/21	69.11	-	0.00	3721.93	-	-	-	-	-
MW-18R	3791.04	2/8/21	69.15	-	0.00	3721.89	81.41	-	-	6.0	-
MW-18R	3791.04	3/22/21	69.24	-	0.00	3721.80	-	-	-	-	-
MW-18R	3791.04	5/3/21	69.33	-	0.00	3721.71	-	-	-	-	-
MW-18R	3791.04	5/10/21	69.33	-	0.00	3721.71	-	-	-	6.0	-
MW-18R	3791.04	7/28/21	69.50	-	0.00	3721.54	-	-	-	-	-
MW-18R	3791.04	8/10/21	69.54	-	0.00	3721.50	81.50	-	-	6.0	-
MW-18R	3791.04	9/29/21	69.66	-	0.00	3721.38	81.41	-	-	-	-
MW-18R	3791.04	10/27/21	69.73	-	0.00	3721.31	81.41	-	-	-	-
MW-18R	3791.04	11/10/21	69.74	-	0.00	3721.30	81.41	-	-	6.0	-
MW-18R	3791.04	12/21/21	69.80	-	0.00	3721.24	81.41	-	-	-	-
MW-19R	3789.67	2/11/20	67.79	-	0.00	3721.88	78.79	61.5-81.5 (2 in)	-	-	-
MW-19R	3789.67	4/28/20	67.90	-	0.00	3721.77	-	-	-	-	-
MW-19R	3789.67	5/12/20	67.91	-	0.00	3721.76	-	-	-	6.0	-
MW-19R	3789.67	6/19/20	68.00	-	0.00	3721.67	-	-	-	-	-
MW-19R	3789.67	7/29/20	68.08	-	0.00	3721.59	-	-	-	-	-
MW-19R	3789.67	8/27/20	68.15	-	0.00	3721.52	-	-	-	-	-
MW-19R	3789.67	9/14/20	68.42	-	0.00	3721.25	-	-	-	6.0	-
MW-19R	3789.67	10/29/20	68.29	-	0.00	3721.38	-	-	-	4.5	-
MW-19R	3789.67	12/7/20	68.35	-	0.00	3721.32	-	-	-	-	-
MW-19R	3789.67	1/25/21	68.48	-	0.00	3721.19	-	-	-	-	-
MW-19R	3789.67	2/8/21	68.54	-	0.00	3721.13	77.66	-	-	4.5	-
MW-19R	3789.67	3/22/21	68.60	-	0.00	3721.07	-	-	-	-	-
MW-19R	3789.67	5/3/21	68.67	-	0.00	3721.00	-	-	-	-	-
MW-19R	3789.67	5/10/21	68.72	-	0.00	3720.95	-	-	-	4.5	-
MW-19R	3789.67	7/28/21	68.86	-	0.00	3720.81	-	-	-	-	-
MW-19R	3789.67	8/10/21	68.91	-	0.00	3720.76	77.78	-	-	4.5	-
MW-19R	3789.67	9/29/21	69.00	-	0.00	3720.67	77.66	-	-	-	-
MW-19R	3789.67	10/27/21	69.09	-	0.00	3720.58	77.66	-	-	-	-
MW-19R	3789.67	11/10/21	69.11	-	0.00	3720.56	77.66	-	-	4.0	-
MW-19R	3789.67	12/21/21	69.16	-	0.00	3720.51	77.66	-	-	-	-
MW-20R	3789.73	2/11/20	67.39	-	0.00	3722.34	72.51	61.5-81.5 (2 in)	-	2.3	-
MW-20R	3789.73	4/28/20	67.55	-	0.00	3722.18	-	-	-	-	-
MW-20R	3789.73	5/12/20	67.53	-	0.00	3722.20	-	-	-	2.5	-
MW-20R	3789.73	6/19/20	67.64	-	0.00	3722.09	-	-	-	-	-
MW-20R	3789.73	7/29/20	67.71	-	0.00	3722.02	-	-	-	-	-
MW-20R	3789.73	8/27/20	67.77	-	0.00	3721.96	-	-	-	-	-
MW-20R	3789.73	9/14/20	67.85	-	0.00	3721.88	-	-	-	2.5	-
MW-20R	3789.73	10/29/20	67.91	-	0.00	3721.82	-	-	-	1.5	-
MW-20R	3789.73	12/7/20	67.98	-	0.00	3721.75	-	-	-	-	-
MW-20R	3789.73	1/25/21	68.10	-	0.00	3721.63	-	-	-	-	-
MW-20R	3789.73	2/8/21	68.14	-	0.00	3721.59	71.45	-	-	1.5	-
MW-20R	3789.73	3/22/21	68.24	-	0.00	3721.49	-	-	-	-	-
MW-20R	3789.73	5/3/21	68.31	-	0.00	3721.42	-	-	-	-	-
MW-20R	3789.73	5/10/21	68.35	-	0.00	3721.38	-	-	-	1.5	-
MW-20R	3789.73	7/28/21	68.49	-	0.00	3721.24	-	-	-	-	-
MW-20R	3789.73	8/10/21	68.53	-	0.00	3721.20	71.30	-	-	1.5	-
MW-20R	3789.73	9/29/21	68.63	-	0.00	3721.10	71.45	-	-	-	-
MW-20R	3789.73	10/27/21	68.70	-	0.00	3721.03	71.45	-	-	-	-
MW-20R	3789.73	11/10/21	68.72	-	0.00	3721.01	71.45	-	-	1.0	-
MW-20R	3789.73	12/21/21	68.80	-	0.00	3720.93	71.45	-	-	-	-
MW-21	P&A	2/19/20									
MW-21R	3789.71	3/12/20	67.60	-	0.00	3722.11	89.94	-	-	-	-
MW-21R	3789.71	3/23/20	67.71	-	0.00	3722.00	89.93	-	-	11.00	-
MW-21R	3789.71	4/28/20	67.80	-	0.00	3721.91	-	-	-	-	-
MW-21R	3789.71	5/12/20	67.79	-	0.00	3721.92	-	-	-	12.00	-
MW-21R	3789.71	6/19/20	67.91	-	0.00	3721.80	-	-	-	-	-
MW-21R	3789.71	7/29/20	67.95	-	0.00	3721.76	-	-	-	-	-
MW-21R	3789.71	8/27/20	68.04	-	0.00	3721.67	-	-	-	-	-
MW-21R	3789.71	9/14/20	68.06	-	0.00	3721.65	-	-	-	12.00	-
MW-21R	3789.71	10/29/20	68.17	-	0.00	3721.54	-	-	-	10.00	-
MW-21R	3789.71	12/7/20	68.25	-	0.00	3721.46	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-21R	3789.71	1/25/21	68.35	-	0.00	3721.36	-	-	-	-	-
MW-21R	3789.71	2/8/21	68.42	-	0.00	3721.29	89.45	-	-	10.50	-
MW-21R	3789.71	3/22/21	68.50	-	0.00	3721.21	-	-	-	-	-
MW-21R	3789.71	5/3/21	68.56	-	0.00	3721.15	-	-	-	-	-
MW-21R	3789.71	5/10/21	68.61	-	0.00	3721.10	-	-	-	10.50	-
MW-21R	3789.71	7/28/21	68.75	-	0.00	3720.96	-	-	-	-	-
MW-21R	3789.71	8/10/21	68.80	-	0.00	3720.91	89.80	-	-	10.50	-
MW-21R	3789.71	9/29/21	68.89	-	0.00	3720.82	89.90	-	-	-	-
MW-21R	3789.71	10/27/21	69.95	-	0.00	3719.76	89.90	-	-	-	-
MW-21R	3789.71	11/10/21	68.96	-	0.00	3720.75	89.90	-	-	10.0	-
MW-21R	3789.71	12/21/21	70.02	-	0.00	3719.69	89.90	-	-	-	-
MW-22	3788.97	2/11/20	67.31	-	0.00	3721.66	85.22	-	-	9.0	-
MW-22	3788.97	4/28/20	67.40	-	0.00	3721.57	-	-	-	-	-
MW-22	3788.97	5/12/20	67.39	-	0.00	3721.58	-	-	-	9.0	-
MW-22	3788.97	6/19/20	67.47	-	0.00	3721.50	-	-	-	-	-
MW-22	3788.97	7/29/20	67.58	-	0.00	3721.39	-	-	-	-	-
MW-22	3788.97	8/27/20	67.63	-	0.00	3721.34	-	-	-	-	-
MW-22	3788.97	9/14/20	67.69	-	0.00	3721.28	-	-	-	9.0	-
MW-22	3788.97	10/29/20	67.78	-	0.00	3721.19	-	-	-	8.5	-
MW-22	3788.97	12/7/20	67.83	-	0.00	3721.14	-	-	-	-	-
MW-22	3788.97	1/25/21	67.96	-	0.00	3721.01	-	-	-	-	-
MW-22	3788.97	2/8/21	68.00	-	0.00	3720.97	83.89	-	-	8.0	-
MW-22	3788.97	3/22/21	68.07	-	0.00	3720.90	-	-	-	-	-
MW-22	3788.97	5/3/21	68.15	-	0.00	3720.82	-	-	-	-	-
MW-22	3788.97	5/10/21	68.19	-	0.00	3720.78	-	-	-	8.0	-
MW-22	3788.97	7/28/21	68.33	-	0.00	3720.64	-	-	-	-	-
MW-22	3788.97	8/10/21	68.37	-	0.00	3720.60	84.30	-	-	8.0	-
MW-22	3788.97	9/29/21	68.50	-	0.00	3720.47	84.30	-	-	-	-
MW-22	3788.97	10/27/21	68.53	-	0.00	3720.44	84.30	-	-	-	-
MW-22	3788.97	11/10/21	68.54	-	0.00	3720.43	84.30	-	-	8.0	-
MW-22	3788.97	12/21/21	68.64	-	0.00	3720.33	84.30	-	-	-	-
MW-23	3790.93	1/8/20	-	-	-	-	-	-	1.0	2.0	-
MW-23	3790.93	1/15/20	-	-	-	-	-	-	0.5	0.2	-
MW-23	3790.93	1/29/20	-	-	-	-	-	-	0.4	1.0	-
MW-23	3790.93	2/11/20	69.37	67.93	1.44	3722.73	84.92	-	-	-	-
MW-23	3790.93	4/28/20	70.98	67.80	3.18	3722.53	-	-	-	-	-
MW-23	3790.93	5/12/20	71.28	67.74	3.54	3722.52	-	-	-	-	-
MW-23	3790.93	6/19/20	71.81	67.74	4.07	3722.42	-	-	-	-	-
MW-23	3790.93	7/29/20	72.04	67.75	4.29	3722.36	-	-	-	-	-
MW-23	3790.93	8/27/20	72.37	67.78	4.59	3722.28	-	-	-	-	-
MW-23	3790.93	9/14/20	72.50	67.88	4.62	3722.17	-	-	-	-	-
MW-23	3790.93	10/29/20	72.74	67.90	4.84	3722.11	-	-	-	-	-
MW-23	3790.93	12/7/20	72.92	67.95	4.97	3722.04	-	-	-	-	-
MW-23	3790.93	1/25/21	73.06	68.09	4.97	3721.90	-	-	-	-	-
MW-23	3790.93	2/8/21	73.07	68.12	4.95	3721.87	83.59	-	-	-	-
MW-23	3790.93	3/22/21	73.32	68.23	5.09	3721.73	-	-	-	-	-
MW-23	3790.93	5/3/21	73.46	68.30	5.16	3721.65	-	-	-	-	-
MW-23	3790.93	5/10/21	73.47	68.26	5.21	3721.68	-	-	-	-	-
MW-23	3790.93	7/28/21	73.70	68.49	5.21	3721.45	-	-	-	-	-
MW-23	3790.93	8/10/21	73.72	68.47	5.25	3721.46	-	-	-	-	-
MW-23	3790.93	9/29/21	73.75	68.60	5.15	3721.35	83.59	-	-	-	-
MW-23	3790.93	10/27/21	73.91	68.68	5.23	3721.26	83.59	-	-	-	-
MW-23	3790.93	11/10/21	73.85	68.68	5.17	3721.27	83.59	-	-	-	-
MW-23	3790.93	12/21/21	73.93	68.77	5.16	3721.18	83.59	-	-	-	-
MW-24	3791.40	2/27/20	-	-	-	-	-	-	-	15.0	-
MW-24	3791.40	3/12/20	68.30	-	0.00	3723.10	89.97	-	-	-	-
MW-24	3791.40	3/23/20	68.40	-	0.00	3723.00	90.02	-	-	11.0	-
MW-24	3791.40	4/28/20	68.47	-	0.00	3722.93	-	-	-	-	-
MW-24	3791.40	5/12/20	68.47	-	0.00	3722.93	-	-	-	11.0	-
MW-24	3791.40	6/19/20	68.58	-	0.00	3722.82	-	-	-	-	-
MW-24	3791.40	7/29/20	68.56	-	0.00	3722.84	-	-	-	-	-
MW-24	3791.40	8/27/20	68.74	-	0.00	3722.66	-	-	-	-	-
MW-24	3791.40	9/14/20	68.78	-	0.00	3722.62	-	-	-	11.0	-
MW-24	3791.40	10/29/20	68.68	-	0.00	3722.72	-	-	-	11.0	-
MW-24	3791.40	12/7/20	68.94	-	0.00	3722.46	-	-	-	-	-
MW-24	3791.40	1/25/21	69.06	-	0.00	3722.34	-	-	-	-	-
MW-24	3791.40	2/8/21	69.12	-	0.00	3722.28	89.97	-	-	10.0	-
MW-24	3791.40	3/22/21	69.19	-	0.00	3722.21	-	-	-	-	-
MW-24	3791.40	5/3/21	69.29	-	0.00	3722.11	-	-	-	-	-
MW-24	3791.40	5/10/21	69.30	-	0.00	3722.10	-	-	-	10.0	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-24	3791.40	7/28/21	69.48	-	0.00	3721.92	-	-	-	-	-
MW-24	3791.40	8/10/21	69.52	-	0.00	3721.88	90.10	-	-	10.0	-
MW-24	3791.40	9/29/21	69.63	-	0.00	3721.77	89.97	-	-	-	-
MW-24	3791.40	10/27/21	69.68	-	0.00	3721.72	89.97	-	-	-	-
MW-24	3791.40	11/10/21	69.67	-	0.00	3721.73	89.97	-	-	10.0	-
MW-24	3791.40	12/21/21	69.78	-	0.00	3721.62	89.97	-	-	-	-
MW-25	3790.01	2/27/20	-	-	-	-	-	-	-	15.0	-
MW-25	3790.01	3/12/20	67.57	-	0.00	3722.44	89.95	-	-	-	-
MW-25	3790.01	3/23/20	67.69	-	0.00	3722.32	90.09	-	-	11.0	-
MW-25	3790.01	4/28/20	67.76	-	0.00	3722.25	-	-	-	-	-
MW-25	3790.01	5/12/20	67.74	-	0.00	3722.27	-	-	-	12.0	-
MW-25	3790.01	6/19/20	67.87	-	0.00	3722.14	-	-	-	-	-
MW-25	3790.01	7/29/20	67.93	-	0.00	3722.08	-	-	-	-	-
MW-25	3790.01	8/27/20	68.00	-	0.00	3722.01	-	-	-	-	-
MW-25	3790.01	9/14/20	68.05	-	0.00	3721.96	-	-	-	12.0	-
MW-25	3790.01	10/29/20	68.14	-	0.00	3721.87	-	-	-	10.0	-
MW-25	3790.01	12/7/20	68.20	-	0.00	3721.81	-	-	-	-	-
MW-25	3790.01	1/25/21	68.33	-	0.00	3721.68	-	-	-	-	-
MW-25	3790.01	2/8/21	68.37	-	0.00	3721.64	89.95	-	-	10.5	-
MW-25	3790.01	3/22/21	68.46	-	0.00	3721.55	-	-	-	-	-
MW-25	3790.01	5/3/21	68.54	-	0.00	3721.47	-	-	-	-	-
MW-25	3790.01	5/10/21	68.55	-	0.00	3721.46	-	-	-	10.5	-
MW-25	3790.01	7/28/21	68.73	-	0.00	3721.28	-	-	-	-	-
MW-25	3790.01	8/10/21	68.77	-	0.00	3721.24	90.08	-	-	12.5	-
MW-25	3790.01	9/29/21	68.87	-	0.00	3721.14	89.95	-	-	-	-
MW-25	3790.01	10/27/21	69.93	-	0.00	3720.08	89.95	-	-	-	-
MW-25	3790.01	11/10/21	68.93	-	0.00	3721.08	89.95	-	-	10.0	-
MW-25	3790.01	12/21/21	69.02	-	0.00	3720.99	89.95	-	-	-	-
RW-01	P&A	2/19/20									
RW-1R	3790.43	3/3/20	-	-	-	-	-	-	-	45	-
RW-1R	3790.43	3/12/20	68.77	67.49	1.28	3722.70	90.8	-	-	-	-
RW-1R	3790.43	3/23/20	71.19	67.09	4.10	3722.56	90.96	-	-	-	-
RW-1R	3790.43	4/28/20	72.60	66.85	5.75	3722.49	-	-	-	-	-
RW-1R	3790.43	5/12/20	72.60	66.85	5.75	3722.49	-	-	-	-	-
RW-1R	3790.43	6/19/20	-	-	-	-	-	-	-	-	-
RW-1R	3790.43	7/29/20	73.18	67.09	6.09	3722.18	-	-	-	-	-
RW-1R	3790.43	8/27/20	-	-	-	-	-	-	-	-	-
RW-1R	3790.43	9/14/20	72.47	67.24	5.23	3722.20	-	-	-	-	-
RW-1R	3790.43	10/29/20	72.85	67.21	5.64	3722.15	-	-	-	-	-
RW-1R	3790.43	12/7/20	73.02	67.32	5.70	3722.03	-	-	-	-	-
RW-1R	3790.43	1/25/21	-	-	-	-	-	-	-	-	-
RW-1R	3790.43	2/8/21	72.65	67.59	5.06	3721.88	90.89	-	-	-	-
RW-1R	3790.43	3/22/21	-	-	-	-	-	-	-	-	-
RW-1R	3790.43	5/3/21	-	-	-	-	-	-	-	-	-
RW-1R	3790.43	5/10/21	72.80	67.79	5.01	3721.69	-	-	-	-	-
RW-1R	3790.43	7/28/21	73.68	67.84	5.84	3721.48	-	-	-	-	-
RW-1R	3790.43	8/10/21	73.90	68.02	5.88	3721.29	-	-	-	-	-
RW-1R	3790.43	9/29/21	74.05	67.11	6.94	3722.00	90.89	-	-	-	-
RW-1R	3790.43	10/27/21	74.03	68.16	5.87	3721.15	90.89	-	-	-	-
RW-1R	3790.43	11/10/21	74.05	68.17	5.88	3721.14	90.89	-	-	-	-
RW-1R	3790.43	12/21/21	74.21	68.26	5.95	3721.04	90.89	-	-	-	-
RW-02	P&A	2/19/20									
RW-03	3791.34	1/8/20	-	-	-	-	-	-	0.5	0.0	-
RW-03	3791.34	2/11/20	-	67.22	0.79+	LNAPL at TD	68.01	-	-	-	-
RW-03	3791.34	4/28/20	-	67.35	0.61+	LNAPL at TD	67.96	-	-	-	-
RW-03	3791.34	5/12/20	-	67.34	0.67+	LNAPL at TD	68.01	-	-	-	-
RW-03	3791.34	6/19/20	-	67.42	0.59+	LNAPL at TD	68.01	-	-	-	-
RW-03	3791.34	7/29/20	67.61	67.05	0.56	3724.18	-	-	-	-	-
RW-03	3791.34	8/27/20	-	67.55	0.40+	LNAPL at TD	67.95	-	-	-	-
RW-03	3791.34	9/14/20	-	67.60	0.30+	LNAPL at TD	67.90	-	-	-	-
RW-03	3791.34	10/29/20	-	67.61	0.34+	LNAPL at TD	67.95	-	-	-	-
RW-03	3791.34	12/7/20	-	67.61	0.34+	LNAPL at TD	67.95	-	-	-	-
RW-03	3791.34	1/25/21	-	67.70	0.18+	LNAPL at TD	67.88	-	-	-	-
RW-03	3791.34	2/8/21	-	67.74	0.16+	LNAPL at TD	67.90	-	-	-	-
RW-03	3791.34	3/22/21	-	67.82	0.09+	LNAPL at TD	67.91	-	-	-	-
RW-03	3791.34	5/3/21	-	67.82	0.10+	LNAPL at TD	67.92	-	-	-	-
RW-03	3791.34	5/10/21	-	-	-	Dry	67.88	-	-	-	-
RW-03	3791.34	7/28/21	-	-	-	Dry	67.89	-	-	-	-
RW-03	3791.34	8/10/21	-	-	-	Dry	67.79	-	-	-	-

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Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-03	3791.34	9/29/21	-	-	-	Dry	67.90	-	-	-	-
RW-03	3791.34	10/27/21	-	-	-	Dry	67.90	-	-	-	-
RW-03	3791.34	11/10/21	-	-	-	Dry	67.90	-	-	-	-
RW-03	3791.34	12/21/21	-	-	-	Dry	67.90	-	-	-	-
RW-04	3790.76	2/11/20	-	67.01	3.52+	LNAPL at TD	70.53	50-70 (4 in.)	-	-	-
RW-04	3790.76	4/8/20	68.80	67.12	1.68	3723.32	68.81	-	-	-	-
RW-04	3790.76	4/28/20	-	67.14	1.66+	LNAPL at TD	68.80	-	-	-	-
RW-04	3790.76	5/12/20	-	67.15	3.38+	LNAPL at TD	70.53	-	-	-	-
RW-04	3790.76	6/19/20	-	67.24	3.29+	LNAPL at TD	70.53	-	-	-	-
RW-04	3790.76	7/29/20	68.96	67.52	1.44	3722.97	-	-	-	-	-
RW-04	3790.76	8/27/20	68.84	67.38	1.46	3723.10	-	-	-	-	-
RW-04	3790.76	9/14/20	-	67.46	1.26+	LNAPL at TD	68.72	-	-	-	-
RW-04	3790.76	10/29/20	-	67.55	1.27+	LNAPL at TD	68.82	-	-	-	-
RW-04	3790.76	12/7/20	-	67.62	2.88+	LNAPL at TD	70.50	-	-	-	-
RW-04	3790.76	1/25/21	-	67.74	0.99+	LNAPL at TD	68.73	-	-	-	-
RW-04	3790.76	2/8/21	-	67.77	0.96+	LNAPL at TD	68.73	-	-	-	-
RW-04	3790.76	3/22/21	-	68.05	0.87+	LNAPL at TD	68.92	-	-	-	-
RW-04	3790.76	5/3/21	-	67.93	0.79+	LNAPL at TD	68.72	-	-	-	-
RW-04	3790.76	5/10/21	-	67.96	0.77+	LNAPL at TD	68.73	-	-	-	-
RW-04	3790.76	7/28/21	-	68.17	0.58+	LNAPL at TD	68.75	-	-	-	-
RW-04	3790.76	8/10/21	-	68.34	0.60+	LNAPL at TD	68.94	-	-	-	-
RW-04	3790.76	9/29/21	-	68.43	0.30+	LNAPL at TD	68.73	-	-	-	-
RW-04	3790.76	10/27/21	-	68.48	0.25+	LNAPL at TD	68.73	-	-	-	-
RW-04	3790.76	11/10/21	-	68.48	0.25+	LNAPL at TD	68.73	-	-	-	-
RW-04	3790.76	12/21/21	-	68.56	0.17+	LNAPL at TD	68.73	-	-	-	-
RW-05	3791.45	1/8/20	-	-	-	Dry	-	-	-	-	-
RW-05	3791.45	1/15/20	-	-	-	-	-	-	0	0	-
RW-05	3791.45	2/11/20	-	67.11	0.02+	LNAPL at TD	67.13	-	-	-	-
RW-05	3791.45	4/28/20	-	-	-	Dry	67.12	-	-	-	-
RW-05	3791.45	5/12/20	-	-	-	Dry	67.13	-	-	-	-
RW-05	3791.45	6/19/20	-	-	-	Dry	-	-	-	-	-
RW-05	3791.45	7/29/20	-	-	-	Dry	-	-	-	-	-
RW-05	3791.45	8/27/20	-	-	-	Dry	67.16	-	-	-	-
RW-05	3791.45	9/14/20	-	-	-	Dry	67.10	-	-	-	-
RW-05	3791.45	10/29/20	-	-	-	Dry	67.19	-	-	-	-
RW-05	3791.45	12/7/20	-	-	-	Dry	67.20	-	-	-	-
RW-05	3791.45	1/25/21	-	-	-	Dry	67.10	-	-	-	-
RW-05	3791.45	2/8/21	-	-	-	Dry	67.11	-	-	-	-
RW-05	3791.45	3/22/21	-	-	-	Dry	67.15	-	-	-	-
RW-05	3791.45	5/3/21	-	-	-	Dry	67.15	-	-	-	-
RW-05	3791.45	5/10/21	-	68.34	0.31+	LNAPL at TD	68.65	-	-	-	-
RW-05	3791.45	7/28/21	-	-	-	Dry	67.13	-	-	-	-
RW-05	3791.45	8/10/21	-	-	-	Dry	67.11	-	-	-	-
RW-05	3791.45	9/29/21	-	-	-	Dry	67.11	-	-	-	-
RW-05	3791.45	10/27/21	-	-	-	Dry	67.11	-	-	-	-
RW-05	3791.45	11/10/21	-	-	-	Dry	67.11	-	-	-	-
RW-05	3791.45	12/21/21	-	-	-	Dry	67.11	-	-	-	-
RW-06	3791.39	1/8/20	-	-	-	Dry	-	-	-	-	-
RW-06	3791.39	2/11/20	-	67.22	0.31+	LNAPL at TD	67.53	-	-	-	-
RW-06	3791.39	4/8/20	67.44	67.34	0.10	3724.03	67.58	-	-	-	-
RW-06	3791.39	4/28/20	67.45	67.35	0.10	3724.02	-	-	-	-	-
RW-06	3791.39	5/12/20	-	67.37	0.16+	LNAPL at TD	67.53	-	-	-	-
RW-06	3791.39	6/19/20	-	67.46	0.07+	LNAPL at TD	67.53	-	-	-	-
RW-06	3791.39	7/29/20	67.60	-	0.00	3723.79	-	-	-	-	-
RW-06	3791.39	8/27/20	-	-	-	Dry	67.50	-	-	-	-
RW-06	3791.39	9/14/20	-	-	-	Dry	67.45	-	-	-	-
RW-06	3791.39	10/29/20	-	-	-	Dry	67.56	-	-	-	-
RW-06	3791.39	12/7/20	-	-	-	Dry	67.62	-	-	-	-
RW-06	3791.39	1/25/21	-	-	-	Dry	67.45	-	-	-	-
RW-06	3791.39	2/8/21	-	-	-	Dry	67.47	-	-	-	-
RW-06	3791.39	3/22/21	-	-	-	Dry	67.49	-	-	-	-
RW-06	3791.39	5/3/21	-	-	-	Dry	67.52	-	-	-	-
RW-06	3791.39	5/10/21	-	-	-	Dry	67.48	-	-	-	-
RW-06	3791.39	7/28/21	-	-	-	Dry	67.46	-	-	-	-
RW-06	3791.39	8/10/21	-	-	-	Dry	67.50	-	-	-	-
RW-06	3791.39	9/29/21	-	-	-	Dry	67.47	-	-	-	-
RW-06	3791.39	10/27/21	-	-	-	Dry	67.47	-	-	-	-
RW-06	3791.39	11/10/21	-	-	-	Dry	67.47	-	-	-	-
RW-06	3791.39	12/21/21	-	-	-	Dry	67.47	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-07	3791.51	2/11/20	-	68.30	1.18+	LNAPL at TD	69.48	-	-	-	-
RW-07	3791.51	4/28/20	-	67.94	1.51+	LNAPL at TD	69.45	-	-	-	-
RW-07	3791.51	5/12/20	-	67.90	1.58+	LNAPL at TD	69.48	-	-	-	-
RW-07	3791.51	6/19/20	-	67.83	1.65+	LNAPL at TD	69.48	-	-	-	-
RW-07	3791.51	7/29/20	-	67.86	1.74+	LNAPL at TD	69.60	-	-	-	-
RW-07	3791.51	8/27/20	-	67.87	1.55+	LNAPL at TD	69.42	-	-	-	-
RW-07	3791.51	9/14/20	-	67.95	1.42+	LNAPL at TD	69.37	-	-	-	-
RW-07	3791.51	10/29/20	-	68.03	1.47+	LNAPL at TD	69.5	-	-	-	-
RW-07	3791.51	12/7/20	-	68.03	1.47+	LNAPL at TD	69.5	-	-	-	-
RW-07	3791.51	1/25/21	-	68.20	1.16+	LNAPL at TD	69.36	-	-	-	-
RW-07	3791.51	2/8/21	-	68.22	1.15+	LNAPL at TD	69.37	-	-	-	-
RW-07	3791.51	3/22/21	-	68.33	1.06+	LNAPL at TD	69.39	-	-	-	-
RW-07	3791.51	5/3/21	-	68.40	0.98+	LNAPL at TD	69.38	-	-	-	-
RW-07	3791.51	5/10/21	-	68.41	0.96+	LNAPL at TD	69.37	-	-	-	-
RW-07	3791.51	7/28/21	-	68.58	0.80+	LNAPL at TD	69.38	-	-	-	-
RW-07	3791.51	8/10/21	-	68.62	0.77+	LNAPL at TD	69.39	-	-	-	-
RW-07	3791.51	9/29/21	-	68.72	0.65+	LNAPL at TD	69.37	-	-	-	-
RW-07	3791.51	10/27/21	-	68.76	0.61+	LNAPL at TD	69.37	-	-	-	-
RW-07	3791.51	11/10/21	-	68.78	0.59+	LNAPL at TD	69.37	-	-	-	-
RW-07	3791.51	12/21/21	-	68.83	0.54+	LNAPL at TD	69.37	-	-	-	-
RW-08	3790.90	2/11/20	-	66.93	0.93+	LNAPL at TD	67.86	47-67 (4 in.)	-	-	-
RW-08	3790.90	3/11/20	-	67.00	0.86+	LNAPL at TD	67.86	-	-	-	-
RW-08	3790.90	3/23/20	-	67.00	0.86+	LNAPL at TD	67.86	-	-	-	-
RW-08	3790.90	4/28/20	-	67.06	0.76+	LNAPL at TD	67.82	-	-	-	-
RW-08	3790.90	5/12/20	-	67.09	0.77+	LNAPL at TD	67.86	-	-	-	-
RW-08	3790.90	6/19/20	-	67.17	0.69+	LNAPL at TD	67.86	-	-	-	-
RW-08	3790.90	7/29/20	-	67.32	0.38+	LNAPL at TD	67.70	-	-	-	-
RW-08	3790.90	8/27/20	-	67.29	0.34+	LNAPL at TD	67.63	-	-	-	-
RW-08	3790.90	9/14/20	-	67.37	0.10+	LNAPL at TD	67.47	-	-	-	-
RW-08	3790.90	10/29/20	-	67.45	0.13+	LNAPL at TD	67.58	-	-	-	-
RW-08	3790.90	12/7/20	-	67.52	0.14+	LNAPL at TD	67.66	-	-	-	-
RW-08	3790.90	1/25/21	-	-	-	Dry	67.45	-	-	-	-
RW-08	3790.90	2/8/21	-	-	-	Dry	67.47	-	-	-	-
RW-08	3790.90	3/22/21	-	-	-	Dry	67.43	-	-	-	-
RW-08	3790.90	5/3/21	-	-	-	Dry	67.48	-	-	-	-
RW-08	3790.90	5/10/21	-	-	-	Dry	67.46	-	-	-	-
RW-08	3790.90	7/28/21	-	-	-	Dry	67.46	-	-	-	-
RW-08	3790.90	8/10/21	-	-	-	Dry	67.51	-	-	-	-
RW-08	3790.90	9/29/21	-	-	-	Dry	67.47	-	-	-	-
RW-08	3790.90	10/27/21	-	-	-	Dry	67.47	-	-	-	-
RW-08	3790.90	11/10/21	-	-	-	Dry	67.47	-	-	-	-
RW-08	3790.90	12/21/21	-	-	-	Dry	67.47	-	-	-	-
RW-09	3791.33	1/15/20	-	-	-	-	-	-	0.3	0	-
RW-09	3791.33	2/11/20	68.69	68.49	0.20	3722.80	73.29	-	-	-	-
RW-09	3791.33	4/28/20	68.81	68.60	0.21	3722.69	-	-	-	-	-
RW-09	3791.33	5/12/20	68.85	68.65	0.20	3722.64	-	-	-	-	-
RW-09	3791.33	6/19/20	68.93	68.71	0.22	3722.58	-	-	-	-	-
RW-09	3791.33	7/29/20	69.05	68.81	0.24	3722.47	-	-	-	-	-
RW-09	3791.33	8/27/20	69.07	68.85	0.22	3722.44	-	-	-	-	-
RW-09	3791.33	9/14/20	69.15	68.94	0.21	3722.35	-	-	-	-	-
RW-09	3791.33	10/29/20	69.30	69.03	0.27	3722.25	-	-	-	-	-
RW-09	3791.33	12/7/20	69.32	69.06	0.26	3722.22	-	-	-	-	-
RW-09	3791.33	1/25/21	69.42	69.20	0.22	3722.09	-	-	-	-	-
RW-09	3791.33	2/8/21	69.45	69.25	0.20	3722.04	71.06	-	-	-	-
RW-09	3791.33	3/22/21	69.56	69.34	0.22	3721.95	-	-	-	-	-
RW-09	3791.33	5/3/21	69.63	69.41	0.22	3721.88	-	-	-	-	-
RW-09	3791.33	5/10/21	69.64	69.45	0.19	3721.84	-	-	-	-	-
RW-09	3791.33	7/28/21	69.82	69.62	0.20	3721.67	-	-	-	-	-
RW-09	3791.33	8/10/21	69.89	69.68	0.21	3721.61	-	-	-	-	-
RW-09	3791.33	9/29/21	70.00	69.78	0.22	3721.51	71.06	-	-	-	-
RW-09	3791.33	10/27/21	70.01	69.76	0.25	3721.52	71.06	-	-	-	-
RW-09	3791.33	11/10/21	70.03	69.76	0.27	3721.52	71.06	-	-	-	-
RW-09	3791.33	12/21/21	69.85	69.45	0.40	3721.80	71.06	-	-	-	-
RW-10	3791.16	2/11/20	-	-	-	Dry	68.68	-	-	-	-
RW-10	3791.16	4/28/20	68.74	67.55	1.19	3723.38	-	-	-	-	-
RW-10	3791.16	5/12/20	-	67.56	1.12+	LNAPL at TD	68.68	-	-	-	-
RW-10	3791.16	6/19/20	-	67.62	1.06+	LNAPL at TD	68.68	-	-	-	-
RW-10	3791.16	7/29/20	-	67.74	0.46+	LNAPL at TD	68.20	-	-	-	-
RW-10	3791.16	8/27/20	-	67.74	0.94+	LNAPL at TD	68.68	-	-	-	-

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Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-10	3791.16	9/14/20	-	67.07	1.62+	LNAPL at TD	68.69	-	-	-	-
RW-10	3791.16	10/29/20	-	67.93	0.37+	LNAPL at TD	68.30	-	-	-	-
RW-10	3791.16	12/7/20	68.70	67.97	0.73	3723.05	-	-	-	-	-
RW-10	3791.16	1/25/21	-	68.01	0.59+	LNAPL at TD	68.60	-	-	-	-
RW-10	3791.16	2/8/21	-	68.13	0.52+	LNAPL at TD	68.65	-	-	-	-
RW-10	3791.16	3/22/21	-	68.28	0.42+	LNAPL at TD	68.70	-	-	-	-
RW-10	3791.16	5/3/21	-	68.30	0.15+	LNAPL at TD	68.45	-	-	-	-
RW-10	3791.16	5/10/21	-	68.34	0.31+	LNAPL at TD	68.65	-	-	-	-
RW-10	3791.16	7/28/21	-	-	-	Dry	68.46	-	-	-	-
RW-10	3791.16	8/10/21	-	68.53	0.12+	LNAPL at TD	68.65	-	-	-	-
RW-10	3791.16	9/29/21	-	68.64	0.01+	LNAPL at TD	68.65	-	-	-	-
RW-10	3791.16	10/27/21	-	-	-	Dry	68.65	-	-	-	-
RW-10	3791.16	11/10/21	-	-	-	Dry	68.65	-	-	-	-
RW-10	3791.16	12/21/21	-	-	-	Dry	68.65	-	-	-	-
RW-11	3790.82	1/15/20	-	-	-	-	-	-	0.4	1.6	-
RW-11	3790.82	1/29/20	-	-	-	-	-	-	1.5	1.0	-
RW-11	3790.82	2/11/20	68.70	68.18	0.52	3722.54	74.93	-	-	-	-
RW-11	3790.82	2/25/20	-	-	-	-	-	-	1.0	0.2	-
RW-11	3790.82	4/28/20	69.81	68.10	1.71	3722.40	-	-	-	-	-
RW-11	3790.82	5/12/20	70.00	68.08	1.92	3722.38	-	-	-	-	-
RW-11	3790.82	6/19/20	70.56	68.07	2.49	3722.28	-	-	-	-	-
RW-11	3790.82	7/29/20	71.10	68.05	3.05	3722.19	-	-	-	-	-
RW-11	3790.82	8/27/20	71.42	68.04	3.38	3722.14	-	-	-	-	-
RW-11	3790.82	9/14/20	71.65	68.09	3.56	3722.05	-	-	-	-	-
RW-11	3790.82	10/29/20	72.03	68.10	3.93	3721.97	-	-	-	-	-
RW-11	3790.82	12/7/20	72.35	68.09	4.26	3721.92	-	-	-	-	-
RW-11	3790.82	1/25/21	-	68.04	4.25+	LNAPL at TD	72.29	-	-	-	-
RW-11	3790.82	2/8/21	-	68.03	4.27+	LNAPL at TD	72.30	-	-	-	-
RW-11	3790.82	3/22/21	-	68.07	4.25+	LNAPL at TD	72.32	-	-	-	-
RW-11	3790.82	5/3/21	-	68.13	4.17+	LNAPL at TD	72.30	-	-	-	-
RW-11	3790.82	5/10/21	-	68.05	4.38+	LNAPL at TD	72.43	-	-	-	-
RW-11	3790.82	7/28/21	-	68.28	4.03+	LNAPL at TD	72.31	-	-	-	-
RW-11	3790.82	8/10/21	-	68.33	4.01+	LNAPL at TD	72.34	-	-	-	-
RW-11	3790.82	9/29/21	-	68.40	3.94+	LNAPL at TD	72.34	-	-	-	-
RW-11	3790.82	10/27/21		68.48	3.86+	LNAPl at TD	72.34	-	-	-	-
RW-11	3790.82	11/10/21	-	68.48	3.86+	LNAPL at TD	72.34	-	-	-	-
RW-11	3790.82	12/21/21	-	68.57	3.77+	LNAPL at TD	72.34	-	-	-	-
RW-12	3791.20	2/11/20	68.21	-	0.00	3722.99	88.59	-	-	40.0	-
RW-12	3791.20	2/25/20	-	-	-	-	-	-	0.8	0.4	-
RW-12	3791.20	3/17/20	-	-	-	-	-	-	-	3.0	-
RW-12	3791.20	4/28/20	68.38	-	0.00	3722.82	-	-	-	-	-
RW-12	3791.20	5/12/20	68.36	-	0.00	3722.84	-	-	-	40.0	-
RW-12	3791.20	6/19/20	68.45	-	0.00	3722.75	-	-	-	-	-
RW-12	3791.20	7/29/20	67.53	-	0.00	3723.67	-	-	-	-	-
RW-12	3791.20	8/27/20	68.61	-	0.00	3722.59	-	-	-	-	-
RW-12	3791.20	9/14/20	68.65	-	0.00	3722.55	-	-	-	40.0	-
RW-12	3791.20	10/29/20	68.74	-	0.00	3722.46	-	-	-	38.0	-
RW-12	3791.20	12/7/20	68.83	-	0.00	3722.37	-	-	-	38.0	-
RW-12	3791.20	1/25/21	68.94	-	0.00	3722.26	-	-	-	38.0	-
RW-12	3791.20	2/8/21	69.00	-	0.00	3722.20	85.48	-	-	32.0	-
RW-12	3791.20	3/22/21	69.07	-	0.00	3722.13	-	-	-	-	-
RW-12	3791.20	5/3/21	69.16	-	0.00	3722.04	-	-	-	-	-
RW-12	3791.20	5/10/21	68.31	-	0.00	3722.89	-	-	-	32.0	-
RW-12	3791.20	7/28/21	69.36	-	0.00	3721.84	-	-	-	-	-
RW-12	3791.20	8/10/21	69.40	-	0.00	3721.80	85.55	-	-	31.5	-
RW-12	3791.20	9/29/21	69.50	-	0.00	3721.70	85.55	-	-	-	-
RW-12	3791.20	10/27/21	69.56	-	0.00	3721.64	85.55	-	-	-	-
RW-12	3791.20	11/10/21	69.57	-	0.00	3721.63	85.55	-	-	32.0	-
RW-12	3791.20	12/21/21	69.64	-	0.00	3721.56	85.55	-	-	-	-
RW-13	3791.08	2/11/20	73.32	67.39	5.93	3722.56	84.33	-	-	-	-
RW-13	3791.08	4/28/20	-	-	-	-	-	-	-	-	-
RW-13	3791.08	5/12/20	71.57	67.75	3.82	3722.60	-	-	-	-	-
RW-13	3791.08	6/19/20	73.31	67.43	5.88	3722.53	-	-	-	-	-
RW-13	3791.08	7/29/20	74.04	67.74	6.30	3722.14	-	-	-	-	-
RW-13	3791.08	8/27/20	73.56	67.57	5.99	3722.37	-	-	-	-	-
RW-13	3791.08	9/14/20	73.88	67.61	6.27	3722.28	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-13	3791.08	10/29/20	71.80	68.09	3.71	3722.29	-	-	-	-	-
RW-13	3791.08	12/7/20	-	-	-	-	-	-	-	-	-
RW-13	3791.08	1/25/21	73.66	67.96	5.70	3722.04	-	-	-	-	-
RW-13	3791.08	2/8/21	73.85	67.95	5.90	3722.01	81.83	-	-	-	-
RW-13	3791.08	3/22/21	74.32	68.07	6.25	3721.82	-	-	-	-	-
RW-13	3791.08	5/3/21	74.26	68.09	6.17	3721.82	-	-	-	-	-
RW-13	3791.08	5/10/21	74.29	68.10	6.19	3721.80	-	-	-	-	-
RW-13	3791.08	7/28/21	-	-	-	-	-	-	-	-	-
RW-13	3791.08	8/10/21	74.65	68.66	5.99	3721.28	-	-	-	-	-
RW-13	3791.08	9/29/21	71.46	68.85	2.61	3721.73	81.83	-	-	-	-
RW-13	3791.08	10/27/21	-	-	-	Pump	81.83	-	-	-	-
RW-13	3791.08	11/10/21	75.18	68.73	6.45	3721.12	81.83	-	-	-	-
RW-13	3791.08	12/21/21	-	-	-	Pump	81.83	-	-	-	-
RW-14	3790.92	2/11/20	73.69	67.48	6.21	3722.26	81.46	-	-	-	-
RW-14	3790.92	4/21/20	77.16	66.94	10.22	3722.04	-	-	-	-	-
RW-14	3790.92	4/28/20	-	-	-	-	-	-	-	-	-
RW-14	3790.92	5/12/20	74.44	67.31	7.13	3722.26	-	-	-	-	-
RW-14	3790.92	6/19/20	-	-	-	-	-	-	-	-	-
RW-14	3790.92	7/29/20	-	-	-	-	-	-	-	-	-
RW-14	3790.92	8/27/20	-	-	-	-	-	-	-	-	-
RW-14	3790.69	9/14/20	74.74	67.80	6.94	3721.57	-	-	-	-	-
RW-14	3790.69	10/29/20	76.77	67.42	9.35	3721.49	-	-	-	-	-
RW-14	3791.08	12/7/20	-	-	-	-	-	-	-	-	-
RW-14	3791.08	1/25/21	-	-	-	-	-	-	-	-	-
RW-14	3790.69	2/8/21	76.55	67.71	8.84	3721.30	79.41	-	-	-	-
RW-14	3791.08	3/22/21	-	-	-	-	-	-	-	-	-
RW-14	3791.08	5/3/21	-	-	-	-	-	-	-	-	-
RW-14	3791.08	5/10/21	74.93	68.20	6.73	3721.60	-	-	-	-	-
RW-14	3791.08	7/28/21	-	-	-	-	-	-	-	-	-
RW-14	3791.08	8/10/21	75.88	68.51	7.37	3721.17	-	-	-	-	-
RW-14	3791.08	9/29/21	76.22	68.63	7.59	3721.01	79.41	-	-	-	-
RW-14	3791.08	10/27/21	75.30	68.66	6.64	3721.16	79.41	-	-	-	-
RW-14	3791.08	11/10/21	75.31	68.66	6.65	3721.16	79.41	-	-	-	-
RW-14	3791.08	12/21/21	75.39	68.75	6.64	3721.07	79.41	-	-	-	-
RW-15	3789.74	2/28/20	-	-	-	-	-	-	-	45	-
RW-15	3789.74	3/12/20	67.53	-	0.00	3722.21	90.89	-	-	-	-
RW-15	3789.74	3/23/20	67.65	67.64	0.01	3722.10	90.96	-	-	-	-
RW-15	3789.74	4/28/20	67.71	-	0.00	3722.03	-	-	-	-	-
RW-15	3789.74	5/12/20	67.72	67.70	0.02	3722.04	-	-	-	-	-
RW-15	3789.74	6/19/20	67.84	67.79	0.05	3721.94	-	-	-	-	-
RW-15	3789.74	7/29/20	68.00	67.75	0.25	3721.94	-	-	-	-	-
RW-15	3789.74	8/27/20	68.11	67.89	0.22	3721.81	-	-	-	-	-
RW-15	3789.74	9/14/20	68.21	67.95	0.26	3721.74	-	-	-	-	-
RW-15	3789.74	10/29/20	68.43	68.00	0.43	3721.66	-	-	-	-	-
RW-15	3789.74	12/7/20	68.59	68.07	0.52	3721.57	-	-	-	-	-
RW-15	3789.74	1/25/21	68.80	68.18	0.62	3721.44	-	-	-	-	-
RW-15	3789.74	2/8/21	68.84	68.21	0.63	3721.41	90.85	-	-	-	-
RW-15	3789.74	3/22/21	69.00	68.31	0.69	3721.30	-	-	-	-	-
RW-15	3789.74	5/3/21	69.09	68.38	0.71	3721.23	-	-	-	-	-
RW-15	3789.74	5/10/21	69.12	68.37	0.75	3721.23	-	-	-	-	-
RW-15	3789.74	7/28/21	69.46	68.56	0.90	3721.01	-	-	-	-	-
RW-15	3789.74	8/10/21	69.49	68.56	0.93	3721.00	-	-	-	-	-
RW-15	3789.74	9/29/21	69.66	68.64	1.02	3720.91	90.85	-	-	-	-
RW-15	3789.74	10/27/21	69.70	68.68	1.02	3720.87	90.85	-	-	-	-
RW-15	3789.74	11/10/21	69.72	68.68	1.04	3720.86	90.85	-	-	-	-
RW-15	3789.74	12/21/21	70.11	68.74	1.37	3720.74	90.85	-	-	-	-
RW-16	3789.70	3/2/20	67.28	-	0.00	3722.42	91.15	-	-	45	-
RW-16	3789.70	3/12/20	69.54	67.70	1.84	3721.65	90.9	-	-	-	-
RW-16	3789.70	3/23/20	71.85	67.32	4.53	3721.52	91	-	-	-	-
RW-16	3789.70	4/28/20	73.10	67.11	5.99	3721.45	-	-	-	-	-
RW-16	3789.70	5/12/20	72.88	67.20	5.68	3721.42	-	-	-	-	-
RW-16	3789.70	6/19/20	-	-	-	-	-	-	-	-	-
RW-16	3789.70	7/29/20	-	-	-	-	-	-	-	-	-
RW-16	3789.70	8/27/20	-	-	-	-	-	-	-	-	-
RW-16	3789.70	9/14/20	72.62	66.71	5.91	3721.87	-	-	-	-	-
RW-16	3789.70	10/29/20	73.03	67.64	5.39	3721.04	-	-	-	-	-
RW-16	3789.70	12/7/20	-	-	-	-	-	-	-	-	-
RW-16	3789.70	1/25/21	-	-	-	-	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-16	3789.70	2/8/21	73.13	63.86	9.27	3724.08	90.99	-	-	-	-
RW-16	3789.70	3/22/21	-	-	-	-	-	-	-	-	-
RW-16	3789.70	5/3/21	-	-	-	-	-	-	-	-	-
RW-16	3789.70	5/10/21	73.32	68.10	5.22	3720.61	-	-	-	-	-
RW-16	3789.70	7/28/21	-	-	-	-	-	-	-	-	-
RW-16	3789.70	8/10/21	74.77	68.12	6.65	3720.32	-	-	-	-	-
RW-16	3789.70	9/29/21	72.14	68.17	3.97	3720.78	90.99	-	-	-	-
RW-16	3789.70	10/27/21	-	-	-	Pump	90.99	-	-	-	-
RW-16	3789.70	11/10/21	75.63	68.26	7.37	3720.04	90.99	-	-	-	-
RW-16	3789.70	12/21/21	-	-	-	Pump	90.99	-	-	-	-
RW-17	3790.62	3/2/20	67.94	-	0.00	3722.68	90.85	-	-	45	-
RW-17	3790.62	3/12/20	68.18	67.93	0.25	3722.64	90.85	-	-	-	-
RW-17	3790.62	3/23/20	68.52	68.00	0.52	3722.52	90.97	-	-	-	-
RW-17	3790.62	4/28/20	69.61	67.84	1.77	3722.44	-	-	-	-	-
RW-17	3790.62	5/12/20	70.30	67.70	2.60	3722.43	-	-	-	-	-
RW-17	3790.62	6/19/20	72.75	67.27	5.48	3722.31	-	-	-	-	-
RW-17	3790.62	7/29/20	73.55	67.20	6.35	3722.21	-	-	-	-	-
RW-17	3790.62	8/27/20	73.63	67.25	6.38	3722.16	-	-	-	-	-
RW-17	3790.62	9/14/20	73.65	67.31	6.34	3722.11	-	-	-	-	-
RW-17	3790.62	10/29/20	73.70	67.42	6.28	3722.01	-	-	-	-	-
RW-17	3790.62	12/7/20	73.75	67.51	6.24	3721.92	-	-	-	-	-
RW-17	3790.62	1/25/21	73.82	67.65	6.17	3721.80	-	-	-	-	-
RW-17	3790.62	2/8/21	73.83	67.66	6.17	3721.79	90.85	-	-	-	-
RW-17	3790.62	3/22/21	73.90	67.77	6.13	3721.69	-	-	-	-	-
RW-17	3790.62	5/3/21	73.96	67.50	6.46	3721.89	-	-	-	-	-
RW-17	3790.62	5/10/21	73.97	67.86	6.11	3721.60	-	-	-	-	-
RW-17	3790.62	7/28/21	74.13	68.05	6.08	3721.41	-	-	-	-	-
RW-17	3790.62	8/10/21	74.16	68.09	6.07	3721.38	-	-	-	-	-
RW-17	3790.62	9/29/21	74.30	68.18	6.12	3721.28	90.85	-	-	-	-
RW-17	3790.62	10/27/21	74.33	68.22	6.11	3721.24	90.85	-	-	-	-
RW-17	3790.62	11/10/21	74.33	68.22	6.11	3721.24	90.85	-	-	-	-
RW-17	3790.62	12/21/21	74.45	68.34	6.11	3721.12	90.85	-	-	-	-
RW-18	3790.85	3/3/20	-	-	-	-	-	-	-	45	-
RW-18	3790.85	3/12/20	69.02	67.45	1.57	3723.10	90.75	-	-	-	-
RW-18	3790.85	3/23/20	71.76	67.00	4.76	3722.95	90.84	-	-	-	-
RW-18	3790.85	4/28/20	73.25	66.75	6.50	3722.87	-	-	-	-	-
RW-18	3790.85	5/12/20	72.80	66.84	5.96	3722.88	-	-	-	-	-
RW-18	3790.85	6/19/20	-	-	-	-	-	-	-	-	-
RW-18	3790.85	7/29/20	-	-	-	-	-	-	-	-	-
RW-18	3790.85	8/27/20	-	-	-	-	-	-	-	-	-
RW-18	3790.85	9/14/20	73.97	67.51	6.46	3722.11	-	-	-	-	-
RW-18	3790.85	10/29/20	74.06	67.58	6.48	3722.04	-	-	-	-	-
RW-18	3790.85	12/7/20	-	-	-	-	-	-	-	-	-
RW-18	3790.85	1/25/21	-	-	-	-	-	-	-	-	-
RW-18	3790.85	2/8/21	74.17	67.82	6.35	3721.82	90.67	-	-	-	-
RW-18	3790.85	3/22/21	-	-	-	-	-	-	-	-	-
RW-18	3790.85	5/3/21	-	-	-	-	-	-	-	-	-
RW-18	3790.85	5/10/21	74.65	67.94	6.71	3721.64	-	-	-	-	-
RW-18	3790.85	7/28/21	-	-	-	-	-	-	-	-	-
RW-18	3790.85	8/10/21	75.09	68.25	6.84	3721.30	-	-	-	-	-
RW-18	3790.85	9/29/21	72.33	68.35	3.98	3721.74	90.67	-	-	-	-
RW-18	3790.85	10/27/21	-	-	-	Pump	90.67	-	-	-	-
RW-18	3790.85	11/10/21	74.55	68.48	6.07	3721.22	90.67	-	-	-	-
RW-18	3790.85	12/21/21	-	-	-	Pump	90.67	-	-	-	-
RW-19	3790.46	2/27/20	-	-	-	-	-	-	-	45	-
RW-19	3790.46	3/12/20	69.20	67.45	1.75	3722.68	90.75	-	-	-	-
RW-19	3790.46	3/23/20	70.18	67.40	2.78	3722.53	90.98	-	-	-	-
RW-19	3790.46	4/28/20	72.08	67.05	5.03	3722.45	-	-	-	-	-
RW-19	3790.46	5/12/20	72.51	66.98	5.53	3722.43	-	-	-	-	-
RW-19	3790.46	6/19/20	72.98	67.00	5.98	3722.32	-	-	-	-	-
RW-19	3790.46	7/29/20	73.15	67.06	6.09	3722.24	-	-	-	-	-
RW-19	3790.46	8/27/20	73.24	67.10	6.14	3722.19	-	-	-	-	-
RW-19	3790.46	9/14/20	73.30	67.18	6.12	3722.12	-	-	-	-	-
RW-19	3790.46	10/29/20	73.40	67.25	6.15	3722.04	-	-	-	-	-
RW-19	3790.46	12/7/20	73.52	67.33	6.19	3721.95	-	-	-	-	-
RW-19	3790.46	1/25/21	73.65	67.46	6.19	3721.82	-	-	-	-	-
RW-19	3790.46	2/8/21	73.68	67.50	6.18	3721.79	90.86	-	-	-	-
RW-19	3790.46	3/22/21	73.79	67.58	6.21	3721.70	-	-	-	-	-
RW-19	3790.46	5/3/21	73.86	67.67	6.19	3721.61	-	-	-	-	-
RW-19	3790.46	5/10/21	73.86	67.68	6.18	3721.61	-	-	-	-	-

Table 1
Monthly Gauging and Elevation of the Potentiometric Surface Data for 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	Thickness of LNAPL (ft.)	Elevation of Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Screen Interval (fbgs) Well Diameter (in.)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-19	3790.46	7/28/21	74.11	67.86	6.25	3721.41	-	-	-	-	-
RW-19	3790.46	8/10/21	74.09	67.89	6.20	3721.39	-	-	-	-	-
RW-19	3790.46	9/29/21	74.15	67.99	6.16	3721.30	90.86	-	-	-	-
RW-19	3790.46	10/27/21	74.18	68.03	6.15	3721.26	90.86	-	-	-	-
RW-19	3790.46	11/10/21	74.20	68.05	6.15	3721.24	90.86	-	-	-	-
RW-19	3790.46	12/21/21	74.30	68.14	6.16	3721.15	90.86	-	-	-	-

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. Factor of 0.81 was used for density of LNAPL to calculate elevation of potentiometric surface where measureable thickness of LNAPL was present.
6. LNAPL at TD - LNAPL was present at bottom of well; therefore full thickness of LNAPL could not be determined.

Table 2
BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-2	2/14/20	**0.0188**	<0.000412	<0.000160	0.000510
MW-2	5/14/20	<0.000190	**0.000734 J**	**0.000363 J**	**0.00746**
MW-2	2/22/21	**0.00583**	<0.000412	<0.000160	**0.0757**
MW-2	8/11/21	**0.0144**	<0.000412	<0.000160	**0.0519**
MW-2 (DUP-2)	8/11/21	**0.0262**	<0.000412	<0.000160	**0.145**
MW-2	11/11/21	<0.000190	<0.000412	<0.000160	**0.00180 B**
MW-2 (DUP)	11/11/21	**0.000425 J**	**0.000299 J**	**0.000162 J**	**0.000630 J**
MW-4	11/2/20	**0.00402 J**	<0.000412	<0.000160	<0.000510
MW-6	2/14/20	**0.0291**	<0.0291	**0.00865**	**0.00736**
MW-6	5/14/20	**0.0223**	<0.000412	**0.000855**	**0.00447**
MW-6	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-6 (DUP-2)	9/18/20	**0.0268**	<0.000412	<0.000160	**0.00285**
MW-6	11/5/20	**0.00438**	<0.000412	**0.00168**	**0.00321**
MW-6 (DUP-2)	11/5/20	**0.00604**	<0.000412	**0.00199**	**0.00344**
MW-6	2/22/21	**0.00170**	<0.000412	**0.000836**	**0.00192**
MW-6 (DUP-2)	2/22/21	**0.00166**	<0.000412	**0.000835**	**0.0019**
MW-6	5/14/21	<0.000190	<0.000412	**0.000348 J**	**0.00201**
MW-6	8/11/21	**0.00405**	<0.000412	<0.000160	**0.0280**
MW-6	11/11/21	**0.000858**	<0.000412	<0.000160	**0.000559 B J**
MW-7	5/14/20	**0.000267 J**	<0.000412	**0.000515**	**0.00112 J**
MW-7	9/18/20	**0.0249**	<0.000412	<0.000160	**0.00552**
MW-7 (DUP-1)	9/18/20	**0.000399 J**	<0.000412	<0.000160	**0.00107 J**
MW-7	11/2/20	**0.000747**	<0.000412	<0.000160	**0.00107 J**
MW-7 (DUP-1)	11/2/20	**0.000846**	<0.000412	<0.000160	<0.000510
MW-7	5/14/21	<0.000190	<0.000412	**0.000310 J**	**0.00192**
MW-7	11/11/21	**0.000667**	<0.000412	<0.000160	<0.000510
MW-11R	3/26/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-12R	2/14/20	**0.000366 B J**	**0.000476 B J**	<0.000160	**0.000783 B J**
MW-12R	5/14/20	**0.000247 J**	<0.000412	<0.000160	<0.000510
MW-12R	9/18/20	**0.000654**	<0.000412	<0.000160	**0.00194**
MW-12R	11/2/20	**0.00395 J**	<0.000412	<0.000160	<0.000510
MW-12R	2/22/21	**0.000626**	<0.000412	**0.000240 J**	<0.000510
MW-12R	5/14/21	<0.000190	<0.000412	**0.000305 J**	**0.000655 J**
MW-12R (DUP-2)	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510

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Table 2
BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-12R	8/11/21	**0.000811**	<0.000412	**0.000211 B J**	<0.000510
MW-12R	11/11/21	**0.00135**	<0.000412	**0.000300 B J**	<0.000510
MW-16R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R (DUP-1)	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-16R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-17R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R (DUP-1)	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	9/18/20	**0.000660**	<0.000412	<0.000160	**0.00137 J**
MW-18R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-18R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-19R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510

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Table 2
BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-20R	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-20R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-21R	3/26/20	<0.00190	<0.00412	<0.000160	<0.000510
MW-21R	5/14/20	<0.00190	<0.00412	<0.000160	<0.000510
MW-21R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-21R	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-21R	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-21R	5/14/21	<0.000190	<0.000412	**0.000183 J**	<0.000510
MW-21R (DUP-1)	5/14/21	<0.000190	<0.000412	**0.000302 J**	<0.000510
MW-21R	8/11/21	**0.000195 J**	<0.000412	**0.000228 B J**	<0.000510
MW-21R	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	9/18/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-22	8/11/21	**0.000269 J**	<0.000412	<0.000160	<0.000510
MW-22	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	3/26/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-24	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	3/26/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-25 (DUP-1)	3/26/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	5/14/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-25 (DUP-2)	5/14/2020	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	11/2/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	2/22/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	5/14/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	8/11/21	<0.000190	<0.000412	<0.000160	<0.000510
MW-25	11/11/21	<0.000190	<0.000412	<0.000160	<0.000510
RW-12	2/14/20	**0.00479**	**0.00242 B**	**0.00688**	**0.061**
RW-12	5/14/20	**0.00199**	**0.00485**	**0.000594**	**0.105**
RW-12	9/17/20	**0.000599**	**0.000742**	<0.000160	**0.0138**
RW-12	11/2/20	<0.000190	<0.000412	<0.000160	**0.00349**
RW-12	2/22/21	<0.000190	<0.000412	<0.000160	**0.00821**

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Table 2
BTEX Analytical Results for Groundwater Sampling Events 2020-2021
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
RW-12	5/14/21	**0.00138**	**0.00325**	**0.00118**	**0.104**
RW-12	8/11/21	**0.000489 J**	<0.000412	**0.000212 B J**	**0.00545**
RW-12 (DUP-1)	8/11/21	**0.000672**	<0.000412	**0.000197 B J**	**0.00765**
RW-12	11/11/21	<0.000190	<0.000412	**0.000219 B J**	**0.0129**
Trip Blank	2/14/20	<0.000190	<0.000412	<0.000160	<0.000510

Notes:

1. Yellow shaded cells indicate concentrations exceeding New Mexico Water Quality Control Commission Human Health Standards.
2. Bold indicates detection.
3. BTEX analyses by EPA Method 8021B.
4. MW-12R, MW-16R, MW-18R, MW-22, MW-23, and RW-12 were installed in February 2017.
5. Flag J indicates the identification of the analyte is acceptable and the reported result is an estimate.
6. Flag B indicates the same analyte is found in the associated blank.

Table 3

Polycyclic Aromatic Hydrocarbons Analytical Results
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Sample ID	Sample Date	Anthracene	Acenaphthene (mg/L)	Acenaphthylene (mg/l)	Benzo(a)anthracene (mg/L)	Benzo(a)pyrene (mg/L)	Benzo(b)fluoranthene (mg/L)	Benzo(g,h,i)perylene (mg/L)	Benzo(k)fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)anthracene (mg/L)	Dibenzofuran (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3-cd)pyrene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)
		NMOCD Regulatory Standards																		
		0.001	0.001	0.001	0.001	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.03		
MW-1	11/24/08	<0.000183	<0.000183	**0.00485**	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.0106**	<0.000183	**0.0167**	<0.000183	**0.0205**	<0.000183	**0.122**	**0.173**	**0.250**
MW-1	12/08/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0164**	<0.000922	**0.0436**	<0.000922	**0.0719**	<0.000922	**0.106**	<0.000922	**0.350**	**0.748**	**1.09**
MW-2	10/24/19	**0.00120**	**0.000502**	<0.0000120	**0.000537**	**0.000323**	**0.0000671 J**	**0.0000552 J**	<0.0000136	**0.000253**	<0.00000396	**0.00102**	**0.000181**	**0.00182**	<0.0000148	**0.00290**	**0.000539**	**0.00140**	**0.00629**	**0.00159**
MW-2	11/11/21	<0.0000190	**0.00348**	<0.0000171	<0.0000203	<0.0000184 J3	**0.000378**	**0.000345 J3**	**0.0000983 J3**	**0.00139**	<0.0000160 J3	**0.00790**	**0.00142**	**0.0128**	<0.0000158 J3	**0.0190**	<0.0000169	**0.0114**	**0.0607**	**0.0511**
MW-4	11/24/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-4	12/07/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184
MW-5	11/24/08	**0.0424**	<0.000917	**0.0806**	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0201**	<0.000917	**0.0326**	<0.000917	**0.0427**	<0.000917	**0.136**	**0.261**	**0.372**
MW-5	12/07/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00262**	<0.000184	**0.00767**	<0.000184	**0.0122**	<0.000184	**0.0172**	<0.000184	**0.0779**	**0.137**	**0.194**
MW-6	11/29/18	**0.000306**	**0.000311**	<0.0000120	<0.00000410	<0.0000116	**0.0000189 J**	**0.0000137 J**	<0.0000136	<0.0000108	<0.00000396	**0.000334**	**0.0000159 J**	**0.000146**	<0.0000148	**0.000293**	**0.000141**	**0.00196**	**0.00188**	**0.00107**
MW-6	10/24/19	**0.0000833**	0.000313	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.000332**	<0.0000157	**0.0000546**	<0.0000148	**0.000139**	**0.0000246 J**	**0.00161**	**0.000970**	**0.000783**
MW-7	11/29/18	<0.0000140	**0.0000476 J**	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00028**	<0.0000157	<0.00000850	<0.0000148	**0.0000751**	<0.0000117	**0.000254 B**	**0.000367**	**0.0000983 J**
MW-7	10/24/19	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000667 B J**	<0.0000157	<0.0000085	<0.0000148	<0.00000820	<0.0000117	**0.0000281 B J**	**0.0000148 B J**	**0.0000138 B J**
MW-8	11/25/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.0861**	<0.000184	**0.135**	<0.000184	**0.188**	<0.000184	**0.529**	**1.26**	**1.86**
MW-8	12/08/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0165**	<0.000917	**0.0566**	<0.000917	**0.0789**	<0.000917	**0.113**	<0.000917	**0.359**	**0.839**	**1.14**
MW-9	11/25/08	<0.000184	<0.000184	0.00163	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00172**	<0.000184	**0.00578**	<0.000184	**0.00846**	<0.000184	**0.0104**	<0.000184	**0.0641**	**0.0851**	**0.112**
MW-10	11/24/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0286**	<0.000922	**0.0382**	<0.000922	**0.0512**	<0.000922	**0.212**	**0.382**	**0.537**
MW-10	12/08/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0357**	<0.000917	**0.112**	<0.000917	**0.172**	<0.000917	**0.245**	<0.000917	**0.856**	**1.89**	**2.64**
MW-11R	11/02/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-11R	11/11/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184 J3	<0.0000168	<0.0000184 J3	<0.0000202 J3	<0.0000179	<0.0000160 J3	<0.0000191	<0.0000270	<0.0000169	<0.0000158 J3	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-12R	11/29/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	**0.00000214 J**	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000847 B J**	<0.0000157	<0.00000850	<0.0000148	**0.0000133 J**	<0.0000117	**0.0000307 B J**	<0.00000821	<0.00000902
MW-12R	10/24/19	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000710 B J**	<0.0000157	<0.0000085	<0.0000148	**0.00000922 J**	<0.0000117	**0.0000286 B J**	**0.0000150 B J**	**0.0000132 B J**
MW-16R	11/02/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-16R	11/11/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184 J3	<0.0000168	<0.0000184 J3	<0.0000202 J3	<0.0000179	<0.0000160 J3	<0.0000191	<0.0000270	<0.0000169	<0.0000158 J3	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-17R	12/11/14	<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	<0.000185	<0.000185	<0.000185	<0.000185	<0.000185
MW-17R	12/04/15	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198	<0.000198
MW-18R	12/01/17	<0.000184	<0.000184	<0.000184	**0.000257**	<0.000184	**0.000252**	**0.000298**	**0.000278**	**0.000250**	**0.000348**	<0.000184	**0.000286**	<0.000184	**0.000329**	<0.000184	**0.00029**	<0.000368	<0.000184	<0.000184
MW-18R	11/29/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000623 B J**	<0.0000157	<0.00000850	<0.0000148	**0.00000952 J**	<0.0000117	**0.000134 B J**	**0.0000439 J**	**0.0000423 J**
MW-19R	11/04/16	<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	<0.000185	**0.000296**	<0.000185	<0.000185	<0.000185
MW-19R	11/29/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000399 B J**	<0.0000157	<0.00000850	<0.0000148	<0.00000820	<0.0000117	**0.0000460 B J**	<0.00000821	<0.00000902
MW-20R	12/11/14	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186	<0.000186
MW-20R	12/04/15	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196	<0.000196
MW-21R	11/02/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-21R	11/11/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184 J3	<0.0000168	<0.0000184 J3	<0.0000202 J3	<0.0000179	<0.0000160 J3	<0.0000191	<0.0000270	<0.0000169	<0.0000158 J3	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-22	11/29/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000399 B J**	<0.0000157	<0.00000850	<0.0000148	<0.00000820	<0.0000117	**0.0000537 B J**	<0.00000821	<0.00000902
MW-22	10/24/19	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000625 B J**	<0.0000157	<0.00000850	<0.0000148	<0.00000820	<0.0000117	**0.0000362 B J**	**0.0000126 B J**	**0.0000132 B J**
MW-24	11/02/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-24	11/11/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184 J3	<0.0000168	<0.0000184 J3	<0.0000202 J3	<0.0000179	<0.0000160 J3	<0.0000191	<0.0000270	<0.0000169	<0.0000158 J3	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-25	11/02/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	<0.0000191	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
MW-25	11/11/21	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184 J3	<0.0000168	<0.0000184 J3	<0.0000202 J3	<0.0000179	<0.0000160 J3	<0.0000191	<0.0000270	<0.0000169	<0.0000158 J3	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
RW-3	11/25/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0218**	<0.000917	**0.0633**	<0.000917	**0.0966**	<0.000917	**0.129**	<0.000917	**0.400**	**0.888**	**1.31**
RW-3	12/08/09	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	**0.0506**	<0.00183	**0.130**	<0.00183	**0.210**	<0.00183	**0.321**	<0.00183	**1.02**	**2.27**	**3.29**
RW-4	12/08/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00224**	<0.000183	**0.00772**	<0.000183	**0.011**	<0.000183	**0.0161**	<0.000183	**0.0801**	**0.134**	**0.184**
RW-5	11/25/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.013**	<0.000917	**0.0218**	<0.000917	**0.0273**	<0.000917	**0.132**	**0.17**	**0.254**

11209885

Table 3

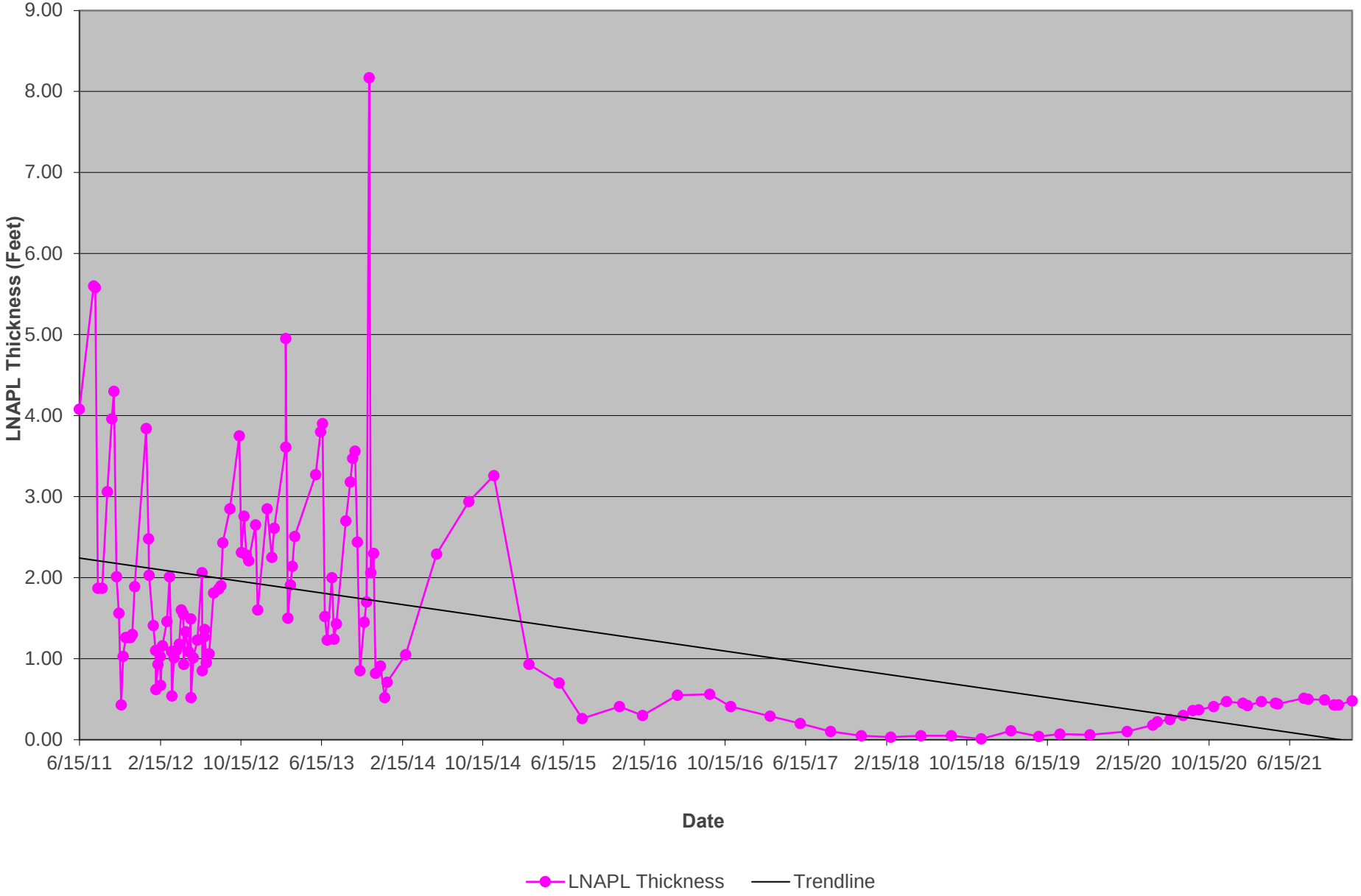
Polycyclic Aromatic Hydrocarbons Analytical Results
Plains Pipeline, L.P.
Darr Angell No. 1
Lea County, New Mexico

Sample ID	Sample Date	Anthracene	Acenaphthene (mg/L)	Acenaphthylene (mg/l)	Benzo(a)anthracene (mg/L)	Benzo(a)pyrene (mg/L)	Benzo(b)fluoranthene (mg/L)	Benzo(g,h,i)perylene (mg/L)	Benzo(k)fluoranthene (mg/L)	Chrysene (mg/L)	Dibenzo(a,h)anthracene (mg/L)	Dibenzofuran (mg/L)	Fluoranthene (mg/L)	Fluorene (mg/L)	Indeno(1,2,3-cd)pyrene (mg/L)	Phenanthrene (mg/L)	Pyrene (mg/L)	Naphthalene (mg/L)	1-Methylnaphthalene (mg/L)	2-Methylnaphthalene (mg/L)
		NMOCD Regulatory Standards																		
		0.001	0.001	0.001	0.001	0.0002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.03		
RW-5	12/08/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0166**	<0.000917	**0.0426**	<0.000917	**0.0726**	<0.000917	**0.105**	<0.000917	**0.338**	**0.726**	**1.07**
RW-6	11/25/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0286**	<0.000917	**0.0751**	<0.000917	**0.126**	<0.000917	**0.167**	<0.000917	**0.564**	**1.33**	**1.93**
RW-6	12/08/09	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0110**	<0.000922	**0.0180**	<0.000922	**0.0330**	<0.000922	**0.0456**	<0.000922	**0.175**	**0.327**	**0.462**
RW-7	11/25/08	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	<0.000922	**0.0254**	<0.000922	**0.0709**	<0.000922	**0.106**	<0.000922	**0.143**	<0.000922	**0.477**	**1.07**	**1.55**
RW-7	12/08/09	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	<0.00862	**0.191**	<0.00862	**0.0531**	<0.00862	**0.844**	<0.00862	**1.28**	<0.00862	**3.95**	**9.15**	**13.1**
RW-8	11/25/08	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	<0.00459	**0.214**	<0.00459	**0.342**	<0.00459	**0.436**	<0.00459	**1.17**	**2.87**	**4.15**
RW-8	12/08/09	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	**0.116**	<0.00461	**0.294**	<0.00461	**0.480**	<0.00461	**0.704**	<0.00461	**2.16**	**5.04**	**7.19**
RW-9	11/25/08	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0488**	<0.000917	**0.064**	<0.000917	**0.0838**	<0.000917	**0.294**	**0.587**	**0.841**
RW-9	12/08/09	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	<0.00183	**0.0186**	<0.00183	**0.0576**	<0.00183	**0.0795**	<0.00183	**0.117**	<0.00183	**0.402**	**0.890**	**1.24**
RW-10	12/08/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00344**	<0.000183	0.00496	<0.000183	**0.00643**	<0.000183	**0.0478**	**0.0674**	**0.0898**
RW-11	11/25/08	<0.000917	**0.0062**	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0105**	<0.000917	**0.0269**	<0.000917	**0.0426**	<0.000917	**0.0571**	<0.000917	**0.145**	**0.322**	**0.441**
RW-12	11/29/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000538 B J**	<0.0000157	<0.00000850	<0.0000148	<0.00000820	<0.0000117	**0.000138 B J**	**0.0000167 J**	<0.00000902
RW-12	11/12/19	<0.00000800	<0.0000100	<0.00000700	**0.0000120 J**	<0.0000158	**0.00000573 J**	**0.00000505 J**	<0.0000255	<0.0000144	<0.00000454	**0.00000221 J**	<0.0000165	<0.00000898	<0.00000739	<0.0000184	<0.0000155	**0.0000393 B J**	<0.0000189	<0.0000155

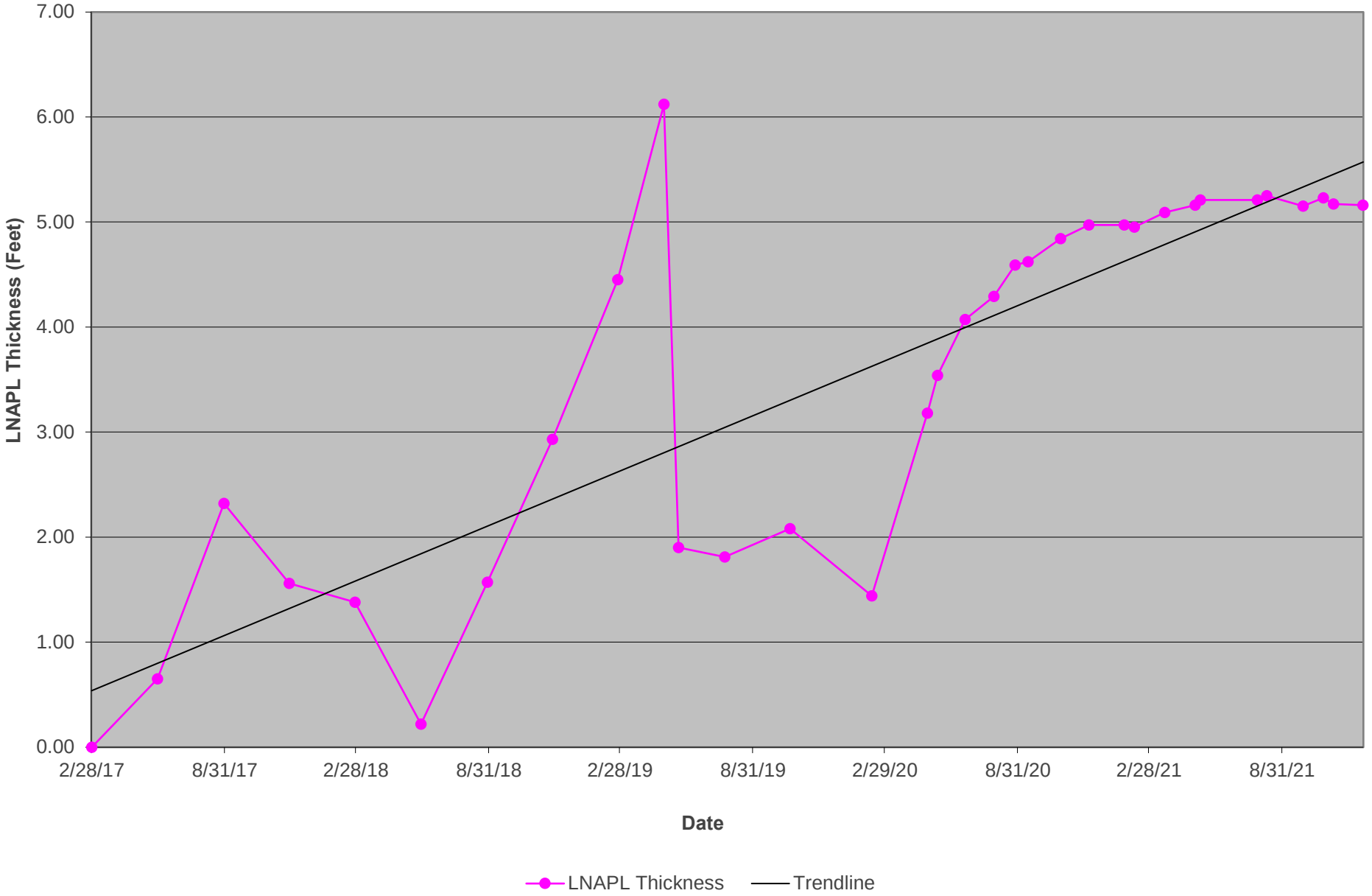
Notes:
1. PAH analyses by EPA Method 8270D.
2. Shaded cells indicate NMWQCC Drinking Water Standards Section 1-101.UU and 3-103.A exceedance.
3. **Bold** indicates detection.
4. Nova Training and Environmental collected samples from 2008 through 2010.
5. Flag J indicates the identification of the analyte is acceptable and the reported result is an estimate.
6. Flag B indicates the same analyte is found in the associated blank.
7. Regulaotry standards of 0.001 mg/L noted above are requirements of the NMOCD. Other standards are required by NMAC 20.6.2.3103 Section A..

Appendix A
Charts of LNAPL Thickness Versus Time

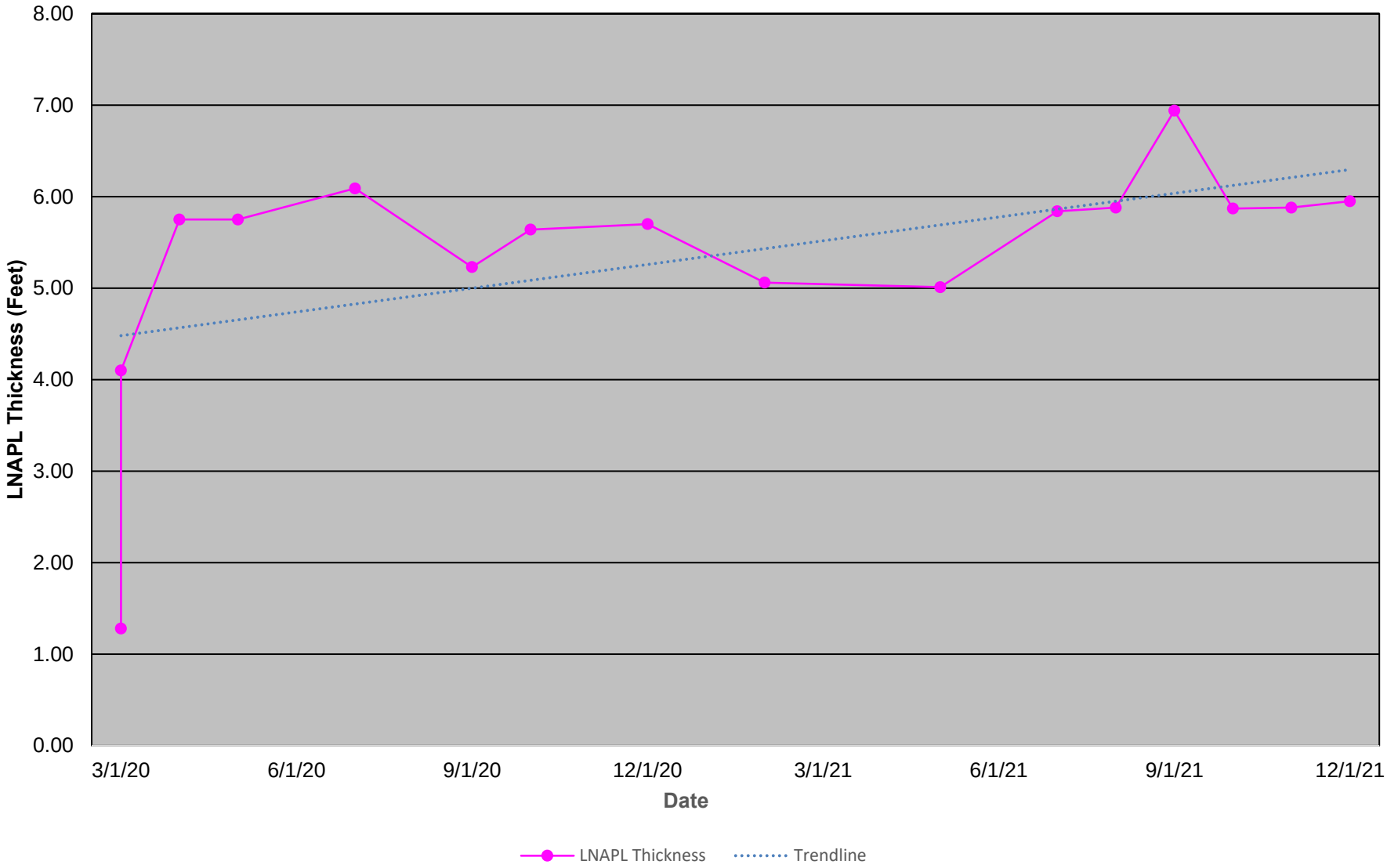
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
MW-8



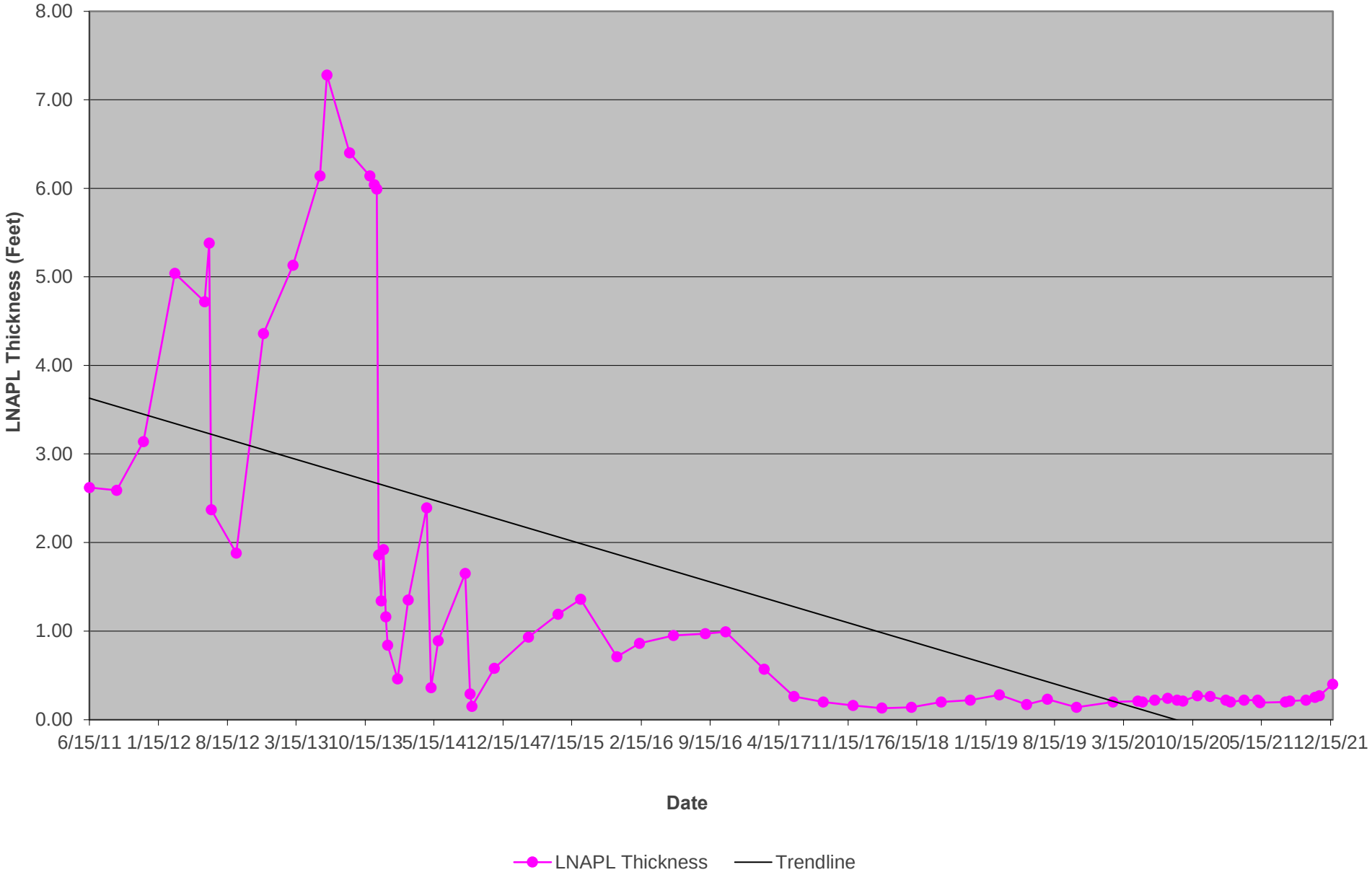
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
MW-23

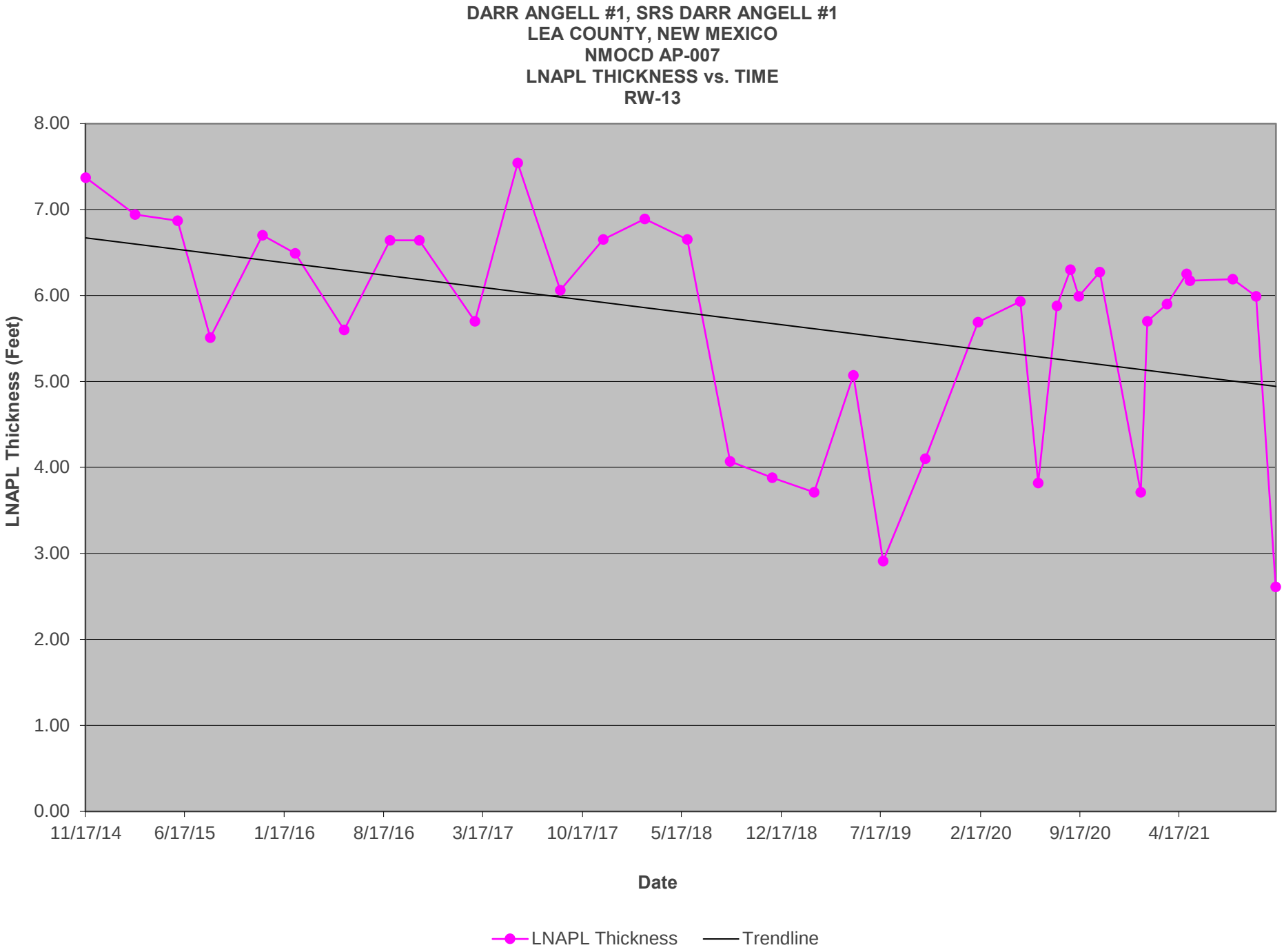


DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-1R

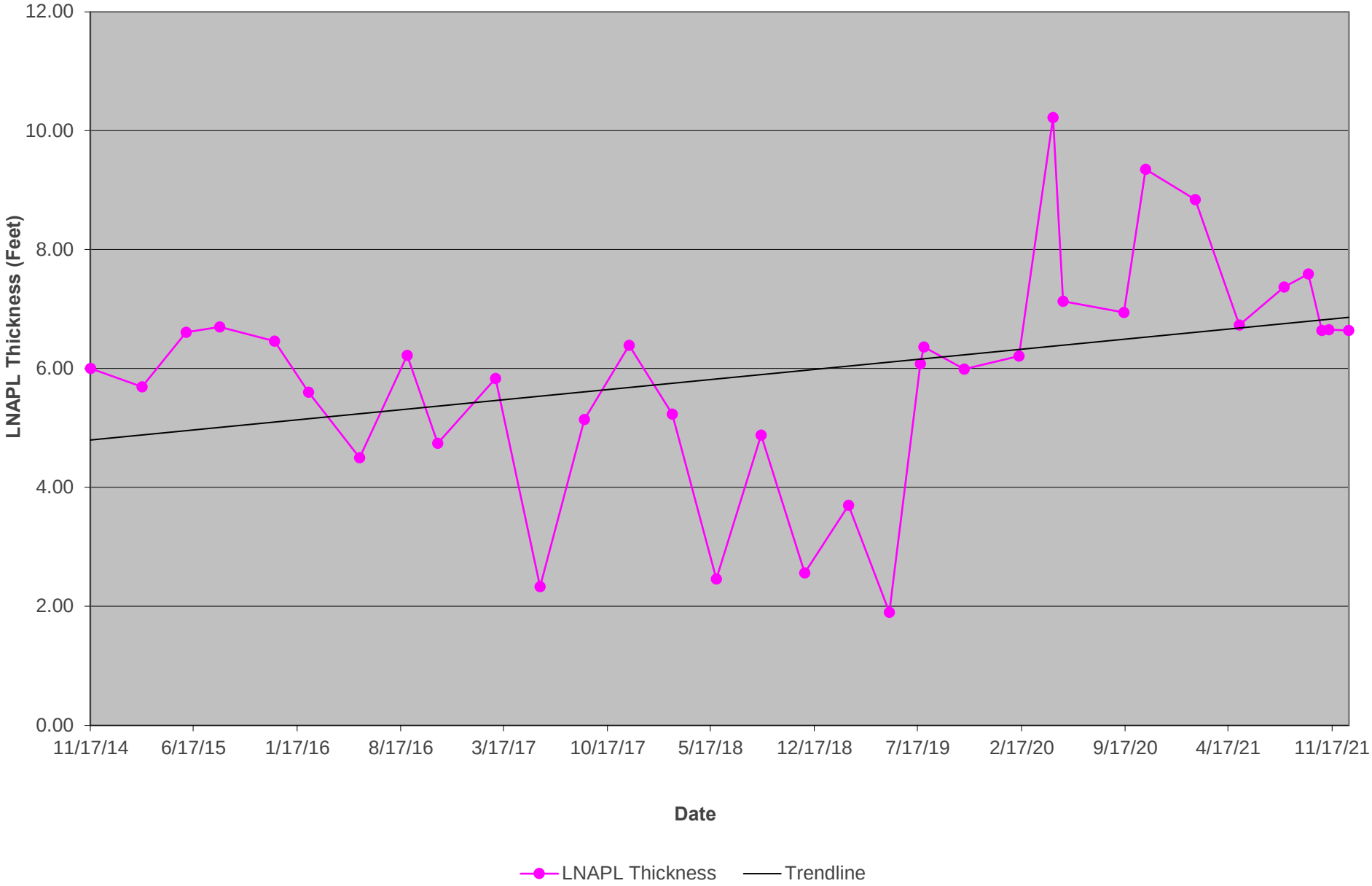


DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-9

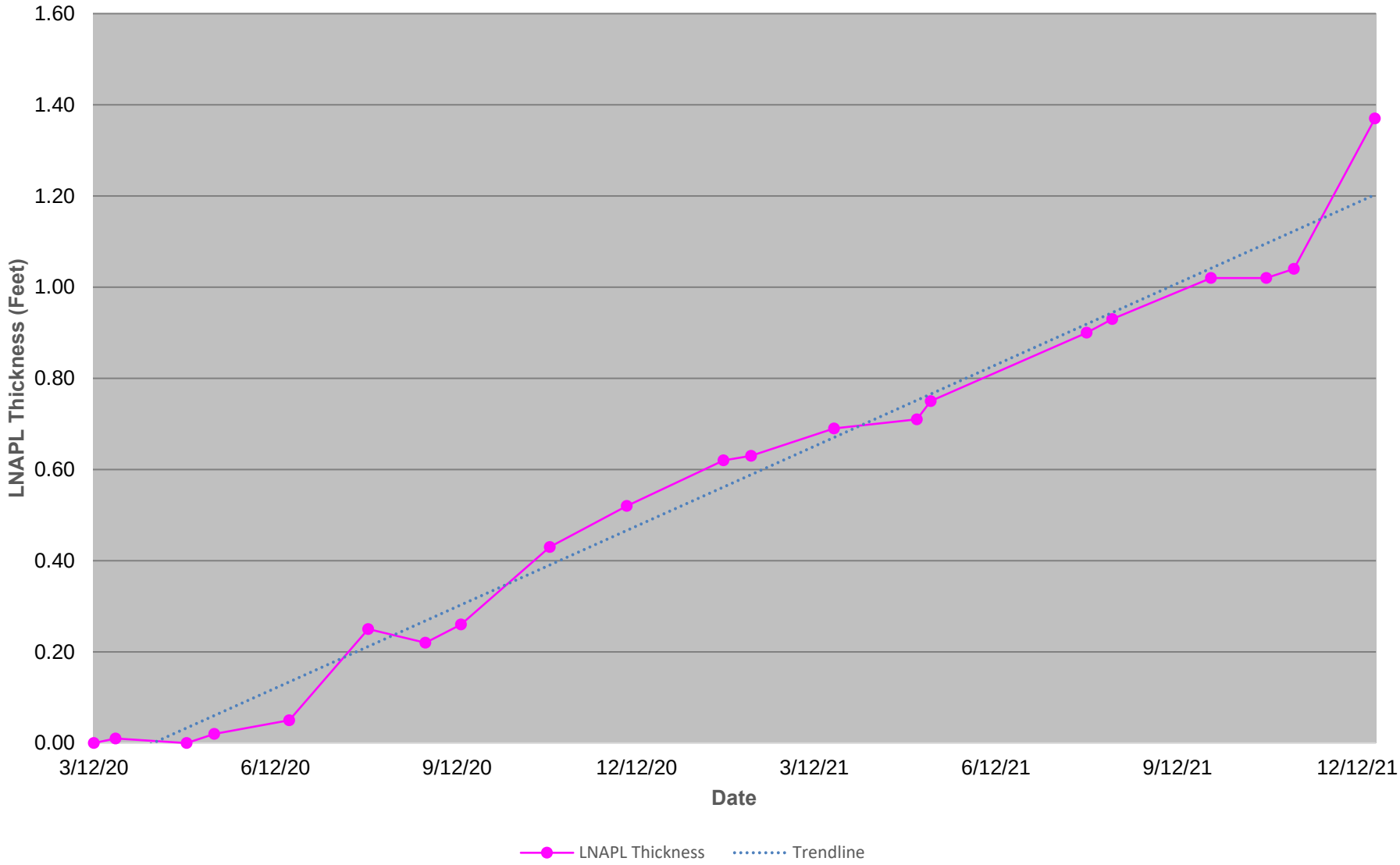




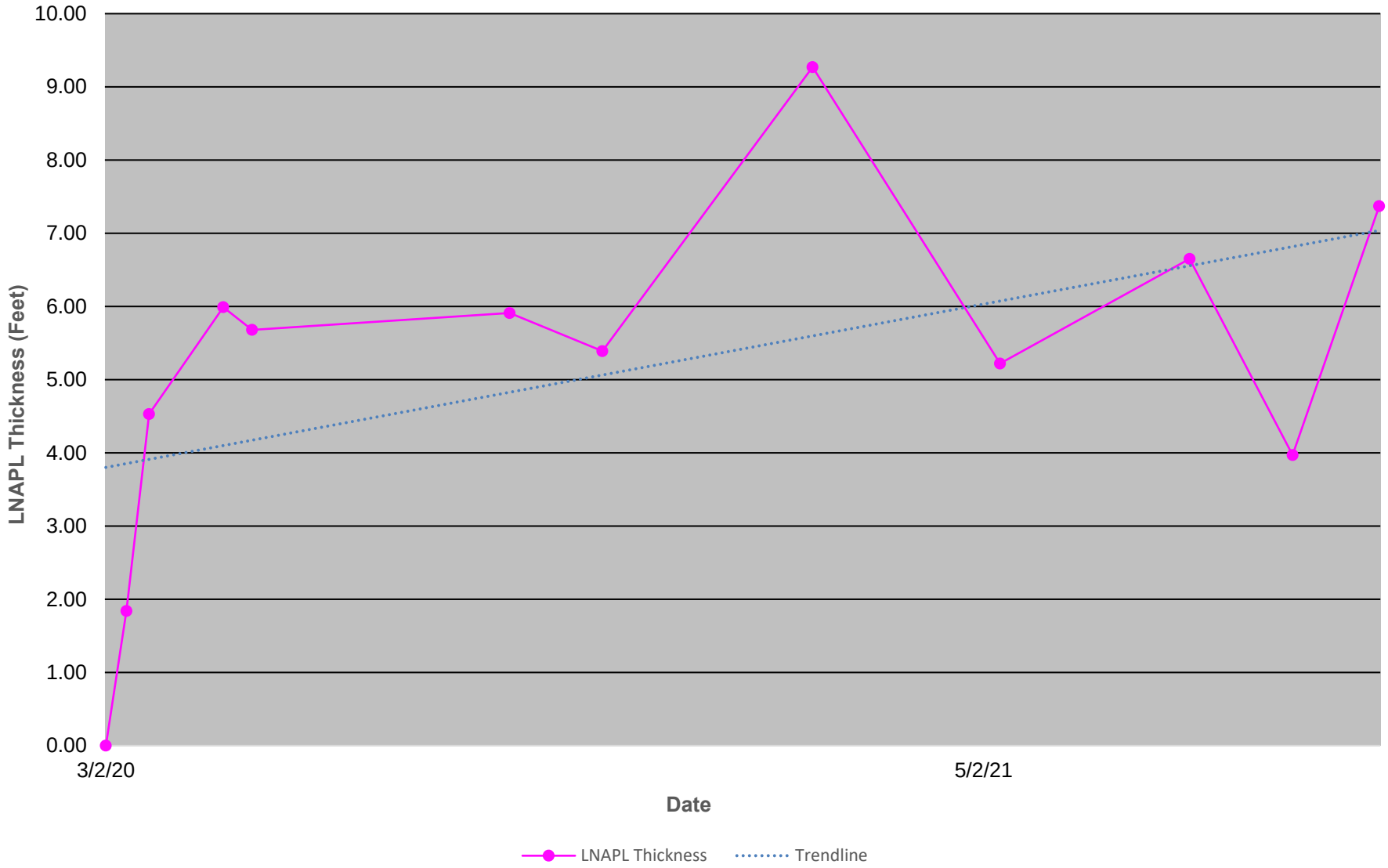
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-14



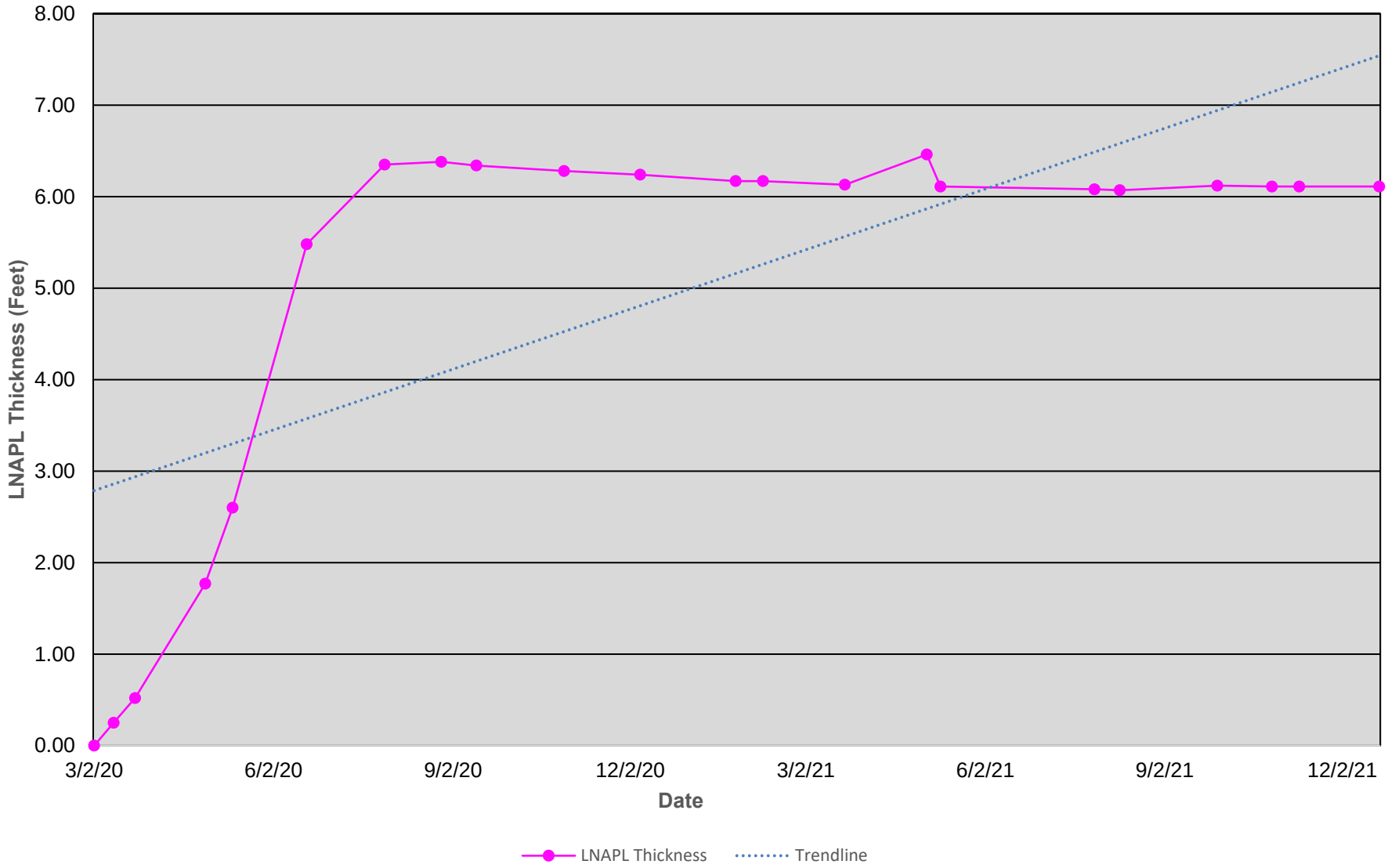
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-15



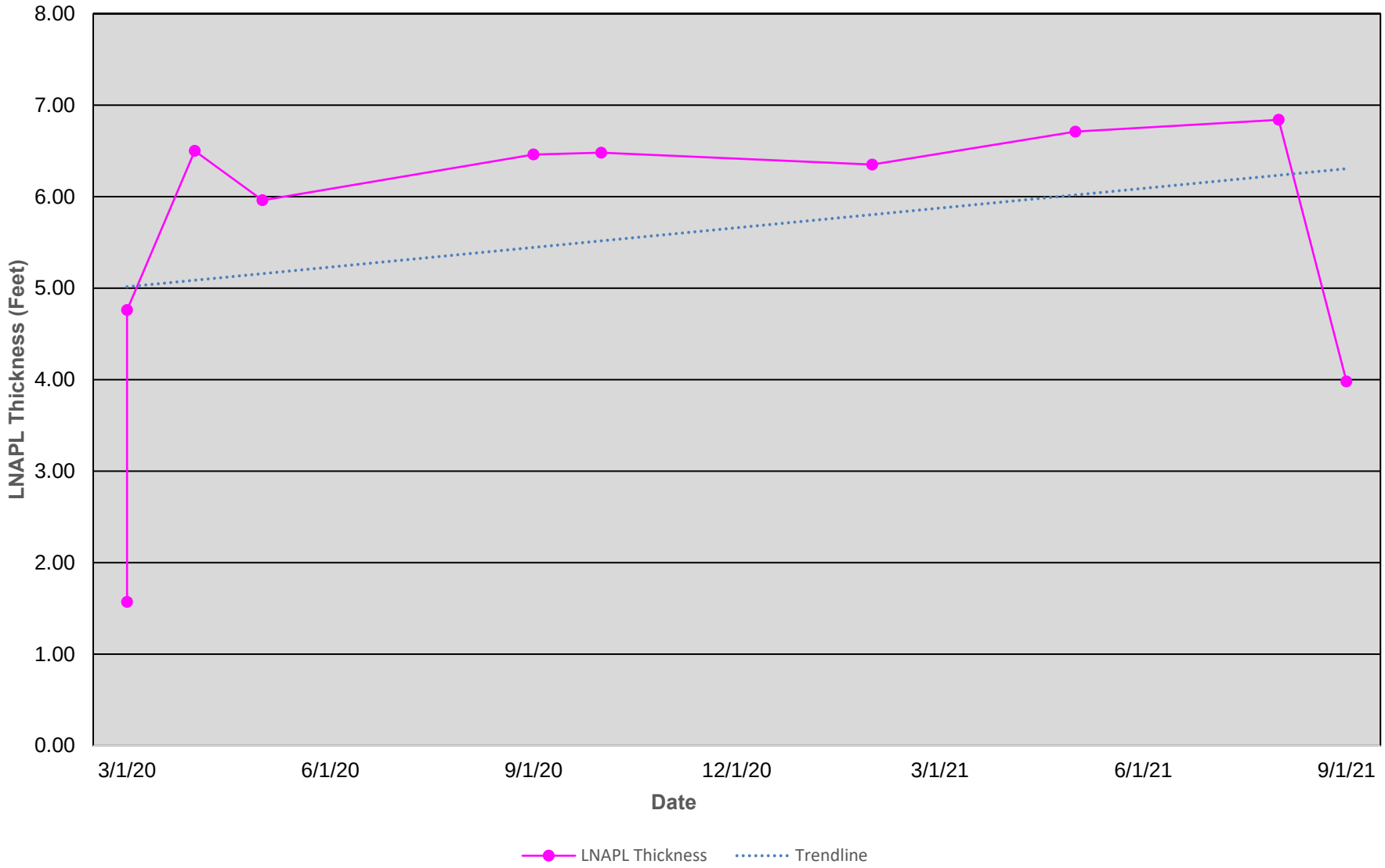
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-16



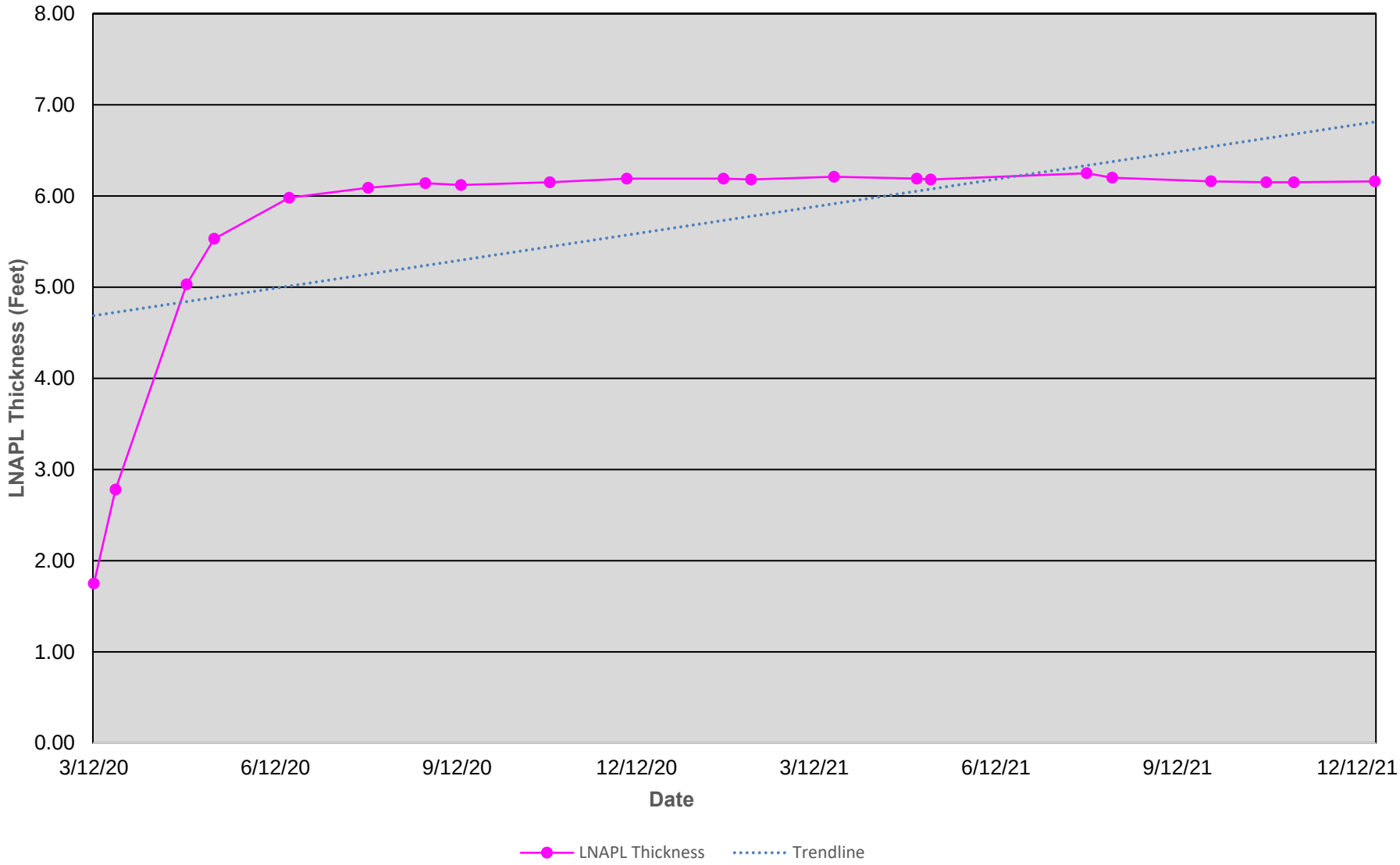
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-17



DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-18

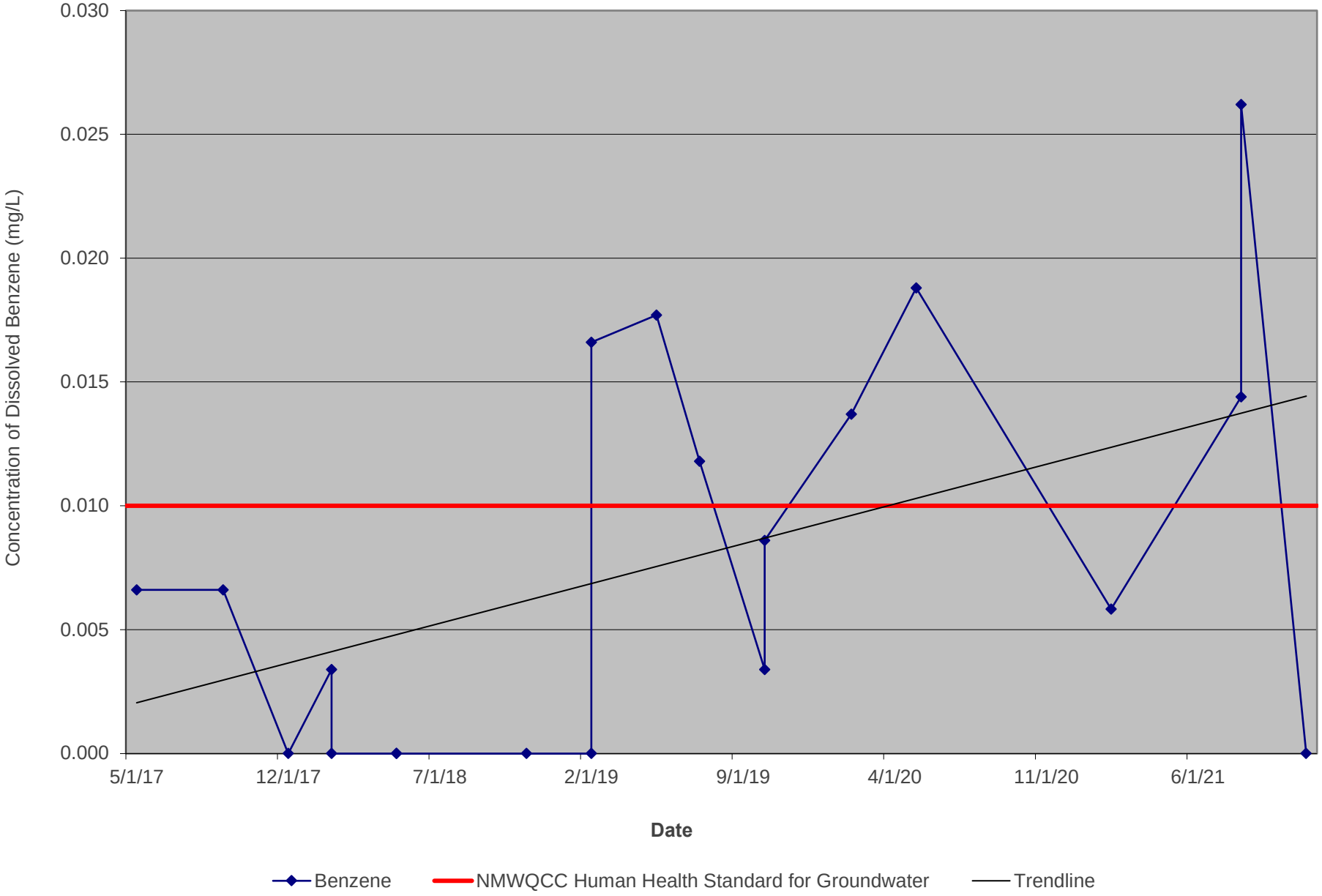


DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-19

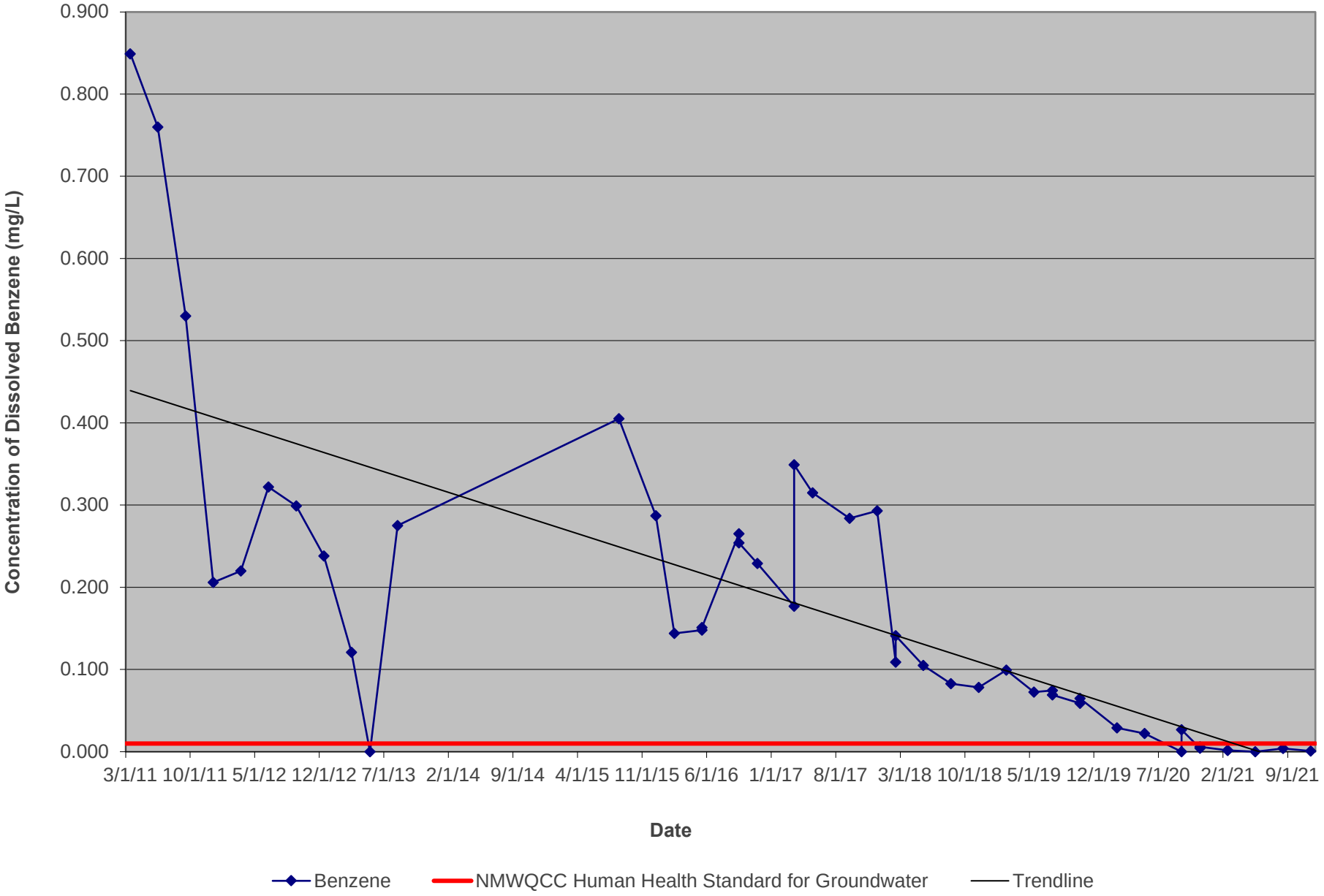


Appendix B
Charts of Dissolved Benzene Concentrations Versus Time

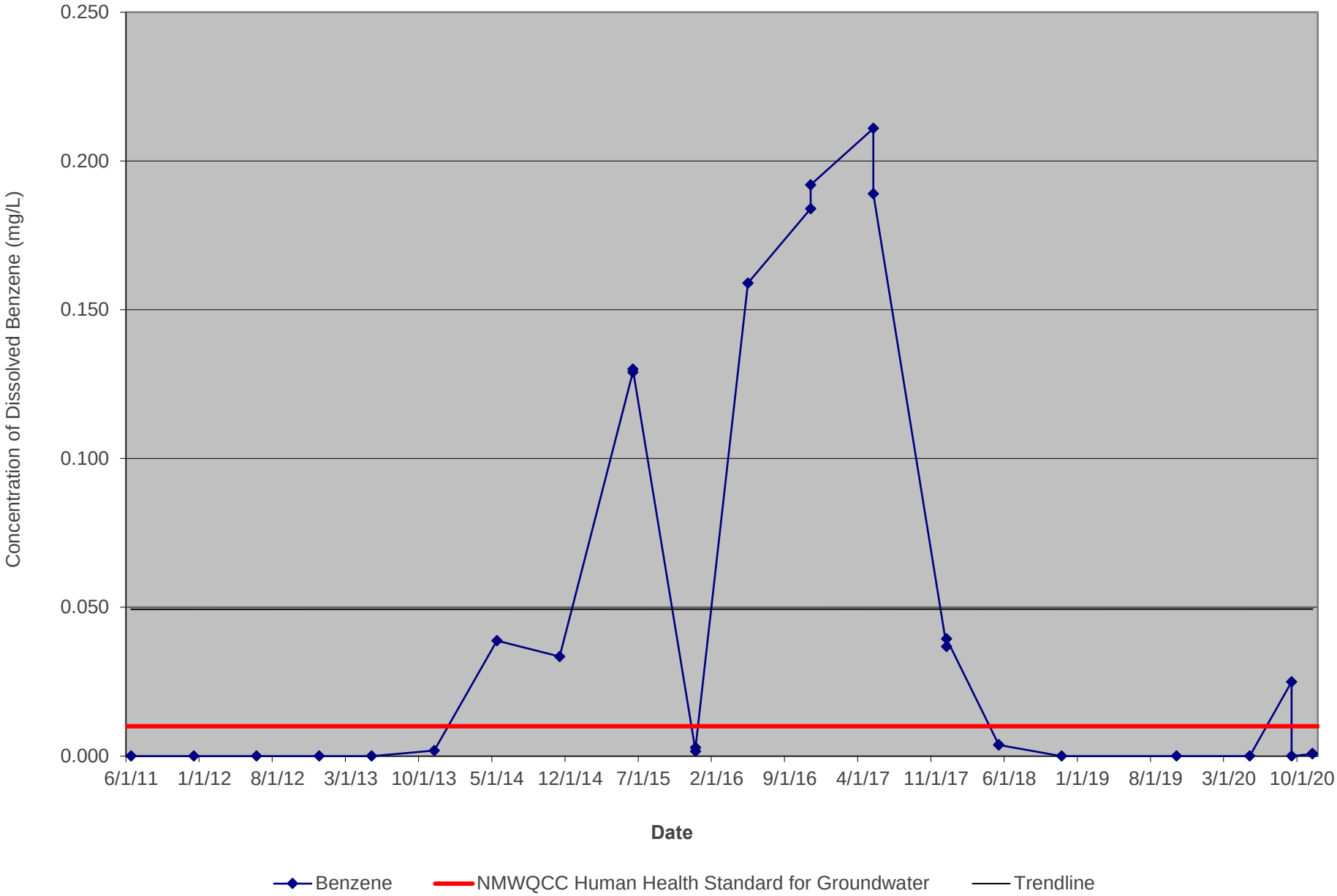
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-2



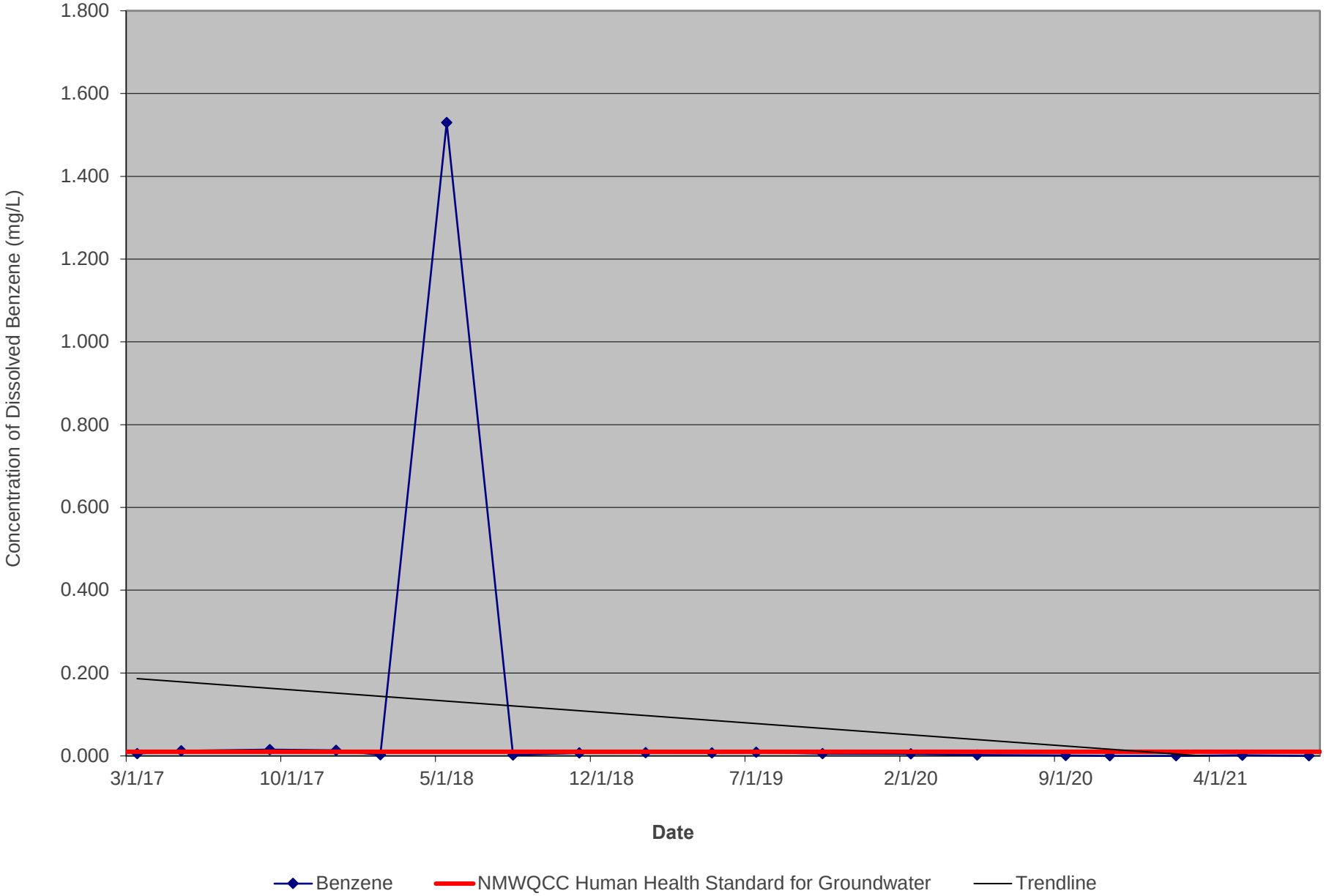
DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-6



DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-7



DARR ANGELL #1, SRS DARR ANGELL #1
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-12



Attachment C
Certified Laboratory Analytical Reports and Chain-of-Custody Documentation

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

March 08, 2021

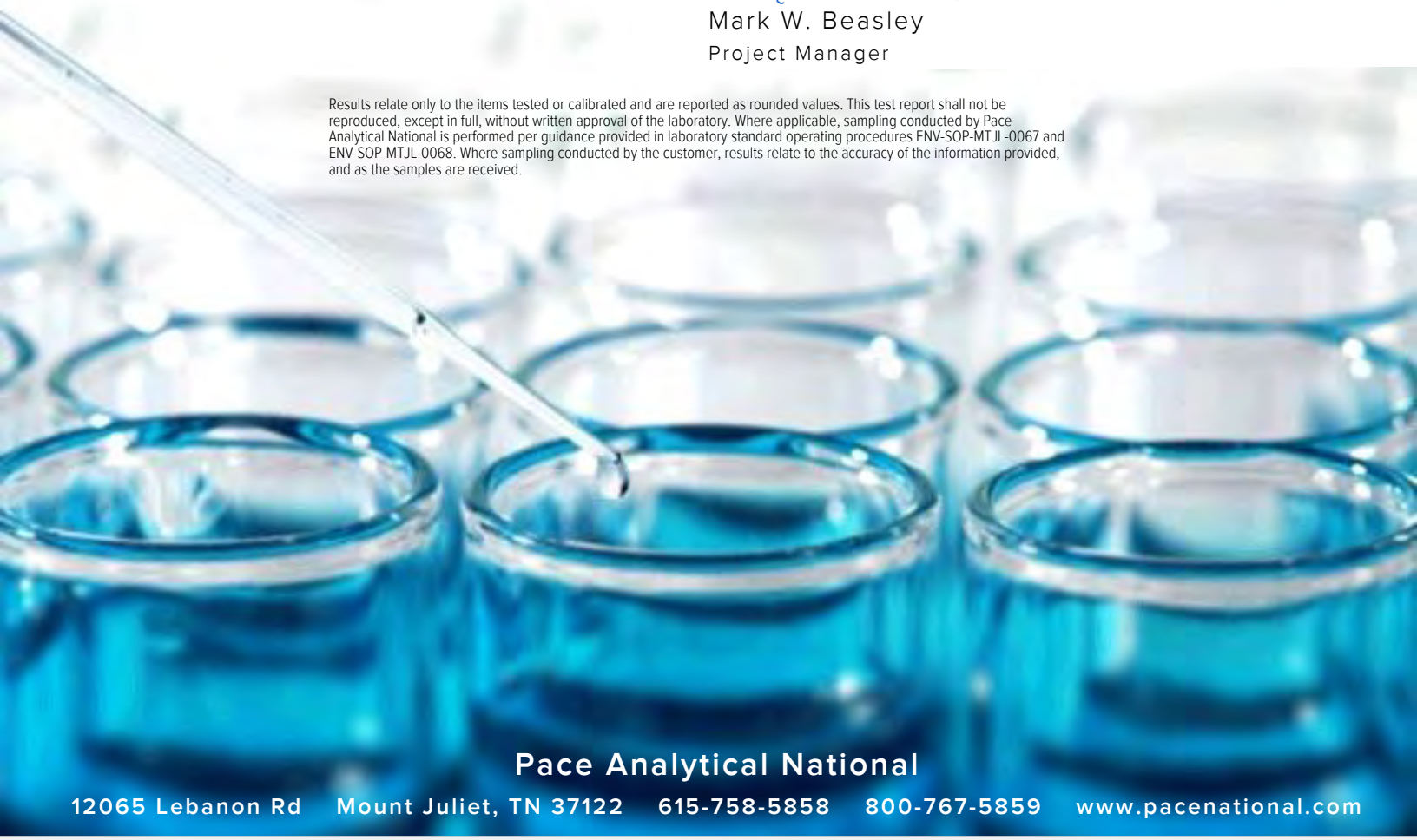
Plains All American, LP - GHD

Sample Delivery Group:	L1320377
Samples Received:	02/26/2021
Project Number:	
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
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.



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

MW-11R L1320377-01 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 09:45 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 05:35	03/01/21 05:35	ACG	Mt. Juliet, TN

MW-16R L1320377-02 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 11:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 05:57	03/01/21 05:57	ACG	Mt. Juliet, TN

MW-17R L1320377-03 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 08:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 06:19	03/01/21 06:19	ACG	Mt. Juliet, TN

MW-18R L1320377-04 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 09:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 06:41	03/01/21 06:41	ACG	Mt. Juliet, TN

MW-19R L1320377-05 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 13:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 07:03	03/01/21 07:03	ACG	Mt. Juliet, TN

MW-20R L1320377-06 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 12:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 07:25	03/01/21 07:25	ACG	Mt. Juliet, TN

MW-21R L1320377-07 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 13:05 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 07:47	03/01/21 07:47	ACG	Mt. Juliet, TN

MW-22 L1320377-08 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 14:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 08:09	03/01/21 08:09	ACG	Mt. Juliet, TN

MW-24 L1320377-09 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 10:20 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 08:31	03/01/21 08:31	ACG	Mt. Juliet, TN

MW-25 L1320377-10 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 12:10 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1626734	1	03/01/21 09:07	03/01/21 09:07	ACG	Mt. Juliet, TN

RW-12 L1320377-11 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 10:55 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/05/21 21:56	03/05/21 21:56	BMB	Mt. Juliet, TN

MW-2 L1320377-12 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 15:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630718	1	03/07/21 18:38	03/07/21 18:38	JAH	Mt. Juliet, TN

MW-12 L1320377-13 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 14:30 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/05/21 22:18	03/05/21 22:18	BMB	Mt. Juliet, TN

MW-6 L1320377-14 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 15:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/05/21 22:40	03/05/21 22:40	BMB	Mt. Juliet, TN

DUP-1 L1320377-15 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 00:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/05/21 23:01	03/05/21 23:01	BMB	Mt. Juliet, TN

DUP-2 L1320377-16 GW

Collected by: Heath Boyd | Collected date/time: 02/22/21 00:00 | Received date/time: 02/26/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1630109	1	03/05/21 23:23	03/05/21 23:23	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.

Mark W. Beasley
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.

Mark W. Beasley
Project Manager

Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2021 16:45
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1320377-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1626734, WG1630109 and WG1630718

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	X				
		Were MS/MSD analyzed at the appropriate frequency?	X				
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2021 16:45
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1320377-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1626734, WG1630109 and WG1630718

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 03/08/2021 16:45
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1320377-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1626734, WG1630109 and WG1630718

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).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 05:35	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 05:35	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 05:35	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 05:35	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/01/2021 05:35*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 05:57	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 05:57	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 05:57	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 05:57	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/01/2021 05:57*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 06:19	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 06:19	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 06:19	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 06:19	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*03/01/2021 06:19*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 06:41	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 06:41	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 06:41	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 06:41	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/01/2021 06:41*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 07:03	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 07:03	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 07:03	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 07:03	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/01/2021 07:03*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 07:25	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 07:25	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 07:25	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 07:25	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/01/2021 07:25*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 07:47	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 07:47	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 07:47	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 07:47	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*03/01/2021 07:47*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 08:09	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 08:09	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 08:09	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 08:09	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/01/2021 08:09*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 08:31	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 08:31	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 08:31	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 08:31	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/01/2021 08:31*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/01/2021 09:07	WG1626734
Toluene	U		0.000412	0.00100	0.00100	1	03/01/2021 09:07	WG1626734
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/01/2021 09:07	WG1626734
Total Xylene	U		0.000510	0.00150	0.00150	1	03/01/2021 09:07	WG1626734
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*03/01/2021 09:07*	WG1626734

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	03/05/2021 21:56	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 21:56	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 21:56	WG1630109
Total Xylene	0.00821		0.000510	0.00150	0.00150	1	03/05/2021 21:56	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 21:56*	WG1630109

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00583		0.000190	0.000500	0.000500	1	03/07/2021 18:38	WG1630718
Toluene	U		0.000412	0.00100	0.00100	1	03/07/2021 18:38	WG1630718
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/07/2021 18:38	WG1630718
Total Xylene	0.0757		0.000510	0.00150	0.00150	1	03/07/2021 18:38	WG1630718
(S) a,a,a-Trifluorotoluene(PID)	*97.6*				*79.0-125*		*03/07/2021 18:38*	WG1630718

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000626		0.000190	0.000500	0.000500	1	03/05/2021 22:18	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 22:18	WG1630109
Ethylbenzene	0.000240	J	0.000160	0.000500	0.000500	1	03/05/2021 22:18	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 22:18	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 22:18*	WG1630109

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.00170		0.000190	0.000500	0.000500	1	03/05/2021 22:40	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 22:40	WG1630109
Ethylbenzene	0.000836		0.000160	0.000500	0.000500	1	03/05/2021 22:40	WG1630109
Total Xylene	0.00192		0.000510	0.00150	0.00150	1	03/05/2021 22:40	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 22:40*	WG1630109

DUP-1
Collected date/time: 02/22/21 00:00
L1320377

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	03/05/2021 23:01	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 23:01	WG1630109
Ethylbenzene	U		0.000160	0.000500	0.000500	1	03/05/2021 23:01	WG1630109
Total Xylene	U		0.000510	0.00150	0.00150	1	03/05/2021 23:01	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*03/05/2021 23:01*	WG1630109

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00166		0.000190	0.000500	0.000500	1	03/05/2021 23:23	WG1630109
Toluene	U		0.000412	0.00100	0.00100	1	03/05/2021 23:23	WG1630109
Ethylbenzene	0.000835		0.000160	0.000500	0.000500	1	03/05/2021 23:23	WG1630109
Total Xylene	0.00190		0.000510	0.00150	0.00150	1	03/05/2021 23:23	WG1630109
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*03/05/2021 23:23*	WG1630109

Method Blank (MB)

(MB) R3626999-3 03/01/21 01:24

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL 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)	*105*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3626999-1 03/01/21 00:07

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0526	105	77.0-122	
Toluene	0.0500	0.0504	101	80.0-121	
Ethylbenzene	0.0500	0.0504	101	80.0-123	
Total Xylene	0.150	0.157	105	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*104*	*79.0-125*	

L1320279-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1320279-01 03/01/21 05:13 • (MS) R3626999-4 03/01/21 10:00 • (MSD) R3626999-5 03/01/21 10:22

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	U	0.0521	0.0568	104	114	1	10.0-160			8.63	21
Toluene	0.0500	U	0.0487	0.0532	97.4	106	1	12.0-148			8.83	21
Ethylbenzene	0.0500	U	0.0480	0.0524	96.0	105	1	22.0-149			8.76	21
Total Xylene	0.150	U	0.153	0.166	102	111	1	13.0-155			8.15	21
(S) a,a,a-Trifluorotoluene(PID)					*103*	*103*		*79.0-125*				

Method Blank (MB)

(MB) R3628064-3 03/05/21 21:13

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL 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) R3628064-1 03/05/21 19:48

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
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*	

Method Blank (MB)

(MB) R3628378-3 03/07/21 15:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL 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)	*106*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3628378-1 03/07/21 14:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0515	103	77.0-122	
Toluene	0.0500	0.0492	98.4	80.0-121	
Ethylbenzene	0.0500	0.0482	96.4	80.0-123	
Total Xylene	0.150	0.155	103	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*106*	*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.
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.

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

ACCREDITATIONS & LOCATIONS

ONE LAB. NATIONWIDE.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Plains All American, LP - GHD

2135 S. Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
1106 Griffith Drive
Midland, TX 79706

Pres Chk

Report to: Becky Haskell

Email To: becky.haskell@ghd.com (see remarks)

Project Description: Darr Angell #1

City/State Collected: Lovington, New Mexico

Phone: 432-250-7917
Fax:

Client Project # Plains SRS #: Darr Angell #1

Lab Project # 11209885

Collected by (print): Heath Boyd

Site/Facility ID # Darr Angell #1

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 10m/Amb-HCL										Remarks	Sample # (lab only)
MW-11R	Grab	GW	-	2/22/21	945	3	X											-01
MW-16R		GW	-		1130		X											-02
MW-17R		GW	-		830		X											-03
MW-18R		GW	-		900		X											-04
MW-19R		GW	-		1330		X											-05
MW-20R		GW	-		1230		X											-06
MW-21R		GW	-		1305		X											-07
MW-22		GW	-		1400		X											-08
MW-24		GW	-		1026		X											-09
MW-25		GW	-		1210	X	X											-10

Analysis / Container / Preservative

Chain of Custody

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1320377
1237

Acctnum: Plains GHD
Template:
Prelogin:
TSR:
PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Email final report to becky.haskell@ghd.com, cjbryan@paalp.com, algroves@paalp.com and maochoa@paalp.com

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2-25-21	1100	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2-25-21	1600	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
0 HCL / MeoH
TBR

Temp: 2.5 2.4 °C Bottles Received: 44

Date: 02/26/21 Time: 0700

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Plains All American, LP - GHD

2135 S. Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
1106 Griffith Drive
Midland, TX 79706

Pres Chk

Report to: Becky Haskell

Email To: becky.haskell@ghd.com (see remarks)

Project Description: Darr Angell #1

City/State Collected: Lovington, New Mexico

Phone: 432-250-7917
Fax:

Client Project # Plains SRS #: Darr Angell #1

Lab Project # 1209885

Collected by (print): Heath Boyd

Site/Facility ID # Darr Angell # 1

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 10m/Amb-HCL	Remarks	Sample # (lab only)
RW-12	Grab	GW	-	2/22/21	1055	3	X		-11
MW-2		GW	-		1530		X		-12
MW-12		GW	-		1430		X		-13
MW-6		GW	-		1500		X		-14
Dup-1		GW	-	-	-		X		-15
Dup-2		GW	-	-	-		X		-16
		GW							
		GW							
		GW							
		GW							

Analysis / Container / Preservative

Chain of Custody

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L # 1320377

Table #

Acctnum: Plains GHD

Template:

Prelogin:

TSR:

PB:

Shipped Via:

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Email final report to becky.haskell@ghd.com, cjbryan@paalp.com, algroves@paalp.com and maochoa@paalp.com

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	2-25-21 2/23/21	11:00 0800	
Relinquished by : (Signature)	Date: 2-25-21	Time: 16:00	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / No
HCL / MeoH
TBR

Temp: 25+2.4 °C Bottles Received: 48

If preservation required by Login: Date/Time

Date: 02/26/21 Time: 04:00

Hold:

Condition: NCF / OK

Pace Analytical®

ANALYTICAL REPORT

March 18, 2021

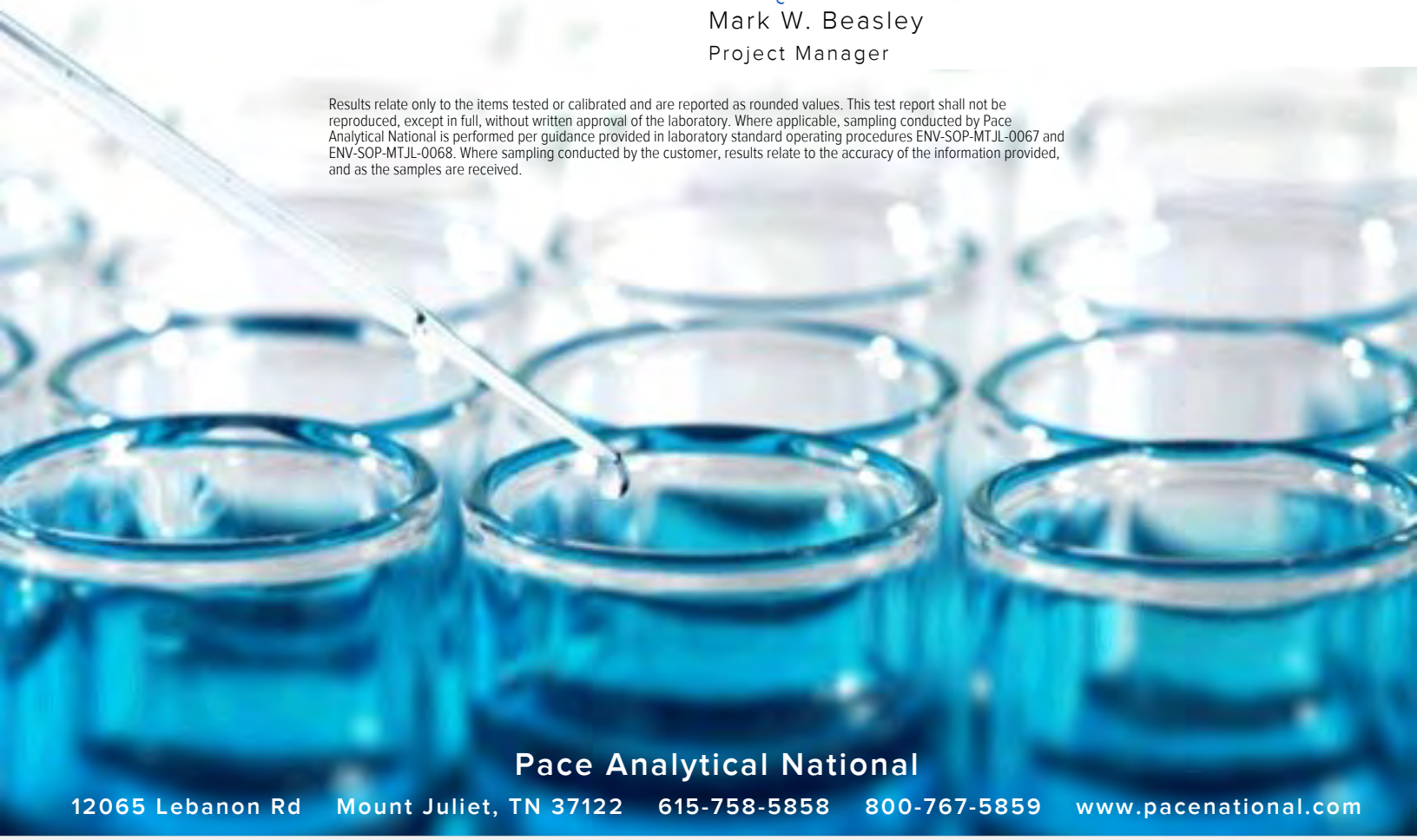
Plains All American, LP - GHD

Sample Delivery Group:	L1327514
Samples Received:	03/17/2021
Project Number:	PLAINS SRS #: DARR A
Description:	Darr Angell #1
Site:	SRS DARR ANGELL #1
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.



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

TABLE OF CONTENTS

PUMP ON L1327514-01 Air

Collected by: Matthew Laughlin
Collected date/time: 03/15/21 12:00
Received date/time: 03/17/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1636018	4000	03/17/21 22:40	03/17/21 22:40	FKG	Mt. Juliet, TN

PUMP OFF L1327514-02 Air

Collected by: Matthew Laughlin
Collected date/time: 03/15/21 12:45
Received date/time: 03/17/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1636018	4000	03/17/21 23:17	03/17/21 23:17	FKG	Mt. Juliet, TN

CASE NARRATIVE

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.

Mark W. Beasley
Project Manager

Revised May 2010

Laboratory Data Package Cover Page

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

Laboratory Name: Pace Analytical National	LRC Date: 03/18/2021 15:34
Project Name: Darr Angell #1	Laboratory Job Number: L1327514-01 and 02
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1636018

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 03/18/2021 15:34
Project Name: Darr Angell #1	Laboratory Job Number: L1327514-01 and 02
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1636018

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 03/18/2021 15:34
Project Name: Darr Angell #1	Laboratory Job Number: L1327514-01 and 02
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1636018

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).

PUMP ON
Collected date/time: 03/15/21 12:00
L1327514

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	800	2560	24100	77000		4000	WG1636018
Toluene	108-88-3	92.10	2000	7530	50800	191000		4000	WG1636018
Ethylbenzene	100-41-4	106	800	3470	12900	55900		4000	WG1636018
m&p-Xylene	1330-20-7	106	1600	6940	30200	131000		4000	WG1636018
o-Xylene	95-47-6	106	800	3470	10000	43400		4000	WG1636018
Methyl tert-butyl ether	1634-04-4	88.10	800	2880	ND	ND		4000	WG1636018
TPH (GC/MS) Low Fraction	8006-61-9	101	800000	3300000	3300000	13600000		4000	WG1636018
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG1636018

PUMP OUT
Collected date/time: 03/15/21 12:45
L1327514

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	800	2560	21900	70000		4000	WG1636018
Toluene	108-88-3	92.10	2000	7530	43700	165000		4000	WG1636018
Ethylbenzene	100-41-4	106	800	3470	11000	47700		4000	WG1636018
m&p-Xylene	1330-20-7	106	1600	6940	25700	111000		4000	WG1636018
o-Xylene	95-47-6	106	800	3470	8320	36100		4000	WG1636018
Methyl tert-butyl ether	1634-04-4	88.10	800	2880	ND	ND		4000	WG1636018
TPH (GC/MS) Low Fraction	8006-61-9	101	800000	3300000	2720000	11200000		4000	WG1636018
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*98.9*				WG1636018

Method Blank (MB)

(MB) R3632055-3 03/17/21 10:36

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.500
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	*91.1*			*60.0-140*

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

(LCS) R3632055-1 03/17/21 09:21 • (LCSD) R3632055-2 03/17/21 09:59

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.90	4.06	104	108	70.0-130			4.02	25
Benzene	3.75	3.99	4.00	106	107	70.0-130			0.250	25
Toluene	3.75	4.00	4.10	107	109	70.0-130			2.47	25
Ethylbenzene	3.75	4.02	4.08	107	109	70.0-130			1.48	25
m&p-Xylene	7.50	8.27	8.33	110	111	70.0-130			0.723	25
o-Xylene	3.75	3.96	4.02	106	107	70.0-130			1.50	25
TPH (GC/MS) Low Fraction	203	214	216	105	106	70.0-130			0.930	25
(S) 1,4-Bromofluorobenzene				*99.8*	*99.5*	*60.0-140*				

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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Plains All American, LP - GHD

2135 S. Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
1106 Griffith Drive
Midland, TX 79706

Pres Chk

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com (see remarks)**

Project Description: **Darr Angell #1**

City/State Collected: Lovington, NM

Phone: **432-250-7917**

Client Project # **Plains SRS #: Darr Angell #1**

Lab Project #

Fax:

Collected by (print): Matthew Laughlin

Site/Facility ID #

P.O. #

Collected by (signature):

Immediately Packed on Ice N X Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	M18-MOD Tedlar											
Pump On	G	**Air**	—	**3/15/21**	**12:00**	2	X											-01
Pump Off	G	**Air**	—	**3/15/21**	**12:45**	2	X											-02

Analysis / Container / Preservative

Chain of Custody Page 1 of 1

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

L# L1527514
G056

Acctnum: **Plains GHD**
Template:
Prelogin:
TSR:
PB:
Shipped Via:

Remarks | Sample # (lab only)

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Email final report to becky.haskell@ghd.com, cjbryant@paalp.com, algroves@paalp.com and maochoa@paalp.com

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 9050 0894 1035

Sample Receipt Checklist
COC Seal Present/Intact: UNP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	03/16/21	5:00		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	3.16.21	17:00		AMB 2
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
			Kelly Miller	3/17/21 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

May 29, 2021

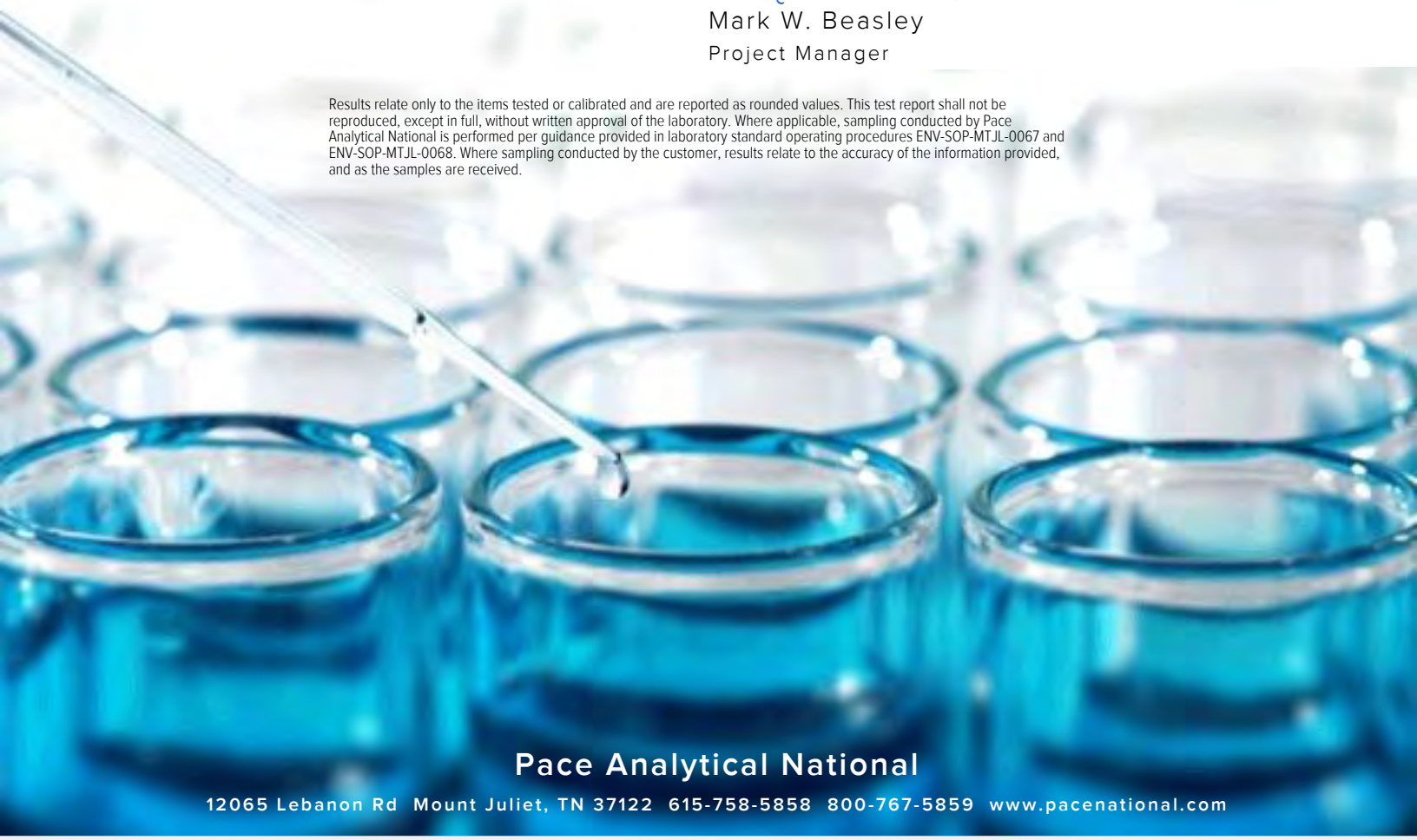
Plains All American, LP - GHD

Sample Delivery Group:	L1354515
Samples Received:	05/18/2021
Project Number:	11209885/02
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
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.



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

TABLE OF CONTENTS

MW-11R L1354515-01 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 08:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 01:22	05/20/21 01:22	JAH	Mt. Juliet, TN

MW-16R L1354515-02 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 08:30 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 01:43	05/20/21 01:43	JAH	Mt. Juliet, TN

MW-17R L1354515-03 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 09:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 02:05	05/20/21 02:05	JAH	Mt. Juliet, TN

MW-18R L1354515-04 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 09:30 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 02:27	05/20/21 02:27	JAH	Mt. Juliet, TN

MW-19R L1354515-05 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 10:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 02:49	05/20/21 02:49	JAH	Mt. Juliet, TN

MW-20R L1354515-06 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 10:20 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 03:11	05/20/21 03:11	JAH	Mt. Juliet, TN

MW-21R L1354515-07 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 11:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 03:33	05/20/21 03:33	JAH	Mt. Juliet, TN

MW-22 L1354515-08 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 11:30 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 03:55	05/20/21 03:55	JAH	Mt. Juliet, TN

MW-24 L1354515-09 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 12:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 04:17	05/20/21 04:17	JAH	Mt. Juliet, TN

MW-25 L1354515-10 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 12:30 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 04:39	05/20/21 04:39	JAH	Mt. Juliet, TN

RW-12 L1354515-11 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 13:10 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 05:00	05/20/21 05:00	JAH	Mt. Juliet, TN

MW-7 L1354515-12 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 14:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 05:51	05/20/21 05:51	JAH	Mt. Juliet, TN

MW-12 L1354515-13 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 14:20 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 06:47	05/20/21 06:47	JAH	Mt. Juliet, TN

MW-6 L1354515-14 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 14:40 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 07:31	05/20/21 07:31	JAH	Mt. Juliet, TN

DUP-1 L1354515-15 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 00:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 08:32	05/20/21 08:32	JAH	Mt. Juliet, TN

DUP-2 L1354515-16 GW

Collected by: Zach Comino | Collected date/time: 05/14/21 00:00 | Received date/time: 05/18/21 09:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1673236	1	05/20/21 08:54	05/20/21 08:54	JAH	Mt. Juliet, TN

CASE NARRATIVE

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.

Mark W. Beasley
Project Manager

Revised May 2010

Laboratory Data Package Cover Page

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

Laboratory Name: Pace Analytical National	LRC Date: 05/29/2021 11:48
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1354515-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1673236

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 05/29/2021 11:48
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1354515-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1673236

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 05/29/2021 11:48
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1354515-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1673236

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).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 01:22	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 01:22	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 01:22	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 01:22	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*05/20/2021 01:22*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 01:43	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 01:43	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 01:43	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 01:43	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 01:43*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 02:05	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 02:05	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 02:05	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 02:05	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*05/20/2021 02:05*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 02:27	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 02:27	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 02:27	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 02:27	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 02:27*	WG1673236

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 02:49	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 02:49	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 02:49	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 02:49	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*05/20/2021 02:49*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 03:11	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 03:11	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 03:11	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 03:11	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 03:11*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 03:33	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 03:33	WG1673236
Ethylbenzene	0.000183	J	0.000160	0.000500	0.000500	1	05/20/2021 03:33	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 03:33	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 03:33*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 03:55	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 03:55	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 03:55	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 03:55	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*05/20/2021 03:55*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 04:17	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 04:17	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 04:17	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 04:17	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*05/20/2021 04:17*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 04:39	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 04:39	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 04:39	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 04:39	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*05/20/2021 04:39*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00138		0.000190	0.000500	0.000500	1	05/20/2021 05:00	WG1673236
Toluene	0.00325		0.000412	0.00100	0.00100	1	05/20/2021 05:00	WG1673236
Ethylbenzene	0.00118		0.000160	0.000500	0.000500	1	05/20/2021 05:00	WG1673236
Total Xylene	0.104		0.000510	0.00150	0.00150	1	05/20/2021 05:00	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 05:00*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 05:51	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 05:51	WG1673236
Ethylbenzene	0.000310	J	0.000160	0.000500	0.000500	1	05/20/2021 05:51	WG1673236
Total Xylene	0.00192		0.000510	0.00150	0.00150	1	05/20/2021 05:51	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*05/20/2021 05:51*	WG1673236

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 06:47	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 06:47	WG1673236
Ethylbenzene	0.000305	J	0.000160	0.000500	0.000500	1	05/20/2021 06:47	WG1673236
Total Xylene	0.000655	J	0.000510	0.00150	0.00150	1	05/20/2021 06:47	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 06:47*	WG1673236

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 07:31	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 07:31	WG1673236
Ethylbenzene	0.000348	J	0.000160	0.000500	0.000500	1	05/20/2021 07:31	WG1673236
Total Xylene	0.00201		0.000510	0.00150	0.00150	1	05/20/2021 07:31	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 07:31*	WG1673236

DUP-1
Collected date/time: 05/14/21 00:00
L1354515

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 08:32	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 08:32	WG1673236
Ethylbenzene	0.000302	J	0.000160	0.000500	0.000500	1	05/20/2021 08:32	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 08:32	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 08:32*	WG1673236

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	05/20/2021 08:54	WG1673236
Toluene	U		0.000412	0.00100	0.00100	1	05/20/2021 08:54	WG1673236
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/20/2021 08:54	WG1673236
Total Xylene	U		0.000510	0.00150	0.00150	1	05/20/2021 08:54	WG1673236
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*05/20/2021 08:54*	WG1673236

Method Blank (MB)

(MB) R3660438-2 05/20/21 01:00

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL 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)	*105*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3660438-1 05/20/21 00:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0546	109	77.0-122	
Toluene	0.0500	0.0538	108	80.0-121	
Ethylbenzene	0.0500	0.0565	113	80.0-123	
Total Xylene	0.150	0.157	105	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*105*	*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.
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
J	The identification of the analyte is acceptable; the reported value is an estimate.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Report to:
Becky Haskell

Email To:
becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description:
Darr Angell #1 SRS Darr Angell #1

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project #
11209885/02

Lab Project #
PLAINSGHD-11209885

Collected by (print):
Zach Camino

Site/Facility ID #
SRS DARR ANGELL #1

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ✓

Rush? (Lab MUST Be Notified)
___ Same Day ✓ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

BTEX 40mlAmb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
MW-11R	Grab	GW		05142021	0800	3		-01
MW-16R		GW			0830			-02
MW-17R		GW			0900			-03
MW-18R		GW			0930			-04
MW-19R		GW			1000			-05
MW-20R		GW			1020			-06
MW-21R		GW			1100			-07
MW-22R		GW			1130			-08
MW-24		GW			1200			-09
MW-25		GW			1230			-10

Chain of Custody Page ___ of ___

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12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1354515

Table # INT

Acctnum: **PLAINSGHD**

Template: **T167385**

Prelogin: **P844025**

PM: **134 - Mark W. Beasley**

PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 787263785948

Sample Receipt Checklist
COC Seal Present/Intact: __NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: __Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: __Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
	05142021	1500			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.2+1=3.3 °C Bottles Received: 30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/18/21 Time: 9:15	Hold: / Condition: NCF / OK

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Report to:
Becky Haskell

Email To:
becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description:
Darr Angell #1 SRS Darr Angell #1

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project #
11209885/02

Lab Project #
PLAINSGHD-11209885

Collected by (print):
Zach Comines

Site/Facility ID #
SRS DARR ANGELL #1

P.O. #

Collected by (signature):

Immediately
Packed on Ice N ___ Y X

Rush? (Lab MUST Be Notified)
___ Same Day X Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

No. of Cntrs

Analysis / Container / Preservative

BTEX 40mlAmb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
RW-12	Grab	GW		05142021	1310	3	X		-11
MW-7		GW			1400				-12
MW-12		GW			1420				-13
MW-6		GW			1440				-14
Dup-1		GW			-				-15
Dup-2		GW			-				-16
		GW							
		GW							
		GW							
		GW							

Chain of Custody Page ___ of ___

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1354515

Table # INS

Acctnum: **PLAINSGHD**

Template: **T167385**

Prelogin: **P844025**

PM: **134 - Mark W. Beasley**

PB:

Shipped Via: **FedEX Ground**

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 782637859948

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
	05142021	1500		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 2.2+1.2=3.4 °C Bottles Received: 18
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/18/21 Time: 9:15

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

June 24, 2021

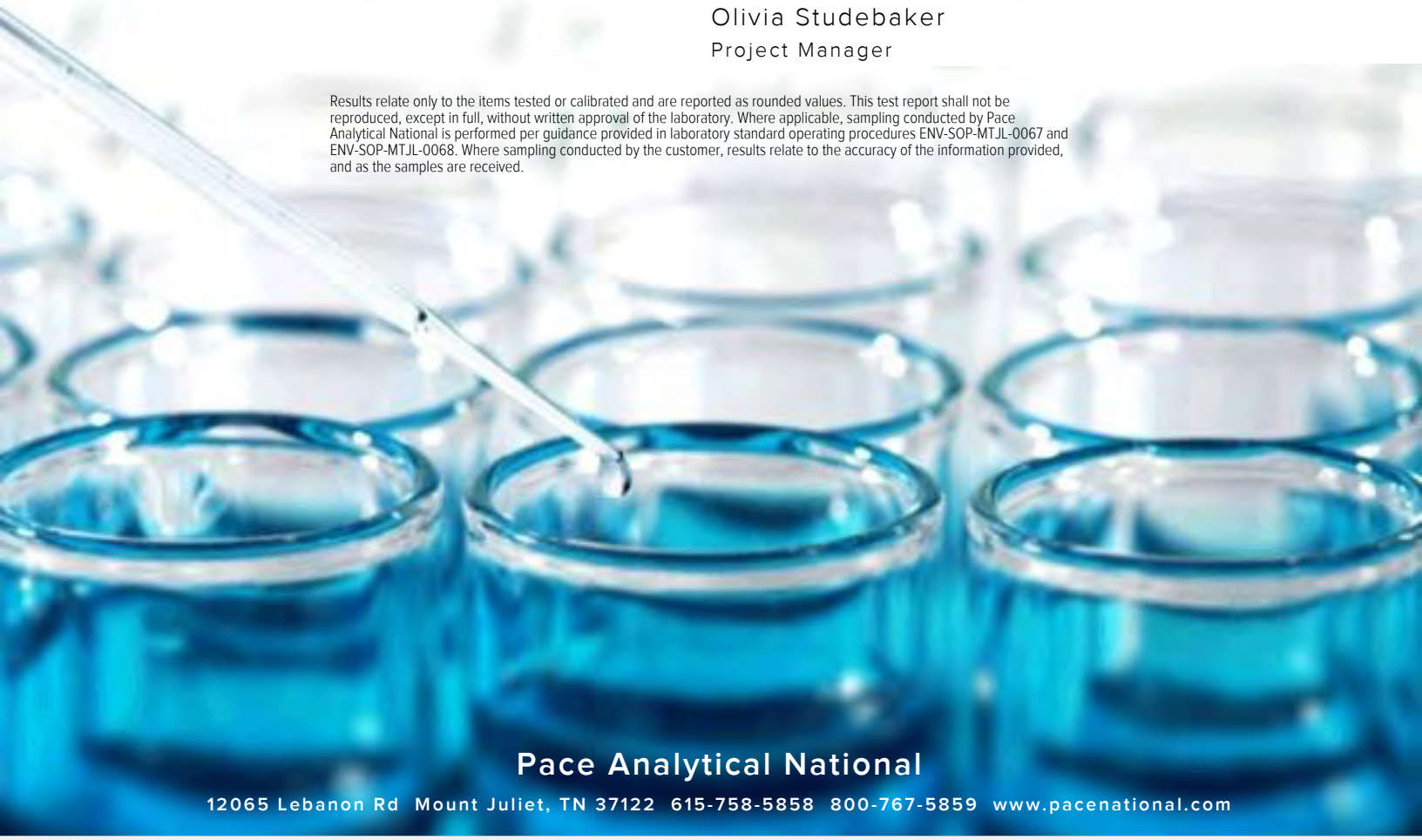
Plains All American, LP - GHD

Sample Delivery Group:	L1368999
Samples Received:	06/22/2021
Project Number:	11209885/02
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
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

TABLE OF CONTENTS

PUMPS OFF DARR 1 L1368999-01 Air

Collected by: Ryan Livingston
Collected date/time: 06/21/21 12:30
Received date/time: 06/22/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1692980	400	06/22/21 17:19	06/22/21 17:19	DAH	Mt. Juliet, TN

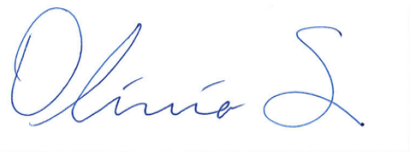
DARR 1 PUMPS ON L1368999-02 Air

Collected by: Ryan Livingston
Collected date/time: 06/21/21 12:45
Received date/time: 06/22/21 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1692980	800	06/22/21 17:58	06/22/21 17:58	DAH	Mt. Juliet, TN

CASE NARRATIVE

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

Revised May 2010

Laboratory Data Package Cover Page

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

Revised May 2010

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 06/24/2021 12:18
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1368999-01 and 02
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1692980

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 06/24/2021 12:18
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1368999-01 and 02
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1692980

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 06/24/2021 12:18
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1368999-01 and 02
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1692980

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).

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	80.0	256	14600	46600		400	WG1692980
Toluene	108-88-3	92.10	200	753	19400	73100		400	WG1692980
Ethylbenzene	100-41-4	106	80.0	347	3090	13400		400	WG1692980
m&p-Xylene	1330-20-7	106	160	694	12500	54200		400	WG1692980
o-Xylene	95-47-6	106	80.0	347	3700	16000		400	WG1692980
Methyl tert-butyl ether	1634-04-4	88.10	80.0	288	ND	ND		400	WG1692980
TPH (GC/MS) Low Fraction	8006-61-9	101	80000	330000	1500000	6200000		400	WG1692980
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG1692980

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	160	511	23000	73500		800	WG1692980
Toluene	108-88-3	92.10	400	1510	27200	102000		800	WG1692980
Ethylbenzene	100-41-4	106	160	694	3800	16500		800	WG1692980
m&p-Xylene	1330-20-7	106	320	1390	15200	65900		800	WG1692980
o-Xylene	95-47-6	106	160	694	4320	18700		800	WG1692980
Methyl tert-butyl ether	1634-04-4	88.10	160	577	ND	ND		800	WG1692980
TPH (GC/MS) Low Fraction	8006-61-9	101	160000	661000	2140000	8840000		800	WG1692980
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*99.7*				WG1692980

Method Blank (MB)

(MB) R3670687-3 06/22/21 10:18

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.500
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	*93.9*			*60.0-140*

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

(LCS) R3670687-1 06/22/21 08:50 • (LCSD) R3670687-2 06/22/21 09:34

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.56	3.60	94.9	96.0	70.0-130			1.12	25
Benzene	3.75	3.62	3.61	96.5	96.3	70.0-130			0.277	25
Toluene	3.75	3.68	3.64	98.1	97.1	70.0-130			1.09	25
Ethylbenzene	3.75	3.72	3.71	99.2	98.9	70.0-130			0.269	25
m&p-Xylene	7.50	7.40	7.40	98.7	98.7	70.0-130			0.000	25
o-Xylene	3.75	3.64	3.61	97.1	96.3	70.0-130			0.828	25
TPH (GC/MS) Low Fraction	203	215	212	106	104	70.0-130			1.41	25
(S) 1,4-Bromofluorobenzene				*97.4*	*97.1*	*60.0-140*				

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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Report to: Becky Haskell

Email To: becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description: Darr Angell #1 SRS Darr Angell #1

City/State Collected:

Please Circle: PT MT CT ET

Phone: 432-250-7917

Client Project # 11209885/02

Lab Project # PLAINSGHD-11209885

Collected by (print): Ryan Livingston

Site/Facility ID # SRS DARR ANGELL #1

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Analysis / Container / Preservative: M18-MOD Tedlar	Remarks	Sample # (lab only)
Pumps off Darr 1	G	Air	21-Jun-21	21-Jun-21	1230	2	2		-01
Darr 1 Pumps on	G	Air	—	21-Jun-21	1245	2	2		-02
		Air							
		Air							

Chain of Custody Page ___ of ___

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # L1368999

C085

Acctnum: PLAINSGHD
Template: T163766
Prelogin: P844047
PM: 134 - Mark W. Beasley
PB: TB 4-27-21
Shipped Via: FedEX Ground

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____
Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	21-Jun-21	1500	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

Trip Blank Received: Yes / (No)
HCL / MeoH
TBR

Temp: AM3 °C Bottles Received: 4

Date: 6/22/21 Time: 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / (OK)

Pace Analytical®

ANALYTICAL REPORT

August 25, 2021

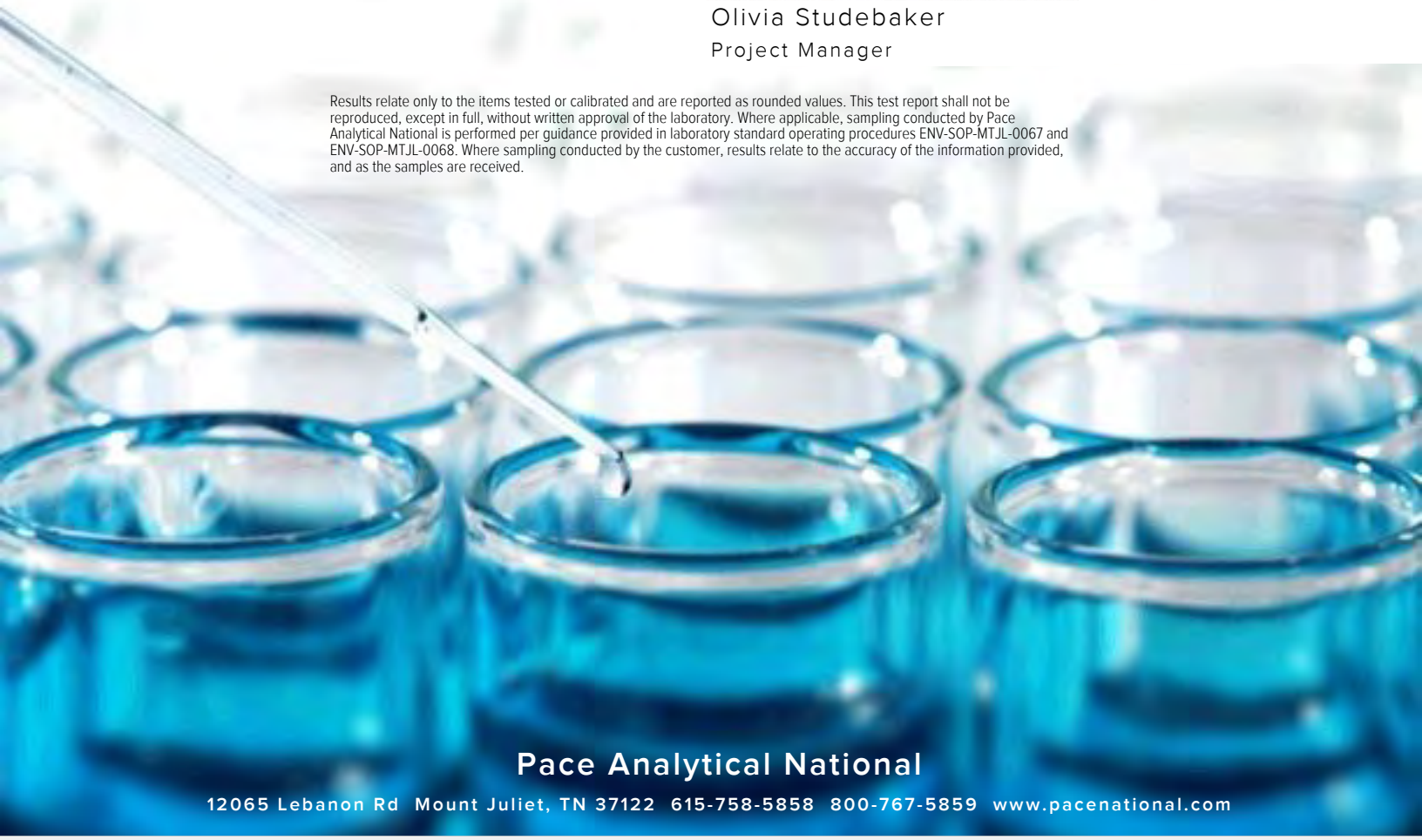
Plains All American, LP - GHD

Sample Delivery Group:	L1390546
Samples Received:	08/13/2021
Project Number:	11209885/02
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
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

TABLE OF CONTENTS

MW-11R-081121 L1390546-01 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 11:30 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 01:23	08/15/21 01:23	BMB	Mt. Juliet, TN

MW-16R-081121 L1390546-02 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 11:40 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 01:47	08/15/21 01:47	BMB	Mt. Juliet, TN

MW-17R-081121 L1390546-03 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 11:50 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 02:10	08/15/21 02:10	BMB	Mt. Juliet, TN

MW-18R-081121 L1390546-04 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 12:00 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 02:34	08/15/21 02:34	BMB	Mt. Juliet, TN

MW-19R-081121 L1390546-05 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 12:10 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 02:58	08/15/21 02:58	BMB	Mt. Juliet, TN

MW-20R-081121 L1390546-06 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 12:20 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 03:21	08/15/21 03:21	BMB	Mt. Juliet, TN

MW-21R-081121 L1390546-07 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 12:30 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 03:45	08/15/21 03:45	BMB	Mt. Juliet, TN

MW-22-081121 L1390546-08 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 12:40 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 04:09	08/15/21 04:09	BMB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

MW-24-081121 L1390546-09 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 12:50 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 04:33	08/15/21 04:33	BMB	Mt. Juliet, TN

MW-25-081121 L1390546-10 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 13:00 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 04:56	08/15/21 04:56	BMB	Mt. Juliet, TN

MW-2-081121 L1390546-11 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 13:10 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 05:20	08/15/21 05:20	BMB	Mt. Juliet, TN

MW-12R-081121 L1390546-12 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 13:20 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 05:44	08/15/21 05:44	BMB	Mt. Juliet, TN

MW-6-081121 L1390546-13 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 13:30 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 06:07	08/15/21 06:07	BMB	Mt. Juliet, TN

DUP-1-081121 L1390546-14 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 00:00 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 06:31	08/15/21 06:31	BMB	Mt. Juliet, TN

DUP-2-081121 L1390546-15 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 00:00 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 06:55	08/15/21 06:55	BMB	Mt. Juliet, TN

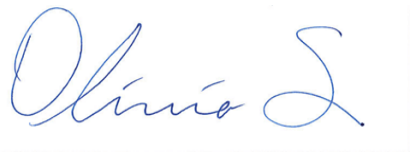
RW-12-081121 L1390546-16 GW

Collected by: Ryan L. | Collected date/time: 08/11/21 13:05 | Received date/time: 08/13/21 08:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1723167	1	08/15/21 07:18	08/15/21 07:18	BMB	Mt. Juliet, TN

CASE NARRATIVE

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

Revised May 2010

Laboratory Data Package Cover Page

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

Revised May 2010

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 08/25/2021 10:32
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1390546-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1723167

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 08/25/2021 10:32
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1390546-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1723167

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?			X		
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?			X		
		Were ion abundance data within the method-required QC limits?			X		
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 08/25/2021 10:32
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1390546-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1723167

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).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 01:23	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 01:23	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 01:23	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 01:23	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*08/15/2021 01:23*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 01:47	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 01:47	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 01:47	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 01:47	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/15/2021 01:47*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 02:10	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 02:10	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 02:10	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 02:10	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/15/2021 02:10*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 02:34	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 02:34	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 02:34	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 02:34	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*08/15/2021 02:34*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 02:58	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 02:58	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 02:58	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 02:58	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/15/2021 02:58*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 03:21	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 03:21	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 03:21	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 03:21	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/15/2021 03:21*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000195	J	0.000190	0.000500	0.000500	1	08/15/2021 03:45	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 03:45	WG1723167
Ethylbenzene	0.000228	B J	0.000160	0.000500	0.000500	1	08/15/2021 03:45	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 03:45	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/15/2021 03:45*	WG1723167

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000269	J	0.000190	0.000500	0.000500	1	08/15/2021 04:09	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 04:09	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 04:09	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 04:09	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/15/2021 04:09*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 04:33	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 04:33	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 04:33	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 04:33	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/15/2021 04:33*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	08/15/2021 04:56	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 04:56	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 04:56	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 04:56	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*08/15/2021 04:56*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.0144		0.000190	0.000500	0.000500	1	08/15/2021 05:20	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 05:20	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 05:20	WG1723167
Total Xylene	0.0519		0.000510	0.00150	0.00150	1	08/15/2021 05:20	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*08/15/2021 05:20*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000811		0.000190	0.000500	0.000500	1	08/15/2021 05:44	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 05:44	WG1723167
Ethylbenzene	0.000211	B J	0.000160	0.000500	0.000500	1	08/15/2021 05:44	WG1723167
Total Xylene	U		0.000510	0.00150	0.00150	1	08/15/2021 05:44	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*08/15/2021 05:44*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00405		0.000190	0.000500	0.000500	1	08/15/2021 06:07	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 06:07	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 06:07	WG1723167
Total Xylene	0.0280		0.000510	0.00150	0.00150	1	08/15/2021 06:07	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*08/15/2021 06:07*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.000672		0.000190	0.000500	0.000500	1	08/15/2021 06:31	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 06:31	WG1723167
Ethylbenzene	0.000197	B J	0.000160	0.000500	0.000500	1	08/15/2021 06:31	WG1723167
Total Xylene	0.00765		0.000510	0.00150	0.00150	1	08/15/2021 06:31	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*106*				*79.0-125*		*08/15/2021 06:31*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.0262		0.000190	0.000500	0.000500	1	08/15/2021 06:55	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 06:55	WG1723167
Ethylbenzene	U		0.000160	0.000500	0.000500	1	08/15/2021 06:55	WG1723167
Total Xylene	0.145		0.000510	0.00150	0.00150	1	08/15/2021 06:55	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*08/15/2021 06:55*	WG1723167

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000489	J	0.000190	0.000500	0.000500	1	08/15/2021 07:18	WG1723167
Toluene	U		0.000412	0.00100	0.00100	1	08/15/2021 07:18	WG1723167
Ethylbenzene	0.000212	B J	0.000160	0.000500	0.000500	1	08/15/2021 07:18	WG1723167
Total Xylene	0.00545		0.000510	0.00150	0.00150	1	08/15/2021 07:18	WG1723167
(S) a,a,a-Trifluorotoluene(PID)	*105*				*79.0-125*		*08/15/2021 07:18*	WG1723167

Method Blank (MB)

(MB) R3695910-2 08/15/21 00:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	U		0.000412	0.00100
Ethylbenzene	0.000177	J	0.000160	0.000500
Total Xylene	U		0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*106*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3695910-1 08/14/21 23:25

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0483	96.6	77.0-122	
Toluene	0.0500	0.0483	96.6	80.0-121	
Ethylbenzene	0.0500	0.0498	99.6	80.0-123	
Total Xylene	0.150	0.149	99.3	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*102*	*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.
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

Qualifier	Description
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com;glenn.quinney@ghd.co**

Project Description: **Darr Angell #1 SRS Darr Angell #1**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project # **11209885/02**

Lab Project # **PLAINSGHD-11209885**

SDG # **L390546**

H147

Collected by (print): Ryan Livingston

Site/Facility ID # **SRS DARR ANGELL #1**

P.O. #

Acctnum: **PLAINSGHD**

Template: **T167385**

Prelogin: **P863981**

PM: **823 - Olivia Studebaker**

PB:

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-11R-081121	Grab	GW		8-11-21	1130	3	X		-01
MW-16R-081121		GW			1140				-02
MW-17R-081121		GW			1150				-03
MW-18R-081121		GW			1200				-04
MW-19R-081121		GW			1210				-05
MW-20R-081121		GW			1220				-06
MW-21R-081121		GW			1230				-07
MW-22-081121		GW			1240				-08
MW-24-081121		GW			1250				-09
MW-25-081121		GW			1300				-10

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date: 8-12-21	Time: 1230	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date: 8-12-21	Time: 1623	Received by: (Signature)	Temp: 2.6+1=2.7 °C	Bottles Received: 48
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Jasmine Trujillo	Date: 8/13/21	Time: 800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com;glenn.quinney@ghd.co**

Project Description: **Darr Angell #1 SRS Darr Angell #1**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project # **11209885/02**

Lab Project # **PLAINSGHD-11209885**

Collected by (print): Ryan Livingston

Site/Facility ID # **SRS DARR ANGELL #1**

P.O. #

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

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Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 139096

Table #

Acctnum: **PLAINSGHD**

Template: **T167385**

Prelogin: **P863981**

PM: **823 - Olivia Studebaker**

PB:

Shipped Via: **FedEX Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
mw-2-081121	Grab	GW		8-11-21	1300	3	X		-11
mw-12R-081121	"	GW		"	1320	"	"		-12
mw-6-081121	"	GW		"	1330	"	"		-13
Dup-1-081121	"	GW		"	—	"	"		-14
Dup-2-081121	"	GW		"	—	"	"		-15
RW-12-081121	Grab	GW		8-11-21	1305	3	X		-16
		GW							
		GW							
		GW							
		GW							

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date: 8-12-21	Time: 12:30	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by: (Signature)	Date: 8-12-21	Time: 16:30	Received by: (Signature)	Temp: 2.6+1=2.7 °C Bottles Received: 48
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature) Jasmine Fuqua	Date: 8/13/21 Time: 800

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

ANALYTICAL REPORT

September 07, 2021

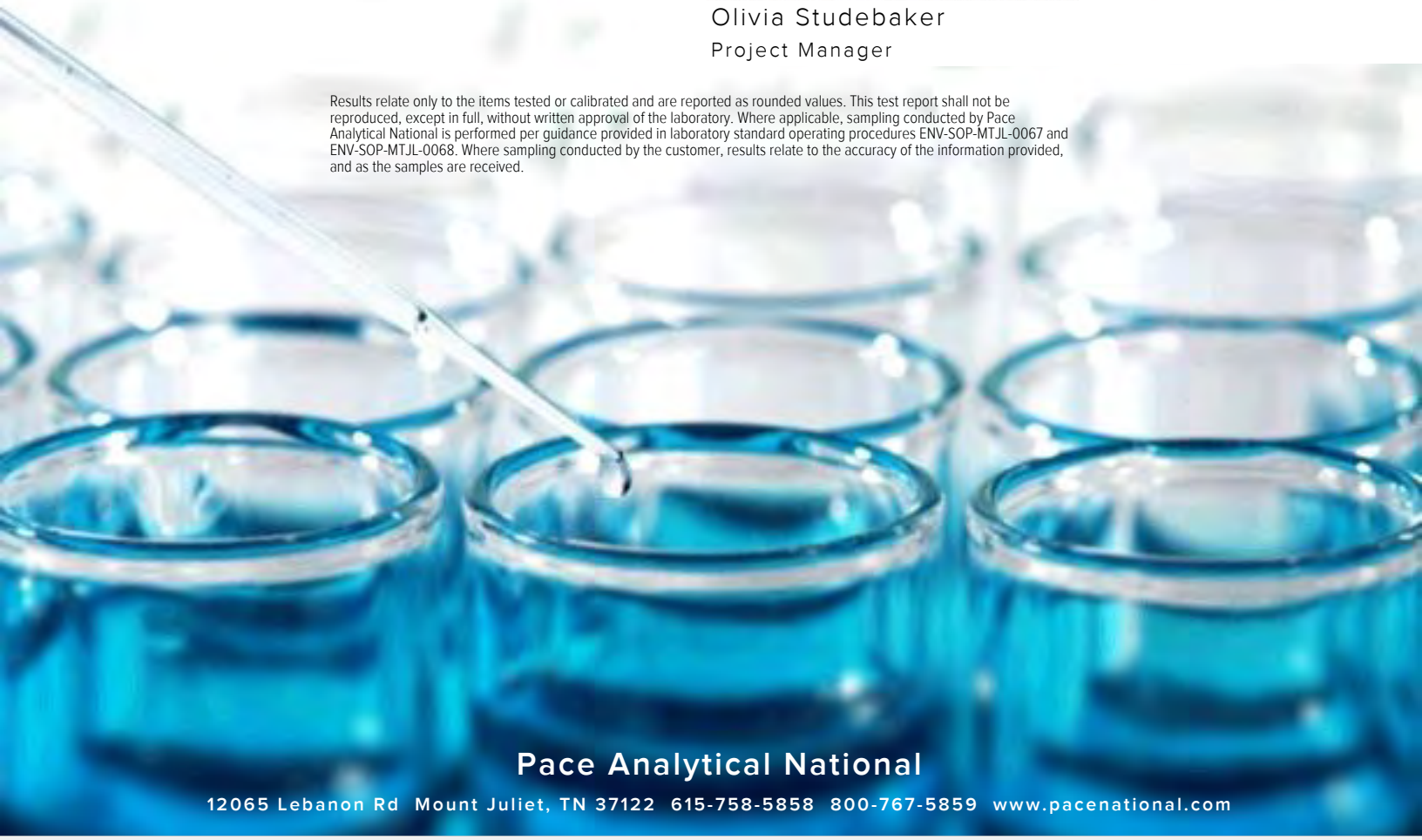
Plains All American, LP - GHD

Sample Delivery Group:	L1397138
Samples Received:	08/31/2021
Project Number:	11209885/02
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
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

TABLE OF CONTENTS

DARR 1: SYSTEM OFF L1397138-01 Air

			Collected by	Collected date/time	Received date/time
				08/30/21 11:25	08/31/21 13:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1733073	800	09/01/21 14:51	09/01/21 14:51	FKG	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1733817	5000	09/02/21 12:12	09/02/21 12:12	MBF	Mt. Juliet, TN

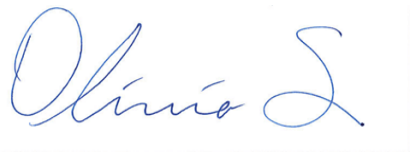
DARR 1: SYSTEM ON L1397138-03 Air

			Collected by	Collected date/time	Received date/time
				08/30/21 11:30	08/31/21 13:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1733073	800	09/01/21 15:32	09/01/21 15:32	FKG	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1733817	5000	09/02/21 12:53	09/02/21 12:53	MBF	Mt. Juliet, TN

CASE NARRATIVE

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

Revised May 2010

Laboratory Data Package Cover Page

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

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 09/07/2021 12:45
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1397138-01 and 03
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1733073 and WG1733817

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 09/07/2021 12:45
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1397138-01 and 03
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1733073 and WG1733817

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 09/07/2021 12:45
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1397138-01 and 03
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1733073 and WG1733817

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).

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	160	511	40700	130000		800	WG1733073
Toluene	108-88-3	92.10	400	1510	73800	278000		800	WG1733073
Ethylbenzene	100-41-4	106	160	694	14700	63700		800	WG1733073
m&p-Xylene	1330-20-7	106	320	1390	64500	280000		800	WG1733073
o-Xylene	95-47-6	106	160	694	20900	90600		800	WG1733073
Methyl tert-butyl ether	1634-04-4	88.10	160	577	ND	ND		800	WG1733073
TPH (GC/MS) Low Fraction	8006-61-9	101	1000000	4130000	6650000	27500000		5000	WG1733817
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*118*				WG1733073
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*103*				WG1733817

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	160	511	40400	129000		800	WG1733073
Toluene	108-88-3	92.10	2500	9420	84000	316000		5000	WG1733817
Ethylbenzene	100-41-4	106	160	694	16400	71100		800	WG1733073
m&p-Xylene	1330-20-7	106	320	1390	67400	292000		800	WG1733073
o-Xylene	95-47-6	106	160	694	21300	92300		800	WG1733073
Methyl tert-butyl ether	1634-04-4	88.10	160	577	ND	ND		800	WG1733073
TPH (GC/MS) Low Fraction	8006-61-9	101	1000000	4130000	7080000	29200000		5000	WG1733817
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*114*				WG1733073
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*101*				WG1733817

Method Blank (MB)

(MB) R3699103-3 09/01/21 10:17

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
MTBE	U		0.0647	0.200
Toluene	U		0.0870	0.500
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
(S) 1,4-Bromofluorobenzene	*93.9*			*60.0-140*

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

(LCS) R3699103-1 09/01/21 08:55 • (LCSD) R3699103-2 09/01/21 09:36

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	3.68	3.69	98.1	98.4	70.0-130			0.271	25
Benzene	3.75	3.74	3.72	99.7	99.2	70.0-130			0.536	25
Toluene	3.75	3.75	3.64	100	97.1	70.0-130			2.98	25
Ethylbenzene	3.75	3.63	3.68	96.8	98.1	70.0-130			1.37	25
m&p-Xylene	7.50	7.46	7.32	99.5	97.6	70.0-130			1.89	25
o-Xylene	3.75	3.71	3.64	98.9	97.1	70.0-130			1.90	25
(S) 1,4-Bromofluorobenzene				*99.7*	*98.8*	*60.0-140*				

Method Blank (MB)

(MB) R3699995-3 09/02/21 10:17

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Toluene	U		0.0870	0.500
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	*94.6*			*60.0-140*

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

(LCS) R3699995-1 09/02/21 08:51 • (LCSD) R3699995-2 09/02/21 09:35

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Toluene	3.75	4.35	4.32	116	115	70.0-130			0.692	25
TPH (GC/MS) Low Fraction	203	248	246	122	121	70.0-130			0.810	25
(S) 1,4-Bromofluorobenzene				*97.0*	*97.3*	*60.0-140*				

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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page of

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Road Mt Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at:
https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

SDG # 139738
C225
Ta

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com;glenn.quinney@ghd.co**

Project Description: **Darr Angell #1 SRS Darr Angell #1** Darr 2

City/State Collected: Lovington, NM

Please Circle: PT (MT) CT ET

Phone: **432-250-7917**

Client Project # **11209885/02021.1 (Darr 1)** 11209891/2021.1 (Darr 2)

Lab Project # **PLAINSGHD-11209885**

Collected by (print): Heath Boyd, Ryan Livingston

Site/Facility ID # **SRS DARR ANGELL #1**

P.O. #

Collected by (signature):

Immediately Packed on Ice N___ Y___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Quote #

Acctnum: **PLAINSGHD**
Template: **T163766**
Prelogin: **P824815**
PM: **134 - Mark W. Beasley**
PB: CB 1/28/21

Shipped Via: **FedEx Ground**

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	M18-MOD Tedlar	Remarks	Sample # (lab only)
Darr 1: System off	Grab	Air	-	8/30/21	1125	1	X		-01
Darr 1: System off	"	Air	-	"	1127	1	X		-02
Darr 1: System on	"	Air	-	"	1130	1	X		-03
Darr 1: System on	"	Air	-	"	1132	1	X		-04
Darr 2: System off	"		-	"	1250	1	X		-05
Darr 2: System off	"		-	"	1252	1	X		-06
Darr 2: System on	"		-	"	1255	1	X		-07
Darr 2: System on	X		-	X	1257	1	X		-08

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking # 9517 5955 7691

Sample Receipt Checklist

COC Seal Present/Intact:	__NP	__Y __N
COC Signed/Accurate:		X Y __N
Bottles arrive intact:		X Y __N
Correct bottles used:		X Y __N
Sufficient volume sent:		X Y __N
If Applicable		
VOA Zero Headspace:		__Y __N
Preservation Correct/Checked:		__Y X N
RAD Screen <0.5 mR/hr:		X Y __N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 8/31/21 Time: 13:30	Hold: Condition: NCF / OK

R3/R4/RX/EX

L1397138 *PLAINSGHD* Change Order

Please remove -02 and -04 from L1397138, the duplicate IDs are actually extra volume.
Please move the DARR 2 samples to separate SDG. Again, the duplicate IDs are extra volume.

Time estimate: oh **Time spent:** oh

Members

OS Olivia Studebaker

ANALYTICAL REPORT

November 26, 2021

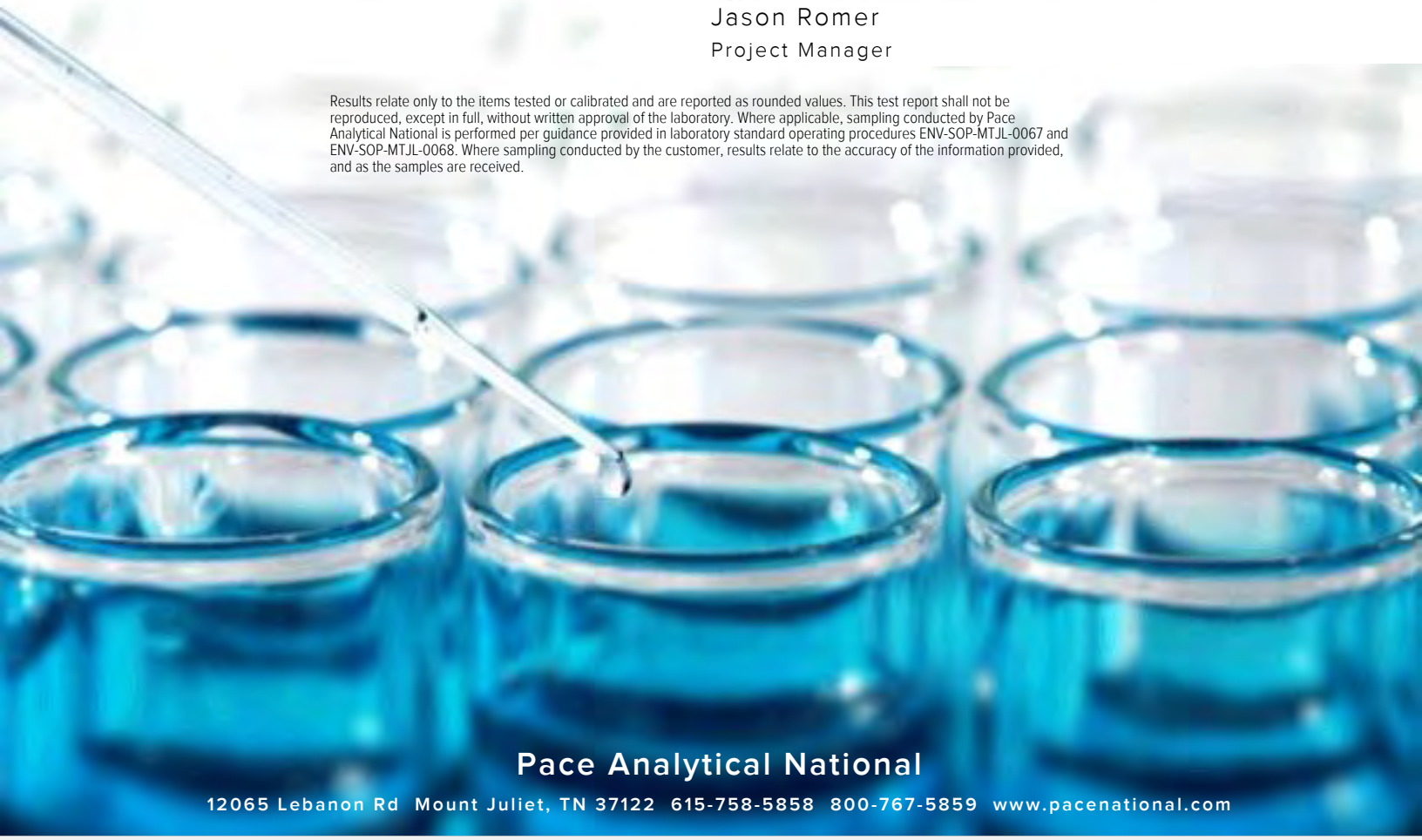
Plains All American, LP - GHD

Sample Delivery Group:	L1431282
Samples Received:	11/13/2021
Project Number:	11209885/02
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
Report To:	Becky Haskell 2135 S Loop 250 W Midland, TX 79703

Entire Report Reviewed By:

Jason Romer
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

TABLE OF CONTENTS

MW11R L1431282-01 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 10:00 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 09:35	11/19/21 09:35	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775175	1	11/18/21 15:59	11/19/21 02:01	AGW	Mt. Juliet, TN

MW16R L1431282-02 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 10:15 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 09:57	11/19/21 09:57	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775175	1	11/18/21 15:59	11/19/21 02:21	AGW	Mt. Juliet, TN

MW17R L1431282-03 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 10:30 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 10:19	11/19/21 10:19	JAH	Mt. Juliet, TN

MW18R L1431282-04 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 10:45 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 10:41	11/19/21 10:41	JAH	Mt. Juliet, TN

MW19R L1431282-05 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 11:00 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 11:03	11/19/21 11:03	JAH	Mt. Juliet, TN

MW20R L1431282-06 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 11:15 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 11:25	11/19/21 11:25	JAH	Mt. Juliet, TN

MW24 L1431282-07 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 11:30 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 11:47	11/19/21 11:47	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775175	1	11/18/21 15:59	11/19/21 02:41	AGW	Mt. Juliet, TN

MW25 L1431282-08 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 11:45 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 12:09	11/19/21 12:09	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775175	1	11/18/21 15:59	11/19/21 03:01	AGW	Mt. Juliet, TN

MW7 L1431282-09 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 12:00 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 12:31	11/19/21 12:31	JAH	Mt. Juliet, TN

MW21R L1431282-10 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 12:15 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 12:53	11/19/21 12:53	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775175	1	11/18/21 15:59	11/19/21 03:21	AGW	Mt. Juliet, TN

MW22 L1431282-11 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 12:30 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 13:15	11/19/21 13:15	JAH	Mt. Juliet, TN

RW12 L1431282-12 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 12:45 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 13:37	11/19/21 13:37	JAH	Mt. Juliet, TN

MW12R L1431282-13 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 13:15 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 13:59	11/19/21 13:59	JAH	Mt. Juliet, TN

MW6 L1431282-14 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 14:30 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 14:21	11/19/21 14:21	JAH	Mt. Juliet, TN

MW2 L1431282-15 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 15:00 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 14:43	11/19/21 14:43	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1775175	1	11/18/21 15:59	11/19/21 06:21	AGW	Mt. Juliet, TN

DUP L1431282-16 GW

Collected by: David Fletcher | Collected date/time: 11/11/21 00:00 | Received date/time: 11/13/21 17:15

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1777055	1	11/19/21 15:05	11/19/21 15:05	JAH	Mt. Juliet, TN

CASE NARRATIVE

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.

Jason Romer
Project Manager

Sample Delivery Group (SDG) Narrative

pH outside of method requirement.

Lab Sample ID	Project Sample ID	Method
L1431282-14	MW6	8021B

Revised May 2010

Laboratory Data Package Cover Page

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.

Jason Romer

Project Manager

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 11/26/2021 15:44
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1431282-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Jason Romer	Prep Batch Number(s): WG1775175 and WG1777055

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		Were blank concentrations < MQL?		X			2
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	X				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?		X			3
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?		X			4
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 11/26/2021 15:44
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1431282-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Jason Romer	Prep Batch Number(s): WG1775175 and WG1777055

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 11/26/2021 15:44
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1431282-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15 and 16
Reviewer Name: Jason Romer	Prep Batch Number(s): WG1775175 and WG1777055

ER #[1]	Description
1	8270C-SIM WG1775175 Nitrobenzene-d5, p-Terphenyl-d14 L1431282-15 and 3: Percent Recovery is outside of established control limits.
2	8021B WG1777055 Ethylbenzene, Total Xylene L1431282-12, 13 and 14: Concentration in the Blank >MQL.
3	8270C-SIM WG1775175 Benzo(a)pyrene, Benzo(g,h,i)perylene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene: Relative Percent Difference is outside of established control limits.
4	8021B WG1777055 L1431282-14: pH outside of method requirement.

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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).

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 09:35	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 09:35	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 09:35	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 09:35	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.1*				*79.0-125*		*11/19/2021 09:35*	WG1777055

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Benzo(a)pyrene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Benzo(g,h,i)perylene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Benzo(k)fluoranthene	U	J3	0.0000202	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Dibenz(a,h)anthracene	U	J3	0.0000160	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 02:01	WG1775175
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Indeno(1,2,3-cd)pyrene	U	J3	0.0000158	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 02:01	WG1775175
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:01	WG1775175
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 02:01	WG1775175
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 02:01	WG1775175
(S) Nitrobenzene-d5	*110*				*31.0-160*		*11/19/2021 02:01*	WG1775175
(S) 2-Fluorobiphenyl	*109*				*48.0-148*		*11/19/2021 02:01*	WG1775175
(S) p-Terphenyl-d14	*124*				*37.0-146*		*11/19/2021 02:01*	WG1775175

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 09:57	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 09:57	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 09:57	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 09:57	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.6*				*79.0-125*		*11/19/2021 09:57*	WG1777055

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Benzo(a)pyrene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Benzo(g,h,i)perylene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Benzo(k)fluoranthene	U	J3	0.0000202	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Dibenz(a,h)anthracene	U	J3	0.0000160	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 02:21	WG1775175
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Indeno(1,2,3-cd)pyrene	U	J3	0.0000158	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 02:21	WG1775175
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:21	WG1775175
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 02:21	WG1775175
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 02:21	WG1775175
(S) Nitrobenzene-d5	*110*				*31.0-160*		*11/19/2021 02:21*	WG1775175
(S) 2-Fluorobiphenyl	*113*				*48.0-148*		*11/19/2021 02:21*	WG1775175
(S) p-Terphenyl-d14	*134*				*37.0-146*		*11/19/2021 02:21*	WG1775175

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 10:19	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 10:19	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 10:19	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 10:19	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.3*				*79.0-125*		*11/19/2021 10:19*	WG1777055

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 10:41	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 10:41	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 10:41	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 10:41	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*11/19/2021 10:41*	WG1777055

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 11:03	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 11:03	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 11:03	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 11:03	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.3*				*79.0-125*		*11/19/2021 11:03*	WG1777055

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 11:25	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 11:25	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 11:25	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 11:25	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.6*				*79.0-125*		*11/19/2021 11:25*	WG1777055

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 11:47	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 11:47	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 11:47	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 11:47	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*11/19/2021 11:47*	WG1777055

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Benzo(a)pyrene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Benzo(g,h,i)perylene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Benzo(k)fluoranthene	U	J3	0.0000202	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Dibenz(a,h)anthracene	U	J3	0.0000160	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 02:41	WG1775175
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Indeno(1,2,3-cd)pyrene	U	J3	0.0000158	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 02:41	WG1775175
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 02:41	WG1775175
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 02:41	WG1775175
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 02:41	WG1775175
(S) Nitrobenzene-d5	*103*				*31.0-160*		*11/19/2021 02:41*	WG1775175
(S) 2-Fluorobiphenyl	*110*				*48.0-148*		*11/19/2021 02:41*	WG1775175
(S) p-Terphenyl-d14	*128*				*37.0-146*		*11/19/2021 02:41*	WG1775175

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 12:09	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 12:09	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 12:09	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 12:09	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.3*				*79.0-125*		*11/19/2021 12:09*	WG1777055

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Benzo(a)pyrene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Benzo(g,h,i)perylene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Benzo(k)fluoranthene	U	J3	0.0000202	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Dibenz(a,h)anthracene	U	J3	0.0000160	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 03:01	WG1775175
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Indeno(1,2,3-cd)pyrene	U	J3	0.0000158	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 03:01	WG1775175
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:01	WG1775175
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 03:01	WG1775175
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 03:01	WG1775175
(S) Nitrobenzene-d5	*108*				*31.0-160*		*11/19/2021 03:01*	WG1775175
(S) 2-Fluorobiphenyl	*117*				*48.0-148*		*11/19/2021 03:01*	WG1775175
(S) p-Terphenyl-d14	*137*				*37.0-146*		*11/19/2021 03:01*	WG1775175

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000667		0.000190	0.000500	0.000500	1	11/19/2021 12:31	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 12:31	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 12:31	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 12:31	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*98.2*				*79.0-125*		*11/19/2021 12:31*	WG1777055

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 12:53	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 12:53	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 12:53	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 12:53	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.0*				*79.0-125*		*11/19/2021 12:53*	WG1777055

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Benzo(a)pyrene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Benzo(g,h,i)perylene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Benzo(k)fluoranthene	U	J3	0.0000202	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Dibenz(a,h)anthracene	U	J3	0.0000160	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/19/2021 03:21	WG1775175
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Indeno(1,2,3-cd)pyrene	U	J3	0.0000158	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/19/2021 03:21	WG1775175
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 03:21	WG1775175
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/19/2021 03:21	WG1775175
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/19/2021 03:21	WG1775175
(S) Nitrobenzene-d5	*91.0*				*31.0-160*		*11/19/2021 03:21*	WG1775175
(S) 2-Fluorobiphenyl	*112*				*48.0-148*		*11/19/2021 03:21*	WG1775175
(S) p-Terphenyl-d14	*130*				*37.0-146*		*11/19/2021 03:21*	WG1775175

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 13:15	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 13:15	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 13:15	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 13:15	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.8*				*79.0-125*		*11/19/2021 13:15*	WG1777055

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 13:37	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 13:37	WG1777055
Ethylbenzene	0.000219	B J	0.000160	0.000500	0.000500	1	11/19/2021 13:37	WG1777055
Total Xylene	0.0129		0.000510	0.00150	0.00150	1	11/19/2021 13:37	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*11/19/2021 13:37*	WG1777055

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.00135		0.000190	0.000500	0.000500	1	11/19/2021 13:59	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 13:59	WG1777055
Ethylbenzene	0.000300	B J	0.000160	0.000500	0.000500	1	11/19/2021 13:59	WG1777055
Total Xylene	U		0.000510	0.00150	0.00150	1	11/19/2021 13:59	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*99.1*				*79.0-125*		*11/19/2021 13:59*	WG1777055

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	0.000858		0.000190	0.000500	0.000500	1	11/19/2021 14:21	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 14:21	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 14:21	WG1777055
Total Xylene	0.000559	B J	0.000510	0.00150	0.00150	1	11/19/2021 14:21	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*11/19/2021 14:21*	WG1777055

1 Cp
2 Tc
3 Ss
4 Cn
5 Tr
6 Sr
7 Qc
8 Gl
9 Al
10 Sc

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Benzene	U		0.000190	0.000500	0.000500	1	11/19/2021 14:43	WG1777055
Toluene	U		0.000412	0.00100	0.00100	1	11/19/2021 14:43	WG1777055
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/19/2021 14:43	WG1777055
Total Xylene	0.00180	B	0.000510	0.00150	0.00150	1	11/19/2021 14:43	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*11/19/2021 14:43*	WG1777055

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

Analyte	Result mg/l	Qualifier	SDL mg/l	Unadj. MQL mg/l	MQL mg/l	Dilution	Analysis date / time	Batch
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Acenaphthene	0.00348		0.0000190	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Benzo(a)pyrene	U	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Benzo(b)fluoranthene	0.000378		0.0000168	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Benzo(g,h,i)perylene	0.000345	J3	0.0000184	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Benzo(k)fluoranthene	0.0000983	J3	0.0000202	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Chrysene	0.00139		0.0000179	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Dibenz(a,h)anthracene	U	J3	0.0000160	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Dibenzofuran	0.00790		0.0000191	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Fluoranthene	0.00142		0.0000270	0.000100	0.000100	1	11/19/2021 06:21	WG1775175
Fluorene	0.0128		0.0000169	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Indeno(1,2,3-cd)pyrene	U	J3	0.0000158	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Naphthalene	0.0114		0.0000917	0.000250	0.000250	1	11/19/2021 06:21	WG1775175
Phenanthrene	0.0190		0.0000180	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/19/2021 06:21	WG1775175
1-Methylnaphthalene	0.0607		0.0000687	0.000250	0.000250	1	11/19/2021 06:21	WG1775175
2-Methylnaphthalene	0.0511		0.0000674	0.000250	0.000250	1	11/19/2021 06:21	WG1775175
(S) Nitrobenzene-d5	*0.000*	J2			*31.0-160*		*11/19/2021 06:21*	WG1775175
(S) 2-Fluorobiphenyl	*113*				*48.0-148*		*11/19/2021 06:21*	WG1775175
(S) p-Terphenyl-d14	*116*				*37.0-146*		*11/19/2021 06:21*	WG1775175

Sample Narrative:

L1431282-15 WG1775175: Surrogate failure due to matrix interference

DUP
Collected date/time: 11/11/21 00:00
L1431282

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Benzene	0.190		0.000190	0.000500	0.000500	1	11/19/2021 15:05	WG1777055
Toluene	0.000646	B J	0.000412	0.00100	0.00100	1	11/19/2021 15:05	WG1777055
Ethylbenzene	0.00429		0.000160	0.000500	0.000500	1	11/19/2021 15:05	WG1777055
Total Xylene	0.00673	B	0.000510	0.00150	0.00150	1	11/19/2021 15:05	WG1777055
(S) a,a,a-Trifluorotoluene(PID)	*104*				*79.0-125*		*11/19/2021 15:05*	WG1777055

Method Blank (MB)

(MB) R3733494-3 11/19/21 06:39

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.000190	0.000500
Toluene	0.000440	J	0.000412	0.00100
Ethylbenzene	0.000165	J	0.000160	0.000500
Total Xylene	0.00104	J	0.000510	0.00150
(S) a,a,a-Trifluorotoluene(PID)	*100*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3733494-1 11/19/21 05:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0541	108	77.0-122	
Toluene	0.0500	0.0516	103	80.0-121	
Ethylbenzene	0.0500	0.0561	112	80.0-123	
Total Xylene	0.150	0.164	109	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*100*	*79.0-125*	

Method Blank (MB)

(MB) R3731776-3 11/18/21 23:41

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Anthracene	U		0.0000190	0.0000500
Acenaphthene	U		0.0000190	0.0000500
Acenaphthylene	U		0.0000171	0.0000500
Benzo(a)anthracene	U		0.0000203	0.0000500
Benzo(a)pyrene	U		0.0000184	0.0000500
Benzo(b)fluoranthene	U		0.0000168	0.0000500
Benzo(g,h,i)perylene	U		0.0000184	0.0000500
Benzo(k)fluoranthene	U		0.0000202	0.0000500
Chrysene	U		0.0000179	0.0000500
Dibenz(a,h)anthracene	U		0.0000160	0.0000500
Fluoranthene	U		0.0000270	0.000100
Fluorene	U		0.0000169	0.0000500
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500
Naphthalene	U		0.0000917	0.000250
Phenanthrene	U		0.0000180	0.0000500
Pyrene	U		0.0000169	0.0000500
1-Methylnaphthalene	U		0.0000687	0.000250
2-Methylnaphthalene	U		0.0000674	0.000250
Dibenzofuran	U		0.0000191	0.0000500
(S) Nitrobenzene-d5	*112*			*31.0-160*
(S) 2-Fluorobiphenyl	*124*			*48.0-148*
(S) p-Terphenyl-d14	*152*	J1		*37.0-146*

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

(LCS) R3731776-1 11/18/21 23:01 • (LCSD) R3731776-2 11/18/21 23:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Dibenzofuran	0.00200	0.00237	0.00239	118	119	67.0-134			0.840	20
Anthracene	0.00200	0.00218	0.00217	109	108	67.0-150			0.460	20
Acenaphthene	0.00200	0.00225	0.00227	112	114	65.0-138			0.885	20
Acenaphthylene	0.00200	0.00226	0.00221	113	111	66.0-140			2.24	20
Benzo(a)anthracene	0.00200	0.00181	0.00202	90.5	101	61.0-140			11.0	20
Benzo(a)pyrene	0.00200	0.00161	0.00197	80.5	98.5	60.0-143		J3	20.1	20
Benzo(b)fluoranthene	0.00200	0.00188	0.00226	94.0	113	58.0-141			18.4	20
Benzo(g,h,i)perylene	0.00200	0.00165	0.00211	82.5	105	52.0-153		J3	24.5	20
Benzo(k)fluoranthene	0.00200	0.00169	0.00214	84.5	107	58.0-148		J3	23.5	20
Chrysene	0.00200	0.00179	0.00213	89.5	106	64.0-144			17.3	20
Dibenz(a,h)anthracene	0.00200	0.00165	0.00208	82.5	104	52.0-155		J3	23.1	20

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

(LCS) R3731776-1 11/18/21 23:01 • (LCSD) R3731776-2 11/18/21 23:21

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Fluoranthene	0.00200	0.00222	0.00230	111	115	69.0-153			3.54	20
Fluorene	0.00200	0.00235	0.00235	117	117	64.0-136			0.000	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00168	0.00209	84.0	105	54.0-153		J3	21.8	20
Naphthalene	0.00200	0.00225	0.00224	112	112	61.0-137			0.445	20
Phenanthrene	0.00200	0.00226	0.00227	113	114	62.0-137			0.442	20
Pyrene	0.00200	0.00213	0.00222	106	111	60.0-142			4.14	20
1-Methylnaphthalene	0.00200	0.00229	0.00230	114	115	66.0-142			0.436	20
2-Methylnaphthalene	0.00200	0.00221	0.00218	111	109	62.0-136			1.37	20
(S) Nitrobenzene-d5				*112*	*104*	*31.0-160*				
(S) 2-Fluorobiphenyl				*114*	*113*	*48.0-148*				
(S) p-Terphenyl-d14				*101*	*119*	*37.0-146*				

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.
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
B	The same analyte is found in the associated blank.
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.
J2	Surrogate recovery limits have been exceeded; values are outside lower control limits.
J3	The associated batch QC was outside the established quality control range for precision.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com;glenn.quinney@ghd.co**

Project Description: **Darr Angell #1 SRS Darr Angell #1**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project # **11209885/02**

Lab Project # **PLAINSGHD-11209885**

SDG # **143282**

K096

Collected by (print): David Fletcher

Collected by (signature): David Fletcher

Immediately Packed on Ice N ___ Y ✓

Site/Facility ID # **SRS DARR ANGELL #1**

P.O. #

Quote #

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Acctnum: **PLAINSGHD**
Template: **T198204**
Prelogin: **P883771**
PM: **823 - Olivia Studebaker**
PB:
Shipped Via:

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl EXT to C35	PAHSIMLVI 40mlAmb-NoPres-WT	Remarks	Sample # (lab only)
MW11R	Grab	GW	NA	11-11-21	1000	6	X	X		-01
MW16R		GW			1015	6	X	X		-02
MW17R		GW			1030	3	X			-03
MW18R		GW			1045	1	X			-04
MW19R		GW			1100	1	X			-05
MW20R		GW			1115	1	X			-06
MW24		GW			1130	6	X	X		-07
MW25		GW			1145	6	X	X		-08
MW7		GW			1200	3	X			-09
MW21R		GW			1215	6	X	X		-10

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by : (Signature) David Fletcher	11-12-21	0700	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	11-12-21	1600	Received by: (Signature)	Temp: 1.4/1.5R °C Bottles Received: 66
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/13/21 Time: 1715

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Company Name/Address:
Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page 2 of 2

Pace Analytical®

12065 Lebanon Rd Mount Juliet, TN 37122
Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com;glenn.quinney@ghd.co**

Project Description: **Darr Angell #1 SRS Darr Angell #1**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-250-7917**

Client Project # **11209885/02**

Lab Project # **PLAINSGHD-11209885**

SDG # 143282

Table #

Acctnum: **PLAINSGHD**

Template: **T198204**

Prelogin: **P883771**

PM: **823 - Olivia Studebaker**

PB:

Shipped Via:

Collected by (print): David Fletcher

Site/Facility ID # **SRS DARR ANGELL #1**

P.O. #

Collected by (signature): David Fletcher

Immediately Packed on Ice N ___ Y ___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Quote #

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl Ext to C35	PAHSIMLVI 40mlAmb-NoPres-WT	Remarks	Sample # (lab only)
MW22	GRAB	GW	NA	11-11-21	1230	3	X			-11
RW12		GW			1245	3	X			-12
MW12R		GW			1315	3	X			-13
MW6		GW			1430	3	X			-14
MW2		GW			1500	6	X	X		-15
DUP		GW				3	X			-16
		GW								
		GW								
		GW								
		GW								

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier _____

Tracking #

Sample Receipt Checklist
COC Seal Present/Intact: NP Y N
COC Signed/Accurate: Y N
Bottles arrive intact: Y N
Correct bottles used: Y N
Sufficient volume sent: Y N
If Applicable
VOA Zero Headspace: Y N
Preservation Correct/Checked: Y N
RAD Screen <0.5 mR/hr: Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
David Fletcher	11-12-21	700		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
	11-12-21	1600		1.9+0.2=2.1 66
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				11/13/21 1715

If preservation required by Login: Date/Time

Hold: Condition: NCF / OK

Pace Analytical®

ANALYTICAL REPORT

December 13, 2021

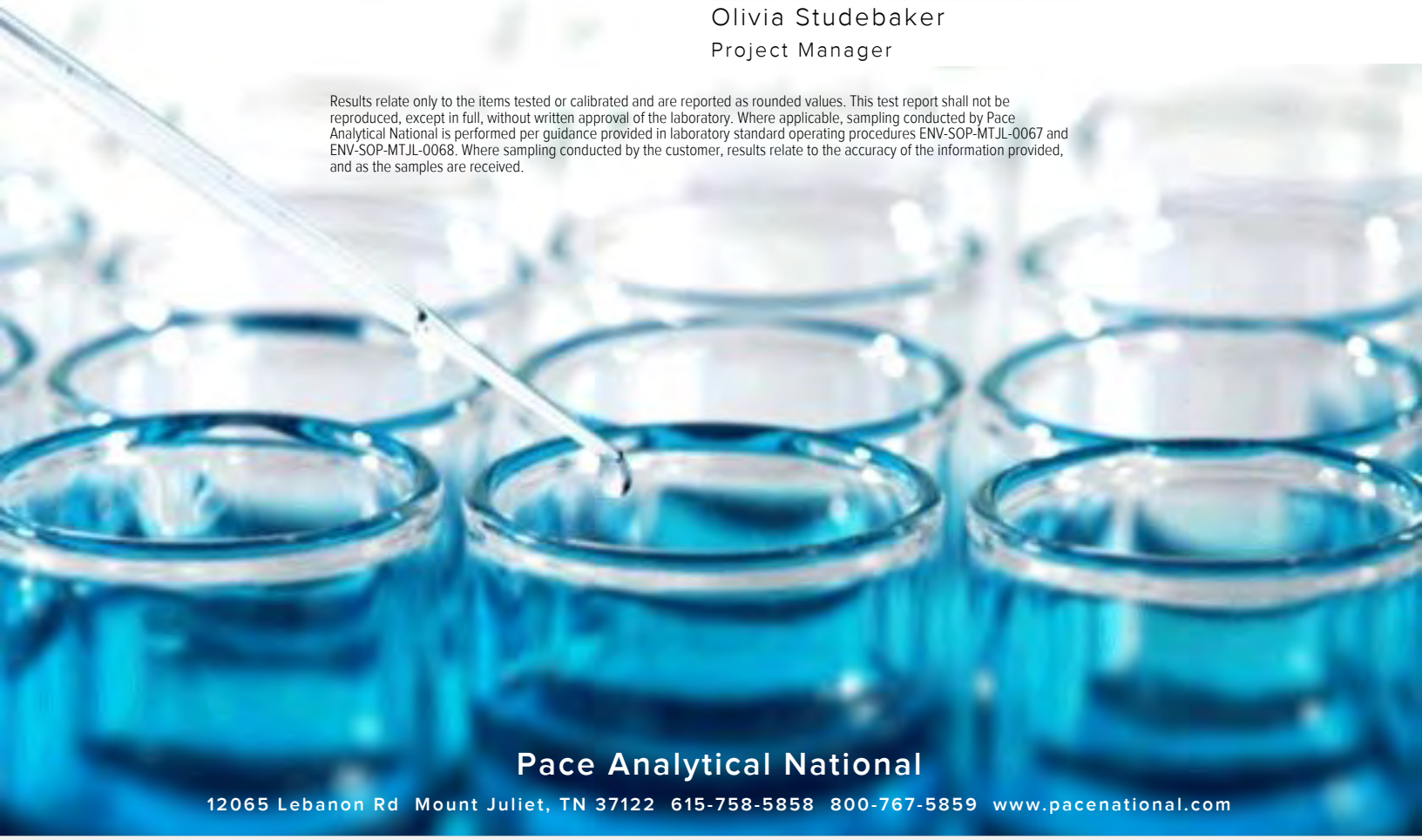
Plains All American, LP - GHD

Sample Delivery Group:	L1439403
Samples Received:	12/08/2021
Project Number:	11209885/02
Description:	Darr Angell #1 SRS Darr Angell #1
Site:	SRS DARR ANGELL #1
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

TABLE OF CONTENTS

PUMPS ON L1439403-01 Air

Collected by: David Fletcher
Collected date/time: 12/06/21 12:45
Received date/time: 12/08/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1786013	800	12/08/21 21:25	12/08/21 21:25	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1786714	10000	12/09/21 16:34	12/09/21 16:34	CEP	Mt. Juliet, TN

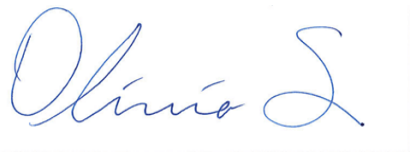
PUMPS OFF L1439403-02 Air

Collected by: David Fletcher
Collected date/time: 12/06/21 13:00
Received date/time: 12/08/21 10:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (MS) by Method M18-Mod	WG1786013	800	12/08/21 22:05	12/08/21 22:05	DAH	Mt. Juliet, TN
Volatile Organic Compounds (MS) by Method M18-Mod	WG1786714	10000	12/09/21 17:14	12/09/21 17:14	CEP	Mt. Juliet, TN

CASE NARRATIVE

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

Laboratory Data Package Cover Page

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

Revised May 2010

Laboratory Review Checklist: Reportable Data

Laboratory Name: Pace Analytical National	LRC Date: 12/13/2021 11:57
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1439403-01 and 02
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1786013 and WG1786714

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				
		Were all departures from standard conditions described in an exception report?			X		
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 corresponding QC data?	X				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	X				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		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?	X				
		Were all results for soil and sediment samples reported on a dry weight basis?	X				
		Were % moisture (or solids) reported for all soil and sediment samples?			X		
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?			X		
		If required for the project, are TICs reported?			X		
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	X				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?		X			1
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	X				
		Were blanks analyzed at the appropriate frequency?	X				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	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 procedure, including prep and cleanup steps?	X				
		Were LCSs analyzed at the required frequency?	X				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	X				
		Was the LCSD RPD within QC limits?	X				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?			X		
		Were MS/MSD analyzed at the appropriate frequency?			X		
		Were MS (and MSD, if applicable) %Rs within the laboratory 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 appropriate frequency?			X		
		Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	X				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	X				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	X				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	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.
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).

Revised May 2010

Laboratory Review Checklist: Supporting Data

Laboratory Name: Pace Analytical National	LRC Date: 12/13/2021 11:57
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1439403-01 and 02
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1786013 and WG1786714

#[1]	A[2]	Description	Yes	No	NA[3]	NR[4]	ER#[5]
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	X				
		Were percent RSDs or correlation coefficient criteria met?	X				
		Was the number of standards recommended in the method used for all analytes?	X				
		Were all points generated between the lowest and highest 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 appropriate second source standard?	X				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	X				
		Were percent differences for each analyte within the method-required QC limits?	X				
		Was the ICAL curve verified for each analyte?	X				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?			X		
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	X				
		Were ion abundance data within the method-required QC limits?	X				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		Were data associated with manual integrations flagged on the raw data?	X				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?			X		
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?			X		
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	X				
		Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	X				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	X				
		Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method 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.
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).

Revised May 2010

Laboratory Review Checklist: Exception Reports

Laboratory Name: Pace Analytical National	LRC Date: 12/13/2021 11:57
Project Name: Darr Angell #1 SRS Darr Angell #1	Laboratory Job Number: L1439403-01 and 02
Reviewer Name: Olivia Studebaker	Prep Batch Number(s): WG1786013 and WG1786714

ER #[1]	Description
1	M18-Mod WG1786013 1,4-Bromofluorobenzene L1439403-01 and 02: Percent Recovery is outside of established control limits.

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).

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	2000	6390	37600	120000		10000	WG1786714
Toluene	108-88-3	92.10	5000	18800	57700	217000		10000	WG1786714
Ethylbenzene	100-41-4	106	2000	8670	12300	53300		10000	WG1786714
m&p-Xylene	1330-20-7	106	4000	17300	48700	211000		10000	WG1786714
o-Xylene	95-47-6	106	2000	8670	16000	69400		10000	WG1786714
Methyl tert-butyl ether	1634-04-4	88.10	160	577	ND	ND		800	WG1786013
TPH (GC/MS) Low Fraction	8006-61-9	101	2000000	8260000	6090000	25200000		10000	WG1786714
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*354*		J1		WG1786013
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG1786714

Sample Narrative:

L1439403-01 WG1786013: Surrogate failure due to matrix interference

Volatile Organic Compounds (MS) by Method M18-Mod

Analyte	CAS #	Mol. Wt.	RDL1 ppbv	RDL2 ug/m3	Result ppbv	Result ug/m3	Qualifier	Dilution	Batch
Benzene	71-43-2	78.10	2000	6390	42300	135000		10000	WG1786714
Toluene	108-88-3	92.10	5000	18800	64900	244000		10000	WG1786714
Ethylbenzene	100-41-4	106	2000	8670	13900	60300		10000	WG1786714
m&p-Xylene	1330-20-7	106	4000	17300	52000	225000		10000	WG1786714
o-Xylene	95-47-6	106	2000	8670	17300	75000		10000	WG1786714
Methyl tert-butyl ether	1634-04-4	88.10	160	577	ND	ND		800	WG1786013
TPH (GC/MS) Low Fraction	8006-61-9	101	2000000	8260000	6680000	27600000		10000	WG1786714
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*368*		J1		WG1786013
(S) 1,4-Bromofluorobenzene	*460-00-4*	*175*	*60.0-140*		*102*				WG1786714

Sample Narrative:

L1439403-02 WG1786013: Surrogate failure due to matrix interference

Method Blank (MB)

(MB) R3738493-3 12/08/21 10:11

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
MTBE	U		0.0647	0.200
(S) 1,4-Bromofluorobenzene	*97.8*			*60.0-140*

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

(LCS) R3738493-1 12/08/21 08:50 • (LCSD) R3738493-2 12/08/21 09:31

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
MTBE	3.75	4.57	4.57	122	122	70.0-130			0.000	25
(S) 1,4-Bromofluorobenzene				*97.4*	*97.8*	*60.0-140*				

Method Blank (MB)

(MB) R3739068-3 12/09/21 10:42

Analyte	MB Result ppbv	MB Qualifier	MB MDL ppbv	MB RDL ppbv
Benzene	U		0.0715	0.200
Ethylbenzene	U		0.0835	0.200
Toluene	U		0.0870	0.500
m&p-Xylene	U		0.135	0.400
o-Xylene	U		0.0828	0.200
TPH (GC/MS) Low Fraction	U		39.7	200
(S) 1,4-Bromofluorobenzene	*94.9*			*60.0-140*

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

(LCS) R3739068-1 12/09/21 09:18 • (LCSD) R3739068-2 12/09/21 10:01

Analyte	Spike Amount ppbv	LCS Result ppbv	LCSD Result ppbv	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Benzene	3.75	4.27	4.20	114	112	70.0-130			1.65	25
Toluene	3.75	4.24	4.29	113	114	70.0-130			1.17	25
Ethylbenzene	3.75	4.26	4.20	114	112	70.0-130			1.42	25
m&p-Xylene	7.50	8.57	8.36	114	111	70.0-130			2.48	25
o-Xylene	3.75	4.34	4.15	116	111	70.0-130			4.48	25
TPH (GC/MS) Low Fraction	203	249	243	123	120	70.0-130			2.44	25
(S) 1,4-Bromofluorobenzene				*100*	*98.1*	*60.0-140*				

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.
ND	Not detected at the Method Quantitation Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(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.
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
J1	Surrogate recovery limits have been exceeded; values are outside upper control limits.

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 [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	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 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* 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 Analytical.

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Attn: Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79705

Pres Chk

Report to: Becky Haskell

Email To: becky.haskell@ghd.com;glenn.quinney@ghd.co

Project Description: Darr Angell #1 SRS Darr Angell #1

City/State Collected: Lovington NM

Please Circle: PT MT CT ET

Phone: 432-250-7917

Client Project # 11209885/02

Lab Project # PLAINSGHD-11209885

Collected by (print): David Fletcher

Collected by (signature): David Fletcher

Site/Facility ID # SRS DARR ANGELL #1

P.O. #

Quote #

Immediately Packed on Ice N___ Y___

Rush? (Lab MUST Be Notified)
___ Same Day ___ Five Day
___ Next Day ___ 5 Day (Rad Only)
___ Two Day ___ 10 Day (Rad Only)
___ Three Day

Date Results Needed

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	M18-MOD Tedlar
Pumps ON	NA	Air	NA	12-6-21	1245	2	X
Pumps OFF	↓	Air	↓	↓	1300	2	X
		Air					
		Air					

Analysis / Container / Preservative

Chain of Custody

Pace Analytical®
National Center for Testing & Innovation

12065 Lebanon Rd
Mount Juliet, TN 37122
Phone: 615-758-5858
Phone: 800-767-5859
Fax: 615-758-5859

SDG # C128

Ta L1439403

Acctnum: PLAINSGHD

Template: T163766

Prelogin: P805972

PM: 134 - Mark W. Beasley

PB: 11/30.dd

Shipped Via: FedEX Ground

Remarks	Sample # (lab only)
	-01
	-02

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:

pH _____ Temp _____

Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier

Tracking # 543383787881

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR	If preservation required by Login: Date/Time
David Fletcher	12.7.21 12-6-21	14:00 16:00			
Relinquished by : (Signature)	Date: 12.7.21	Time: 15:00	Received by: (Signature) FedEx	Temp: AMB °C Bottles Received: 4 TEDLARS	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 12/8/21 Time: 1000	Hold: Condition: NCF / OK

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 92044

CONDITIONS

Operator:	OGRID:
PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	34053
	Action Number: 92044
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Contractor recommendations approved by OCD and are as follows; 1. Continue the operation and maintenance of the system in various monitor and recovery wells on a weekly basis. 2. Conduct LNAPL abatement via hand-bailing on a weekly basis for monitor and recovery wells that have a measurable amount of LNAPL, but no pump installed. 3. Continue NMOCD-approved quarterly GWSEs for BTEX by Method 8021B for all monitor and recovery wells located on-site. 4. MW-11R, MW-16R, MW-21R, MW-24, and MW-25 have established 2 consecutive years below the NMWQCC criteria for PAH, therefore NMOCD approves the removal from the annual PAH sampling schedule unless they are re-impacted by LNAPL. 5. Sample monitor well MW-2 (if there is sufficient water) for PAH compounds during the fourth quarter of 2022. Additionally, sample any wells that cease to have LNAPL for PAH compounds. 6. Submit the Annual Monitoring Report to the NMOCD no later than March 31, 2023.	8/2/2022