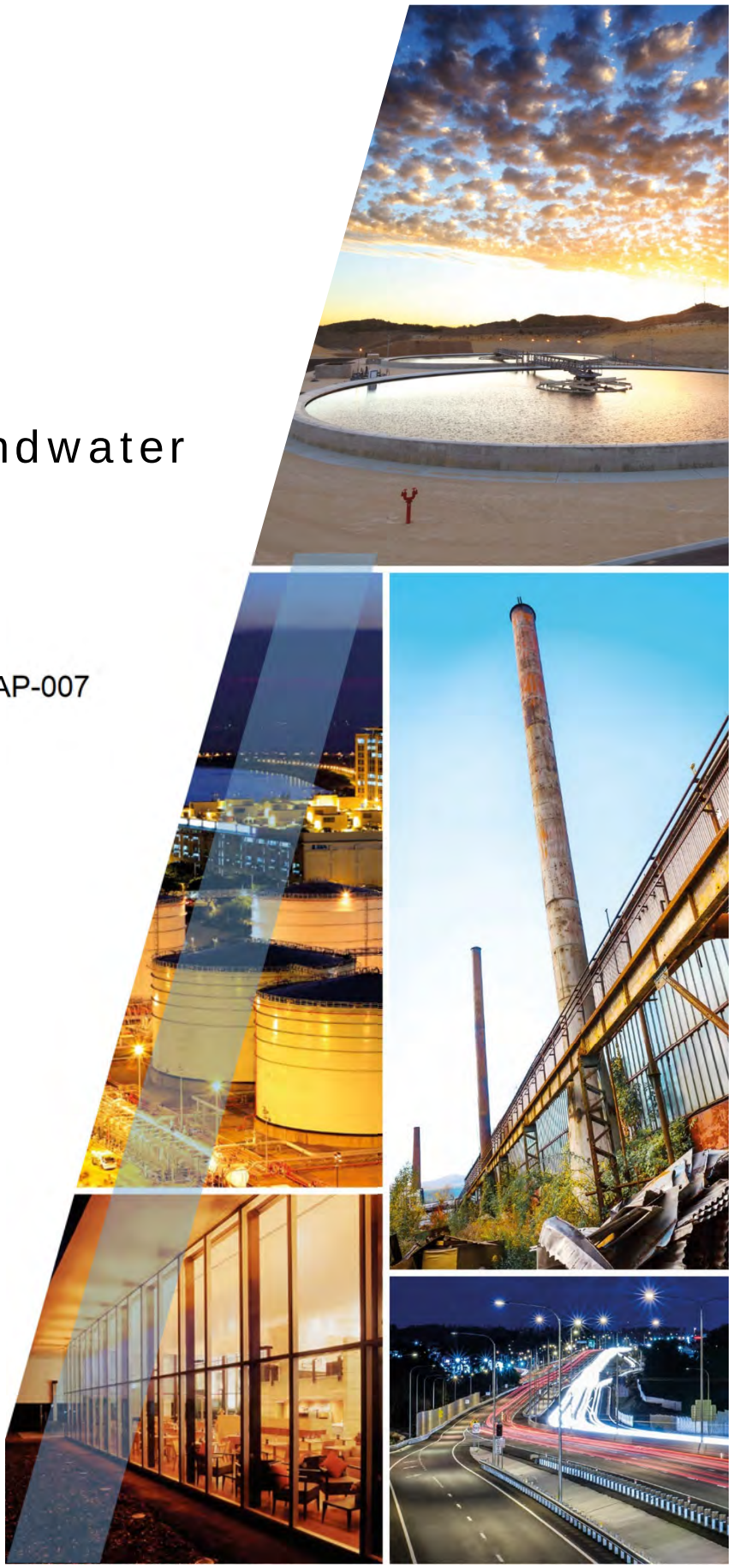

2020 Annual Groundwater Monitoring Report

Darr Angell #4
Lea County, New Mexico
SRS #2001-10876
NMOCD Abatement Plan Number AP-007
Incident ID #: nAPP2108856592

Plains Pipeline LP

APPROVED
By Nelson Velez at 9:17 am, Jan 11, 2022

Review of 2020 ANNUAL GROUNDWATER MONITORING REPORT:
Content satisfactory
Contractor recommendations approved and are as follows;
1. Continue quarterly groundwater monitoring events to the NMOCD.
2. Continue annual analyses of PAHs during the fourth quarter monitoring event. Monitor wells MW-1R, MW-2R, MW5R, MW-7R, MW-11R, MW-13R, MW-18, RW-5R and RW-19 and any new wells not impacted by LNAPL will require analyses of PAH.
3. Continue operating the pneumatic LNAPL-only skimmer pump system in RW-3R, RW-16, and RW-17 to reduce hand-bailing efforts and enhance LNAPL recovery.
4. Submit annual report to OCD no later than March 31,2022.

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Appendix Index

1. Introduction

GHD Services Inc. (GHD) has prepared this report on behalf of Plains All American Pipeline, L.P. (Plains) summarizing quarterly groundwater monitoring conducted at Darr Angell #4 (Site). Activities performed during 2020 also included groundwater remediation of hydrocarbons via pneumatic skimmer pumps, abatement of light non-aqueous phase liquid (LNAPL) via semi-monthly hand-bailing, and enhanced fluid recovery (EFR).

This report contains data gathered during the first, second, third, and fourth quarters of 2020 and is being submitted to the New Mexico Oil Conservation Division (NMOCD) in association with the Abatement Plan Number AP-007 assigned to the Site.

The Site is in NW1/4, NE1/4, Section 11, Township 15 South, Range 37 East and SW1/4, SE1/4, Section 2, Township 15 South, Range 37 East, Lea County, New Mexico and is shown in Figure 1. Latitude and longitude of the Site are 33.038571°N and 103.167629°W, respectively.

1.1 Site History

The Site was formerly the responsibility of Enron Oil Trading and Transportation (EOTT); however, the Site is currently the responsibility of Plains. There were two separate pipeline releases at the Site. The first release occurred on November 9, 1999, and the second on February 2, 2001. The second release was discovered by EOTT employees, and immediate notification was made to the NMOCD. Details of the release were later submitted on a Release Notification and Corrective Action Form (C-141) to the NMOCD on May 21, 2005. According to the release report, an estimated 150 barrels of crude oil were released, and 95 barrels were recovered during initial response actions. The release was reported to have occurred from an 8-inch EOTT pipeline and was attributed to internal pipeline corrosion.

Beginning on May 29, 2004, project management responsibilities were performed by NOVA. GHD was given project management responsibilities on May 2, 2011.

Recovery well RW-4 was plugged and abandoned with NMOCD approval on October 9, 2014. Recovery well RW-4R was drilled and constructed on October 9, 2014. Recovery well RW-3R, RW-14, and RW-15 were drilled and constructed on October 14, 2014. Monitoring wells MW-3, MW-12, and recovery well RW-3 were plugged and abandoned with NMOCD approval on October 15, 2014. Replacement monitoring wells MW-3R and MW-12R were drilled and constructed on October 15, 2014. Monitor wells MW-4, MW-8, MW-10, and recovery wells RW-5 and RW-6 were plugged and abandoned on February 23, 2017. Monitor wells MW-4R, MW-8R, MW-10R, MW-17, and recovery wells RW-5R, RW-16, and RW-17 were drilled and constructed in February and March 2017.

On February 19, 2020, MW-1A, MW-2, MW-5 through MW-7, MW-9, MW-11, MW-13, RW-1, RW-2, RW-8, RW-10, and RW-12 were plugged and abandoned. On March 10, 2020, RW-10R, RW-18, and RW-19 were installed. MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, and MW-18 were installed on April 13 and 14, 2020.

Locations of new wells were professionally surveyed on November 11, 2014, June 29, 2017 and September 17, 2020. A map showing details of the Site is depicted in Figure 2.

There are currently 16 groundwater monitor wells (MW-1R, MW-2R, MW-3R, MW-4R, MW-5R, MW-7R, MW-8R, MW-10R, MW-11R, MW-12R, MW-13R, MW-14, MW-15, MW-16, MW-17 and MW-18) and 14 recovery wells (RW-3R, RW-4R, RW-5R, RW-7, RW-9, RW-10R, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17, RW-18 and RW-19) on site.

2. Regulatory Framework

The Site has been assigned Abatement Plan number AP-007 by the New Mexico Oil Conservation Division (NMOCD). The NMOCD guidelines require groundwater to be analyzed for potential contaminants as defined in the New Mexico Administrative Code 20.6.2.3103 Section A, which provides the 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 monomethylnaphthalenes. 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 Regulatory 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

Table 2.2 is the sampling schedule approved by the NMOCD.

Table 2.2 Sampling Schedule Approved by NMOCD

Location	*Schedule*
MW-3R, MW-4R, MW-8R, MW-10R, MW-12R, MW-14, MW-15, MW-16, MW-17, RW-3R, RW-4R, RW-5R, RW-7, RW-9, RW-11, RW-13, RW-14, RW-15, RW-16, RW-17	Quarterly
MW-1A, MW-2, MW-3, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, RW-1, RW-2, RW-3, RW-4, RW-5, RW-6, RW-8, RW-10, RW-12	Plugged/Abandoned

Monitoring wells MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-10R, RW-18 and RW-19 were installed in 2020 and are currently monitored on a quarterly basis to establish consistent historical data regarding dissolved phase COCs and LNAPL thicknesses. These wells will

be added to the approved sampling schedule subsequent to approval by the NMOCD. A change in the sampling schedule was approved in an email from the NMOCD dated March 26, 2020.

3. Groundwater Monitoring

Quarterly groundwater monitoring was conducted by GHD on February 13, May 15, September 17 and November 3, 2020. Wells were sampled in accordance with the sampling schedule in Section 2. Wells containing measurable thicknesses of LNAPL (>0.01 foot) were not sampled. Monitor well MW-14 and recovery wells RW-7 and RW-13 had insufficient water for sampling for all of 2020 and MW-15 and MW-16 were periodically dry during 2020.

3.1 Groundwater Monitoring Methodology

Well caps were removed to allow barometric stabilization of groundwater levels. Static fluid levels were measured with an oil-water interface probe to the nearest hundredth of a foot. Wells not containing LNAPL were purged of three casing volumes of water, and samples of groundwater were collected using clean, disposable polyvinyl chloride (PVC) bailers. Laboratory-supplied sample containers were filled directly from bailers. A set of duplicate samples were collected for every ten wells sampled. Samples were placed on ice in insulated coolers immediately upon collection and chilled to a temperature of approximately 4°C (40°F). Proper chain-of-custody documentation accompanied all samples collected in 2020 to Pace Analytical in Mt. Juliet, Tennessee. Samples were analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX) according to method EPA8021B.

Monitor wells MW-1R, MW-2R, MW-5R, MW-7R, MW-8R, MW-11R, MW-13R, MW-18 and recovery wells RW-5R and RW-19 were also analyzed for polycyclic aromatic hydrocarbons (PAH) according to method EPA 8270C-SIM in November 2020. Volumes of groundwater purged from wells monitored during the first, second, third, and fourth quarters of 2020 were 240 gallons, 261 gallons, 230.5 gallons, and 171.8 gallons, respectively. The total volume of groundwater purged from wells during quarterly monitoring events in 2020 was 903.3 gallons. Purge water was stored in the on-site above ground storage tank for later disposal at licensed disposal facilities as directed by Plains.

3.2 Groundwater Elevations and Gradient

All fluid level measurements were recorded from the top of casing (TOC) of each well. Elevations of the potentiometric surface were calculated using professionally surveyed elevations of tops of casings and 0.81 for the specific gravity of LNAPL. Gauging data and elevations of the potentiometric surface during 2019 and 2020 are presented in Table 1. Maps of the potentiometric surface during the first, second, third, and fourth quarterly monitoring events are in Figure 3, Figure 4, Figure 5, and Figure 6, respectively.

Groundwater flow directions were east and east-southeast and are consistent with those from previous monitoring events. Gradients on the potentiometric surface were 0.0015 feet per foot (ft./ft.), 0.0012 ft./ft., 0.0018 ft./ft., and 0.0017 ft./ft. during the first, second, third, and fourth quarterly monitoring events, respectively.

Elevations of the potentiometric surface declined in each quarter of 2020 in all wells in which elevations could be determined. Amounts of decline were between 0.02 foot and 1.74 foot, averaging approximately 0.93 foot.

3.3 Presence of Light Non-aqueous Phase Liquids (LNAPL)

LNAPL was observed in recovery wells RW-3R, RW-4R, RW-9, RW-11, RW-16, and RW-17 during all four quarterly monitoring events. The greatest thickness of LNAPL observed during quarterly monitoring events of 2020 was 2.92 feet in recovery well RW-3R on November 2, 2020. LNAPL was also observed in RW-10R and RW-18 during 2020. Charts of thicknesses of LNAPL versus time in recovery wells, RW-3R, RW-4R, RW-9, RW-10R, RW-11, RW-16, RW-17 and RW-18 are in Appendix A. The charts indicate fluctuating LNAPL thicknesses in RW-3, increases in RW-4R, RW-16, RW-17, and RW-18, and decreases in RW-9, RW-10R, and RW-11 during 2020.

3.4 Dissolved-phase Hydrocarbons in Groundwater

Analytical results for monitoring conducted during 2019 and 2020 are included in Table 2. Results of analyses of BTEX during the first, second, third, and fourth quarterly monitoring events are shown on Figure 7, Figure 8, Figure 9, and Figure 10, respectively. Concentrations of PAH compounds that exceed regulatory standards are also included on Figure 10. Certified analytical reports from the laboratory are provided in Appendix C.

Dissolved benzene at concentrations which exceeded the NMWQCC Human Health Standard of 0.01 mg/L were detected in samples collected from monitor wells MW-8R, RW-10R and a duplicate sample collected from MW-17. The greatest of those concentrations was 1.08 mg/L during the third quarterly event in well RW-10R(DUP-1). During the February 2020 quarterly groundwater sampling event a field error resulted in a mix up of duplicate samples in MW-8R and MW-17. The wells were resampled on April 8, 2020, to verify sample results. Analytical results of the resampling following historical concentrations for those monitor wells. No other wells exhibited dissolved benzene concentrations which exceeded the standard. Charts of concentrations of dissolved benzene over time in MW-8R, MW-10R, MW-17, RW-5/5R (combined data), RW-14 and RW-15 are provided in Appendix B. All of these wells show visually declining trends of benzene concentrations over time.

Monitor wells MW-3R, MW-4R, MW-7R, MW-8R, MW-12R, MW-17, MW-18 and recovery wells RW-5R, RW-10R, RW-14, RW-15 and RW-19 had detections of toluene, ethylbenzene, and/or total xylenes during at least one sampling event during 2020. All detections of these three analytes were below the corresponding NMWQCC Human Health Standards.

During the groundwater monitoring event in November, water samples from MW-1R, MW-2R, MW5R, MW-7R, MW-8R, MW-11R, MW-13R, MW-18, RW-5R and RW-19 were also analyzed for PAH. Analytical results for PAH compounds are summarized in Table 3. Trace concentrations of naphthalenes and other PAHs were detected in some wells but were below the NMWQCC Human Health Standards. Analytical results for PAH are included in the laboratory reports in Appendix C.

4. Corrective Action

Recovery wells RW-3R, RW-4R, RW-9, and RW-11 were targeted for periodic abatement of LNAPL by hand at the beginning of 2020. The total volume of LNAPL recovered in this manner during the year was 3.9 gallons. Periodic abatement of LNAPL was ceased in late March due to COVID-19.

Pneumatic LNAPL-skimming pumps were in recovery wells RW-3R, RW-16, and RW-17 during 2020. Total recovery of LNAPL by the system during 2020 was 31.6 gallons. The system recovered 1,434.90 gallons of groundwater during 2020.

Three Enhanced Fluid Recovery (EFR) events were performed on recovery well RW-4R on January 14, February 18 and March 11, 2020 before the Plains ceased this activity due to the pandemic. The volume of commingled groundwater and LNAPL recovered during these events in 2020 was 1,050 gallons.

The LNAPL abatement program recovered approximately 35.50 gallons of LNAPL from the Site in 2020. Approximately 2,338.20 gallons of groundwater were recovered from the Site during 2020. Total recovery of LNAPL since the beginning of the abatement program in 2001 approximately 17,764.65 gallons (422.97 bbl.).

All waste fluid recovered from purging, remediation system operation, and BTEX and LNAPL abatement were disposed at licensed disposal facilities as directed by Plains.

5. Summary of Findings

Based on groundwater monitoring and remedial activities performed by GHD at the Site in 2020, the following summary of findings is presented:

- There are 16 groundwater monitor wells and 14 recovery wells at the Site after the plugging and abandonment of 13 wells and installation of 10 new wells in 2020.
- Directions of flow of groundwater are to the east and east-southeast and are consistent with historical data. Magnitudes of gradients on the potentiometric surface were between 0.0012 ft./ft. and 0.0018 ft./ft. during 2020.
- Elevations of the potentiometric surface fell by an average of 0.93 foot between the last quarter of 2019 and the fourth quarter of 2020.
- LNAPL was encountered in recovery wells RW-3R, RW-4R, RW-9, RW-11, RW-16, and RW-17 during all quarterly monitoring events. The maximum thickness of LNAPL observed during 2020 was 2.92 feet in recovery well RW-3R The charts indicate fluctuating LNAPL thicknesses in RW-3, increases in RW-4R, RW-16, RW-17, and RW-18, and decreases in RW-9, RW-10R, and RW-11 during 2020.
- Dissolved benzene at concentrations which exceeded the NMWQCC Human Health Standard of 0.01 mg/L were detected in samples collected from monitor wells MW-8R, RW-10R and a duplicate sample collected from MW-17. The greatest of those concentrations was 1.08 mg/L during the third quarterly event in well RW-10R(DUP-1). During the February 2020 quarterly groundwater sampling event a field error resulted in a mix up of duplicate samples in MW-8R

and MW-17. The wells were resampled on April 8, 2020, to verify sample results. Analytical results of the resampling following historical concentrations for those monitor wells. Charts of concentrations of dissolved benzene over time in MW-8R, MW-10R, MW-17, RW-5/5R (combined data), RW-14 and RW-15 are provided in Appendix B. All of these wells show visually declining trends of benzene concentrations over time.

- All wells at the Site that were sampled during 2020 had detections of toluene, ethylbenzene, or total xylenes. All detections of these three analytes were below the corresponding NMWQCC Human Health Standards. Monitor wells MW-3R, MW-4R, MW-7R, MW-8R, MW-12R, MW-17, MW-18 and recovery wells RW-5R, RW-10R, RW-14, RW-15 and RW-19 had detections of toluene, ethylbenzene, and/or total xylenes during at least one sampling event during 2020. All detections of these three analytes were below the corresponding NMWQCC Human Health Standards.

- During the November groundwater monitoring event, samples collected from monitor wells MW-1R, MW-2R, MW-5R, MW-7R, MW-8R, MW-11R, MW-13R, MW-18, RW-5R and RW-19 were analyzed for PAH. All detected concentrations of PAH, including naphthalenes were below the NMWQCC regulatory standards.
- Monitoring and recovery wells which were impacted by LNAPL, but were not fitted with pneumatic skimmer pumps, were hand bailed periodically as part of the LNAPL abatement program in early 2020. Approximately 5.9 gallons of LNAPL were recovered by hand-bailing during 2020.
- LNAPL recovery was conducted with a pneumatic skimmer pumps in RW-3R, RW-16, and RW-17. Approximately 36.1 gallons of LNAPL were recovered with the recovery system.
- Three EFR events were performed at the site on during 2020. A total volume 1,050 gallons of commingled groundwater and LNAPL were recovered by these events.
- Monitoring and remedial activities during 2020 recovered approximately 35.50 gallons of LNAPL and 2,338.20 gallons of groundwater.
- Approximately 17,764.65 gallons (422.97 bbl.) of LNAPL have been recovered since the start of the LNAPL abatement program in 2001.

6. Recommendations

Based upon the data and findings presented in this report, the following are recommended for 2021:

- Continue quarterly groundwater monitoring events and annual reporting to the NMOCD. Each quarterly event will include well gauging and sampling of groundwater for BTEX.
- Continue annual analyses of PAHs during the fourth quarter monitoring event. Monitor wells MW-1R, MW-2R, MW5R, MW-7R, MW-11R, MW-13R, MW-18, RW-5R and RW-19 and any new wells not impacted by LNAPL will require analyses of PAH.
- Continue operating the pneumatic LNAPL-only skimmer pump system in RW-3R, RW-16, and RW-17 to reduce hand-bailing efforts and enhance LNAPL recovery.

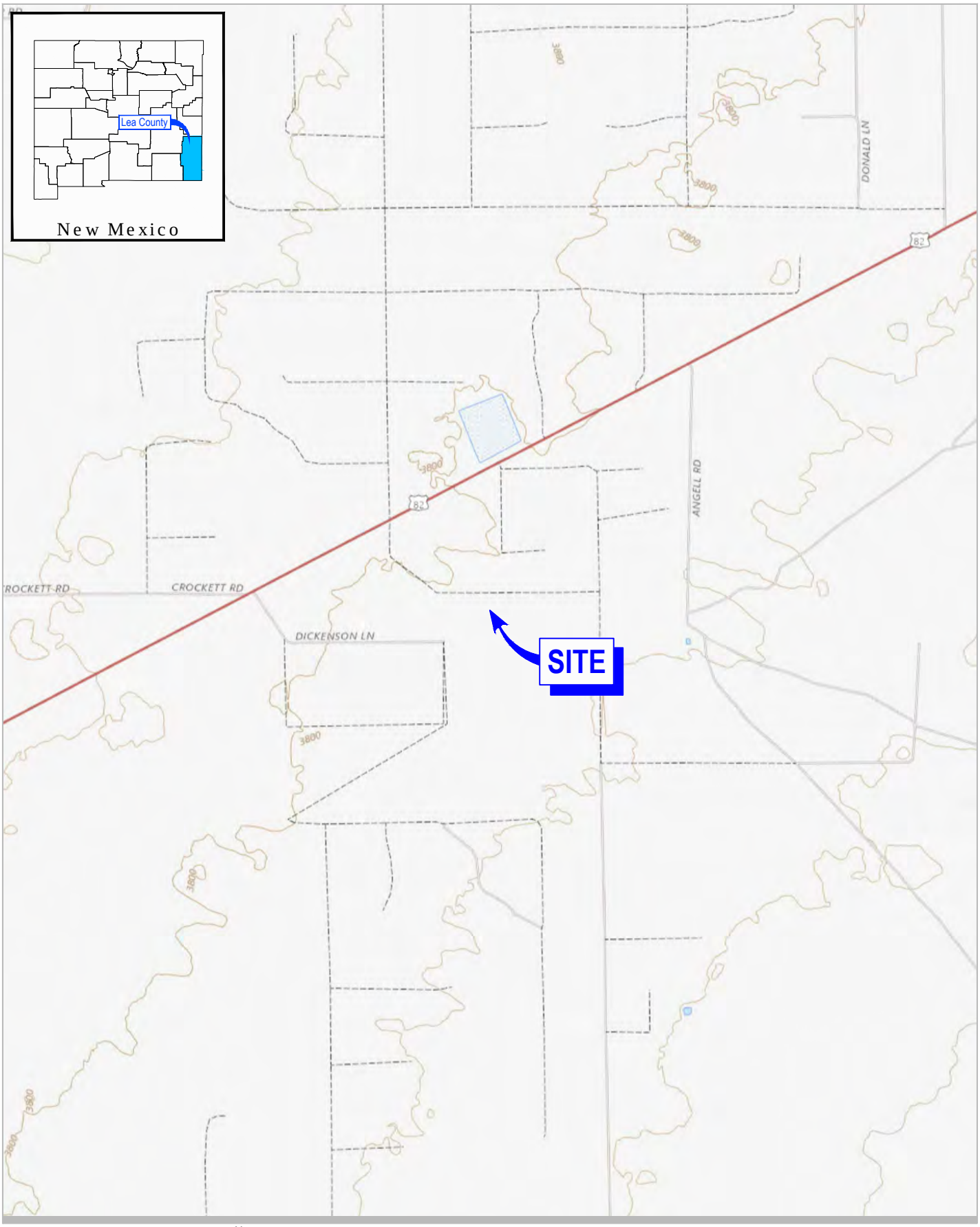
All of which is Respectfully Submitted,

GHD

Rebecca Haskell
Senior Project Manager

Tom Larson
Midland Operations Manager

Figures



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Coordinate System:
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New Mexico East (US Feet)

GHD

PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

Project No. **11209899**
Date **January 2021**

SITE LOCATION MAP

FIGURE 1

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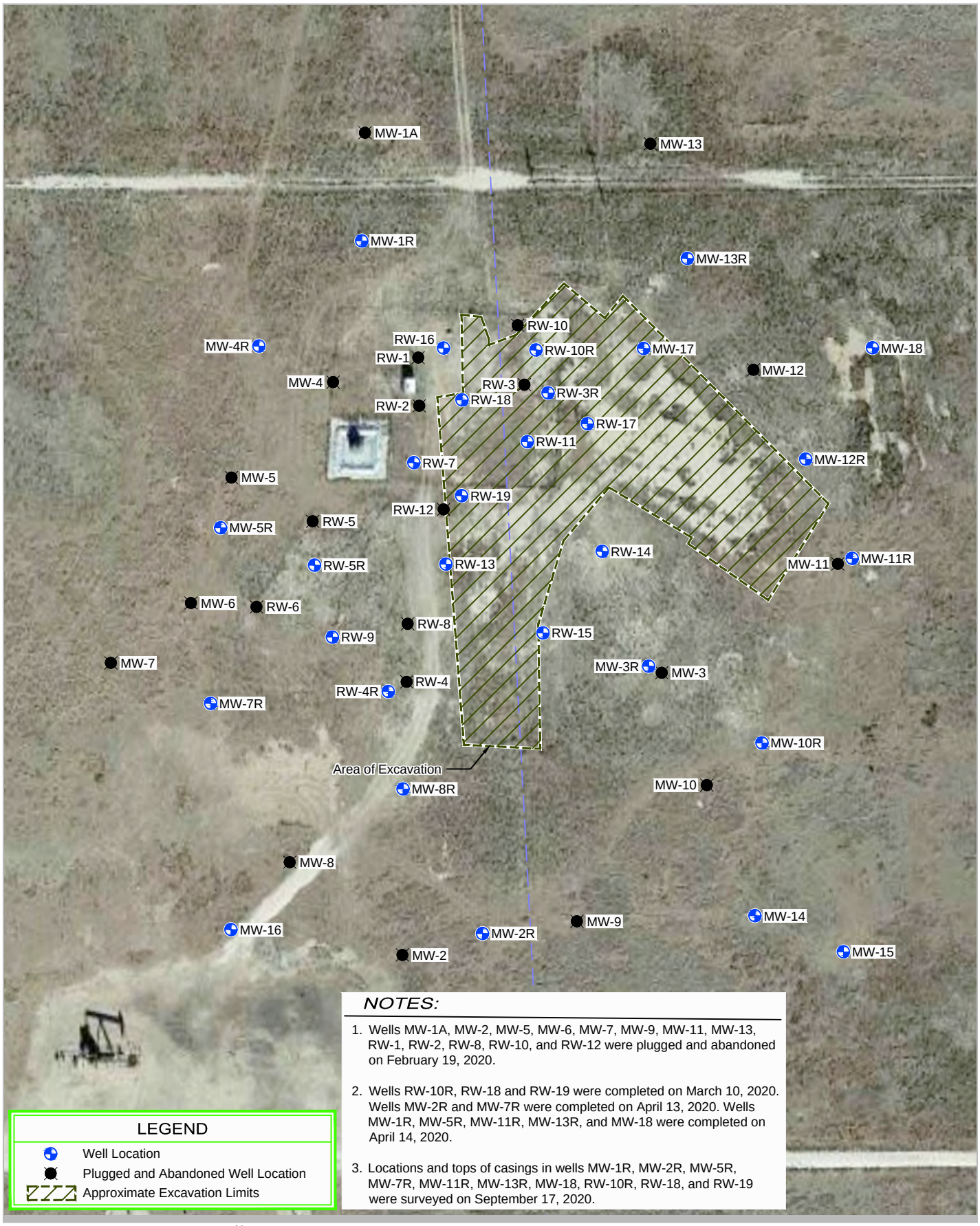

NOTES:

1. Wells MW-1A, MW-2, MW-5, MW-6, MW-7, MW-9, MW-11, MW-13, RW-1, RW-2, RW-8, RW-10, and RW-12 were plugged and abandoned on February 19, 2020.
2. Wells RW-10R, RW-18 and RW-19 were completed on March 10, 2020. Wells MW-2R and MW-7R were completed on April 13, 2020. Wells MW-1R, MW-5R, MW-11R, MW-13R, and MW-18 were completed on April 14, 2020.
3. Locations and tops of casings in wells MW-1R, MW-2R, MW-5R, MW-7R, MW-11R, MW-13R, MW-18, RW-10R, RW-18, and RW-19 were surveyed on September 17, 2020.

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Approximate Excavation Limits

0 50 100 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.4

Project No. **11209899**
Date **January 2021**

SITE DETAILS MAP

FIGURE 2

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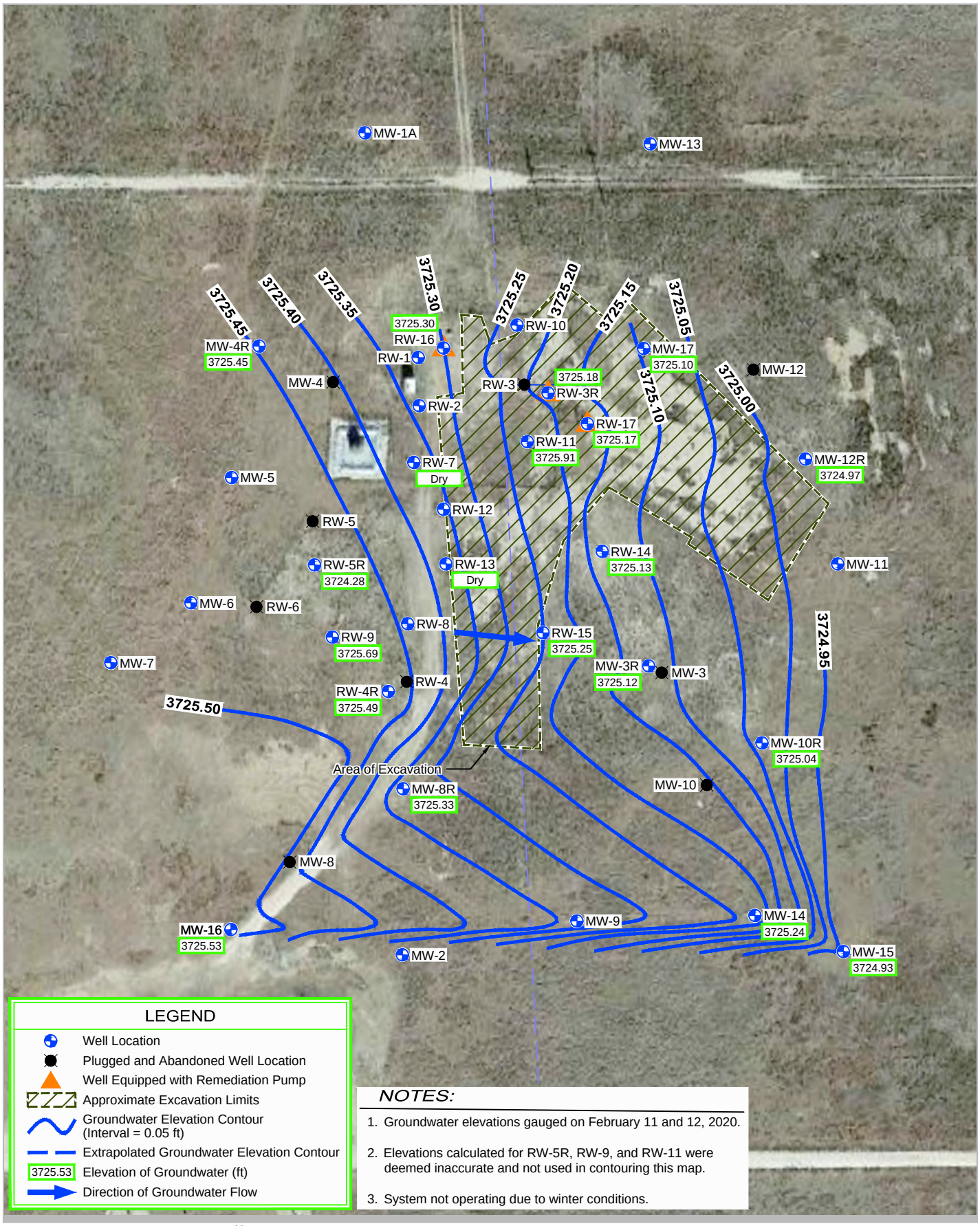

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.05 ft)
- Extrapolated Groundwater Elevation Contour
- 3725.53 Elevation of Groundwater (ft)
- Direction of Groundwater Flow

NOTES:

1. Groundwater elevations gauged on February 11 and 12, 2020.
2. Elevations calculated for RW-5R, RW-9, and RW-11 were deemed inaccurate and not used in contouring this map.
3. System not operating due to winter conditions.

0 50 100 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.4

GROUNDWATER GRADIENT MAP
FEBRUARY 11-12, 2020

Project No. **11209899**
Date **January 2021**

FIGURE 3

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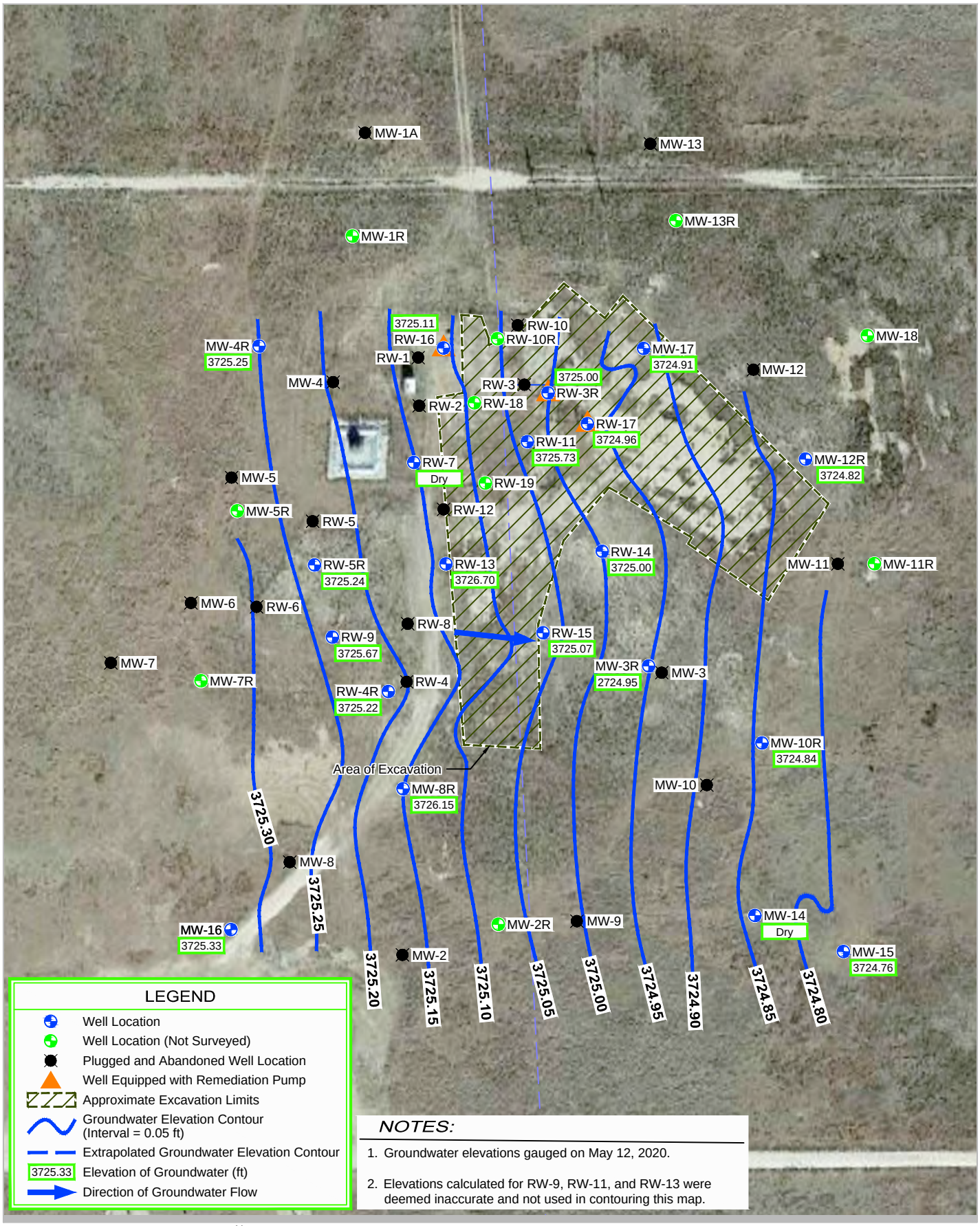

LEGEND

- Well Location
- Well Location (Not Surveyed)
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.05 ft)
- Extrapolated Groundwater Elevation Contour
- 3725.33 Elevation of Groundwater (ft)
- Direction of Groundwater Flow

NOTES:

1. Groundwater elevations gauged on May 12, 2020.
2. Elevations calculated for RW-9, RW-11, and RW-13 were deemed inaccurate and not used in contouring this map.

0 50 100 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.4

Project No. **11209899**
Date **January 2021**

GROUNDWATER GRADIENT MAP
MAY 12, 2020

FIGURE 4

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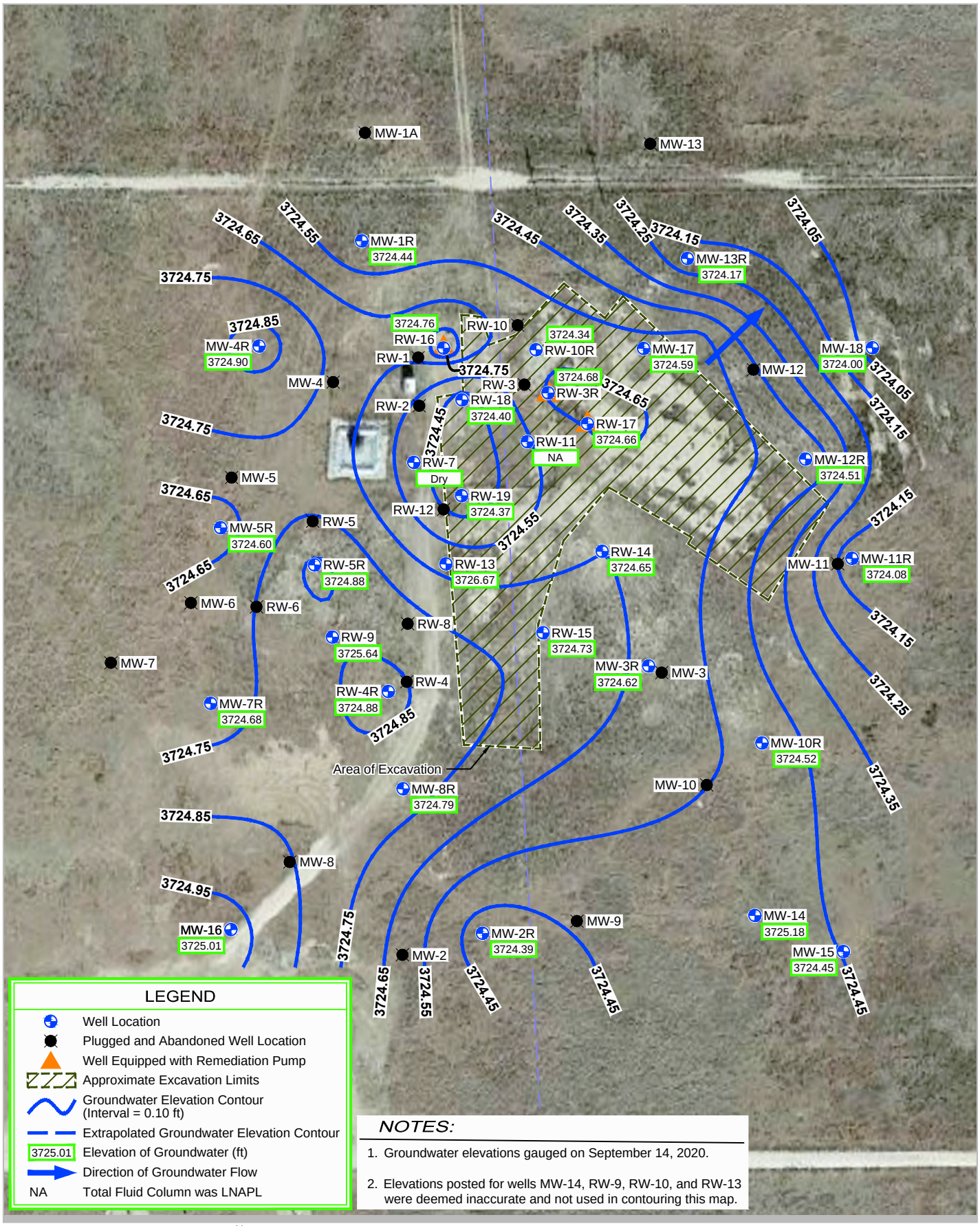

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.10 ft)
- Extrapolated Groundwater Elevation Contour
- 3725.01 — Elevation of Groundwater (ft)
- Direction of Groundwater Flow
- NA — Total Fluid Column was LNAPL

NOTES:

1. Groundwater elevations gauged on September 14, 2020.
2. Elevations posted for wells MW-14, RW-9, RW-10, and RW-13 were deemed inaccurate and not used in contouring this map.

0 50 100 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.4

GROUNDWATER GRADIENT MAP
SEPTEMBER 14, 2020

Project No. **11209899**
Date **January 2021**

FIGURE 5

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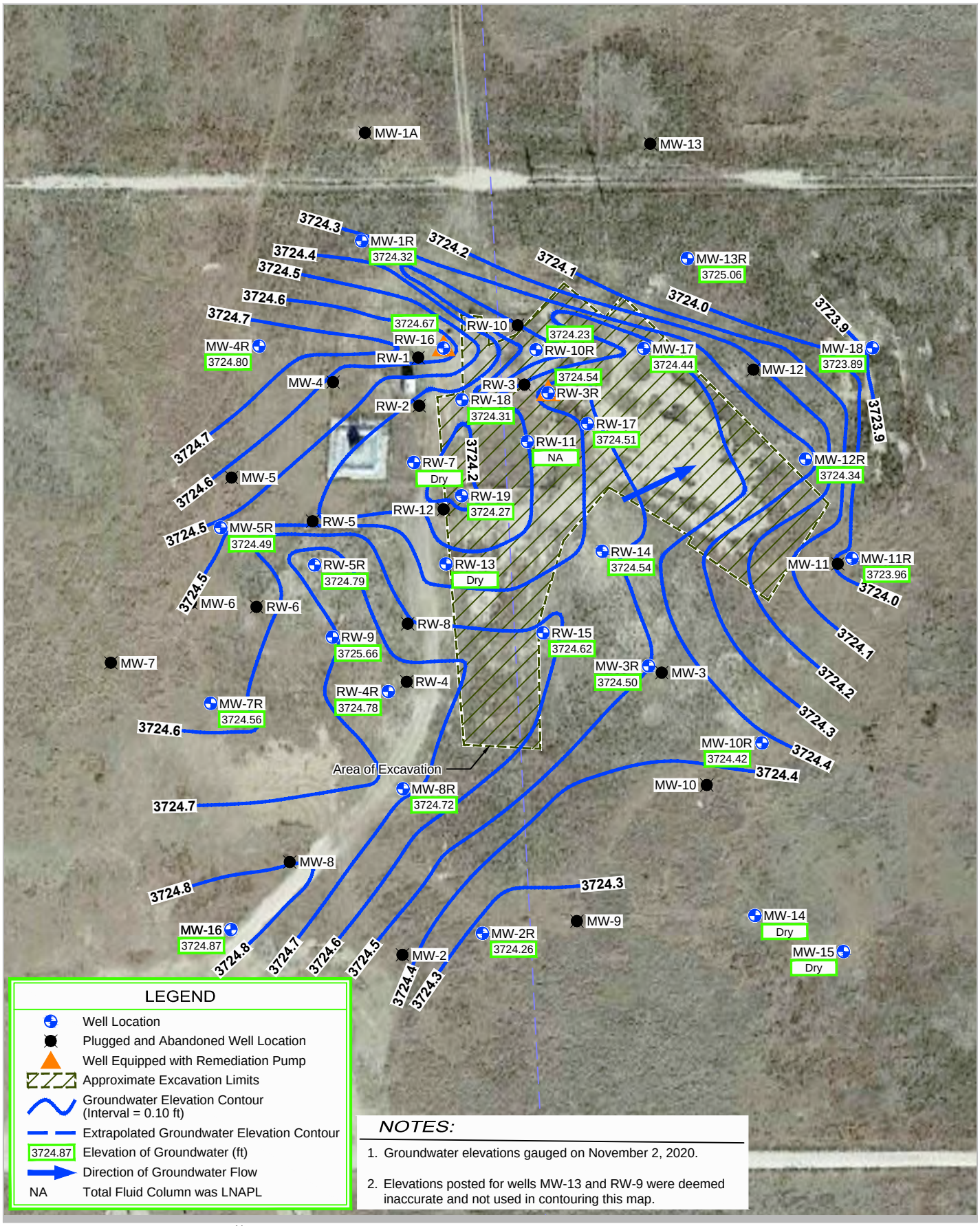

LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- Groundwater Elevation Contour (Interval = 0.10 ft)
- Extrapolated Groundwater Elevation Contour
- 3724.87 — Elevation of Groundwater (ft)
- Direction of Groundwater Flow
- NA — Total Fluid Column was LNAPL

NOTES:

1. Groundwater elevations gauged on November 2, 2020.
2. Elevations posted for wells MW-13 and RW-9 were deemed inaccurate and not used in contouring this map.

0 50 100 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.4

GROUNDWATER GRADIENT MAP
NOVEMBER 2, 2020

Project No. **11209899**
Date **January 2021**

FIGURE 6

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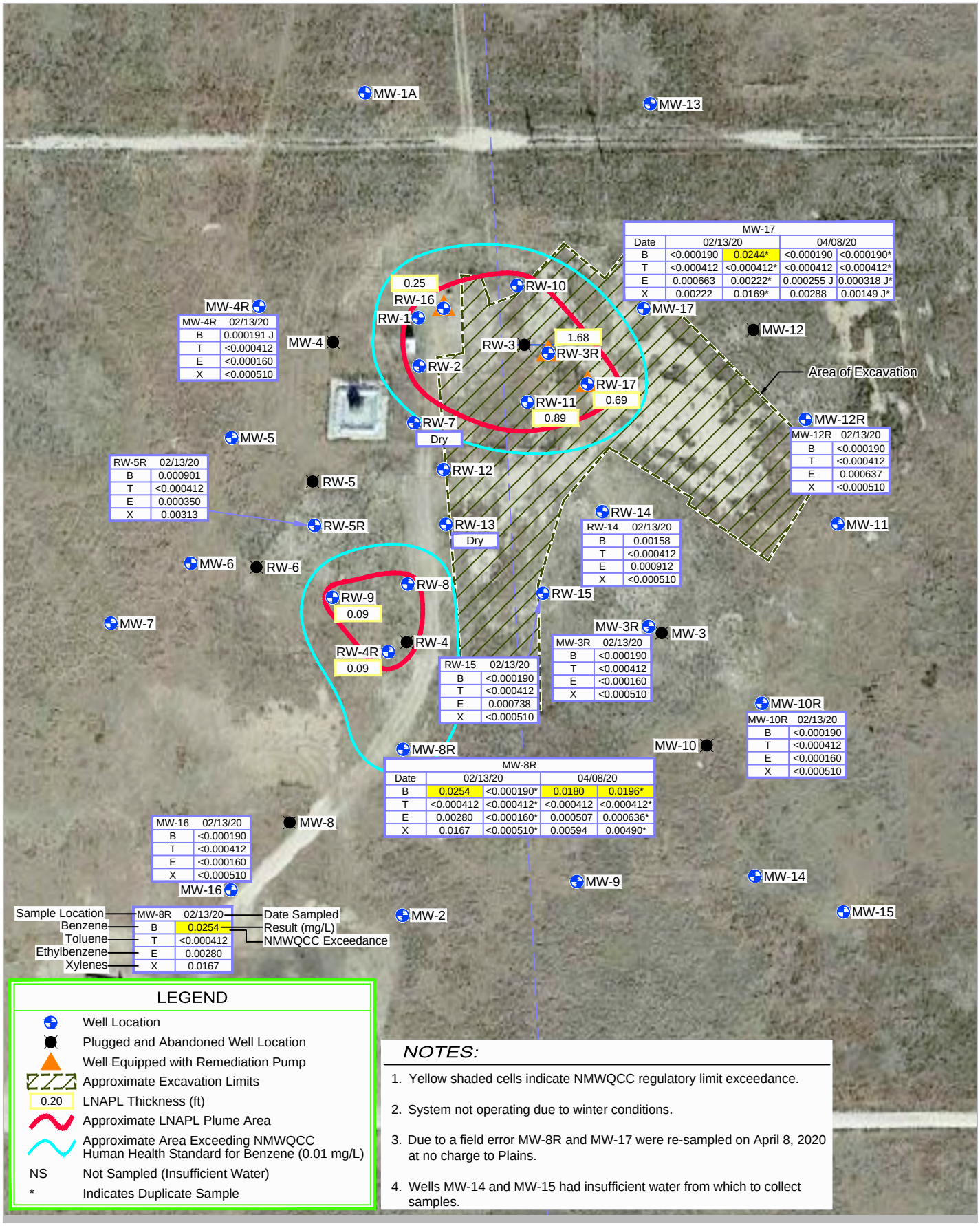


NOTES:

1. Yellow shaded cells indicate NMWQCC regulatory limit exceedance.
2. System not operating due to winter conditions.
3. Due to a field error MW-8R and MW-17 were re-sampled on April 8, 2020 at no charge to Plains.
4. Wells MW-14 and MW-15 had insufficient water from which to collect samples.

0 50 100 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.4

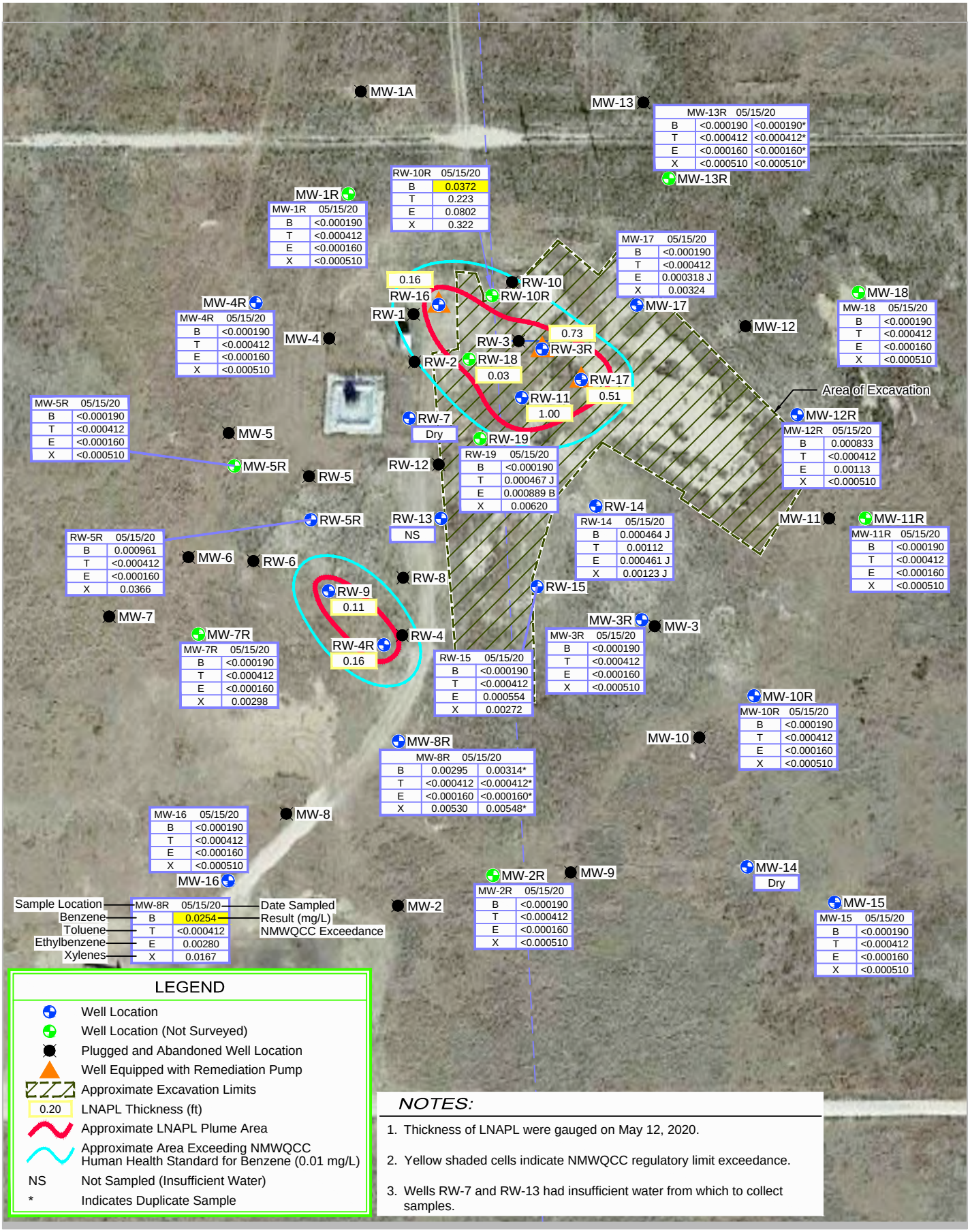
LNAPL THICKNESS AND GROUNDWATER
BTEX CONCENTRATION MAP
FEBRUARY 13, 2020

Project No. 11209899
Date January 2021

FIGURE 7

Filename: I:\CAD\Files\Eight Digit Job Numbers\1120----\11209899-Darr 4\11209899(GWR 2020)\11209899(GWR 2020)GN-DL001.dwg
Plot Date: 15 January 2021 11:58 AM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West



PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

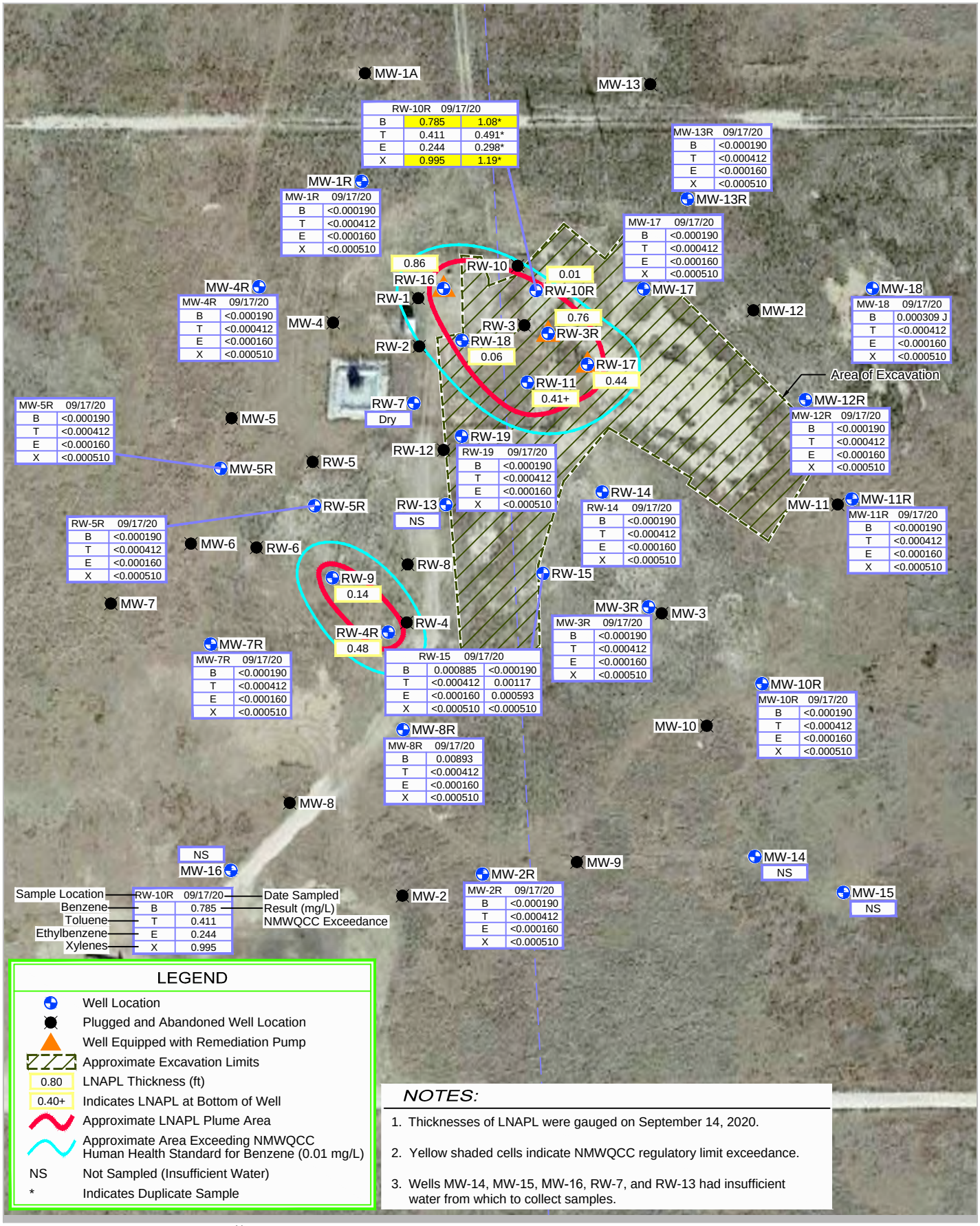
LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP
MAY 15, 2020

Project No. **11209899**
Date **January 2021**

FIGURE 8

Filename: I:\CAD\Files\Eight Digit Job Numbers\1120----\11209899-Darr 4\11209899(GWR 2020)\11209899(GWR 2020)GN-DL001.dwg
Plot Date: 19 January 2021 1:20 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West



LEGEND

- Well Location
- Plugged and Abandoned Well Location
- Well Equipped with Remediation Pump
- Approximate Excavation Limits
- 0.80 — LNAPL Thickness (ft)
- 0.40+ — Indicates LNAPL at Bottom of Well
- Approximate LNAPL Plume Area
- Approximate Area Exceeding NMWQCC Human Health Standard for Benzene (0.01 mg/L)
- NS — Not Sampled (Insufficient Water)
- * — Indicates Duplicate Sample

NOTES:

1. Thicknesses of LNAPL were gauged on September 14, 2020.
2. Yellow shaded cells indicate NMWQCC regulatory limit exceedance.
3. Wells MW-14, MW-15, MW-16, RW-7, and RW-13 had insufficient water from which to collect samples.

0 50 100 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.4

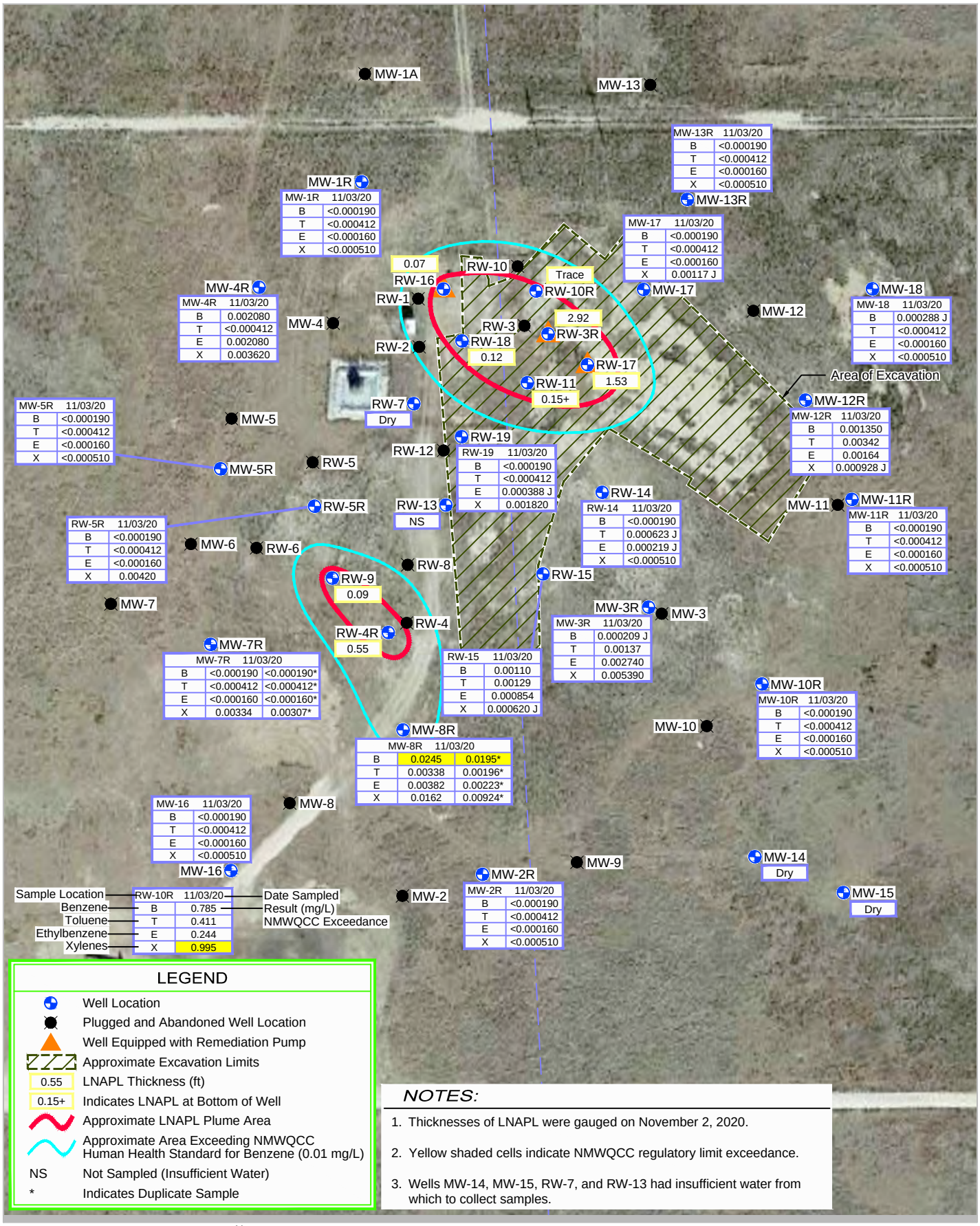
LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP SEPTEMBER 17, 2020

Project No. **11209899**
Date **January 2021**

FIGURE 9

Filename: I:\CAD\Files\Eight Digit Job Numbers\1120----\11209899-Darr 4\11209899(GWR 2020)\11209899(GWR 2020)GN-DL002.dwg
Plot Date: 19 January 2021 1:49 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West



PLAINS PIPELINE L.P.
LEA COUNTY, NEW MEXICO
DARR ANGELL No.4

LNAPL THICKNESS AND GROUNDWATER BTEX CONCENTRATION MAP
NOVEMBER 3, 2020

Project No. **11209899**
Date **January 2021**

FIGURE 10

Filename: I:\CAD\Files\Eight Digit Job Numbers\1120----\11209899-Darr 4\11209899(GWR 2020)\11209899(GWR 2020)GN-DL002.dwg
Plot Date: 19 January 2021 1:39 PM

Data Source: Microsoft Product Screen shot(s) Reprinted with permission from Microsoft Corporation
Lat/Long: 33.0264° North, 103.1667° West

Tables

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-1A	3802.65	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-1A	3802.65	5/20/19	-	-	-	Dry	74.03	-	-	-	-
MW-1A	3802.65	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-1A	3802.65	10/21/19	-	-	-	Dry	74.19	-	-	-	-
MW-1A	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-1R	3800.69	4/16/20	75.77	-	0.00	3724.92	93.03	60-90 (2 in.)	-	-	-
MW-1R	3800.69	5/1/20	75.89	-	0.00	3724.80	-	-	-	-	-
MW-1R	3800.69	5/12/20	75.90	-	0.00	3724.79	-	-	-	9	-
MW-1R	3800.69	6/19/20	76.01	-	0.00	3724.68	-	-	-	-	-
MW-1R	3800.69	7/29/20	76.12	-	0.00	3724.57	-	-	-	-	-
MW-1R	3800.69	8/24/20	76.17	-	0.00	3724.52	-	-	-	-	-
MW-1R	3800.69	9/14/20	76.25	-	0.00	3724.44	-	-	-	9	-
MW-1R	3800.69	11/2/20	76.37	-	0.00	3724.32	-	-	-	8.5	-
MW-1R	3800.69	12/11/20	76.48	-	0.00	3724.21	-	-	-	-	-
MW-1R	3800.69	1/26/21	76.62	-	0.00	3724.07	-	-	-	-	-
MW-2	3798.32	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-2	3798.32	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-2	3798.32	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-2	3798.32	10/21/19	-	-	-	Dry	68.70	-	-	-	-
MW-2	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-2R	3796.94	4/13/20	-	-	-	-	-	-	-	15	-
MW-2R	3796.94	4/16/20	72.07	-	0.00	3724.87	92.55	60-90 (2 in.)	-	-	-
MW-2R	3796.94	5/1/20	72.20	-	0.00	3724.74	-	-	-	-	-
MW-2R	3796.94	5/12/20	72.20	-	0.00	3724.74	-	-	-	10	-
MW-2R	3796.94	6/19/20	72.31	-	0.00	3724.63	-	-	-	-	-
MW-2R	3796.94	7/29/20	72.42	-	0.00	3724.52	-	-	-	-	-
MW-2R	3796.94	8/24/20	72.50	-	0.00	3724.44	-	-	-	-	-
MW-2R	3796.94	9/14/20	72.55	-	0.00	3724.39	-	-	-	10	-
MW-2R	3796.94	11/2/20	72.68	-	0.00	3724.26	-	-	-	9	-
MW-2R	3796.94	12/11/20	72.77	-	0.00	3724.17	-	-	-	-	-
MW-2R	3796.94	1/26/21	72.93	-	0.00	3724.01	-	-	-	-	-
MW-3	P&A	10/15/14				P&A					
MW-3R	3799.85	2/26/19	73.89	-	0.00	3725.96	-	-	-	-	-
MW-3R	3799.85	5/20/19	74.10	-	0.00	3725.75	-	-	0.0	5.0	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-3R	3799.85	7/22/19	74.21	-	0.00	3725.64	-	-	-	-	-
MW-3R	3799.85	7/25/19	-	-	-	-	-	-	0.0	3.0	-
MW-3R	3799.85	10/21/19	74.45	-	0.00	3725.40	-	-	-	3.0	-
MW-3R	3799.85	10/25/19	-	-	-	-	-	-	-	3.0	-
MW-3R	3799.85	2/12/20	74.73	-	0.00	3725.12	84.29	61.5-81.5 (2 in.)	-	4.0	-
MW-3R	3799.85	5/1/20	74.91	-	0.00	3724.94	-	-	-		-
MW-3R	3799.85	5/12/20	74.90	-	0.00	3724.95	-	-	-	4.5	-
MW-3R	3799.85	6/19/20	75.00	-	0.00	3724.85	-	-	-	-	-
MW-3R	3799.85	7/29/20	75.11	-	0.00	3724.74	-	-	-	-	-
MW-3R	3799.85	8/24/20	75.18	-	0.00	3724.67	-	-	-	-	-
MW-3R	3799.85	9/14/20	75.23	-	0.00	3724.62	-	-	-	4.5	-
MW-3R	3799.85	11/2/20	75.35	-	0.00	3724.50	-	-	-	5.0	-
MW-3R	3799.85	12/11/20	75.44	-	0.00	3724.41	-	-	-	-	-
MW-3R	3799.85	1/26/21	75.59	-	0.00	3724.26	-	-	-	-	-
MW-4	P&A	2/23/17				P&A					
MW-4R	3799.39	2/26/19	73.06	-	0.00	3726.33	-	-	-	-	-
MW-4R	3799.39	2/26/19	-	-	-	-	-	-	-	8.5	-
MW-4R	3799.39	4/30/19	-	-	-	-	-	-	0.1	0.1	-
MW-4R	3799.39	5/20/19	73.28	-	0.00	3726.11	-	-	0.0	8.0	-
MW-4R	3799.39	7/22/19	73.42	-	0.00	3725.97	-	-	-	-	-
MW-4R	3799.39	7/25/19	-	-	-	-	-	-	0.0	6.0	-
MW-4R	3799.39	10/21/19	73.57	-	0.0	3725.82	-	-	-	6.5	-
MW-4R	3799.39	10/25/19	-	-	-	-	-	-	-	6.5	-
MW-4R	3799.39	2/12/20	73.94	-	0.00	3725.45	89.89	-	-	7.3	-
MW-4R	3799.39	5/1/20	74.12	-	0.00	3725.27	-	-	-	-	-
MW-4R	3799.39	5/12/20	74.14	-	0.00	3725.25	-	-	-	7.5	-
MW-4R	3799.39	6/19/20	74.21	-	0.00	3725.18	-	-	-	-	-
MW-4R	3799.39	7/29/20	74.34	-	0.00	3725.05	-	-	-	-	-
MW-4R	3799.39	8/24/20	74.40	-	0.00	3724.99	-	-	-	-	-
MW-4R	3799.39	9/14/20	74.49	-	0.00	3724.90	-	-	-	7.5	-
MW-4R	3799.39	11/2/20	74.59	-	0.00	3724.80	-	-	-	6.0	-
MW-4R	3799.39	12/11/20	74.70	-	0.00	3724.69	-	-	-	-	-
MW-4R	3799.39	1/26/21	74.50	-	0.00	3724.89	-	-	-	-	-
MW-5	3799.29	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-5	3799.29	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-5	3799.29	7/22/19	-	-	-	Dry	-	-	-	-	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-5	3799.29	10/21/19	-	-	-	Dry	70.13	-	-	-	-
MW-5	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-5R	3798.50	4/16/20	73.50	-	0.00	3725.00	92.85	60-90 (2 in.)	-	-	-
MW-5R	3798.50	5/1/20	73.53	-	0.00	3724.97	-	-	-	-	-
MW-5R	3798.50	5/12/20	73.56	-	0.00	3724.94	-	-	-	9.5	-
MW-5R	3798.50	6/19/20	73.64	-	0.00	3724.86	-	-	-	-	-
MW-5R	3798.50	7/29/20	73.77	-	0.00	3724.73	-	-	-	-	-
MW-5R	3798.50	8/24/20	73.81	-	0.00	3724.69	-	-	-	-	-
MW-5R	3798.50	9/14/20	73.90	-	0.00	3724.60	-	-	-	9.5	-
MW-5R	3798.50	11/2/20	74.01	-	0.00	3724.49	-	-	-	9	-
MW-5R	3798.50	12/11/20	74.11	-	0.00	3724.39	-	-	-	-	-
MW-5R	3798.50	1/26/21	74.26	-	0.00	3724.24	-	-	-	-	-
MW-6	3798.55	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-6	3798.55	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-6	3798.55	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-6	3798.55	10/21/19	-	-	-	Dry	69.20	-	-	-	-
MW-6	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-7	3798.24	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-7	3798.24	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-7	3798.24	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-7	3798.24	10/21/19	-	-	-	Dry	68.70	-	-	-	-
MW-7	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-7R	3798.04	4/16/20	72.87	-	0.00	3725.17	92.65	60-90 (2 in.)	-	-	-
MW-7R	3798.04	5/1/20	72.99	-	0.00	3725.05	-	-	-	-	-
MW-7R	3798.04	5/12/20	73.91	-	0.00	3724.13	-	-	-	9.5	-
MW-7R	3798.04	6/19/20	73.10	-	0.00	3724.94	-	-	-	-	-
MW-7R	3798.04	7/29/20	73.22		0.00	3724.82	-	-	-	-	-
MW-7R	3798.04	8/24/20	73.27	-	0.00	3724.77	-	-	-	-	-
MW-7R	3798.04	9/14/20	73.36	-	0.00	3724.68	-	-	-	9.5	-
MW-7R	3798.04	11/2/20	73.48	-	0.00	3724.56	-	-	-	9	-
MW-7R	3798.04	12/11/20	73.58	-	0.00	3724.46	-	-	-	-	-
MW-7R	3798.04	1/26/21	73.73	-	0.00	3724.31	-	-	-	-	-
MW-8	P&A	2/23/17				P&A					

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-8R	3798.47	2/26/19	72.28	-	0.00	3726.19	-	-	-	-	-
MW-8R	3798.47	2/26/19	-	-	-	-	-	-	-	8.0	-
MW-8R	3798.47	4/30/19	72.38	-	0.00	3726.09	-	-	0.0	3.0	-
MW-8R	3798.47	5/20/19	72.51	-	0.00	3725.96	-	-	0.0	8.00	-
MW-8R	3798.47	6/11/19	-	-	-	-	-	-	0.0	3.0	-
MW-8R	3798.47	7/22/19	72.68	-	0.00	3725.79	-	-	-	5	-
MW-8R	3798.47	7/25/19	-	-	-	-	-	-	0.0	5.0	-
MW-8R	3798.47	9/3/19	-	-	-	-	-	-	0.0	3.0	-
MW-8R	3798.47	10/21/19	72.83	-	0.00	3725.64	-	-	-	6.0	-
MW-8R	3798.47	10/25/19	-	-	-	-	-	-	-	6.0	-
MW-8R	3798.47	12/11/19	-	-	-	-	-	-	-	3.0	-
MW-8R	3798.47	2/12/20	73.14	-	0.00	3725.33	88.95	-	-	7.0	-
MW-8R	3798.47	3/18/20	-	-	-	-	-	-	-	3.0	-
MW-8R	3798.47	4/8/20	75.12	-	0.00	3723.35	-	-	-	7.5	-
MW-8R	3798.47	5/1/20	73.30	-	0.00	3725.17	-	-	-	-	-
MW-8R	3798.47	5/12/20	73.32	-	0.00	3725.15	-	-	-	7.5	-
MW-8R	3798.47	6/19/20	73.38	-	0.00	3725.09	-	-	-	-	-
MW-8R	3798.47	7/29/20	73.54	-	0.00	3724.93	-	-	-	-	-
MW-8R	3798.47	8/24/20	73.57	-	0.00	3724.90	-	-	-	-	-
MW-8R	3798.47	9/14/20	73.68	-	0.00	3724.79	-	-	-	7.5	-
MW-8R	3798.47	11/2/20	73.75	-	0.00	3724.72	-	-	-	7.0	-
MW-8R	3798.47	12/11/20	73.86	-	0.00	3724.61	-	-	-	-	-
MW-8R	3798.47	1/26/21	74.03	-	0.00	3724.44	-	-	-	-	-
MW-9	3797.73	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-9	3797.73	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-9	3797.73	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-9	3797.73	10/21/19	-	-	-	Dry	69.40	-	-	-	-
MW-9	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-10	P&A	2/23/17				P&A					
MW-10R	3797.99	2/26/19	72.11	-	0.00	3725.88	-	-	-	-	-
MW-10R	3797.99	2/26/19	-	-	-	-	-	-	-	8.5	-
MW-10R	3797.99	5/20/19	72.32	-	0.00	3725.67	-	-	0.0	8.5	-
MW-10R	3797.99	7/22/19	72.50	-	0.00	3725.49	-	-	-	-	-
MW-10R	3797.99	7/25/19	-	-	-	-	-	-	0.0	6.0	-
MW-10R	3797.99	9/3/19	-	-	-	-	-	-	0.0	3.0	-
MW-10R	3797.99	10/21/19	72.7	-	0.00	3725.29	-	-	-	6.0	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-10R	3797.99	10/24/19	-	-	-	-	-	-	-	6.0	-
MW-10R	3797.99	12/11/19	-	-	-	-	-	-	-	3.0	-
MW-10R	3797.99	2/12/20	72.95	-	0.00	3725.04	79.3	-	-	3.3	-
MW-10R	3797.99	5/1/20	73.12	-	0.00	3724.87	-	-	-	-	-
MW-10R	3797.99	5/12/20	73.15	-	0.00	3724.84	-	-	-	3.0	-
MW-10R	3797.99	6/19/20	73.21	-	0.00	3724.78	-	-	-	-	-
MW-10R	3797.99	7/29/20	73.35	-	0.00	3724.64	-	-	-	-	-
MW-10R	3797.99	8/24/20	73.41	-	0.00	3724.58	-	-	-	-	-
MW-10R	3797.99	9/14/20	73.47	-	0.00	3724.52	-	-	-	3.0	-
MW-10R	3797.99	11/2/20	73.57	-	0.00	3724.42	-	-	-	3.0	-
MW-10R	3797.99	12/11/20	73.66	-	0.00	3724.33	-	-	-	-	-
MW-10R	3797.99	1/26/21	73.82	-	0.00	3724.17	-	-	-	-	-
MW-11	3798.67	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-11	3798.67	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-11	3798.67	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-11	3798.67	10/21/19	-	-	-	Dry	70.12	-	-	-	-
MW-11	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-11R	3798.21	4/16/20	73.66	-	0.00	3724.55	92.80	60-90 (2 in.)	-	-	-
MW-11R	3798.21	5/1/20	73.77	-	0.00	3724.44	-	-	-	-	-
MW-11R	3798.21	5/12/20	73.80	-	0.00	3724.41	-	-	-	9.5	-
MW-11R	3798.21	6/19/20	73.91	-	0.00	3724.30	-	-	-	-	-
MW-11R	3798.21	7/29/20	74.00	-	0.00	3724.21	-	-	-	-	-
MW-11R	3798.21	8/24/20	74.07	-	0.00	3724.14	-	-	-	-	-
MW-11R	3798.21	9/14/20	74.13	-	0.00	3724.08	-	-	-	9.5	-
MW-11R	3798.21	11/2/20	74.25	-	0.00	3723.96	-	-	-	9	-
MW-11R	3798.21	12/11/20	74.35	-	0.00	3723.86	-	-	-	-	-
MW-11R	3798.21	1/26/21	74.49	-	0.00	3723.72	-	-	-	-	-
MW-12	P&A	10/15/14				P&A					
MW-12R	3800.06	2/26/19	74.20	-	0.00	3725.86	-	-	-	-	-
MW-12R	3800.06	2/26/19	-	-	-	-	-	-	-	2.5	-
MW-12R	3800.06	5/20/19	74.40	-	0.00	3725.66	-	-	0.0	2.0	-
MW-12R	3800.06	7/22/19	74.60	-	0.00	3725.46	-	-	-	-	-
MW-12R	3800.06	7/25/19	-	-	-	-	-	-	0.0	1.0	-
MW-12R	3800.06	10/21/19	74.85	-	0.00	3725.21	-	-	-	1.5	-
MW-12R	3800.06	10/25/19	-	-	-	-	-	-	-	1.5	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-12R	3800.06	2/12/20	75.09	-	0.00	3724.97	80.11	-	-	2.0	-
MW-12R	3800.06	5/1/20	75.22	-	0.00	3724.84	-	-	-	-	-
MW-12R	3800.06	5/12/20	75.24	-	0.00	3724.82	-	-	-	2.5	-
MW-12R	3800.06	6/19/20	75.32	-	0.00	3724.74	-	-	-	-	-
MW-12R	3800.06	7/29/20	75.44	-	0.00	3724.62	-	-	-	-	-
MW-12R	3800.06	8/24/20	75.50	-	0.00	3724.56	-	-	-	-	-
MW-12R	3800.06	9/14/20	75.55	-	0.00	3724.51	-	-	-	2.5	-
MW-12R	3800.06	11/2/20	75.72	-	0.00	3724.34	-	-	-	2.0	-
MW-12R	3800.06	12/11/20	75.78	-	0.00	3724.28	-	-	-	-	-
MW-12R	3800.06	1/26/21	75.93	-	0.00	3724.13	-	-	-	-	-
MW-13	3801.72	2/26/19	-	-	-	Dry	-	-	-	-	-
MW-13	3801.72	5/20/19	-	-	-	Dry	-	-	-	-	-
MW-13	3801.72	7/22/19	-	-	-	Dry	-	-	-	-	-
MW-13	3801.72	10/21/19	-	-	-	Dry	69.72	-	-	-	-
MW-13	P&A	2/19/20	-	-	-	-	-	-	-	-	-
MW-13R	3800.21	4/16/20	75.56	-	0.00	3724.65	92.70	-	-	-	-
MW-13R	3800.21	5/1/20	75.68	-	0.00	3724.53	-	-	-	-	-
MW-13R	3800.21	5/12/20	75.70	-	0.00	3724.51	-	-	-	8.5	-
MW-13R	3800.21	6/19/20	75.82	-	0.00	3724.39	-	-	-	-	-
MW-13R	3800.21	7/29/20	75.90	-	0.00	3724.31	-	-	-	-	-
MW-13R	3800.21	8/24/20	75.98	-	0.00	3724.23	-	-	-	-	-
MW-13R	3800.21	9/14/20	76.04	-	0.00	3724.17	-	-	-	8.5	-
MW-13R	3800.21	11/2/20	75.15	-	0.00	3725.06	-	-	-	7.5	-
MW-13R	3800.21	12/11/20	76.26	-	0.00	3723.95	-	-	-	-	-
MW-13R	3800.21	1/26/21	76.41	-	0.00	3723.80	-	-	-	-	-
MW-14	3798.18	2/26/19	72.28	-	0.00	3725.90	-	-	-	-	-
MW-14	3798.18	2/26/19	-	-	-	-	-	-	-	0.5	-
MW-14	3798.18	5/20/19	72.51	-	0.00	3725.67	-	-	0.0	0.0	
MW-14	3798.18	7/22/19	72.65	-	0.00	3725.53	-	-	-	-	-
MW-14	3798.18	10/21/19	72.91	-	0.00	3725.27	73.08	-	-	-	-
MW-14	3798.18	10/25/19	-	-	-	-	-	-	-	0	-
MW-14	3798.18	2/12/20	72.94	-	0.00	3725.24	73.15	-	-	-	-
MW-14	3798.18	5/1/20	-	-	0.00	Dry	-	-	-	-	-
MW-14	3798.18	5/12/20	-	-	0.00	Dry	-	-	-	-	-
MW-14	3798.18	6/19/20	-	-	0.00	Dry	-	-	-	-	-
MW-14	3798.18	7/29/20	73.04	-	0.00	Dry	-	-	-	-	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-14	3798.18	8/24/20	-	-	-	Dry	72.97	-	-	-	-
MW-14	3798.18	9/14/20	73.00	-	0.00	3725.18	-	-	-	-	-
MW-14	3798.18	11/2/20	-	-	0.00	Dry	72.99	-	-	-	-
MW-14	3798.18	12/11/20	-	-	0.00	Dry	73.00	-	-	-	-
MW-14	3798.18	1/26/21	-	-	0.00	Dry	72.98	-	-	-	-
MW-15	3798.04	2/26/19	72.23	-	0.00	3725.81	-	-	-	-	-
MW-15	3798.04	2/26/19	-	-	-	-	-	-	-	0.5	-
MW-15	3798.04	5/20/19	72.50	-	0.00	3725.54	-	-	0.0	0.0	-
MW-15	3798.04	7/22/19	72.66	-	0.00	3725.38	-	-	-	-	-
MW-15	3798.04	10/21/19	72.90	-	0.00	3725.14	-	-	-	-	-
MW-15	3798.04	10/24/19	-	-	-	-	-	-	-	0	-
MW-15	3798.04	2/12/20	73.11	-	0.00	3724.93	74.45	-	-	-	-
MW-15	3798.04	5/1/20	73.44	-	0.00	3724.60	-	-	-	-	-
MW-15	3798.04	5/12/20	73.28	-	0.00	3724.76	-	-	-	-	-
MW-15	3798.04	6/19/20	73.38	-	0.00	3724.66	-	-	-	-	-
MW-15	3798.04	7/29/20	73.46	-	0.00	3724.58	-	-	-	-	-
MW-15	3798.04	8/24/20	73.52	-	0.00	3724.52	-	-	-	-	-
MW-15	3798.04	9/14/20	73.59	-	0.00	3724.45	-	-	-	-	-
MW-15	3798.04	11/2/20	-	-	0.00	Dry	73.65	-	-	-	-
MW-15	3798.04	12/11/20	-	-	0.00	Dry	73.67	-	-	-	-
MW-15	3798.04	1/26/21	-	-	0.00	Dry	73.62	-	-	-	-
MW-16	3798.01	2/26/19	71.63	-	0.00	3726.38	-	-	-	-	-
MW-16	3798.01	2/26/19	-	-	-	-	-	-	-	1.0	-
MW-16	3798.01	5/20/19	72.10	-	0.00	3725.91	-	-	0.0	0.75	-
MW-16	3798.01	7/22/19	72.01	-	0.00	3726.00	-	-	-	-	-
MW-16	3798.01	10/21/19	72.30	-	0.00	3725.71	-	-	-	-	-
MW-16	3798.01	2/12/20	72.48	-	0.00	3725.53	74.66	(2 in.)	-	0.4	-
MW-16	3798.01	5/1/20	72.70	-	0.00	3725.31	-	-	-	-	-
MW-16	3798.01	5/12/20	72.68	-	0.00	3725.33	-	-	-	0.6	-
MW-16	3798.01	6/19/20	72.83	-	0.00	3725.18	-	-	-	-	-
MW-16	3798.01	7/29/20	72.88	-	0.00	3725.13	-	-	-	-	-
MW-16	3798.01	8/24/20	72.95	-	0.00	3725.06	-	-	-	-	-
MW-16	3798.01	9/14/20	73.00	-	0.00	3725.01	-	-	-	0	-
MW-16	3798.01	11/2/20	73.14	-	0.00	3724.87	-	-	-	0.3	-
MW-16	3798.01	12/11/20	73.23	-	0.00	3724.78	-	-	-	-	-
MW-16	3798.01	1/26/21	73.38	-	0.00	3724.63	-	-	-	-	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
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Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
MW-17	3800.10	2/26/19	74.13	-	0.00	3725.97	-	-	-	-	-
MW-17	3800.10	2/26/19	-	-	-	-	-	-	-	8.5	-
MW-17	3800.10	5/20/19	74.38	-	0.00	3725.72	-	-	0.0	8.00	-
MW-17	3800.10	7/22/19	74.51	-	0.00	3725.59	-	-	-	-	-
MW-17	3800.10	7/25/19	-	-	-	-	-	-	0.0	5.0	-
MW-17	3800.10	9/3/19	-	-	-	-	-	-	-	3.0	-
MW-17	3800.10	10/21/19	74.75	-	0.00	3725.35	-	-	-	7.0	-
MW-17	3800.10	10/25/19	-	-	-	-	-	-	-	7.0	-
MW-17	3800.10	12/11/19	-	-	-	-	-	-	-	3.0	-
MW-17	3800.10	2/12/20	75	-	0.00	3725.10	91.01	-	-	8.0	-
MW-17	3800.10	4/8/20	73.25	-	0.00	3726.85	-	-	-	7.5	-
MW-17	3800.10	5/1/20	75.18	-	0.00	3724.92	-	-	-	-	-
MW-17	3800.10	5/12/20	75.19	-	0.00	3724.91	-	-	-	8.0	-
MW-17	3800.10	6/19/20	75.27	-	0.00	3724.83	-	-	-	-	-
MW-17	3800.10	7/29/20	75.40	-	0.00	3724.70	-	-	-	-	-
MW-17	3800.10	8/24/20	75.45	-	0.00	3724.65	-	-	-	-	-
MW-17	3800.10	9/14/20	75.51	-	0.00	3724.59	-	-	-	8.0	-
MW-17	3800.10	11/2/20	75.66	-	0.00	3724.44	-	-	-	8.0	-
MW-17	3800.10	12/11/20	75.73	-	0.00	3724.37	-	-	-	-	-
MW-17	3800.10	1/26/21	75.90	-	0.00	3724.20	-	-	-	-	-
MW-18	3799.94	4/16/20	74.68	-	0.00	3725.26	92.81	60-90 (2 in.)	-	-	-
MW-18	3799.94	5/1/20	75.57	-	0.00	3724.37	-	-	-	-	-
MW-18	3799.94	5/12/20	75.60	-	0.00	3724.34	-	-	-	8.5	-
MW-18	3799.94	6/19/20	75.72	-	0.00	3724.22	-	-	-	-	-
MW-18	3799.94	7/29/20	75.82	-	0.00	3724.12	-	-	-	-	-
MW-18	3799.94	8/24/20	75.87	-	0.00	3724.07	-	-	-	-	-
MW-18	3799.94	9/14/20	75.94	-	0.00	3724.00	-	-	-	8.5	-
MW-18	3799.94	11/2/20	76.05	-	0.00	3723.89	-	-	-	8.0	-
MW-18	3799.94	12/11/20	76.15	-	0.00	3723.79	-	-	-	-	-
MW-18	3799.94	1/26/21	76.30	-	0.00	3723.64	-	-	-	-	-
RW-1	3799.90	2/26/19	-	-	-	Dry	-	-	-	-	-
RW-1	3799.90	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-1	3799.90	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-1	3799.90	10/21/19	-	-	-	Dry	71.05	-	-	-	-
RW-1	P&A	2/19/20	-	-	-	-	-	-	-	-	-
RW-2	3799.67	2/26/19	-	-	-	Dry	-	-	-	-	-

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Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-2	3799.67	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-2	3799.67	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-2	3799.67	10/21/19	-	-	-	Dry	71.85	-	-	-	-
RW-2	P&A	2/19/20	-	-	-	-	-	-	-	-	-
RW-3	P&A	10/15/14				Plugged and Abandoned					
RW-3R	3800.09	2/20/19	-	-	-	-	-	-	0.8	-	252.0
RW-3R	3800.09	2/26/19	74.65	73.88	0.77	3726.06	-	-	-	-	-
RW-3R	3800.09	5/20/19	74.73	74.10	0.63	3725.87	-	-	-	-	-
RW-3R	3800.09	7/22/19	74.83	74.25	0.58	3725.73	-	-	-	-	-
RW-3R	3800.09	9/3/19	-	-	-	-	-	-	2.9	0.1	-
RW-3R	3800.09	10/21/19	77.90	74.00	3.90	3725.35	-	-		3	-
RW-3R	3800.09	12/11/19	-	-	-	-	-	-	6	0.3	-
RW-3R	3800.09	12/18/19	-	-	-	-	-	-	2	1	-
RW-3R	3800.09	12/23/19	-	-	-	-	-	-	1	1	-
RW-3R	3800.09	1/8/20	-	-	-	-	-	-	1	1	-
RW-3R	3800.09	1/29/20	-	-	-	-	-	-	1.5	1	-
RW-3R	3800.09	2/11/20	76.27	74.59	1.68	3725.18	84.17	-	-	-	-
RW-3R	3800.09	2/25/20	-	-	-	-	-	-	1	1	-
RW-3R	3800.09	5/1/20	-	-	-	-	-	-	-	-	-
RW-3R	3800.09	5/12/20	75.68	74.95	0.73	3725.00	-	-	-	-	-
RW-3R	3800.09	6/19/20	-	-	-	-	-	-	-	-	-
RW-3R	3800.09	7/29/20	-	-	-	-	-	-	-	-	-
RW-3R	3800.09	8/24/20	-	-	-	-	-	-	-	-	-
RW-3R	3800.09	9/14/20	76.03	75.27	0.76	3724.68	-	-	-	-	-
RW-3R	3800.09	11/2/20	77.92	75.00	2.92	3724.54	-	-	-	-	-
RW-3R	3800.09	12/11/20	-	-	-	-	-	-	-	-	-
RW-3R	3800.09	1/26/21	-	-	-	-	-	-	-	-	-
RW-4	3798.34	10/9/15				P&A					
RW-4R	3799.68	2/26/19	74.08	73.27	0.81	3726.26	-	-	-	-	-
RW-4R	3799.68	3/27/19	-	-	-	-	-	-	0.8	-	420.0
RW-4R	3799.68	4/17/19	74.08	73.41	0.67	3726.14	-	-	0.3	-	630.0
RW-4R	3799.68	4/30/19	73.81	73.48	0.33	3726.14	-	-	-	-	-
RW-4R	3799.68	5/15/19	74.14	73.51	0.63	3726.05	-	-	0.25	-	420.0
RW-4R	3799.68	5/20/19	73.68	73.60	0.08	3726.06	-	-	-	-	-
RW-4R	3799.68	6/12/19	74.29	73.57	0.72	3725.97	-	-	0.25	-	420.0

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RW-4R	3799.68	6/25/19	-	-	-	-	-	-	0.3	1.5	-
RW-4R	3799.68	7/17/19	74.26	73.65	0.61	3725.91	-	-	-	-	294.0
RW-4R	3799.68	7/22/19	73.82	73.75	0.07	3725.92	-	-	-	-	-
RW-4R	3799.68	7/30/19	73.97	73.71	0.26	3725.92	-	-	-	-	-
RW-4R	3799.68	8/20/19	74.36	73.73	0.63	3725.83	-	-	-	-	336
RW-4R	3799.68	9/3/19	-	-	-	-	-	-	0.1	1.4	-
RW-4R	3799.68	9/10/19	74.15	73.86	0.29	3725.76	-	-	-	-	336
RW-4R	3799.68	10/16/19	74.34	73.92	0.42	3725.68	-	-	-	-	420
RW-4R	3799.68	10/21/19	74.05	74.00	0.05	3725.67	-	-	-	-	-
RW-4R	3799.68	11/19/19	74.34	74.02	0.32	3725.60	-	-	-	-	336.0
RW-4R	3799.68	12/4/19	74.20	74.11	0.09	3725.55	-	-	-	-	420
RW-4R	3799.68	12/18/19	-	-	-	-	-	-	-	0.25	-
RW-4R	3799.68	1/8/20	-	-	-	-	-	-	0.5	1	-
RW-4R	3799.68	1/14/20	74.39	74.19	0.20	3725.45	-	-	-	-	420
RW-4R	3799.68	2/11/20	74.35	74.26	0.09	3725.40	84.61	-	-	-	-
RW-4R	3799.68	2/18/20	74.40	74.29	0.11	3725.37	-	-	-	-	336
RW-4R	3799.68	2/25/20	-	-	-	-	-	-	1.1	1	-
RW-4R	3799.68	3/11/20	74.40	74.32	0.08	3725.34	-	-	-	-	294
RW-4R	3799.68	5/1/20	74.60	74.45	0.15	3725.20	-	-	-	-	-
RW-4R	3799.68	5/12/20	74.59	74.43	0.16	3725.22	-	-	-	-	-
RW-4R	3799.68	6/19/20	74.76	74.49	0.27	3725.14	-	-	-	-	-
RW-4R	3799.68	7/29/20	74.95	74.60	0.35	3725.01	-	-	-	-	-
RW-4R	3799.68	8/24/20	75.09	74.65	0.44	3724.95	-	-	-	-	-
RW-4R	3799.68	9/14/20	75.19	74.71	0.48	3724.88	-	-	-	-	-
RW-4R	3799.68	11/2/20	75.35	74.80	0.55	3724.78	-	-	-	-	-
RW-4R	3799.68	12/11/20	75.51	74.90	0.61	3724.66	-	-	-	-	-
RW-4R	3799.68	1/26/21	75.65	75.05	0.60	3724.52	-	-	-	-	-
RW-5	P&A	2/23/17				P&A					
RW-5R	3799.26	2/26/19	72.99	-	0.00	3726.27	-	-	-	-	-
RW-5R	3799.26	2/26/19	-	-	-	-	-	-	-	28.0	-
RW-5R	3799.26	4/30/19	71.08	-	0.00	3728.18	-	-	0.0	3.0	-
RW-5R	3799.26	5/20/19	73.15	-	0.00	3726.11	-	-	0.0	28.00	-
RW-5R	3799.26	6/11/19	-	-	-	-	-	-	0.0	3.0	-
RW-5R	3799.26	7/22/19	73.31	-	0.00	3725.95	-	-	-	-	-
RW-5R	3799.26	7/25/19	-	-	-	-	-	-	0.0	22.0	-
RW-5R	3799.26	9/3/19	-	-	-	-	-	-	-	-	-
RW-5R	3799.26	10/21/19	73.55	-	0.00	3725.71	-	-	-	22.0	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-5R	3799.26	10/25/19	-	-	-	-	-	-	-	22	-
RW-5R	3799.26	2/12/20	74.98	-	0.00	3724.28	86.82	-	-	25	-
RW-5R	3799.26	3/18/20	-	-	-	-	-	-	-	3	-
RW-5R	3799.26	5/1/20	74.15	-	0.00	3725.11	-	-	-	-	-
RW-5R	3799.26	5/12/20	74.02	-	0.00	3725.24	-	-	-	24	-
RW-5R	3799.26	6/19/20	74.09	-	0.00	3725.17	-	-	-	-	-
RW-5R	3799.26	7/29/20	74.22	-	0.00	3725.04	-	-	-	-	-
RW-5R	3799.26	8/24/20	74.29	-	0.00	3724.97	-	-	-	-	-
RW-5R	3799.26	9/14/20	74.38	-	0.00	3724.88	-	-	-	24	-
RW-5R	3799.26	11/2/20	74.47	-	0.00	3724.79	-	-	-	22	-
RW-5R	3799.26	12/11/20	74.58	-	0.00	3724.68	-	-	-	-	-
RW-5R	3799.26	1/26/21	74.73	-	0.00	3724.53	-	-	-	-	-
RW-6	P&A	2/23/17				P&A					
RW-7	3799.47	2/26/19	73.26	-	0.00	3726.21	-	-	-	-	-
RW-7	3799.47	4/30/19	73.43	-	0.00	3726.04	-	-	0.0	3.0	-
RW-7	3799.47	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-7	3799.47	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-7	3799.47	10/21/19	-	-	-	Dry	73.73	-	-	-	-
RW-7	3799.47	2/12/20	-	-	-	Dry	73.55	-	-	-	-
RW-7	3799.47	5/1/20	-	-	-	Dry	-	-	-	-	-
RW-7	3799.47	5/12/20	-	-	-	Dry	-	-	-	-	-
RW-7	3799.47	6/19/20	73.50	-	0.00	3725.97	-	-	-	-	-
RW-7	3799.47	7/29/20	73.54	-	0.00	3725.93	-	-	-	-	-
RW-7	3799.47	8/24/20	73.60	-	0.00	3725.87	73.65	-	-	-	-
RW-7	3799.47	9/14/20	-	-	-	Dry	73.55	-	-	-	-
RW-7	3799.47	11/2/20	-	-	-	Dry	73.67	-	-	-	-
RW-7	3799.47	12/11/20	-	-	-	Dry	73.51	-	-	-	-
RW-7	3799.47	1/26/21	-	-	-	Dry	73.60	-	-	-	-
RW-8	3800.41	2/26/19	-	-	-	Dry	-	-	-	-	-
RW-8	3800.41	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-8	3800.41	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-8	3800.41	10/21/19	-	-	-	Dry	73.00	-	-	-	-
RW-8	P&A	2/19/20	-	-	-	-	-	-	-	-	-
RW-9	3800.02	2/26/19	73.97	73.63	0.34	3726.33	-	-	-	-	-
RW-9	3800.02	4/30/19	73.89	73.72	0.17	3726.27	-	-	-	-	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-9	3800.02	4/30/19	-	-	-	-	-	-	0.1	0.1	-
RW-9	3800.02	5/20/19	74.10	73.85	0.25	3726.12	-	-	-	-	-
RW-9	3800.02	6/25/19	-	-	-	-	-	-	0.1	-	-
RW-9	3800.02	7/22/19	74.25	74.11	0.14	3725.88	-	-	-	-	-
RW-9	3800.02	7/30/19	74.29	74.10	0.19	3725.88	-	-	-	-	-
RW-9	3800.02	9/3/19	-	-	-	-	-	-	0.1	.1	-
RW-9	3800.02	10/21/19	-	74.45	0.05+	LNAPL at TD	74.50	-	-	-	-
RW-9	3800.02	2/11/20	74.40	74.31	0.09	3725.69	74.43	-	-	-	-
RW-9	3800.02	2/25/20	-	-	-	-	-	-	0.3	1	-
RW-9	3800.02	5/1/20	74.42	74.33	0.09	3725.67	-	-	-	-	-
RW-9	3800.02	5/12/20	74.44	74.33	0.11	3725.67	-	-	-	-	-
RW-9	3800.02	6/19/20	74.47	74.30	0.17	3725.69	-	-	-	-	-
RW-9	3800.02	7/29/20	74.41	74.30	0.11	3725.70	-	-	-	-	-
RW-9	3800.02	8/24/20	74.36	74.25	0.11	3725.75	-	-	-	-	-
RW-9	3800.02	9/14/20	74.49	74.35	0.14	3725.64	-	-	-	-	-
RW-9	3800.02	11/2/20	74.43	74.34	0.09	3725.66	-	-	-	-	-
RW-9	3800.02	12/11/20	74.45	74.27	0.18	3725.72	-	-	-	-	-
RW-9	3800.02	1/26/21	74.38	74.30	0.08	3725.70	-	-	-	-	-
RW-10	3801.18	2/26/19	-	-	-	Dry	-	-	-	-	-
RW-10	3801.18	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-10	3801.18	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-10	3801.18	10/21/19	-	-	-	Dry	69.97	-	-	-	-
RW-10	P&A	2/19/20	-	-	-	-	-	-	-	-	-
RW-10R	3799.97	3/10/20	-	-	-	-	-	-	-	50	-
RW-10R	3799.97	4/8/20	75.24	-	0.00	3724.73	93.10	-	-	-	-
RW-10R	3799.97	4/15/20	75.22	-	0.00	3724.75	-	-	-	-	-
RW-10R	3799.97	4/16/20	75.19	-	0.00	3724.78	92.65	60-90 (4 in.)	-	-	-
RW-10R	3799.97	5/1/20	75.29	-	0.00	3724.68	-	-	-	-	-
RW-10R	3799.97	5/12/20	74.31	-	0.00	3725.66	-	-	-	34	-
RW-10R	3799.97	6/19/20	75.38	-	0.00	3724.59	-	-	-	-	-
RW-10R	3799.97	7/29/20	75.51	-	0.00	3724.46	-	-	-	-	-
RW-10R	3799.97	8/24/20	75.59	75.56	0.03	3724.40	-	-	-	-	-
RW-10R	3799.97	9/14/20	75.64	75.63	0.01	3724.34	-	-	-	34	-
RW-10R	3799.97	11/2/20	75.74	tip trace	0.00	3724.23	-	-	-	-	-
RW-10R	3799.97	12/11/20	74.88	75.85	0.00	3725.09	-	-	-	-	-
RW-10R	3799.97	1/26/21	76.05	75.98	0.07	3723.98	-	-	-	-	-

Table 1

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Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-11	3798.72	2/26/19	-	71.72	1.81+	LNAPL at TD	-	-	-	-	-
RW-11	3798.72	5/20/19	-	72.60	0.75+	LNAPL at TD	-	-	-	-	-
RW-11	3798.72	7/22/19	-	72.55	0.83+	LNAPL at TD	-	-	-	-	-
RW-11	3798.72	10/21/19	-	72.53	1.00+	LNAPL at TD	73.40	-	-	-	-
RW-11	3798.72	2/11/20	73.53	72.64	0.89	3725.91	73.61	-	-	-	-
RW-11	3798.72	2/25/20	-	-	-	-	-	-	1	1	-
RW-11	3798.72	5/1/20	-	73.04	0.36 +	LNAPL at TD	73.40	-	-	-	-
RW-11	3798.72	5/12/20	73.80	72.80	1.00	3725.73	73.40	-	-	-	-
RW-11	3798.72	6/19/20	-	73.02	0.38 +	LNAPL at TD	73.40	-	-	-	-
RW-11	3798.72	7/29/20	73.52	73.13	0.39	3725.52	73.40	-	-	-	-
RW-11	3798.72	8/24/20	73.50	73.02	0.48	3725.61	-	-	-	-	-
RW-11	3798.72	9/14/20	-	73.09	0.41 +	LNAPL at TD	73.50	-	-	-	-
RW-11	3798.72	11/2/20	-	73.23	0.15 +	LNAPL at TD	73.38	-	-	-	-
RW-11	3798.72	12/11/20	-	73.32	0.18 +	LNAPL at TD	73.50	-	-	-	-
RW-11	3798.72	1/26/21	73.50	73.47	0.03	-	-	-	-	-	-
RW-12	3800.23	2/26/19	-	-	-	Dry	-	-	-	-	-
RW-12	3800.23	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-12	3800.23	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-12	3800.23	10/21/19	-	-	-	Dry	72.68	-	-	-	-
RW-12	P&A	2/19/20	-	-	-	-	-	-	-	-	-
RW-13	3800.62	2/26/19	73.79	-	0.00	3726.83	-	-	-	0.8	-
RW-13	3800.62	5/20/19	-	-	-	Dry	-	-	-	-	-
RW-13	3800.62	7/22/19	-	-	-	Dry	-	-	-	-	-
RW-13	3800.62	10/21/19	-	-	-	Dry	74.10	-	-	-	-
RW-13	3800.62	2/12/20	-	-	-	Dry	74.95	-	-	-	-
RW-13	3800.62	5/1/20	-	-	-	Dry	-	-	-	-	-
RW-13	3800.62	5/12/20	73.92	-	0.00	3726.70	74.09	-	-	-	-
RW-13	3800.62	6/19/20	-	-	-	Dry	-	-	-	-	-
RW-13	3800.62	7/29/20	-	-	-	Dry	79.15	-	-	-	-
RW-13	3800.62	8/24/20	73.94	-	0.00	3726.68	74.03	-	-	-	-
RW-13	3800.62	9/14/20	73.95	-	0.00	3726.67	-	-	-	-	-
RW-13	3800.62	11/2/20	-	-	-	Dry	74.07	-	-	-	-
RW-13	3800.62	12/11/20	73.92	-	0.00	3726.70	74.07	-	-	-	-
RW-13	3800.62	1/26/21	73.94	-	0.00	3726.68	-	-	-	-	-
RW-14	3800.13	2/26/19	74.09	-	0.00	3726.04	-	-	-	19.0	-
RW-14	3800.13	5/20/19	74.30	-	0.00	3725.83	-	-	0.0	18.0	-

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RW-14	3800.13	7/22/19	74.45	-	0.00	3725.68	-	-	-	-	-
RW-14	3800.13	7/25/19	-	-	-	-	-	-	0.0	14.0	-
RW-14	3800.13	9/3/19	-	-	-	-	-	-	-	3.0	-
RW-14	3800.13	10/21/19	74.70	-	0.00	3725.43	-	-	-	14.0	-
RW-14	3800.13	10/24/19	-	-	-	-	-	-	-	14.0	-
RW-14	3800.13	12/11/19	-	-	-	-	-	-	-	3.0	-
RW-14	3800.13	2/12/20	75.00	-	0.00	3725.13	85.38	-	-	20.0	-
RW-14	3800.13	5/1/20	75.13	-	0.00	3725.00	-	-	-	-	-
RW-14	3800.13	5/12/20	75.13	-	0.00	3725.00	-	-	-	20.0	-
RW-14	3800.13	6/19/20	75.22	-	0.00	3724.91	-	-	-	-	-
RW-14	3800.13	7/29/20	75.34	-	0.00	3724.79	-	-	-	-	-
RW-14	3800.13	8/24/20	75.40	-	0.00	3724.73	-	-	-	-	-
RW-14	3800.13	9/14/20	75.48	-	0.00	3724.65	-	-	-	20.0	-
RW-14	3800.13	11/2/20	75.59	-	0.00	3724.54	-	-	-	20.0	-
RW-14	3800.13	12/11/20	75.68	-	0.00	3724.45	-	-	-	-	-
RW-14	3800.13	1/26/21	75.84	-	0.00	3724.29	-	-	-	-	-
RW-15	3800.23	2/26/19	74.11	-	0.00	3726.12	-	-	-	19.0	-
RW-15	3800.23	5/20/19	74.42	-	0.00	3725.81	-	-	0.0	17.0	-
RW-15	3800.23	7/22/19	74.51	-	0.00	3725.72	-	-	-	-	-
RW-15	3800.23	7/25/19	-	-	-	-	-	-	0.0	15.0	-
RW-15	3800.23	9/3/19	-	-	-	-	-	-	0.0	3.0	-
RW-15	3800.23	10/21/19	74.71	-	0.00	3725.52	-	-	-	15.0	-
RW-15	3800.23	10/25/19	-	-	-	-	-	-	-	15.0	-
RW-15	3800.23	12/11/19	-	-	-	-	-	-	-	3.0	-
RW-15	3800.23	2/12/20	74.98	-	0.00	3725.25	84.81	-	-	20.0	-
RW-15	3800.23	5/1/20	75.15	-	0.00	3725.08	-	-	-	-	-
RW-15	3800.23	5/12/20	75.16	-	0.00	3725.07	-	-	-	19.0	-
RW-15	3800.23	6/19/20	75.26	-	0.00	3724.97	-	-	-	-	-
RW-15	3800.23	7/29/20	75.37	-	0.00	3724.86	-	-	-	-	-
RW-15	3800.23	8/24/20	75.42	-	0.00	3724.81	-	-	-	-	-
RW-15	3800.23	9/14/20	75.50	-	0.00	3724.73	-	-	-	19.0	-
RW-15	3800.23	11/2/20	75.61	-	0.00	3724.62	-	-	-	4.5	-
RW-15	3800.23	12/11/20	75.71	-	0.00	3724.52	-	-	-	-	-
RW-15	3800.23	1/26/21	75.86	-	0.00	3724.37	-	-	-	-	-
RW-16	3800.19	2/26/19	75.74	73.64	2.10	3726.15	-	-	-	-	-
RW-16	3800.19	4/30/19	76.31	73.67	2.64	3726.02	-	-	2.0	0.5	-
RW-16	3800.19	5/20/19	75.60	73.91	1.69	3725.96	-	-	-	-	-

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RW-16	3800.19	6/11/19	-	-	-	-	-	-	0.5	0.5	-
RW-16	3800.19	6/25/19	-	-	-	-	-	-	0.6	0.0	-
RW-16	3800.19	7/22/19	75.21	74.20	1.01	3725.80	-	-	-	-	-
RW-16	3800.19	10/21/19	74.68	74.60	0.08	3725.57	-	-	-	-	-
RW-16	3800.19	2/11/20	75.09	74.84	0.25	3725.30	89.95	-	-	-	-
RW-16	3800.19	5/1/20	-	-			-	-	-	-	-
RW-16	3800.19	5/12/20	75.21	75.05	0.16	3725.11	-	-	-	-	-
RW-16	3800.19	6/19/20	-	-	-	-	-	-	-	-	-
RW-16	3800.19	7/29/20	75.83	75.17	0.66	3724.89	-	-	-	-	-
RW-16	3800.19	8/24/20	75.99	75.21	0.78	3724.83	-	-	-	-	-
RW-16	3800.19	9/14/20	76.13	75.27	0.86	3724.76	-	-	-	-	-
RW-16	3800.19	11/2/20	75.58	75.51	0.07	3724.67	-	-	-	-	-
RW-16	3800.19	12/11/20	-	-	-	-	-	-	-	-	-
RW-16	3800.19	1/26/21	-	-	-	-	-	-	-	-	-
RW-17	3799.82	2/20/19	-	-	-	-	-	-	0.8	-	252.0
RW-17	3799.82	2/26/19	73.95	73.74	0.21	3726.04	-	-	-	-	-
RW-17	3799.82	5/20/19	74.45	73.85	0.60	3725.86	-	-	-	-	-
RW-17	3799.82	6/11/19	-	-	-	-	-	-	0.1	0.0	-
RW-17	3799.82	6/25/19	-	-	-	-	-	-	0.1	0	-
RW-17	3799.82	7/22/19	74.55	74.04	0.51	3725.68	-	-	-	-	-
RW-17	3799.82	10/21/19	74.81	74.30	0.51	3725.42	-	-	-	-	-
RW-17	3799.82	2/11/20	75.21	74.52	0.69	3725.17	89.82	-	-	-	-
RW-17	3799.82	5/1/20	-	-	-	-	-	-	-	-	-
RW-17	3799.82	5/12/20	75.27	74.76	0.51	3724.96	-	-	-	-	-
RW-17	3799.82	6/19/20	-	-	-	-	-	-	-	-	-
RW-17	3799.82	7/29/20	-	-	-	-	-	-	-	-	-
RW-17	3799.82	8/24/20	-	-	-	-	-	-	-	-	-
RW-17	3799.82	9/14/20	75.52	75.08	0.44	3724.66	-	-	-	-	-
RW-17	3799.82	11/2/20	76.55	75.02	1.53	3724.51	-	-	-	-	-
RW-17	3799.82	12/11/20	77.25	75	2.25	3724.39	-	-	-	-	-
RW-17	3799.82	1/26/21	77.83	75.04	2.79	3724.25	-	-	-	-	-
RW-18	3799.57	3/10/20	-	-	-	-	-	-	-	50	-
RW-18	3799.57	4/8/20	74.77	74.76	0.01	3724.81	93.04	-	-	-	-
RW-18	3799.57	4/15/20	74.75	Trace	0.00	3724.82	-	-	-	-	-
RW-18	3799.57	4/16/20	74.68	-	0.00	3724.89	92.68	60-90 (4 in.)	-	-	-
RW-18	3799.57	5/1/20	74.81	Trace	0.00	3724.76	-	-	-	-	-
RW-18	3799.57	5/12/20	74.85	74.82	0.03	3724.74	-	-	-	-	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)
RW-18	3799.57	6/19/20	74.96	74.88	0.08	3724.67	-	-	-	-	-
RW-18	3799.57	7/29/20	75.08	75.02	0.06	3724.54	-	-	-	-	-
RW-18	3799.57	8/24/20	75.14	75.08	0.06	3724.48	-	-	-	-	-
RW-18	3799.57	9/14/20	75.22	75.16	0.06	3724.40	-	-	-	-	-
RW-18	3799.57	11/2/20	75.36	75.24	0.12	3724.31	-	-	-	-	-
RW-18	3799.57	12/11/20	75.57	75.33	0.24	3724.19	-	-	-	-	-
RW-18	3799.57	1/26/21	75.85	75.44	0.41	3724.05	-	-	-	-	-
RW-19	3799.31	3/10/20	-	-	0.00	-	-	-	-	50	-
RW-19	3799.31	4/8/20	74.54	-	0.00	3724.77	93.05	-	-	-	-
RW-19	3799.31	4/15/20	74.54	-	0.00	3724.77	-	-	-	-	-
RW-19	3799.31	4/16/20	74.46	-	0.00	3724.85	92.82	60-90 (4 in.)	-	-	-
RW-19	3799.31	5/1/20	74.57	-	0.00	3724.74	-	-	-	-	-
RW-19	3799.31	5/12/20	74.59	-	0.00	3724.72	-	-	-	36	-
RW-19	3799.31	6/19/20	74.69	-	0.00	3724.62	-	-	-	-	-
RW-19	3799.31	7/29/20	74.80	-	0.00	3724.51	-	-	-	-	-
RW-19	3799.31	8/24/20	74.87	-	0.00	3724.44	-	-	-	-	-
RW-19	3799.31	9/14/20	74.94	-	0.00	3724.37	-	-	-	36	-
RW-19	3799.31	11/2/20	75.04	-	0.00	3724.27	-	-	-	34	-
RW-19	3799.31	12/11/20	75.16	-	0.00	3724.15	-	-	-	-	-
RW-19	3799.31	1/26/21	75.31	-	0.00	3724.00	-	-	-	-	-

Table 1

Summary of Fluid Level Measurements 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Well ID	Elevation of Top of Casing (famsl)	Date	Depth to Groundwater (fbtoc)	Depth to LNAPL (fbtoc)	LNAPL Thickness (ft.)	Elevation of the Potentiometric Surface (famsl)	Measured Well Depth (fbtoc)	Well Screen Interval (fbgs) (Well Diameter)	Volume Product Removed (gal.)	Volume Groundwater Bailed (gal.)	Volume Groundwater Removed by EFR (gal.)

Notes:
1. famsl - feet above mean sea level
2. fbtoc - feet below top of casing.
3. LNAPL - Light non-aqueous phase liquid.
4. NA - Elevation not available because LNAPL was present at bottom of well
5. fbgs - feet below ground surface
6. Blue shaded cells indicate groundwater monitoring events
7. NS - No sample collected due to lack of water column or pump in well.
8. MW-4R, MW-8R, MW-10R, MW-17, RW-5R, RW-16, and RW-17 were installed in February & March 2017
9. "+" entered with LNAPL thickness indicates that the base of LNAPL was below the bottom of the well.

Table 2

Summary of Dissolved Hydrocarbons in Groundwater 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-1A	2/19/20	P&A			
MW-1R	5/15/20	<0.000190	<0.000412	<0.00016	<0.000510
MW-1R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-1R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-2	2/19/20	P&A			
MW-2R	5/15/20	<0.000190	<0.000412	<0.00016	<0.000510
MW-2R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-2R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	5/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	7/25/19	<0.000190	<0.000412	**0.000262 J**	<0.000510
MW-3R	10/25/19	<0.000190	<0.000412	<0.000160	**0.000752 J**
MW-3R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-3R	11/3/20	**0.000209 J**	**0.00137**	**0.002740**	**0.005390**
MW-4R	2/28/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	5/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	7/25/19	<0.000190	<0.000412	**0.000215 J**	<0.000510
MW-4R	10/25/19	<0.000190	**0.000498 J**	<0.000160	**0.000839 J**
MW-4R	2/13/20	**0.000191 J**	<0.000412	<0.000160	<0.000510
MW-4R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-4R	11/3/20	<0.000190	<0.000412	**0.002080**	**0.003620**
MW-5	2/19/20	P&A			
MW-5R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-5R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-6	2/19/20	P&A			
MW-7	2/19/20	P&A			
MW-7R	5/15/20	<0.000190	<0.000412	<0.000160	**0.00298**
MW-7R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-7R	11/3/20	<0.000190	<0.000412	<0.000160	**0.00334**
MW-7R (DUP-1)	11/3/20	<0.000190	<0.000412	<0.000160	**0.00307**

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Table 2

Summary of Dissolved Hydrocarbons in Groundwater 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-8R	2/28/19	**0.0751**	**0.0121**	**0.00905**	**0.0263**
MW-8R	5/23/19	**0.190**	**0.0326**	**0.0788**	**0.158**
MW-8R (DUP-2)	5/23/19	**0.116**	**0.0201**	**0.0459**	**0.110**
MW-8R	7/25/19	**0.00664**	**0.00343**	**0.00415**	**0.0248**
MW-8R	10/25/19	**0.0338**	**0.00812**	**0.0108**	**0.0687**
MW-8R (Dup-2)	10/25/19	**0.0385**	**0.00766**	**0.0103**	**0.0858**
MW-8R	2/13/20	**0.0254**	<0.000412	**0.00280**	**0.0167**
MW-8R (Dup-2)	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-8R	4/8/20	**0.0180**	<0.000412	**0.000507**	**0.00594**
MW-8R (DUP-2)	4/8/20	**0.0196**	<0.000412	**0.000636**	**0.00490**
MW-8R	5/15/20	**0.00295**	<0.000412	<0.000160	**0.00530**
MW-8R (DUP-2)	5/15/20	**0.00314**	<0.000412	<0.000160	**0.00548**
MW-8R	9/17/20	**0.00893**	<0.000412	<0.000160	<0.000510
MW-8R	11/3/20	**0.0245**	**0.00338**	**0.00382**	**0.0162**
MW-8R (DUP-2)	11/3/20	**0.0195**	**0.00196**	**0.00223**	**0.00924**
MW-9	2/19/20	P&A			
MW-10R	2/28/19	**0.000591 B**	**0.00152 B**	**0.000303 J**	<0.000510
MW-10R (DUP-1)	2/28/19	**0.000596**	**0.00153**	**0.000383 J**	<0.000510
MW-10R	5/23/19	**0.00119**	**0.00246**	**0.000805 B**	**0.0120**
MW-10R	7/25/19	<0.000190	<0.000412	**0.000503**	<0.000510
MW-10R	10/25/19	**0.000571**	**0.00169**	**0.000455 J**	**0.00155**
MW-10R	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-10R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11	2/19/20	P&A			
MW-11R	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-11R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-12R	2/28/19	<0.000190	**0.00158 B**	**0.000554**	<0.000510
MW-12R	5/23/19	<0.000190	**0.00132**	**0.000627**	<0.000510
MW-12R	7/25/19	<0.000190	**0.000775 J**	**0.000405 J**	<0.000510
MW-12R	10/25/19	<0.000190	**0.000953 J**	**0.000343 J**	**0.000574 J**
MW-12R	2/13/20	<0.000190	<0.000412	**0.000637**	<0.000510
MW-12R	5/15/20	**0.000833**	<0.000412	**0.00113**	<0.000510
MW-12R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-12R	11/3/20	**0.001350**	**0.00342**	**0.00164**	**0.000928 J**

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Table 2

Summary of Dissolved Hydrocarbons in Groundwater 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-13	2/19/20	P&A			
MW-13R	5/15/2020	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R (DUP 1)	5/15/2020	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-13R	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-14	2/28/19	<0.000190	**0.000423 B J**	<0.000160	<0.000510
MW-14	5/23/19	**0.000217 B J**	<0.000412	<0.000160	**0.000785 B J**
MW-14	10/25/19	Insufficient Water to Sample			
MW-14	2/13/20	Insufficient Water to Sample			
MW-14	5/15/20	Insufficient Water to Sample			
MW-14	9/17/20	Insufficient Water to Sample			
MW-14	11/3/20		Dry		
MW-15	2/28/19	<0.000190	**0.000451 J**	<0.000160	<0.000510
MW-15	5/23/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	7/25/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	10/25/19	<0.000190	<0.000412	<0.000160	**0.000829 J**
MW-15	2/13/20	Insufficient Water to Sample			
MW-15	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-15	9/17/20	Insufficient Water to Sample			
MW-15	11/3/20		Dry		
MW-16	2/28/19	**0.000235 B J**	**0.000558 B J**	<0.000160	**0.000898 B J**
MW-16	5/23/19	**0.00101**	**0.00396**	**0.000825 B**	**0.0224**
MW-16	7/25/19	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	10/25/19	<0.000190	**0.000584 J**	<0.000160	**0.00195**
MW-16	2/13/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-16	9/17/20	Insufficient Water to Sample			
MW-16	11/3/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17	2/28/19	**0.00385**	**0.00170 B**	**0.00764**	**0.0402**
MW-17	5/23/19	**0.000666 B**	**0.000472 J**	**0.00463**	**0.0331**
MW-17	7/25/19	**0.000692**	<0.000412	**0.00169**	**0.0163**
MW-17 (DUP-2)	7/25/19	**0.000456 J**	<0.000412	**0.00130**	**0.0128**
MW-17	10/25/19	<0.000190	<0.000412	<0.000160	**0.00137 J**
MW-17	2/13/20	<0.000190	<0.000412	**0.000663**	**0.00222**
MW-17 (DUP-1)	2/13/20	**0.0244**	<0.000412	**0.00222**	**0.0169**
MW-17	4/8/20	<0.000190	<0.000412	**0.000255 J**	**0.00288**
MW-17 (DUP-1)	4/8/20	<0.000190	<0.000412	**0.000318 J**	**0.00149 J**
MW-17	5/15/20	<0.000190	<0.000412	**0.000318 J**	**0.00324**
MW-17	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-17	11/3/20	<0.000190	<0.000412	<0.000160	**0.00117 J**

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Table 2

Summary of Dissolved Hydrocarbons in Groundwater 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
MW-18	5/15/20	<0.000190	<0.000412	<0.000160	<0.000510
MW-18	9/17/20	**0.000309 J**	<0.000412	<0.000160	<0.000510
MW-18	11/3/20	**0.000288 J**	<0.000412	<0.000160	<0.000510
RW-5R	2/28/19	**0.00325**	<0.000412	**0.00382**	**0.0412**
RW-5R	5/23/19	**0.00341**	**0.000517 J**	**0.00593**	**0.0634**
RW-5R	7/25/19	**0.00177**	<0.000412	**0.00482**	**0.0175**
RW-5R (DUP-1)	7/25/19	**0.00181**	<0.000412	**0.00507**	**0.0184**
RW-5R	10/25/19	**0.00104**	**0.000575 J**	**0.000704**	**0.00263**
RW-5R	2/13/20	**0.000901**	<0.000412	**0.000350**	**0.00313**
RW-5R	5/15/20	**0.000961**	<0.000412	<0.000160	**0.0366**
RW-5R	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
RW-5R	11/3/20	<0.000190	<0.000412	<0.000160	**0.00420**
RW-7	2/28/19	**0.000838 B**	<0.000412	<0.000160	**0.00339 B**
RW-7	5/23/19		Dry		
RW-7	7/25/19		Dry		
RW-7	10/25/19		Dry		
RW-7	2/13/20		Dry		
RW-7	5/15/20		Dry		
RW-7	9/17/20		Dry		
RW-7	11/3/20		Dry		
RW-8	2/19/20	P&A			
RW-10R	5/15/20	**0.372**	**0.223**	**0.0802**	**0.322**
RW-10R	9/17/20	**0.785**	**0.411**	**0.244**	**0.995**
RW-10R (DUP-1)	9/17/20	**1.08**	**0.491**	**0.298**	**1.19**
RW-12	2/19/20	P&A			
RW-13	2/28/19	**0.00955**	<0.000412	<0.000160	<0.000510
RW-13	5/23/19		Dry		
RW-13	7/25/19		Dry		
RW-13	10/25/19		Dry		
RW-13	2/13/20		Dry		
RW-13	5/15/20	Insufficient water to sample			
RW-13	9/17/20	Insufficient water to sample			
RW-13	11/3/20	Insufficient water to sample			
RW-14	2/28/19	**0.000963**	**0.00132**	**0.000419 J**	**0.000592 J**
RW-14 (DUP-2)	2/28/19	**0.000859**	**0.00127**	**0.000356 J**	<0.000510
RW-14	5/23/19	**0.00100 B**	**0.00109**	**0.000595 B**	<0.000510
RW-14 (DUP-1)	5/23/19	**0.000950 B**	**0.00122**	**0.000702 B**	<0.000510

Table 2

Summary of Dissolved Hydrocarbons in Groundwater 2019 & 2020
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Total Xylenes (mg/L)
		NMWQCC Human Health Standards			
		0.01	0.75	0.75	0.62
RW-14	7/25/19	**0.00373**	**0.00241**	**0.00121**	**0.00260**
RW-14	10/25/19	**0.00355**	**0.00204**	**0.00120**	**0.00159**
RW-14 (Dup-1)	10/25/19	**0.00309**	**0.00112**	**0.000811**	**0.00125 J**
RW-14	2/13/20	**0.00158**	<0.000412	**0.000912**	<0.000510
RW-14	5/15/20	**0.000464 J**	**0.00112**	**0.000461 J**	**0.00123 J**
RW-14	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
RW-14	11/3/20	<0.000190	**0.000623 J**	**0.000219 J**	<0.000510
RW-15	2/28/19	**0.000332 B J**	**0.00134 B**	**0.000641**	**0.00167 B**
RW-15	5/23/19	<0.000190	**0.00131**	**0.000354 B J**	**0.00195 B**
RW-15	7/25/19	**0.000707**	**0.00192**	**0.000801**	**0.00401**
RW-15	10/25/19	**0.000631**	**0.00165**	**0.000707**	**0.00209**
RW-15	2/13/20	<0.000190	<0.000412	**0.000738**	<0.000510
RW-15	5/15/20	<0.000190	<0.000412	**0.000554**	**0.00272**
RW-15	9/17/20	**0.000885**	<0.000412	<0.000160	<0.000510
Dup-2 (RW-15)	9/17/20	<0.000190	**0.00117**	**0.000593**	<0.000510
RW-15	11/3/20	**0.00110**	**0.00129**	**0.000854**	**0.000620 J**
RW-19	5/15/20	<0.000190	**0.000467 J**	**0.000889 B**	**0.00620**
RW-19	9/17/20	<0.000190	<0.000412	<0.000160	<0.000510
RW-19	11/3/20	<0.000190	<0.000412	**0.000388 J**	**0.001820**
Trip Blank	2/28/19	**0.000371 B J**	**0.00110 B**	<0.000160	**0.000948 B J**

Notes:

1. Shaded cells indicate NMOCD Regulatory Limit exceedances
2. Bold font indicates detection.
3. BTEX analyses by EPA Method 8021B.
4. March 2011 analytical results collected by NOVA.
5. MW-4R, MW-8R, MW-10R, MW-17, RW-5R, RW-16, RW-17 were installed in Feb & Mar 2017.
6. Flag J indicates the identification of the analyte is acceptable and the reported result is an estimate.
7. Flag B indicates the same analyte is found in the associated blank.

Table 3

Summary of PAH Compounds in Groundwater
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Anthracene (mg/L)	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)
		NMWQCC Human Health 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-1A	12/3/08	<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-1A	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.000974**	<0.000183	<0.000183
MW-1A	11/20/14	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.000195	<0.00195	<0.000195
P&A																				
MW-1R	11/3/20	<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-2	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-2	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-2R	11/3/20	<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-3	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-3	12/1/09	<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
P&A																				
MW-3R	12/3/15	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199
MW-3R	11/4/16	<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	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	0.000209	<0.000183	<0.000183	<0.000183	<0.000183
MW-4	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-4R	11/30/17	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000191	<0.000382	<0.000191	<0.000191
MW-4R	11/28/18	<0.0000140	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000284 B J**	<0.0000157	<0.00000850	<0.0000148	<0.00000820	<0.0000117	**0.0000987 B J**	<0.00000821	<0.00000902
MW-5	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-5	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-5R	11/3/20	<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-6	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.000285**	<0.000183	<0.000183	<0.000183	**0.000391**	<0.000183	<0.000183	<0.000183	<0.000183
MW-6	12/1/09	<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-6	12/1/11	<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
P&A																				
MW-7	12/3/08	<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-7	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-7R	11/3/20	<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-8	12/3/08	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	<0.000192	**0.00451**	<0.000192	**0.00604**	<0.000192	**0.00597**	<0.000192	**0.00205**	**0.0108**	**0.00967**
MW-8	12/1/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.00402**	<0.000917	**0.0617**	<0.000917	**0.00241**	<0.000917	<0.000917	<0.000917	<0.000917
P&A																				
MW-8R	11/30/17	<0.000190	**0.000190**	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	**0.000789**	<0.000190	**0.000323**	<0.000190	**0.000540**	<0.000190	**0.0108**	---	---
MW-8R	11/28/18	**0.000147**	**0.000210**	<0.0000120	<0.00000410	<0.0000116	**0.00000390 J**	<0.00000227	<0.0000136	**0.0000108 J**	<0.00000396	**0.00207**	<0.0000157	**0.00151**	<0.0000148	**0.00166**	<0.0000117	**0.0311**	**0.0245**	**0.0249**
MW-8R	10/25/19	**0.0000497 J**	**0.000113**	<0.000012	<0.0000041	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.000473**	<0.0000157	**0.000349**	<0.0000148	**0.000535**	**0.0000117 J**	**0.00112**	**0.00106**	**0.000356**
MW-8R	11/3/20	<0.0000190	**0.0000311 J**	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	**0.000231**	<0.0000270	**0.0000834**	<0.0000158	<0.0000180	<0.0000169	**0.000106 J**	<0.0000687	<0.0000674
MW-9	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-9	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-10	12/3/08	<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-10	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-10R	11/30/17	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000189	<0.000378	<0.000189	<0.000189
MW-10R	11/28/18	**0.0000152 J**	<0.0000100	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00000540 B J**	<0.0000157	<0.00000850	<0.0000148	**0.0000185 J**	<0.0000117	**0.000157 B J**	<0.00000821	<0.00000902
MW-11	12/3/08	<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-11	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				

11209899

Table 3

Summary of PAH Compounds in Groundwater
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Anthracene (mg/L)	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)
		NMWQCC Human Health 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-11R	11/3/20	<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-12	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-12	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
P&A																				
MW-12R	11/20/14	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199
MW-12R	12/3/15	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199	<0.000199
MW-12R	11/28/18	<0.0000140	**0.0000496 J**	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.000426**	<0.0000157	<0.00000850	<0.0000148	**0.0000646**	<0.0000117	**0.000143 B J**	**0.0000292 J**	**0.0000282 J**
12/3/08	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
12/3/08	12/1/09	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201	<0.000201
P&A																				
MW-13R	11/3/20	<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-14	12/3/08	<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-14	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-15	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-15	12/2/09	<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-16	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-16	12/1/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183
MW-17	11/30/17	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000373	**0.000304**	**0.000524**
MW-17	11/28/18	<0.0000280	<0.0000200	<0.0000240	<0.00000820	<0.0000232	<0.00000424	<0.00000454	<0.0000272	<0.0000216	<0.00000792	**0.0000407 J**	<0.0000314	<0.0000170	<0.0000296	<0.0000164	<0.0000234	**0.000202 B J**	**0.0000304 J**	<0.0000180
MW-18	11/3/20	<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
RW-1	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00414**	<0.000184	**0.00669**	<0.000184	**0.0084**	<0.000184	**0.0278**	**0.0518**	**0.0478**
P&A																				
RW-2	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.0115**	<0.000184	**0.019**	<0.000184	**0.0227**	<0.000184	**0.0656**	**0.166**	**0.153**
RW-2	12/2/09	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	<0.00461	**0.145**	<0.00461	**0.248**	<0.00461	**0.336**	<0.00461	**0.808**	**2.17**	**3.02**
P&A																				
RW-5	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00133**	<0.000183	**0.00148**	<0.000183	0.000841	<0.000183	**0.0254**	**0.0160**	**0.0144**
RW-5	12/2/09	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	**0.000674**	<0.000187	<0.000187	<0.000187	<0.000187	<0.000187	**0.00763**	**0.00624**	**0.00263**
RW-5	12/7/12	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	**0.00171**	<0.000190	<0.000190	<0.000190	0.00213	<0.000190	**0.013**	**0.0137**	**0.00994**
P&A																				
RW-5R	11/30/17	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000366	---	---
RW-5R	11/28/18	**0.0000170 J**	**0.000197**	<0.0000120	<0.00000410	<0.0000116	<0.00000212	<0.00000227	<0.0000136	<0.0000108	<0.00000396	**0.00163**	<0.0000157	**0.0000252 J**	<0.0000148	**0.00112**	<0.0000117	**0.000329 B**	**0.000480**	**0.0000800 J**
RW-5R	11/3/20	<0.0000190	<0.0000190	<0.0000171	<0.0000203	<0.0000184	<0.0000168	<0.0000184	<0.0000202	<0.0000179	<0.0000160	**0.0000251 J**	<0.0000270	<0.0000169	<0.0000158	<0.0000180	<0.0000169	<0.0000917	<0.0000687	<0.0000674
RW-6	12/2/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00257**	<0.000183	**0.00340**	<0.000183	**0.00476**	<0.000183	**0.0382**	**0.0445**	**0.0553**
RW-6	11/23/10	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00378**	<0.000183	**0.00513**	<0.000183	<0.000183	<0.000183	**0.0486**	**0.0529**	**0.0633**
RW-6	12/1/11	<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
P&A																				
RW-7	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.0118**	<0.000184	**0.0179**	<0.000184	**0.0232**	<0.000184	**0.0942**	**0.172**	**0.158**
RW-7	12/2/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.0240**	<0.000183	**0.0400**	<0.000183	**0.0570**	<0.000183	**0.172**	**0.408**	**0.506**
RW-7	11/30/17	**0.00140**	**0.00185**	**0.000956**	**0.00311**	**0.00124**	<0.000187	<0.000187	<0.000187	**0.00254**	<0.000187	**0.00258**	**0.000846**	**0.00505**	<0.000187	**0.0112**	**0.000932**	**0.00324**	**0.00775**	**0.00136**
RW-7	11/28/18	<0.0000420	**0.000841**	<0.0000360	**0.00204**	<0.0000348	**0.000420**	**0.000333**	<0.0000408	**0.000939**	<0.0000119	**0.00115**	<0.0000471	**0.00239**	<0.0000444	**0.00557**	**0.00183**	**0.00165**	**0.00310**	**0.00270**
Dry																				
RW-8	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00891**	<0.000183	**0.0128**	<0.000183	**0.0164**	<0.000183	**0.0496**	**0.115**	**0.106**
RW-8	12/2/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.00772**	<0.000183	**0.0106**	<0.000183	**0.0145**	<0.000183	**0.0534**	**0.102**	**0.128**
P&A																				
RW-9	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00642**	<0.000184	**0.00907**	<0.000184	**0.0112**	<0.000184	**0.0574**	**0.0859**	**0.0791**
RW-9	12/2/09	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	<0.000917	**0.0320**	<0.000917	**0.0488**	<0.000917	**0.0679**	<0.000917	**0.215**	**0.473**	**0.625**
LNAPL																				
RW-10	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.0193**	<0.000183	**0.0265**	<0.000183	**0.0346**	<0.000183	**0.121**	**0.279**	**0.257**

11209899

Table 3

Summary of PAH Compounds in Groundwater
Plains Pipeline, L.P.
Darr Angell No. 4
Lea County, New Mexico

Sample ID	Sample Date	Anthracene (mg/L)	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)
		NMWQCC Human Health 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		
P&A																				
RW-11	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00494**	<0.000184	**0.0076**	<0.000184	**0.0093**	<0.000184	**0.053**	**0.066**	**0.0609**
LNAPL																				
RW-12	12/3/08	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.0143**	<0.000183	**0.0193**	<0.000183	**0.0242**	<0.000183	**0.11**	**0.198**	**0.182**
RW-12	12/2/09	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.0081**	<0.000184	**0.0127**	<0.000184	**0.0182**	<0.000184	**0.049**	**0.112**	**0.141**
P&A																				
RW-13	12/3/08	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	<0.000184	**0.00409**	<0.000184	**0.0131**	<0.000184	**0.0187**	<0.000184	**0.0234**	<0.000184	**0.0608**	**0.139**	**0.128**
RW-13	12/2/09	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	**0.000891**	<0.000183	**0.0013**	<0.000183	**0.00156**	<0.000183	**0.00094**	**0.00489**	**0.00337**
RW-13	11/30/17	**0.00299**	**0.00345**	**0.00227**	**0.00573**	**0.000502**	**0.000718**	**0.000692**	**0.000996**	**0.00396**	**0.000279**	**0.00792**	**0.00179**	**0.0115**	**0.000277**	**0.0205**	**0.00262**	**0.00741**	**0.0303**	**0.00513**
Dry																				
RW-14	11/20/14	<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
RW-14	12/3/15	<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
RW-15	11/20/14	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190	<0.000190
RW-15	12/3/15	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	**0.00098**	<0.000200	**0.00103**	<0.000200	**0.000442**	<0.000200	**0.00952**	**0.0111**	**0.00569**
RW-15	11/4/16	<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
RW-15	11/30/17	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000183	<0.000366	<0.000183	<0.000183
RW-19	11/3/20	<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

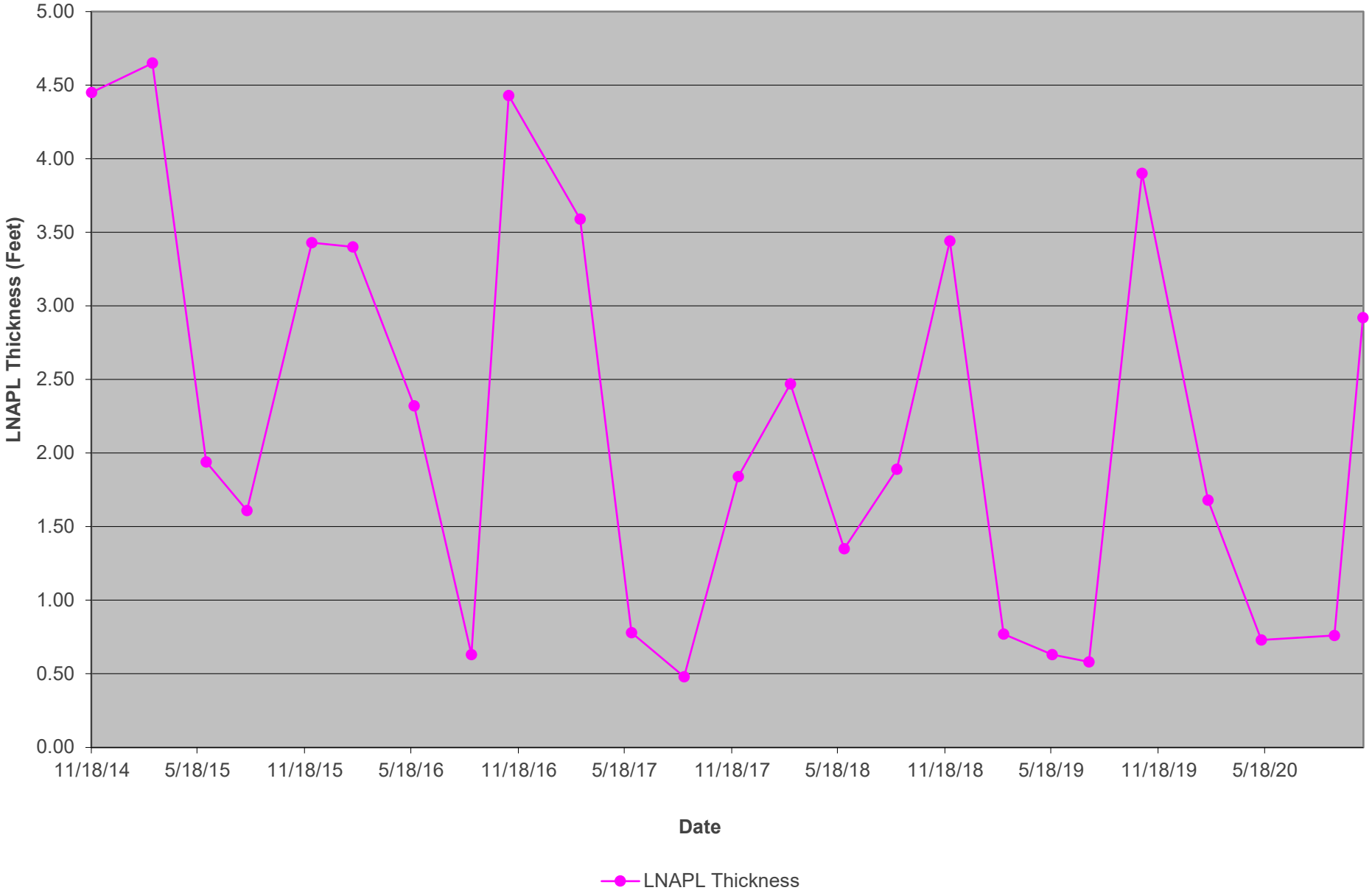
Notes:

1. Shaded cells indicates exceedance of New Mexico Water Quality Control Commission regulatory standard.
2. Bold indicates detection.
3. PAH analyses by EPA Method 8270.
4. 2008 through 2010 analytical results collected by NOVA.
5. Flag B--The same analyte is found in the associated blank.
6. Flag J--The identification of the analyte is acceptable; the reported value is an estimate.

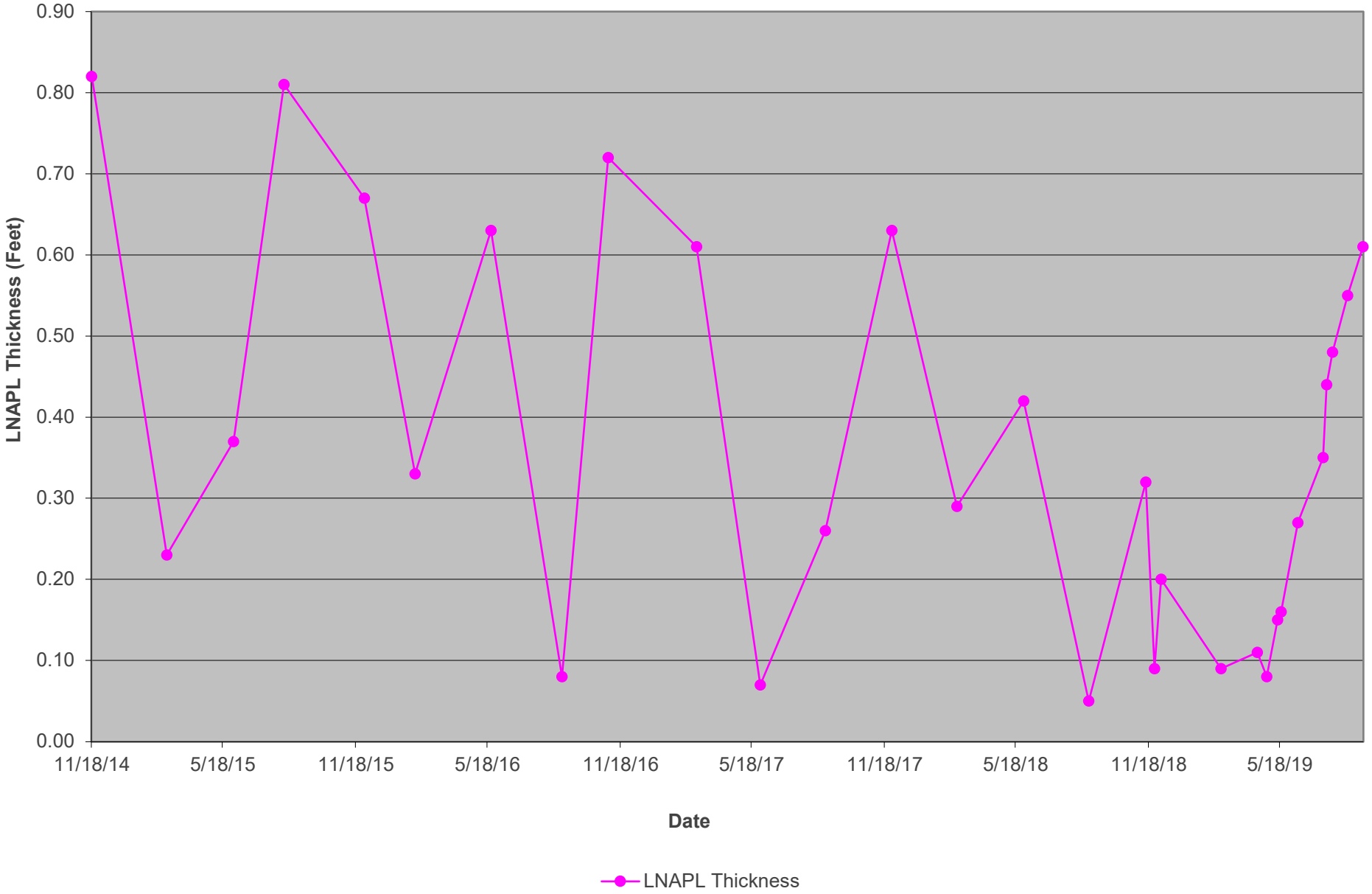
Appendices

Appendix A
Charts of LNAPL Thicknesses in Recovery Wells vs. Time

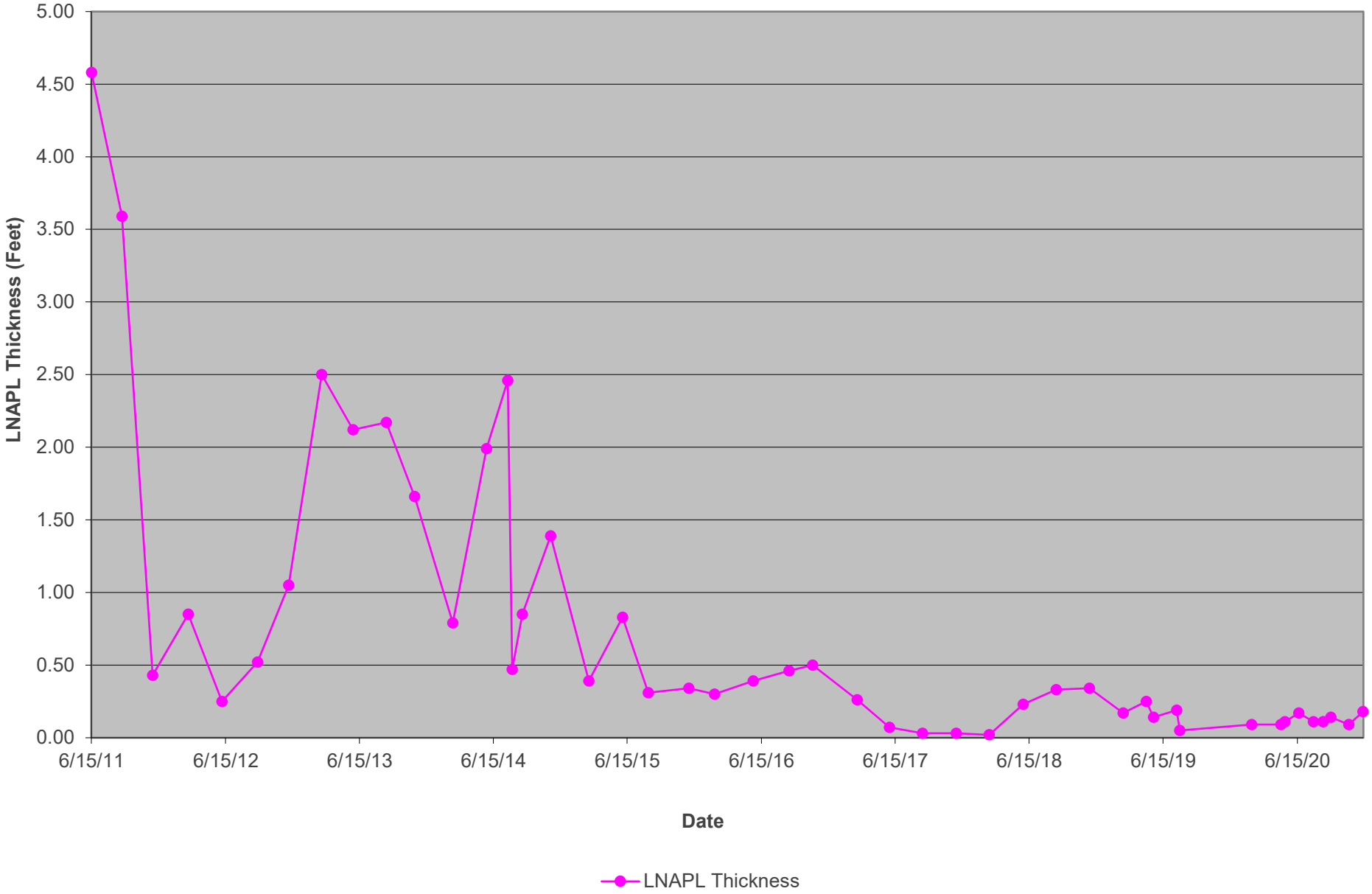
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-3R



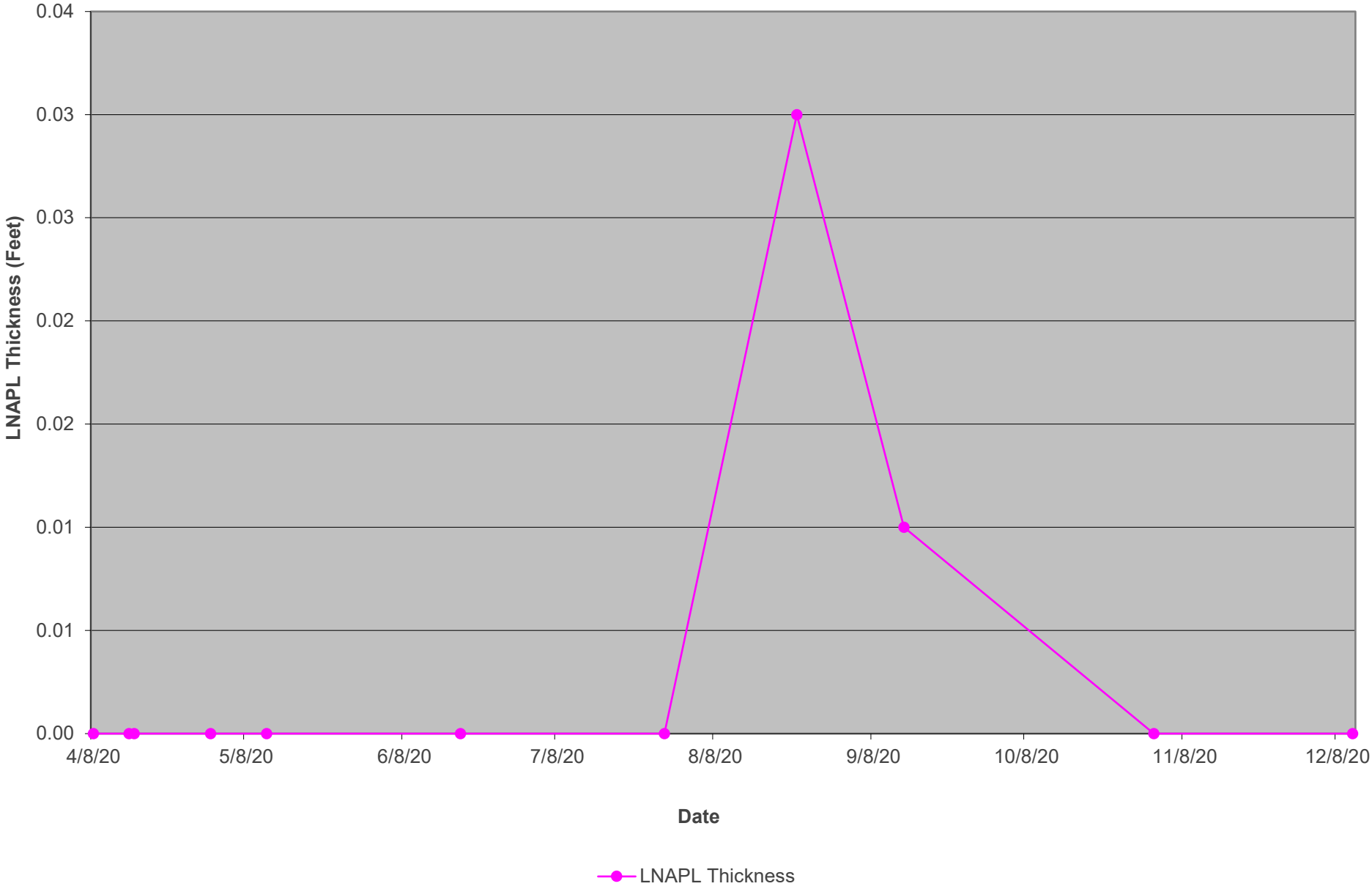
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-4R



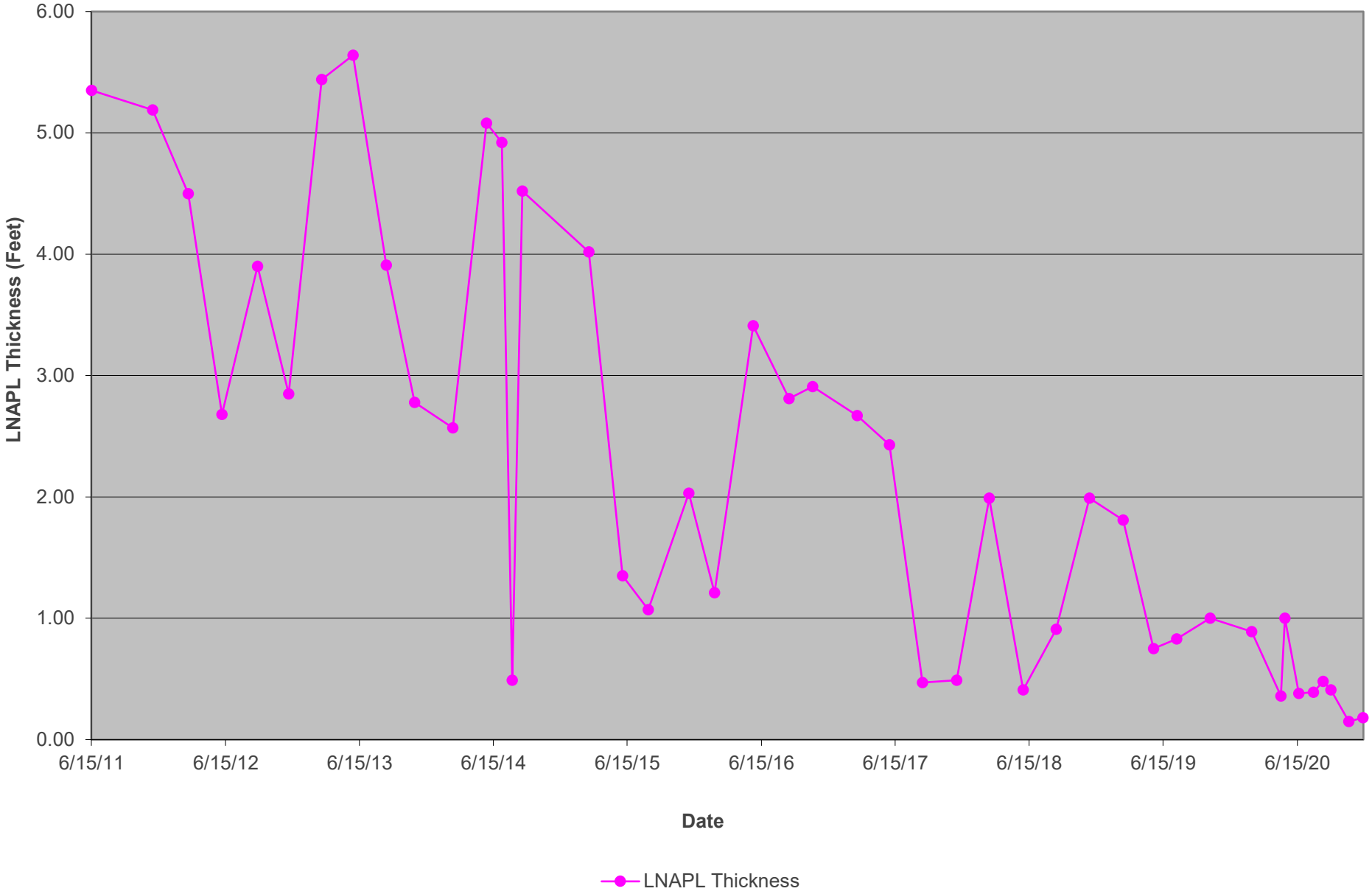
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-9



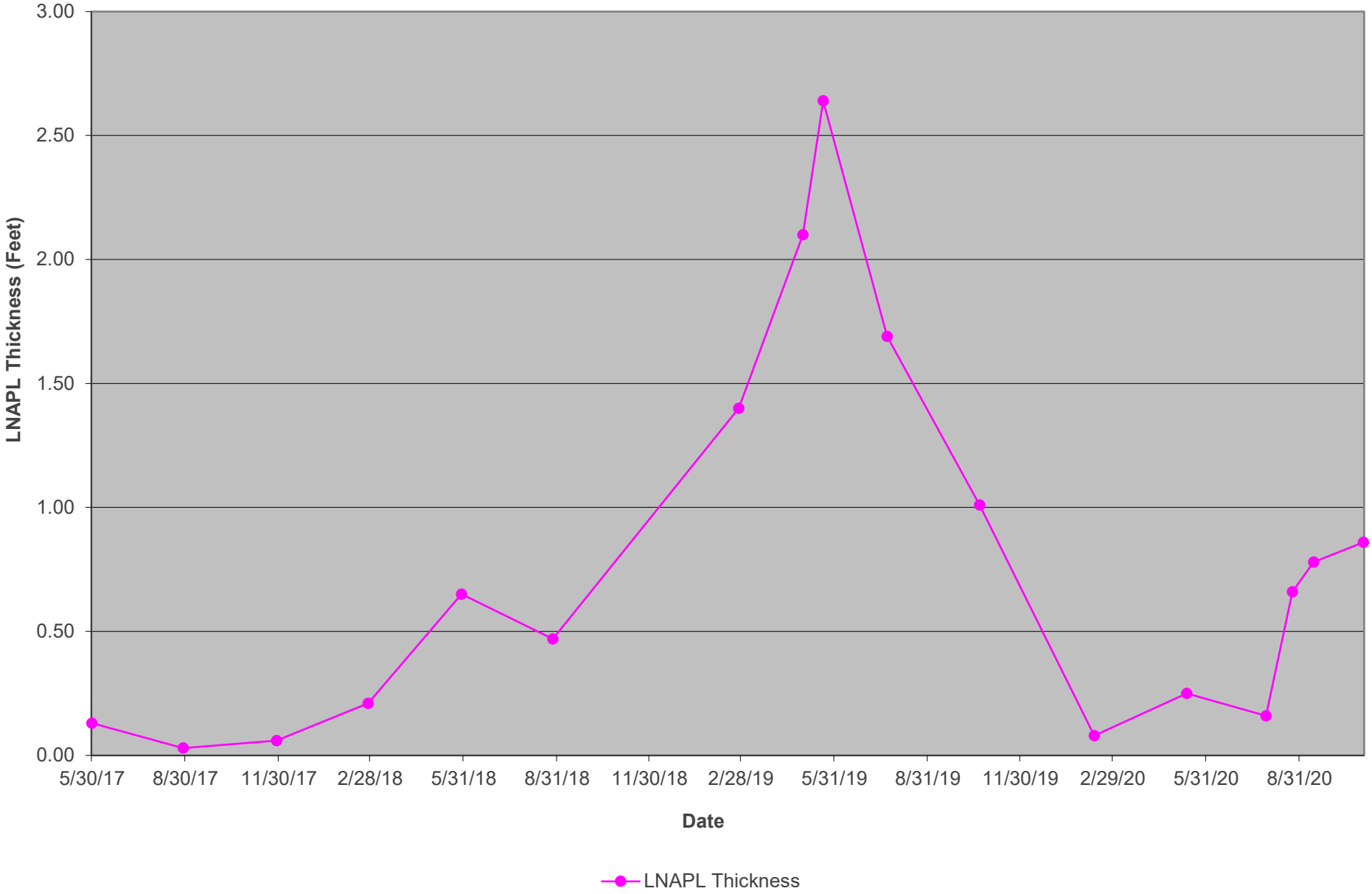
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-10R



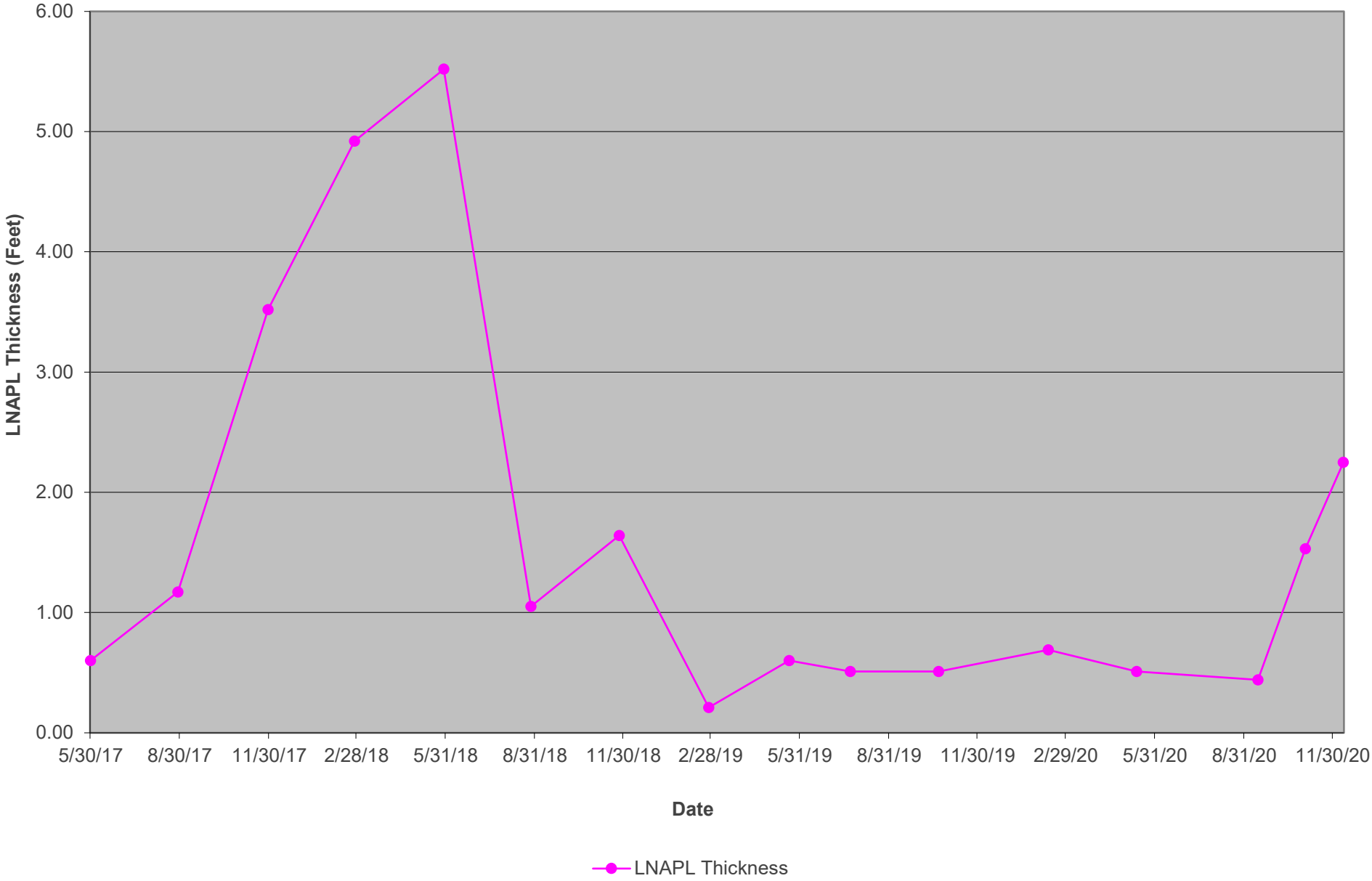
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-11



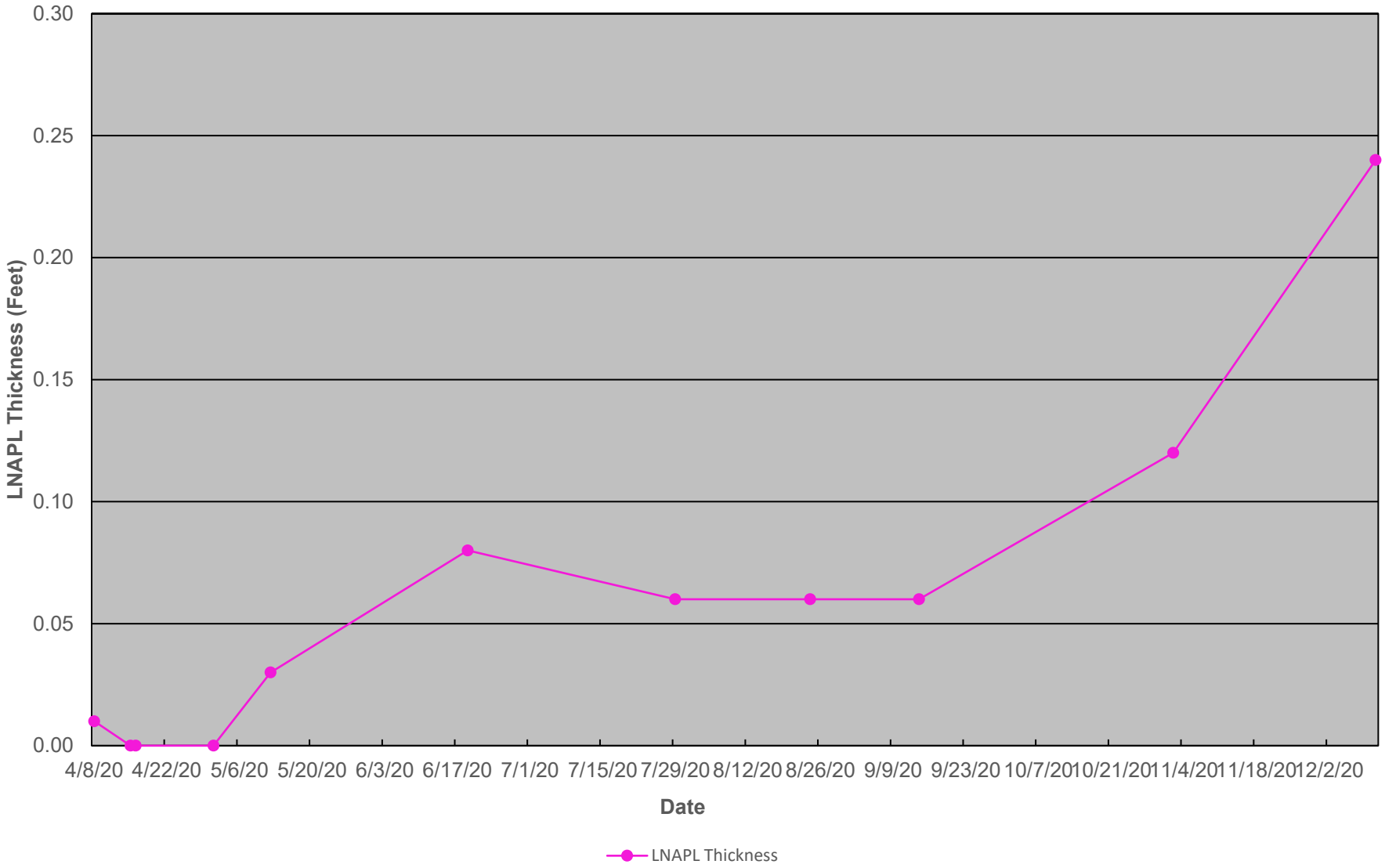
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-16



DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-17

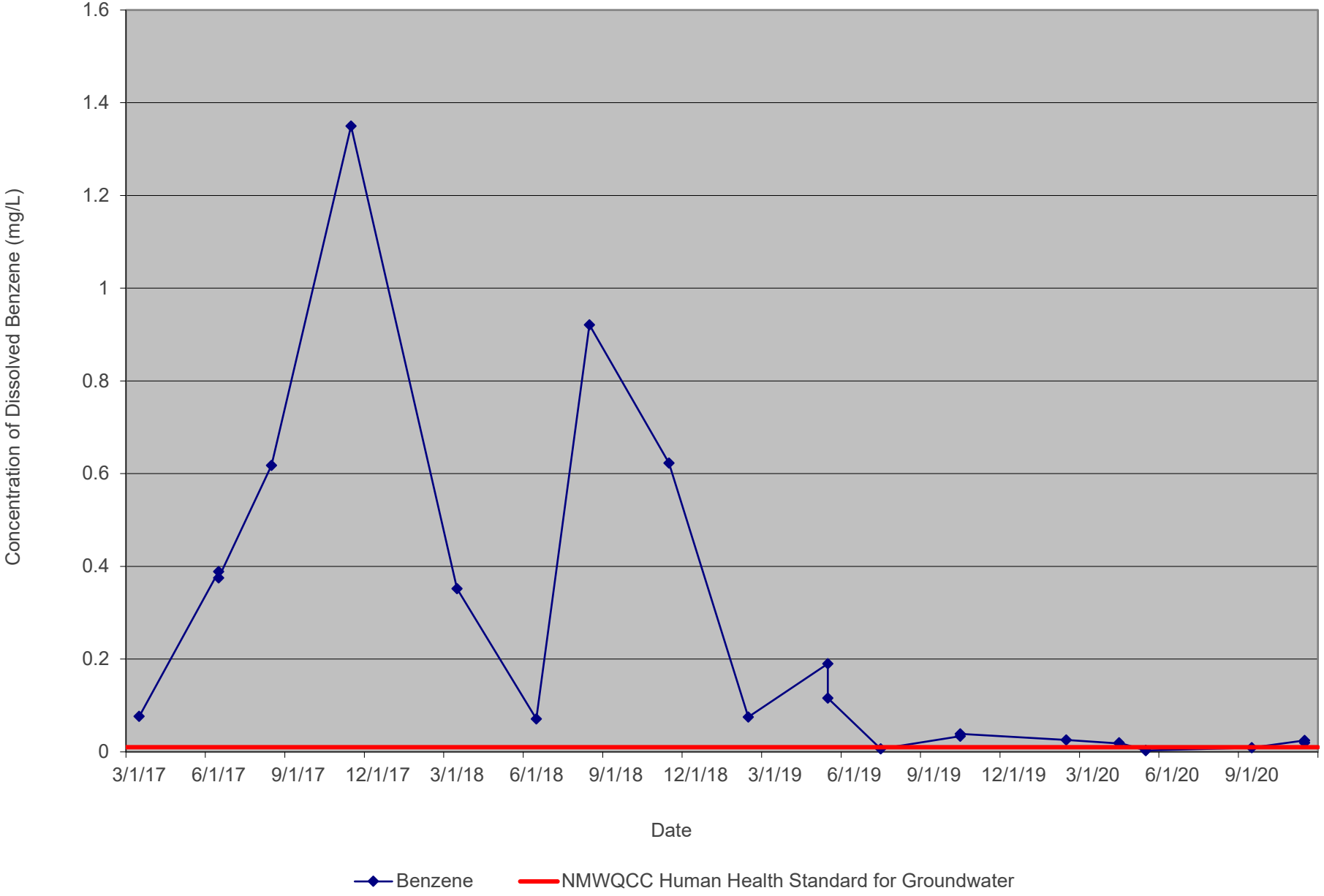


DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
LNAPL THICKNESS vs. TIME
RW-18

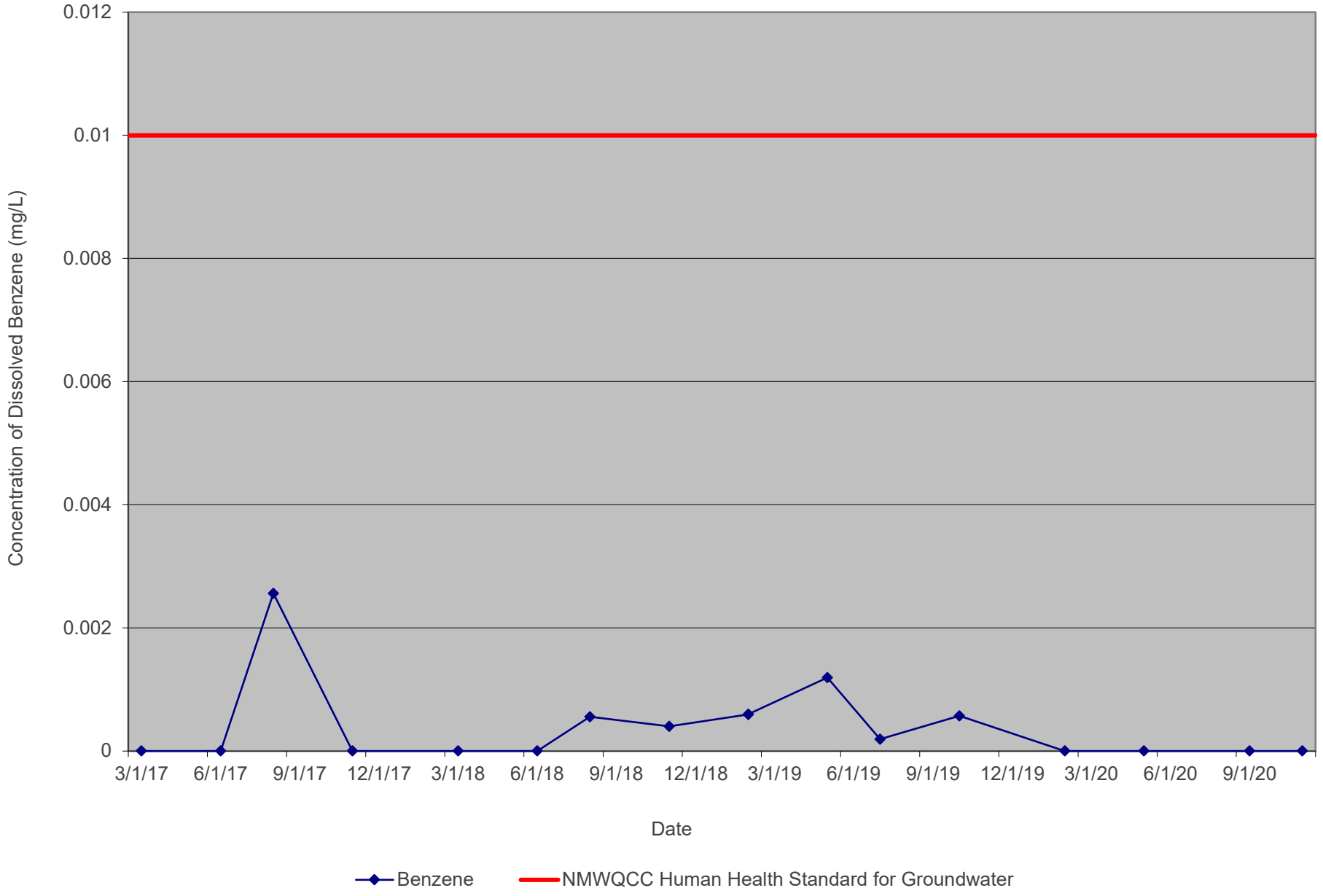


Appendix B
Charts of Concentrations of Dissolved Benzene in Monitor and Recovery Wells vs. Time

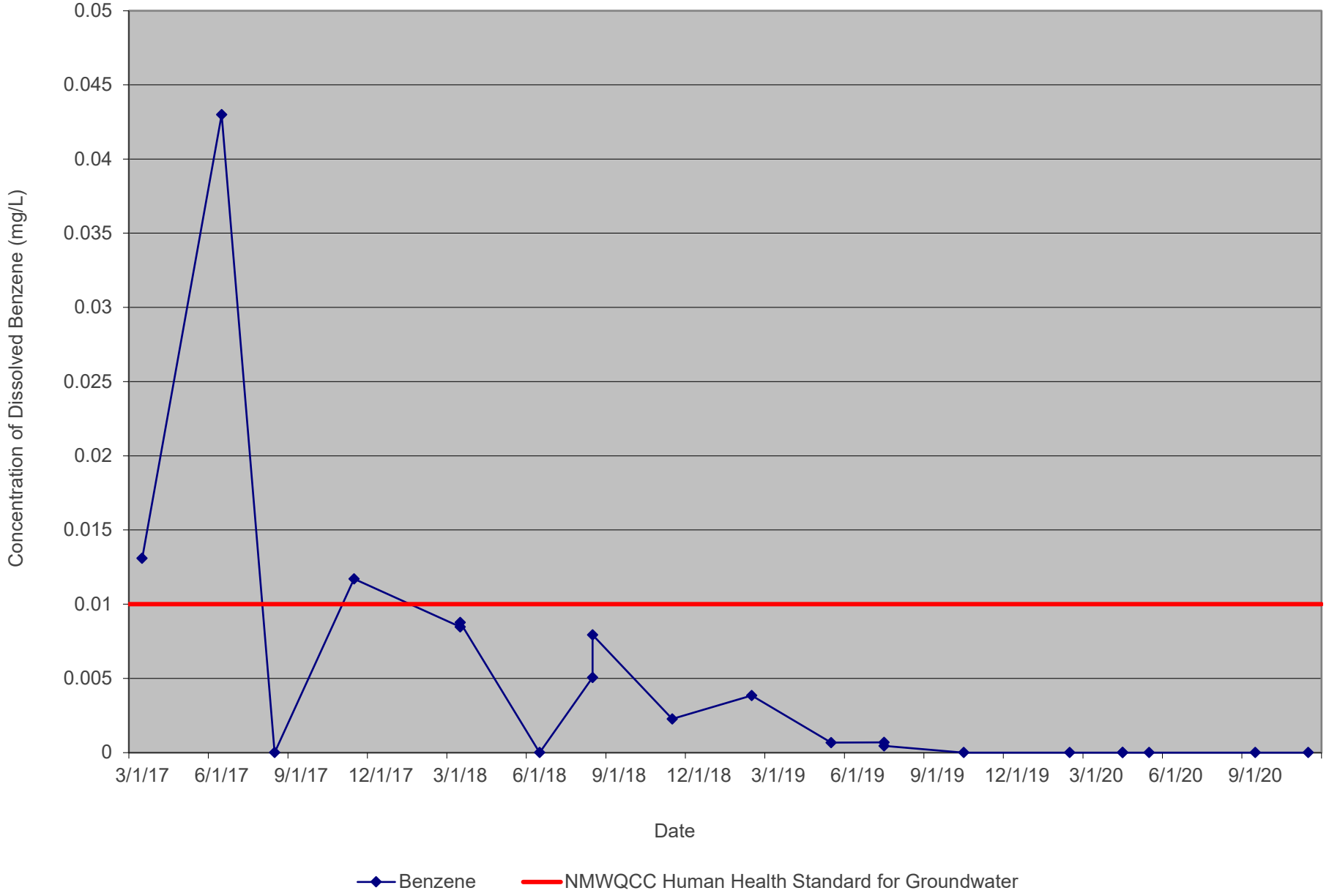
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-8R



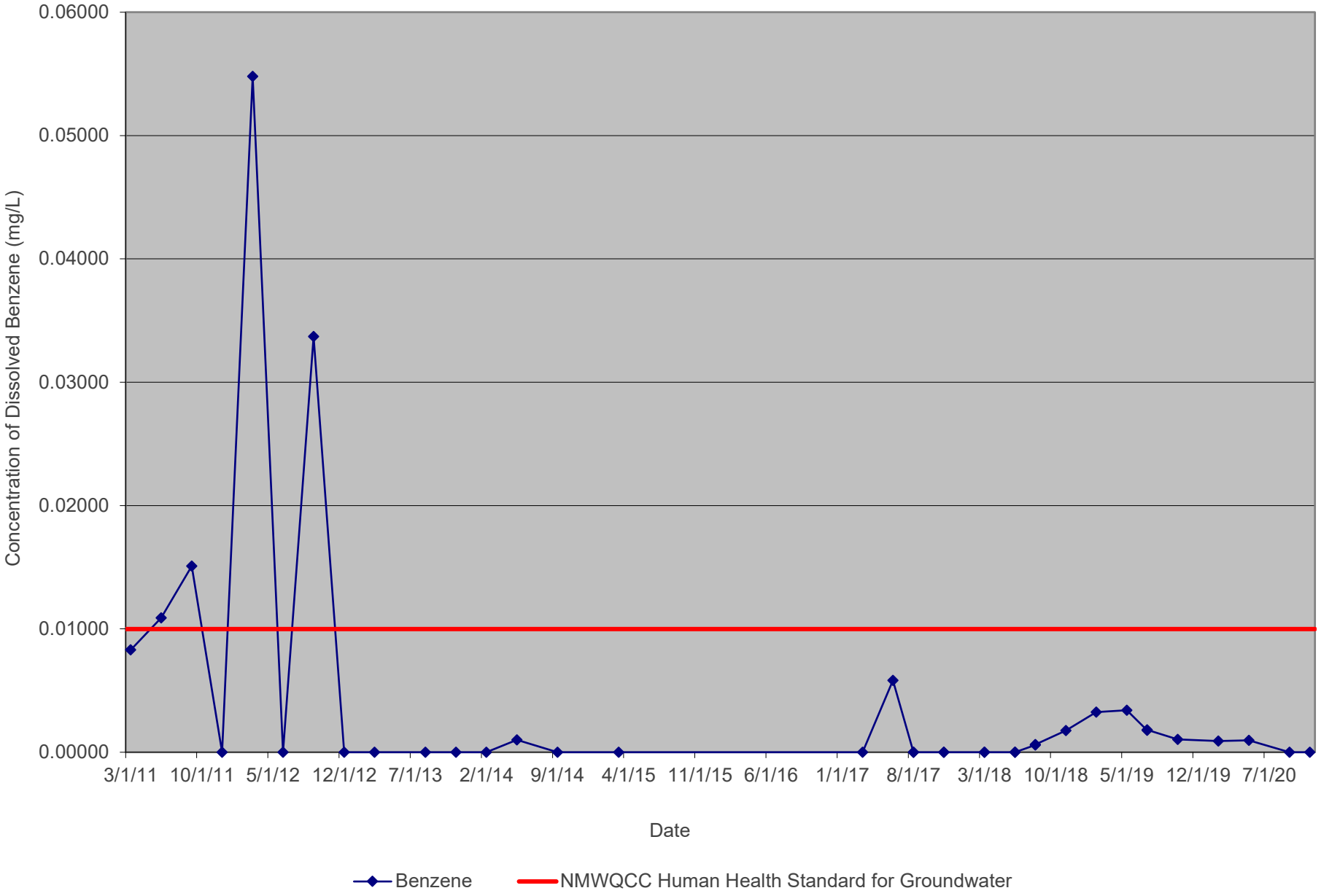
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-10R



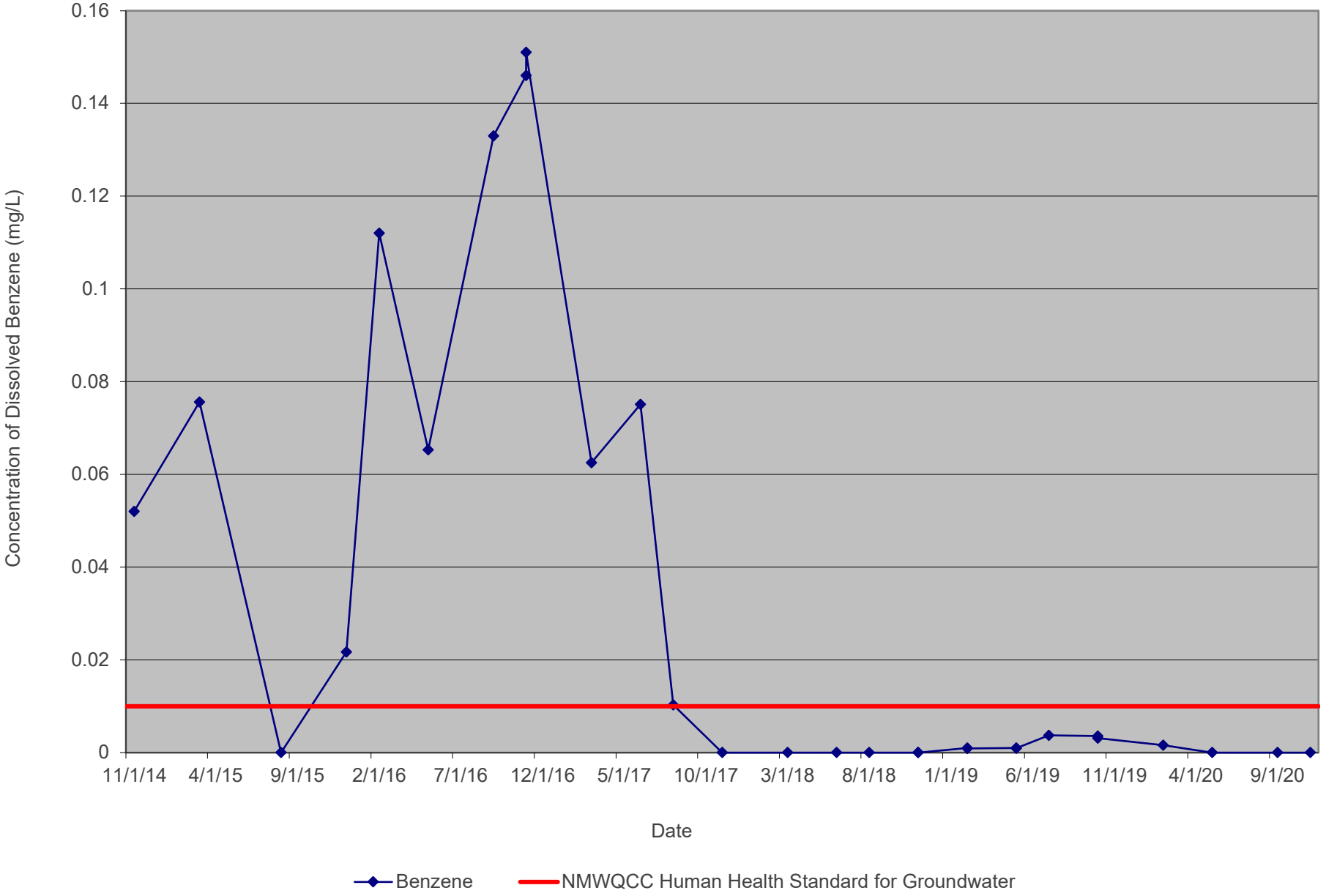
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
MW-17



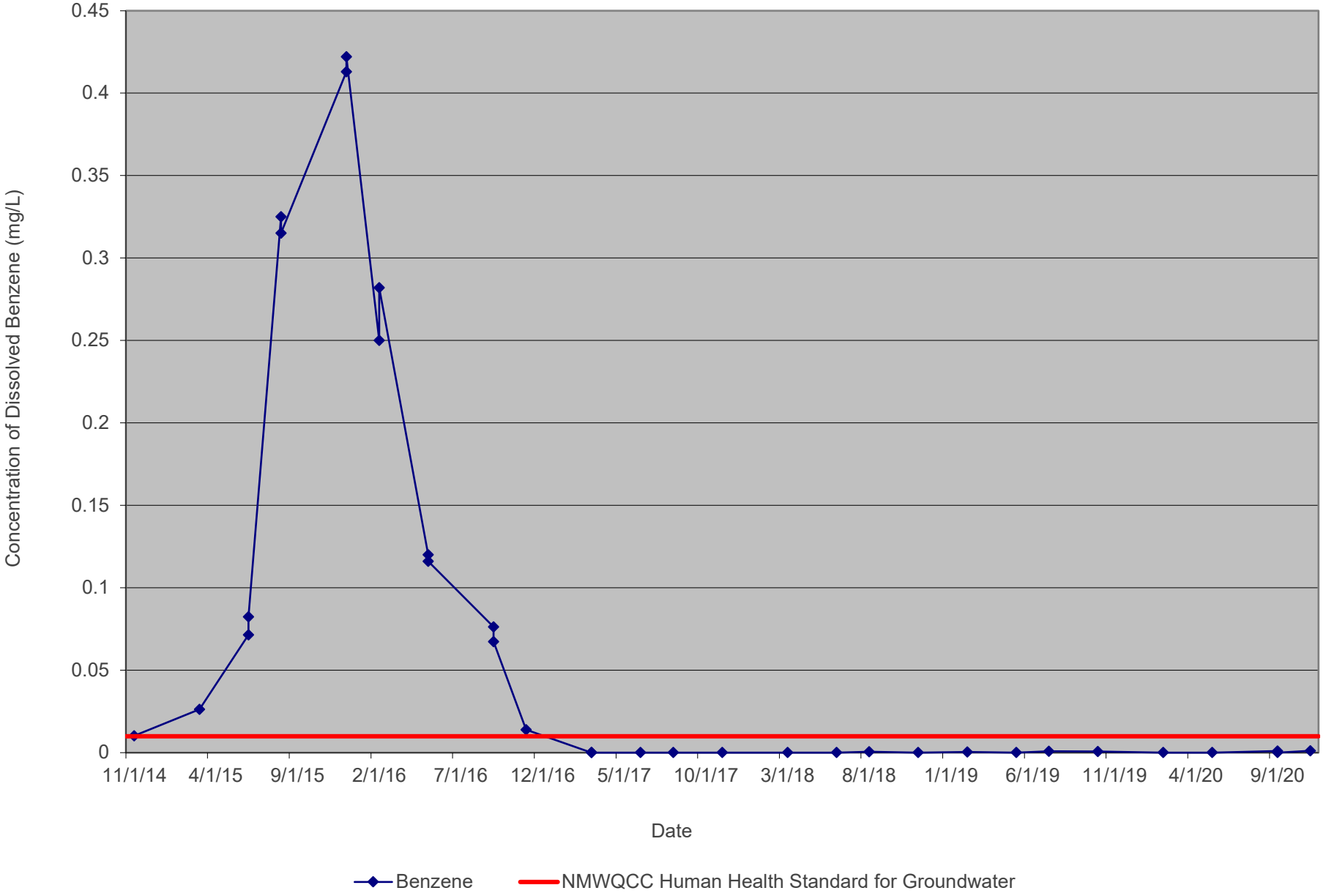
DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-5/5R



DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-14



DARR ANGELL #4, SRS #2001-10876
LEA COUNTY, NEW MEXICO
NMOCD AP-007
CONCENTRATION OF DISSOLVED BENZENE vs. TIME
RW-15



Appendix C
Certified Analytical Reports
(not included in draft and printed reports)

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

February 25, 2020

Plains All American, LP - GHD

Sample Delivery Group:	L1189924
Samples Received:	02/15/2020
Project Number:	074684
Description:	Darr Angell #4 - Lea County, New Mexico
Site:	SRS#: 2001-10876
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.

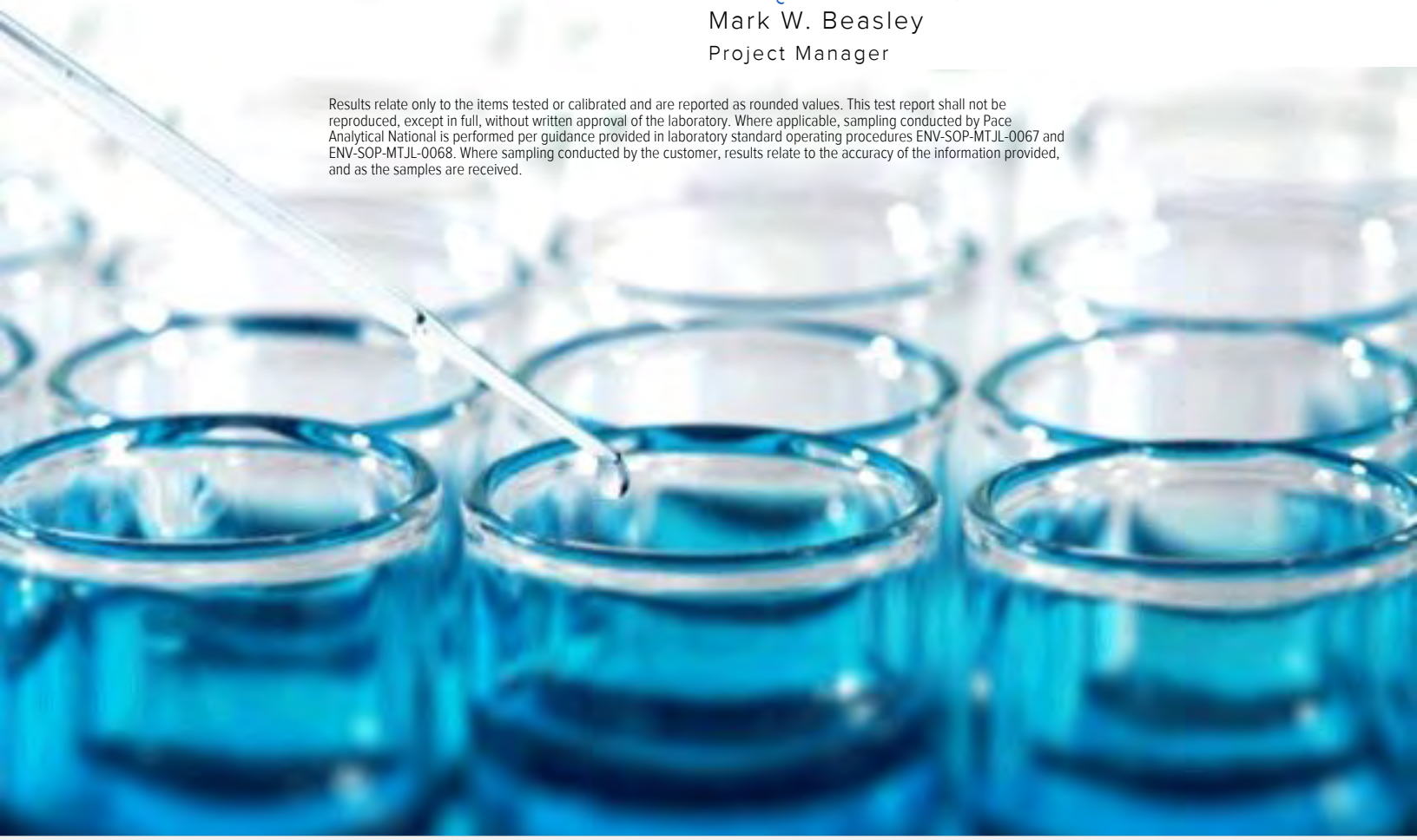


TABLE OF CONTENTS

MW-4R L1189924-01 GW

Collected by: George Song | Collected date/time: 02/13/20 09:30 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 12:52	02/17/20 12:52	ACG	Mt. Juliet, TN

MW-16 L1189924-02 GW

Collected by: George Song | Collected date/time: 02/13/20 09:45 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 13:15	02/17/20 13:15	ACG	Mt. Juliet, TN

RW-15 L1189924-03 GW

Collected by: George Song | Collected date/time: 02/13/20 10:15 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 13:37	02/17/20 13:37	ACG	Mt. Juliet, TN

MW-10R L1189924-04 GW

Collected by: George Song | Collected date/time: 02/13/20 10:25 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 13:59	02/17/20 13:59	ACG	Mt. Juliet, TN

RW-5R L1189924-05 GW

Collected by: George Song | Collected date/time: 02/13/20 10:45 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 14:22	02/17/20 14:22	ACG	Mt. Juliet, TN

MW-12R L1189924-06 GW

Collected by: George Song | Collected date/time: 02/13/20 10:50 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 14:44	02/17/20 14:44	ACG	Mt. Juliet, TN

RW-14 L1189924-07 GW

Collected by: George Song | Collected date/time: 02/13/20 11:10 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 15:06	02/17/20 15:06	ACG	Mt. Juliet, TN

MW-17 L1189924-08 GW

Collected by: George Song | Collected date/time: 02/13/20 11:25 | Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 15:36	02/17/20 15:36	ACG	Mt. Juliet, TN

MW-8R L1189924-09 GW

Collected by: George Song
Collected date/time: 02/13/20 11:45
Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 15:58	02/17/20 15:58	ACG	Mt. Juliet, TN

MW-3R L1189924-10 GW

Collected by: George Song
Collected date/time: 02/13/20 11:50
Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 16:20	02/17/20 16:20	ACG	Mt. Juliet, TN

DUP-1 L1189924-11 GW

Collected by: George Song
Collected date/time: 02/13/20 00:00
Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 16:42	02/17/20 16:42	ACG	Mt. Juliet, TN

DUP-2 L1189924-12 GW

Collected by: George Song
Collected date/time: 02/13/20 00:00
Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 17:04	02/17/20 17:04	ACG	Mt. Juliet, TN

TRIP BLANK L1189924-13 GW

Collected by: George Song
Collected date/time: 02/13/20 00:00
Received date/time: 02/15/20 08:30

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1429220	1	02/17/20 12:30	02/17/20 12:30	ACG	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

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: 02/25/2020 14:47
Project Name: Darr Angell #4 - Lea County, New Mexico	Laboratory Job Number: L1189924-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1429220

#[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: 02/25/2020 14:47
Project Name: Darr Angell #4 - Lea County, New Mexico	Laboratory Job Number: L1189924-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1429220

#[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: 02/25/2020 14:47
Project Name: Darr Angell #4 - Lea County, New Mexico	Laboratory Job Number: L1189924-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12 and 13
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1429220

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	0.000191	J	0.000190	0.000500	0.000500	1	02/17/2020 12:52	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 12:52	WG1429220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/17/2020 12:52	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 12:52	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*02/17/2020 12:52*	WG1429220

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	02/17/2020 13:15	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 13:15	WG1429220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/17/2020 13:15	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 13:15	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*02/17/2020 13:15*	WG1429220

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	02/17/2020 13:37	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 13:37	WG1429220
Ethylbenzene	0.000738		0.000160	0.000500	0.000500	1	02/17/2020 13:37	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 13:37	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*95.9*				*79.0-125*		*02/17/2020 13:37*	WG1429220

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	02/17/2020 13:59	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 13:59	WG1429220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/17/2020 13:59	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 13:59	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*99.2*				*79.0-125*		*02/17/2020 13:59*	WG1429220

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	0.000901		0.000190	0.000500	0.000500	1	02/17/2020 14:22	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 14:22	WG1429220
Ethylbenzene	0.000350	J	0.000160	0.000500	0.000500	1	02/17/2020 14:22	WG1429220
Total Xylene	0.00313		0.000510	0.00150	0.00150	1	02/17/2020 14:22	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*02/17/2020 14:22*	WG1429220

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	02/17/2020 14:44	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 14:44	WG1429220
Ethylbenzene	0.000637		0.000160	0.000500	0.000500	1	02/17/2020 14:44	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 14:44	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*99.5*				*79.0-125*		*02/17/2020 14:44*	WG1429220

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	0.00158		0.000190	0.000500	0.000500	1	02/17/2020 15:06	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 15:06	WG1429220
Ethylbenzene	0.000912		0.000160	0.000500	0.000500	1	02/17/2020 15:06	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 15:06	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*02/17/2020 15:06*	WG1429220

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	02/17/2020 15:36	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 15:36	WG1429220
Ethylbenzene	0.000663		0.000160	0.000500	0.000500	1	02/17/2020 15:36	WG1429220
Total Xylene	0.00222		0.000510	0.00150	0.00150	1	02/17/2020 15:36	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*02/17/2020 15:36*	WG1429220

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	0.0254		0.000190	0.000500	0.000500	1	02/17/2020 15:58	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 15:58	WG1429220
Ethylbenzene	0.00280		0.000160	0.000500	0.000500	1	02/17/2020 15:58	WG1429220
Total Xylene	0.0167		0.000510	0.00150	0.00150	1	02/17/2020 15:58	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*02/17/2020 15:58*	WG1429220

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	02/17/2020 16:20	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 16:20	WG1429220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/17/2020 16:20	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 16:20	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*02/17/2020 16:20*	WG1429220

DUP-1
Collected date/time: 02/13/20 00:00
L1189924

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	0.0244		0.000190	0.000500	0.000500	1	02/17/2020 16:42	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 16:42	WG1429220
Ethylbenzene	0.00222		0.000160	0.000500	0.000500	1	02/17/2020 16:42	WG1429220
Total Xylene	0.0169		0.000510	0.00150	0.00150	1	02/17/2020 16:42	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*02/17/2020 16:42*	WG1429220

DUP-2
Collected date/time: 02/13/20 00:00
L1189924

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	02/17/2020 17:04	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 17:04	WG1429220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/17/2020 17:04	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 17:04	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*02/17/2020 17:04*	WG1429220

TRIP BLANK
Collected date/time: 02/13/20 00:00
L1189924

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	02/17/2020 12:30	WG1429220
Toluene	U		0.000412	0.00100	0.00100	1	02/17/2020 12:30	WG1429220
Ethylbenzene	U		0.000160	0.000500	0.000500	1	02/17/2020 12:30	WG1429220
Total Xylene	U		0.000510	0.00150	0.00150	1	02/17/2020 12:30	WG1429220
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*02/17/2020 12:30*	WG1429220

Method Blank (MB)

(MB) R3502421-3 02/17/20 11:22

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)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3502421-1 02/17/20 10:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0558	112	77.0-122	
Toluene	0.0500	0.0543	109	80.0-121	
Ethylbenzene	0.0500	0.0511	102	80.0-123	
Total Xylene	0.150	0.150	100	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*99.6*	*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.

ACCREDITATIONS & LOCATIONS

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.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
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]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

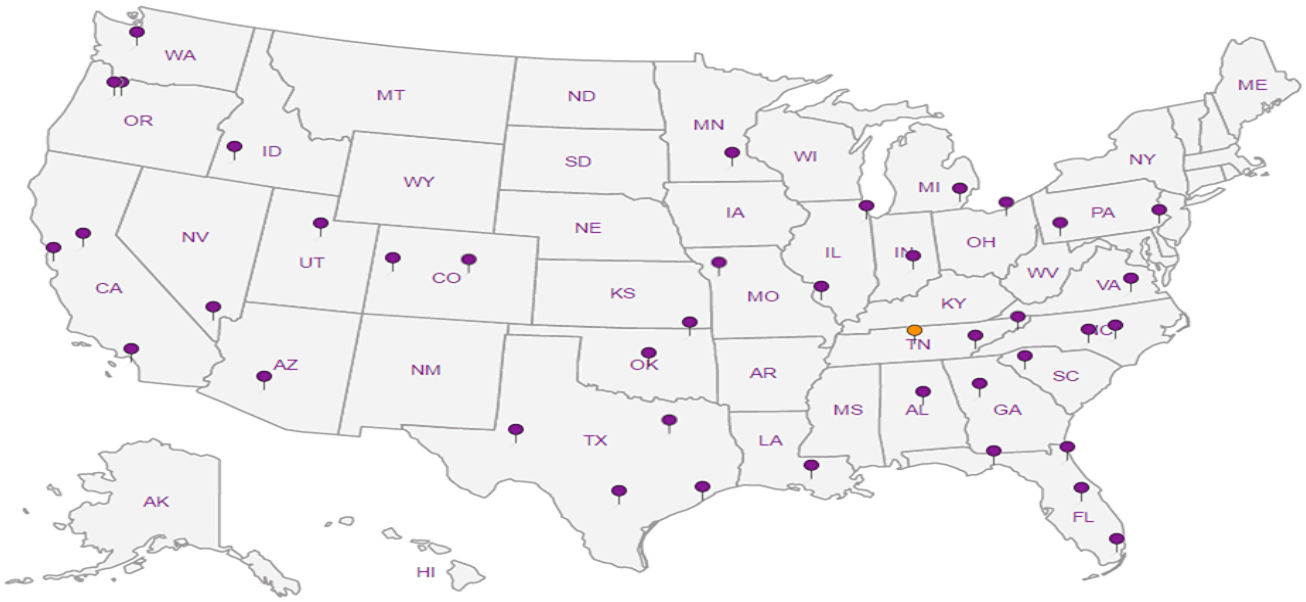
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Plains All American, LP - GHD
Attn - Camille Bryant
2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com; christopher.knight@ghd.com,**

Project Description: **Darr Angell #4 - Lea County, Ne**

City/State Collected: Lovington, NM

Please Circle: PT (MT) CT ET

Phone: **432-686-0086**
Fax:

Client Project # **074684**

Lab Project # **PLAINSGHD-074684**

Collected by (print): George Sens

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Site/Facility ID # **SRS#: 2001-10876**

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

No. of Cntrs

Analysis / Container / Preservative

BTEX 40mlAmb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	Cntrs	Remarks	Sample # (lab only)
MW-4R	Grab	GW	DTW	2/13/20	930	3		-01
MW-16		GW			945			-02
RW-15		GW			1015			-03
MW-10R		GW			1025			-04
RW-5R		GW			1045			-05
MW-12R		GW			1060			-06
RW-14		GW			1110			-07
MW-17		GW			1125			-08
MW-8R		GW			1145			-09
MW-3R		GW			1150			-10

Chain of Custody Page ___ of ___

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 # L1189924

Table #

Acctnum: **PLAINSGHD**
Template: **T139793**
Prelogin: **P754975**
PM: **134 - Mark W. Beasley**
PB:

Shipped Via:

* 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 X FedEx __ Courier _____

Tracking # 3504 0333 1210

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)	2/14/20	1600	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.2 °C Bottles Received: 28 36
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/15/20 Time: 08:30

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:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Pres Chk

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com; christopher.knight@ghd.com,**

Project Description: **Darr Angell #4 - Lea County, Ne**

City/State Collected: Lovington, NM

Please Circle: PT (MT) CT ET

Phone: **432-686-0086**
Fax:

Client Project # **074684**

Lab Project # **PLAINSGHD-074684**

Collected by (print): George Sey

Site/Facility ID # **SRS#: 2001-10876**

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

Analysis / Container / Preservative

BTEX 40mlAmb-HCl

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	Remarks	Sample # (lab only)
Dup - 1	Grab	GW	N/a	N/a	N/a	3		-11
Dup - 2	Grab	GW	↓	↓	↓	3		-12
Trip blank	Grab	GW	↓	↓	↓	1		-13
		GW						
		GW						
		GW						
		GW						
		GW						
		GW						
		GW						

Chain of Custody Page ___ of ___

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 # L1109924

Table #

Acctnum: **PLAINSGHD**
Template: **T139793**
Prelogin: **P754975**
PM: **134 - Mark W. Beasley**
PB:

Shipped Via:

* 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 X FedEx __ Courier _____

Tracking # 3904 0333 1210

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	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.2 °C .5+.1=.6	Bottles Received: 7836
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 2/15/20	Time: 08:30

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:
Accounts Payable
505 N. Big Spring, Ste. 600
Midland, TX 79701

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com; christopher.knight@ghd.com,**

Project Description: **Darr Angell #4 - Lea County, Ne**

City/State Collected:

Please Circle: PT MT CT ET

Phone: **432-686-0086**
Fax:

Client Project # **074684**

Lab Project # **PLAINSGHD-074684**

Collected by (print):

Site/Facility ID # **SRS#: 2001-10876**

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

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl
		GW					
		GW					
		GW					
		GW					
		GW					
TRIP BLANK		GW					

Chain of Custody Page ___ of ___

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

SDG # L1189924

Table #

Acctnum: **PLAINSGHD**
Template: **T139793**
Prelogin: **P754975**
PM: **134 - Mark W. Beasley**
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:

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	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.2 °C Bottles Received: 36	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time: 0830	Hold: Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

Login #: L1189924	Client: PLAINSGHD	Date: 02/15/20	Evaluated by: Hailey Melson

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.		Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Couri
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.	x	Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments:

Time for ID: MW-10R is different on the sample than on the COC. COC says 1025 while sample says 1115. Loged per COC.

Client informed by:		Call		Email		Voice Mail		Date: 2/15/20	Time: 1650
TSR Initials: MB	Client Contact:								

Login Instructions:

Log per COC

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

April 15, 2020

GHD - Niagra Falls, NY

Sample Delivery Group:	L1207301
Samples Received:	04/09/2020
Project Number:	11209899
Description:	Darr Angell #4

Report To: Becky Haskell
2055 Hiagra Falls Blvd.
Niagra Falls, NY 14304

Entire Report Reviewed By:

Jared Starkey
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.

TABLE OF CONTENTS

MW-17 L1207301-01 GW

Collected by: Heath Boyd
Collected date/time: 04/08/20 09:10
Received date/time: 04/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1458719	1	04/10/20 19:12	04/10/20 19:12	JAH	Mt. Juliet, TN

MW-8R L1207301-02 GW

Collected by: Heath Boyd
Collected date/time: 04/08/20 09:30
Received date/time: 04/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1459211	1	04/11/20 12:06	04/11/20 12:06	BMB	Mt. Juliet, TN

DUP-1 L1207301-03 GW

Collected by: Heath Boyd
Collected date/time: 04/08/20 00:00
Received date/time: 04/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1459211	1	04/11/20 12:29	04/11/20 12:29	BMB	Mt. Juliet, TN

DUP-2 L1207301-04 GW

Collected by: Heath Boyd
Collected date/time: 04/08/20 00:00
Received date/time: 04/09/20 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1459211	1	04/11/20 12:51	04/11/20 12:51	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.

Jared Starkey
Project Manager

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result ug/l	Qualifier	MDL ug/l	RDL ug/l	Dilution	Analysis date / time	Batch
Benzene	U		0.190	0.500	1	04/10/2020 19:12	WG1458719
Toluene	U		0.412	1.00	1	04/10/2020 19:12	WG1458719
Ethylbenzene	0.255	J	0.160	0.500	1	04/10/2020 19:12	WG1458719
Total Xylene	2.88		0.510	1.50	1	04/10/2020 19:12	WG1458719
(S) a,a,a-Trifluorotoluene(PID)	*101*			*79.0-125*		*04/10/2020 19:12*	WG1458719

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	18.0		0.190	0.500	1	04/11/2020 12:06	WG1459211
Toluene	U		0.412	1.00	1	04/11/2020 12:06	WG1459211
Ethylbenzene	0.507		0.160	0.500	1	04/11/2020 12:06	WG1459211
Total Xylene	5.94		0.510	1.50	1	04/11/2020 12:06	WG1459211
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*		*04/11/2020 12:06*	WG1459211

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	U		0.190	0.500	1	04/11/2020 12:29	WG1459211
Toluene	U		0.412	1.00	1	04/11/2020 12:29	WG1459211
Ethylbenzene	0.318	J	0.160	0.500	1	04/11/2020 12:29	WG1459211
Total Xylene	1.49	J	0.510	1.50	1	04/11/2020 12:29	WG1459211
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*		*04/11/2020 12:29*	WG1459211

Volatile Organic Compounds (GC) by Method 8021B

Analyte	Result	Qualifier	MDL	RDL	Dilution	Analysis	Batch
	ug/l		ug/l	ug/l		date / time	
Benzene	19.6		0.190	0.500	1	04/11/2020 12:51	WG1459211
Toluene	U		0.412	1.00	1	04/11/2020 12:51	WG1459211
Ethylbenzene	0.636		0.160	0.500	1	04/11/2020 12:51	WG1459211
Total Xylene	4.90		0.510	1.50	1	04/11/2020 12:51	WG1459211
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*		*04/11/2020 12:51*	WG1459211

Method Blank (MB)

(MB) R3517549-3 04/10/20 10:48

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.190	0.500
Toluene	U		0.412	1.00
Ethylbenzene	U		0.160	0.500
Total Xylene	U		0.510	1.50
(S) a,a,a-Trifluorotoluene(PID)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3517549-1 04/10/20 09:43

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	50.0	42.6	85.2	77.0-122	
Toluene	50.0	45.9	91.8	80.0-121	
Ethylbenzene	50.0	50.5	101	80.0-123	
Total Xylene	150	146	97.3	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*100*	*79.0-125*	

Method Blank (MB)

(MB) R3518265-2 04/11/20 10:58

Analyte	MB Result ug/l	MB Qualifier	MB MDL ug/l	MB RDL ug/l
Benzene	U		0.190	0.500
Toluene	U		0.412	1.00
Ethylbenzene	U		0.160	0.500
Total Xylene	U		0.510	1.50
(S) a,a,a-Trifluorotoluene(PID)	*104*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3518265-1 04/11/20 09:51

Analyte	Spike Amount ug/l	LCS Result ug/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	50.0	51.8	104	77.0-122	
Toluene	50.0	54.1	108	80.0-121	
Ethylbenzene	50.0	54.4	109	80.0-123	
Total Xylene	150	148	98.7	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.
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 Reporting Limit (or MDL where applicable).
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.

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.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
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]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

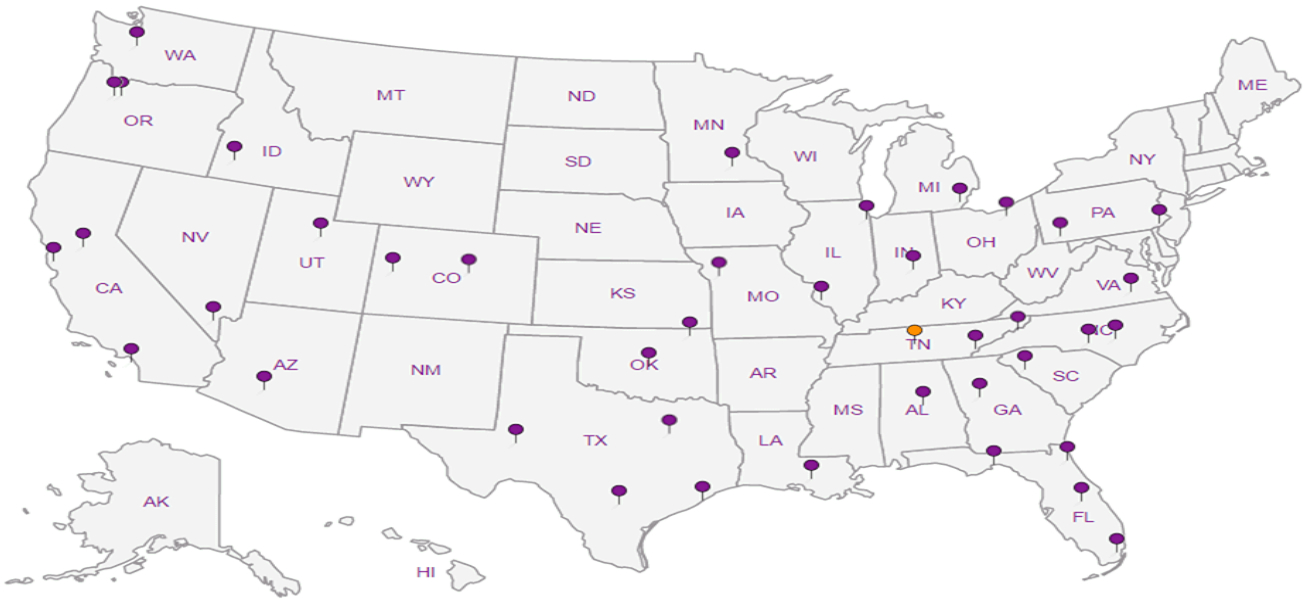
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
GHD - Niagra Falls, NY	11209899	L1207301	04/15/20 10:31	12 of 13

GHD Services
2135 S. Loop 250 W.
Midland, Texas 79703

Billing Information:
GHD Services Inc. - 340
2055 Niagara Falls Blvd.
Niagara Falls, New York 14304
USA
APinvoices-340@ghd.com

Report to: **Becky Haskell**

Email To: **becky.haskell@ghd.com**

Project Description: **Darr Angell #4**

City/State Collected: **Lovington, New Mexico**

Phone: **432-686-0086**
Fax: **432-686-0186**

Client Project # **11209899**

Lab Project #

Collected by (print): **Heath Boyd**

Site/Facility ID #

P.O. # **34043667**

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

Pres Chk

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 8021B	Remarks	Sample # (lab only)
MW-17		GW		04/8/20	0910	3	X		-01
MW-8R		GW		04/8/20	0930	3	X		02
Dup-1		GW		04/8/20	-	3	X		03
Dup-2		GW		04/8/20	-	3	X		04

Chain of Custody Page ___ of ___

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 # L1207361
D053

Acctnum:
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:
SSOW-11209899-2020-002, Level II, Report MDLs, PQLs, and J Values

pH _____ Temp _____
Flow _____ Other _____

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

Tracking # 3917 4227 7174

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/h

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	4/8/20	1700	
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: 4.7°C
2.1+0=2.1

Bottles Received: 12

Date: 4-9-20 Time: 0845

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

May 27, 2020

Plains All American, LP - GHD

Sample Delivery Group:	L1219565
Samples Received:	05/16/2020
Project Number:	11209899/02
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
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.

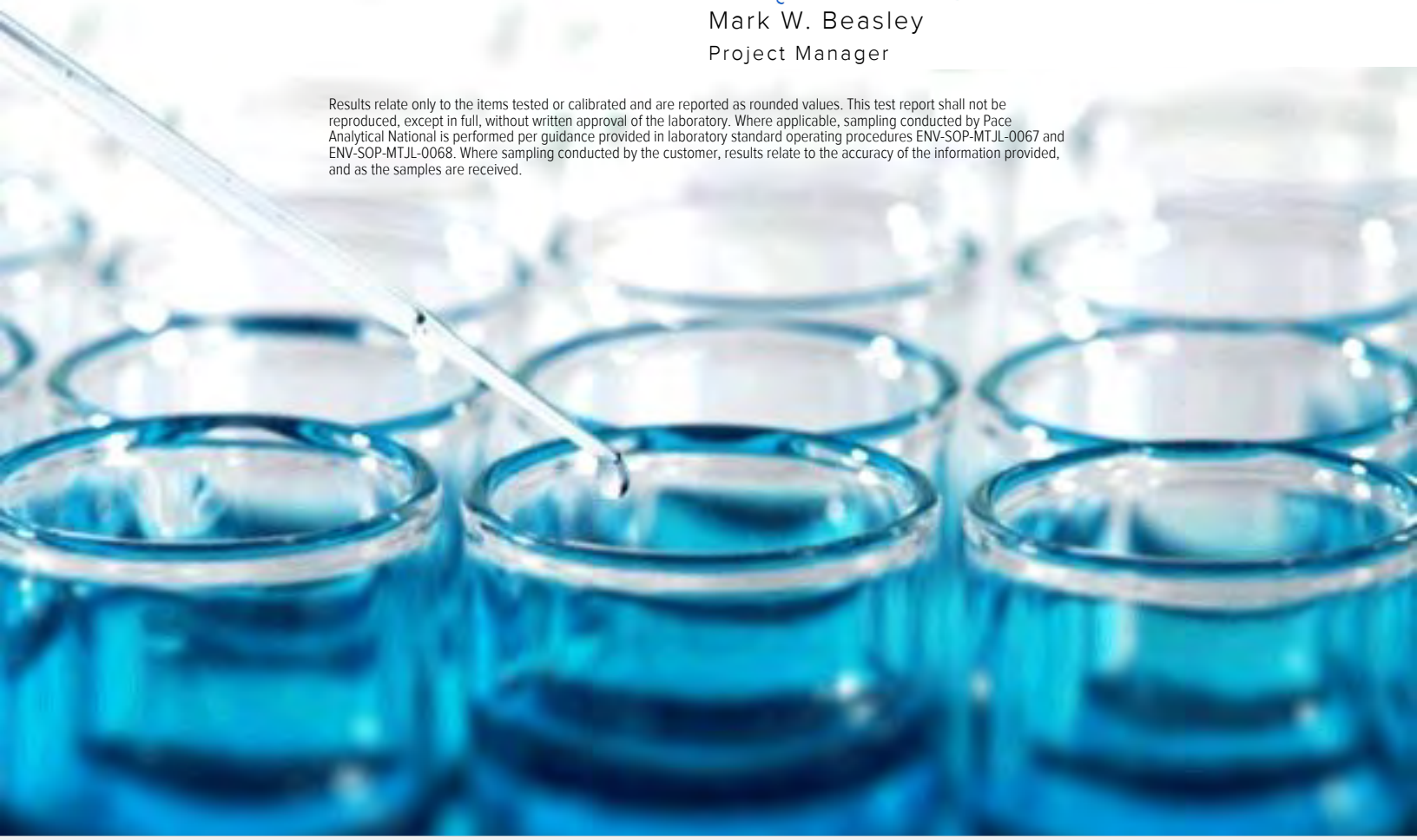


TABLE OF CONTENTS

MW-1R L1219565-01 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 09:30 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 01:01	05/21/20 01:01	ADM	Mt. Juliet, TN

MW-2R L1219565-02 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 11:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 01:22	05/21/20 01:22	ADM	Mt. Juliet, TN

MW-3R L1219565-03 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 11:50 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 01:44	05/21/20 01:44	ADM	Mt. Juliet, TN

MW-5R L1219565-04 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 10:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 02:05	05/21/20 02:05	ADM	Mt. Juliet, TN

MW-10R L1219565-05 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 11:30 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 02:53	05/21/20 02:53	ADM	Mt. Juliet, TN

MW-11R L1219565-06 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 09:50 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 03:14	05/21/20 03:14	ADM	Mt. Juliet, TN

MW-13R L1219565-07 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 09:10 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 03:35	05/21/20 03:35	ADM	Mt. Juliet, TN

MW-16 L1219565-08 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 10:30 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 03:57	05/21/20 03:57	ADM	Mt. Juliet, TN

MW-7R L1219565-09 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 11:45 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 04:18	05/21/20 04:18	ADM	Mt. Juliet, TN

MW-4R L1219565-10 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 12:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 04:40	05/21/20 04:40	ADM	Mt. Juliet, TN

MW-12R L1219565-11 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 12:15 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1479323	1	05/21/20 05:01	05/21/20 05:01	ADM	Mt. Juliet, TN

MW-18 L1219565-12 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 10:35 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 12:08	05/22/20 12:08	DWR	Mt. Juliet, TN

MW-15 L1219565-13 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 12:30 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 12:31	05/22/20 12:31	DWR	Mt. Juliet, TN

MW-17 L1219565-14 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 12:40 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 12:54	05/22/20 12:54	DWR	Mt. Juliet, TN

RW-5R L1219565-15 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 13:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 13:17	05/22/20 13:17	DWR	Mt. Juliet, TN

RW-14 L1219565-16 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 13:15 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 13:40	05/22/20 13:40	DWR	Mt. Juliet, TN

RW-15 L1219565-17 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 13:25 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 14:03	05/22/20 14:03	DWR	Mt. Juliet, TN

MW-8R L1219565-18 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 13:45 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 14:26	05/22/20 14:26	DWR	Mt. Juliet, TN

RW-10R L1219565-19 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 14:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 14:49	05/22/20 14:49	DWR	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8021B	WG1482062	5	05/26/20 15:56	05/26/20 15:56	JAH	Mt. Juliet, TN

RW-19 L1219565-20 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 14:20 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1482062	1	05/26/20 15:34	05/26/20 15:34	JAH	Mt. Juliet, TN

DUP-1 L1219565-21 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 00:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 15:34	05/22/20 15:34	DWR	Mt. Juliet, TN

DUP-2 L1219565-22 GW

Collected by: Heath Boyd | Collected date/time: 05/15/20 00:00 | Received date/time: 05/16/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1480804	1	05/22/20 15:57	05/22/20 15:57	DWR	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

Revised May 2010

Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 05/27/2020 13:29
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1219565-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1479323, WG1480804 and WG1482062

#[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: 05/27/2020 13:29
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1219565-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1479323, WG1480804 and WG1482062

#[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: Exceptions Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 05/27/2020 13:29
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1219565-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 and 22
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1479323, WG1480804 and WG1482062

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	05/21/2020 01:01	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 01:01	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 01:01	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 01:01	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 01:01*	WG1479323

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	05/21/2020 01:22	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 01:22	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 01:22	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 01:22	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 01:22*	WG1479323

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	05/21/2020 01:44	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 01:44	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 01:44	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 01:44	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 01:44*	WG1479323

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	05/21/2020 02:05	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 02:05	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 02:05	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 02:05	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 02:05*	WG1479323

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	05/21/2020 02:53	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 02:53	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 02:53	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 02:53	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*05/21/2020 02:53*	WG1479323

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	05/21/2020 03:14	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 03:14	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 03:14	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 03:14	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 03:14*	WG1479323

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	05/21/2020 03:35	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 03:35	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 03:35	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 03:35	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*05/21/2020 03:35*	WG1479323

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	05/21/2020 03:57	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 03:57	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 03:57	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 03:57	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 03:57*	WG1479323

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	05/21/2020 04:18	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 04:18	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 04:18	WG1479323
Total Xylene	0.00298		0.000510	0.00150	0.00150	1	05/21/2020 04:18	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 04:18*	WG1479323

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	05/21/2020 04:40	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 04:40	WG1479323
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/21/2020 04:40	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 04:40	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*05/21/2020 04:40*	WG1479323

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	0.000833		0.000190	0.000500	0.000500	1	05/21/2020 05:01	WG1479323
Toluene	U		0.000412	0.00100	0.00100	1	05/21/2020 05:01	WG1479323
Ethylbenzene	0.00113		0.000160	0.000500	0.000500	1	05/21/2020 05:01	WG1479323
Total Xylene	U		0.000510	0.00150	0.00150	1	05/21/2020 05:01	WG1479323
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/21/2020 05:01*	WG1479323

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	05/22/2020 12:08	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 12:08	WG1480804
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/22/2020 12:08	WG1480804
Total Xylene	U		0.000510	0.00150	0.00150	1	05/22/2020 12:08	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*05/22/2020 12:08*	WG1480804

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	05/22/2020 12:31	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 12:31	WG1480804
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/22/2020 12:31	WG1480804
Total Xylene	U		0.000510	0.00150	0.00150	1	05/22/2020 12:31	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*99.6*				*79.0-125*		*05/22/2020 12:31*	WG1480804

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	05/22/2020 12:54	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 12:54	WG1480804
Ethylbenzene	0.000318	J	0.000160	0.000500	0.000500	1	05/22/2020 12:54	WG1480804
Total Xylene	0.00324		0.000510	0.00150	0.00150	1	05/22/2020 12:54	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*05/22/2020 12:54*	WG1480804

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	0.000961		0.000190	0.000500	0.000500	1	05/22/2020 13:17	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 13:17	WG1480804
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/22/2020 13:17	WG1480804
Total Xylene	0.0366		0.000510	0.00150	0.00150	1	05/22/2020 13:17	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*05/22/2020 13:17*	WG1480804

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	0.000464	J	0.000190	0.000500	0.000500	1	05/22/2020 13:40	WG1480804
Toluene	0.00112		0.000412	0.00100	0.00100	1	05/22/2020 13:40	WG1480804
Ethylbenzene	0.000461	J	0.000160	0.000500	0.000500	1	05/22/2020 13:40	WG1480804
Total Xylene	0.00123	J	0.000510	0.00150	0.00150	1	05/22/2020 13:40	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*05/22/2020 13:40*	WG1480804

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	05/22/2020 14:03	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 14:03	WG1480804
Ethylbenzene	0.000554		0.000160	0.000500	0.000500	1	05/22/2020 14:03	WG1480804
Total Xylene	0.00272		0.000510	0.00150	0.00150	1	05/22/2020 14:03	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*98.4*				*79.0-125*		*05/22/2020 14:03*	WG1480804

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	0.00295		0.000190	0.000500	0.000500	1	05/22/2020 14:26	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 14:26	WG1480804
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/22/2020 14:26	WG1480804
Total Xylene	0.00530		0.000510	0.00150	0.00150	1	05/22/2020 14:26	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*99.3*				*79.0-125*		*05/22/2020 14:26*	WG1480804

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	0.372		0.000950	0.000500	0.00250	5	05/26/2020 15:56	WG1482062
Toluene	0.223		0.00206	0.00100	0.00500	5	05/26/2020 15:56	WG1482062
Ethylbenzene	0.0802		0.000160	0.000500	0.000500	1	05/22/2020 14:49	WG1480804
Total Xylene	0.322		0.000510	0.00150	0.00150	1	05/22/2020 14:49	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*98.3*				*79.0-125*		*05/22/2020 14:49*	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*05/26/2020 15:56*	WG1482062

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	05/26/2020 15:34	WG1482062
Toluene	0.000467	J	0.000412	0.00100	0.00100	1	05/26/2020 15:34	WG1482062
Ethylbenzene	0.000889	B	0.000160	0.000500	0.000500	1	05/26/2020 15:34	WG1482062
Total Xylene	0.00620		0.000510	0.00150	0.00150	1	05/26/2020 15:34	WG1482062
(S) a,a,a-Trifluorotoluene(PID)	*103*				*79.0-125*		*05/26/2020 15:34*	WG1482062

DUP-1
Collected date/time: 05/15/20 00:00
L1219565

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	05/22/2020 15:34	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 15:34	WG1480804
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/22/2020 15:34	WG1480804
Total Xylene	U		0.000510	0.00150	0.00150	1	05/22/2020 15:34	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*05/22/2020 15:34*	WG1480804

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	0.00314		0.000190	0.000500	0.000500	1	05/22/2020 15:57	WG1480804
Toluene	U		0.000412	0.00100	0.00100	1	05/22/2020 15:57	WG1480804
Ethylbenzene	U		0.000160	0.000500	0.000500	1	05/22/2020 15:57	WG1480804
Total Xylene	0.00548		0.000510	0.00150	0.00150	1	05/22/2020 15:57	WG1480804
(S) a,a,a-Trifluorotoluene(PID)	*99.4*				*79.0-125*		*05/22/2020 15:57*	WG1480804

Method Blank (MB)

(MB) R3530573-3 05/20/20 21:17

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)	*101*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3530573-1 05/20/20 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0499	99.8	77.0-122	
Toluene	0.0500	0.0504	101	80.0-121	
Ethylbenzene	0.0500	0.0518	104	80.0-123	
Total Xylene	0.150	0.158	105	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*101*	*79.0-125*	

Method Blank (MB)

(MB) R3531601-2 05/22/20 11:00

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)	*99.9*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3531601-1 05/22/20 09:28

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0475	95.0	77.0-122	
Toluene	0.0500	0.0472	94.4	80.0-121	
Ethylbenzene	0.0500	0.0488	97.6	80.0-123	
Total Xylene	0.150	0.146	97.3	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*101*	*79.0-125*	

Method Blank (MB)

(MB) R3531814-3 05/26/20 13:44

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	0.000191	J	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) R3531814-1 05/26/20 12:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0491	98.2	77.0-122	
Toluene	0.0500	0.0519	104	80.0-121	
Ethylbenzene	0.0500	0.0545	109	80.0-123	
Total Xylene	0.150	0.165	110	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
B	The same analyte is found in the associated blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.

ACCREDITATIONS & LOCATIONS

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.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
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]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

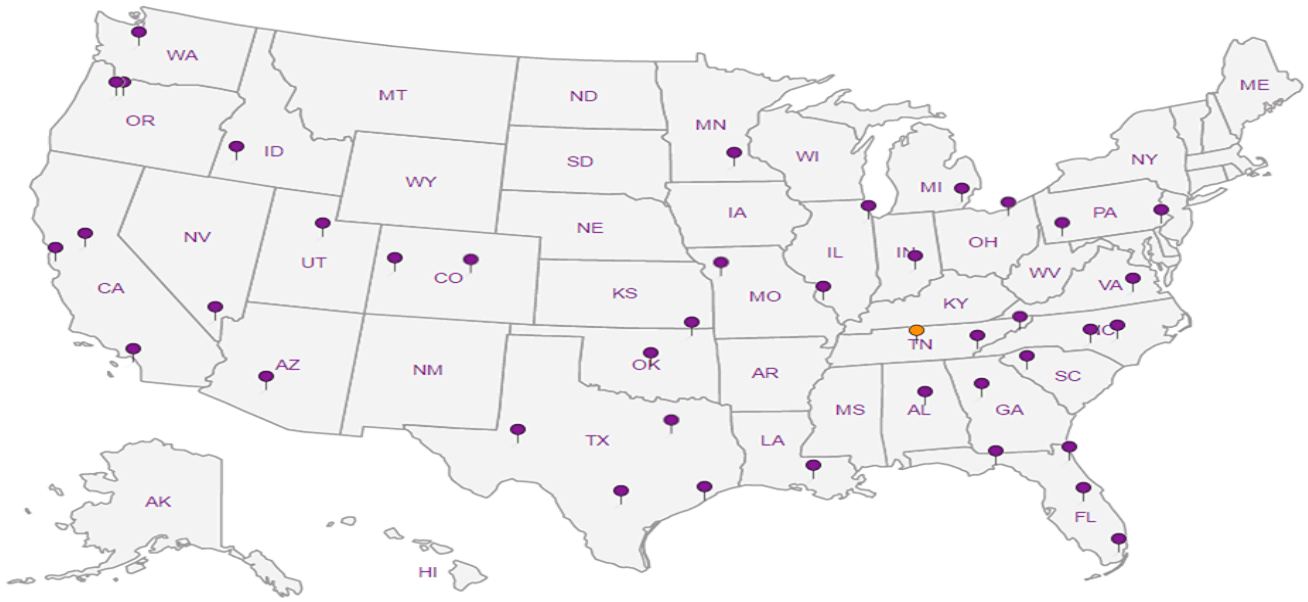
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Eddington New Mexico

Please Circle: PT (MT) CT ET

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Collected by (print): Heath Boyd

Site/Facility ID # SRS2001-10876

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 ___ of ___

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 # L1219565

1215

Acctnum: PLAINSGHD
Template: T167390
Prelogin: P772369
PM: 134 - Mark W. Beasley
PB:

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	Remarks	Sample # (lab only)
MW-1R	Grab	GW	DTW	5/15/20	930	3	X		-01
MW-2R		GW			1100		X		02
MW-3R		GW			1150		X		03
MW-5R		GW			1000		X		04
MW-10R		GW			1130		X		05
MW-11R		GW			950		X		06
MW-13R		GW			910		X		07
MW-16		GW			1030		X		08
MW-7R		GW			1145		X		09
MW-4R	↓	GW	↓	↓	1200	↓	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 # 392904303018

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	
	5/15/20	1600			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4.1 °C Bottles Received: 5.2-7=5.0 66	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/16/20 Time: 0900	Hold: Condition: NCF / OK

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Lovington New Mexico

Please Circle: PT MT CT ET

SDG # L1219565

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Table #

Collected by (print): Heath Boyd

Site/Facility ID # SRS2001-10876

P.O. #

Acctnum: PLAINSGHD

Template: T167390

Prelogin: P772369

PM: 134 - Mark W. Beasley

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 40ml Amb-HCl	Remarks	Sample # (lab only)
MW-12R	Grab	GW	DTW	5/15/20	1215	3	X		-11
MW-18		GW			1035		X		12
MW-15		GW			1230		X		13
MW-17		GW			1240		X		14
RW-5R		GW			1300		X		15
RW-14		GW			1315		X		16
RW-15		GW			1325		X		17
MW-8R		GW			1345		X		18
RW-10R		GW			1400		X		19
RW-19	↓	GW	↓	↓	1420	↓	X		20

* 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 # 392904303018

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	
	5/15/20	1600			
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: Huy 4.6 °C 5.2-2=3.0 Bottles Received: 66	If preservation required by Login: Date/Time
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 5/16/20 Time: 0900	Hold: Condition: NCF / OK

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Lovington New Mexico

Please Circle: PT MT CT ET

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Collected by (print): Heath Boyd

Collected by (signature):

Immediately Packed on Ice N ___ Y ___

Site/Facility ID # SRS2001-10876

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

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)
Dup-1	Grab	GW	DTW	5/15/20	—	3	X		21
Dup-2	Grab	GW	DTW	5/15/20	—	3	X		22
		GW							
		GW							
		GW							
		GW							
		GW							
		GW							

Chain of Custody Page ___ of ___

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 # L1219565

Table #

Acctnum: PLAINSGHD

Template: T167390

Prelogin: P772369

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 # 392904303018

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
	5/15/20	1600		
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: °C Bottles Received:
				5.2-2=5.0 66
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: Time:
				5/16/20 0900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

September 30, 2020

Plains All American, LP - GHD

Sample Delivery Group:	L1264765
Samples Received:	09/22/2020
Project Number:	11209899/02
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
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.

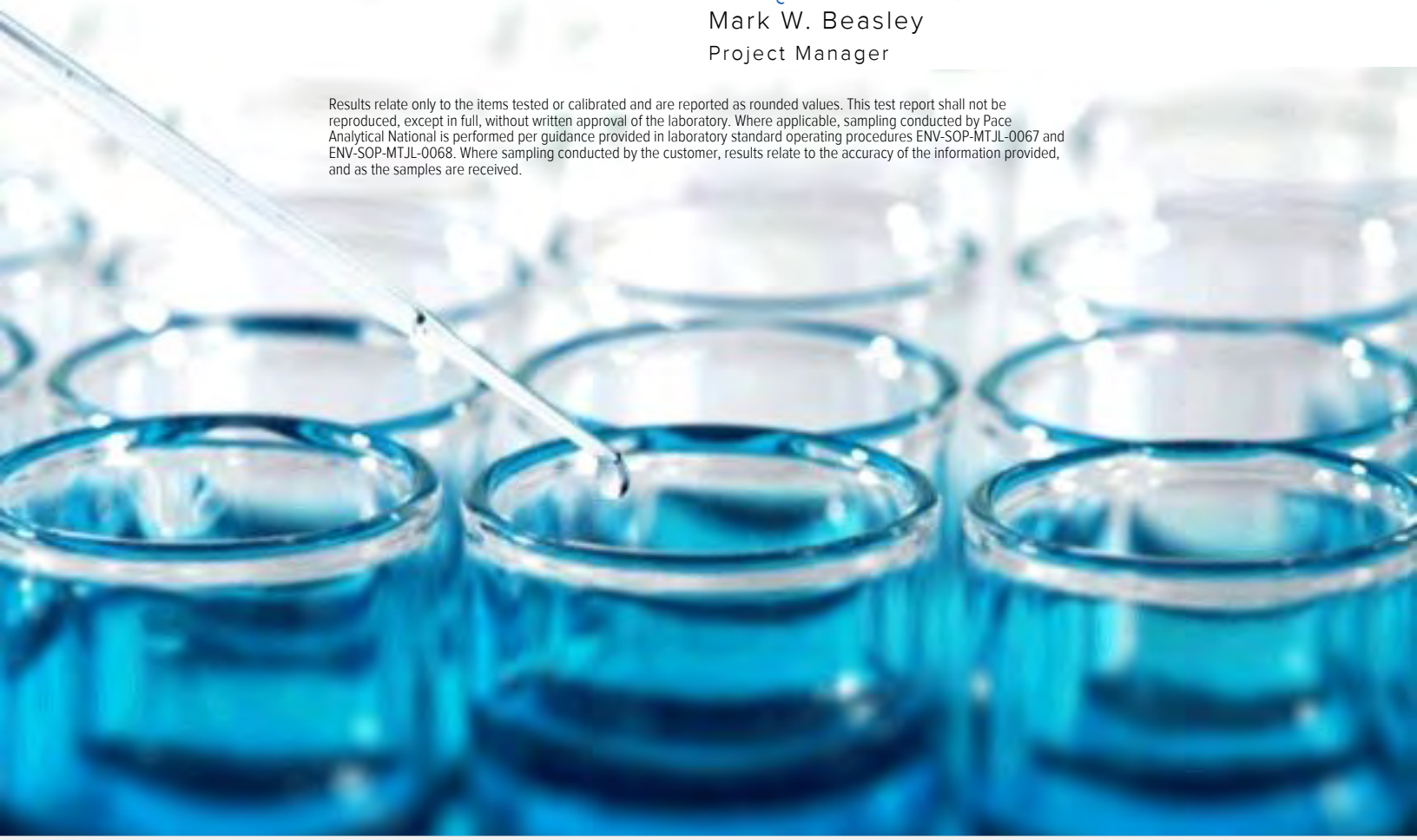


TABLE OF CONTENTS

MW-1R-091720 L1264765-01 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 09:30 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 06:17	09/27/20 06:17	ACG	Mt. Juliet, TN

MW-2R-091720 L1264765-02 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 09:45 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 06:42	09/27/20 06:42	ACG	Mt. Juliet, TN

MW-3R-091720 L1264765-03 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 10:00 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 07:07	09/27/20 07:07	ACG	Mt. Juliet, TN

MW-4R-091720 L1264765-04 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 10:15 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 07:32	09/27/20 07:32	ACG	Mt. Juliet, TN

MW-5R-091720 L1264765-05 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 10:30 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 07:57	09/27/20 07:57	ACG	Mt. Juliet, TN

MW-10R-091720 L1264765-06 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 10:45 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 08:22	09/27/20 08:22	ACG	Mt. Juliet, TN

MW-11R-091720 L1264765-07 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 11:00 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549888	1	09/27/20 08:47	09/27/20 08:47	ACG	Mt. Juliet, TN

MW-13R-091720 L1264765-08 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 11:15 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1550768	1	09/28/20 23:25	09/28/20 23:25	JAH	Mt. Juliet, TN

MW-18-091720 L1264765-09 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 12:00 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 15:23	09/27/20 15:23	JAH	Mt. Juliet, TN

MW-7R-091720 L1264765-10 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 12:15 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 15:49	09/27/20 15:49	JAH	Mt. Juliet, TN

MW-12R-091720 L1264765-11 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 12:30 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 16:14	09/27/20 16:14	JAH	Mt. Juliet, TN

MW-17-091720 L1264765-12 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 12:45 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 16:40	09/27/20 16:40	JAH	Mt. Juliet, TN

RW-15-091720 L1264765-13 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 13:00 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 17:05	09/27/20 17:05	JAH	Mt. Juliet, TN

RW-19-091720 L1264765-14 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 13:00 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 17:31	09/27/20 17:31	JAH	Mt. Juliet, TN

RW-14-091720 L1264765-15 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 14:00 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 17:56	09/27/20 17:56	JAH	Mt. Juliet, TN

RW-5R-091720 L1264765-16 GW

Collected by: Matthew Laughlin | Collected date/time: 09/17/20 14:30 | Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 18:21	09/27/20 18:21	JAH	Mt. Juliet, TN

MW-8R-091720 L1264765-17 GW

Collected by: Matthew Laughlin
Collected date/time: 09/17/20 14:45
Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	1	09/27/20 18:47	09/27/20 18:47	JAH	Mt. Juliet, TN

RW-10R-091720 L1264765-18 GW

Collected by: Matthew Laughlin
Collected date/time: 09/17/20 15:15
Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1549889	5	09/27/20 22:33	09/27/20 22:33	JAH	Mt. Juliet, TN

DUP-1-091720 L1264765-19 GW

Collected by: Matthew Laughlin
Collected date/time: 09/17/20 00:00
Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1551345	10	09/30/20 06:53	09/30/20 06:53	ACG	Mt. Juliet, TN

DUP-2-091720 L1264765-20 GW

Collected by: Matthew Laughlin
Collected date/time: 09/17/20 00:00
Received date/time: 09/22/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1551345	1	09/30/20 06:31	09/30/20 06:31	ACG	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

Revised May 2010

Laboratory Review Checklist: Reportable Data

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 09/30/2020 17:06
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1264765-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1549888, WG1549889, WG1550768 and WG1551345

#[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: 09/30/2020 17:06
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1264765-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1549888, WG1549889, WG1550768 and WG1551345

#[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: Exceptions Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 09/30/2020 17:06
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1264765-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1549888, WG1549889, WG1550768 and WG1551345

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	09/27/2020 06:17	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 06:17	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 06:17	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 06:17	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 06:17*	WG1549888

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	09/27/2020 06:42	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 06:42	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 06:42	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 06:42	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 06:42*	WG1549888

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	09/27/2020 07:07	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 07:07	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 07:07	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 07:07	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*99.3*				*79.0-125*		*09/27/2020 07:07*	WG1549888

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	09/27/2020 07:32	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 07:32	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 07:32	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 07:32	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 07:32*	WG1549888

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	09/27/2020 07:57	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 07:57	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 07:57	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 07:57	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*09/27/2020 07:57*	WG1549888

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	09/27/2020 08:22	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 08:22	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 08:22	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 08:22	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*99.6*				*79.0-125*		*09/27/2020 08:22*	WG1549888

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	09/27/2020 08:47	WG1549888
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 08:47	WG1549888
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 08:47	WG1549888
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 08:47	WG1549888
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 08:47*	WG1549888

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	09/28/2020 23:25	WG1550768
Toluene	U		0.000412	0.00100	0.00100	1	09/28/2020 23:25	WG1550768
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/28/2020 23:25	WG1550768
Total Xylene	U		0.000510	0.00150	0.00150	1	09/28/2020 23:25	WG1550768
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*09/28/2020 23:25*	WG1550768

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	0.000309	J	0.000190	0.000500	0.000500	1	09/27/2020 15:23	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 15:23	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 15:23	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 15:23	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 15:23*	WG1549889

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	09/27/2020 15:49	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 15:49	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 15:49	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 15:49	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*09/27/2020 15:49*	WG1549889

MW-12R-091720
Collected date/time: 09/17/20 12:30

SAMPLE RESULTS - 11

L1264765

ONE LAB. NATIONWIDE.

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	09/27/2020 16:14	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 16:14	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 16:14	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 16:14	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*97.5*				*79.0-125*		*09/27/2020 16:14*	WG1549889

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	09/27/2020 16:40	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 16:40	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 16:40	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 16:40	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*09/27/2020 16:40*	WG1549889

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	0.000885		0.000190	0.000500	0.000500	1	09/27/2020 17:05	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 17:05	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 17:05	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 17:05	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*97.9*				*79.0-125*		*09/27/2020 17:05*	WG1549889

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	09/27/2020 17:31	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 17:31	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 17:31	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 17:31	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*09/27/2020 17:31*	WG1549889

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	09/27/2020 17:56	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 17:56	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 17:56	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 17:56	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*09/27/2020 17:56*	WG1549889

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	09/27/2020 18:21	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 18:21	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 18:21	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 18:21	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 18:21*	WG1549889

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	0.00893		0.000190	0.000500	0.000500	1	09/27/2020 18:47	WG1549889
Toluene	U		0.000412	0.00100	0.00100	1	09/27/2020 18:47	WG1549889
Ethylbenzene	U		0.000160	0.000500	0.000500	1	09/27/2020 18:47	WG1549889
Total Xylene	U		0.000510	0.00150	0.00150	1	09/27/2020 18:47	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*100*				*79.0-125*		*09/27/2020 18:47*	WG1549889

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	0.785		0.000950	0.000500	0.00250	5	09/27/2020 22:33	WG1549889
Toluene	0.411		0.00206	0.00100	0.00500	5	09/27/2020 22:33	WG1549889
Ethylbenzene	0.244		0.000800	0.000500	0.00250	5	09/27/2020 22:33	WG1549889
Total Xylene	0.995		0.00255	0.00150	0.00750	5	09/27/2020 22:33	WG1549889
(S) a,a,a-Trifluorotoluene(PID)	*94.9*				*79.0-125*		*09/27/2020 22:33*	WG1549889

DUT-1-091720
Collected date/time: 09/17/20 00:00

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	1.08		0.00190	0.000500	0.00500	10	09/30/2020 06:53	WG1551345
Toluene	0.491		0.00412	0.00100	0.0100	10	09/30/2020 06:53	WG1551345
Ethylbenzene	0.298		0.00160	0.000500	0.00500	10	09/30/2020 06:53	WG1551345
Total Xylene	1.19		0.00510	0.00150	0.0150	10	09/30/2020 06:53	WG1551345
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*09/30/2020 06:53*	WG1551345

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	09/30/2020 06:31	WG1551345
Toluene	0.00117		0.000412	0.00100	0.00100	1	09/30/2020 06:31	WG1551345
Ethylbenzene	0.000593		0.000160	0.000500	0.000500	1	09/30/2020 06:31	WG1551345
Total Xylene	U		0.000510	0.00150	0.00150	1	09/30/2020 06:31	WG1551345
(S) a,a,a-Trifluorotoluene(PID)	*99.9*				*79.0-125*		*09/30/2020 06:31*	WG1551345

Method Blank (MB)

(MB) R3575831-2 09/26/20 22:43

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)	*100*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3575831-1 09/26/20 21:52

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0439	87.8	77.0-122	
Toluene	0.0500	0.0449	89.8	80.0-121	
Ethylbenzene	0.0500	0.0475	95.0	80.0-123	
Total Xylene	0.150	0.142	94.7	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*98.6*	*79.0-125*	

Method Blank (MB)

(MB) R3575841-2 09/27/20 14:58

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)	*101*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3575841-1 09/27/20 14:01

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0437	87.4	77.0-122	
Toluene	0.0500	0.0448	89.6	80.0-121	
Ethylbenzene	0.0500	0.0481	96.2	80.0-123	
Total Xylene	0.150	0.143	95.3	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*98.9*	*79.0-125*	

Method Blank (MB)

(MB) R3575843-3 09/28/20 21:28

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)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3575843-1 09/28/20 20:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0448	89.6	77.0-122	
Toluene	0.0500	0.0457	91.4	80.0-121	
Ethylbenzene	0.0500	0.0480	96.0	80.0-123	
Total Xylene	0.150	0.145	96.7	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*100*	*79.0-125*	

Method Blank (MB)

(MB) R3576238-3 09/30/20 05:45

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)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3576238-1 09/30/20 03:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0497	99.4	77.0-122	
Toluene	0.0500	0.0528	106	80.0-121	
Ethylbenzene	0.0500	0.0539	108	80.0-123	
Total Xylene	0.150	0.159	106	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*101*	*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.

ACCREDITATIONS & LOCATIONS

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.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
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]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

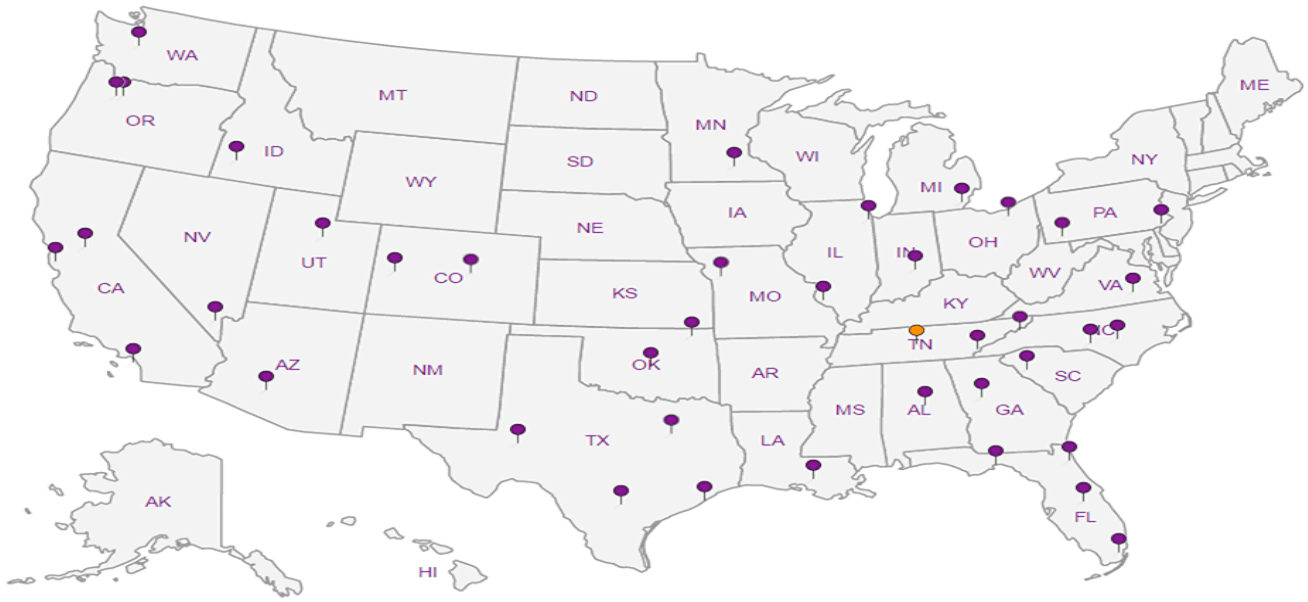
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Collected by (print): Matthew Laughlin

Site/Facility ID # SRS2001-10876

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

Analysis / Container / Preservative

Chain of Custody Page 1 of 2

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 # 164765

Table F135

Acctnum: PLAINSGHD

Template: T167390

Prelogin: P796000

PM: 134 - Mark W. Beasley

PB:

Shipped Via: FedEX Ground

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	PAH SIM LVI 40mlAmb-NoPres-WT (SUB)	Remarks	Sample # (lab only)
MW-1R-091720	G	GW	-	09/17/20	0930	3	3			01
MW-2R-091720	G	GW	-	09/17/20	0945	3	3			02
MW-3R-091720	G	GW	-	09/17/20	1000	3	3			03
MW-4R-091720	G	GW	-	09/17/20	1015	3	3			04
MW-5R-091720	G	GW	-	09/17/20	1030	3	3			05
MW-10R-091720	G	GW	-	09/17/20	1045	3	3			06
MW-11R-091720	G	GW	-	09/17/20	1100	3	3			07
MW-13R-091720	G	GW	-	09/17/20	1115	3	3			08
MW-18-091720	G	GW	-	09/17/20	1200	3	3			09
MW-7R-091720	G	GW	-	09/17/20	1215	3	3			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 # 1922 0813 2454

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)
	9-21-20	13:00	
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)
	9.21.20	16:30	FedEX
Relinquished by: (Signature)	Date:	Time:	Received for lab by: (Signature)

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

Temp: 0.3 °C 0.1 Bottles Received: 60

Date: 9/22/20 Time: 900

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
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Lovington, NM

Please Circle: PT (MT) CT ET

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Collected by (print): Matthew Laughlin

Collected by (signature):

Immediately Packed on Ice N ___ Y X

Site/Facility ID # SRS2001-10876

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

Analysis / Container / Preservative

Sample ID	Comp/Grab	Matrix *	Depth	Date	Time	No. of Cntrs	BTEX 40mlAmb-HCl	~~PAHSIMLVI 40mlAmb-NoPres-WT~~ (12)								Remarks	Sample # (lab only)
MW-12R-091720	G	GW	-	09/17/20	1230	3	3										11
MW-17-091720	G	GW	-	09/17/20	1245	3	3										12
RW-15-091720	G	GW	-	09/17/20	1300	3	3										13
RW-19-091720	G	GW	-	09/17/20	1330	3	3										14
RW-14-091720	G	GW	-	09/17/20	1400	3	3										15
RW-5R-091720	G	GW	-	09/17/20	1430	3	3										16
MW-8R-091720	G	GW	-	09/17/20	1445	3	3										17
RW-10R-091720	G	GW	-	09/17/20	1515	3	3										18
Dup-1-091720	G	GW	-	09/17/20	-	3	3										19
Dup-2-091720	G	GW	-	09/17/20	-	3	3										20

* 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 # 1922 0813 2454

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9-21-20	1310	
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	9-21-20	16:30	
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)

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

Temp: 0.3-1=0.1 °C Bottles Received: 60

Date: 9/22/20 Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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

Chain of Custody Page 2 of 2

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 # 126765

Table #

Acctnum: PLAINSGHD
Template: T167390
Prelogin: P796000
PM: 134 - Mark W. Beasley
PB:

Shipped Via: FedEx Ground

Pace Analytical®
National Center for Testing & Innovation

ANALYTICAL REPORT

November 12, 2020

Plains All American, LP - GHD

Sample Delivery Group:	L1281688
Samples Received:	11/04/2020
Project Number:	11209899/02
Description:	Darr Angell #4 SRS2001-10876
Site:	SRS2001-10876
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.

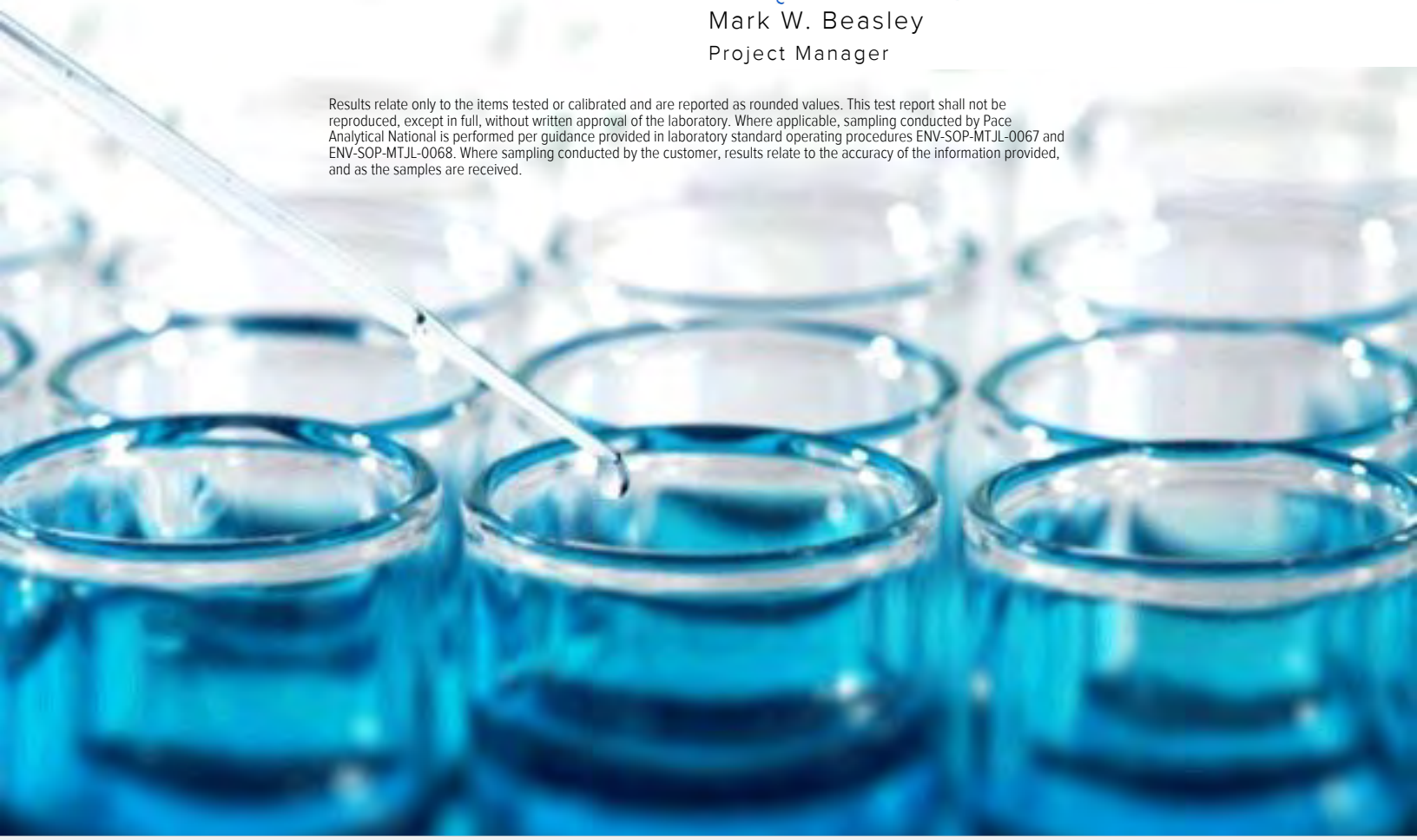


TABLE OF CONTENTS

MW-1R L1281688-01 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 08:00 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572855	1	11/07/20 19:10	11/07/20 19:10	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 12:40	LEA	Mt. Juliet, TN

MW-2R L1281688-02 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 08:25 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572855	1	11/07/20 19:32	11/07/20 19:32	DWR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 13:00	LEA	Mt. Juliet, TN

MW-3R L1281688-03 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 08:50 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 02:55	11/08/20 02:55	TPR	Mt. Juliet, TN

MW-4R L1281688-04 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 09:15 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 03:17	11/08/20 03:17	TPR	Mt. Juliet, TN

MW-5R L1281688-05 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 09:40 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 03:39	11/08/20 03:39	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 13:20	LEA	Mt. Juliet, TN

MW-10R L1281688-06 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 10:05 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 04:01	11/08/20 04:01	TPR	Mt. Juliet, TN

MW-11R L1281688-07 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 10:30 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 04:23	11/08/20 04:23	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 13:40	LEA	Mt. Juliet, TN

MW-13R L1281688-08 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 10:55 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 04:45	11/08/20 04:45	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 14:00	LEA	Mt. Juliet, TN

MW-16 L1281688-09 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 11:25 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 05:07	11/08/20 05:07	TPR	Mt. Juliet, TN

MW-7R L1281688-10 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 11:55 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 05:29	11/08/20 05:29	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 14:20	LEA	Mt. Juliet, TN

MW-12R L1281688-11 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 12:30 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 05:51	11/08/20 05:51	TPR	Mt. Juliet, TN

MW-17 L1281688-12 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 12:55 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 06:13	11/08/20 06:13	TPR	Mt. Juliet, TN

RW-19 L1281688-13 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 13:20 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 06:35	11/08/20 06:35	TPR	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 14:40	LEA	Mt. Juliet, TN

RW-14 L1281688-14 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 13:45 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1572913	1	11/08/20 06:57	11/08/20 06:57	TPR	Mt. Juliet, TN

RW-5R L1281688-15 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 14:00 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1573095	1	11/08/20 13:49	11/08/20 13:49	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 15:00	LEA	Mt. Juliet, TN

MW-18 L1281688-16 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 14:25 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1573095	1	11/08/20 14:11	11/08/20 14:11	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 15:20	LEA	Mt. Juliet, TN

RW-15 L1281688-17 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 14:55 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1573095	1	11/08/20 15:57	11/08/20 15:57	JAH	Mt. Juliet, TN

MW-8R L1281688-18 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 15:20 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1573095	1	11/08/20 15:35	11/08/20 15:35	JAH	Mt. Juliet, TN
Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM	WG1573157	1	11/09/20 23:16	11/10/20 15:40	LEA	Mt. Juliet, TN

DUP-1 L1281688-19 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 00:00 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1573095	1	11/08/20 16:19	11/08/20 16:19	JAH	Mt. Juliet, TN

DUP-2 L1281688-20 GW

Collected by: Heath Boyd | Collected date/time: 11/03/20 00:00 | Received date/time: 11/04/20 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Volatile Organic Compounds (GC) by Method 8021B	WG1573095	1	11/08/20 16:41	11/08/20 16:41	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

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: 11/12/2020 18:41
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1281688-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1573157, WG1572855, WG1572913 and WG1573095

#[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: 11/12/2020 18:41
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1281688-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1573157, WG1572855, WG1572913 and WG1573095

#[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: Exceptions Reports

ONE LAB. NATIONWIDE.

Laboratory Name: Pace Analytical National	LRC Date: 11/12/2020 18:41
Project Name: Darr Angell #4 SRS2001-10876	Laboratory Job Number: L1281688-01, 02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19 and 20
Reviewer Name: Mark W. Beasley	Prep Batch Number(s): WG1573157, WG1572855, WG1572913 and WG1573095

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	11/07/2020 19:10	WG1572855
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 19:10	WG1572855
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 19:10	WG1572855
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 19:10	WG1572855
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/07/2020 19:10*	WG1572855

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

Analyte	Result	Qualifier	SDL	Unadj. MQL	MQL	Dilution	Analysis	Batch
	mg/l		mg/l	mg/l	mg/l		date / time	
Anthracene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 12:40	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 12:40	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 12:40	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 12:40	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 12:40	WG1573157
(S) Nitrobenzene-d5	*121*				*31.0-160*		*11/10/2020 12:40*	WG1573157
(S) 2-Fluorobiphenyl	*104*				*48.0-148*		*11/10/2020 12:40*	WG1573157
(S) p-Terphenyl-d14	*86.0*				*37.0-146*		*11/10/2020 12:40*	WG1573157

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	11/07/2020 19:32	WG1572855
Toluene	U		0.000412	0.00100	0.00100	1	11/07/2020 19:32	WG1572855
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/07/2020 19:32	WG1572855
Total Xylene	U		0.000510	0.00150	0.00150	1	11/07/2020 19:32	WG1572855
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/07/2020 19:32*	WG1572855

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	11/10/2020 13:00	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 13:00	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 13:00	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 13:00	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 13:00	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 13:00	WG1573157
(S) Nitrobenzene-d5	*113*				*31.0-160*		*11/10/2020 13:00*	WG1573157
(S) 2-Fluorobiphenyl	*93.5*				*48.0-148*		*11/10/2020 13:00*	WG1573157
(S) p-Terphenyl-d14	*66.0*				*37.0-146*		*11/10/2020 13:00*	WG1573157

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	0.000209	J	0.000190	0.000500	0.000500	1	11/08/2020 02:55	WG1572913
Toluene	0.00137		0.000412	0.00100	0.00100	1	11/08/2020 02:55	WG1572913
Ethylbenzene	0.00274		0.000160	0.000500	0.000500	1	11/08/2020 02:55	WG1572913
Total Xylene	0.00539		0.000510	0.00150	0.00150	1	11/08/2020 02:55	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 02:55*	WG1572913

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	11/08/2020 03:17	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 03:17	WG1572913
Ethylbenzene	0.00208		0.000160	0.000500	0.000500	1	11/08/2020 03:17	WG1572913
Total Xylene	0.00362		0.000510	0.00150	0.00150	1	11/08/2020 03:17	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 03:17*	WG1572913

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	11/08/2020 03:39	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 03:39	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 03:39	WG1572913
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 03:39	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 03:39*	WG1572913

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	11/10/2020 13:20	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 13:20	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 13:20	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 13:20	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 13:20	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 13:20	WG1573157
(S) Nitrobenzene-d5	*111*				*31.0-160*		*11/10/2020 13:20*	WG1573157
(S) 2-Fluorobiphenyl	*100*				*48.0-148*		*11/10/2020 13:20*	WG1573157
(S) p-Terphenyl-d14	*90.5*				*37.0-146*		*11/10/2020 13:20*	WG1573157

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	11/08/2020 04:01	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 04:01	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 04:01	WG1572913
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 04:01	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 04:01*	WG1572913

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	11/08/2020 04:23	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 04:23	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 04:23	WG1572913
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 04:23	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 04:23*	WG1572913

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	11/10/2020 13:40	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 13:40	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 13:40	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 13:40	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 13:40	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 13:40	WG1573157
(S) Nitrobenzene-d5	*112*				*31.0-160*		*11/10/2020 13:40*	WG1573157
(S) 2-Fluorobiphenyl	*97.5*				*48.0-148*		*11/10/2020 13:40*	WG1573157
(S) p-Terphenyl-d14	*77.5*				*37.0-146*		*11/10/2020 13:40*	WG1573157

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	11/08/2020 04:45	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 04:45	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 04:45	WG1572913
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 04:45	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 04:45*	WG1572913

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	11/10/2020 14:00	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 14:00	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 14:00	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 14:00	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 14:00	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 14:00	WG1573157
(S) Nitrobenzene-d5	*110*				*31.0-160*		*11/10/2020 14:00*	WG1573157
(S) 2-Fluorobiphenyl	*100*				*48.0-148*		*11/10/2020 14:00*	WG1573157
(S) p-Terphenyl-d14	*87.5*				*37.0-146*		*11/10/2020 14:00*	WG1573157

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	11/08/2020 05:07	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 05:07	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 05:07	WG1572913
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 05:07	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 05:07*	WG1572913

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	11/08/2020 05:29	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 05:29	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 05:29	WG1572913
Total Xylene	0.00334		0.000510	0.00150	0.00150	1	11/08/2020 05:29	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 05:29*	WG1572913

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	11/10/2020 14:20	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 14:20	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 14:20	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 14:20	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 14:20	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 14:20	WG1573157
(S) Nitrobenzene-d5	*98.5*				*31.0-160*		*11/10/2020 14:20*	WG1573157
(S) 2-Fluorobiphenyl	*84.0*				*48.0-148*		*11/10/2020 14:20*	WG1573157
(S) p-Terphenyl-d14	*68.5*				*37.0-146*		*11/10/2020 14:20*	WG1573157

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	11/08/2020 05:51	WG1572913
Toluene	0.00342		0.000412	0.00100	0.00100	1	11/08/2020 05:51	WG1572913
Ethylbenzene	0.00164		0.000160	0.000500	0.000500	1	11/08/2020 05:51	WG1572913
Total Xylene	0.000928	J	0.000510	0.00150	0.00150	1	11/08/2020 05:51	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 05:51*	WG1572913

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	11/08/2020 06:13	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 06:13	WG1572913
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 06:13	WG1572913
Total Xylene	0.00117	J	0.000510	0.00150	0.00150	1	11/08/2020 06:13	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 06:13*	WG1572913

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	11/08/2020 06:35	WG1572913
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 06:35	WG1572913
Ethylbenzene	0.000388	J	0.000160	0.000500	0.000500	1	11/08/2020 06:35	WG1572913
Total Xylene	0.00182		0.000510	0.00150	0.00150	1	11/08/2020 06:35	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 06:35*	WG1572913

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	11/10/2020 14:40	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 14:40	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 14:40	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 14:40	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 14:40	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 14:40	WG1573157
(S) Nitrobenzene-d5	*117*				*31.0-160*		*11/10/2020 14:40*	WG1573157
(S) 2-Fluorobiphenyl	*106*				*48.0-148*		*11/10/2020 14:40*	WG1573157
(S) p-Terphenyl-d14	*97.5*				*37.0-146*		*11/10/2020 14:40*	WG1573157

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	11/08/2020 06:57	WG1572913
Toluene	0.000623	J	0.000412	0.00100	0.00100	1	11/08/2020 06:57	WG1572913
Ethylbenzene	0.000219	J	0.000160	0.000500	0.000500	1	11/08/2020 06:57	WG1572913
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 06:57	WG1572913
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 06:57*	WG1572913

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	11/08/2020 13:49	WG1573095
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 13:49	WG1573095
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 13:49	WG1573095
Total Xylene	0.00420		0.000510	0.00150	0.00150	1	11/08/2020 13:49	WG1573095
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 13:49*	WG1573095

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	11/10/2020 15:00	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Dibenzofuran	0.0000251	J	0.0000191	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 15:00	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 15:00	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 15:00	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 15:00	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 15:00	WG1573157
(S) Nitrobenzene-d5	*113*				*31.0-160*		*11/10/2020 15:00*	WG1573157
(S) 2-Fluorobiphenyl	*102*				*48.0-148*		*11/10/2020 15:00*	WG1573157
(S) p-Terphenyl-d14	*97.5*				*37.0-146*		*11/10/2020 15:00*	WG1573157

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	0.000288	J	0.000190	0.000500	0.000500	1	11/08/2020 14:11	WG1573095
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 14:11	WG1573095
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 14:11	WG1573095
Total Xylene	U		0.000510	0.00150	0.00150	1	11/08/2020 14:11	WG1573095
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 14:11*	WG1573095

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	11/10/2020 15:20	WG1573157
Acenaphthene	U		0.0000190	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Dibenzofuran	U		0.0000191	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 15:20	WG1573157
Fluorene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Naphthalene	U		0.0000917	0.000250	0.000250	1	11/10/2020 15:20	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 15:20	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 15:20	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 15:20	WG1573157
(S) Nitrobenzene-d5	*110*				*31.0-160*		*11/10/2020 15:20*	WG1573157
(S) 2-Fluorobiphenyl	*103*				*48.0-148*		*11/10/2020 15:20*	WG1573157
(S) p-Terphenyl-d14	*92.5*				*37.0-146*		*11/10/2020 15:20*	WG1573157

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	0.00110		0.000190	0.000500	0.000500	1	11/08/2020 15:57	WG1573095
Toluene	0.00129		0.000412	0.00100	0.00100	1	11/08/2020 15:57	WG1573095
Ethylbenzene	0.000854		0.000160	0.000500	0.000500	1	11/08/2020 15:57	WG1573095
Total Xylene	0.000620	J	0.000510	0.00150	0.00150	1	11/08/2020 15:57	WG1573095
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 15:57*	WG1573095

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	0.0245		0.000190	0.000500	0.000500	1	11/08/2020 15:35	WG1573095
Toluene	0.00338		0.000412	0.00100	0.00100	1	11/08/2020 15:35	WG1573095
Ethylbenzene	0.00382		0.000160	0.000500	0.000500	1	11/08/2020 15:35	WG1573095
Total Xylene	0.0162		0.000510	0.00150	0.00150	1	11/08/2020 15:35	WG1573095
(S) a,a,a-Trifluorotoluene(PID)	*99.6*				*79.0-125*		*11/08/2020 15:35*	WG1573095

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	11/10/2020 15:40	WG1573157
Acenaphthene	0.0000311	J	0.0000190	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Acenaphthylene	U		0.0000171	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Benzo(a)anthracene	U		0.0000203	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Benzo(a)pyrene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Benzo(b)fluoranthene	U		0.0000168	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Benzo(g,h,i)perylene	U		0.0000184	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Benzo(k)fluoranthene	U		0.0000202	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Chrysene	U		0.0000179	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Dibenz(a,h)anthracene	U		0.0000160	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Dibenzofuran	0.000231		0.0000191	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Fluoranthene	U		0.0000270	0.000100	0.000100	1	11/10/2020 15:40	WG1573157
Fluorene	0.0000834		0.0000169	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Indeno(1,2,3-cd)pyrene	U		0.0000158	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Naphthalene	0.000106	J	0.0000917	0.000250	0.000250	1	11/10/2020 15:40	WG1573157
Phenanthrene	U		0.0000180	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
Pyrene	U		0.0000169	0.0000500	0.0000500	1	11/10/2020 15:40	WG1573157
1-Methylnaphthalene	U		0.0000687	0.000250	0.000250	1	11/10/2020 15:40	WG1573157
2-Methylnaphthalene	U		0.0000674	0.000250	0.000250	1	11/10/2020 15:40	WG1573157
(S) Nitrobenzene-d5	*113*				*31.0-160*		*11/10/2020 15:40*	WG1573157
(S) 2-Fluorobiphenyl	*102*				*48.0-148*		*11/10/2020 15:40*	WG1573157
(S) p-Terphenyl-d14	*91.5*				*37.0-146*		*11/10/2020 15:40*	WG1573157

DUP-1
Collected date/time: 11/03/20 00:00

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	11/08/2020 16:19	WG1573095
Toluene	U		0.000412	0.00100	0.00100	1	11/08/2020 16:19	WG1573095
Ethylbenzene	U		0.000160	0.000500	0.000500	1	11/08/2020 16:19	WG1573095
Total Xylene	0.00307		0.000510	0.00150	0.00150	1	11/08/2020 16:19	WG1573095
(S) a,a,a-Trifluorotoluene(PID)	*102*				*79.0-125*		*11/08/2020 16:19*	WG1573095

DUP-2
Collected date/time: 11/03/20 00:00
L1281688

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	0.0195		0.000190	0.000500	0.000500	1	11/08/2020 16:41	WG1573095
Toluene	0.00196		0.000412	0.00100	0.00100	1	11/08/2020 16:41	WG1573095
Ethylbenzene	0.00223		0.000160	0.000500	0.000500	1	11/08/2020 16:41	WG1573095
Total Xylene	0.00924		0.000510	0.00150	0.00150	1	11/08/2020 16:41	WG1573095
(S) a,a,a-Trifluorotoluene(PID)	*101*				*79.0-125*		*11/08/2020 16:41*	WG1573095

Method Blank (MB)

(MB) R3591891-3 11/07/20 13:46

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)	*101*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3591891-1 11/07/20 11:00

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0432	86.4	77.0-122	
Toluene	0.0500	0.0473	94.6	80.0-121	
Ethylbenzene	0.0500	0.0518	104	80.0-123	
Total Xylene	0.150	0.148	98.7	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*101*	*79.0-125*	

Method Blank (MB)

(MB) R3592004-2 11/07/20 23:38

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)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3592004-1 11/07/20 22:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0442	88.4	77.0-122	
Toluene	0.0500	0.0483	96.6	80.0-121	
Ethylbenzene	0.0500	0.0526	105	80.0-123	
Total Xylene	0.150	0.150	100	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*101*	*79.0-125*	

Method Blank (MB)

(MB) R3592453-2 11/08/20 12:33

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)	*102*			*79.0-125*

Laboratory Control Sample (LCS)

(LCS) R3592453-1 11/08/20 11:27

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.0500	0.0453	90.6	77.0-122	
Toluene	0.0500	0.0499	99.8	80.0-121	
Ethylbenzene	0.0500	0.0553	111	80.0-123	
Total Xylene	0.150	0.156	104	47.0-154	
(S) a,a,a-Trifluorotoluene(PID)			*102*	*79.0-125*	

Method Blank (MB)

(MB) R3591604-3 11/10/20 09:59

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	*114*			*31.0-160*
(S) 2-Fluorobiphenyl	*99.5*			*48.0-148*
(S) p-Terphenyl-d14	*96.0*			*37.0-146*

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

(LCS) R3591604-1 11/10/20 09:19 • (LCSD) R3591604-2 11/10/20 09:39

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	0.00212	0.00208	106	104	67.0-134			1.90	20
Anthracene	0.00200	0.00227	0.00225	114	112	67.0-150			0.885	20
Acenaphthene	0.00200	0.00209	0.00205	105	102	65.0-138			1.93	20
Acenaphthylene	0.00200	0.00229	0.00230	114	115	66.0-140			0.436	20
Benzo(a)anthracene	0.00200	0.00222	0.00218	111	109	61.0-140			1.82	20
Benzo(a)pyrene	0.00200	0.00179	0.00173	89.5	86.5	60.0-143			3.41	20
Benzo(b)fluoranthene	0.00200	0.00177	0.00174	88.5	87.0	58.0-141			1.71	20
Benzo(g,h,i)perylene	0.00200	0.00181	0.00172	90.5	86.0	52.0-153			5.10	20
Benzo(k)fluoranthene	0.00200	0.00181	0.00174	90.5	87.0	58.0-148			3.94	20
Chrysene	0.00200	0.00211	0.00204	105	102	64.0-144			3.37	20
Dibenz(a,h)anthracene	0.00200	0.00190	0.00179	95.0	89.5	52.0-155			5.96	20

Semi Volatile Organic Compounds (GC/MS) by Method 8270C-SIM L1281688-01,02,05,07,08,10,13,15,16,18

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

(LCS) R3591604-1 11/10/20 09:19 • (LCSD) R3591604-2 11/10/20 09:39

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	0.00223	0.00217	111	108	69.0-153			2.73	20
Fluorene	0.00200	0.00210	0.00203	105	102	64.0-136			3.39	20
Indeno(1,2,3-cd)pyrene	0.00200	0.00194	0.00187	97.0	93.5	54.0-153			3.67	20
Naphthalene	0.00200	0.00206	0.00203	103	102	61.0-137			1.47	20
Phenanthrene	0.00200	0.00212	0.00207	106	103	62.0-137			2.39	20
Pyrene	0.00200	0.00208	0.00206	104	103	60.0-142			0.966	20
1-Methylnaphthalene	0.00200	0.00198	0.00199	99.0	99.5	66.0-142			0.504	20
2-Methylnaphthalene	0.00200	0.00191	0.00192	95.5	96.0	62.0-136			0.522	20
(S) Nitrobenzene-d5				*126*	*116*	*31.0-160*				
(S) 2-Fluorobiphenyl				*104*	*100*	*48.0-148*				
(S) p-Terphenyl-d14				*98.5*	*96.0*	*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
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.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
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]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

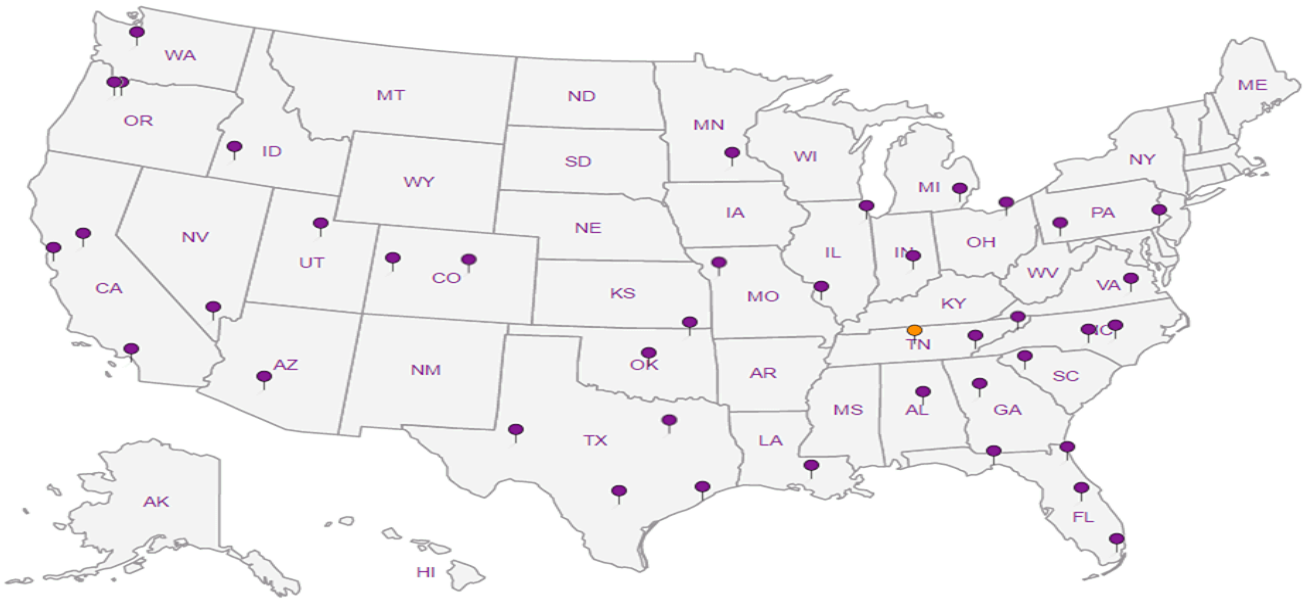
Third Party Federal Accreditations

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

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT:	PROJECT:	SDG:	DATE/TIME:	PAGE:
Plains All American, LP - GHD	11209899/02	L1281688	11/12/20 18:41	37 of 39

Plains All American, LP - GHD

2135 S Loop 250 W
Midland, TX 79703

Billing Information:
Camille Bryant
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

SDG # 128168

H184

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Acctnum: PLAINSGHD

Template: T167390

Prelogin: P805677

PM: 134 - Mark W. Beasley

PB:

Collected by (print): Heath Boyd

Site/Facility ID # SRS2001-10876

P.O. #

Shipped Via: FedEx Ground

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 40ml Amb-HCl	PAHs IMLVI 40ml Amb-NoPres-WT	Remarks	Sample # (lab only)
MW-1R	Grab	GW	DTW	11/3/20	800	6	X	X		-01
MW-2R		GW			825	6	X	X		-02
MW-3R		GW			850	3	X			-03
MW-4R		GW			915	3	X			-04
MW-5R		GW			940	6	X	X		-05
MW-10R		GW			1005	3	X			-06
MW-11R		GW			1030	6	X	X		-07
MW-13R		GW			1055	6	X	X		-08
MW-16		GW			1125	2	X			-09
MW-7R		GW			1155	6	X	X		-10

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

Remarks:

11/4

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: __ UPS __ FedEx __ Courier _____

Tracking # 9050 0894 0760

Sample Receipt Checklist

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

Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)
	11/3/20	1630	
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: 4.7 °C .3±0=.3

Bottles Received: 66

Date: 11/4/20 Time: 0900

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
10 Desta Dr., Ste. 550E
Midland, TX 79701

Pres Chk

Report to: Becky Haskell

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

Project Description: Darr Angell #4 SRS2001-10876

City/State Collected: Lovington, NM

Please Circle: PT MT CT ET

Phone: 432-250-7917

Client Project # 11209899/02

Lab Project # PLAINSGHD-11209899

Collected by (print): Heath Boyd

Site/Facility ID # SRS2001-10876

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 40mlAmb-HCl	PAHSIMLV1 40mlAmb-NoPres-WT	Remarks	Sample # (lab only)
MW-12R	Grab	GW	DTW	11/3/20	1230	3	X			-11
MW-17		GW			1255	3	X			-12
RW-19		GW			1320	6	X	X		-13
RW-14		GW			1345	3	X			-14
RW-5R		GW			1400	6	X	X		-15
MW-18		GW			1425	6	X	X		-16
RW-15		GW			1455	3	X			-17
MW-8R		GW			1520	6	X	X		-18
Dup-1		GW				22	X			-19
Dup-2	NC	GW	*	"		3	X			-20

Analysis / Container / Preservative

Chain of Custody Page ___ of ___

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 # 128168

Table #

Acctnum: PLAINSGHD

Template: T167390

Prelogin: P805677

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: Pm 11/4

pH _____ Temp _____

Flow _____ Other _____

Samples returned via: ___ UPS ___ FedEx ___ Courier _____

9050 8424 0760

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
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

	Date:	Time:		
Relinquished by : (Signature)	11/3/20	1630	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date:	Time:	Received by: (Signature)	Temp: 4 °C Bottles Received: 85
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 11/4/20 Time: 9:00

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

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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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 24204

CONDITIONS

Operator:	OGRID:
PLAINS MARKETING L.P. 333 Clay St, Ste 1600 Houston, TX 77002	34053
	Action Number: 24204
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
nvelez	Review of 2020 ANNUAL GROUNDWATER MONITORING REPORT: Content satisfactory Contractor recommendations approved and are as follows; 1. Continue quarterly groundwater monitoring events to the NMOCD. 2. Continue annual analyses of PAHs during the fourth quarter monitoring event. Monitor wells MW-1R, MW-2R, MW5R, MW-7R, MW-11R, MW-13R, MW-18, RW-5R and RW-19 and any new wells not impacted by LNAPL will require analyses of PAH. 3. Continue operating the pneumatic LNAPL-only skimmer pump system in RW-3R, RW-16, and RW-17 to reduce hand-bailing efforts and enhance LNAPL recovery. 4. Submit annual report to OCD no later than March 31,2022.	1/11/2022