Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2116135510
District RP	1R-0085
Facility ID	
Application ID	

Closure

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

Closure Report Attachment Checklist: ***Each of the following items must be included in the closure report.***

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Amber Groves Title: Remediation Coordinator

Signature: Amber Groves Date: 06/10/2021

email: algroves@paalp.com Telephone: 575-200-5517

OCD Only

Received by: _____ Date: _____

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: Bradford Billings Date: 10/6/2022

Printed Name: Bradford Billings Title: Envi. Spec.A

From: Amber L Groves
To: Stanley, Curtis D.
Subject: [EXTERNAL] FW: [EXT] RE: Plains GW Report Review and Approvals
Date: Thursday, June 10, 2021 11:38:34 AM
Attachments: Red Byrd PA Reports 1R-0085.pdf
Red Byrd Final C-141.pdf
97-17 - MW22 MW24 PA - AP-017.pdf

From: Amber L Groves
Sent: Monday, March 29, 2021 9:44 AM
To: 'Billings, Bradford, EMNRD' <Bradford.Billings@state.nm.us>
Cc: Camille J Bryant <CJBryant@paalp.com>
Subject: RE: [EXT] RE: Plains GW Report Review and Approvals [External]

Good Morning, Bradford,

Please find attached the plugging reports and final C-141 for your signature for 1R-0085 as requested in the e-mail below. Please feel free to give me a call with any questions!

I have also attached the plugging report for the two monitor wells that we plugged for AP-017 as approved further down in the e-mail chain below.

Thank you,

Amber L. Groves
Remediation Coordinator
Plains All American
3112 W. US Hwy 82
Lovington, NM 88260
575-200-5517

From: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Sent: Thursday, March 26, 2020 9:40 AM
To: Amber L Groves <ALGroves@paalp.com>
Subject: RE: [EXT] RE: Plains GW Report Review and Approvals [External]

Hi,

Sorry,

On !R-085 (Red Byrd), specifically, agree with closure, but with CONDITION:

P&A all wells as outlined and as per OSE requirements, submit a report on this activity, with C-141 Closure Section included. I will then sign and close this RP in data base.

Thanks for the catch.

Include this communication as well, as NO paper copy will follow.

Sincerely,

Bradford Billings

From: Amber L Groves <ALGroves@paalp.com>
Sent: Thursday, March 26, 2020 8:27 AM
To: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>; Camille J Bryant <CJBryant@paalp.com>
Subject: [EXT] RE: Plains GW Report Review and Approvals

Bradford,

Thank you so much! We really appreciate the approvals!

Just for clarification sake, GW-351 has two sites under the same number. Is the approval listed below for both Lea Station Monitoring and Lea Station Landfarm?

Thank you!

Amber

From: Billings, Bradford, EMNRD <Bradford.Billings@state.nm.us>
Sent: Thursday, March 26, 2020 9:17 AM
To: Camille J Bryant <CJBryant@paalp.com>; Amber L Groves <ALGroves@paalp.com>
Subject: Plains GW Report Review and Approvals [External]

03/24/2020

Camille Bryant – Plains Pipeline
Amber Groves – Plains Pipeline

Re: Numerous Groundwater sites and associated Reports as indicated below.

1R-455: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-464: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-386: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

GW-140: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-85: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-63: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-41: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

GW-351: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-463: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-420: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-17: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-13: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-124: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-007: (Dar Angell's #1, 2, and 4): Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Reports on all three associated with AP-007.

1R-2162: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-2166: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-037: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

AP-91: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

GW-0294: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-0294: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-0234: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

1R-2136: Agree and approve of all written stipulations on sampling, minor modifications, scheduling and reporting in 2019 Annual Report.

Please keep a copy of this communication, as NO paper copy will follow.

The Oil Conservation Division (OCD) appreciates your efforts.

This communication and electronic copies of the locations will be uploaded in OCD data base (imaging) shortly.

Sincerely,

Bradford Billings

Bradford G. Billings
EMNRD/OCD
5200 Oakland , NE, Suite 100
Albuquerque, NM 87113

505-670-6549

responsibility for compliance with any other federal, state, local laws and/or regulations

Attention:
The information contained in this message and/or attachments is intended only for the person or entity to which it is addressed and may contain confidential and/or privileged material. If you received this in error, please contact the Plains Service Desk at 713-646-4444 and delete the material from any system and destroy any copies.

This footnote also confirms that this email message has been scanned for Viruses and Content and cleared.

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-18

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCI Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 14.3994 sec
Longitude: 103 deg, 18 min, 7.848 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 45 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 36 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
0-45	7.3 gallons	7.3 gallons	tremmie		

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

OEZ For Kenny Cooper — 01/25/21

Signature of Well Driller — Date

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-12

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCI Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 12.492 sec
Longitude: 103 deg, 18 min, 6.012 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 45 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 38 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-45	7.3 gallons	7.3 gallons	tremmie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

DRZ For Kenny Cooper — 01/25/21

Signature of Well Driller — Date

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-6

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCl Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 11.8794 sec
Longitude: 103 deg, 18 min, 3.924 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 42 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 36 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
0-42	6.85 gallons	6.85 gallons	tremmie		

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

DEZO for Kenny Cooper — 01/25/21

Signature of Well Driller — Date

Version: September 8, 2009
Page 2 of 2

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-11

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCI Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 11.9514 sec
Longitude: 103 deg, 18 min, 5.0034 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 45 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 33 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-45	7.3 gallons	7.3 gallons	tremmie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

FOR KENNY COOPER — 01/25/21

Signature of Well Driller — Date

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-7

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCI Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 10.404 sec
Longitude: 103 deg, 18 min, 2.52 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 42 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 33 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-42	6.85 gallons	6.85 gallons	tremmie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

D L Z P FOR KENNY COOPER — 01/25/21

Signature of Well Driller — Date

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-17

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCI Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 9.108 sec
Longitude: 103 deg, 18 min, 5.1474 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 45 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 36 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

Version: September 8, 2009
Page 1 of 2

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-45	7.3 gallons	7.3 gallons	tremmie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

DLZ FOR KENNY COOPER — 01/25/21

Signature of Well Driller — Date

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-16

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCl Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 6.768 sec
Longitude: 103 deg, 18 min, 19.7994 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 45 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 36 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-45	7.3 gallons	7.3 gallons	tremmie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

FOR KENNY COOPER — 01/25/21

Signature of Well Driller — Date

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: MW-19

Well owner: Plains Pipeline, LP Phone No.: _____

Mailing address: 333 Clay Street Suite 1900

City: Houston State: TX Zip code: 77002

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: HCl Drilling

2) New Mexico Well Driller License No.: 1731 Expiration Date: 02/22

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): _____

4) Date well plugging began: 01/21/21 Date well plugging concluded: 01/21/21

5) GPS Well Location: Latitude: 32 deg, 36 min, 4.8954 sec
Longitude: 103 deg, 18 min, 58.128 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 45 ft below ground level (bgl), by the following manner: weighted tape measure

7) Static water level measured at initiation of plugging: 37 ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: 12/14/2020

9) Were all plugging activities consistent with an approved plugging plan? Yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	0-45	7.3 gallons	7.3 gallons	tremmie	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

I, Kenny Cooper, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

For Kenny Cooper — 01/25/21

Signature of Well Driller — Date

Version: September 8, 2009
Page 2 of 2

TRC
Results you can rely on

2019 ANNUAL MONITORING REPORT AND SITE CLOSURE REQUEST

RED BYRD #1

Unit Letter "H" (SE/NE), Section 1, Township 20 South, Range 36
East Latitude 32° 36' 10.15" North, Longitude 103° 18' 00.35" West
Lea County, New Mexico
Plains SRS Number: TNM Red Byrd 1
NMOCD Reference Number:
1R-0085

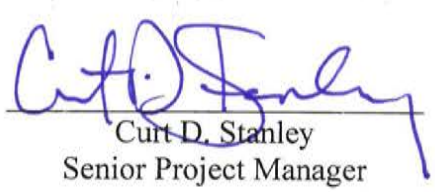
PREPARED FOR:

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

PREPARED BY:

TRC ENVIRONMENTAL CORPORATION
10 Desta Drive, Suite 150E
Midland, Texas 79705

February 2020



Curt D. Stanley
Senior Project Manager

TABLE OF CONTENTS

ENCLOSED ON DATA DISK

2019 Annual Monitoring Report and Site Closure Request
2019 Tables 1, 2, and 3 – Groundwater Elevation, BTEX Concentration Data, and PAH Concentration
2019 Figures 1, 2A through 2D, 3A, and 3B
Appendix A – PSH analysis laboratory report
Appendix B – "Fingerprint" analysis and laboratory study
Appendix C – New Mexico Environmental Department Correspondence
Appendix D – Laboratory Reports
Appendix E – Release Notification of Corrective Action (Form C-141)

INTRODUCTION

TRC Environmental Corporation (TRC), on behalf of Plains Marketing, LP (Plains), is pleased to submit this *Annual Monitoring Report* in compliance with the New Mexico Oil Conservation Division (NMOCD) letter of May 1998, requiring submittal of an Annual Monitoring Report by April 1st of each year. This report is intended to be viewed as a complete document with text, figures, tables, and appendices. This report presents the results of the quarterly groundwater monitoring events conducted in calendar year 2019 only. For reference, a "Site Location Map" is provided as Figure 1.

Groundwater monitoring was conducted semi-annually during the 2019 reporting period to assess the levels and extent of dissolved phase constituents and Phase-Separated Hydrocarbon (PSH). The groundwater monitoring events consisted of measuring static water levels in the monitor wells, checking for the presence of PSH, and purging and sampling of each well exhibiting sufficient recharge. Monitor wells containing a thickness of PSH greater than 0.01 feet were not sampled.

SITE DESCRIPTION AND BACKGROUND INFORMATION

The Site is located approximately four (4) miles southwest of the town of Monument, New Mexico. The legal description of the Site is Unit Letter "H" (SE/NE), Section 1, Township 20 South, Range 36 East. The geographic coordinates of the Site are 32° 36’ 10.15” North latitude and 103° 18’ 00.35” West longitude.

In January 2000, evidence of a historical release was discovered by the landowner, Mr. Red Byrd, and brought to the attention of Enron Oil Trading and Transportation (EOTT), who acquired the pipeline from Texas New Mexico Pipeline Company in 1999. On January 1, 2009, Basin assumed oversight of groundwater daily operations, sampling, and reporting at the Release Site. In the 4th quarter of 2017, TRC assumed oversight of groundwater daily operations, sampling, and reporting at the Release Site.

Approximately 8,900 cubic yards (cy) of impacted soil was excavated, shredded, and blended with nutrients. Approximately 3,700 cy of the impacted soil was transported to Plains Lea Station Landfarm (Discharge Permit #GW-351). On completion of excavation activities, confirmation soil samples were collected from the excavation and stockpiles. Review of laboratory analytical results indicated soil samples collected from the excavation were less than NMOCD regulatory guidelines. The excavation was backfilled with the blended soil, approximately 3,500 cubic yards of non-impacted, locally obtained topsoil was transported to the Site, and the area was contoured to topographic grade.

At the Red Byrd #1 Site, two (2) areas of hydrocarbon impact related to the Plains pipeline have been identified as Red Byrd #1 and Red Byrd Ranch Historical. The first area of impact (Red Byrd #1) is centered on and around monitor well MW-1. The second area of impact (Red Byrd Ranch Historical – 1R 1299) related to the Plains pipeline is the subject of this Annual Monitoring Report and is centered on monitor well MW-12. The soil issues at the Red Byrd #1 and Red Byrd Ranch Historical sites have been remediated, and groundwater monitoring and sampling are ongoing. For the purpose of groundwater monitoring, the remaining activities at the Site are conducted at Red Byrd #1.

On November 17, 2008, Plains assigned excavation oversight of the Red Byrd Ranch Historical Release Site to Basin. On December 10, 2008, Basin resumed excavation activities at the Release Site,

and on September 9, 2009, backfilling and restoration activities at the Red Byrd Ranch Historical Release Site were completed.

During sampling conducted in the first quarter of 2009, additional groundwater samples were collected from each of the nineteen (19) on-site monitor wells and analyzed for concentrations of chloride and total dissolved solids (TDS). The analytical results indicated elevated TDS concentrations, in excess of 10,000 mg/L, were present in fifteen (15) monitor wells. On September 9, 2009, Plains requested NMOCD approval to plug and abandon monitor wells exhibiting TDS concentrations exceeding 10,000 mg/L (MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14, MW-15, MW-16, and MW-19). Plains requested monitor wells associated with the ongoing groundwater issues at the Red Byrd Ranch Historical release (MW-6, MW-7, MW-11, MW-12, MW-17, and MW-18) be placed on a semi-annual sampling schedule to monitor the Red Byrd Ranch Historical PSH plume.

On October 2, 2009, Plains received NMOCD approval to reduce the sampling frequency for monitor wells MW-6, MW-7, MW-11, MW-12, MW-16, MW-17, MW-18, and MW-19 to a semi-annual schedule, and plug and abandon monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14, and MW-15.

In October 2009, a *Red Byrd Ranch Historical Remediation Summary and Soil Closure Request* was submitted to the NMOCD Santa Fe Office. On December 9, 2009, Plains received correspondence from the NMOCD Santa Fe Office, indicating the report was accepted and no further soil remediation was required at the Site.

On October 29, 2009, monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14, and MW-15 were plugged and abandoned by a State of New Mexico licensed water well driller, as approved by the NMOCD. Monitor well MW-2 was plugged on November 9, 2006. Following the plugging activities, plugging reports were submitted to the NMOCD Santa Fe Office.

Currently, eight (8) monitor wells (MW-6, MW-7, MW-11, MW-12, MW-16, MW-17, MW-18, and MW-19) are located on the Red Byrd #1 Site. Monitor wells MW-6, MW-7, MW-11, MW-16, MW-17, MW-18, and MW-19 are gauged quarterly and sampled on a semi-annual schedule.

FIELD ACTIVITIES

Product Recovery Efforts

During the 2019 reporting period, a measureable thickness of PSH was detected in monitor well MW-12 during all four (4) quarters. The average PSH thickness in monitor well MW-12 was 2.39 feet and a maximum PSH thickness of 2.48 feet was observed on November 25, 2019. Table 1 depicts the groundwater gauging data for the reporting period. No PSH was recovered from the Site during the 2019 reporting period. Approximately 465 gallons (11.1 barrels) of PSH was recovered from monitor well MW-12 from February 2009 through December 2019.

Groundwater Monitoring

The on-site monitor wells were gauged and sampled for benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations on June 4, and November 25, 2019. During the sampling events, the monitoring wells were purged of a minimum of three (3) well volumes of water or until the wells were dry using a PVC bailer or electrical Grundfos pump. Groundwater was allowed to recharge, and samples were obtained using disposable Teflon bailers. Water samples were stored in clean, glass containers provided by the laboratory and placed on ice in the field. Purge water was collected in a trailer-mounted polystyrene tank and disposed of at an NMOCD-approved disposal facility near Monument, New Mexico.

Locations of the groundwater monitoring wells and the inferred groundwater elevations, which were constructed from measurements collected during the 1st, 2nd, 3rd and 4th quarters of 2019, are depicted in Figures 2A through 2D. The "Inferred Groundwater Gradient Map" from the most recent gauging event (Figure 2D, November 25, 2019) indicates a general gradient of approximately 0.0026 feet/foot to the south-southeast as measured between groundwater monitor wells MW-18 and MW-19.

The corrected groundwater elevation ranged between 3,530.31 and 3,533.69 feet above mean sea level in monitor wells MW-19 on November 25, 2019 and MW-18 on February 19, 2019, respectively. The "2019 Groundwater Elevation Data" is provided as Table 1.

LABORATORY RESULTS

As requested by the NMOCD in a November 2017 meeting, a sample of PSH was collected from monitor well MW-12 and submitted to Permian Basin Environmental Lab, L.P. in Midland, Texas. The PSH was analyzed for concentrations of TPH by EPA Method 8015M. The analytical results indicated the sample exhibited a gasoline range organics (GRO) concentration of 217,000 mg/kg (wet), a diesel range organics (DRO) concentration of 218,000 mg/Kg (wet). The total TPH concentration of the PSH sample was 505,000 mg/Kg (wet). Please reference the laboratory report provided as Appendix A.

Semi-annual groundwater samples collected from the monitor wells during the 2nd and 4th quarter sampling events were delivered to Permian Basin Environmental Laboratories in Midland, Texas, for determination of BTEX concentrations by EPA Method SW846-8021B. A summary of benzene and BTEX constituent concentrations is presented in Table 2, "2019 Concentrations of BTEX in Groundwater". During the 4th quarter sampling event the monitor wells were sampled for concentrations of Polynuclear Aromatic Hydrocarbons (PAH) by EPA Method 8270. A summary of “2018 - 2019 Concentrations of Polynuclear Aromatic Hydrocarbons in Groundwater” is presented in Table 3. Laboratory analytical reports are provided as Appendix A. The 2nd and 4th quarter "Groundwater Concentration & Inferred PSH Extent" map are provided as Figure 3A and Figure 3B.

For the purposes of this annual monitoring report, laboratory analytical results were compared to NMOCD regulatory guidelines based on the New Mexico groundwater standards found in Section 20.6.2.3103 of the New Mexico Administrative Code (NMAC). However, it should be noted, due to the TDS concentrations in the groundwater in the immediate area, the closure criteria for this Site is not based on the standards noted above.

Monitor well MW-6 is sampled on a semi-annual schedule and the analytical results indicated benzene concentrations ranged from less than the applicable laboratory reporting limit (RL) during the 4th quarter to 0.00470 mg/L during the 2nd quarter. The analytical results indicated benzene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarters of the reporting period. Toluene, ethylbenzene, and xylene concentrations were less than the applicable laboratory RL and NMOCD regulatory guidelines during the 2nd and 4th quarters of the reporting period.

PAH analysis during the 4th quarter sampling event indicated all PAH concentrations were below NMWQCC Drinking Water Standards.

Monitor well MW-7 is sampled on a semi-annual schedule and the analytical results indicated BTEX constituent concentrations were less than the applicable laboratory RL and NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events.

PAH analysis during the 4th quarter sampling event indicated all PAH concentrations were below NMWQCC Drinking Water Standards.

Monitor well MW-11 is sampled on a semi-annual schedule and the analytical results indicated benzene concentrations ranged from 0.0163 mg/L during the 4th quarter to 0.0302 mg/L during the 2nd quarter. Benzene concentrations were above the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events. Toluene concentrations were less than the applicable laboratory RL and NMOCD regulatory guidelines during the 2nd and 4th quarters. Ethylbenzene concentrations ranged from less than the applicable laboratory RL during the 2nd quarter to 0.00358 mg/L during the 4th quarter. Ethylbenzene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events. Xylene concentrations ranged from 0.0279 mg/L during the 2nd quarter to 0.0361 mg/L during the 4th quarter. Xylene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events.

PAH analysis during the 4th quarter sampling event indicated all PAH concentrations were below NMWQCC Drinking Water Standards.

Monitor well MW-12 is monitored on a semi-annual schedule. Monitor well MW-12 was not sampled during the 2nd and 4th quarters of the reporting period due to the presence of PSH in the monitor well. PSH thicknesses of 2.25 feet and 2.48 feet were reported during the 2nd and 4th quarters of the reporting period. PAH analysis was not conducted during the 4th quarter sampling event due to the presence of PSH.

Monitor well MW-16 is sampled on a semi-annual schedule and the analytical results indicated benzene concentrations ranged from 0.00687 mg/L during the 4th quarter to 0.0158 mg/L during the 2nd quarter. Benzene concentrations were above the NMOCD regulatory guidelines during 2nd quarter sampling event. Toluene concentrations were less than the applicable laboratory RL and NMOCD regulatory guidelines during the 2nd and 4th quarters. Ethylbenzene concentrations ranged from less than the applicable laboratory RL during the 2nd quarter to 0.00988 mg/L during the 4th quarter. Ethylbenzene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events. Xylene concentrations ranged from 0.00200 mg/L during the 2nd quarter to

0.00593 mg/L during the 4th quarter. Xylene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events.

PAH analysis during the 4th quarter sampling event indicated all PAH concentrations were below NMWQCC Drinking Water Standards.

Monitor well MW-17 is sampled on a semi-annual schedule and the analytical results indicated benzene concentrations ranged from 0.0115 mg/L during the 4th quarter to 0.0931 mg/L during the 2nd quarter. Benzene concentrations were above the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events. Toluene concentrations ranged from less than the applicable laboratory RL during the 4th quarter to 0.00105 mg/L during the 2nd quarter. Toluene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events. Ethylbenzene concentrations ranged from 0.0357 mg/L during the 4th quarter to 0.0480 mg/L during the 2nd quarter. Ethylbenzene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events. Xylene concentrations ranged from 0.03898 mg/L during the 4th quarter to 0.0533 mg/L during the 2nd quarter. Xylene concentrations were below the NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events.

PAH analysis during the 4th quarter sampling event indicated elevated concentrations of benzo[a]anthracene (0.00027 mg/L), chrysene (0.00073 mg/L), fluorene (0.0049 mg/L), phenanthrene (0.0052 mg/L), pyrene (0.0016 mg/L), and naphthalene (0.0613 mg/L), which are above NMWQCC Drinking Water Standards.

Monitor well MW-18 is sampled on a semi-annual schedule and the analytical results indicated BTEX constituent concentrations were less than the applicable laboratory RL and NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events.

PAH analysis during the 4th quarter sampling event indicated elevated concentrations of chrysene (0.00042 mg/L), which is above NMWQCC Drinking Water Standards.

Monitor well MW-19 is sampled on a semi-annual schedule and the analytical results indicated BTEX constituent concentrations were less than the applicable laboratory RL and NMOCD regulatory guidelines during the 2nd and 4th quarter sampling events.

PAH analysis during the 4th quarter sampling event indicated all PAH concentrations were below NMWQCC Drinking Water Standards.

SUMMARY

This report presents the results of monitoring activities for the 2019 annual monitoring period. Currently, there are eight (8) groundwater monitor wells (MW-6, MW-7, MW-11, MW-12, MW-16, MW-17, MW- 18, and MW-19) on-site.

On October 29, 2009, monitor wells MW-1, MW-3, MW-4, MW-5, MW-8, MW-9, MW-10, MW-13, MW-14 and MW-15 were plugged and abandoned by a State of New Mexico licensed water well driller, as approved by the NMOCD. Following the plugging activities, plugging reports were

submitted to the NMOCD Santa Fe Office. Monitor well MW-2 had previously been abandoned on November 9, 2006.

The "Inferred Groundwater Gradient Map" from the most recent gauging event (Figure 2D, November 25, 2019) indicates a general gradient of approximately 0.0026 feet/foot to the south-southeast as measured between groundwater monitor wells MW-18 and MW-19.

During the 2019 reporting period, a measurable thickness of PSH was detected in monitor well MW-12 during all four (4) quarters. The average PSH thickness in monitor well MW-12 was 2.39 feet and a maximum PSH thickness of 2.48 feet was observed on November 25, 2019. Table 1 depicts the groundwater gauging data for the reporting period. No PSH was recovered from the Site during the 2019 reporting period. Approximately 465 gallons (11.1 barrels) of PSH was recovered from monitor well MW-12 from February 2009 through December 2019.

As requested by the NMOCD in a November 2017 meeting, a sample of PSH was collected from monitor well MW-12 and submitted to Permian Basin Environmental Lab, L.P. in Midland, Texas. The PSH was analyzed for concentrations of TPH by EPA Method 8015M. The analytical results indicated the sample exhibited a gasoline range organics (GRO) concentration of 217,000 mg/kg (wet), a diesel range organics (DRO) concentration of 218,000 mg/Kg (wet). The total TPH concentration of the PSH sample was 505,000 mg/Kg (wet). Please reference the laboratory report provided as Appendix A.

In addition, the NMOCD requested a copy of the "fingerprint" analysis and laboratory study which were initially provided to the NMOCD in the *Stage 1 Abatement Plan* dated May 2000. Per the *Stage 1 Abatement Plan*, "During the drilling and completion of the site monitor wells, a distinct odor similar to a solvent was detected in the groundwater". The study was conducted to compare soil samples in the smear zone with surface soil samples (Samples SS-1 and SS-2) and a crude oil standard. The "fingerprint" analysis and study are provided in Appendix B.

CONCLUSIONS

On March 10, 2017, Plains hand-delivered a copy of the Red Byrd #1 *Groundwater Resource Assessment* (Report) to the NMOCD in Santa Fe. The Report was prepared for Plains by ESE Partners, LLC (ESE) of Houston, Texas and dated December 6, 2016. The purpose of the Report was to review existing data provided to ESE by Plains and propose an alternative abatement plan in accordance with New Mexico Administrative Code (NMAC) 19.15.30.9E. The ESE Report concluded the following findings:

- Based on TDS data collected from the Site, and previous determinations from the NMOCD with regard to plugging and abandoning other on-site wells, the groundwater resource appears to be unfit for human ingestion and irrigation;
- According to the United States Geological Survey (USGS), groundwater in the vicinity of the Site is obtained from the formations that are not sufficient for irrigation use and barely provide enough (groundwater) for rural domestic and livestock requirements;
- A Mobil Dual Phase Extraction (MDPE) event conducted in 2011 only recovered 11.19 gallons of PSH, indicating a low level of recovery (approximately 0.57% by volume). Additionally, recorded recharge from the event was approximately 0.001 gal/day, suggesting the groundwater

bearing unit does not appear to yield sufficient volume of PSH for MDPE to be an effective remedy;
- Approximately four (4) years of weekly bailing appear to have had minimal or no effect on PSH levels, suggesting that the Site has likely reached the point of diminishing returns;
- Other options, such as in-situ chemical oxidation via subsurface injection is not typically effective in the remediation of free-phase PSH;
- On-site soil has been abated so that water contaminates in the vadose zone are not capable of contaminating groundwater or surface water;
- Statistical extrapolation of benzene concentrations has indicated a projected decrease in concentration of benzene over the remainder of a twenty (20) year period, such that projected future reductions during that time would be less than 20 percent of the current concentration;
- Based on data obtained from sampling events, contaminant concentrations in groundwater at the Site do not exceed their respective NMOCD Target Cleanup Levels and/or Alternate Abatement Standards;
- There is strong evidence to suggest that at least some of the groundwater contamination at the Red Byrd #1 Site is attributable to an off-site source. Based on the up-gradient position of monitor wells containing elevated TDS and BTEX concentrations, and the presence of numerous (20-plus) pipelines in the area, abandoned pits located northwest and south of the Release, numerous facility and drilling pads, production wells, a refinery and a chemical plant all within one-half mile of the Release Site, there appears to be multiple potential responsible parties contributing to the contaminant plume.

Please reference the Red Byrd #1 *Groundwater Resource Assessment* dated December 6, 2016 for additional details.

In addition to the aforementioned findings, Plains submits a copy of a letter dated August 16, 1991 from the Hazardous and Radioactive Materials Bureau (HRMB) of the New Mexico Environmental Department (NMED) concerning groundwater contamination caused by the Climax Chemical Company. The Climax Chemical Company Plant is located approximately three (3) miles west of the City of Monument and approximately one and one quarter (1.25) miles up-gradient of the Red Byrd #1 Release Site. Please reference the NMED letter provided as Appendix C.

GROUNDWATER CLOSURE REQUEST

Based on the findings presented:

- In the Red Byrd #1 *Groundwater Resource Assessment* dated December 6, 2016. This Report was submitted to the NMOCD on March 10, 2017.
- The 1991 HRMB NMED letter concerning the groundwater contamination caused by the Climax Chemical Company, located approximately one and one-quarter (1.25) miles up-gradient of the Red Byrd #1 Site (Appendix C).
- The analytical results and laboratory study of “fingerprint” analysis of soil samples at the Release Site (Appendix B).
- The historical BTEX impact in monitor well MW-18, located up-gradient of the Red Byrd #1 Release Site.

- The majority of on-site monitor wells exhibit TDS concentrations in excess of the abatable standard of 10,000 mg/L and are considered non-abatable under NMAC 20.6.2.3101, US EPA potable water standards and USBR irrigation standards. This information was presented to the NMOCD in the 2016 Annual Monitoring Report and in the *Groundwater Resource Assessment.*
- Numerous pipelines, facilities and likely historical drilling, production, or disposal pits located on and adjacent to the Red Byrd #1 Release Site.

Based on the aforementioned findings, Plains requests NMOCD approval to cease groundwater monitoring and sampling at the Red Byrd #1 Release Site. On NMOCD approval, the eight (8) remaining monitor wells will be plugged and abandoned by a New Mexico licensed water well driller in accordance with New Mexico Office of the State Engineer (NMOSE) and NMOCD rules. Following the plugging and abandonment of the monitor wells, plugging reports will be submitted to the NMOSE and NMOCD.

SITE CLOSURE REQUEST

Plains requests NMOCD Site Closure for the Red Byrd #1 Release Site.

LIMITATIONS

TRC has prepared this Annual Monitoring Report to the best of its ability. No other warranty, expressed or implied, is made or intended.

TRC has examined and relied upon documents referenced in the report and has relied on Basin and on oral statements made by certain individuals and information generated by Basin. TRC has not conducted an independent examination of the facts contained in referenced materials and statements. We have presumed the genuineness of the documents and the information provided in documents or statements is true and accurate. TRC has prepared this report, in a professional manner, using the degree of skill and care exercised by similar environmental consultants. TRC also notes the facts and conditions referenced in this report may change over time and the conclusions and recommendations set forth herein are applicable only to the facts and conditions as described at the time of this report.

This report has been prepared for the benefit of Plains. The information contained in this report, including all exhibits and attachments, may not be used by any other party without the express consent of TRC and/or Plains.

DISTRIBUTION

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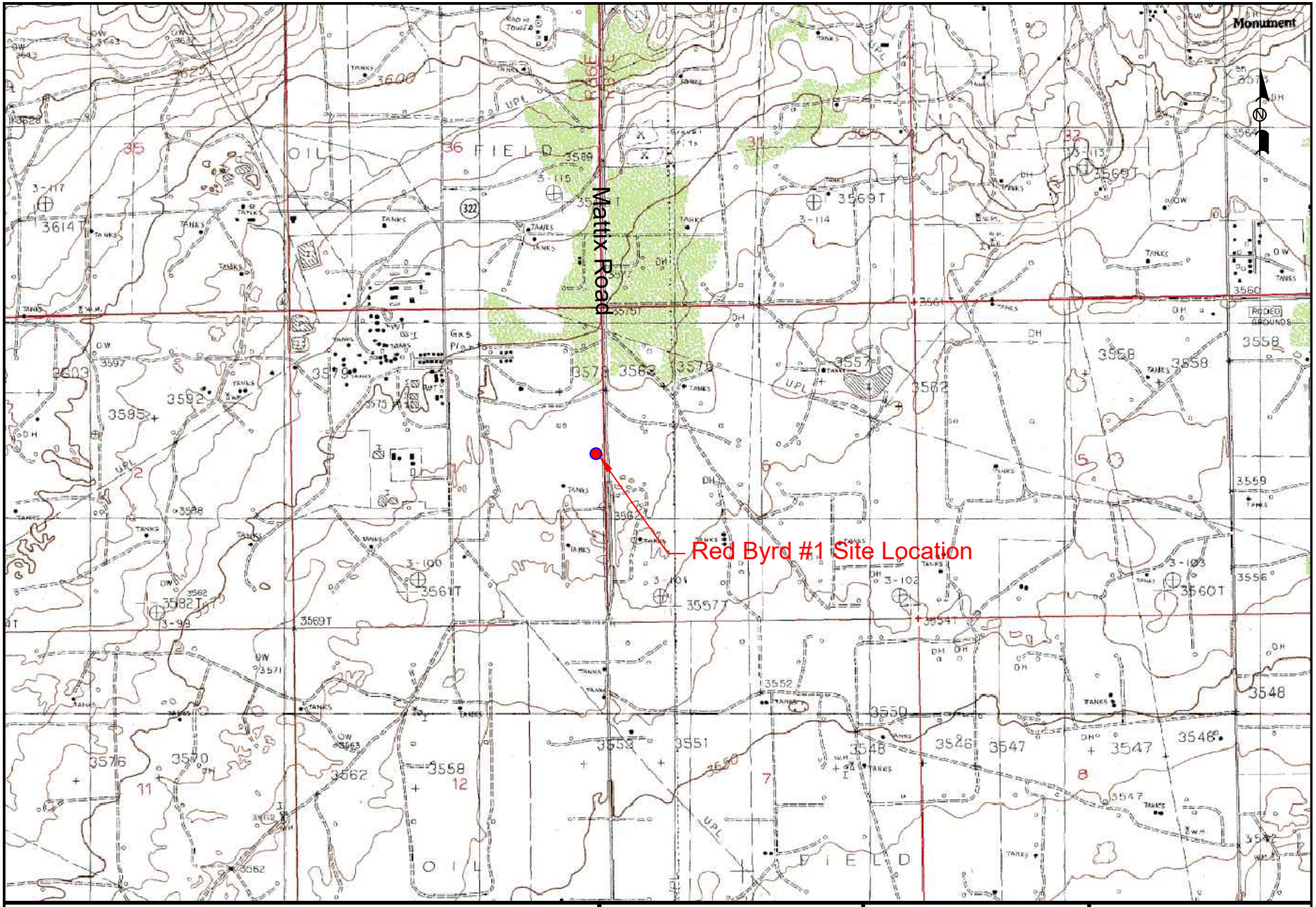
Figures



LEGEND:

Figure 1
Site Location Map
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # 1RP-0085
Lea County, NM

NTS	
CAD By: CS	Checked By: CS
Draft: March 26, 2018	
N 32° 36' 10.15", W 103° 18' 00.35"	
SE1/4 NE1/4 Sec 1 T20S R36E	
TRC Proj. No.: 292800	

TRC
10 Desta Drive, Suite 150E
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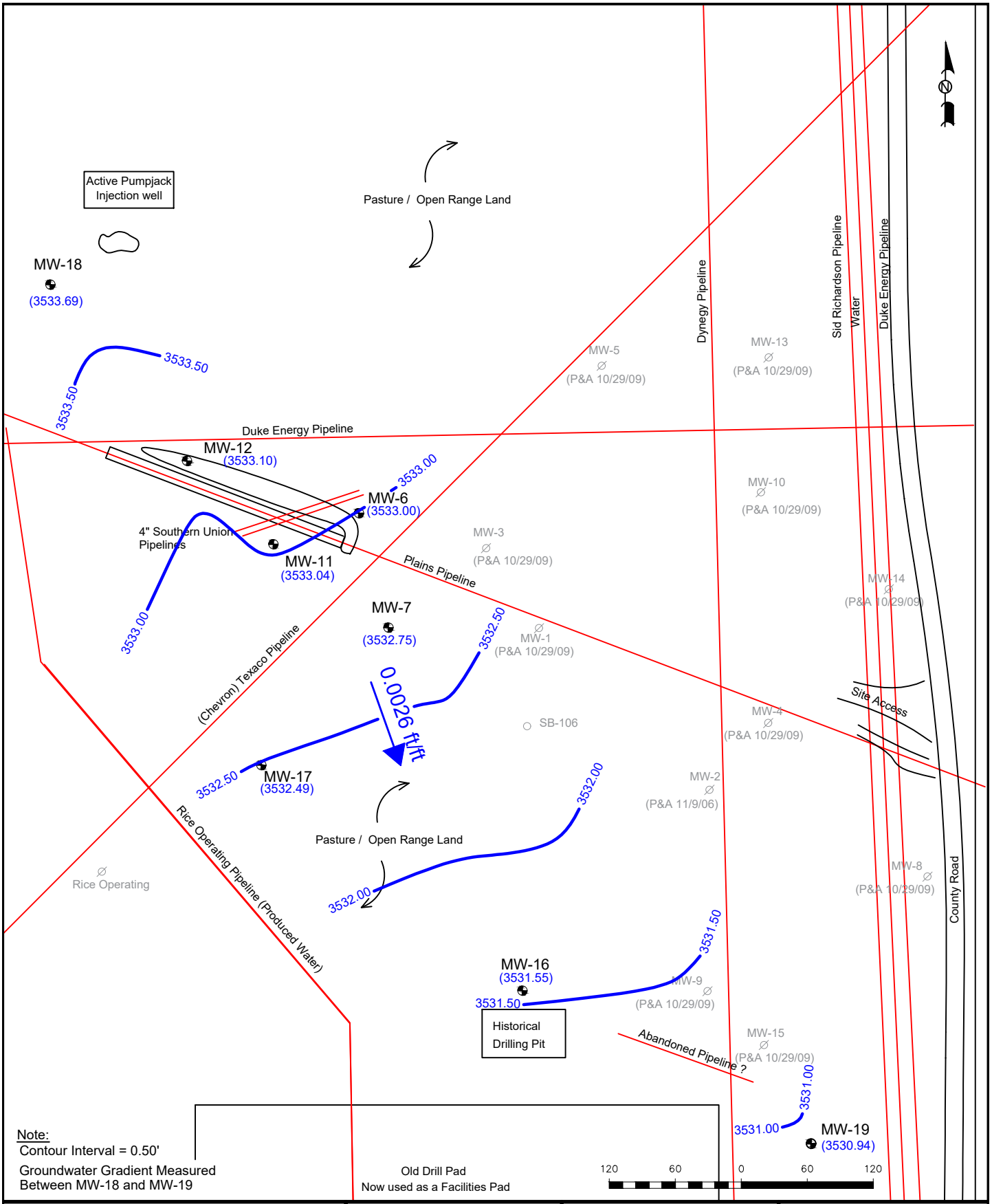
432.520.7720



Note:
Contour Interval = 0.50'
Groundwater Gradient Measured Between MW-18 and MW-19

LEGEND:
- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line
- (3606.94) Groundwater Elevation (feet)
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2A
Inferred Groundwater Gradient Map
(2/19/2019)
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # IRP-0085
Lea County, NM

Scale: 1" = 120'	
CAD By: CS	Checked By: CS
Draft: April 15, 2019	
N 32° 36' 10.15", W 103° 18' 00.35"	
SE1/4 NE1/4 Sec 1 T20S R36E	
TRC Proj. No.: 292800	

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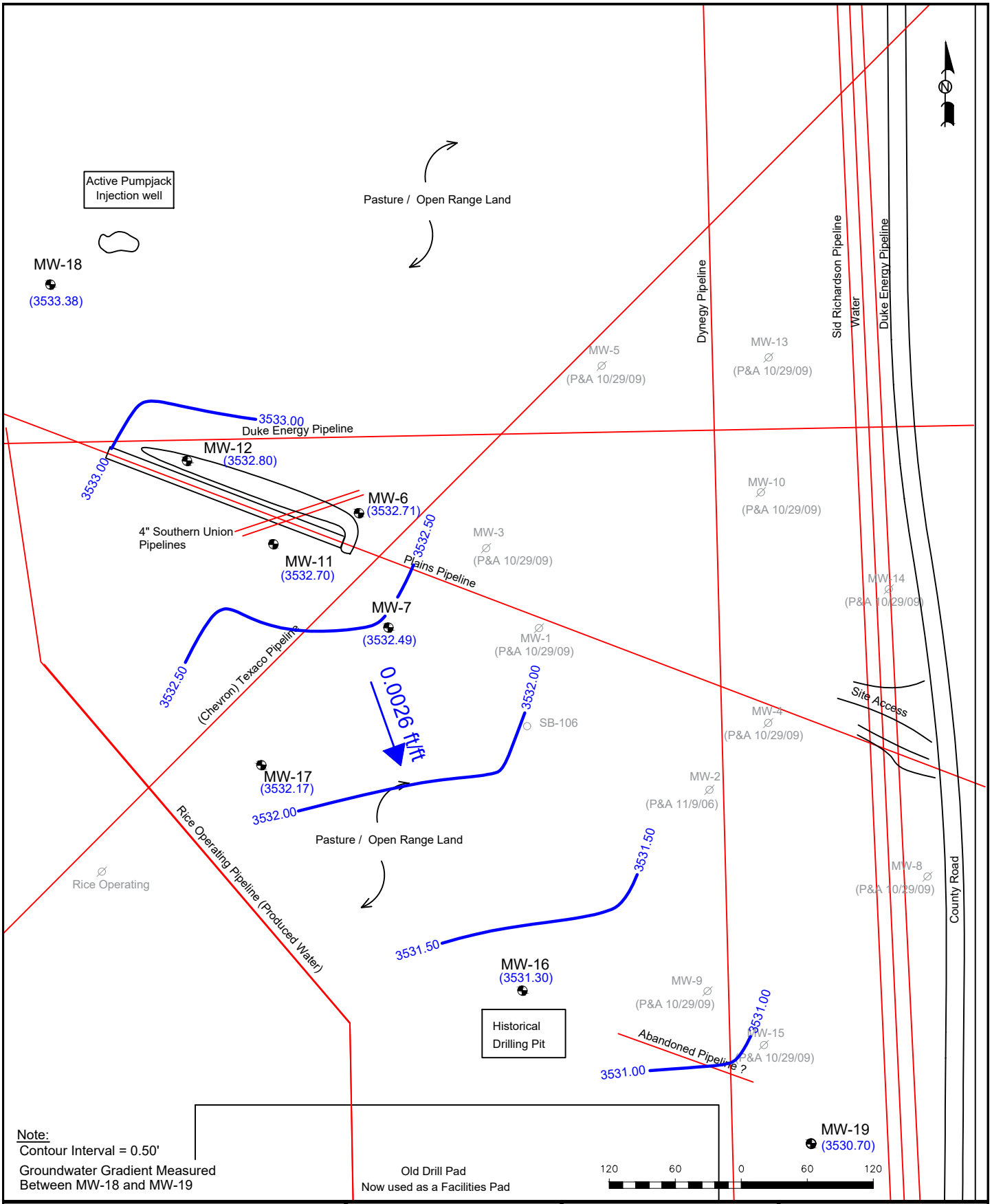

LEGEND:

- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line
- (3606.94) Groundwater Elevation (feet)
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2B
Inferred Groundwater Gradient Map
(6/4/2019)
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # IRP-0085
Lea County, NM

Scale: 1" = 120'	
CAD By: CS	Checked By: CS
Draft: July 15, 2019	
N 32° 36' 10.15", W 103° 18' 00.35"	
SE1/4 NE1/4 Sec 1 T20S R36E	
TRC Proj. No.: 292800	

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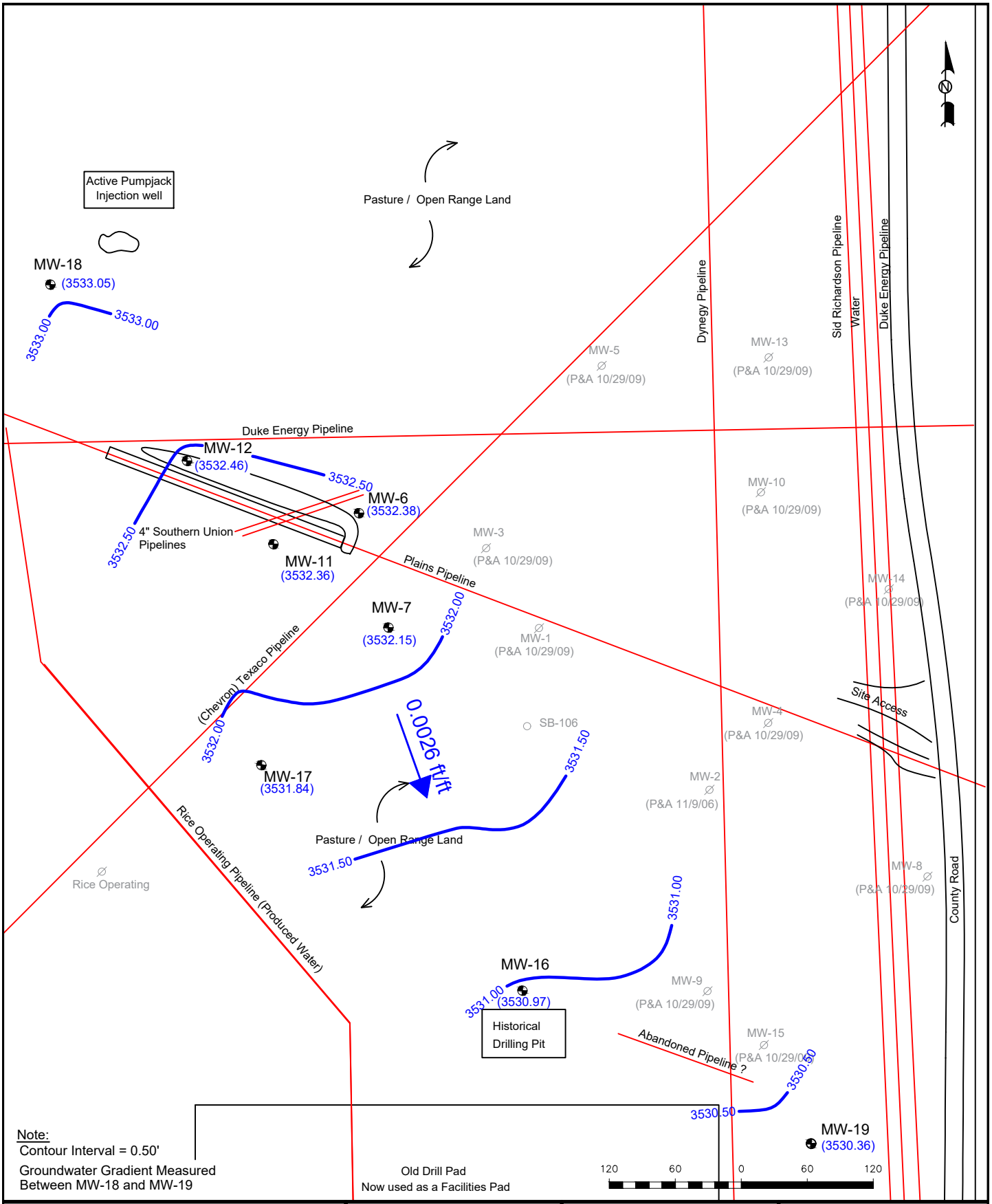

LEGEND:
- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line
- (3606.94) Groundwater Elevation (feet)
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2C
Inferred Groundwater Gradient Map
(9/2/2019)
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # IRP-0085
Lea County, NM

Scale: 1" = 120'	
CAD By: CS	Checked By: CS
Draft: October 8, 2019	
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TRC Proj. No.: 292800	

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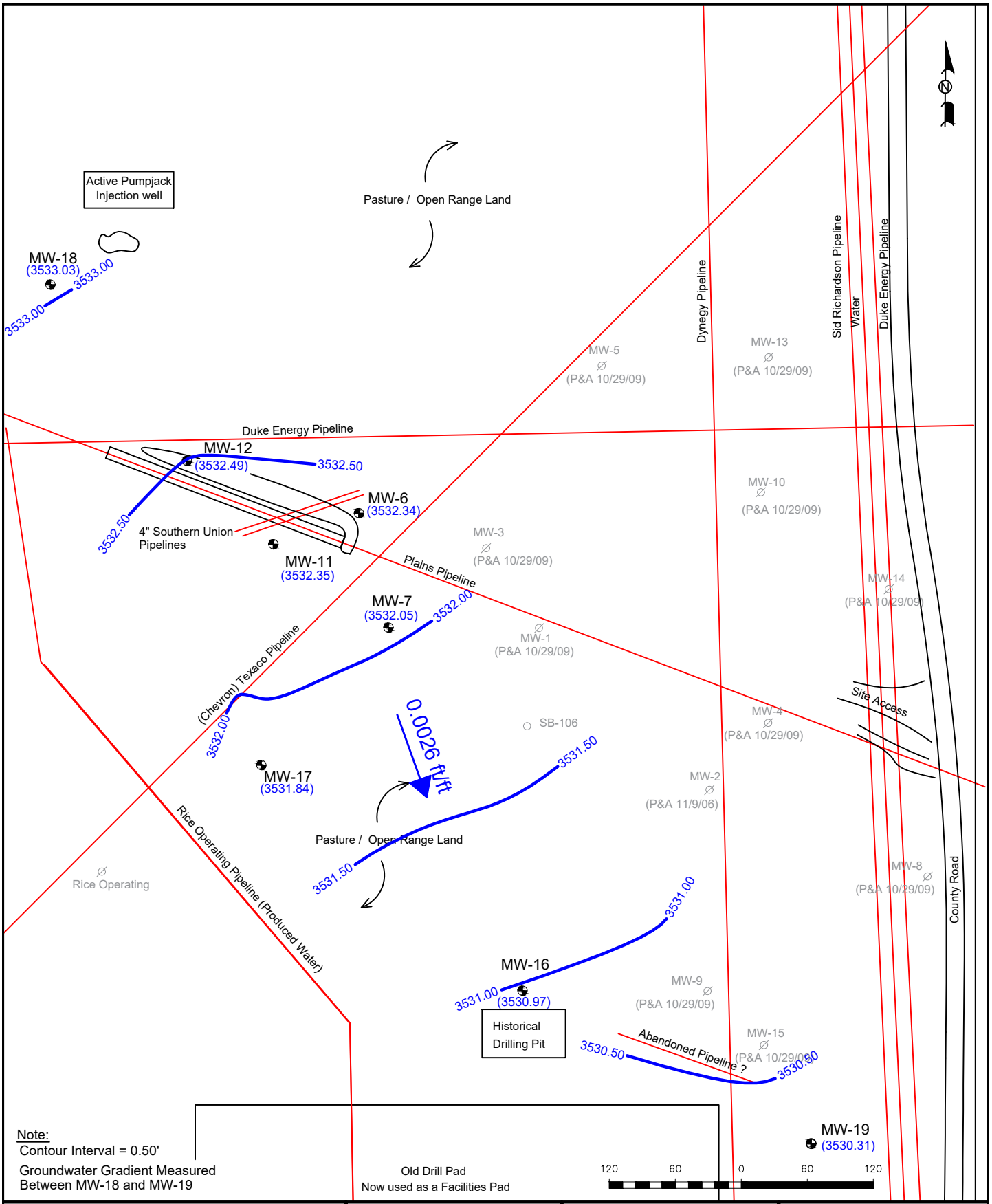

Note:
Contour Interval = 0.50'
Groundwater Gradient Measured Between MW-18 and MW-19

LEGEND:
- Monitor Well Location
- Pipeline
- Groundwater Elevation Contour Line
- (3606.94) Groundwater Elevation (feet)
- 0.001 ft/ft Groundwater Gradient and Magnitude

Figure 2D
Inferred Groundwater Gradient Map
(11/25/2019)
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # IRP-0085
Lea County, NM

Scale: 1" = 120'	
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Draft: December 17, 2019	
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TRC Proj. No.: 292800	

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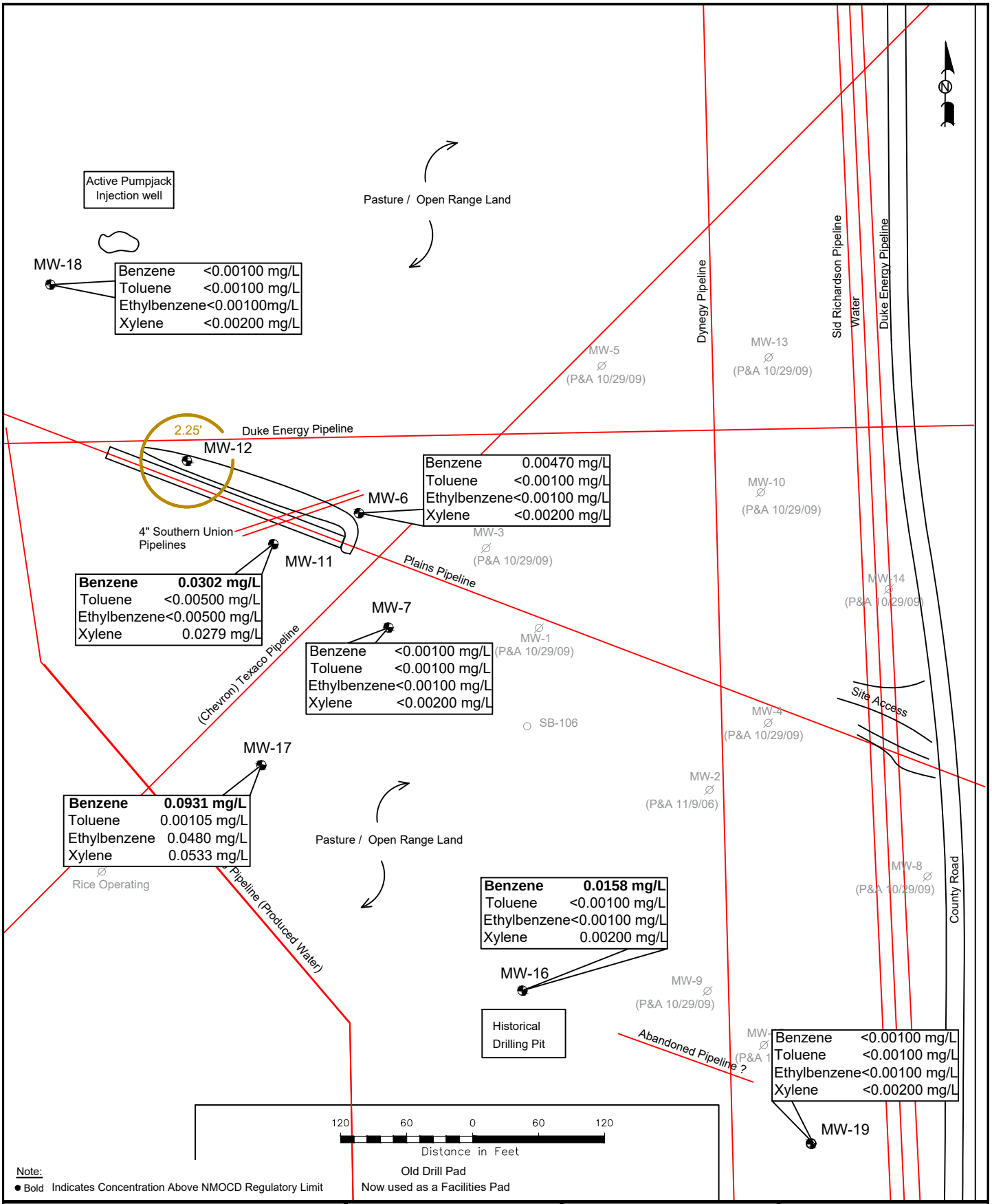

Note:
● Bold Indicates Concentration Above NMOCD Regulatory Limit

LEGEND:
- Monitor Well Location
- (NS) Not Sampled
- Inferred Extent of PSH
- <0.001 Constituent Concentration (mg/L)
- 1.90' PSH Thickness (feet)

Figure 3A
Groundwater Concentration and Inferred PSH Extent Map (6/4/2019)
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # IRP-0085
Lea County, NM

Scale: 1" = 120'	
CAD By: CS	Checked By: CS
Draft: June 24, 2019	
N 32° 36' 10.105', W 103° 18' 00.35"	
SE1/4 NE1/4 Sec 1 T20S R36E	
TRC Proj. No.: 292800	

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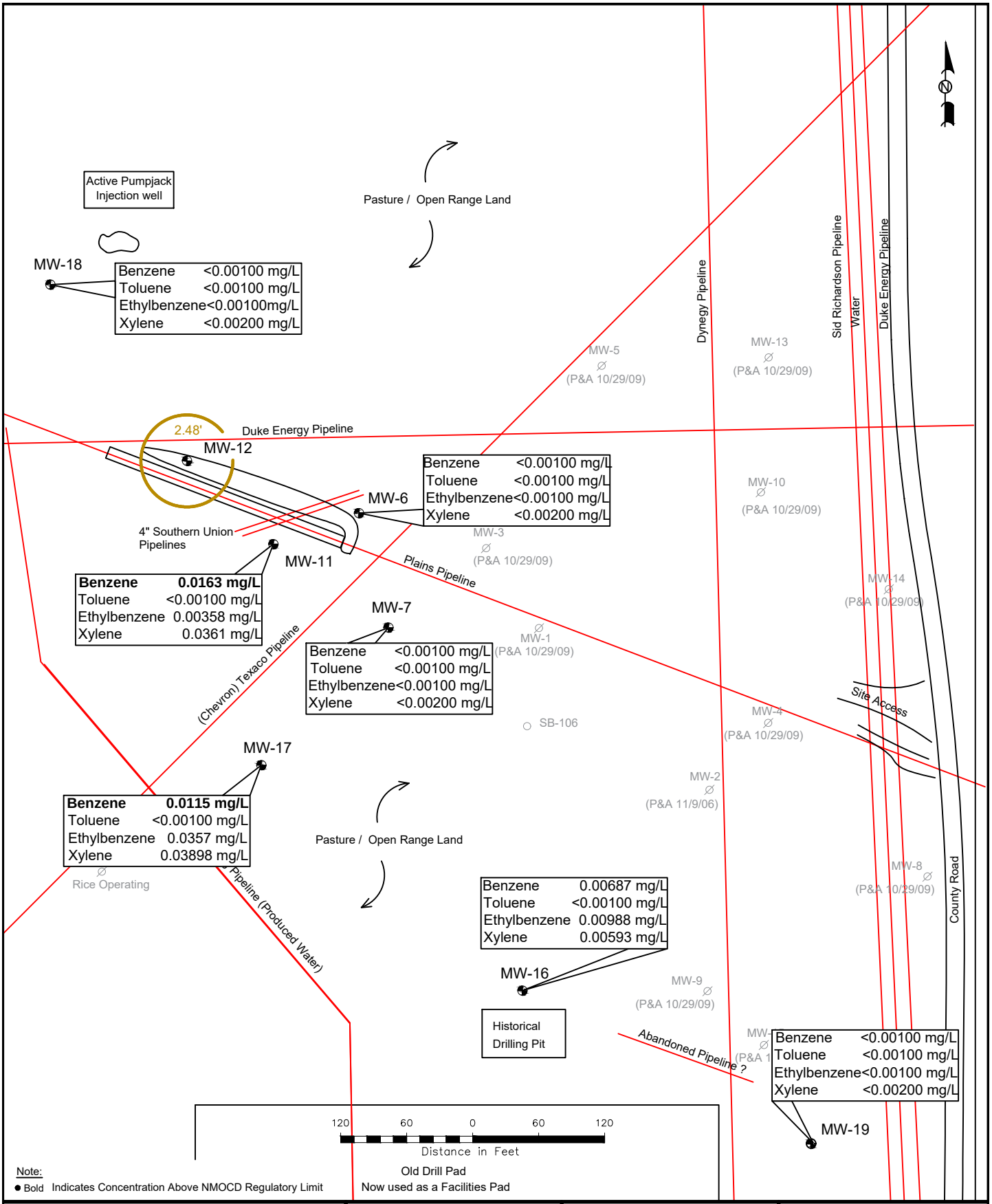


Note:
● Bold Indicates Concentration Above NMOCD Regulatory Limit

LEGEND:
- Monitor Well Location
- (NS) Not Sampled
- Inferred Extent of PSH
- <0.001 Constituent Concentration (mg/L)
- 1.90' PSH Thickness (feet)

Figure 3B
Groundwater Concentration and Inferred PSH Extent Map (11/26/2019)
Plains Marketing, L.P.
Red Byrd #1
NMOCD Reference # IRP-0085
Lea County, NM

Scale: 1" = 120'	
CAD By: CS	Checked By: CS
Draft: November 26, 2019	
N 32° 36' 10.105', W 103° 18' 00.35"	
SE1/4 NE1/4 Sec 1 T20S R36E	
TRC Proj. No.: 292800	

TRC
10 Desta Drive, Suite 150E
Midland, Texas 79705
432.520.7720

2019 Tables

TABLE 1
2019 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-6	1/15/2019	3,570.91	-	37.94	0.00	3,532.97
MW-6	2/19/2019	3,570.91	-	37.91	0.00	3,533.00
MW-6	6/4/2019	3,570.91	-	38.20	0.00	3,532.71
MW-6	8/7/2019	3,570.91	-	38.42	0.00	3,532.49
MW-6	9/2/2019	3,570.91	-	38.53	0.00	3,532.38
MW-6	11/25/2019	3,570.91	-	38.57	0.00	3,532.34
MW-7	1/15/2019	3,567.53	-	34.79	0.00	3,532.74
MW-7	2/19/2019	3,567.53	-	34.78	0.00	3,532.75
MW-7	6/4/2019	3,567.53	-	35.04	0.00	3,532.49
MW-7	8/7/2019	3,567.53	-	35.27	0.00	3,532.26
MW-7	9/2/2019	3,567.53	-	35.38	0.00	3,532.15
MW-7	11/25/2019	3,567.53	-	35.48	0.00	3,532.05
MW-11	1/15/2019	3,567.96	-	34.98	0.00	3,532.98
MW-11	2/19/2019	3,567.96	-	34.92	0.00	3,533.04
MW-11	6/4/2019	3,567.96	-	35.26	0.00	3,532.70
MW-11	8/7/2019	3,567.96	-	35.42	0.00	3,532.54
MW-11	9/2/2019	3,567.96	-	35.60	0.00	3,532.36
MW-11	11/25/2019	3,567.96	-	35.61	0.00	3,532.35
MW-12	1/15/2019	3,570.95	37.51	39.88	2.37	3,533.08
MW-12	2/19/2019	3,570.95	37.50	39.86	2.36	3,533.10
MW-12	6/4/2019	3,570.95	37.81	40.06	2.25	3,532.80
MW-12	8/7/2019	3,570.95	38.90	40.51	1.61	3,531.81
MW-12	9/2/2019	3,570.95	38.12	40.58	2.46	3,532.46
MW-12	11/25/2019	3,570.95	38.09	40.57	2.48	3,532.49
MW-16	2/19/2019	3,568.89	-	37.34	0.00	3,531.55
MW-16	6/4/2019	3,568.89	-	37.59	0.00	3,531.30
MW-16	8/7/2019	3,568.89	-	37.79	0.00	3,531.10
MW-16	9/2/2019	3,568.89	-	37.92	0.00	3,530.97
MW-16	11/25/2019	3,568.89	-	37.92	0.00	3,530.97
MW-17	1/15/2019	3,569.66	-	37.24	0.00	3,532.42
MW-17	2/19/2019	3,569.66	-	37.17	0.00	3,532.49
MW-17	6/4/2019	3,569.66	-	37.49	0.00	3,532.17
MW-17	8/7/2019	3,569.66	-	37.72	0.00	3,531.94
MW-17	9/2/2019	3,569.66	-	37.82	0.00	3,531.84
MW-17	11/25/2019	3,569.66	-	37.82	0.00	3,531.84
MW-18	1/15/2019	3,571.17	-	37.51	0.00	3,533.66
MW-18	2/19/2019	3,571.17	-	37.48	0.00	3,533.69
MW-18	6/4/2019	3,571.17	-	37.79	0.00	3,533.38
MW-18	8/7/2019	3,571.17	-	38.02	0.00	3,533.15

TABLE 1
2019 GROUNDWATER ELEVATION DATA

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

WELL NUMBER	DATE MEASURED	TOP OF CASING ELEVATION	DEPTH TO PRODUCT	DEPTH TO WATER	PSH THICKNESS	CORRECTED GROUND WATER ELEVATION
MW-18	9/2/2019	3,571.17	-	38.12	0.00	3,533.05
MW-18	11/25/2019	3,571.17	-	38.14	0.00	3,533.03
MW-19	1/15/2019	3,569.78	-	38.89	0.00	3,530.89
MW-19	2/19/2019	3,569.78	-	38.84	0.00	3,530.94
MW-19	6/4/2019	3,569.78	-	39.08	0.00	3,530.70
MW-19	8/7/2019	3,569.78	-	39.29	0.00	3,530.49
MW-19	9/2/2019	3,569.78	-	39.42	0.00	3,530.36
MW-19	11/25/2019	3,569.78	-	39.47	0.00	3,530.31

Elevations based on the North American Vertical Datum of 1929.

TABLE 2
2019 CONCENTRATIONS OF BTEX IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NEW MEXICO
PLAINS SRS NO: TNM RED BYRD #1
NMOCD REF NO: 1R-0085

SAMPLE LOCATION	SAMPLE DATE	METHODS: EPA SW 846-8021B, 5030				
		BENZENE (mg/L)	TOLUENE (mg/L)	ETHYL-BENZENE (mg/L)	M,P-XYLENES (mg/L)	O-XYLENES (mg/L)
MW-6	06/04/2019	0.00470	<0.00100	<0.00100	<0.00200	
MW-6	11/26/2019	<0.00100	<0.00100	<0.00100	<0.00200	
MW-7	06/04/2019	<0.00100	<0.00100	<0.00100	<0.00200	
MW-7	11/26/2019	<0.00100	<0.00100	<0.00100	<0.00200	
MW-11	06/04/2019	**0.0302**	<0.00500	<0.00500	0.0279	
MW-11	11/26/2019	**0.0163**	<0.00100	0.00358	0.0361	
MW-12	06/04/2019	Not Sampled Due to Presence of PSH				
MW-12	11/26/2019	Not Sampled Due to Presence of PSH				
MW-16	06/04/2019	**0.0158**	<0.00100	<0.00100	0.00200	
MW-16	11/26/2019	0.00687	<0.00100	0.00988	0.00593	
MW-17	06/04/2019	**0.0931**	0.00105	0.0480	0.0533	
MW-17	11/26/2019	**0.0115**	<0.00100	0.0357	0.03898	
MW-18	06/04/2019	<0.00100	<0.00100	<0.00100	<0.00200	
MW-18	11/26/2019	<0.00100	<0.00100	<0.00100	<0.00200	
MW-19	06/04/2019	<0.00100	<0.00100	<0.00100	<0.00200	
MW-19	11/26/2019	<0.00100	<0.00100	<0.00100	<0.00200	
NMOCD CRITERIA		**0.01**	**0.75**	**0.75**	**0.62**	

Note: Monitor wells MW-1 through MW-5, MW-8 through MW-10, and MW-13 through MW-15 have been plugged & abandoned.

TABLE 3

2018-2019 POLYNUCLEAR AROMATIC HYDROCARBON CONCENTRATIONS IN GROUNDWATER

PLAINS MARKETING, L.P.
RED BYRD #1
LEA COUNTY, NEW MEXICO
NMOCD REFERENCE NUMBER 1R-0085

All water concentrations are reported in mg/L

SAMPLE LOCATION	SAMPLE DATE	EPA SW846-8270C, 3510																	
		Acenaphthene	Acenaphthylene	Anthracene	Benzo[a]anthracene	Benzo[a]pyrene	Benzo[b]fluoranthene	Benzo[g,h,i]perylene	Benzo[k]fluoranthene	Chrysene	Dibenz[a,h]anthracene	Fluoranthene	Fluorene	Indeno[1,2,3-cd]pyrene	Phenanthrene	Pyrene	Naphthalene	1-Methylnaphthalene	2-Methylnaphthalene	Dibenzofuran
Maximum Contaminant Levels from NM WQCC Drinking water standards Sections 1-101.UU and 3-103.A.		---	---	**0.001 mg/L**	**0.0001 mg/L**	**0.0007 mg/L**	**0.001 mg/L**	---	**0.001 mg/L**	**0.0002 mg/L**	**0.0003 mg/L**	**0.001 mg/L**	**0.001 mg/L**	**0.0004 mg/L**	**0.001 mg/L**	**0.001 mg/L**	**0.03 mg/L**			---
MW-6	11/19/18	0.00023	0.00012	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	0.00055			0.00099
MW-6	11/25/19	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	<0.000096	0.00048			0.00061
MW-7	11/19/18	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	0.00031	<0.000098	0.00089			0.00021
MW-7	11/25/19	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00015			0.00011
MW-11	11/19/18	0.00052	0.00046	0.00013	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00015	<0.00010	<0.00010	**0.0011**	<0.00010	0.00030	0.00020	0.00397			0.0024
MW-11	11/25/19	0.00019	0.00023	0.00010	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	0.00016	<0.000097	<0.000097	0.00065	<0.000097	0.00094	0.00019	0.00898			0.0010
MW-12	11/19/18	Not Sampled due to presence of PSH.																		
MW-12	11/25/19	Not Sampled due to presence of PSH.																		
MW-16	11/19/18	0.00023	0.00018	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	<0.000098	0.00046	<0.000098	0.00089	<0.000098	0.00569			0.0016
MW-16	11/25/19	0.00013	0.00014	<0.000097	<0.000097	0.00013	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	0.00036	<0.000097	0.00041	0.00011	0.00814			0.00095
MW-17	11/19/18	0.00062	0.00092	0.00023	**0.00017**	<0.00010	<0.00010	<0.00010	<0.00010	**0.00025**	<0.00010	0.00016	**0.0026**	<0.00010	**0.0029**	0.00044	**0.0582**			0.0037
MW-17	11/25/19	0.0013	0.0012	0.00059	**0.00027**	0.00012	<0.000096	<0.000096	<0.000096	**0.00073**	<0.000096	0.00053	**0.0049**	<0.000096	**0.0052**	**0.0016**	**0.0613**			0.0071
MW-18	11/19/18	0.00026	0.00017	<0.000099	<0.000099	<0.000099	<0.000099	<0.000099	<0.000099	<0.000099	<0.000099	0.00086	<0.000099	<0.000099	**0.0011**	<0.000099	**0.03464**			0.0017
MW-18	11/25/19	0.00019	0.00026	0.00042	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	**0.00042**	<0.000097	0.00023	0.00035	<0.000097	0.00072	0.00054	0.00129			0.0021
MW-19	11/19/18	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00014	<0.00010	0.00050	<0.00010	0.00110			0.00034
MW-19	11/25/19	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	<0.000097	0.00021			0.00027

Appendices

Appendix A

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

PBELAB

Analytical Report

Prepared for:

Curt Stanley

TRC Solutions- Midland, Texas

2057 Commerce Street

Midland, TX 79703

Project: Red Byrd #1

Project Number: TNM Red Byrd #1

Location: Lea Co NM

Lab Order Number: 7L28014

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-16-7

Report Date: 12/29/17

TRC Solutions- Midland, Texas
2057 Commerce Street
Midland TX, 79703

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-12	7L28014-01	Oil	12/27/17 11:06	12-28-2017 09:37

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
2057 Commerce Street	Project Number: TNM Red Byrd #1	
Midland TX, 79703	Project Manager: Curt Stanley	

MW-12

7L28014-01 (Oil)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Permian Basin Environmental Lab, L.P.									
Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M									
C6-C12	**217000**	250	mg/kg wet	10	P7L2808	12/28/17	12/28/17	TPH 8015M	
>C12-C28	**218000**	250	mg/kg wet	10	P7L2808	12/28/17	12/28/17	TPH 8015M	
>C28-C35	**70200**	250	mg/kg wet	10	P7L2808	12/28/17	12/28/17	TPH 8015M	
Surrogate: 1-Chlorooctane		*95.6 %*	*70-130*		*P7L2808*	*12/28/17*	*12/28/17*	*TPH 8015M*	
Surrogate: o-Terphenyl		*101 %*	*70-130*		*P7L2808*	*12/28/17*	*12/28/17*	*TPH 8015M*	
Total Petroleum Hydrocarbon C6-C35	**505000**	250	mg/kg wet	10	[CALC]	12/28/17	12/28/17	calc	

TRC Solutions- Midland, Texas
2057 Commerce Street
Midland TX, 79703

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

Total Petroleum Hydrocarbons C6-C35 by EPA Method 8015M - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P7L2808 - TX 1005										
Blank (P7L2808-BLK1)				Prepared & Analyzed: 12/28/17						
C6-C12	ND	25.0	mg/kg wet							
>C12-C28	ND	25.0	"							
>C28-C35	ND	25.0	"							
Surrogate: 1-Chlorooctane	*157*		"	*150*		*105*	*70-130*			
Surrogate: o-Terphenyl	*91.8*		"	*75.0*		*122*	*70-130*			
LCS (P7L2808-BS1)				Prepared & Analyzed: 12/28/17						
C6-C12	945	25.0	mg/kg wet	1000		94.5	75-125			
>C12-C28	1030	25.0	"	1000		103	75-125			
Surrogate: 1-Chlorooctane	*166*		"	*150*		*111*	*70-130*			
Surrogate: o-Terphenyl	*80.7*		"	*75.0*		*108*	*70-130*			
LCS Dup (P7L2808-BSD1)				Prepared & Analyzed: 12/28/17						
C6-C12	946	25.0	mg/kg wet	1000		94.6	75-125	0.121	20	
>C12-C28	1030	25.0	"	1000		103	75-125	0.575	20	
Surrogate: 1-Chlorooctane	*166*		"	*150*		*110*	*70-130*			
Surrogate: o-Terphenyl	*79.3*		"	*75.0*		*106*	*70-130*			
Duplicate (P7L2808-DUP1)	**Source: 7L22001-09**			Prepared & Analyzed: 12/28/17						
C6-C12	11.9	26.9	mg/kg dry		ND				20	
>C12-C28	10.5	26.9	"		ND				20	
Surrogate: 1-Chlorooctane	*117*		"	*108*		*109*	*70-130*			
Surrogate: o-Terphenyl	*66.4*		"	*53.8*		*123*	*70-130*			

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
2057 Commerce Street	Project Number: TNM Red Byrd #1	
Midland TX, 79703	Project Manager: Curt Stanley	

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 12/29/2017

Brent Barron, Laboratory Director/Technical Director

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

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

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental Lab, LP
10014 S. County Road 1213
Midland, Texas 79706
Phone: 432-661-4184

Project Manager: Curt Stanley
Company Name: TRC Environmental Corporation
Company Address: 2057 Commerce Dr.
City/State/Zip: Midland/TX/79703
Telephone No: (432)5207720
Fax No:
Sampler Signature:
e-mail: cdstanley@trcsolutions.com, cjbryant@paalp.com

Project Name: Red Byrd #1
Project #: TNM Red Byrd #1
Project Loc: Lea County, NM
PO #:
Report Format: [X] Standard [ ] TRRP [ ] NPDES

(lab use only)
ORDER #: 712801

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO3	HCl	H2SO4	NaOH	Na2S2O3	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: 418.1 8015B	TPH: TX 1005 TX 1006	Cations (Ca, Mg, Na, K)	Anions (Cl, SO4, Alkalinity)	SAR / ESP / CEC	Metals: As Ag Ba Cd Cr Pb Hg Se	Volatiles	Semivolatiles	BTEX 8021B/5030 or BTEX 8260	RCI	N.O.R.M.	Chlorides E 300	Paint Filter	TCLP Benzene	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	MW-12			12.27.17	1106		2	X								Oil	X															X

Special Instructions:
Bill to Plains

Relinquished by:	Date	Time	Received by:	Date	Time
Manny	12.28.17	0937			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date: 12-28-17	Time: 0937

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep. ?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: °C
Adjusted: 5.5 °C Factor 0.5

Appendix B

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

Environmental Technology Group, Inc.
Mr. Jesse Taylor
Post Office Box 4845
Midland, Texas 79704

February 17, 2000

RE: Fingerprint analysis from Red Byrd project #EOT1043C.

Dear Mr. Taylor;

In reference to the comparison of the surface analysis (SS-1 and SS-2) to the MW-3 (35') and MW-1 (35'); there seems to be few similarities.

All analysis were performed under the same chromatographic conditions, enabling any hydrocarbon chain from C-6 through C-28 to be seen.

As evidenced by the chromatogram the SS-1 and SS-2 samples have no reportable gasoline range organics (C6-C10) and only starts to show evidences of hydrocarbon around C-20. Due to the nature of this sample, most of the hydrocarbon within this sample is beyond the diesel range (C28). Visually and physically, the sample appears to be asphaltic in nature.

In contrast, the MW-1 (35') and MW-3(35') samples exhibit a large total percentage of hydrocarbons within the gasoline range; and a very defined cut-off within the first part of the diesel range. This is usually found in refined products. It would be possible for a condensate to exhibit similar characteristics, but it is not typically found in a crude (i.e. 40wt). As seen on the enclosed chromatogram "crude" even though the crude may contain (GRO's), most typical crudes will usually exhibit a wider range of hydrocarbon chains.

The possibility of the lighter end (GRO) traveling from the surface to 35' is possible, but the evidence of no significant traces of either GRO or DRO between the surface to 35' make this theory very unlikely.

In conclusion, due to the vast differences in chemical make-up and lack of evidence of leaching from surface contamination; it is very unlikely that the contamination from 35' (MW-1 and MW-3) is from the same source as the surface contaminant (SS-1 and SS-2).

Should you have any further questions please do not hesitate to call.

Sincerely,

Raland K Tuttle

Raland K. Tuttle

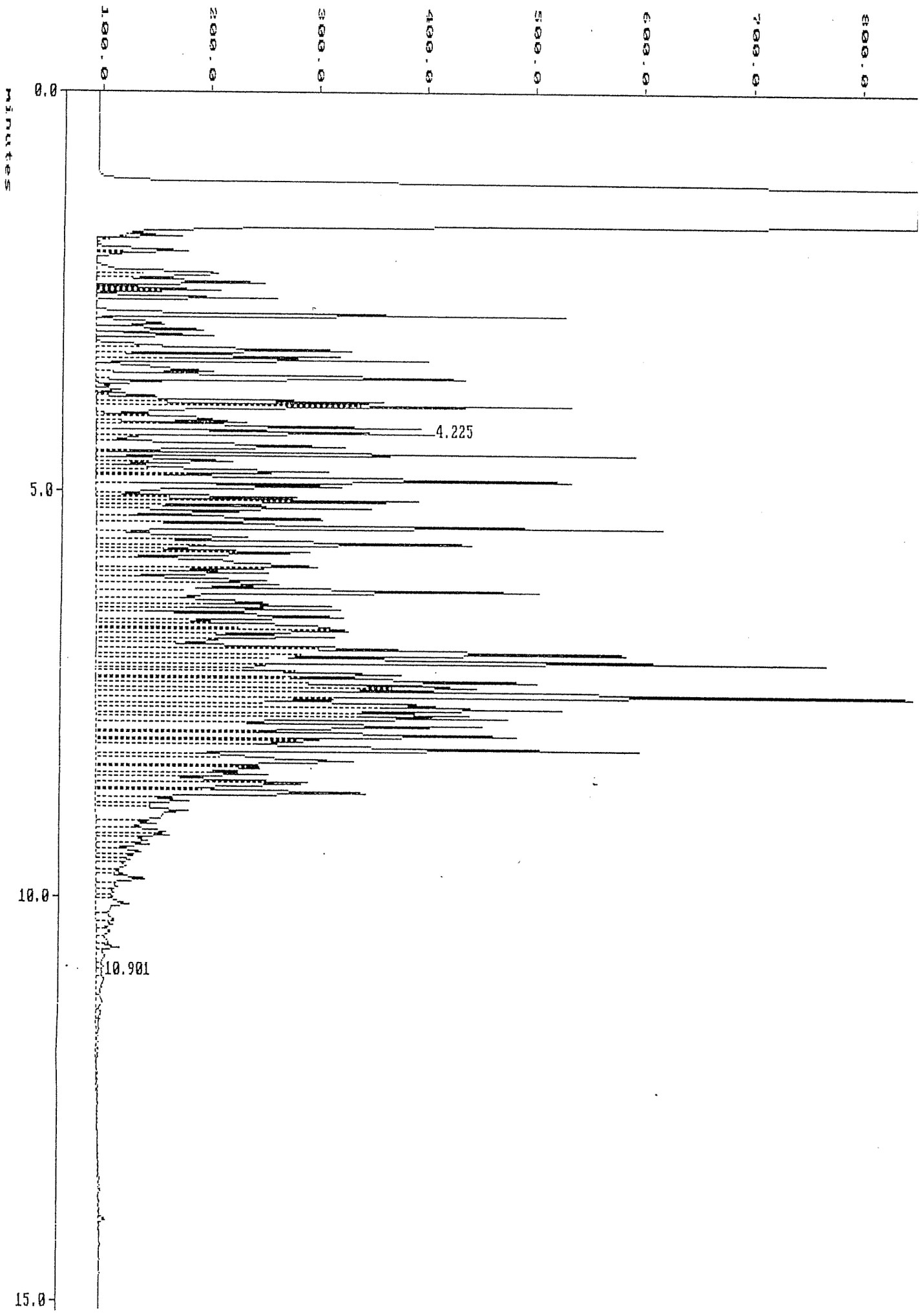
12600 West I-20 East • Odessa, Texas 79765 • (915) 563-1800 • Fax (915) 563-1713

69	10.900	29940978	11040.0469	L	52.1070	46.2025

2 Peaks) Area Reject 57460560 Total Area
2 Peaks) Height Reject 23894.914 Total Height

(TPH2__12.D01) mV

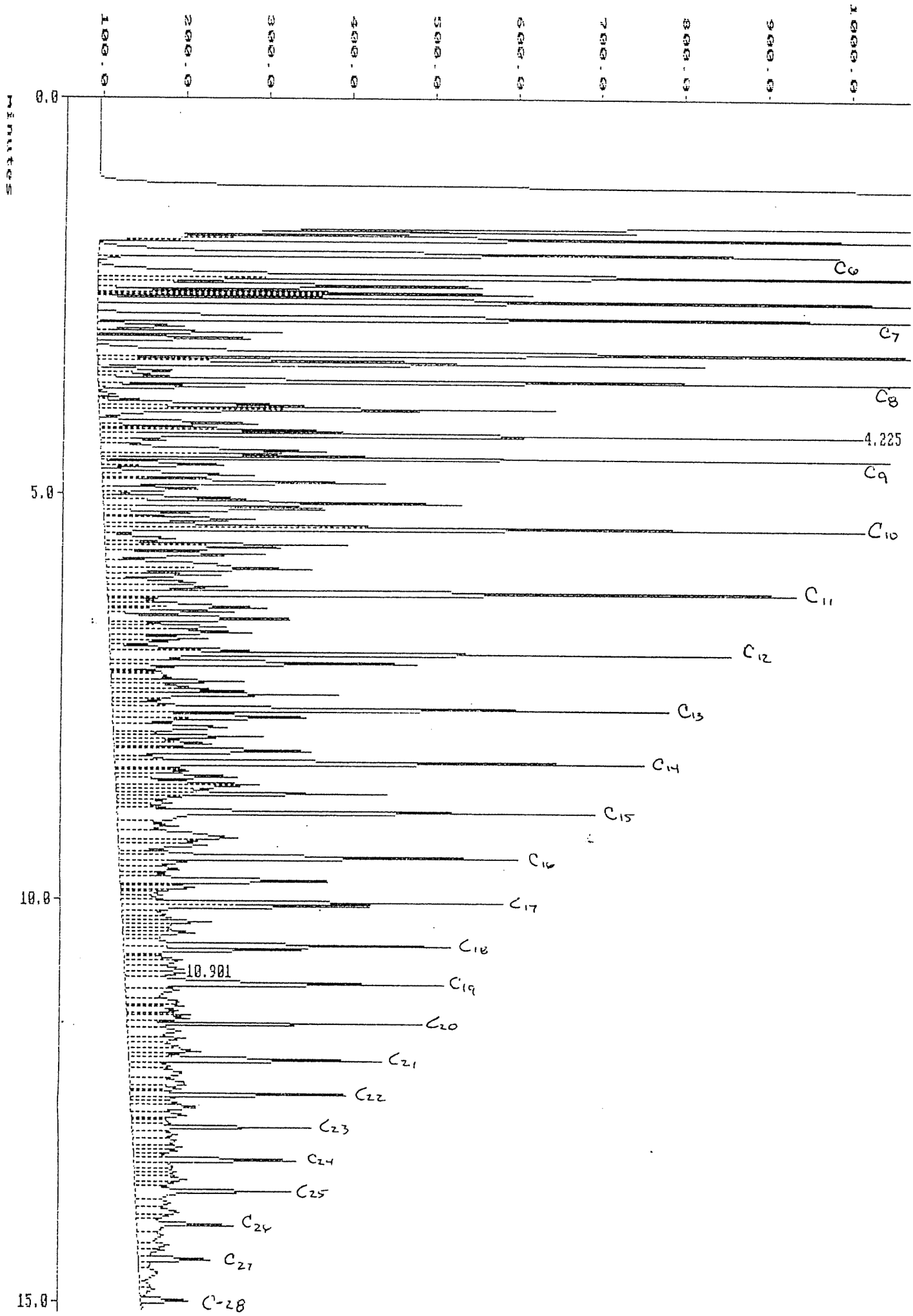
MW-3-(35')



2 Peaks) Area Reject 8038/416 Total Area
2 Peaks) Height Reject 38166.000 Total Height

(TPH___25.D01) MV

"Crude"



MW-1-(35')

Appendix C

August 16, 1991

Dear Sir:

This letter is to inform you of Climax Chemical Company's petition to the New Mexico Environment Department's Hazardous and Radioactive Materials Bureau (HRMB) requesting Alternate Concentration Limits for hazardous constituents present in the groundwater below the Climax Chemical facility west of Monument, New Mexico. Groundwater samples taken from the upper-most aquifer below Climax Chemical Company's Monument, New Mexico plant contain Cadmium, Silver, 1,1,1, Trichloroethylene and Ethylene Dichloride in concentrations above the safe drinking water standards. Climax Chemical has provided evidence that Alternate Concentration Limits should be granted because the contamination does not pose a threat to human health or the environment. The requested limits are above the safe drinking water standard and could pose a danger to human health should individuals drink, eat or inhale significant amounts of contaminated water or soils. The health of individuals who do not intend to use the groundwater or come in contact with it would not be threatened.

Climax Chemical Company's Monument, New Mexico plant is located three miles west of Monument, New Mexico in Lea County. The plant is a producer of hydrochloric acid and sodium sulfate. Immediately adjacent to and downgradient of Climax Chemical is the Warren Petroleum Company (Chevron) refinery. The upper-most aquifer beneath the refinery has been significantly impacted by hydrocarbon contamination. Due to past oil-field brine contamination of this same aquifer the Oil Conservation Division (OCD) of the New Mexico Energy Minerals and Natural Resources Department is only requiring the refinery to recover hydrocarbon product floating on top of the groundwater within the aquifer.

Climax Chemical Company's argument for granting the Alternate Concentration Limits is: "the water downgradient from Climax Chemical has been contaminated beyond usability by the petroleum industry through brine disposal and hydrocarbon leakage. The addition of Heavy Metal and Volatile Organic contamination above the safe drinking water standard as the Climax plume moves through this area will not adversely affect the usability of the aquifer, since it is already unusable without the effect of Climax's constituents."

At this time the HRMB has no evidence that landowners are using groundwater from the contaminated aquifer. Should you now be using or anticipate using groundwater from the upper-most aquifer beneath your property and have questions or comments concerning the petition for granting of Climax Chemical Company's petition request for Alternate Concentration Limits please contact Steve Alexander

at 827-2929 or write: New Mexico Environment Department, Hazardous and Radioactive Materials Bureau, 1190 Saint Francis Drive, P.O. Box 26110, Santa Fe, New Mexico, 87502, Attention: Steve Alexander. Please respond within thirty (30) days following receipt of this notification.

Sincerely,

Steven M. Alexander, Water Resources Specialist
Hazardous and Radioactive Materials Bureau
New Mexico Environment Department

Appendix D

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

PBELAB

Analytical Report

Prepared for:

Curt Stanley

TRC Solutions- Midland, Texas

10 Desta Dr STE 150E

Midland, TX 79705

Project: Red Byrd #1

Project Number: TNM Red Byrd #1

Location: Lea County, NM

Lab Order Number: 9F05001

NELAP ACCREDITED TNI LABORATORY

NELAP/TCEQ # T104704516-18-9

Report Date: 06/21/19

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW 7	9F05001-01	Water	06/04/19 10:15	06-05-2019 08:29
MW 19	9F05001-02	Water	06/04/19 11:10	06-05-2019 08:29
MW 18	9F05001-03	Water	06/04/19 11:45	06-05-2019 08:29
MW 6	9F05001-04	Water	06/04/19 12:13	06-05-2019 08:29
MW 16	9F05001-05	Water	06/04/19 13:08	06-05-2019 08:29
MW 17	9F05001-06	Water	06/04/19 13:49	06-05-2019 08:29
MW 11	9F05001-07	Water	06/04/19 14:35	06-05-2019 08:29

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 7

9F05001-01 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*103 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*106 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 19

9F05001-02 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*93.7 %*		*80-120*	*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*88.6 %*		*80-120*	*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 18

9F05001-03 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*113 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.0 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 6

9F05001-04 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00470**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*87.5 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*90.0 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 16

9F05001-05 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0158**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (o)	**0.00200**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*80.7 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.1 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 17

9F05001-06 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0931**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Toluene	**0.00105**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Ethylbenzene	**0.0480**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (p/m)	**0.0367**	0.00200	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Xylene (o)	**0.0166**	0.00100	mg/L	1	P9F0503	06/05/19	06/05/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*89.7 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*114 %*	*80-120*		*P9F0503*	*06/05/19*	*06/05/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW 11

9F05001-07 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0302**	0.00500	mg/L	5	P9F0503	06/05/19	06/06/19	EPA 8021B	
Toluene	ND	0.00500	mg/L	5	P9F0503	06/05/19	06/06/19	EPA 8021B	
Ethylbenzene	ND	0.00500	mg/L	5	P9F0503	06/05/19	06/06/19	EPA 8021B	
Xylene (p/m)	ND	0.0100	mg/L	5	P9F0503	06/05/19	06/06/19	EPA 8021B	
Xylene (o)	**0.0279**	0.00500	mg/L	5	P9F0503	06/05/19	06/06/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*92.8 %*	*80-120*		*P9F0503*	*06/05/19*	*06/06/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*80.8 %*	*80-120*		*P9F0503*	*06/05/19*	*06/06/19*	*EPA 8021B*	

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9F0503 - General Preparation (GC)										
Blank (P9F0503-BLK1)				Prepared & Analyzed: 06/05/19						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.0684*		*"*	*0.0600*		*114*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0602*		*"*	*0.0600*		*100*	*80-120*			
LCS (P9F0503-BS1)				Prepared & Analyzed: 06/05/19						
Benzene	0.107	0.00100	mg/L	0.100		107	80-120			
Toluene	0.104	0.00100	"	0.100		104	80-120			
Ethylbenzene	0.116	0.00100	"	0.100		116	80-120			
Xylene (p/m)	0.176	0.00200	"	0.200		87.8	80-120			
Xylene (o)	0.101	0.00100	"	0.100		101	80-120			
Surrogate: 4-Bromofluorobenzene	*0.0714*		*"*	*0.0600*		*119*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0672*		*"*	*0.0600*		*112*	*80-120*			
LCS Dup (P9F0503-BSD1)				Prepared & Analyzed: 06/05/19						
Benzene	0.0972	0.00100	mg/L	0.100		97.2	80-120	9.24	20	
Toluene	0.101	0.00100	"	0.100		101	80-120	2.65	20	
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120	1.86	20	
Xylene (p/m)	0.169	0.00200	"	0.200		84.6	80-120	3.65	20	
Xylene (o)	0.0963	0.00100	"	0.100		96.3	80-120	4.77	20	
Surrogate: 4-Bromofluorobenzene	*0.0696*		*"*	*0.0600*		*116*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0675*		*"*	*0.0600*		*112*	*80-120*			
Calibration Blank (P9F0503-CCB1)				Prepared & Analyzed: 06/05/19						
Benzene	0.00		mg/L							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.0597*		*"*	*0.0600*		*99.6*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0580*		*"*	*0.0600*		*96.6*	*80-120*			

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9F0503 - General Preparation (GC)										
Calibration Check (P9F0503-CCV1)				Prepared & Analyzed: 06/05/19						
Benzene	0.100	0.00100	mg/L	0.100		100	80-120			
Toluene	0.0953	0.00100	"	0.100		95.3	80-120			
Ethylbenzene	0.106	0.00100	"	0.100		106	80-120			
Xylene (p/m)	0.163	0.00200	"	0.200		81.7	80-120			
Xylene (o)	0.0884	0.00100	"	0.100		88.4	80-120			
Surrogate: 4-Bromofluorobenzene	*0.0686*		"	*0.0600*		*114*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0743*		"	*0.0600*		*124*	*80-120*			*S-GC*
Calibration Check (P9F0503-CCV2)				Prepared & Analyzed: 06/05/19						
Benzene	0.105	0.00100	mg/L	0.100		105	80-120			
Toluene	0.102	0.00100	"	0.100		102	80-120			
Ethylbenzene	0.102	0.00100	"	0.100		102	80-120			
Xylene (p/m)	0.172	0.00200	"	0.200		86.1	80-120			
Xylene (o)	0.101	0.00100	"	0.100		101	80-120			
Surrogate: 4-Bromofluorobenzene	*0.0686*		"	*0.0600*		*114*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0718*		"	*0.0600*		*120*	*80-120*			
Matrix Spike (P9F0503-MS1)		**Source: 9F05001-01**		Prepared & Analyzed: 06/05/19						
Benzene	0.114	0.00100	mg/L	0.100	ND	114	80-120			
Toluene	0.109	0.00100	"	0.100	ND	109	80-120			
Ethylbenzene	0.115	0.00100	"	0.100	ND	115	80-120			
Xylene (p/m)	0.182	0.00200	"	0.200	ND	90.9	80-120			
Xylene (o)	0.107	0.00100	"	0.100	ND	107	80-120			
Surrogate: 4-Bromofluorobenzene	*0.0694*		"	*0.0600*		*116*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.0607*		"	*0.0600*		*101*	*80-120*			
Matrix Spike Dup (P9F0503-MSD1)		**Source: 9F05001-01**		Prepared & Analyzed: 06/05/19						
Benzene	0.112	0.00100	mg/L	0.100	ND	112	80-120	1.73	20	
Toluene	0.108	0.00100	"	0.100	ND	108	80-120	1.15	20	
Ethylbenzene	0.116	0.00100	"	0.100	ND	116	80-120	0.373	20	
Xylene (p/m)	0.183	0.00200	"	0.200	ND	91.5	80-120	0.652	20	
Xylene (o)	0.110	0.00100	"	0.100	ND	110	80-120	2.74	20	
Surrogate: 4-Bromofluorobenzene	*0.0723*		"	*0.0600*		*121*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.0620*		"	*0.0600*		*103*	*80-120*			

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

Notes and Definitions

S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
ROI	Received on Ice
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 6/21/2019

Brent Barron, Laboratory Director/Technical Director

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

Project Manager: Curt Stanley
Company Name: TRC
Company Address: 10 Desta Dr Suite 150 E
City/State/Zip: Midland TX 79705
Telephone No: 432 520 2270
Fax No:
Sampler Signature: Jeremy Reed

Project Name: Red Byrd
Project #: TNM Red Byrd # 1
Project Loc: Lea County, NM
PO #:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES
e-mail:

(lab use only)
ORDER #: 9F05001

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW=Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TPH: TX 1005	Anions (Cl, SO4, Alkalinity)	TOTAL: BTEX 8021B/5030 or BTEX 8260	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	MW 7			6/4	1015		3	X		X						GW			X		X
2	MW 19			6/4	1110		3	X		X						GW			X		X
3	MW 18			6/4	1145		3	X		X						GW			X		X
4	MW 6			6/4	1213		3	X		X						GW			X		X
5	MW 16			6/4	1308		3	X		X						GW			X		X
6	MW 17			6/4	1349		3	X		X						GW			X		X
7	MW 11			6/4	1435		3	X		X						GW			X		X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
	6/5	0829			
Relinquished by:	Date	Time	Received by:	Date	Time
				6/5/19	8:29
Relinquished by:	Date	Time	Received by PBEL	Date	Time

Laboratory Comments:

Sample Containers Intact?	Y	N
VOCs Free of Headspace?	Y	N
Labels on container(s)	Y	N
Custody seals on container(s)	Y	N
Custody seals on cooler(s)	Y	N
Sample Hand Delivered	Y	N
by Sampler/Client Rep.?	Y	N

by Courier? UPS DHL FedEx Lone Star

Temperature Upon Receipt:
Received: 12.2 °C
Adjusted: 13.2 °C Factor +1

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

PBELAB

Analytical Report

Prepared for:

Curt Stanley

TRC Solutions- Midland, Texas

10 Desta Dr STE 150E

Midland, TX 79705

Project: Red Byrd #1

Project Number: TNM Red Byrd #1

Location: Lea Co. Nm

Lab Order Number: 9K26008

NELAP/TCEQ # T104704516-17-8

Report Date: 12/10/19

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW7	9K26008-01	Water	11/25/19 10:45	11-26-2019 07:58
MW17	9K26008-02	Water	11/25/19 11:08	11-26-2019 07:58
MW6	9K26008-03	Water	11/25/19 11:35	11-26-2019 07:58
MW11	9K26008-04	Water	11/25/19 12:00	11-26-2019 07:58
MW18	9K26008-05	Water	11/25/19 12:41	11-26-2019 07:58
MW16	9K26008-06	Water	11/25/19 13:31	11-26-2019 07:58
MW19	9K26008-07	Water	11/25/19 14:02	11-26-2019 07:58

Low Level PAH analysis were subcontracted to ALS Houston. Their report is attached after the Chain of Custody. Their TCEQ TNI certification number can be found here:
https://www.tceq.texas.gov/assets/public/compliance/compliance_support/qa/labs/als_svcs_houston.pdf

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
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MW7

9K26008-01 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*128 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*106 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
2-Methylnaphthalene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.00011**	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.00015**	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	ND	0.00010	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

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MW17

9K26008-02 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0115**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	**0.0357**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	**0.0344**	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	**0.00458**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*96.5 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*87.2 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	**0.046**	0.00096	mg/L	1	P9L0901	11/27/19	12/05/19	8270C	SUB-13
2-Methylnaphthalene	**0.0089**	0.00096	mg/L	1	P9L0901	11/27/19	12/05/19	8270C	SUB-13
Acenaphthene	**0.0013**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	**0.0012**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	**0.00059**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	**0.00027**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	**0.00012**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	**0.00073**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.0071**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	**0.00053**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	**0.0049**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.0064**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	**0.0052**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	**0.0016**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

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MW6

9K26008-03 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*119 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*96.8 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	**0.00012**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
2-Methylnaphthalene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.00061**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.00036**	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	ND	0.000096	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

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Midland TX, 79705	Project Manager: Curt Stanley	

MW11

9K26008-04 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.0163**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	**0.00358**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	**0.0255**	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	**0.0106**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*105 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*93.8 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	**0.0070**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
2-Methylnaphthalene	**0.0011**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthene	**0.00019**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	**0.00023**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	**0.00010**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	**0.00016**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.0010**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	**0.00065**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.00088**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	**0.00094**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	**0.00019**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

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MW18

9K26008-05 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*137 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	*S-GC*
Surrogate: 1,4-Difluorobenzene		*108 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	**0.00072**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
2-Methylnaphthalene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthene	**0.00019**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	**0.00026**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	**0.00042**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	**0.00042**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.0021**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	**0.00023**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	**0.00035**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.00057**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	**0.00072**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	**0.00054**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

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MW16

9K26008-06 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	**0.00687**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	**0.00988**	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	**0.00593**	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*111 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*103 %*	*80-120*		*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	**0.0067**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
2-Methylnaphthalene	**0.00055**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthene	**0.00013**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	**0.00014**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.00095**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	**0.00036**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.00089**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	**0.00041**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	**0.00011**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

MW19

9K26008-07 (Water)

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Organics by GC									
Benzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Toluene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Ethylbenzene	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (p/m)	ND	0.00200	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Xylene (o)	ND	0.00100	mg/L	1	P9K2609	11/26/19	11/27/19	EPA 8021B	
Surrogate: 4-Bromofluorobenzene		*119 %*		*80-120*	*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
Surrogate: 1,4-Difluorobenzene		*97.9 %*		*80-120*	*P9K2609*	*11/26/19*	*11/27/19*	*EPA 8021B*	
PAH compounds by Semivolatile GCMS									
1-Methylnaphthalene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
2-Methylnaphthalene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Acenaphthylene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (a) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (b) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (g,h,i) perylene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Benzo (k) fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Chrysene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzo (a,h) anthracene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Dibenzofuran	**0.00027**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluoranthene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Fluorene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Indeno (1,2,3-cd) pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Naphthalene	**0.00021**	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Phenanthrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13
Pyrene	ND	0.000097	mg/L	1	P9L0901	11/27/19	12/04/19	8270C	SUB-13

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K2609 - General Preparation (GC)										
Blank (P9K2609-BLK1)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	ND	0.00100	mg/L							
Toluene	ND	0.00100	"							
Ethylbenzene	ND	0.00100	"							
Xylene (p/m)	ND	0.00200	"							
Xylene (o)	ND	0.00100	"							
Surrogate: 4-Bromofluorobenzene	*0.144*		"	*0.120*		*120*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.120*		"	*0.120*		*99.8*	*80-120*			
LCS (P9K2609-BS1)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.0892	0.00100	mg/L	0.100		89.2	80-120			
Toluene	0.115	0.00100	"	0.100		115	80-120			
Ethylbenzene	0.114	0.00100	"	0.100		114	80-120			
Xylene (p/m)	0.230	0.00200	"	0.200		115	80-120			
Xylene (o)	0.114	0.00100	"	0.100		114	80-120			
Surrogate: 4-Bromofluorobenzene	*0.152*		"	*0.120*		*127*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.130*		"	*0.120*		*108*	*80-120*			
LCS Dup (P9K2609-BSD1)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.0907	0.00100	mg/L	0.100		90.7	80-120	1.66	20	
Toluene	0.117	0.00100	"	0.100		117	80-120	1.91	20	
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120	1.16	20	
Xylene (p/m)	0.228	0.00200	"	0.200		114	80-120	0.682	20	
Xylene (o)	0.116	0.00100	"	0.100		116	80-120	1.33	20	
Surrogate: 4-Bromofluorobenzene	*0.160*		"	*0.120*		*133*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.136*		"	*0.120*		*114*	*80-120*			
Calibration Blank (P9K2609-CCB1)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.00		mg/L							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.177*		"	*0.120*		*147*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.131*		"	*0.120*		*109*	*80-120*			

TRC Solutions- Midland, Texas	Project: Red Byrd #1	Fax: (432) 520-7701
10 Desta Dr STE 150E	Project Number: TNM Red Byrd #1	
Midland TX, 79705	Project Manager: Curt Stanley	

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K2609 - General Preparation (GC)										
Calibration Blank (P9K2609-CCB2)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.00		mg/L							
Toluene	0.00		"							
Ethylbenzene	0.00		"							
Xylene (p/m)	0.00		"							
Xylene (o)	0.00		"							
Surrogate: 4-Bromofluorobenzene	*0.152*		*"*	*0.120*		*127*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.125*		*"*	*0.120*		*104*	*80-120*			
Calibration Check (P9K2609-CCV2)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.0868	0.00100	mg/L	0.100		86.8	80-120			
Toluene	0.118	0.00100	"	0.100		118	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.226	0.00200	"	0.200		113	80-120			
Xylene (o)	0.117	0.00100	"	0.100		117	80-120			
Surrogate: 4-Bromofluorobenzene	*0.148*		*"*	*0.120*		*123*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.141*		*"*	*0.120*		*117*	*80-120*			
Calibration Check (P9K2609-CCV3)				Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.0843	0.00100	mg/L	0.100		84.3	80-120			
Toluene	0.120	0.00100	"	0.100		120	80-120			
Ethylbenzene	0.115	0.00100	"	0.100		115	80-120			
Xylene (p/m)	0.224	0.00200	"	0.200		112	80-120			
Xylene (o)	0.112	0.00100	"	0.100		112	80-120			
Surrogate: 4-Bromofluorobenzene	*0.154*		*"*	*0.120*		*128*	*80-120*			*S-GC*
Surrogate: 1,4-Difluorobenzene	*0.140*		*"*	*0.120*		*116*	*80-120*			
Matrix Spike (P9K2609-MS1)	**Source: 9K22006-01**			Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.117	0.00100	mg/L	0.100	0.00979	107	80-120			
Toluene	0.144	0.00100	"	0.100	ND	144	80-120			QM-07
Ethylbenzene	0.130	0.00100	"	0.100	ND	130	80-120			QM-07
Xylene (p/m)	0.265	0.00200	"	0.200	ND	133	80-120			QM-07
Xylene (o)	0.132	0.00100	"	0.100	ND	132	80-120			QM-07
Surrogate: 4-Bromofluorobenzene	*0.140*		*"*	*0.120*		*117*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.134*		*"*	*0.120*		*112*	*80-120*			

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

Organics by GC - Quality Control

Permian Basin Environmental Lab, L.P.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch P9K2609 - General Preparation (GC)										
Matrix Spike Dup (P9K2609-MSD1)		**Source: 9K22006-01**		Prepared: 11/26/19 Analyzed: 11/27/19						
Benzene	0.115	0.00100	mg/L	0.100	0.00979	105	80-120	2.14	20	
Toluene	0.140	0.00100	"	0.100	ND	140	80-120	2.71	20	QM-07
Ethylbenzene	0.132	0.00100	"	0.100	ND	132	80-120	2.21	20	QM-07
Xylene (p/m)	0.270	0.00200	"	0.200	ND	135	80-120	1.98	20	QM-07
Xylene (o)	0.125	0.00100	"	0.100	ND	125	80-120	4.72	20	QM-07
Surrogate: 4-Bromofluorobenzene	*0.140*		*"*	*0.120*		*116*	*80-120*			
Surrogate: 1,4-Difluorobenzene	*0.137*		*"*	*0.120*		*114*	*80-120*			

TRC Solutions- Midland, Texas
10 Desta Dr STE 150E
Midland TX, 79705

Project: Red Byrd #1
Project Number: TNM Red Byrd #1
Project Manager: Curt Stanley

Fax: (432) 520-7701

Notes and Definitions

SUB-13	Subcontract of analyte/analysis to ALS Houston.
S-GC	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
QM-07	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
LCS	Laboratory Control Spike
MS	Matrix Spike
Dup	Duplicate

Report Approved By: Brent Barron Date: 12/10/2019

Brent Barron, Laboratory Director/Technical Director

PBEL LABS

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

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

Phone: 432-686-7235

Project Manager: Curt Stanley
Company Name: TRC
Company Address: 10 Desta Dr Suite 150E
City/State/Zip: Midland Tx 79705
Telephone No: 432 520 7720 Fax No:
Sampler Signature: Jeremy Reich e-mail:

Project Name: Red Byrd #1
Project #: TNM Red Byrd #1
Project Loc: Lea County, NM
PO #:
Report Format: ☐ Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #: 9K26008

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total #. of Containers	Preservation & # of Containers: Ice	HNO_3	HCl	H_2SO_4	NaOH	$Na_2S_2O_3$	None	Other (Specify)	Matrix: DW=Drinking Water SL=Sludge GW = Groundwater S=Soil/Solid NP=Non-Potable Specify Other	Analyze For: TCLP: TOTAL: TPH by TX 1005 8015B 8015M	Chloride	BTEX by 8021B	PAH	RUSH TAT (Pre-Schedule) 24, 48, 72 hrs	Standard TAT
1	MW 7			11/25	1045		6	X		N				3		GW			X	X		
2	MW 17			11/25	1108		6	X		3				3		GW			X	X		X
3	MW 6			11/25	1135		6	X		3				3		GW			X	X		X
4	MW 11			11/25	1200		6	X		3				3		GW			X	X		X
5	MW 18			11/25	1241		6	X		3				3		GW			X	X		X
6	MW 16			11/25	1331		6	X		3				3		GW			X	X		X
7	MW 19			11/25	1402		6	X		3				3		GW			X	X		X

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Jeremy Reich	11/26	7:58			
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by PBEL:	Date	Time
			Kristen Clem	11/26	7:58

Laboratory Comments:

Sample Containers Intact?	N
VOCs Free of Headspace?	N
Labels on container(s)	N
Custody seals on container(s)	N
Custody seals on cooler(s)	N
Sample Hand Delivered by Sampler/Client Rep. ?	N
by Courier? UPS DHL FedEx Lone Star	

Temperature Upon Receipt:
Received: 5.0-0.0
Adjusted: CF1 °C Factor

LL

10450 Stancliff Rd. Suite 210
Houston, TX 77099
T: +1 281 530 5656
F: +1 281 530 5887

December 05, 2019

Brent Barron
Permian Basin Environmental Lab, LP
10014 SCR 1213
Midland, TX 79706

Work Order: **HS19111396**

Laboratory Results for: **9K26008**

Dear Brent,

ALS Environmental received 7 sample(s) on Nov 27, 2019 for the analysis presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested. Results are expressed as "as received" unless otherwise noted.

QC sample results for this data met EPA or laboratory specifications except as noted in the Case Narrative or as noted with qualifiers in the QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained by ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

If you have any questions regarding this report, please feel free to call me.

Sincerely,

Generated By: JUMOKE.LAWAL
Andy C. Neir

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Work Order: HS19111396

SAMPLE SUMMARY

Lab Samp ID	Client Sample ID	Matrix	TagNo	Collection Date	Date Received	Hold
HS19111396-01	9K26008-01	Water		25-Nov-2019 10:45	27-Nov-2019 10:00	☐
HS19111396-02	9K26008-02	Water		25-Nov-2019 11:08	27-Nov-2019 10:00	☐
HS19111396-03	9K26008-03	Water		25-Nov-2019 11:35	27-Nov-2019 10:00	☐
HS19111396-04	9K26008-04	Water		25-Nov-2019 12:00	27-Nov-2019 10:00	☐
HS19111396-05	9K26008-05	Water		25-Nov-2019 12:41	27-Nov-2019 10:00	☐
HS19111396-06	9K26008-06	Water		25-Nov-2019 13:31	27-Nov-2019 10:00	☐
HS19111396-07	9K26008-07	Water		25-Nov-2019 14:02	27-Nov-2019 10:00	☐

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP **CASE NARRATIVE**
Project: 9K26008
Work Order: HS19111396

GCMS Semivolatiles by Method SW8270

Batch ID: 148111

• The test results meet requirements of the current NELAP standards, state requirements or programs where applicable.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-01
Collection Date: 25-Nov-2019 10:45

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-01
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	ND	n	0.0995	ug/L	1	04-Dec-2019 15:47
2-Methylnaphthalene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Acenaphthene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Acenaphthylene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Anthracene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Benz(a)anthracene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Benzo(a)pyrene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Benzo(b)fluoranthene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Benzo(g,h,i)perylene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Benzo(k)fluoranthene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Chrysene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Dibenz(a,h)anthracene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Dibenzofuran	**0.114**		**0.0995**	**ug/L**	1	04-Dec-2019 15:47
Fluoranthene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Fluorene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Indeno(1,2,3-cd)pyrene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Naphthalene	**0.150**		**0.0995**	**ug/L**	1	04-Dec-2019 15:47
Phenanthrene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Pyrene	ND		0.0995	ug/L	1	04-Dec-2019 15:47
Surr: 2-Fluorobiphenyl	*99.2*		*32-130*	*%REC*	*1*	*04-Dec-2019 15:47*
Surr: 4-Terphenyl-d14	*47.5*		*40-135*	*%REC*	*1*	*04-Dec-2019 15:47*
Surr: Nitrobenzene-d5	*114*		*45-142*	*%REC*	*1*	*04-Dec-2019 15:47*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-02
Collection Date: 25-Nov-2019 11:08

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-02
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	**46.2**	n	**0.956**	**ug/L**	10	05-Dec-2019 09:47
2-Methylnaphthalene	**8.85**		**0.956**	**ug/L**	10	05-Dec-2019 09:47
Acenaphthene	**1.26**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Acenaphthylene	**1.18**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Anthracene	**0.590**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Benz(a)anthracene	**0.270**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Benzo(a)pyrene	**0.119**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Benzo(b)fluoranthene	ND		0.0956	ug/L	1	04-Dec-2019 16:13
Benzo(g,h,i)perylene	ND		0.0956	ug/L	1	04-Dec-2019 16:13
Benzo(k)fluoranthene	ND		0.0956	ug/L	1	04-Dec-2019 16:13
Chrysene	**0.732**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Dibenz(a,h)anthracene	ND		0.0956	ug/L	1	04-Dec-2019 16:13
Dibenzofuran	**7.14**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Fluoranthene	**0.530**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Fluorene	**4.93**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Indeno(1,2,3-cd)pyrene	ND		0.0956	ug/L	1	04-Dec-2019 16:13
Naphthalene	**6.39**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Phenanthrene	**5.18**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Pyrene	**1.64**		**0.0956**	**ug/L**	1	04-Dec-2019 16:13
Surr: 2-Fluorobiphenyl	*88.2*		*32-130*	*%REC*	*10*	*05-Dec-2019 09:47*
Surr: 2-Fluorobiphenyl	*78.8*		*32-130*	*%REC*	*1*	*04-Dec-2019 16:13*
Surr: 4-Terphenyl-d14	*69.0*		*40-135*	*%REC*	*1*	*04-Dec-2019 16:13*
Surr: 4-Terphenyl-d14	*56.0*		*40-135*	*%REC*	*10*	*05-Dec-2019 09:47*
Surr: Nitrobenzene-d5	*72.1*		*45-142*	*%REC*	*1*	*04-Dec-2019 16:13*
Surr: Nitrobenzene-d5	*105*		*45-142*	*%REC*	*10*	*05-Dec-2019 09:47*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-03
Collection Date: 25-Nov-2019 11:35

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-03
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	**0.119**	n	**0.0964**	**ug/L**	1	04-Dec-2019 16:33
2-Methylnaphthalene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Acenaphthene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Acenaphthylene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Anthracene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Benz(a)anthracene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Benzo(a)pyrene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Benzo(b)fluoranthene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Benzo(g,h,i)perylene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Benzo(k)fluoranthene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Chrysene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Dibenz(a,h)anthracene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Dibenzofuran	**0.606**		**0.0964**	**ug/L**	1	04-Dec-2019 16:33
Fluoranthene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Fluorene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Indeno(1,2,3-cd)pyrene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Naphthalene	**0.356**		**0.0964**	**ug/L**	1	04-Dec-2019 16:33
Phenanthrene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Pyrene	ND		0.0964	ug/L	1	04-Dec-2019 16:33
Surr: 2-Fluorobiphenyl	*103*		*32-130*	*%REC*	*1*	*04-Dec-2019 16:33*
Surr: 4-Terphenyl-d14	*68.9*		*40-135*	*%REC*	*1*	*04-Dec-2019 16:33*
Surr: Nitrobenzene-d5	*124*		*45-142*	*%REC*	*1*	*04-Dec-2019 16:33*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-04
Collection Date: 25-Nov-2019 12:00

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-04
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	**6.95**	n	**0.0969**	**ug/L**	1	04-Dec-2019 16:53
2-Methylnaphthalene	**1.05**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Acenaphthene	**0.192**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Acenaphthylene	**0.234**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Anthracene	**0.102**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Benz(a)anthracene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Benzo(a)pyrene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Benzo(b)fluoranthene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Benzo(g,h,i)perylene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Benzo(k)fluoranthene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Chrysene	**0.155**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Dibenz(a,h)anthracene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Dibenzofuran	**1.03**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Fluoranthene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Fluorene	**0.648**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Indeno(1,2,3-cd)pyrene	ND		0.0969	ug/L	1	04-Dec-2019 16:53
Naphthalene	**0.881**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Phenanthrene	**0.937**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Pyrene	**0.187**		**0.0969**	**ug/L**	1	04-Dec-2019 16:53
Surr: 2-Fluorobiphenyl	*62.1*		*32-130*	*%REC*	*1*	*04-Dec-2019 16:53*
Surr: 4-Terphenyl-d14	*50.6*		*40-135*	*%REC*	*1*	*04-Dec-2019 16:53*
Surr: Nitrobenzene-d5	*87.2*		*45-142*	*%REC*	*1*	*04-Dec-2019 16:53*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-05
Collection Date: 25-Nov-2019 12:41

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-05
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	**0.716**	n	**0.0966**	**ug/L**	1	04-Dec-2019 17:12
2-Methylnaphthalene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Acenaphthene	**0.187**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Acenaphthylene	**0.263**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Anthracene	**0.423**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Benz(a)anthracene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Benzo(a)pyrene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Benzo(b)fluoranthene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Benzo(g,h,i)perylene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Benzo(k)fluoranthene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Chrysene	**0.422**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Dibenz(a,h)anthracene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Dibenzofuran	**2.05**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Fluoranthene	**0.226**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Fluorene	**0.352**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Indeno(1,2,3-cd)pyrene	ND		0.0966	ug/L	1	04-Dec-2019 17:12
Naphthalene	**0.567**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Phenanthrene	**0.719**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Pyrene	**0.538**		**0.0966**	**ug/L**	1	04-Dec-2019 17:12
Surr: 2-Fluorobiphenyl	*67.2*		*32-130*	*%REC*	*1*	*04-Dec-2019 17:12*
Surr: 4-Terphenyl-d14	*66.4*		*40-135*	*%REC*	*1*	*04-Dec-2019 17:12*
Surr: Nitrobenzene-d5	*79.1*		*45-142*	*%REC*	*1*	*04-Dec-2019 17:12*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-06
Collection Date: 25-Nov-2019 13:31

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-06
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	**6.70**	n	**0.0973**	**ug/L**	1	04-Dec-2019 17:32
2-Methylnaphthalene	**0.548**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Acenaphthene	**0.134**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Acenaphthylene	**0.138**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Anthracene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Benz(a)anthracene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Benzo(a)pyrene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Benzo(b)fluoranthene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Benzo(g,h,i)perylene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Benzo(k)fluoranthene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Chrysene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Dibenz(a,h)anthracene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Dibenzofuran	**0.949**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Fluoranthene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Fluorene	**0.361**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Indeno(1,2,3-cd)pyrene	ND		0.0973	ug/L	1	04-Dec-2019 17:32
Naphthalene	**0.891**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Phenanthrene	**0.409**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Pyrene	**0.105**		**0.0973**	**ug/L**	1	04-Dec-2019 17:32
Surr: 2-Fluorobiphenyl	*67.4*		*32-130*	*%REC*	*1*	*04-Dec-2019 17:32*
Surr: 4-Terphenyl-d14	*56.8*		*40-135*	*%REC*	*1*	*04-Dec-2019 17:32*
Surr: Nitrobenzene-d5	*110*		*45-142*	*%REC*	*1*	*04-Dec-2019 17:32*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Sample ID: 9K26008-07
Collection Date: 25-Nov-2019 14:02

ANALYTICAL REPORT
WorkOrder:HS19111396
Lab ID:HS19111396-07
Matrix:Water

ANALYSES	RESULT	QUAL	REPORT LIMIT	UNITS	DILUTION FACTOR	DATE ANALYZED
LOW-LEVEL PAHS - 8270D	**Method:SW8270**			Prep:SW3511 / 27-Nov-2019		Analyst: LG
1-Methylnaphthalene	ND	n	0.0972	ug/L	1	04-Dec-2019 17:52
2-Methylnaphthalene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Acenaphthene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Acenaphthylene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Anthracene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Benz(a)anthracene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Benzo(a)pyrene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Benzo(b)fluoranthene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Benzo(g,h,i)perylene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Benzo(k)fluoranthene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Chrysene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Dibenz(a,h)anthracene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Dibenzofuran	**0.271**		**0.0972**	**ug/L**	1	04-Dec-2019 17:52
Fluoranthene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Fluorene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Indeno(1,2,3-cd)pyrene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Naphthalene	**0.214**		**0.0972**	**ug/L**	1	04-Dec-2019 17:52
Phenanthrene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Pyrene	ND		0.0972	ug/L	1	04-Dec-2019 17:52
Surr: 2-Fluorobiphenyl	*94.6*		*32-130*	*%REC*	*1*	*04-Dec-2019 17:52*
Surr: 4-Terphenyl-d14	*52.1*		*40-135*	*%REC*	*1*	*04-Dec-2019 17:52*
Surr: Nitrobenzene-d5	*123*		*45-142*	*%REC*	*1*	*04-Dec-2019 17:52*

Note: See Qualifiers Page for a list of qualifiers and their explanation.

ALS Houston, US

Date: 05-Dec-19

Weight / Prep Log

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
WorkOrder: HS19111396

Batch ID: 148111 **Start Date:** 27 Nov 2019 14:56 **End Date:**
Method: SW3511 **Prep Code:** 3511_PAH

Sample ID	Container	Sample Wt/Vol	Final Volume	Prep Factor
HS19111396-01		33.15 (mL)	2 (mL)	0.06033
HS19111396-02		34.52 (mL)	2 (mL)	0.05794
HS19111396-03		34.23 (mL)	2 (mL)	0.05843
HS19111396-04		34.04 (mL)	2 (mL)	0.05875
HS19111396-05		34.17 (mL)	2 (mL)	0.05853
HS19111396-06		33.92 (mL)	2 (mL)	0.05896
HS19111396-07		33.95 (mL)	2 (mL)	0.05891

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
WorkOrder: HS19111396

DATES REPORT

Sample ID	Client Samp ID	Collection Date	Leachate Date	Prep Date	Analysis Date	DF
Batch ID: 148111 (0)	**Test Name :** LOW-LEVEL PAHS - 8270D				**Matrix:** Water	
HS19111396-01	9K26008-01	25 Nov 2019 10:45		27 Nov 2019 14:56	04 Dec 2019 15:47	1
HS19111396-02	9K26008-02	25 Nov 2019 11:08		27 Nov 2019 14:56	05 Dec 2019 09:47	10
HS19111396-02	9K26008-02	25 Nov 2019 11:08		27 Nov 2019 14:56	04 Dec 2019 16:13	1
HS19111396-03	9K26008-03	25 Nov 2019 11:35		27 Nov 2019 14:56	04 Dec 2019 16:33	1
HS19111396-04	9K26008-04	25 Nov 2019 12:00		27 Nov 2019 14:56	04 Dec 2019 16:53	1
HS19111396-05	9K26008-05	25 Nov 2019 12:41		27 Nov 2019 14:56	04 Dec 2019 17:12	1
HS19111396-06	9K26008-06	25 Nov 2019 13:31		27 Nov 2019 14:56	04 Dec 2019 17:32	1
HS19111396-07	9K26008-07	25 Nov 2019 14:02		27 Nov 2019 14:56	04 Dec 2019 17:52	1

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
WorkOrder: HS19111396

QC BATCH REPORT

Batch ID: 148111 (0) **Instrument: SV-6** **Method: LOW-LEVEL PAHS - 8270D**

MBLK Sample ID: **MBLK-148111** Units: **ug/L** Analysis Date: **04-Dec-2019 10:07**
Client ID: Run ID: **SV-6_351789** SeqNo: **5373749** PrepDate: **27-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	ND	0.100								
2-Methylnaphthalene	ND	0.100								
Acenaphthene	ND	0.100								
Acenaphthylene	ND	0.100								
Anthracene	ND	0.100								
Benz(a)anthracene	ND	0.100								
Benzo(a)pyrene	ND	0.100								
Benzo(b)fluoranthene	ND	0.100								
Benzo(g,h,i)perylene	ND	0.100								
Benzo(k)fluoranthene	ND	0.100								
Chrysene	ND	0.100								
Dibenz(a,h)anthracene	ND	0.100								
Dibenzofuran	ND	0.100								
Fluoranthene	ND	0.100								
Fluorene	ND	0.100								
Indeno(1,2,3-cd)pyrene	ND	0.100								
Naphthalene	ND	0.100								
Phenanthrene	ND	0.100								
Pyrene	ND	0.100								
Surr: 2-Fluorobiphenyl	*3.026*	*0.100*	*3.03*	*0*	*99.9*	*32 - 130*				
Surr: 4-Terphenyl-d14	*3.057*	*0.100*	*3.03*	*0*	*101*	*40 - 135*				
Surr: Nitrobenzene-d5	*3.909*	*0.100*	*3.03*	*0*	*129*	*45 - 142*				

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
WorkOrder: HS19111396

QC BATCH REPORT

Batch ID: 148111 (0) **Instrument: SV-6** **Method: LOW-LEVEL PAHS - 8270D**

LCS Sample ID: **LCS-148111** Units: **ug/L** Analysis Date: **04-Dec-2019 10:26**
Client ID: Run ID: **SV-6_351789** SeqNo: **5373750** PrepDate: **27-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	3.638	0.100	3.03	0	120	40 - 140				
2-Methylnaphthalene	3.532	0.100	3.03	0	117	40 - 140				
Acenaphthene	3.279	0.100	3.03	0	108	40 - 140				
Acenaphthylene	3.555	0.100	3.03	0	117	40 - 140				
Anthracene	3.059	0.100	3.03	0	101	40 - 140				
Benz(a)anthracene	3.067	0.100	3.03	0	101	40 - 140				
Benzo(a)pyrene	2.982	0.100	3.03	0	98.4	40 - 140				
Benzo(b)fluoranthene	2.728	0.100	3.03	0	90.0	40 - 140				
Benzo(g,h,i)perylene	2.88	0.100	3.03	0	95.1	40 - 140				
Benzo(k)fluoranthene	3.161	0.100	3.03	0	104	40 - 140				
Chrysene	3.039	0.100	3.03	0	100	40 - 140				
Dibenz(a,h)anthracene	2.782	0.100	3.03	0	91.8	40 - 140				
Dibenzofuran	3.244	0.100	3.03	0	107	40 - 140				
Fluoranthene	2.543	0.100	3.03	0	83.9	40 - 140				
Fluorene	3.311	0.100	3.03	0	109	40 - 140				
Indeno(1,2,3-cd)pyrene	2.522	0.100	3.03	0	83.2	40 - 140				
Naphthalene	3.159	0.100	3.03	0	104	40 - 140				
Phenanthrene	3.145	0.100	3.03	0	104	40 - 140				
Pyrene	3.557	0.100	3.03	0	117	40 - 140				
Surr: 2-Fluorobiphenyl	*2.912*	*0.100*	*3.03*	*0*	*96.1*	*32 - 130*				
Surr: 4-Terphenyl-d14	*2.837*	*0.100*	*3.03*	*0*	*93.6*	*40 - 135*				
Surr: Nitrobenzene-d5	*3.271*	*0.100*	*3.03*	*0*	*108*	*45 - 142*				

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
WorkOrder: HS19111396

QC BATCH REPORT

Batch ID: 148111 (0) **Instrument: SV-6** **Method: LOW-LEVEL PAHS - 8270D**

LCSD Sample ID: **LCSD-148111** Units: **ug/L** Analysis Date: **04-Dec-2019 10:46**
Client ID: Run ID: **SV-6_351789** SeqNo: **5373751** PrepDate: **27-Nov-2019** DF: **1**

Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1-Methylnaphthalene	3.52	0.100	3.03	0	116	40 - 140	3.638	3.28	25	
2-Methylnaphthalene	3.428	0.100	3.03	0	113	40 - 140	3.532	2.98	25	
Acenaphthene	3.27	0.100	3.03	0	108	40 - 140	3.279	0.28	25	
Acenaphthylene	3.601	0.100	3.03	0	119	40 - 140	3.555	1.27	25	
Anthracene	3.191	0.100	3.03	0	105	40 - 140	3.059	4.22	25	
Benz(a)anthracene	3.259	0.100	3.03	0	108	40 - 140	3.067	6.08	25	
Benzo(a)pyrene	2.955	0.100	3.03	0	97.5	40 - 140	2.982	0.915	25	
Benzo(b)fluoranthene	2.864	0.100	3.03	0	94.5	40 - 140	2.728	4.84	25	
Benzo(g,h,i)perylene	3.043	0.100	3.03	0	100	40 - 140	2.88	5.5	25	
Benzo(k)fluoranthene	3.36	0.100	3.03	0	111	40 - 140	3.161	6.1	25	
Chrysene	3.227	0.100	3.03	0	107	40 - 140	3.039	6.02	25	
Dibenz(a,h)anthracene	2.82	0.100	3.03	0	93.1	40 - 140	2.782	1.38	25	
Dibenzofuran	3.258	0.100	3.03	0	108	40 - 140	3.244	0.425	25	
Fluoranthene	2.577	0.100	3.03	0	85.0	40 - 140	2.543	1.31	25	
Fluorene	3.31	0.100	3.03	0	109	40 - 140	3.311	0.0293	25	
Indeno(1,2,3-cd)pyrene	2.425	0.100	3.03	0	80.0	40 - 140	2.522	3.91	25	
Naphthalene	3.203	0.100	3.03	0	106	40 - 140	3.159	1.39	25	
Phenanthrene	3.174	0.100	3.03	0	105	40 - 140	3.145	0.892	25	
Pyrene	3.622	0.100	3.03	0	120	40 - 140	3.557	1.81	25	
Surr: 2-Fluorobiphenyl	*2.862*	*0.100*	*3.03*	*0*	*94.5*	*32 - 130*	*2.912*	*1.72*	*25*	
Surr: 4-Terphenyl-d14	*2.897*	*0.100*	*3.03*	*0*	*95.6*	*40 - 135*	*2.837*	*2.09*	*25*	
Surr: Nitrobenzene-d5	*3.474*	*0.100*	*3.03*	*0*	*115*	*45 - 142*	*3.271*	*6*	*25*	

The following samples were analyzed in this batch: HS19111396-01 HS19111396-02 HS19111396-03 HS19111396-04 HS19111396-05 HS19111396-06 HS19111396-07

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
WorkOrder: **HS19111396**

QUALIFIERS, ACRONYMS, UNITS

Qualifier	Description
*	Value exceeds Regulatory Limit
a	Not accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte detected below quantitation limit
M	Manually integrated, see raw data for justification
n	Not offered for accreditation
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL/SDL

Acronym	Description
DCS	Detectability Check Study
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
MBLK	Method Blank
MDL	Method Detection Limit
MQL	Method Quantitation Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PDS	Post Digestion Spike
PQL	Practical Quantitaion Limit
SD	Serial Dilution
SDL	Sample Detection Limit
TRRP	Texas Risk Reduction Program

ALS Houston, US Date: 05-Dec-19

CERTIFICATIONS,ACCREDITATIONS & LICENSES

Agency	Number	Expire Date
Arkansas	19-028-0	27-Mar-2020
California	2919, 2019-2020	30-Apr-2020
Dept of Defense	ANAB L2231	20-Dec-2021
Florida	E87611-28	30-Jun-2020
Illinois	2000322019-2	09-May-2020
Kansas	E-10352 2019-2020	31-Jul-2020
Kentucky	123043, 2019-2020	30-Apr-2020
Louisiana	03087, 2019-2020	30-Jun-2020
Maryland	343, 2019-2020	30-Jun-2020
North Carolina	624-2019	31-Dec-2019
North Dakota	R-193 2019-2020	30-Apr-2020
Oklahoma	2019-067	31-Aug-2020
Texas	TX104704231-19-23	30-Apr-2020

ALS Houston, US Date: 05-Dec-19

Client: Permian Basin Environmental Lab, LP
Project: 9K26008
Work Order: HS19111396

SAMPLE TRACKING

Lab Samp ID	Client Sample ID	Action	Date	Person	New Location
HS19111396-01	9K26008-01	Login	11/27/2019 11:51:34 AM	AC	LVI002
HS19111396-02	9K26008-02	Login	11/27/2019 11:51:34 AM	AC	LVI002
HS19111396-03	9K26008-03	Login	11/27/2019 11:51:34 AM	AC	LVI002
HS19111396-04	9K26008-04	Login	11/27/2019 11:51:34 AM	AC	LVI002
HS19111396-05	9K26008-05	Login	11/27/2019 11:51:34 AM	AC	LVI002

ALS Houston, US Date: 05-Dec-19

Sample Receipt Checklist

Client Name: Permian Basin Lab
Work Order: HS19111396
Date/Time Received: **27-Nov-2019 10:00**
Received by: **AC**

Checklist completed by: *Asad Chaudhry* eSignature 27-Nov-2019 Date
Reviewed by: *Andy C. Neir* eSignature 27-Nov-2019 Date

Matrices: **Water**
Carrier name: **FedEx Priority Overnight**

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on sample bottles?	Yes ☐	No ☐	Not Present ☑
VOA/TX1005/TX1006 Solids in hermetically sealed vials?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	1 Page(s)
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	COC IDs:N/A
Samplers name present on COC?	Yes ☐	No ☑	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature in compliance?	Yes ☑	No ☐	
Temperature(s)/Thermometer(s):	1.5c U/C	IR 25	
Cooler(s)/Kit(s):	Red		
Date/Time sample(s) sent to storage:	11/27/2019 12:00		
Water - VOA vials have zero headspace?	Yes ☑	No ☐	No VOA vials submitted ☐
Water - pH acceptable upon receipt?	Yes ☐	No ☐	N/A ☑
pH adjusted?	Yes ☐	No ☐	N/A ☑
pH adjusted by:			

Login Notes:

Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

Corrective Action:

PBELAB

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

Permian Basin Environmental
1400 Rankin HWY
Midland, Texas 79701

HS19111396

Permian Basin Environmental Lab, LP
9K26008

Project Manager: Brent Barron
Company Name: PBEL
Company Address: 1400 Rankin HWY
City/State/Zip: Midland Texas 79701
Telephone No: 432-661-4184 Fax No:
Sampler Signature: N/A e-mail: brentbarron@pbelab.com

Report Format: Standard ☐ TRRP ☐ NPDES

(lab use only)
ORDER #:

LAB # (lab use only)	FIELD CODE	Beginning Depth	Ending Depth	Date Sampled	Time Sampled	Field Filtered	Total # of Containers	Preservation & # of Containers: Ice 3 X 40 mL amber VOA	HNO_3 500mL Poly 1 Nitric	HCl 2x 40mL VOA	H_2SO_4 250 poly 1 40mL VOA Vial	NaOH / ZNAC 250 Poly 1	$Na_2S_2O_3$	None 500mL poly; 2 oz glass	NaOH/ZnAc	Matrix: DW-Drinking Water SL-Sludge GW = Groundwater S-Soil/Solid NP = Non-Potable Specify Other	Analyze For: PAH 8270 LL	5 Day TAT
	9K26008-01-01			11/25/2019	1045		3	x								W	x	X
	9K26008-01-02			11/25/2019	1108		3	x								W	x	X
	9K26008-01-03			11/25/2019	1135		3	x								W	x	X
	9K26008-01-04			11/25/2019	1200		3	x								W	x	X
	9K26008-01-05			11/25/2019	1241	2	3	x								W	x	X
	9K26008-01-06			11/25/2019	1331		3	x								W	x	X
	9K26008-01-07			11/25/2019	1402		3	x								W	x	X
	BB																	

Special Instructions:

Relinquished by:	Date	Time	Received by:	Date	Time
Brent Barron	11/26/2019	1700			
Relinquished by:	Date	Time	Received by: AC	11/27/19	10:00
Relinquished by:	Date	Time	Received by:	Date	Time

Laboratory Comments:
Sample Containers Intact? Y N
VOCs Free of Headspace? Y N
Labels on container(s) Y N
Custody seals on container(s) Y N
Custody seals on cooler(s) Y N
Sample Hand Delivered Y N
by Sampler/Client Rep. ? Y N
by Courier? UPS DHL FedEx Lone Star
Temperature Upon Receipt:
Received: 1.5 °C IR#35
Adjusted: °C Factor 0.2
RCD

ORIGIN ID:MAFA (281) 863-0561

ALS
10450 STANCLIFF RD
STE 216
HOUSTON, TX 77099
UNITED STATES US

SHIP DATE: 26NOV19
ACTWGT: 28.50 LB
CAD: 6994482/SSFE2021
DIMS: 16x8x14 IN

BILL THIRD PARTY

TO

ALS
10450 STANCLIFF RD
STE 216
HOUSTON TX 77099

(281) 863-0561

REF:

DEPT:

FedEx Express

TRK# 8147 5084 8112

WED - 27 NOV 3:00P
STANDARD OVERNIGHT

AB SGRA

77099
TX-US IAH

Appendix E

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

OPERATOR

x Initial Report ☐ Final Report

Name of Company	Plains Pipeline, LP	Contact:	Camille Reynolds
Address:	3705 E. Hwy 158, Midland, TX 79706	Telephone No.	505-441-0965
Facility Name:	Red Byrd # 1	Facility Type:	Steel Pipeline

Surface Owner: Red Byrd	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	1	20S	36E					Lea

Latitude 32° 36' 09.8" N **Longitude** 103° 17' 58.5" W

NATURE OF RELEASE

Type of Release: Crude Oil	Volume of Release: Unknown	Volume Recovered
Source of Release: Steel Pipeline	Date and Hour of Occurrence	Date and Hour of Discovery
Was Immediate Notice Given? Yes ☐ No ☐ Not Required	If YES, To Whom?	
By Whom?	Date and Hour	
Was a Watercourse Reached? ☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Describe Area Affected and Cleanup Action Taken.*
NOTE: Texas-New Mexico Pipeline was the owner/operator of the pipeline system at the time of the release, initial response information is unavailable.

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

Signature:	OIL CONSERVATION DIVISION	
Printed Name: Camille Reynolds	Approved by District Supervisor:	
Title: Remediation Coordinator	Approval Date:	Expiration Date:
E-mail Address: cjreynolds@paalp.com	Conditions of Approval:	Attached ☐
Date: 3/21/2005 Phone: (505)441-0965		

* Attach Additional Sheets If Necessary

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

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

CONDITIONS

Action 31412

CONDITIONS

Operator: PLAINS MARKETING L.P. 333 Clay Street Suite 1900 Houston, TX 77002	OGRID: 34053
	Action Number: 31412
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

CONDITIONS

Created By	Condition	Condition Date
bbillings	None	10/6/2022