Proposed Monitoring Well Installation Work Plan

Plains All American Pipeline, L.P.

DCP Plant to Lea Station 6-Inch #2

Plains SRS #2009-039

NMOCD Reference #1R-2136

Lea County, New Mexico

Terracon Project No. AR197008

November 25, 2019

Prepared for:

Plains All American Pipeline, L.P.
505 N. Big Spring, Suite 600
Midland, Texas 79701

Prepared by:

Terracon Consultants, Inc.
Lubbock, Texas

November 25, 2019

Plains All American Pipeline, L.P.
505 N. Big Spring, Suite 600
Midland, Texas 79701

Attn: Mrs. Camille Bryant
P: (806) 592-8305
E: CJBryant@paalp.com

Re: Proposed Monitoring Well Installation Work Plan
DCP Plant to Lea Station 6-Inch #2
U/L "F", Sec. 31, T20S, R37E
Lea County, New Mexico
NMOCD Reference #1R-2136
Plains All American Pipeline, L.P. SRS #2009-039
Terracon Project No. AR197008

Dear Ms. Bryant:

Terracon is pleased to submit a copy of the Proposed Monitoring Well Installation Work Plan for the above referenced site. This work will be performed in accordance with the Master Service Agreement between Plains All American Pipeline, L.P. and Terracon.

Terracon's Work Plan is in accordance with Terracon's 2018 Annual Groundwater Report dated March 22, 2019, proposing the need for the installation of one additional monitoring well (MW-8) to further evaluate the status of groundwater at the site and to delineate the horizontal extent of the dissolved-phase plume. The proposed well will be installed during calendar year 2019, pending New Mexico Oil Conservation Division (NMOCD) and landowner approval and receipt of the proper drilling permit from the New Mexico Office of State Engineer (NMOSE).

We appreciate the opportunity to perform these services for Plains All American Pipeline, L.P. Please contact either of the undersigned at (806) 300-0140 if you have questions regarding the information provided in the report.

Sincerely,

Prepared by:
Paige Gaona
Project Manager

Reviewed by:
Erin Loyd, P.G.
Principal

TABLE OF CONTENTS

APPENDIX

Proposed Monitoring Well Installation Work Plan

DCP Plant to Lea Station 6-Inch #2
U/L "F", Sec. 31, T20S, R37E
Lea County, New Mexico
NMOCD Reference #1R-2136
Plains All American Pipeline, L.P. SRS #2009-039
Terracon Project No. AR197008
November 25, 2019

1.0 INTRODUCTION

1.1 Site Description

Site Name	DCP Plant to Lea Station 6-Inch #2
Site Location/Address	Latitude 32.531660° North, Longitude 103.291110° West
General Site Description	The site consists of seven groundwater monitoring wells located in, and adjacent to a pipeline right-of-way surrounded by native pasture land.
Landowner	State of New Mexico

Exhibit 1 presents the general boundaries and topography of the site on the USGS topographic quadrangle map of Southwest Hobbs, New Mexico (Appendix A). Exhibit 2 is a site diagram that indicates the seven monitoring wells. Exhibit 3 is a site map of the approximate location of the proposed monitoring well in relation to other monitoring wells and the pertinent structures and general site boundaries (Appendix A). Exhibit 4 is a site map of the existing monitoring wells and a representation of the inferred groundwater flow direction based on the September 5, 2019, gauging event.

1.2 Background Information

On February 12, 2009, Plains All American Pipeline, L.P. (Plains) discovered a crude oil release from a 6-inch steel pipeline. During initial response activities, Plains installed a temporary clamp to mitigate the release. Approximately 25 barrels (bbls) of crude oil were released from the pipeline, resulting in a surface stain measuring approximately 10 feet (ft.) in width and 12 ft. in length. Plains notified the New Mexico Oil Conservation Division (NMOCD) Hobbs District 1 Office of the release, and a "Release Notification and Corrective Action" (Form C-141) was submitted (Appendix B). The cause of the release was attributed to external corrosion of the pipeline.

Terracon's 2018 Annual Groundwater Report, dated March 22, 2019 generated the following findings:

- Seven groundwater monitoring wells (MW-1 through MW-7) are located at the site.
- MW-1 was not sampled during each quarterly monitoring event due to the presence of PSH.
- The PSH thickness in MW-1 was approximately 1.61 ft during the 4th quarter sampling event conducted on December 10, 2018.
- MW-2 through MW-7 were gauged, purged, and sampled during each quarterly event.
- Benzene, toluene, ethylbenzene and total xylene (BTEX) concentrations were not detected at concentrations above applicable laboratory Sample Detection Limits (SDLs) in groundwater samples collected from MW-2, MW-3, MW-4, MW-6, and MW-7 during each quarterly event with the exception of total xylene being detected in MW-3 during the fourth quarter monitoring event.
- The benzene concentration in MW-5 exceeded the NMOCD regulatory standard for the four quarterly monitoring events.
- Concentrations of toluene, ethylbenzene, and total xylenes were above the SDL, but below the NMOCD regulatory standard, in MW-5 for each respective constituent during the four quarterly monitoring events.
- The groundwater flow direction was relatively consistent to the southeast for each quarterly event.
- An estimated 0.22 gallons (<0.01 bbls) of PSH were recovered manually from MW-1 in 2018.
- Monthly air emission samples were collected from the SVE unit to ensure compliance with New Mexico Environmental Department (NMED) Air Quality Bureau (AQB) Action Level.
- An estimated 605 gallons (14.4 bbls) of hydrocarbon impacted groundwater were recovered manually from MW-5 for 2018.

Terracon's 2019 release management activities through September 19, 2019 have resulted in the following findings:

- The PSH thickness in MW-1 was approximately 0.35 ft during the last recovery event conducted on September 5, 2019.
- An estimated 11.2 gallons (0.267 bbls) of PSH were recovered manually from MW-1.
- An estimated 186 gallons (4.43 bbls) of hydrocarbon impacted groundwater were recovered manually from MW-5 for 2019.

1.3 Scope of Services

The objective of the proposed scope of services is to attempt to delineate the extent of crude oil-impacted groundwater to the south of the initial impact zone.

Prior to installation of groundwater monitoring well, Terracon, in cooperation with Plains will arrange for underground utility (pipelines, electrical conduits, etc.) locates at the above referenced site.

Terracon will develop a generic safety plan to be used by our personnel during field services. At this time, we anticipate that a USEPA Level D work uniform consisting of hard hats, safety glasses, protective gloves, and steel-toed boots will be required by all personnel in the work area. It may become necessary to upgrade this level of protection, at additional cost, while sampling activities are being conducted if petroleum or chemical constituents are encountered in soils or groundwater which presents an increased risk for personal exposure.

2.0 PROPOSED FIELD ACTIVITIES

2.1 Soil Boring

A total of one soil boring will be advanced using a truck-mounted drilling rig, equipped with air-rotary drilling capabilities. The proposed boring location is illustrated on Exhibit 3 of the Appendix. These subcontract drilling services will be supervised by a New Mexico licensed driller. The soil boring will be advanced to a maximum depth of 95 ft below grade surface (bgs) or refusal, whichever occurs first. The proposed total boring depth will not be exceeded without verbal approval from the client.

Drilling equipment will be cleaned using a high-pressure washer prior to beginning the project and before beginning each boring. Non-dedicated sampling equipment will be cleaned using a detergent wash and potable water rinse prior to commencement of the project and between collection of each sample. Following completion of sampling activities, borings not converted to monitoring wells will be backfilled with bentonite pellets, then hydrated and grouted to the surface.

Soil cuttings will be evaluated continuously to document lithology, color and relative moisture content. In addition, the samples will be field screened using sensory methods and a photoionization detector (PID) to detect the presence of volatile organic compounds (VOC).

2.2 Groundwater Monitoring Well

The monitoring well will be constructed as follows:

- Installation of 40 ft of a 2-inch diameter, 0.010-inch machine slotted PVC well screen with a threaded bottom cap;
- Installation of 2-inch diameter, threaded, flush-joint PVC riser pipe to surface;
- Addition of pre-sieved 20/40 silica sand/gravel for annular sand/gravel pack around the well screen from the bottom of the boring to approximately 2 ft above the top of the well screen;
- Placement of hydrated bentonite pellets above the sand pack, to approximately 2 ft bgs;
- Addition of cement/bentonite slurry to the surface; and

- Installation of a locking well cap and construction of a 2 ft x 2 ft concrete pad with a stick-up well consisting of a metal collar approximately 3 ft high.

The monitoring well will be developed by using a submersible pump by surging and removing groundwater until fluids appear relatively free of fine-grained sediment. Development groundwater will be temporarily stored on-site in labeled 55-gallon drums pending. The drum labels will identify the apparent contents of the drum and the initial accumulation date.

2.3 Sampling Program

Following development of the new monitoring well and prior to groundwater sample collection, the well will be purged with low-flow sampling equipment. The monitoring well will be purged of a minimum of three well casing volumes of groundwater, or until the monitoring well formation fails to recharge, (i.e., well runs dry) or consistent values (i.e., less than 10% variance between consecutive readings) are obtained for pH, temperature and conductivity. After sufficient recharge, one groundwater sample will be collected from the monitoring well utilizing a new, disposable, polypropylene bailer or low-flow sampling equipment.

The groundwater samples will be collected into laboratory-prepared containers. The containers will be labeled and placed on ice in a cooler which will be secured with a custody seal. The samples and completed Chain-of-Custody forms will be transported to Xenco Laboratories Company in Lubbock, Texas for analysis of BTEX constituent concentrations using United States Environmental Protection Agency (EPA) Method 8021B. Laboratory analysis will be performed under standard laboratory turnaround time of 5 to 7 working days.

2.4 Groundwater Monitoring

Terracon will perform bi-weekly groundwater gauging and manual abatement. Terracon will also perform quarterly groundwater monitoring activities including measuring static water levels in the monitoring well, checking for the presence of PSH, and the collection of groundwater samples from each of the on-site wells not exhibiting a measurable thickness of PSH. The first groundwater sampling event will be completed immediately following the installation of the proposed monitoring well.

Prior to each sampling event, each well will be purged and sampled with low-flow sampling equipment consistent with the methods previously outlined in Section 2.3. An Annual Groundwater Monitoring Report (AGMR) will be prepared following the last quarter sampling event to document the cumulative results of the groundwater monitoring. The reports will be submitted in draft to client for review and comment prior to finalization.

3.0 LABORATORY ANALYTICAL METHODS

3.1 Laboratory Analytical Program

The groundwater samples collected from the soil boring / monitoring well will be analyzed for BTEX using the following methods:

Analysis	Sample Type	No. of Samples	Laboratory Method
BTEX	Water	1	SW-846 Method 8021B

4.0 SCHEDULE

It is estimated that the field activities will be initiated upon approval of the well permit from NMOSE. The actual project schedule will be based on the availability of environmental drillers and other subcontractors. If schedule delays are anticipated based on subcontractor availability, weather, and/or encountered site conditions, the client will be contacted to discuss changes in the schedule. Standard analytical laboratory turnaround is seven business days.

Transportation and disposal of removed soil cuttings, development water, or other investigation-derived waste (IDW) materials are included in the scope of services. Terracon anticipates generating approximately 6 drums of soil, groundwater, and/or equipment cleaning water during the investigation activities. Client or its authorized agent will be responsible for signing the waste manifest, as required, or authorizing Terracon to sign on its behalf.

5.0 CONDITIONS

The scope of services and estimated fee were based on the assumptions and limitations noted below.

5.1 Assumptions

- Client will provide to Terracon, prior to mobilization, legal right of entry to the site (and other areas if required) to conduct the scope of services.
- Client will notify Terracon, prior to mobilization, of any restrictions, special site access requirements, or known potentially hazardous conditions at the site (e.g., hazardous materials or processes, specialized protective equipment requirements, unsound structural conditions, etc.)
- Field services will be performed in U.S. EPA Level D attire including usage of fire-resistant clothing. Client will be responsible for additional costs should an upgrade to personal protective equipment be required do to conditions encountered at site.

- Public utilities will be located using applicable state, regional, and/or local utility locate services or one-call centers. Location of utilities on private land that are not located by these public services will be the responsibility of the client and/or property owner/operator.
- Services can be performed during normal business hours (Monday through Friday, 7:00 am to 7:00 pm).
- Traffic control services are not required.
- The site is readily accessible by truck.

If any of these assumptions or conditions are not accurate or change during the project, the stated fee is subject to change.

5.2 Limitations

Terracon's services will be performed in a manner consistent with generally accepted practices of the profession undertaken in similar studies in the same geographic area during the same period. Terracon makes no warranties, express or implied, regarding its services, findings, conclusions or recommendations. Please note that Terracon does not warrant the services of laboratories, regulatory agencies or other third parties supplying information used in the preparation of the report. These services will be performed in accordance with the scope of services agreed with you, our client, as set forth in this proposal and are not intended to be in strict conformance with ASTM E1903-11.

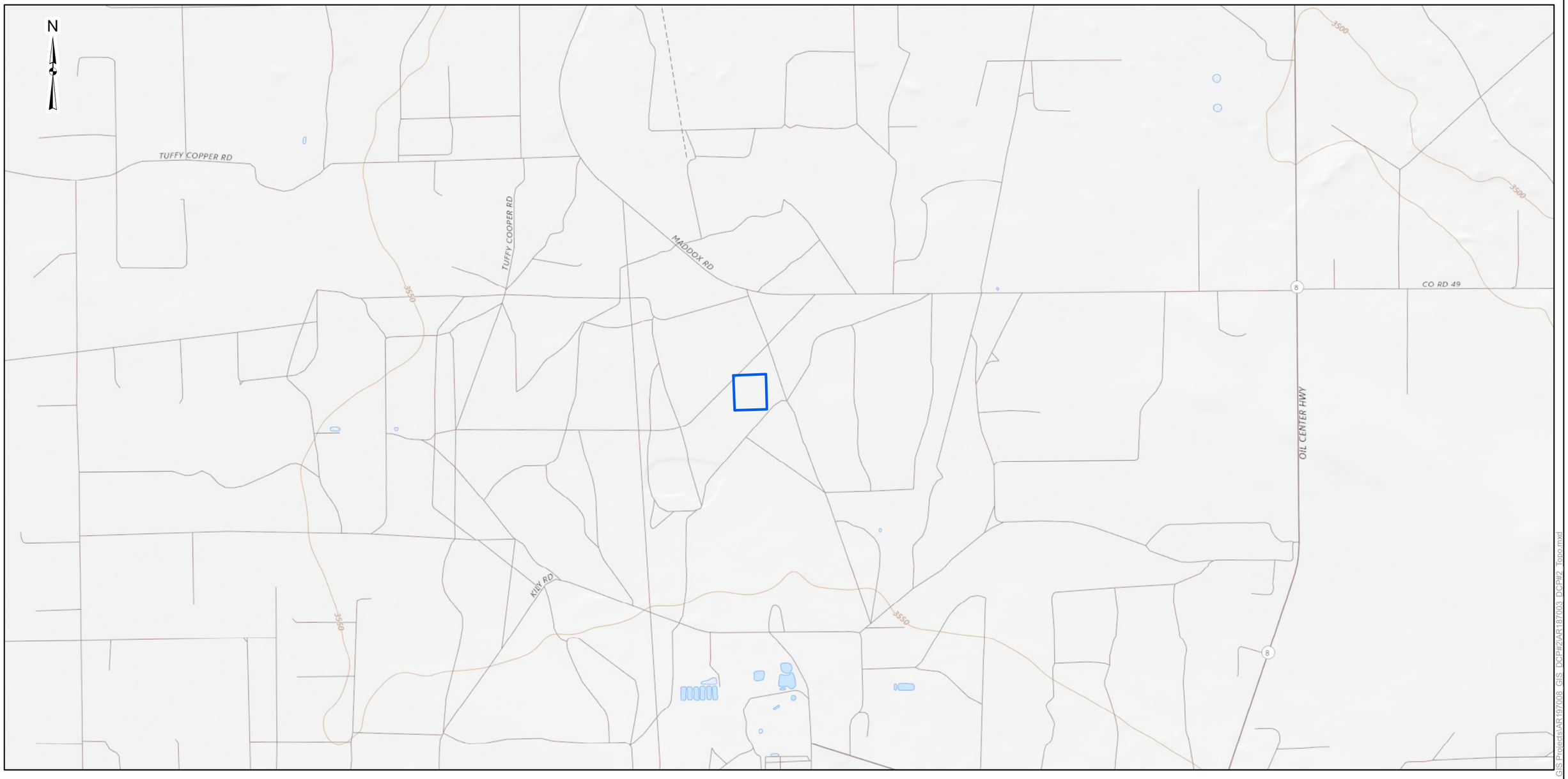
Certain indicators of subsurface impacts may be inaccessible, nondetectable, or not present during these services, and we cannot represent that the site contains no hazardous substances, petroleum products, or other latent conditions beyond those identified during this investigation. Subsurface conditions are subject to spatial and temporal variability. Our findings, conclusions, and recommendations will be based solely upon data obtained at the time and within the scope of these services.

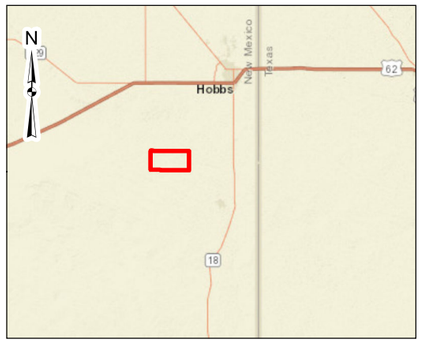
5.3 Reliance

The work will be executed for the exclusive use and reliance of Plains All American Pipeline (client). Reliance by any other party is prohibited without the written authorization of the client and Terracon. Reliance by the client and all authorized parties will be subject to the terms, conditions, and limitations stated in the Master Service Agreement. The defined contractual limitation of liability is the aggregate limit of Terracon's liability to the client and all relying parties.

APPENDIX A

Exhibit 1 – Topographic Map
Exhibit 2 – Site Diagram
Exhibit 3 – Proposed Monitoring Well Installation Location Map
Exhibit 4 – Groundwater Gradient Map
Exhibit 5 – Contaminant Concentration Map
Table 1 – Groundwater BTEX Concentration Analytical Summary





Groundwater Monitoring Site

Release Site

Notes:
- Exhibit is for general location only, is not indended for construction purposes, and should not be used separately from original report.

Feet
0 1,000 2,000 4,000

Fractional Scale: 1:1,684,950

DATA SOURCES:
Bing Maps - Aerial Imagery, World Street Map

Project No.:	AR197008
Date:	Sep 2019
Drawn By:	SW
Reviewed By:	ELL

Terracon
5827 50th St. Suite 1 Lubbock, TX 79424
PH. (806) 300-0104 terracon.com

Topographic Map

DCP Plant to Lea Station 6" #2
Plains SRS # 2009-039
NMOCD Ref. # 1R-2136
Plains Pipeline, LP
Lea County, New Mexico
GPS: 32.531660°, -103.291110°

Exhibit

1

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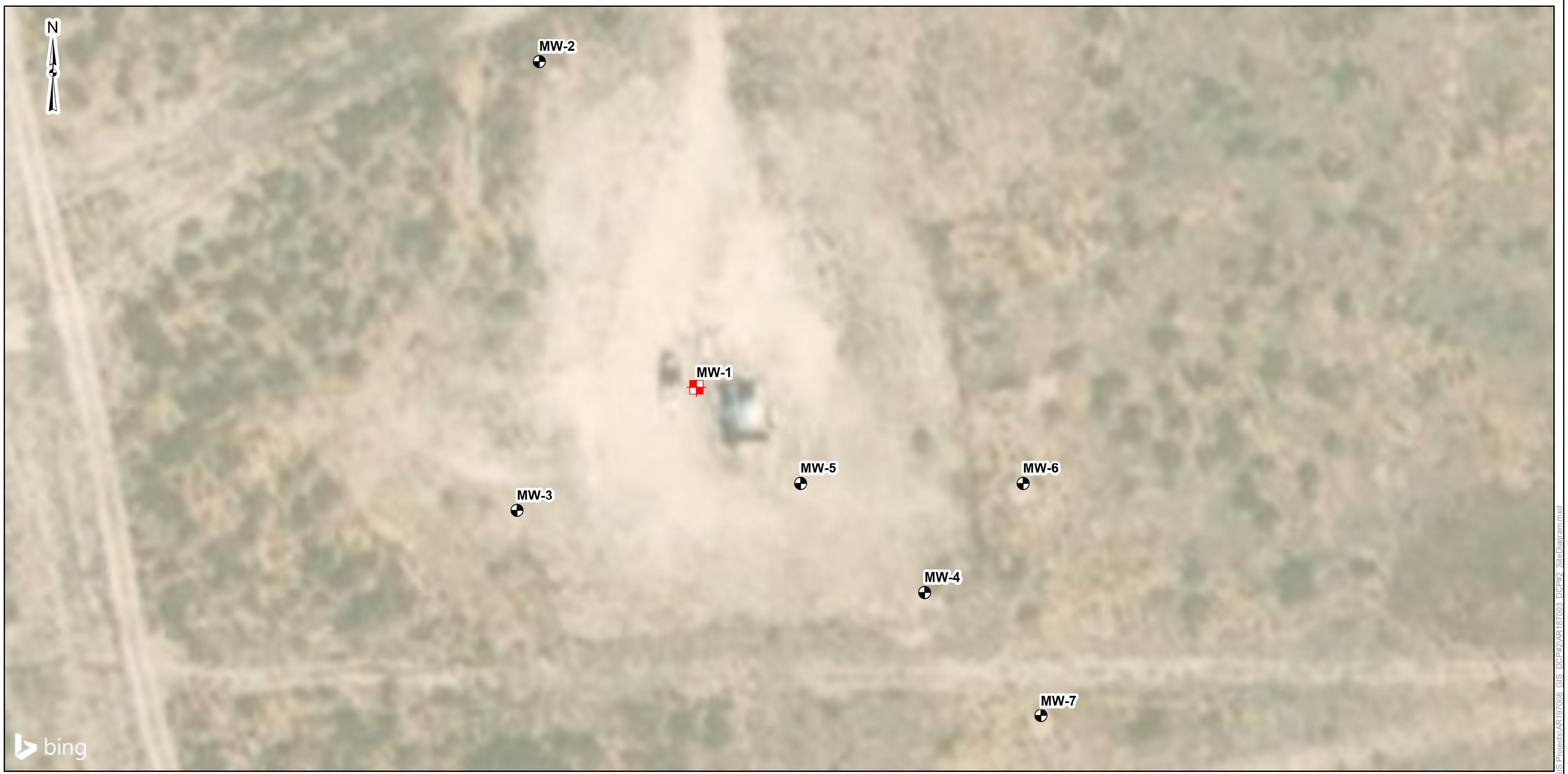

Groundwater Monitoring Site

Recovery Well w/ Soil Vapor Extraction (SVE) Unit

Monitoring Well (MW)

Notes:
- Exhibit is for general location only, is not indended for construction purposes, and should not be used separately from original report.
- Proposed monitoring well GPS location was derived from the GIS map and will be surveyed after installation.

Feet
0 50 100

Fractional Scale: 1:450

DATA SOURCES:
Bing Maps - Aerial Imagery, World Street Map

Project No.:	AR197008
Date:	Sep 2019
Drawn By:	SW
Reviewed By:	ELL

Terracon
5827 50th St. Suite 1 Lubbock, TX 79424
PH. (806) 300-0104 terracon.com

Site Diagram

DCP Plant to Lea Station 6" #2
Plains SRS # 2009-039
NMOCD Ref. # 1R-2136
Plains Pipeline, LP
U/L "F", Sec. 31, T20S, R37E
Lea County, New Mexico
GPS: 32.531660°, -103.291110°

Exhibit

2

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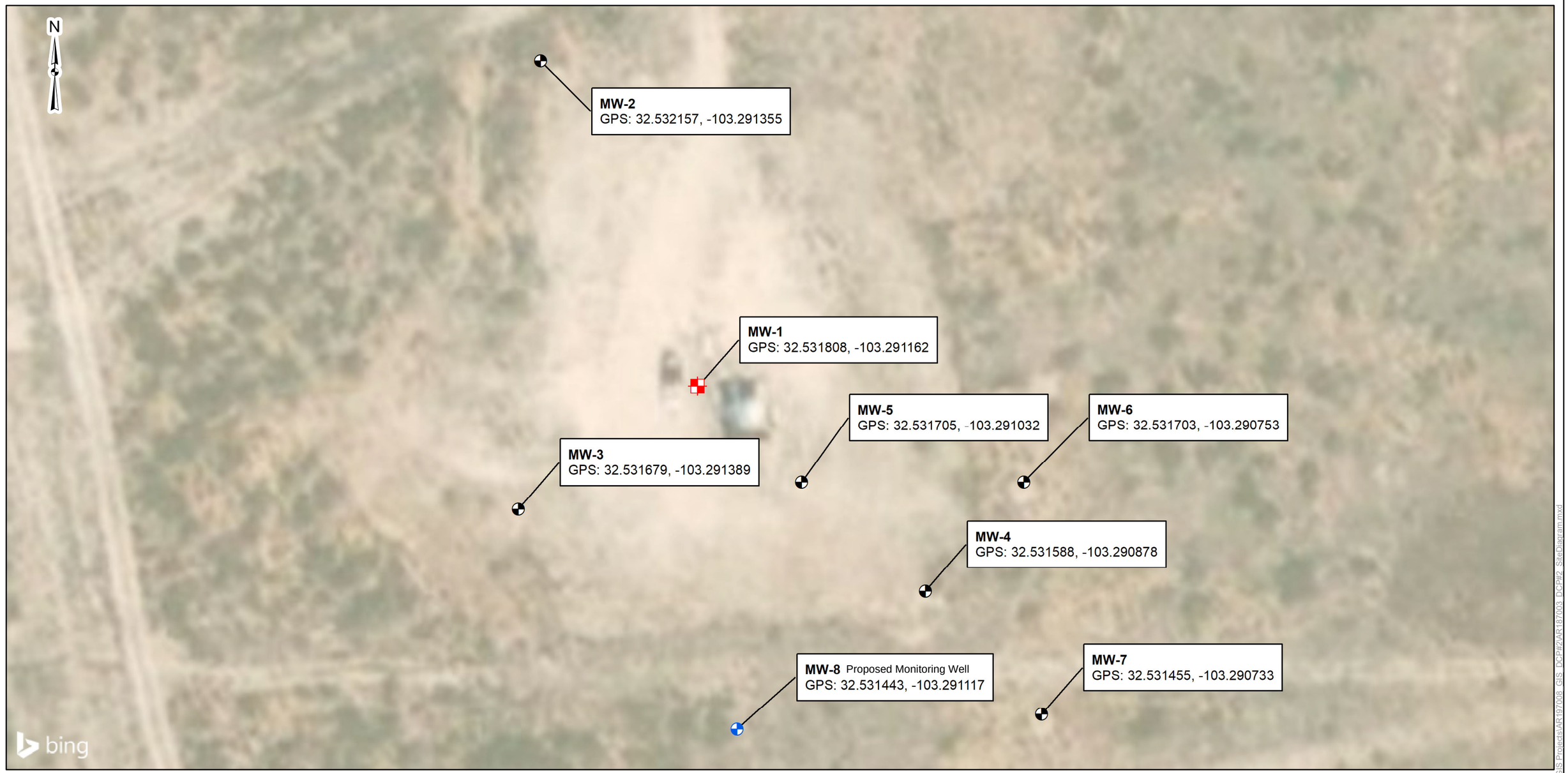

Groundwater Monitoring Site

- Proposed Monitoring Well (MW)
- Recovery Well w/ Soil Vapor Extraction (SVE) Unit
- Monitoring Well (MW)

Notes:
- Exhibit is for general location only, is not intended for construction purposes, and should not be used separately from original report.
- Proposed monitoring well GPS location was derived from the GIS map and will be surveyed after installation.

Feet
0 50 100

Fractional Scale: 1:36,970

DATA SOURCES:
Bing Maps - Aerial Imagery, World Street Map

Project No.:	AR197008
Date:	Sep 2019
Drawn By:	SW
Reviewed By:	ELL

Terracon
5827 50th St. Suite 1 Lubbock, TX 79424
PH. (806) 300-0104 terracon.com

Proposed Monitoring Well Location Map

DCP Plant to Lea Station 6" #2
Plains SRS # 2009-039
NMOCD Ref. # 1RP-2136
Plains Pipeline, LP
U/L "F", Sec. 31, T20S, R37E
Lea County, New Mexico
GPS: 32.531660°, -103.291110°

Exhibit

3

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Groundwater Monitoring Site

- Proposed Monitoring Well (MW)
- Recovery Well w/ Soil Vapor Extraction (SVE) Unit
- Monitoring Well (MW)
- Groundwater Contour
- Inferred Groundwater Contour
- Groundwater Flow Direction

Notes:
- All groundwater elevations are measured in feet above mean sea level.
- Groundwater contours were interpolated with ArcGIS's kriging algorithm.
- Groundwater contour interval: 0.15 ft.
- Groundwater gradient: 0.002 ft/ft
- MW-1 not honored in contouring interpolation.

0 50 100 Feet

Fractional Scale: 1:450

DATA SOURCES:
Bing Maps - Aerial Imagery, World Street Map

Project No.:	AR197008
Date:	Oct 2019
Drawn By:	SW
Reviewed By:	ELL

Terracon
5827 50th St. Suite 1 Lubbock, TX 79424
PH. (806) 300-0104 terracon.com

3Q19 Groundwater Gradient Map (09/05/19)

DCP Plant to Lea Station 6" #2
Plains SRS # 2009-039
NMOCD Ref. # 1R-2136
Plains Pipeline, LP
Lea County, New Mexico
U/L "F", Sec. 31, T20S, R37E
GPS: 32.531660°, -103.291110°

Exhibit

4

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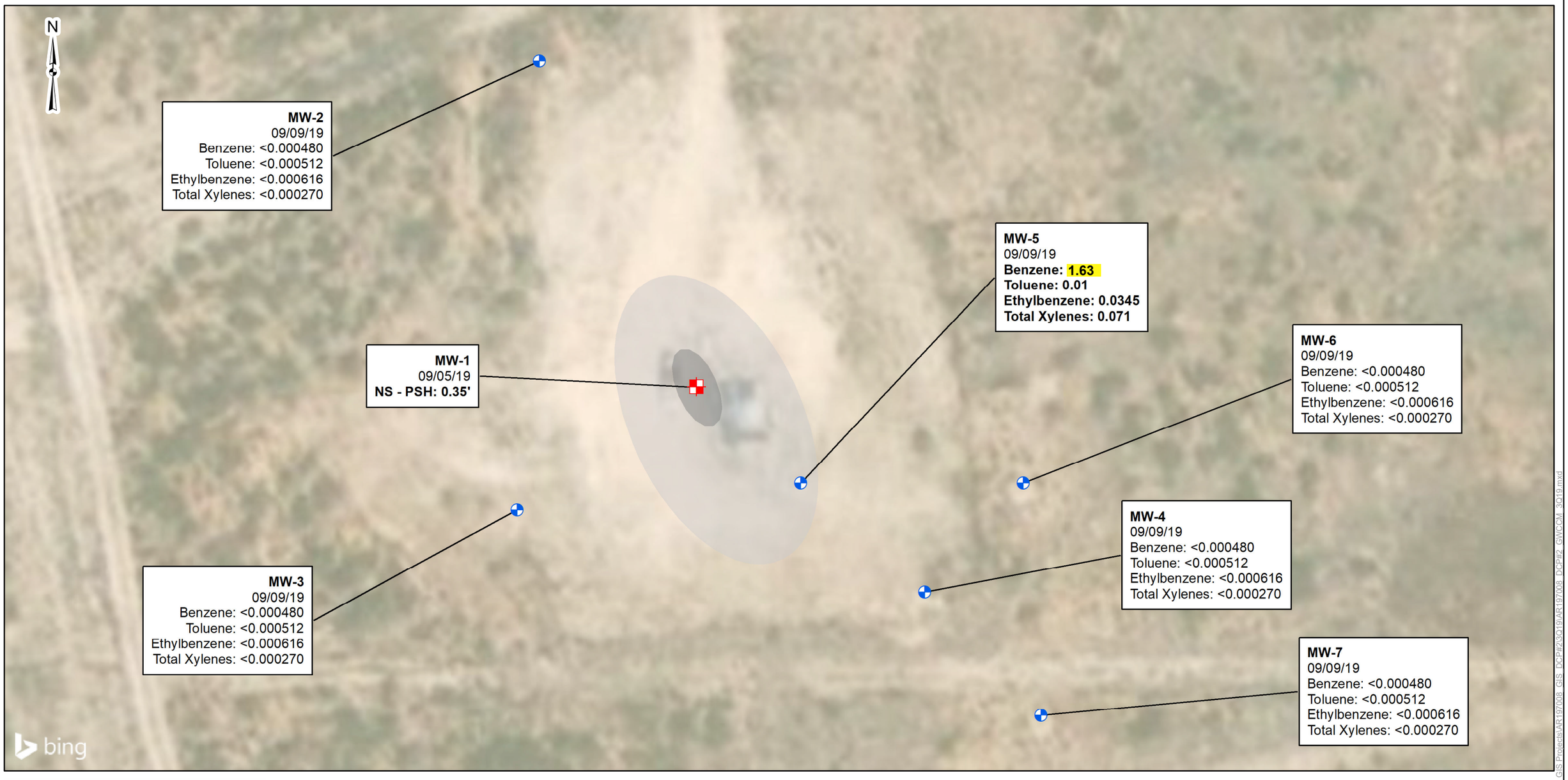

Groundwater Monitoring Site

- Recovery Well w/ Soil Vapor Extraction (SVE) Unit
- Monitoring Well (MW)
- Free Phase Plume: Outlines Wells w/ Phase Seperated Hydrocarbons (PSH)
- Dissolved Phase Plume: Outlines Wells w/ TPH and/or BTEX

New Mexico - Oil Conservation Division (NMOCD) Criteria:
B (Benzene) - 0.01 mg/L
T (Toluene) - 0.75 mg/L
E (Ethylbenzene) - 0.75 mg/L
X (Total Xylenes) - 0.62 mg/L
J: The identification of the analyte is acceptable; the reported value is an estimate.
NS: Monitoring well was not sampled due to presence of PSH.
Bold concentrations indicate a concentration above the laboratory sample detection limit (SDL).
Highlighted concentrations indicate a concentration exceeding the NMOCD Recommended Remediation Action Level (RRAL) Criteria. PSH thicknesses are measured in tenths of a foot.

0 50 100 Feet

Fractional Scale: 1:450

DATA SOURCES:
Bing Maps - Aerial Imagery, World Street Map

Project No.:	AR187003
Date:	Sep 2019
Drawn By:	SW
Reviewed By:	ELL

Terracon
5827 50th St. Suite 1 Lubbock, TX 79424
PH. (806) 300-0104 terracon.com

3Q19 Groundwater Contaminant Concentration Map (09/09/19)

DCP Plant to Lea Station 6" #2
Plains SRS # 2009-039
NMOCD Ref. # 1RP-2136
Plains Pipeline, LP
U/L "F", Sec. 31, T20S, R37E
Lea County, New Mexico
GPS: 32.531660°, -103.291110°

Exhibit

5

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Table 1
Groundwater BTEX[1] Concentration Analytical Summary

DCP Plant to Lea Station 6-Inch #2
Lea County, New Mexico
Plains Pipeline, L.P. SRS #: 2009-039
Terracon Project #: AR197008
NMOCD[2] Reference #: 1RP-2136
All concentrations are in milligrams per liter (mg/l)

Monitoring Well	Date Sampled	EPA SW846-8021B						
		Benzene	Toluene	Ethylbenzene	M,P-Xylenes	O-Xylenes	Total Xylenes	Total BTEX
NMOCD RRAL CRITERIA[3]		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**			**NE[4]**
MW -1	02/10/16	MW-1 Not Sample Due to PSH[5]						
	05/03/16							
	11/01/16							
	12/22/16							
	03/01/17							
	06/26/17							
	09/19/17							
	11/15/17							
	01/16/18							
	04/20/18							
	08/20/18							
	12/10/18							
	02/21/19							
	05/22/19							
	09/09/19							
MW-2	02/10/16	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/16	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	03/01/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	01/16/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	04/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	08/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	12/10/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	02/21/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	05/22/19	<0.000480	**0.000700J**	<0.000616	<0.000454	<0.000270	<0.000270	**0.000700J**
	09/09/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
MW-3	02/10/16	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/16	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	03/01/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	01/16/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	04/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	08/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	12/10/18	<0.000480	<0.000512	<0.000616	**0.000600 J**	<0.000270	**0.000600 J**	**0.000600 J**
	02/21/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	05/22/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	09/09/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270

Table 1
Groundwater BTEX[1] Concentration Analytical Summary

DCP Plant to Lea Station 6-Inch #2
Lea County, New Mexico
Plains Pipeline, L.P. SRS #: 2009-039
Terracon Project #: AR197008
NMOCD[2] Reference #: 1RP-2136
All concentrations are in milligrams per liter (mg/l)

Monitoring Well	Date Sampled	EPA SW846-8021B						
		Benzene	Toluene	Ethylbenzene	M,P-Xylenes	O-Xylenes	Total Xylenes	Total BTEX
NMOCD RRAL CRITERIA[3]		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**			**NE[4]**
MW-4	02/10/16	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/16	<0.00100	<0.00100	<0.00100	<0.00200	<0.00100	<0.00200	<0.00200
	03/01/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	01/16/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	04/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	08/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	12/12/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	02/21/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	05/22/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	09/09/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
MW-5	02/10/16	**8.04**	**1.79**	**0.276**	**0.289**	**1.81**	**0.470**	**10.6**
	05/03/16	**2.42**	**0.631**	**0.102**	**0.120**	**0.0628**	**0.183**	**3.34**
	11/01/16	**7.42**	**2.09**	**0.393**	**0.546**	**0.271**	**0.817**	**10.7**
	12/22/16	**4.89**	**1.95**	**0.280**	**0.290**	**0.170**	**0.460**	**7.58**
	03/01/17	**0.764**	**0.0868**	<0.0500	<0.0500	<0.0500	<0.0500	**0.851**
	06/26/17	**7.91**	**3.39**	**0.441**	**0.405**	**0.255**	**0.660**	**12.4**
	09/19/17	**2.21**	**0.089**	**0.049**	**0.032**	**0.033**	**0.065**	**2.41**
	11/15/17	**1.74**	**0.110**	**0.055**	**0.032**	<0.00200	**0.035**	**1.94**
	01/16/18	**5.07**	**0.190**	<0.0308	<0.0227	<0.0135	<0.0135	**5.26**
	04/20/18	**4.47**	**0.150**	**0.130**	**0.125**	**0.0800**	**0.205**	**4.96**
	08/20/18	**3.26**	**0.145**	**0.0850**	**0.0800**	**0.0650**	**0.145**	**3.64**
	12/12/18	**0.270**	**0.0385**	**0.00630**	**0.00700**	**0.00500**	**0.0120**	**0.327**
	02/21/19	**5.29**	**0.285**	**0.265**	**0.315**	**0.245**	**0.560**	**6.40**
	DUP-1	**5.24**	**0.280**	**0.260**	**0.310**	**0.240**	**0.550**	**6.33**
	05/22/19	**0.641**	<0.00256	**0.00950**	**0.0105**	**0.00250J**	**0.0130**	**0.664**
	DUP-1	**0.673**	<0.00256	**0.0100**	**0.0120**	**0.00250J**	**0.0145**	**0.698**
	09/09/19	**1.63**	**0.0100**	**0.0345**	**0.0365**	**0.0345**	**0.0710**	**1.75**
	DUP-1	**1.51**	**0.00450 J**	**0.0280**	**0.0235**	**0.0130**	**0.0365**	**1.58**
MW-6	02/10/16	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/16	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000512
	03/01/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	01/16/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	04/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	08/20/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	12/11/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	02/21/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	05/22/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	09/09/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270

Table 1
Groundwater BTEX[1] Concentration Analytical Summary

DCP Plant to Lea Station 6-Inch #2
Lea County, New Mexico
Plains Pipeline, L.P. SRS #: 2009-039
Terracon Project #: AR197008
NMOCD[2] Reference #: 1RP-2136
All concentrations are in milligrams per liter (mg/l)

Monitoring Well	Date Sampled	EPA SW846-8021B						
		Benzene	Toluene	Ethylbenzene	M,P-Xylenes	O-Xylenes	Total Xylenes	Total BTEX
NMOCD RRAL CRITERIA[3]		**0.01**	**0.75**	**0.75**	**TOTAL XYLENES 0.62**			**NE[4]**
MW-7	02/10/16	<0.0010	<0.0020	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020
	05/03/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/01/16	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	12/22/16	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000512
	03/01/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	06/26/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	09/19/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	11/15/17	<0.00200	<0.00150	<0.00200	<0.00200	<0.00200	<0.00200	<0.00200
	01/16/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
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	12/11/18	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	02/21/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270
	05/22/19	<0.000480	**0.000700J**	<0.000616	<0.000454	<0.000270	<0.000270	**0.000700J**
	09/09/19	<0.000480	<0.000512	<0.000616	<0.000454	<0.000270	<0.000270	<0.000270

Notes:
1. BTEX: Benzene, Toluene, Ethylbenzene, and Total Xylenes
2. NMOCD: New Mexico Oil Conservation Division
3. RRAL Criteria: Recommended Remediation Action Level Criteria
4. NE: Not Established
J: The target analyte was positively identified below the quantitation limit and above the detection limit
Bold text indicates a concentration above the laboratory detection limit.
Highlighted text indicates a concentration exceeding the NMOCD RRAL Criteria

APPENDIX B

Exhibit 1 – C-141

District I
625 N. French Dr., Hobbs, NM 88240
District II
301 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

☒ Initial Report ☐ Final Report

Name of Company	Plains Pipeline, LP	Contact	Jason Henry
Address	2530 Hwy 214 – Denver City, Tx 79323	Telephone No.	(575) 441-1099
Facility Name	DCP Plant to Lea Station 6-inch #2	Facility Type	Pipeline

Surface Owner NM SLO	Mineral Owner	Lease No. 30-025-06282

LOCATION OF RELEASE

Closest Facility

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	30	20S	37E					Lea

Latitude N 32.5316667° **Longitude** W 103.2911111°

NATURE OF RELEASE

Type of Release Crude Oil	Volume of Release 25 bbls	Volume Recovered 0 bbls
Source of Release 6" Steel Pipeline	Date and Hour of Occurrence 02/12/2009	Date and Hour of Discovery 02/12/2009 12:30
Was Immediate Notice Given? ☐ Yes ☒ No ☐ Not Required	If YES, To Whom? Larry Johnson (revised release volume on 02/25/2009)	
By Whom? Jason Henry	Date and Hour 02/25/2009 @ 14:00	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

RECEIVED
MAR 23 2009
HOBBSOCD

Describe Cause of Problem and Remedial Action Taken.*

External corrosion of 6" inch pipeline caused a release of crude oil. A clamp was installed on the pipeline to mitigate the release. Throughput for the subject line is 660 bbls/day and the operating pressure of the pipeline is 45 psi. The depth of the pipeline at the release point is approximately 2' bgs. The H2S concentration in the crude is less than 10 ppm and the gravity of the crude is 65.

Describe Area Affected and Cleanup Action Taken.*

The released crude resulted in a surface stain that measured approximately 10' x 12'. The impacted area will be remediated per applicable guidelines.

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: Jason Henry	OIL CONSERVATION DIVISION
Printed Name: Jason Henry	Approved by District Supervisor:
Title: Remediation Coordinator	Approval Date: / Expiration Date:
E-mail Address: jhenry@paalp.com	Conditions of Approval: 1RP-2136 / Attached ☐
Date: 03/23/2009 Phone: (575) 441-1099	

Attach Additional Sheets If Necessary