

PROJECT SUMMARY AND NO FURTHER ACTION REQUEST

BE-7-4 Loop
Eddy County, New Mexico
RP# - 2RP-4003

Prepared for:



370 17th St., Suite 2500
Denver, CO 80202

Prepared by:



6899 Pecos Street, Unit C
Denver, Colorado 80221

February 6, 2017

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1. INTRODUCTION

Tasman Geosciences, Inc. (Tasman) has prepared this Project Summary and No Further Action (NFA) Request on behalf of DCP Midstream, LP (DCP) to document the results of field activities that were conducted at the BE-7-4 Loop (Site) with associated RP# 2RP-4003 located in Eddy County, New Mexico (Figure 1). These activities were performed in accordance with the Site Characterization and Remediation Work Plan (SCRWP) that was submitted to the New Mexico Oil Conservation Division (NMOCD) on December 21, 2016. The field remediation activities discussed herein were completed between January 16 and 20, 2017, and an NFA request for Site closure is also provided.

2. SITE REMEDIATION ACTIVITIES

In accordance with the SCRWP, Site remediation activities were initiated on January 16, 2017. Hydrovacuum potholing was conducted to daylight the buried DCP flowline utilities illustrated on Figure 2 in anticipation of mechanical excavation of impacted soil. Approximately 10 yards of material was removed through hydrovacuum excavation activities and transported and disposed of at the R360 disposal facility under manifesting procedures. Impacted soil excavation activities were initiated on January 17, 2017 and completed on January 19, 2017. A total of approximately 350 cubic yards of soil was removed from the Site and transported and disposed of at the Lea Land Inc. landfill disposal facility under manifesting procedures.

Impacted soil excavation activities were guided using a photoionization detector (PID) and by filling a one quart zip-lock bag with an aliquot of soil from discreet sample locations collected at the base and sidewalls of the excavation. The samples were analyzed in the field for volatile organic compound (VOC) concentrations using traditional headspace sampling techniques. Soil samples from the extents of the excavation were submitted under chain of custody procedures to Cardinal Laboratories in Hobbs, New Mexico for analysis of BTEX using USEPA Method 8021B and total petroleum hydrocarbons gasoline range organics (TPH-GRO) and TPH diesel range organics (DRO) using USEPA Method 8015. Additionally, the sample that was observed to have the highest PID reading was collected for chloride analysis using USEPA Method SM4500Cl-B. The soil sample locations and analytical data are illustrated on Figure 2, the laboratory analytical data is summarized on Table 1, and the laboratory analytical reports are included in Appendix A.

3. CONCLUSIONS AND NFA REQUEST

Based on the laboratory analytical results, petroleum hydrocarbon impacts exceeding one or more of the NMOCD Action Levels for the Site were confirmed in the vicinity of soil samples SS05@7' and BS01@14' that were collected on January 18, 2017. Therefore, on January 19, 2017, approximately 120 cubic yards of soil was removed from the base of the excavation and the sidewall where those samples were collected yielding a total project volume of approximately 350 cubic yards of excavated soil.

Subsequent to excavation activities on January 19, 2017, confirmation soil samples were collected from the base and the sidewall of the excavation to verify that all impacted soil was removed. The results of confirmation sampling, as illustrated on Figure 2 and summarized in Table 1, indicate that all impacted soil above NMOCD Action Levels was removed from the Site. Additionally, the chloride sample analytical results from BS01@14' was below the NMOCD guideline of 250 milligrams per kilogram (mg/kg) with a detected concentration of 96.0 mg/kg.

On January 19, 2017, Tasman on behalf of DCP notified the NMOCD via email of the soil sample laboratory analytical results from the final extents of the excavation. Approval for backfilling activities was received from the NMOCD on January 19th and backfilling and compaction activities were completed at the Site on January 20th. The January 19, 2017 email from the NMOCD granting approval to proceed with backfilling activities is included in Appendix B. The excavation area totaling approximately 710 square feet was subsequently recontoured to as near the original topography as possible.

Based on the field activities described herein, Tasman on behalf of DCP is requesting a NFA determination and Site Closure status for the project.

Tables

TABLE 1
DCP - BE-7-4 LOOP
SOIL ANALYTICAL RESULTS SUMMARY TABLE

Sample ID	Date Sampled	Depth (Feet bgs)	PID Readings (ppm)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	Total BTEX (mg/kg)	TPH - GRO (mg/kg)	TPH - DRO (mg/kg)	TPH ⁽²⁾ GRO/DRO (mg/kg)	Chlorides (mg/kg)
SS01 @ 7'	1/18/2017	7	2.7	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	12.2	12.2	NA
SS02 @ 7'	1/18/2017	7	4.0	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	NA
SS03 @ 7'	1/18/2017	7	7.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	NA
SS04 @ 7'	1/18/2017	7	198.1	0.055	0.304	0.103	0.710	1.17	<10.0	<10.0	<10.0	NA
SS05 @ 7'	1/18/2017	7	207.4	61.1	285	65.6	300	712	11,000	529	11,529	NA
SS06 @ 7'	1/18/2017	7	19.0	<0.050	<0.050	<0.050	<0.150	<0.300	22.8	<10.0	22.8	NA
SS07 @ 7'	1/19/2017	7	58.5	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	NA
BS01 @ 14'	1/18/2017	14	314.0	15.2	76.1	19.0	85.7	196	1,920	104	2,024	96.0
BS02 @ 14'	1/18/2017	14	60.8	0.121	0.221	<0.050	<0.150	0.342	14.1	<10.0	14.1	NA
BS03 @ 17'	1/19/2017	17	20.7	<0.050	<0.050	<0.050	<0.150	<0.300	<10.0	<10.0	<10.0	NA
NMOCD Action Levels - Soil (mg/kg) ⁽¹⁾				10	NA	NA	NA	50	NA	NA	100	250

Notes:

1). Standards for Soil are taken from NMOCD Guidelines for Remediation of Leaks, Spills and Releases, 1993, total ranking >19

2). TPH - Total volatile and extractable petroleum hydrocarbons. Value calculated by adding GRO and DRO concentrations.

Bold indicates concentration exceeds NMOCD Action Levels.

GRO - Gasoline range organics.

DRO - Diesel range organics.

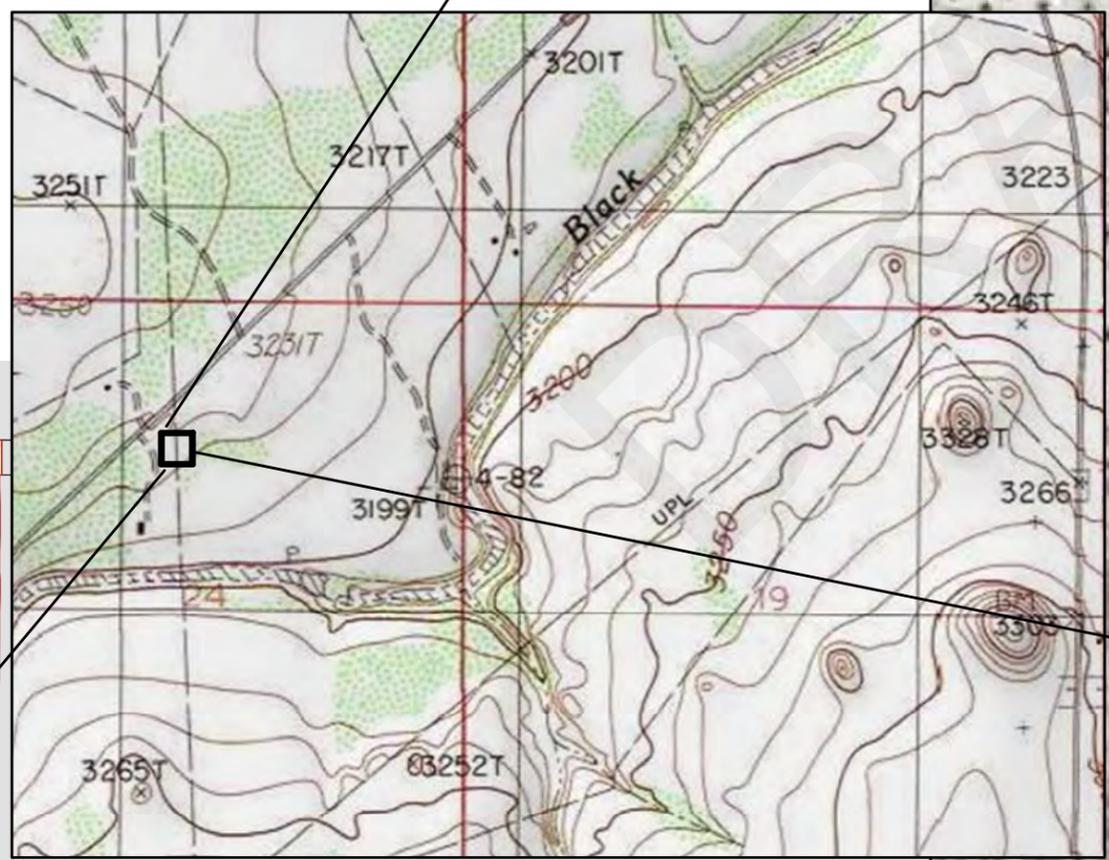
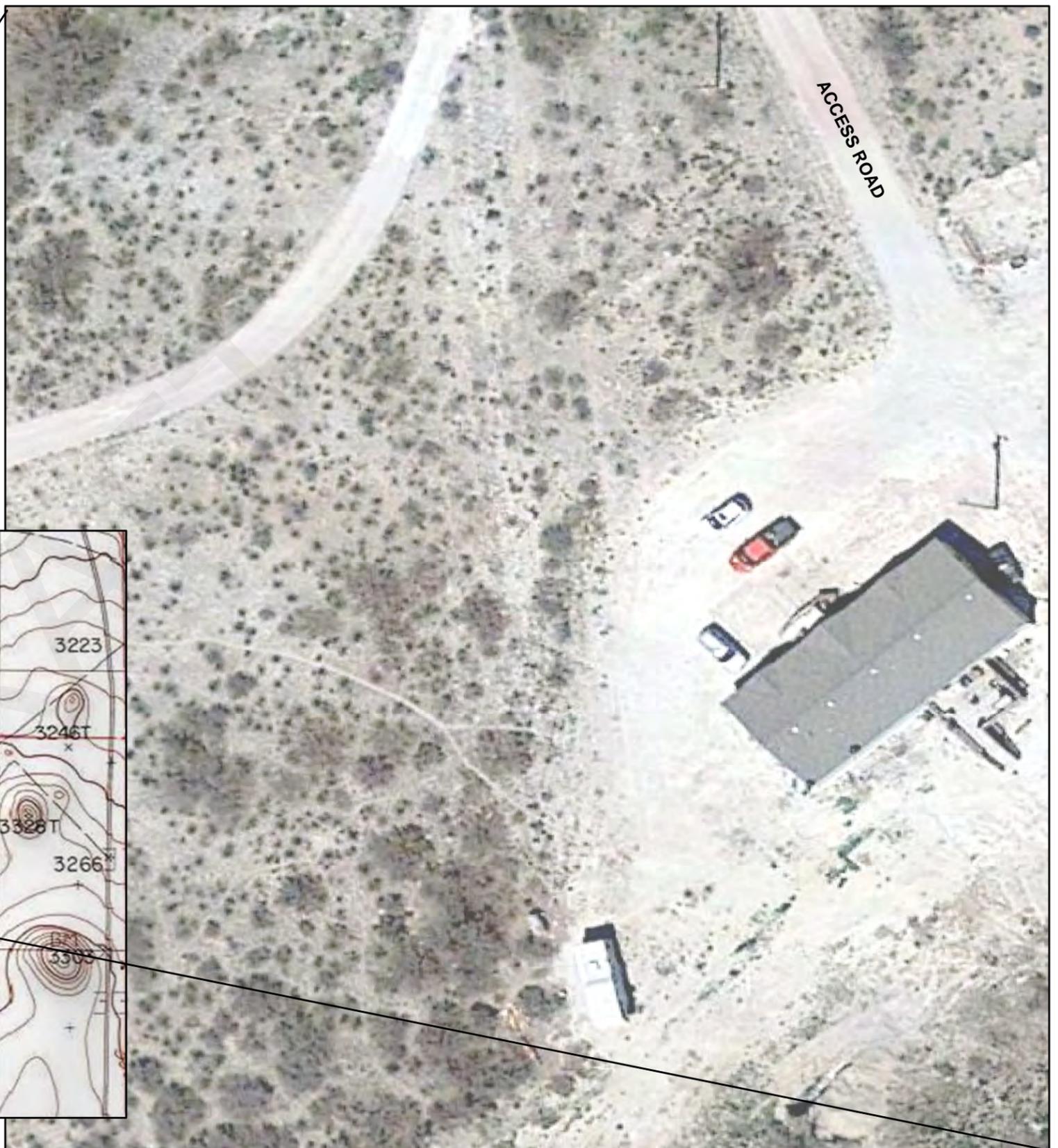
mg/kg= Milligrams per kilogram.

bgs - Below ground surface.

ppm - Parts per million

NA - Not applicable

Figures



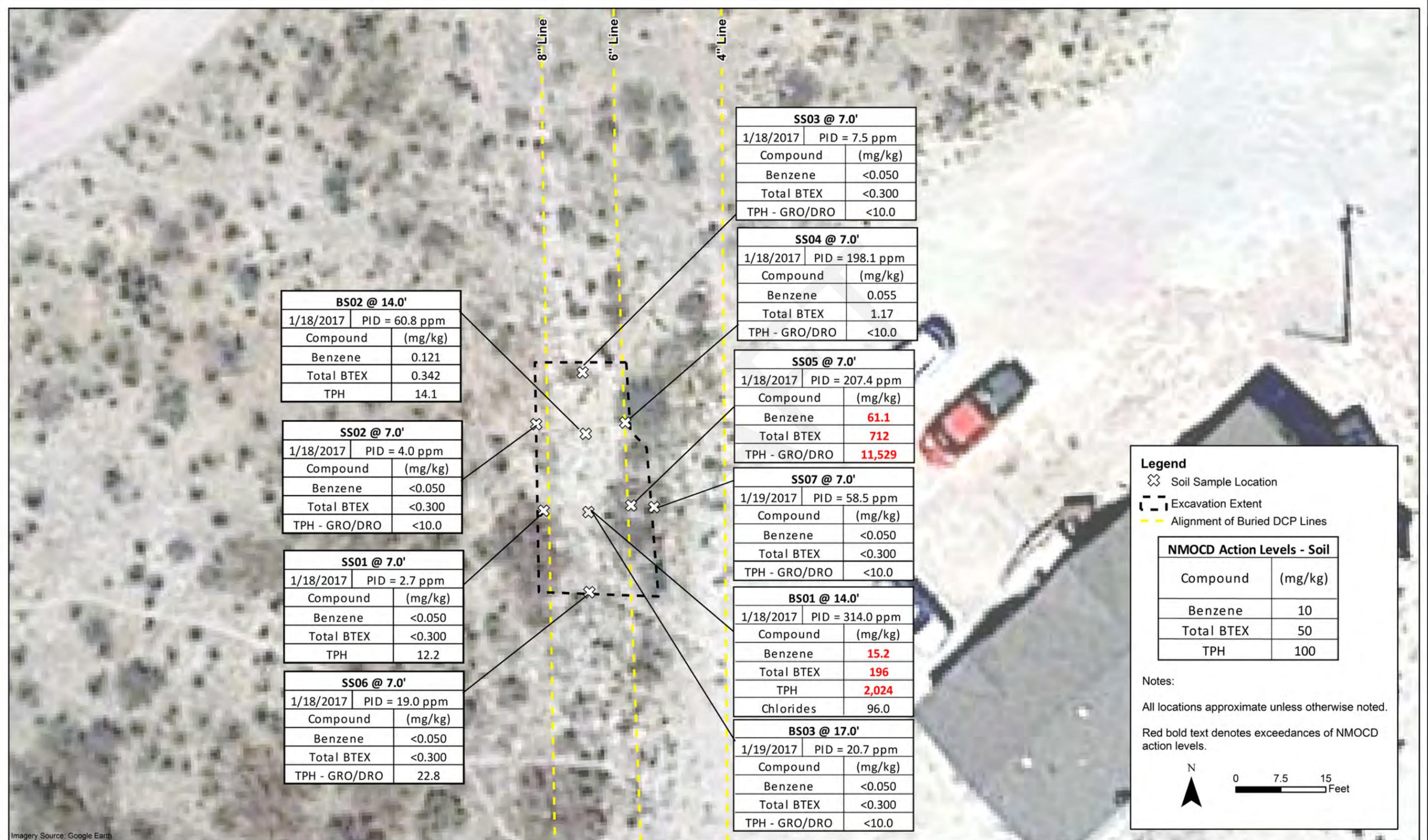
DATE:	January 2017
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Arnold

 **TASMAN** Geosciences, LLC
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
BE-7-4 Loop Release
NWNE. Section 24, Township 24 South, Range 26 East
Eddy County, New Mexico

Site Location
Map

Figure
1



BS02 @ 14.0'	
1/18/2017	PID = 60.8 ppm
Compound	(mg/kg)
Benzene	0.121
Total BTEX	0.342
TPH	14.1

SS02 @ 7.0'	
1/18/2017	PID = 4.0 ppm
Compound	(mg/kg)
Benzene	<0.050
Total BTEX	<0.300
TPH - GRO/DRO	<10.0

SS01 @ 7.0'	
1/18/2017	PID = 2.7 ppm
Compound	(mg/kg)
Benzene	<0.050
Total BTEX	<0.300
TPH	12.2

SS06 @ 7.0'	
1/18/2017	PID = 19.0 ppm
Compound	(mg/kg)
Benzene	<0.050
Total BTEX	<0.300
TPH - GRO/DRO	22.8

SS03 @ 7.0'	
1/18/2017	PID = 7.5 ppm
Compound	(mg/kg)
Benzene	<0.050
Total BTEX	<0.300
TPH - GRO/DRO	<10.0

SS04 @ 7.0'	
1/18/2017	PID = 198.1 ppm
Compound	(mg/kg)
Benzene	0.055
Total BTEX	1.17
TPH - GRO/DRO	<10.0

SS05 @ 7.0'	
1/18/2017	PID = 207.4 ppm
Compound	(mg/kg)
Benzene	61.1
Total BTEX	712
TPH - GRO/DRO	11,529

SS07 @ 7.0'	
1/19/2017	PID = 58.5 ppm
Compound	(mg/kg)
Benzene	<0.050
Total BTEX	<0.300
TPH - GRO/DRO	<10.0

BS01 @ 14.0'	
1/18/2017	PID = 314.0 ppm
Compound	(mg/kg)
Benzene	15.2
Total BTEX	196
TPH	2,024
Chlorides	96.0

BS03 @ 17.0'	
1/19/2017	PID = 20.7 ppm
Compound	(mg/kg)
Benzene	<0.050
Total BTEX	<0.300
TPH - GRO/DRO	<10.0

Legend

- ⊗ Soil Sample Location
- ⌚ Excavation Extent
- Alignment of Buried DCP Lines

NMOCD Action Levels - Soil	
Compound	(mg/kg)
Benzene	10
Total BTEX	50
TPH	100

Notes:
All locations approximate unless otherwise noted.
Red bold text denotes exceedances of NMOCD action levels.

N
0 7.5 15 Feet

DATE: January 31, 2017
 DESIGNED BY: B. Humphrey
 DRAWN BY: D. Arnold



**DCP Midstream
 BE-7-4 Loop Release**
 NWNE, Section 24, Township 24 South, Range 26 East
 Eddy County, New Mexico

Excavation and Soil Sample
 Overview Map

Figure
 2

Appendix A

January 18, 2017

BRIAN HUMPHREY
TASMAN GEOSCIENCES
6899 PECOS ST. UNIT C
DENVER, CO 80221

RE: DCP - BE-7-4 LOOP

Enclosed are the results of analyses for samples received by the laboratory on 01/18/17 11:25.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SS 01 @ 7' (H700117-01)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	<0.050	0.050	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	<0.150	0.150	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	<0.300	0.300	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 99.6 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/18/2017	ND	207	103	200	8.30	
DRO >C10-C28	12.2	10.0	01/18/2017	ND	209	104	200	5.39	

Surrogate: 1-Chlorooctane 73.1 % 35-147
Surrogate: 1-Chlorooctadecane 88.3 % 28-171

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SS 02 @ 7' (H700117-02)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	<0.050	0.050	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	<0.150	0.150	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	<0.300	0.300	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/18/2017	ND	207	103	200	8.30	
DRO >C10-C28	<10.0	10.0	01/18/2017	ND	209	104	200	5.39	

Surrogate: 1-Chlorooctane 85.3 % 35-147

Surrogate: 1-Chlorooctadecane 100 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

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 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SS 03 @ 7' (H700117-03)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.661		
Toluene*	<0.050	0.050	01/18/2017	ND	1.85	92.6	2.00	0.536		
Ethylbenzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.354		
Total Xylenes*	<0.150	0.150	01/18/2017	ND	5.31	88.5	6.00	0.366		
Total BTEX	<0.300	0.300	01/18/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 100 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/18/2017	ND	207	103	200	8.30		
DRO >C10-C28	<10.0	10.0	01/18/2017	ND	209	104	200	5.39		

Surrogate: 1-Chlorooctane 93.6 % 35-147

Surrogate: 1-Chlorooctadecane 96.7 % 28-171

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Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SS 04 @ 7' (H700117-04)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.055	0.050	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	0.304	0.050	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	0.103	0.050	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	0.710	0.150	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	1.17	0.300	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/18/2017	ND	207	103	200	8.30	
DRO >C10-C28	<10.0	10.0	01/18/2017	ND	209	104	200	5.39	

Surrogate: 1-Chlorooctane 87.4 % 35-147

Surrogate: 1-Chlorooctadecane 80.6 % 28-171

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 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SS 05 @ 7' (H700117-05)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	61.1	2.00	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	285	2.00	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	65.6	2.00	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	300	6.00	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	712	12.0	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 111 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS						S-06
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	11000	100	01/18/2017	ND	207	103	200	8.30		
DRO >C10-C28	529	100	01/18/2017	ND	209	104	200	5.39		

Surrogate: 1-Chlorooctane 173 % 35-147

Surrogate: 1-Chlorooctadecane 81.1 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: SS 06 @ 7' (H700117-06)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	<0.050	0.050	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	<0.150	0.150	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	<0.300	0.300	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	22.8	10.0	01/18/2017	ND	207	103	200	8.30	
DRO >C10-C28	<10.0	10.0	01/18/2017	ND	209	104	200	5.39	

Surrogate: 1-Chlorooctane 86.7 % 35-147

Surrogate: 1-Chlorooctadecane 92.0 % 28-171

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*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: BS 01 @ 14' (H700117-07)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	15.2	0.500	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	76.1	0.500	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	19.0	0.500	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	85.7	1.50	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	196	3.00	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 115 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	96.0	16.0	01/18/2017	ND	416	104	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	1920	10.0	01/18/2017	ND	207	103	200	8.30	
DRO >C10-C28	104	10.0	01/18/2017	ND	209	104	200	5.39	

Surrogate: 1-Chlorooctane 111 % 35-147

Surrogate: 1-Chlorooctadecane 87.7 % 28-171

Cardinal Laboratories

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/18/2017
 Reported: 01/18/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/18/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Jodi Henson

Sample ID: BS 02 @ 14' (H700117-08)

BTEX 8021B		mg/kg		Analyzed By: CK					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	0.121	0.050	01/18/2017	ND	1.87	93.7	2.00	0.661	
Toluene*	0.221	0.050	01/18/2017	ND	1.85	92.6	2.00	0.536	
Ethylbenzene*	<0.050	0.050	01/18/2017	ND	1.87	93.7	2.00	0.354	
Total Xylenes*	<0.150	0.150	01/18/2017	ND	5.31	88.5	6.00	0.366	
Total BTEX	0.342	0.300	01/18/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	14.1	10.0	01/18/2017	ND	207	103	200	8.30	
DRO >C10-C28	<10.0	10.0	01/18/2017	ND	209	104	200	5.39	

Surrogate: 1-Chlorooctane 85.0 % 35-147

Surrogate: 1-Chlorooctadecane 90.9 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or matrix interference's.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report



Celey D. Keene, Lab Director/Quality Manager



CARDINAL LABORATORIES

101 East Marland, Hobbs, NM 88240 2111 Beechwood, Abilene, TX 79603
(505) 393-2326 FAX (505) 393-2476 (325) 673-7001 FAX (325) 673-7020

RUST

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

Company Name: DCP Midstream		P.O. #:		BILL TO		ANALYSIS REQUEST	
Project Manager: Brian Humphrey / Hack Conder		Company: Tasman					
Address:		Attn: Brian Humphrey					
City:		Address: 6899 Pecos St. Unit C					
State:		City: Denver					
Zip:		State: CO		Zip: 80221			
Phone #:		Project Location: BE-7-4 Loop		Phone #: 303-487-1228			
Fax #:		Sampler Name: Kyle Norman		Fax #:			
Project #:		FOR LAB USE ONLY					
Project Owner:							
Project Name:							
Project Location: BE-7-4 Loop							
Sampler Name: Kyle Norman							
Fax #:							

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX						DATE	TIME	Chlorides	TPH 8015 M	BTEX	Texas TPH	Complete Cations/Anions	TDS
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :								
H70017	5501 @ 7'	G	1							1-18-17	8:45						
	5502 @ 7'	G	1								8:55						
	5503 @ 7'	G	1								9:00						
	5504 @ 7'	G	1								9:05						
	5505 @ 7'	G	1								9:10						
	5506 @ 7'	G	1								9:15						
	BS01 @ 14'	G	1								9:20						
	BS02 @ 14'	G	1								9:25						

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Relinquished By: *hkn* Date: 1-18-17 Received By: *Spadic Stenson* Time: 11:25 Date: Received By: *Spadic Stenson*

Delivered By: (Circle One) UPS - Bus - Other: *2.88c* Sample Condition: Cool Intact OHECCKED BY: *AS*

email results: bhumphrey@tasman-geo.com hpcorder@dcpmidstream.com
swweathers@dcpmidstream.com knorman@tasman-geo.com
575-318-5017 Verbal

† Cardinal cannot accept verbal changes. Please fax written changes to 505-393-2476

January 19, 2017

BRIAN HUMPHREY
TASMAN GEOSCIENCES
6899 PECOS ST. UNIT C
DENVER, CO 80221

RE: DCP - BE-7-4 LOOP

Enclosed are the results of analyses for samples received by the laboratory on 01/19/17 9:42.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list of accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene
Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/19/2017
 Reported: 01/19/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/19/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Brittany Feller

Sample ID: BS 03 @ 17' (H700124-01)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/19/2017	ND	1.90	95.0	2.00	0.304		
Toluene*	<0.050	0.050	01/19/2017	ND	1.88	93.8	2.00	0.0865		
Ethylbenzene*	<0.050	0.050	01/19/2017	ND	1.90	95.0	2.00	0.169		
Total Xylenes*	<0.150	0.150	01/19/2017	ND	5.38	89.7	6.00	0.0756		
Total BTEX	<0.300	0.300	01/19/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 101 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/19/2017	ND	195	97.3	200	1.16		
DRO >C10-C28	<10.0	10.0	01/19/2017	ND	201	100	200	0.152		

Surrogate: 1-Chlorooctane 74.3 % 35-147
Surrogate: 1-Chlorooctadecane 74.8 % 28-171

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 TASMAN GEOSCIENCES
 BRIAN HUMPHREY
 6899 PECOS ST. UNIT C
 DENVER CO, 80221
 Fax To:

 Received: 01/19/2017
 Reported: 01/19/2017
 Project Name: DCP - BE-7-4 LOOP
 Project Number: BE-7-4 LOOP
 Project Location: CARLSBAD, NM

 Sampling Date: 01/19/2017
 Sampling Type: Soil
 Sampling Condition: Cool & Intact
 Sample Received By: Brittany Feller

Sample ID: SS 07 @ 7' (H700124-02)

BTEX 8021B		mg/kg		Analyzed By: CK						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/19/2017	ND	1.90	95.0	2.00	0.304		
Toluene*	<0.050	0.050	01/19/2017	ND	1.88	93.8	2.00	0.0865		
Ethylbenzene*	<0.050	0.050	01/19/2017	ND	1.90	95.0	2.00	0.169		
Total Xylenes*	<0.150	0.150	01/19/2017	ND	5.38	89.7	6.00	0.0756		
Total BTEX	<0.300	0.300	01/19/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/19/2017	ND	195	97.3	200	1.16		
DRO >C10-C28	<10.0	10.0	01/19/2017	ND	201	100	200	0.152		

Surrogate: 1-Chlorooctane 83.8 % 35-147

Surrogate: 1-Chlorooctadecane 92.3 % 28-171

Cardinal Laboratories

* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Notes and Definitions

- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- ** Samples not received at proper temperature of 6°C or below.
- *** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

Appendix B

From: Bratcher, Mike, EMNRD
To: bhumphrey@tasman-geo.com
Cc: hpconder@dcpmidstream.com; "Blair, Yvonne B"; knorman@tasman-geo.com; Weaver, Crystal, EMNRD
Subject: RE: DCP BE-7-4 Loop Analytical Results
Date: Thursday, January 19, 2017 1:06:30 PM
Attachments: [image002.png](#)

RE: DCP Midstream * BE 7-4 Loop Pipeline * **2RP-4003** * DOR: UNK

Brian,

Based on analytical data provided, OCD approves your request to commence backfill operations. Please proceed on your schedule.

OCD approval does not relieve the operator of liability should their operations fail to adequately investigate and remediate contamination that may pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the operator of responsibility for compliance with any other federal, state, local laws and/or regulations.

If you have any questions or concerns, please contact me.

Thank you,

Mike Bratcher
NMOCD District 2
811 S. First St.
Artesia NM 88210
575-748-1283 Ext 108
mike.bratcher@state.nm.us

From: bhumphrey@tasman-geo.com [mailto:bhumphrey@tasman-geo.com]
Sent: Thursday, January 19, 2017 12:07 PM
To: Bratcher, Mike, EMNRD <mike.bratcher@state.nm.us>
Cc: hpconder@dcpmidstream.com; 'Blair, Yvonne B' <YBBlair@dcpmidstream.com>; knorman@tasman-geo.com
Subject: DCP BE-7-4 Loop Analytical Results

Mr. Bratcher,

Per our phone call this morning regarding the DCP BE-7-4 Loop project, I have attached the analytical reports for the confirmation soil samples that have been collected from the extents of the excavation. As discussed, two of the samples that were collected yesterday were returned above

the Action Levels for BTEX and/or TPH. As such, additional soil was removed from the excavation this morning at those locations and the extents were resampled. Based on the analytical data from the samples that were collected today, all impacted material has been removed. Therefore, Tasman on behalf of DCP Midstream is requesting approval to commence with backfilling activities. Should you have any questions, or require additional information, please let me know.

Thank you,

Brian Humphrey

Program Manager

Tasman Geosciences

O: 303-487-1228

C: 720-633-5143

6899 Pecos St., Unit C

Denver, CO 80221

bhumphrey@tasman-geo.com

