

Fourth Quarter 2015 Groundwater Monitoring Summary Report

County Road 20 and Highway 85 Release Weld County, Colorado

Prepared for:



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

Prepared by:



6899 Pecos Street, Unit C
Denver, Colorado 80221

December 16, 2015

Table of Contents

1. Introduction	1
2. Site Location and Background.....	1
3. Groundwater Monitoring.....	1
3.1 Groundwater Elevation Monitoring.....	1
3.2 Groundwater Quality Monitoring	2
4. Remediation Activities – Vacuum Enhanced Fluid Recovery (EFR).....	2
5. Conclusions	3
6. Recommendations	3

Tables

1	Fourth Quarter 2015 Summary of Groundwater Elevation Data
2	Fourth Quarter 2015 Summary of BTEX Concentrations in Groundwater

Figures

1	Site Location Map
2	Site Map with Monitoring Well Locations
3	Groundwater Elevation Contour Map – November 17, 2015
4	Analytical Results Map – November 17, 2015

Appendices

A	Historic Analytical Results – BTEX Concentrations in Groundwater
B	Laboratory Analytical Report - 1511145

1. Introduction

This report summarizes the groundwater monitoring and remediation activities conducted during the fourth quarter 2015 at the County Road (CR) 20 and Highway (Hwy) 85 pipeline release (Site) in Fort Lupton, Colorado (Figure 1). Tasman Geosciences (Tasman) performed these activities on behalf of DCP Midstream, LP (DCP). The field activities were conducted with the purpose of monitoring groundwater flow and quality conditions and to address residual contamination in the Site subsurface using enhanced fluid recovery (EFR) methods. Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period on November 17, 2015.

2. Site Location and Background

The Site is located in the southwestern quarter of the southwestern quarter of Section 17, Township 2 North, Range 66 West (approximate coordinates 40.130908 degrees north and -104.806673 degrees west). It is approximately 0.20 miles east on CR 20 from the intersection with Hwy 85, Ft. Lupton, Colorado.

On May 28, 2014, a petroleum hydrocarbon release was discovered following pipeline repair activities. An initial Form 19 was submitted to the Colorado Oil and Gas Conservation Commission (COGCC) on June 5, 2014.

3. Groundwater Monitoring

This section describes the field and laboratory activities performed during the fourth quarter 2015 groundwater monitoring event. Quarterly monitoring activities were conducted on November 17, 2015, and included Site-wide groundwater gauging and sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater Elevation Monitoring

Groundwater levels were measured in order to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations in groundwater elevations at the Site. During the fourth quarter 2015, groundwater levels were measured at six (6) monitoring well locations (BH01-BH03 and BH05-BH07).

Groundwater levels were measured on the north side of the well casing to the nearest 0.01-foot using an oil-water interface probe (IP). Groundwater level data were later converted to elevation (feet above mean sea level [AMSL]). Measured groundwater levels and the calculated groundwater elevations are presented in Table 1.

A fourth quarter 2015 groundwater elevation contour map, included as Figure 3, indicates that groundwater flow at the Site generally trends to the northwest. The range of groundwater elevations, average elevation change from the previous monitoring event, and the calculated average hydraulic gradient (using elevations from BH01 and BH02) at the Site are summarized in the table below.

Summary of Measured Hydraulic Parameters

	Fourth Quarter 2015 (11/17/15)
Maximum Elevation (Well ID)	4,860.99 (BH01)
Minimum Elevation (Well ID)	4,860.85 (BH02)
Average Change from Previous Monitoring Event – All Wells	-2.35 feet
Average Hydraulic Gradient (ft/ft) / (Well IDs)	0.0021 (BH01 to BH02)

3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements at each monitoring well, groundwater samples were collected from each of the 6 monitor wells using dedicated polyethylene bailers.

A minimum of three well casing volumes of groundwater were purged from each monitor well prior to collecting groundwater samples. Groundwater samples were placed in clean laboratory supplied containers for the selected analytical methods, packed in an ice-filled cooler and maintained at approximately four degrees Celsius ($^{\circ}\text{C}$) for transportation to the laboratory. Groundwater samples were then delivered under chain-of-custody procedures to Summit Scientific Laboratories (Summit) in Golden, Colorado for analysis.

Water quality samples were submitted for analysis of benzene, toluene, ethylbenzene, and xylene (BTEX) by United States Environmental Protection Agency (USEPA) Method 8260B.

Table 2 summarizes BTEX concentrations in groundwater samples collected during the reporting period. Historic analytical results up to and including the fourth quarter 2015 event are included in Appendix A and the laboratory analytical report for the fourth quarter 2015 is included in Appendix B. Analytical results are also displayed on Figure 4.

Analytical results/observations are summarized below:

- Benzene concentrations in groundwater samples from wells BH02 (14 micrograms per liter ($\mu\text{g/L}$) and BH07 (85 $\mu\text{g/L}$) were in exceedance of the COGCC Table 910-1 standard of 5 $\mu\text{g/L}$.
- Total Xylenes in groundwater samples from BH07 (3,100 $\mu\text{g/L}$) was in exceedance of the COGCC Table 910-1 standard of 1,400 $\mu\text{g/L}$.
- BTEX concentrations from the remaining sample locations were below COGCC standards and/or below laboratory detection limits.

4. Remediation Activities – Vacuum Enhanced Fluid Recovery (EFR)

To date there have been nine EFR events conducted at the Site. Each EFR event was conducted over a six hour period. Five of the events occurred during the third quarter 2015 and a total of 4,886 gallons

(116 bbl) of fluid was recovered. There have been four events during the fourth quarter 2015 and a total of 1,638 gallons (39 bbl) of fluid was recovered. To date a total of 6,524 gallons (155 bbl) have been recovered from the Site.

5. Conclusions

Comparison of the fourth quarter 2015 monitoring data and historic information provides the following general observations:

- The groundwater flow direction is to the northwest, which is opposite from the previous quarter. The flow direction appears to be influenced by seasonal use of nearby irrigation ditches.
- After observing LNAPL in BH07 during the third quarter 2015, a measurable amount of LNAPL was not observed in any of the Site monitoring wells during the fourth quarter 2015.
- Benzene concentration in exceedance of the COGCC applicable groundwater standard was found in wells BH02 (14 µg/L) and BH07 (85 µg/L), which is now the third consecutive quarter with either LNAPL or elevated benzene concentrations in those wells.

6. Recommendations

Based on evaluation of data from the fourth quarter 2015 and historic Site observations and monitoring results, recommendations for future activities include:

- Continue quarterly groundwater monitoring and sampling at the monitoring well locations illustrated on Figure 2.
- Continue the vacuum EFR remediation program to address elevated benzene concentrations in BH02 and BH07.

Tables

TABLE 1
NOVEMBER 2015 MONITORING EVENT
SUMMARY OF GROUNDWATER ELEVATION DATA
DCP CR 20 AND HWY 85 RELEASE
WELD COUNTY, COLORADO

Location	Date	Depth to Groundwater (feet)	Depth to Product (feet)	Free Phase Hydrocarbon Thickness (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
BH01	9/24/2015	12.37			17.92	4,875.68	4,863.31	NA
BH01	11/17/2015	14.69			18.10	4,875.68	4,860.99	-2.32
BH02	9/24/2015	11.72			18.49	4,874.94	4,863.22	NA
BH02	11/17/2015	14.09			18.74	4,874.94	4,860.85	-2.37
BH03	9/24/2015	11.25			18.52	4,874.51	4,863.26	NA
BH03	11/17/2015	13.58			18.76	4,874.51	4,860.93	-2.33
BH05	9/24/2015	11.40			19.00	4,874.67	4,863.27	NA
BH05	11/17/2015	13.74			19.11	4,874.67	4,860.93	-2.34
BH06	9/24/2015	11.60			18.52	4,874.95	4,863.35	NA
BH06	11/17/2015	13.97			18.76	4,874.95	4,860.98	-2.37
BH07	9/24/2015	10.83			18.56	4,874.04	4,863.21	NA
BH07	11/17/2015	13.19			18.80	4,874.04	4,860.85	-2.36
Average change in groundwater elevation between 9/24/15 and 11/17/15								-2.35

Notes:

1- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement
amsl = feet above mean sea level

TOC = top of casing

Groundwater elevation = (TOC Elevation - Measured Depth to Water)

NM = Not Measured

NA = Not Applicable

TABLE 2
NOVEMBER 2015 MONITORING EVENT
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
DCP CR 20 AND HWY 85 RELEASE
WELD COUNTY, COLORADO

Location Identification	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Comments
COGCC Standards (µg/L)		5	560	700	1,400	
BH01	11/17/2015	<1.0	<1.0	<1.0	<1.0	
BH02	11/17/2015	14	<1.0	72	490	
BH03	11/17/2015	<1.0	<1.0	43	400	
BH05	11/17/2015	<1.0	<1.0	<1.0	<1.0	
BH06	11/17/2015	<1.0	<1.0	<1.0	<1.0	
BH07	11/17/2015	85	1.1	210	3,100	

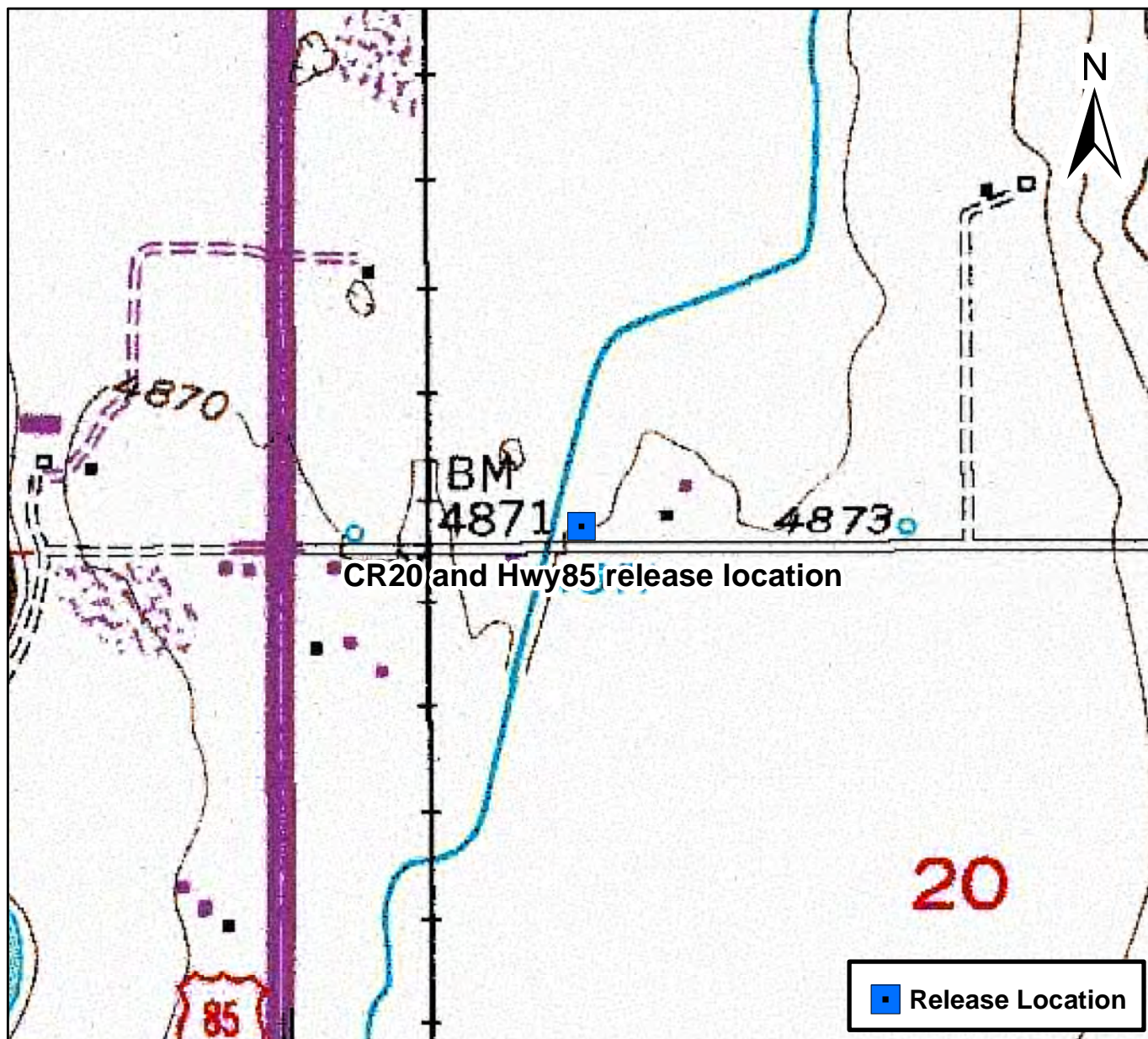
Notes:

Bold red values indicate an exceedance of the COGCC groundwater standards for the Site.

NS = Not sampled.

µg/L = micrograms per liter.

Figures



0 750 1,500 Feet



Figure 1

Site Location Map
CR20 and Hwy85 release location
SWSW S17 T2N R66W
Weld County, Colorado

Drawn By: DBA
Date: 06/04/2014





DATE:	October 2015
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Arnold



Tasman Geosciences, Inc
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
County Road 20 and Highway 85 Release
SWSW Section 17, Township 2 North, Range 66 West
Weld County, Colorado

Site Overview
Map

Figure
2



DATE:	December 2015
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Arnold

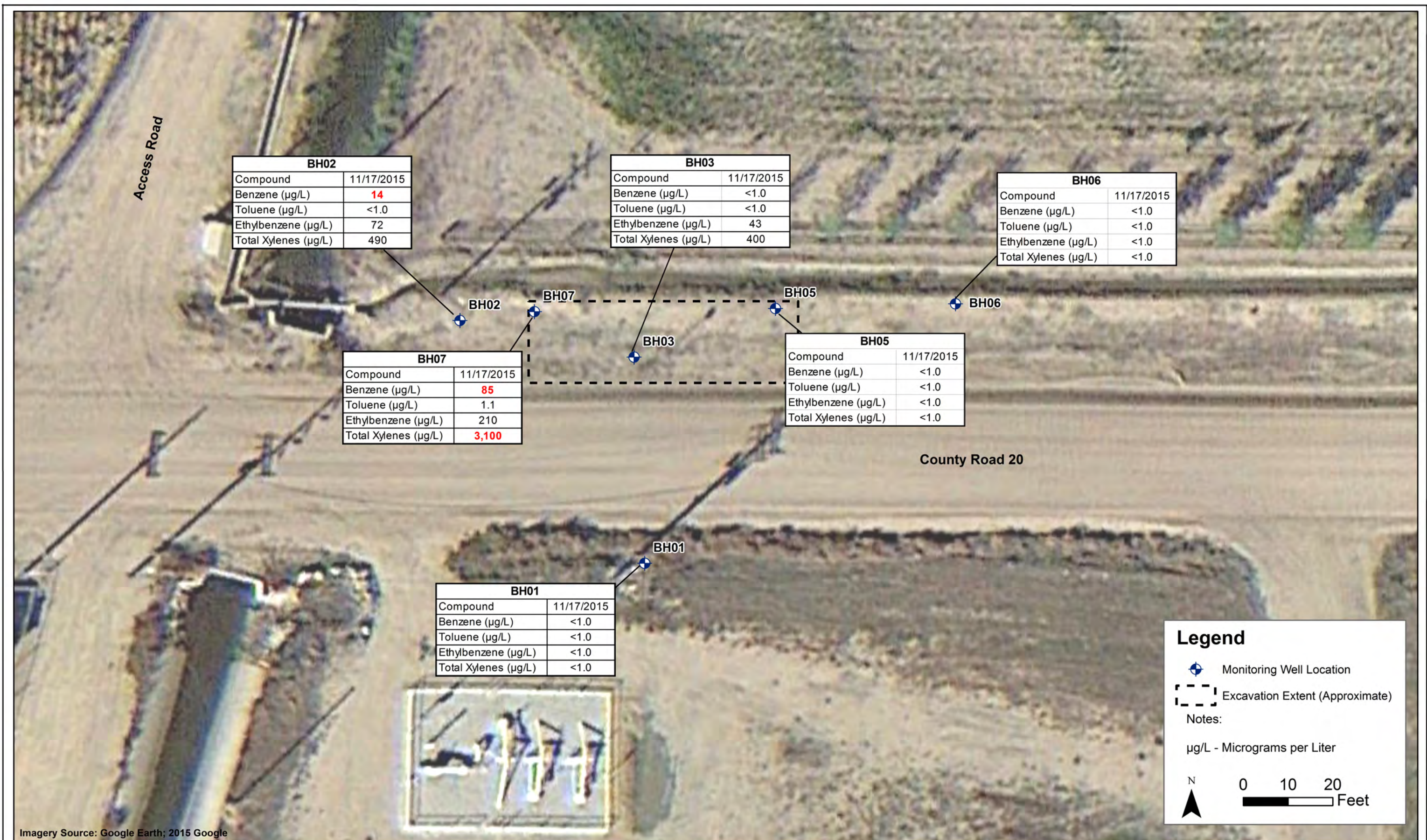


Tasman Geosciences, Inc
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
County Road 20 and Highway 85 Release
SWSW Section 17, Township 2 North, Range 66 West
Weld County, Colorado

Groundwater Elevation
Contour Map
(November 17, 2015)

Figure
3



DATE:	December 2015
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Arnold



Tasman Geosciences, Inc
6899 Pecos Street - Unit C
Denver, CO 80221

DCP Midstream
County Road 20 and Highway 85 Release
SWSW Section 17, Township 2 North, Range 66 West
Weld County, Colorado

Groundwater Analytical
Results Map
(November 17, 2015)

Figure
4

Appendix A

Historic Analytical Results

**APPENDIX B
HISTORICAL ANALYTICAL DATA
DCP CR 20 AND HWY 85 RELEASE
WELD COUNTY, COLORADO**

Location Identification	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Comments
COGCC Standards (µg/L)		5	560	700	1,400	
BH01	5/14/2015	<1.0	<1.0	<1.0	<1.0	
BH01	9/24/2015	<1.0	<1.0	<1.0	<1.0	
BH01	11/17/2015	<1.0	<1.0	<1.0	<1.0	
BH02	5/14/2015	120	5	210	2,000	
BH02	9/24/2015	20	<1.0	48	370	
BH02	11/17/2015	14	<1.0	72	490	
BH03	5/14/2015	220	130	400	3,500	
BH03	9/24/2015	1.8	<1.0	7.0	150	
BH03	11/17/2015	<1.0	<1.0	43	400	
BH05	5/14/2015	<1.0	<1.0	3	22	
BH05	9/24/2015	<1.0	<1.0	<1.0	<1.0	
BH05	11/17/2015	<1.0	<1.0	<1.0	<1.0	
BH06	5/14/2015	<1.0	<1.0	<1.0	5	
BH06	9/24/2015	<1.0	<1.0	<1.0	<1.0	
BH06	11/17/2015	<1.0	<1.0	<1.0	<1.0	
BH07	5/14/2015	44	310	200	2,600	
BH07	9/24/2015	NS	NS	NS	NS	Trace of NAPL
BH07	11/17/2015	85	1.1	210	3,100	

Notes:

Bold red values indicate an exceedance of the COGCC groundwater standards for the Site.

NS = Not sampled.

µg/L = micrograms per liter.

Appendix B

Laboratory Analytical Report

- Summit Scientific - 1511145

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

November 23, 2015

Brian Humphrey
DCP Midstream
370 17th Street #2500
Denver, CO 80202
RE: CR20 + Hwy 85 Release

Enclosed are the results of analyses for samples received by Summit Scientific on 11/17/15 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'P. Shrewsbury', with a stylized, cursive script.

Paul Shrewsbury
President



DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	1511145-01	Water	11/17/15 12:40	11/17/15 17:00
BH02	1511145-02	Water	11/17/15 12:50	11/17/15 17:00
BH03	1511145-03	Water	11/17/15 13:00	11/17/15 17:00
BH05	1511145-04	Water	11/17/15 13:10	11/17/15 17:00
BH06	1511145-05	Water	11/17/15 13:20	11/17/15 17:00
BH07	1511145-06	Water	11/17/15 13:30	11/17/15 17:00

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

BH01
1511145-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/17/15 12:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1511178	11/19/15	11/19/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 11/17/15 12:40

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.4 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		92.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.2 %	45-146		"	"	"	"	

Summit Scientific

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DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

BH02
1511145-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/17/15 12:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	14	1.0	ug/l	1	1511178	11/19/15	11/19/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	72	1.0	"	"	"	"	"	"	
Xylenes (total)	490	1.0	"	"	"	"	"	"	

Date Sampled: 11/17/15 12:50

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		89.9 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		94.5 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		90.8 %	45-146		"	"	"	"	

Summit Scientific

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DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

BH03
1511145-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/17/15 13:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1511178	11/19/15	11/19/15	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	43	1.0		"	"	"	"	"	"	
Xylenes (total)	400	1.0		"	"	"	"	"	"	

Date Sampled: 11/17/15 13:00

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		88.9 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		94.4 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.3 %		45-146		"	"	"	"	

Summit Scientific

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DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release
Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

BH05
1511145-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/17/15 13:10

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Benzene	ND	1.0		ug/l	1	1511178	11/19/15	11/19/15	EPA 8260B	
Toluene	ND	1.0		"	"	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: 11/17/15 13:10

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		90.8 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		93.0 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		93.5 %		45-146		"	"	"	"	

Summit Scientific

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DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

BH06
1511145-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/17/15 13:20

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Benzene	ND	1.0	ug/l	1	1511178	11/19/15	11/19/15	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: 11/17/15 13:20

Analyte	Result	Reporting		Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit	Units						
Surrogate: 1,2-Dichloroethane-d4		87.0 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		92.6 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		92.9 %	45-146		"	"	"	"	

Summit Scientific

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DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

BH07
1511145-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: 11/17/15 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	85	1.0	ug/l	1	1511178	11/19/15	11/19/15	EPA 8260B	
Toluene	1.1	1.0	"	"	"	"	"	"	
Ethylbenzene	210	1.0	"	"	"	"	"	"	
Xylenes (total)	3100	10	"	10	"	"	"	"	

Date Sampled: 11/17/15 13:30

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		88.9 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		110 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		93.8 %	45-146		"	"	"	"	

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control

Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1511178 - EPA 5030 Water MS

Blank (1511178-BLK1)

Prepared & Analyzed: 11/19/15

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	11.9		"	13.2		89.9	37-154			
Surrogate: Toluene-d8	12.6		"	13.3		94.1	45-149			
Surrogate: 4-Bromofluorobenzene	12.2		"	13.3		91.6	45-146			

LCS (1511178-BS1)

Prepared & Analyzed: 11/19/15

Benzene	34.9	1.0	ug/l	33.3		105	51-132			
Toluene	33.9	1.0	"	33.3		102	51-138			
Ethylbenzene	37.8	1.0	"	33.1		114	58-146			
m,p-Xylene	72.0	2.0	"	66.5		108	57-144			
o-Xylene	34.7	1.0	"	32.8		106	53-146			
Surrogate: 1,2-Dichloroethane-d4	11.5		"	13.2		87.0	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	45-149			
Surrogate: 4-Bromofluorobenzene	12.4		"	13.3		93.2	45-146			

Matrix Spike (1511178-MS1)

Source: 1511135-01

Prepared & Analyzed: 11/19/15

Benzene	34.8	1.0	ug/l	33.3	ND	104	34-141			
Toluene	33.8	1.0	"	33.3	ND	101	27-151			
Ethylbenzene	39.0	1.0	"	33.1	ND	118	29-160			
m,p-Xylene	74.1	2.0	"	66.5	ND	111	20-166			
o-Xylene	36.1	1.0	"	32.8	ND	110	33-159			
Surrogate: 1,2-Dichloroethane-d4	11.0		"	13.2		83.1	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.6	45-149			
Surrogate: 4-Bromofluorobenzene	12.2		"	13.3		91.7	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
Summit Scientific

Analyte	Reporting			Spike	Source		%REC		RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 1511178 - EPA 5030 Water MS

Matrix Spike Dup (1511178-MSD1)			Source: 1511135-01		Prepared & Analyzed: 11/19/15					
Benzene	35.5	1.0	ug/l	33.3	ND	106	34-141	1.82	32	
Toluene	34.4	1.0	"	33.3	ND	103	27-151	1.94	25	
Ethylbenzene	39.2	1.0	"	33.1	ND	119	29-160	0.409	50	
m,p-Xylene	74.1	2.0	"	66.5	ND	111	20-166	0.0270	36	
o-Xylene	36.0	1.0	"	32.8	ND	110	33-159	0.389	26	
Surrogate: 1,2-Dichloroethane-d4	10.8		"	13.2		82.2	37-154			
Surrogate: Toluene-d8	12.7		"	13.3		95.5	45-149			
Surrogate: 4-Bromofluorobenzene	12.1		"	13.3		91.0	45-146			

Summit Scientific

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



DCP Midstream
370 17th Street #2500
Denver CO, 80202

Project: CR20 + Hwy 85 Release

Project Number: [none]
Project Manager: Brian Humphrey

Reported:
11/23/15 07:31

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

Summit Scientific

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A handwritten signature in black ink, appearing to be 'MSM'.