

# Third Quarter 2016 Groundwater Monitoring Summary Report

## Eaton Commons Release Weld County, Colorado Remediation #9251

Prepared for:



370 17<sup>th</sup> St., Suite 2500  
Denver, CO 80202

*Prepared by:*



6899 Pecos Street, Unit C  
Denver, Colorado 80221

**November 7, 2016**

## 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 .....	3
4.1	Groundwater Remediation Activities.....	3
4.2	Supplemental Remediation Efforts .....	3
5.	Conclusions .....	4
6.	Recommendations .....	4

### Tables

1	Third Quarter 2016 Summary of Groundwater Elevation Data
2	Third Quarter 2016 Summary of BTEX Concentrations in Groundwater

### Figures

1	Site Location Map
2	Site Map with Monitoring Well Locations
3	Groundwater Elevation Contour Map – August 25, 2016
4	Analytical Results Map – August 25, 2016

### Appendices

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

## **1. Introduction**

This report summarizes the groundwater monitoring and remediation activities conducted during the third quarter 2016 at the Eaton Commons project (Site) in Weld County, 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 in the Site subsurface and performing groundwater remediation. Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period on August 25, 2016.

## **2. Site Location and Background**

The Site is located in the northeastern quarter of the southeastern quarter of Section 31, Township 7 North, Range 65 West (approximate coordinates 40.528161 degrees north and -104.696969 degrees west). It is approximately 0.28 miles north of the intersection of US Highway 74 and County Road 39 within the Eaton Commons Neighborhood. Specifically, the Site is located partially within two backyards of private residences located at 301 Hickory Street and 940 East Third St in the southeast corner of the Eaton Commons neighborhood.

On May 4, 2015, a petroleum hydrocarbon release from a buried DCP sales line was discovered. An initial Form 19 was submitted to the Colorado Oil and Gas Conservation Commission (COGCC) on May 6, 2015 and a supplemental Form 19 was submitted on June 2, 2015. Excavation activities were conducted to remove surface and subsurface soil impacts and approximately 1,140 cubic yards of impacted soil was removed and disposed of at the Waste Management Facility in Ault, CO.

Additionally, during excavation activities, groundwater was encountered at approximately 8-feet below ground surface (bgs) and approximately 375 barrels of groundwater was removed from the excavation with a vacuum truck prior to backfilling.

A Form 27 (document number 200437203) was submitted to the COGCC on August 20, 2015 and the COGCC issued remediation #9251 for the Site. Groundwater monitoring and remediation activities are being conducted in accordance with the approved work plan provided in the Form 27.

## **3. Groundwater Monitoring**

This section describes the field and laboratory activities performed during the third quarter 2016 groundwater monitoring event. Quarterly monitoring activities were conducted on August 25, 2016, 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 third

quarter 2016, groundwater levels were measured at eight (8) monitoring well locations and one remediation well location (REM Well).

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 third quarter 2016 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 and the calculated average hydraulic gradient (using elevations from BH01 and BH07R) at the Site are summarized in the table below.

**Summary of Measured Hydraulic Parameters/**

	<b>Third Quarter 2016 (8/25/16)</b>
Maximum Elevation (Well ID)	4,825.37 (BH01)
Minimum Elevation (Well ID)	4,818.00 (BH07R)
Average Change from Previous Monitoring Event – All Wells	2.07 feet
Average Hydraulic Gradient (ft/ft) / (Well IDs)	0.04 (BH01 to BH07R)

### 3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements at each monitoring well, groundwater samples were collected from each of the 8 monitoring wells as well as one remediation well (REM Well) using disposable polyethylene bailers.

A minimum of three well casing volumes of groundwater were purged from each monitoring 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, CO 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. Analytical results up to and including the third quarter 2016 event are included in Appendix A and the laboratory analytical report for the third quarter 2016 is included in Appendix B. Analytical results are also displayed on Figure 4.

Analytical results/observations are summarized below:

- Benzene at monitoring wells BH03, and REM Well, were in exceedance of the COGCC Table 910-1 standard of 5 micrograms per liter ( $\mu\text{g/L}$ ) with detected concentration levels of 1,100  $\mu\text{g/L}$ , and 1,400  $\mu\text{g/L}$ , respectively.
- BTEX concentrations at the remaining seven sampled monitoring well locations were below laboratory detection limits and the COGCC applicable standards.

## **4. Remediation Activities**

This Section includes a description of the active and anticipated remediation activities at the Site along with observations during remediation efforts.

### **4.1 Groundwater Remediation Activities**

Vacuum enhanced fluid recovery (EFR) groundwater remediation events were conducted at the Site during the third quarter 2016 at the EFR well locations and the horizontal remediation wells illustrated on Figure 2. Between June 27 and September 26, 2016, 11 EFR remediation events were conducted for a project total of 47 EFR events. During the third quarter 2016 EFR events, vacuum was applied continuously to the EFR, AS, and horizontal remediation wells illustrated on Figure 2 during each event for a minimum 6-hour period. A total of approximately 192 barrels (bbls) of groundwater was recovered during the third quarter 2016 through EFR remediation activities and was disposed of at the NGL Water Solutions DJ, LLC, C-3 disposal well in LaSalle, CO. A project total of approximately 563 bbls of groundwater has been removed since EFR remediation activities were initiated at the Site.

### **4.2 Supplemental Remediation Efforts**

Additional remediation efforts described in the approved Form 27 included the following:

- Excavation and disposal of impacted soil that remains in place, up-gradient, and to the east of the initial excavation;
- Installation of up to six up-gradient monitoring wells, contingent on the results of supplemental excavation activities; and,
- Installation of one monitoring well within the excavation/source area or collection of a groundwater sample from an EFR well.

The September 15, 2015 COA required that additional remediation activities were to commence within 90 days of the Form 27 approval. However, the homeowners on-Site requested that prior to commencing the additional remediation activities and subsequent to completion of landscaping, a 6-foot privacy fence be installed along the eastern boundary of the properties. The property owners have led the privacy fence installation effort which was initiated during the week of December 27, 2015. The privacy fence installation was completed on February 4, 2016. However, due to adjacent farmland activity and use of the irrigation ditch located in the anticipated dig area, these activities were not conducted during the third quarter 2016.

Groundwater samples were attempted to be collected from the EFR wells during the first quarter 2016. However, the groundwater sampling activities at the EFR well locations were unsuccessful. As described in the *First Quarter 2016 Groundwater Monitoring Summary Report* (April 19, 2016), all attempts to collect groundwater samples from the EFR wells were unsuccessful. Therefore, in lieu of collecting a sample from an EFR well, a sample was collected from the west horizontal remediation well (REM W) illustrated on Figure 2 during the August 25, 2016 sampling event. This sample is considered to be the representative source area sample that was required by the September 15, 2015 COA.

## 5. Conclusions

Evaluation of the third quarter 2016 monitoring data provides the following general observations:

- During the third quarter 2016, groundwater flow at the Site was towards the northwest which is consistent with the second quarter 2016 monitoring data.
- Benzene at monitoring wells BH03, and REM Well, were in exceedance of the COGCC Table 910-1 standard of 5 micrograms per liter ( $\mu\text{g/L}$ ) with detected concentration levels of 1,100  $\mu\text{g/L}$ , and 1,400  $\mu\text{g/L}$ , respectively.
- BTEX concentrations at the remaining seven sampled monitoring well locations were below laboratory detection limits and the COGCC applicable standards.
- EFR remediation has been successful at removing impacted groundwater from the source area.

## 6. Recommendations

Based on evaluation of data and Site activities from the third quarter 2016, recommendations for the Site include:

- Continue quarterly groundwater monitoring and sampling at the monitoring well locations illustrated on Figure 2.
- Continue weekly EFR activities at the EFR, AS, and horizontal remediation wells illustrated on Figure 2.
- Initiate supplemental excavation, remediation, and well installation efforts as described in the approved Form 27 once irrigation and farming activities have been discontinued.
- Submit a Remediation Implementation Report summarizing the additional remediation and investigation efforts within 60 days of completion of those efforts.

## Tables

**TABLE 1**  
**THIRD QUARTER 2016**  
**SUMMARY OF GROUNDWATER ELEVATION DATA**  
**DCP MIDSTREAM - EATON COMMONS RELEASE**  
**WELD COUNTY, COLORADO**

Location	Date	Depth to Groundwater (feet)	Total Depth (feet)	TOC Elevation (feet amsl)	Groundwater Elevation (feet amsl)	Change in Groundwater Elevation Since Previous Event (1) (feet)
BH01	10/7/2015	5.25	10.45	4829.11	4823.86	0.97
BH01	2/19/2016	6.71	10.16	4829.11	4822.40	-1.46
BH01	6/6/2016	7.00	10.16	4829.11	4822.11	-0.29
BH01	8/25/2016	3.74	10.20	4829.11	4825.37	3.26
BH02	10/7/2015	5.51	10.51	4829.98	4824.47	2.67
BH02	2/19/2016	7.89	10.51	4829.98	4822.09	-2.38
BH02	6/6/2016	7.91	10.51	4829.98	4822.07	-0.02
BH02	8/25/2016	5.29	10.54	4829.98	4824.69	2.62
BH03	10/7/2015	8.33	11.15	4830.93	4822.60	2.24
BH03	2/19/2016	10.41	11.40	4830.93	4820.52	-2.08
BH03	6/6/2016	10.36	11.40	4830.93	4820.57	0.05
BH03	8/25/2016	8.21	11.13	4830.93	4822.72	2.15
BH04	10/7/2015	9.16	11.30	4830.80	4821.64	1.02
BH04	2/19/2016	9.70	11.20	4830.80	4821.10	-0.54
BH04	6/6/2016	9.92	11.20	4830.80	4820.88	-0.22
BH04	8/25/2016	6.91	11.23	4830.80	4823.89	3.01
BH05	10/7/2015	7.56	10.70	4829.76	4822.20	0.58
BH05	2/19/2016	8.05	10.66	4829.76	4821.71	-0.49
BH05	6/6/2016	8.63	10.66	4829.76	4821.13	-0.58
BH05	8/25/2016	4.84	10.70	4829.76	4824.92	3.79
BH06	10/7/2015	9.64	14.63	4831.81	4822.17	NA
BH06	2/19/2016	11.43	14.61	4831.81	4820.38	-1.79
BH06	6/6/2016	11.41	14.61	4831.81	4820.40	0.02
BH06	8/25/2016	9.49	14.65	4831.81	4822.32	1.92
BH07R	10/22/2015	12.52	22.36	4830.24	4817.72	NA
BH07R	2/26/2016	12.62	22.36	4830.24	4817.62	-0.10
BH07R	6/6/2016	11.44	22.36	4830.24	4818.80	1.18
BH07R	8/25/2016	12.24	22.22	4830.24	4818.00	-0.80
BH08	10/22/2015	15.24	24.09	4830.39	4815.15	NA
BH08	2/19/2016	12.28	24.33	4830.39	4818.11	2.96
BH08	6/6/2016	12.57	24.33	4830.39	4817.82	-0.29
BH08	8/25/2016	11.93	24.20	4830.39	4818.46	0.64
REM Well	8/25/2016	3.72	7.61	NM	NM	NA
Average groundwater elevation change between 6/6/2016 and 8/25/2016						2.07

Notes:

1- Changes in groundwater elevation calculated by subtracting the measurement collected during the previous monitoring event from the measurement collected during the most recent monitoring event.

amsl = feet above mean sea level

TOC = top of casing

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

NA = Not Applicable

NM = Not Measured



**TABLE 2**  
**THIRD QUARTER 2016**  
**SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER**  
**DCP MIDSTREAM - EATON COMMONS RELEASE**  
**WELD COUNTY, COLORADO**

Location Identification	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Comments
<b>COGCC Standards (µg/L)<sup>(1)</sup></b>		<b>5</b>	<b>560</b>	<b>,1.0</b>	<b>1,400</b>	
BH01	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH02	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH03	8/25/2016	<b>1,100</b>	<1.0	<1.0	10	
BH04	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH05	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH06	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH07R	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH08	8/25/2016	<1.0	<1.0	<1.0	<1.0	
REM Well	8/25/2016	<b>1,400</b>	<1.0	<1.0	<1.0	

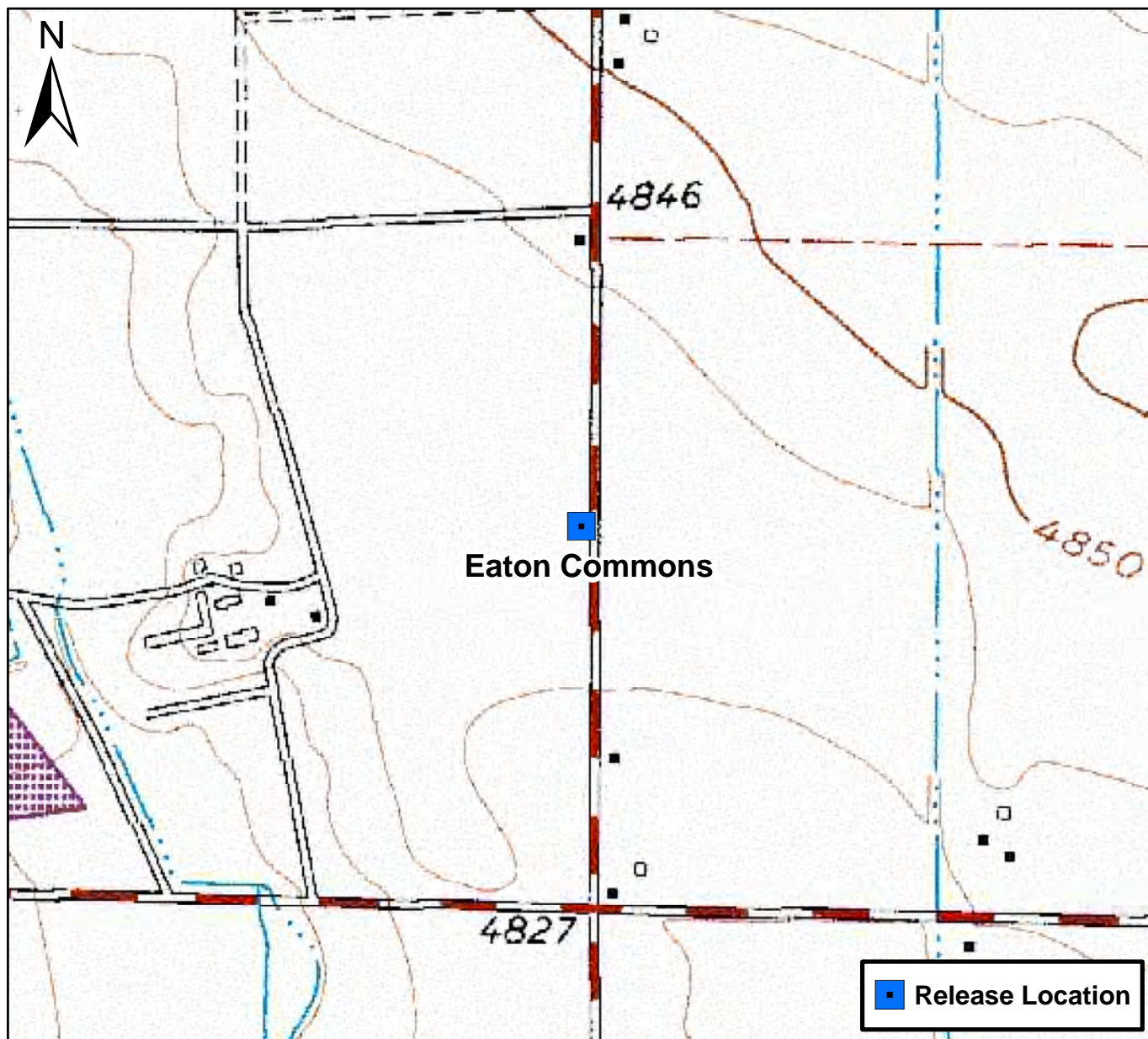
Notes:

1). The environmental cleanup standards for groundwater that are applicable to this site are the Colorado Oil and Gas Conservation Commission (COGCC) standards for contaminants in groundwater according to Table 910-1 of the COGCC 900 Series Rule for E&P Waste Management.

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

µg/L = micrograms per liter.

## Figures



0 750 1,500 Feet

## Figure 1

Site Location Map  
Eaton Commons  
NESE S31 T7N R65W  
Weld County, Colorado







DATE:	October 2016
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Cavinder



**DCP Midstream  
Eaton Commons**  
NESE Section 31, Township 7 North, Range 65 West  
Weld County, Colorado

Site Overview  
Map with Well Locations

Figure  
2





DATE:	October 2016
DESIGNED BY:	B. Humphrey
DRAWN BY:	D. Cavinder


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

**DCP Midstream**  
**Eaton Commons**  
 NESE Section 31, Township 7 North, Range 65 West  
 Weld County, Colorado

Groundwater Elevation  
 Contour Map  
 (August 25, 2016)

Figure  
 3





DATE:  
October 2016

DESIGNED BY:  
B. Humphrey

DRAWN BY:  
D. Cavinder



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

**DCP Midstream  
 Eaton Commons**  
 NESE Section 31, Township 7 North, Range 65 West  
 Weld County, Colorado

Groundwater Analytical  
 Results Map  
 (August 25, 2016)

Figure  
 4



## Appendix A

### Historic Analytical Results

**APPENDIX A**  
**HISTORICAL ANALYTICAL DATA**  
**DCP MIDSTREAM - EATON COMMONS RELEASE**  
**WELD COUNTY, COLORADO**

Location Identification	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Comments
<b>COGCC Standards (µg/L)<sup>(1)</sup></b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	
BH01	6/11/2015	<1.0	<1.0	<1.0	<1.0	
BH01	10/7/2015	<1.0	<1.0	<1.0	<1.0	
BH01	2/19/2016	<1.0	<1.0	<1.0	<1.0	
BH01	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH01	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH02	6/11/2015	<1.0	4.3	2.7	14	
BH02	10/7/2015	<1.0	<1.0	<1.0	<1.0	
BH02	2/19/2016	<1.0	<1.0	<1.0	<1.0	
BH02	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH02	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH03	6/11/2015	2,600	1.2	14	70	
BH03	10/7/2015	4,600	1.8	81	14	
BH03	2/19/2016	220	<1.0	26	20	
BH03	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH03	8/25/2016	1,100	<1.0	<1.0	10	
BH04	6/11/2015	<1.0	<1.0	<1.0	<1.0	
BH04	10/7/2015	<1.0	<1.0	<1.0	<1.0	
BH04	2/19/2016	<1.0	<1.0	<1.0	<1.0	
BH04	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH04	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH05	6/11/2015	<1.0	<1.0	<1.0	<1.0	
BH05	10/7/2015	76	7.2	<1.0	5.2	
BH05	2/19/2016	<1.0	<1.0	<1.0	<1.0	
BH05	6/6/2016	4.3	<1.0	<1.0	<1.0	
BH05	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH06	10/7/2015	<1.0	<1.0	2.4	<1.0	
BH06	2/19/2016	<1.0	<1.0	<1.0	<1.0	
BH06	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH06	8/25/2016	<1.0	<1.0	<1.0	<1.0	
BH07R	10/22/2015	<1.0	<1.0	<1.0	<1.0	
BH07R	2/26/2016	<1.0	<1.0	<1.0	<1.0	
BH07R	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH07R	8/25/2016	<1.0	<1.0	<1.0	<1.0	



**APPENDIX A**  
**HISTORICAL ANALYTICAL DATA**  
**DCP MIDSTREAM - EATON COMMONS RELEASE**  
**WELD COUNTY, COLORADO**

Location Identification	Sample Date	Benzene (µg/l)	Toluene (µg/l)	Ethylbenzene (µg/l)	Total Xylenes (µg/l)	Comments
<b>COGCC Standards (µg/L)<sup>(1)</sup></b>		<b>5</b>	<b>560</b>	<b>700</b>	<b>1,400</b>	
BH08	10/22/2015	<1.0	<1.0	<1.0	<1.0	
BH08	2/19/2016	<1.0	<1.0	<1.0	<1.0	
BH08	6/6/2016	<1.0	<1.0	<1.0	<1.0	
BH08	8/25/2016	<1.0	<1.0	<1.0	<1.0	
REM Well	6/6/2016	<1.0	<1.0	<1.0	<1.0	
REM Well	8/25/2016	<b>1,400</b>	<1.0	<1.0	<1.0	

Notes:

1). The environmental cleanup standards for groundwater that are applicable to this site are the Colorado Oil and Gas Conservation Commission (COGCC) standards for contaminants in groundwater according to Table 910-1 of the COGCC 900 Series Rule for E&P Waste Management.

**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

---

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

September 01, 2016

Steve Weathers  
DCP Midstream  
370 17th Street #2500  
Denver, CO 80202  
RE: Eaton Commons

Enclosed are the results of analyses for samples received by Summit Scientific on 08/26/16 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: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01	1608221-01	Water	08/25/16 14:20	08/26/16 17:00
BH02	1608221-02	Water	08/25/16 14:25	08/26/16 17:00
BH03	1608221-03	Water	08/25/16 14:25	08/26/16 17:00
BH04	1608221-04	Water	08/25/16 14:31	08/26/16 17:00
BH05	1608221-05	Water	08/25/16 14:32	08/26/16 17:00
BH06	1608221-06	Water	08/25/16 14:12	08/26/16 17:00
BH07R	1608221-07	Water	08/25/16 13:54	08/26/16 17:00
BH08	1608221-08	Water	08/25/16 14:00	08/26/16 17:00
Rem W	1608221-09	Water	08/25/16 15:12	08/26/16 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: Eaton Commons

Project Number: [none]  
Project Manager: Steve Weathers

Reported:  
09/01/16 08:35

## Summit Scientific

1608221

741 Corporate Circle Suite 1 • Golden, Colorado 80401  
303-277-9310 • 303-374-5933 Fax

Page 1 of 1

Client: DCP / Tasman Geosciences

Address: 6899 Pecos St, Unit C

City/State/Zip: Denver, CO 80221

Phone: Fax:

Sampler Name: Mitch Weller / Max Garcia

Project Manager: Steve Weathers

E-Mail: [summitweathers@edwardsdshome.com](mailto:summitweathers@edwardsdshome.com) ; [bhu@phay@tasman-geo.com](mailto:bhu@phay@tasman-geo.com)

Project Name: Eaton Commons

Project Number:

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix		Analyze For:				Special Instructions
				HCl	HNO <sub>3</sub>	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)	BTEX	Sto	
BH 01	8-25-16	1420	3			X		X						
BH 02		1425												
BH 03		1425												
BH 04		1431												
BH 05		1432												
BH 06		1412												
BH 07R		1354												
BH 08		1400												
Rem 1W		1512												

Relinquished by:	Date/Time:	Received by:	Date/Time:	Turn Around Time (Check)	Notes:
Mitch Weller	8-26-16 1700	MS	8/26/16 1700	Same Day <input type="checkbox"/> 72 Hours <input type="checkbox"/> 24 Hours <input type="checkbox"/> Standard <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/>	on ice
MS	8/26/16 1725	MS	8-26-16 1725	Sample Integrity:	
		Received in Lab by:	Date/Time:	Temperature Upon Receipt: 7.6°C Intact: Yes <input type="checkbox"/> No <input type="checkbox"/>	

[www.s2scientific.com](http://www.s2scientific.com)

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: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

Reported:  
09/01/16 08:35

#### Sample Receipt Checklist

S2 Work Order: 1608221

Client: DCP/Tasman Client Project ID: Eaton Commons

Shipped Via: 81V Airbill #: \_\_\_\_\_  
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Matrix (check all that apply): ☐ Air ☐ Soil/Solid ☒ Water ☐ Other: \_\_\_\_\_ (Describe)

Cooler ID					
Temp (°C)	<u>7.6</u>				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature just above 0°C to ≤ 6°C <sup>(1)</sup> ?		<input checked="" type="checkbox"/>		
NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.				
Were all samples received intact <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Was adequate sample volume provided <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
If custody seals are present, are they intact <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Are short holding time analytes or samples with HTs due within 48 hours present?			<input checked="" type="checkbox"/>	
Is a chain-of-custody (COC) form present and filled out completely <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Does the COC agree with the number and type of sample bottles received <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Do the sample IDs on the bottle labels match the COC <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
Is the COC properly relinquished by the client w/ date and time recorded <sup>(1)</sup> ?	<input checked="" type="checkbox"/>			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		<input checked="" type="checkbox"/>		
Are samples preserved that require preservation (excluding cooling) <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect				
If samples are acid preserved for metals, is the pH ≤ 2 <sup>(1)</sup> ?			<input checked="" type="checkbox"/>	
Record the pH in Comments.				
If dissolved metals are requested, were samples field filtered?			<input checked="" type="checkbox"/>	
Additional Comments (if any):				

<sup>(1)</sup> If NO, then contact the client before proceeding with analysis and note in case narrative.

Nakita  
Custodian Printed Name

MA  
Signature or Initials of Custodian

8/26/16 1725  
Date/Time



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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH01**  
**1608221-01 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		97.5 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.4 %	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: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH02**  
**1608221-02 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.8 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.0 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		102 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH03**  
**1608221-03 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>Benzene</b>	<b>1100</b>	25	ug/l	25	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
<b>Xylenes (total)</b>	<b>10</b>	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		120 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		92.5 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		101 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH04**  
**1608221-04 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:31**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		99.5 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		96.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH05**  
**1608221-05 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:32**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.9 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH06**  
**1608221-06 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:12**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		96.8 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		97.4 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH07R**  
**1608221-07 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 13:54**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.9 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.4 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**BH08**  
**1608221-08 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 14:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Benzene	ND	1.0	ug/l	1	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	1.0	"	"	"	"	"	"	

Date Sampled: **08/25/16 14:00**

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
Surrogate: 1,2-Dichloroethane-d4		99.1 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.8 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		101 %	45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

**Rem W**  
**1608221-09 (Water)**

**Summit Scientific**

**Volatile Organic Compounds by EPA Method 8260B**

Date Sampled: **08/25/16 15:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
<b>Benzene</b>	<b>1400</b>	25		ug/l	25	1608285	08/30/16	08/30/16	EPA 8260B	
Toluene	ND	1.0		"	1	"	"	"	"	
Ethylbenzene	ND	1.0		"	"	"	"	"	"	
Xylenes (total)	ND	1.0		"	"	"	"	"	"	

Date Sampled: **08/25/16 15:12**

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
Surrogate: 1,2-Dichloroethane-d4		118 %		37-154		"	"	"	"	
Surrogate: Toluene-d8		96.5 %		45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.0 %		45-146		"	"	"	"	

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

Reported:  
09/01/16 08:35

## 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 1608285 - EPA 5030 Water MS

##### Blank (1608285-BLK1)

Prepared & Analyzed: 08/29/16

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	1.0	"							
Surrogate: 1,2-Dichloroethane-d4	14.2		"	13.3	106	37-154				
Surrogate: Toluene-d8	13.3		"	13.3	99.8	45-149				
Surrogate: 4-Bromofluorobenzene	13.8		"	13.3	103	45-146				

##### LCS (1608285-BS1)

Prepared & Analyzed: 08/30/16

Benzene	48.2	1.0	ug/l	50.0	96.4	51-132				
Toluene	45.3	1.0	"	50.0	90.5	51-138				
Ethylbenzene	46.1	1.0	"	50.0	92.3	58-146				
m,p-Xylene	91.3	2.0	"	100	91.3	57-144				
o-Xylene	48.8	1.0	"	50.0	97.6	53-146				
Surrogate: 1,2-Dichloroethane-d4	13.6		"	13.3	102	37-154				
Surrogate: Toluene-d8	13.6		"	13.3	102	45-149				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3	97.7	45-146				

##### Matrix Spike (1608285-MS1)

Source: 1608207-01

Prepared & Analyzed: 08/30/16

Benzene	51.3	1.0	ug/l	50.0	ND	103	34-141			
Toluene	48.1	1.0	"	50.0	ND	96.3	27-151			
Ethylbenzene	49.6	1.0	"	50.0	ND	99.1	29-160			
m,p-Xylene	98.6	2.0	"	100	ND	98.6	20-166			
o-Xylene	51.4	1.0	"	50.0	ND	103	33-159			
Surrogate: 1,2-Dichloroethane-d4	13.2		"	13.3	99.2	37-154				
Surrogate: Toluene-d8	13.5		"	13.3	101	45-149				
Surrogate: 4-Bromofluorobenzene	13.0		"	13.3	97.4	45-146				

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

Reported:  
09/01/16 08:35

**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 1608285 - EPA 5030 Water MS**

Matrix Spike Dup (1608285-MSD1)		Source: 1608207-01			Prepared & Analyzed: 08/30/16					
Benzene	51.4	1.0	ug/l	50.0	ND	103	34-141	0.195	32	
Toluene	48.2	1.0	"	50.0	ND	96.5	27-151	0.187	25	
Ethylbenzene	49.2	1.0	"	50.0	ND	98.4	29-160	0.729	50	
m,p-Xylene	98.3	2.0	"	100	ND	98.3	20-166	0.325	36	
o-Xylene	51.5	1.0	"	50.0	ND	103	33-159	0.175	26	
Surrogate: 1,2-Dichloroethane-d4	12.5		"	13.3		93.7	37-154			
Surrogate: Toluene-d8	13.9		"	13.3		104	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.6	45-146			

Summit Scientific

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

Project: Eaton Commons  
Project Number: [none]  
Project Manager: Steve Weathers

**Reported:**  
09/01/16 08:35

### 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 'MSW'.