

Third Quarter 2017
Groundwater Monitoring Summary Report

Tampa Compressor Station Release
Weld County, Colorado
Remediation #9353

Prepared for:



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November 1, 2017

Table of Contents

1. Introduction	1
2. Site Location and Background.....	1
3. Groundwater Monitoring.....	2
3.1 Groundwater Elevation Monitoring.....	2
3.2 Groundwater Quality Monitoring	3
4. Remediation Activities	3
5. Conclusions.....	4
6. Recommendations	4

Tables

1	Third Quarter 2017 Summary of Groundwater Elevation Data
2	Third Quarter 2017 Summary of BTEX Concentrations in Groundwater

Figures

1	Site Location Map
2	Site Map with Monitoring Well Locations
3	Groundwater Elevation Contour Map – August 2, 2017
4	Analytical Results Map – August 2, 2017

Appendices

A	Historic Groundwater Analytical Results
B	Laboratory Analytical Report – Summit Scientific – 1708022

1. Introduction

This report summarizes the groundwater monitoring activities conducted during the third quarter 2017 at the Tampa Compressor Station, 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. Current Site conditions were evaluated from field data and analytical laboratory results collected during the reporting period on August 2, 2017.

2. Site Location and Background

The Site is located in the southwestern quarter of the southwestern quarter of Section 31, Township 3 North, Range 63 West (approximate coordinates 40.176595 degrees north and -104.489837 degrees west), approximately 5 miles north on County Road (CR) 59 from Keenesburg, Colorado.

A petroleum hydrocarbon release originating from an underground pipeline occurred at the Site resulting in surface soil staining. DCP submitted an initial Form 19 on February 2, 2015, with a Supplemental Form 19 submitted on February 10, 2015, and the Colorado Oil and Gas Conservation Commission (COGCC) issued a spill tracking facility ID# 440770 for the Site.

Initial soil investigation activities conducted on February 2, 2015, indicated that surface soil impacts were above COGCC standards. On February 6, 2015, hydrovacuum excavation and soil removal activities of the surface stained soils to approximately 1-foot below ground surface (bgs) was conducted and approximately 14 cubic yards (yd³) of material was removed.

On February 13, 2015, three soil borings (BH01 – BH03) were advanced and soil samples were collected from just above the saturated interval at each location. Subsequently, these soil borings were completed as monitoring wells (BH01 – BH03). On February 19, 2015, initial groundwater monitoring activities were conducted at the well locations and light non-aqueous phase liquid (LNAPL) was observed in monitoring wells BH01 and BH03 with measured thicknesses of 3.14 feet and 1.83 feet, respectively. A groundwater sample was collected from BH02 and the laboratory analytical results from that well were below COGCC Table 910-1 standards. The monitoring well locations are illustrated on Figure 2.

On April 28, 2015, a vacuum enhanced fluid recovery (EFR) event was conducted at monitoring wells BH01 and BH03 and approximately 5 barrels (bbl) of liquid was removed. Additional source area excavation activities were conducted at the site between May 6 and 22, 2015, and approximately 210 yd³ of impacted soil and 33 bbl of groundwater were removed during excavation. Soil samples were collected during excavation activities and reported laboratory analytical results indicated impacted soil within the vadose zone remains in place in the northwest corner of the Site. Due to the existing infrastructure and off-site conditions, the impacted soil was left in place and in-situ remediation activities have been conducted. Additionally, during the May 2015 excavation activities, monitoring well BH01 was destroyed.

A Form 27 was submitted to the COGCC on November 4, 2015, and the COGCC issued remediation #9353 for the Site. In accordance with the approved work plan described in the Form 27, DCP installed an additional nine (9) temporary monitoring wells (BH04 through BH12) and replaced the destroyed BH01 with monitoring well BH01R (Figure 2). Quarterly groundwater monitoring activities were initiated at the Site in November 2015.

3. Groundwater Monitoring

This section describes the field and laboratory activities performed during the third quarter 2017 groundwater monitoring event. Quarterly monitoring activities were conducted on August 2, 2017, and included Site-wide groundwater gauging, LNAPL measurements, and groundwater sampling. Figure 2 illustrates the groundwater monitoring network utilized to perform these activities at the Site.

3.1 Groundwater Elevation Monitoring

Groundwater and LNAPL levels were measured to evaluate hydraulic characteristics and provide information regarding seasonal fluctuations in groundwater and LNAPL elevations at the Site. During the third quarter 2017, groundwater levels were measured at 12 monitoring well locations (BH01R through BH12).

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 and LNAPL levels and the calculated groundwater elevations are presented in Table 1.

A third quarter 2017 groundwater elevation contour map, included as Figure 3, indicates that groundwater flow at the Site generally trends to the northeast which is similar to previous quarterly monitoring data. The range of groundwater elevations, average elevation change from the previous monitoring event, and the calculated average hydraulic gradient (using elevations from BH04 and BH03) at the Site are summarized in the table below.

Summary of Measured Hydraulic Parameters

	Third Quarter 2017 (08/02/2017)
Maximum Elevation (Well ID)	4,795.63 (BH04)
Minimum Elevation (Well ID)	4,794.88 (BH03)
Average Change from Previous Monitoring Event – All Wells	0.05 feet
Average Hydraulic Gradient (ft/ft) / (Well IDs)	0.013 (BH04 to BH03)

Measurable LNAPL was not detected during the third quarter monitoring event, although small amounts of LNAPL was observed on the interphase probe (IP) at monitoring wells BH04 and BH06.

3.2 Groundwater Quality Monitoring

Subsequent to recording groundwater level measurements at each monitoring well location, groundwater samples were collected from 12 monitor wells using disposable 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 (°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 third quarter 2017 event are included in Appendix A and the laboratory analytical report is included in Appendix B. Analytical results are also displayed on Figure 4.

Analytical results/observations are summarized below:

- LNAPL was not measured in any of the twelve (12) monitoring well locations, although LNAPL was observed on the IP at monitoring locations BH04 and BH06, which have historically exhibited measurable LNAPL.
- Benzene concentrations at BH05 (1,700 micrograms per liter [µg/L]), BH06 (3,000 µg/L), and BH07 (26 µg/L) were in exceedance of the COGCC Table 910-1 standard of 5 µg/L.
- The toluene concentration at BH06 (2,600 µg/L) was in exceedance of the COGCC Table 910-1 standard of 560 µg/L.
- Ethylbenzene concentrations were not in exceedance of the COGCC Table 910-1 standard of 700 µg/L in any of the sampled monitor well locations. However, ethylbenzene concentrations were reported above laboratory detection limits at BH04 (190 µg/L), BH05 (230 µg/L), BH06 (570 µg/L), and BH07 (130 µg/L).
- Total xylenes concentrations at BH05 (1400 µg/L), BH06 (4,100 µg/L) and BH07 (1,600 µg/L) were in exceedance of the COGCC Table 910-1 standard of 1,400 µg/L.
- BTEX concentrations from the remaining sample locations were below COGCC standards and/or laboratory detection limits.

4. Remediation Activities

As reported in previous quarterly summary reports, and in accordance with the approved Form 27 Remediation Work Plan, vacuum enhanced fluid recovery (EFR) remediation activities were initiated at

the Site during the second quarter 2016 to mitigate dissolved phase petroleum hydrocarbons and residual LNAPL within groundwater at the Site. EFR remediation activities have been ongoing through May 17, 2017, in which a project total of approximately 1,188 barrels (bbls) of groundwater was removed between the second quarter 2016 and second quarter 2017 EFR remediation events. Recovered groundwater through EFR remediation was subsequently transported and disposed of at the NGL Water Solutions DJ, LLC, C-3 disposal well in LaSalle, CO. Subsequent to the EFR event conducted on May 17, 2017, EFR activities were discontinued to evaluate LNAPL recovery and dissolved phase petroleum hydrocarbon concentration trends.

Due to continued elevated dissolved phase petroleum hydrocarbon concentrations reported at BH05, BH06, and BH07, an alternative remedial approach utilizing mobile air sparge (AS) and soil vapor extraction (SVE) (AS/SVE) techniques was initiated at the Site on August 29, 2017. AS compressed air was delivered to monitoring wells BH05 and BH07 concurrent with SVE at monitoring wells BH01R, BH03, BH04, and BH06 for a continuous six-hour period. AS/SVE remediation activities have been performed on a weekly schedule through the third quarter 2017. Average AS delivery pressures were operated at 15-20 pounds per square inch (psi) with air delivery flow rates ranging between 10-30 cubic feet per minute (CFM). Average SVE vacuum pressures were operated between 78 and 115 inches of water (in/H₂O). Mobile AS/SVE remediation operations will continue at the Site on a weekly frequency through the fourth quarter 2017 to further mitigate dissolved phase petroleum hydrocarbon impacts observed at the Site.

5. Conclusions

Observations of the third quarter 2017 monitoring data provides the following:

- LNAPL was not observed in any of the twelve (12) monitoring well locations.
- One or more BTEX concentrations that exceeded the COGCC applicable groundwater standards were detected in three (3) of the 12 sampled monitoring well locations as described in Section 3.2.
- Elevated BTEX concentrations persist at the Site, however measurable LNAPL thicknesses have decreased when compared to historic monitoring events.

6. Recommendations

Based on evaluation of data from the third quarter 2017, recommendations for future activities include:

- Continue quarterly groundwater monitoring and sampling activities at the monitoring well locations illustrated on Figure 2.
- Continue to operate AS/SVE remediation activities on a weekly frequency through the fourth quarter 2017. AS/SVE will be applied to the well network previously described and operated for 6-hour intervals.
- If measurable LNAPL is again observed at the Site, potentially re-initiate EFR remediation activities as necessary.

Tables

TABLE 1
THIRD QUARTER 2017
SUMMARY OF GROUNDWATER ELEVATION DATA
DCP TAMPA COMPRESSOR STATION
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)
BH01R	11/9/2016	10.13			NM	4,805.57	4,795.44	-0.27
BH01R	2/1/2017	10.24			NM	4,805.57	4,795.33	-0.11
BH01R	5/1/2017	10.29			NM	4,805.57	4,795.28	-0.05
BH01R	8/2/2017	10.21			16.01	4,805.57	4,795.36	0.08
BH02	11/9/2016	12.30			NM	4,807.70	4,795.40	-0.28
BH02	2/1/2017	12.38			NM	4,807.70	4,795.32	-0.08
BH02	5/1/2017	12.45			NM	4,807.70	4,795.25	-0.07
BH02	8/2/2017	12.35			18.83	4,807.70	4,795.35	0.10
BH03	11/9/2016	9.15			NM	4,804.31	4,795.16	-0.37
BH03	2/1/2017	9.13			NM	4,804.31	4,795.18	0.02
BH03	5/1/2017	9.18			NM	4,804.31	4,795.13	-0.05
BH03	8/2/2017	9.43			16.75	4,804.31	4,794.88	-0.25
BH04	11/9/2016	11.31	11.25	0.06	NM	4,806.95	4,795.68	-0.22
BH04	2/1/2017	11.34			NM	4,806.95	4,795.61	-0.07
BH04	5/1/2017	11.40			NM	4,806.95	4,795.55	-0.06
BH04	8/2/2017	11.32			16.17	4,806.95	4,795.63	0.08
BH05	11/9/2016	10.98			NM	4,806.51	4,795.53	-0.29
BH05	2/1/2017	11.05			NM	4,806.51	4,795.46	-0.07
BH05	5/1/2017	11.12			NM	4,806.51	4,795.39	-0.07
BH05	8/2/2017	11.01			16.15	4,806.51	4,795.50	0.11
BH06	11/9/2016	11.09	10.93	0.16	NM	4,806.46	4,795.49	-0.24
BH06	2/1/2017	11.12	11.07	0.05	NM	4,806.46	4,795.37	-0.11
BH06	5/1/2017	11.13	11.11	0.02	NM	4,806.46	4,795.34	-0.03
BH06	8/2/2017	11.07			16.07	4,806.46	4,795.39	0.05
BH07	11/9/2016	10.69			NM	4,806.01	4,795.32	-0.27
BH07	2/1/2017	10.77			NM	4,806.01	4,795.24	-0.08
BH07	5/1/2017	10.83			NM	4,806.01	4,795.18	-0.06
BH07	8/2/2017	10.76			15.24	4,806.01	4,795.25	0.07
BH08	11/9/2016	8.66			NM	4,803.78	4,795.12	-0.27
BH08	2/1/2017	8.75			NM	4,803.78	4,795.03	-0.09
BH08	5/1/2017	8.80			NM	4,803.78	4,794.98	-0.05
BH08	8/2/2017	8.71			15.17	4,803.78	4,795.07	0.09
BH09	11/9/2016	8.89			NM	4,804.08	4,795.19	-0.24
BH09	2/1/2017	8.97			NM	4,804.08	4,795.11	-0.08
BH09	5/1/2017	9.03			NM	4,804.08	4,795.05	-0.06
BH09	8/2/2017	8.97			15.24	4,804.08	4,795.11	0.06
BH10	11/9/2016	9.88			NM	4,805.37	4,795.49	-0.22
BH10	2/1/2017	9.97			NM	4,805.37	4,795.40	-0.09
BH10	5/1/2017	10.02			NM	4,805.37	4,795.35	-0.05
BH10	8/2/2017	9.95			15.35	4,805.37	4,795.42	0.07
BH11	11/9/2016	9.65			NM	4,804.97	4,795.32	-0.23
BH11	2/1/2017	9.72			NM	4,804.97	4,795.25	-0.07
BH11	5/1/2017	9.79			NM	4,804.97	4,795.18	-0.07
BH11	8/2/2017	9.72			14.50	4,804.97	4,795.25	0.07
BH12	11/9/2016	9.92			NM	4,805.13	4,795.21	-0.22
BH12	2/1/2017	10.02			NM	4,805.13	4,795.11	-0.10
BH12	5/1/2017	10.07			NM	4,805.13	4,795.06	-0.05
BH12	8/2/2017	10.03			15.23	4,805.13	4,795.10	0.04
Average change in groundwater elevation (5/1/2017 to 8/2/2017)								0.05

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)

* Groundwater elevation was corrected for product thickness using the following calculation, when applicable:

Groundwater elevation = (TOC Elevation - Measured Depth to Water) + (LNAPL Thickness in Well * LNAPL Relative Density)

LNAPL relative density is assumed to be approximately 0.75

NA = Not Applicable

TD = Total Depth

TABLE 2
THIRD QUARTER 2017
SUMMARY OF BTEX CONCENTRATIONS IN GROUNDWATER
DCP TAMPA COMPRESSOR STATION
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)⁽¹⁾		5	560	700	1,400	
BH01R	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH02	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH03	8/2/2017	1.1	<1.0	<1.0	<2.0	
BH04	8/2/2017	<1.0	8.6	190	390	
BH05	8/2/2017	1,700	<1.0	230	1,400	
BH06	8/2/2017	3,000	2,600	570	4,100	
BH07	8/2/2017	26	5.3	130	1,600	
BH08	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH09	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH10	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH11	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH12	8/2/2017	<1.0	<1.0	<1.0	<2.0	

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.

LNAPL - Light non-aqueous phase liquid

Figures

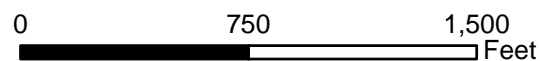
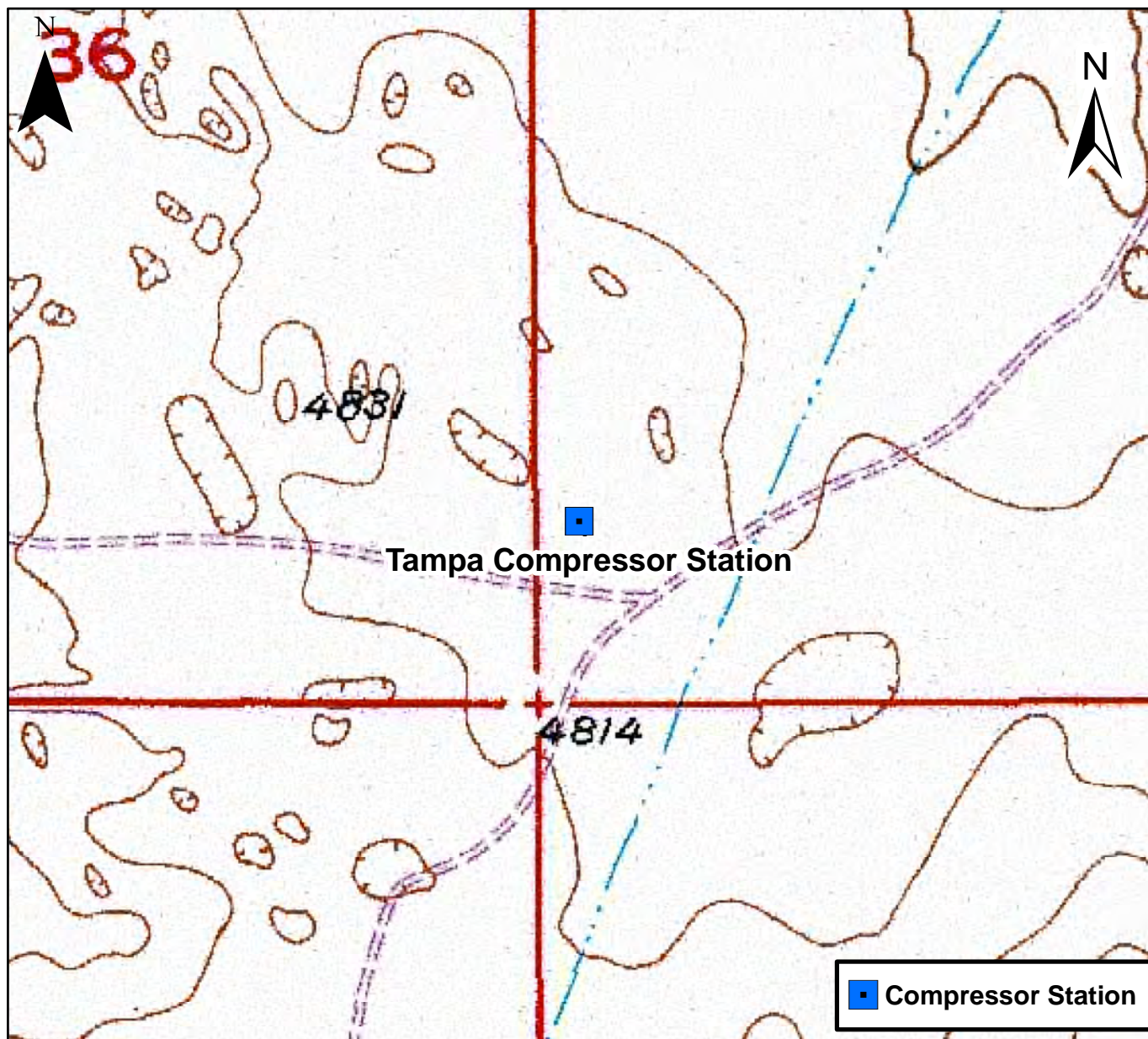
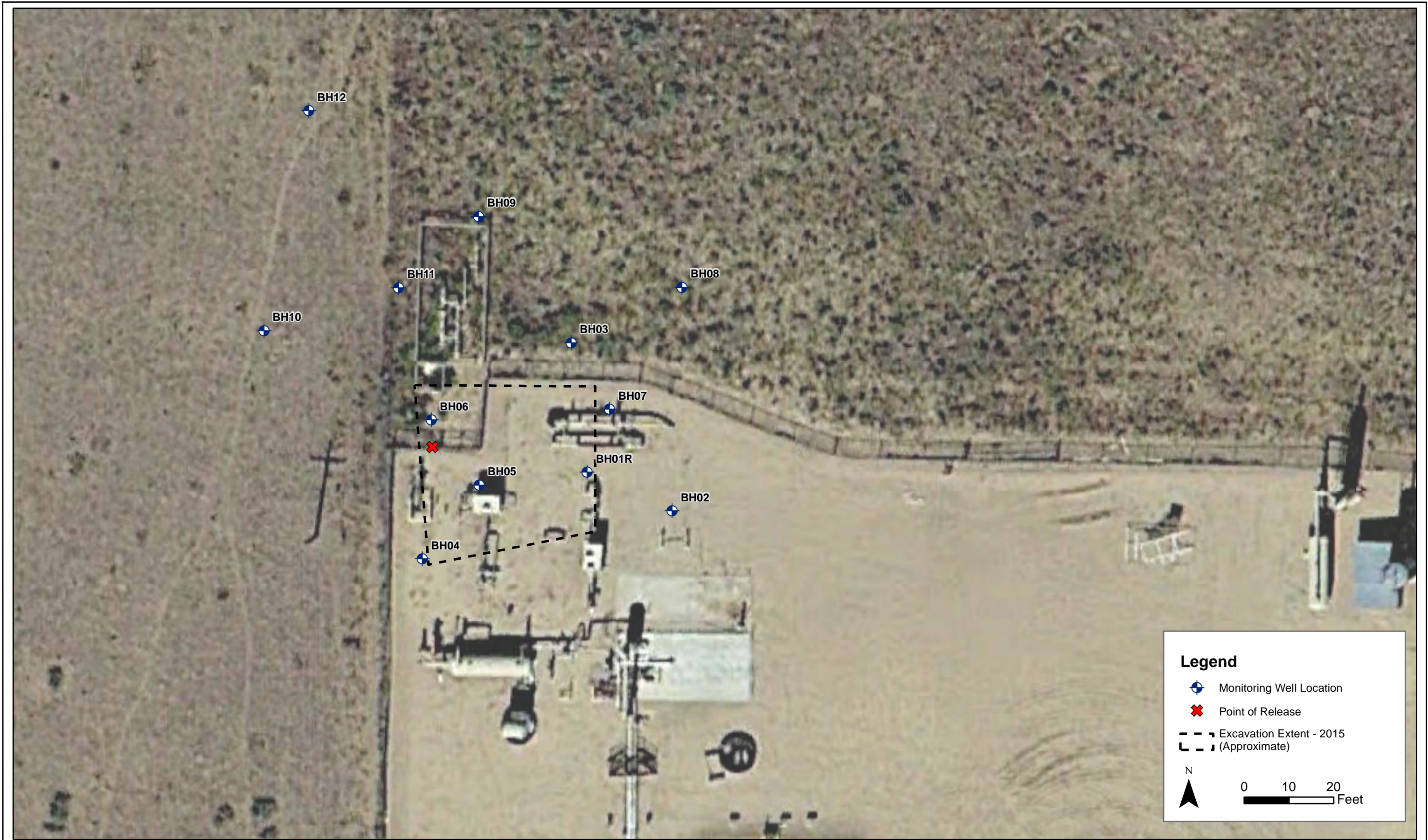


Figure 1

Site Location Map
Tampa Compressor Station
SWSW S31 T3N R63W
Weld County, Colorado





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



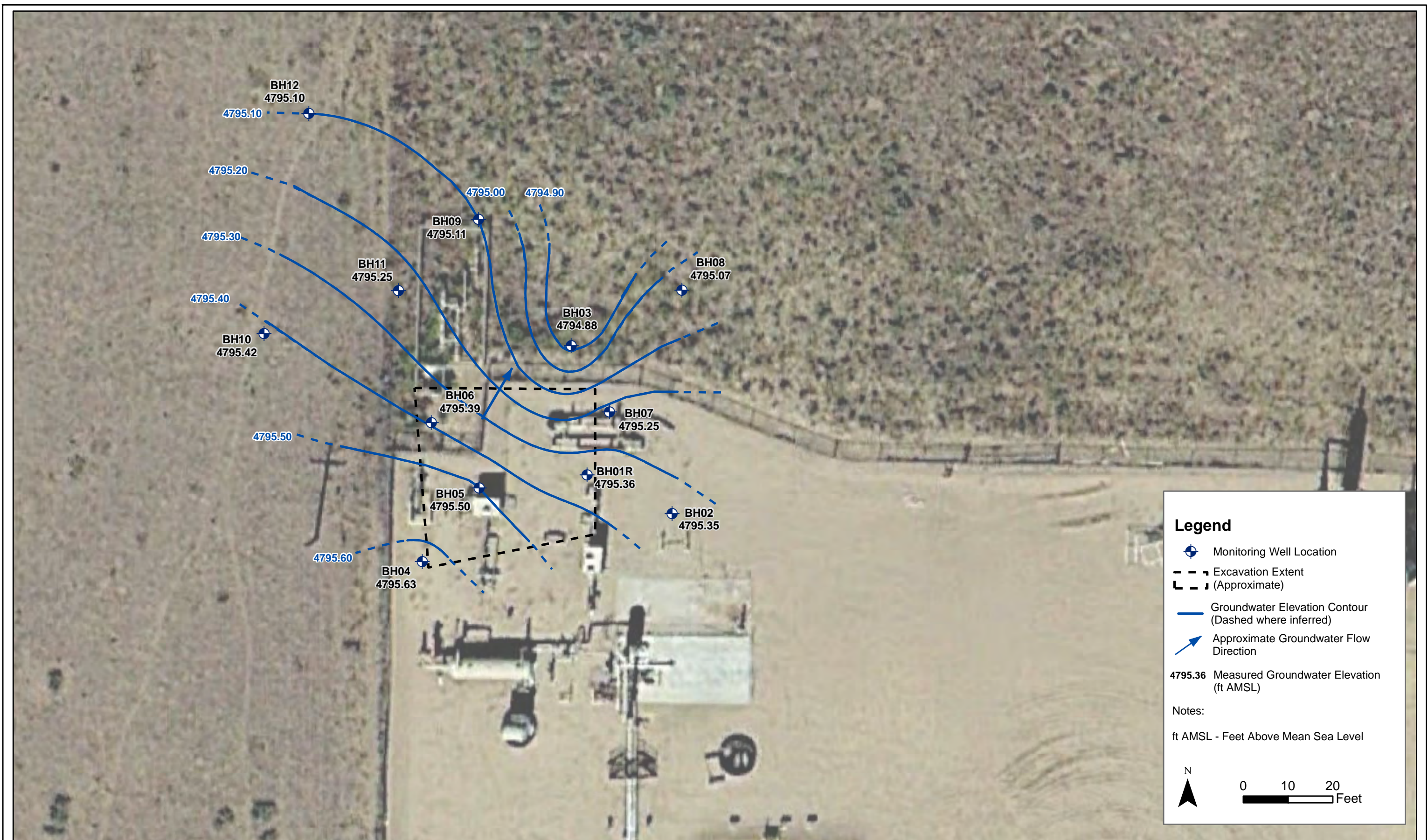
TASMAN
GEOSCIENCES

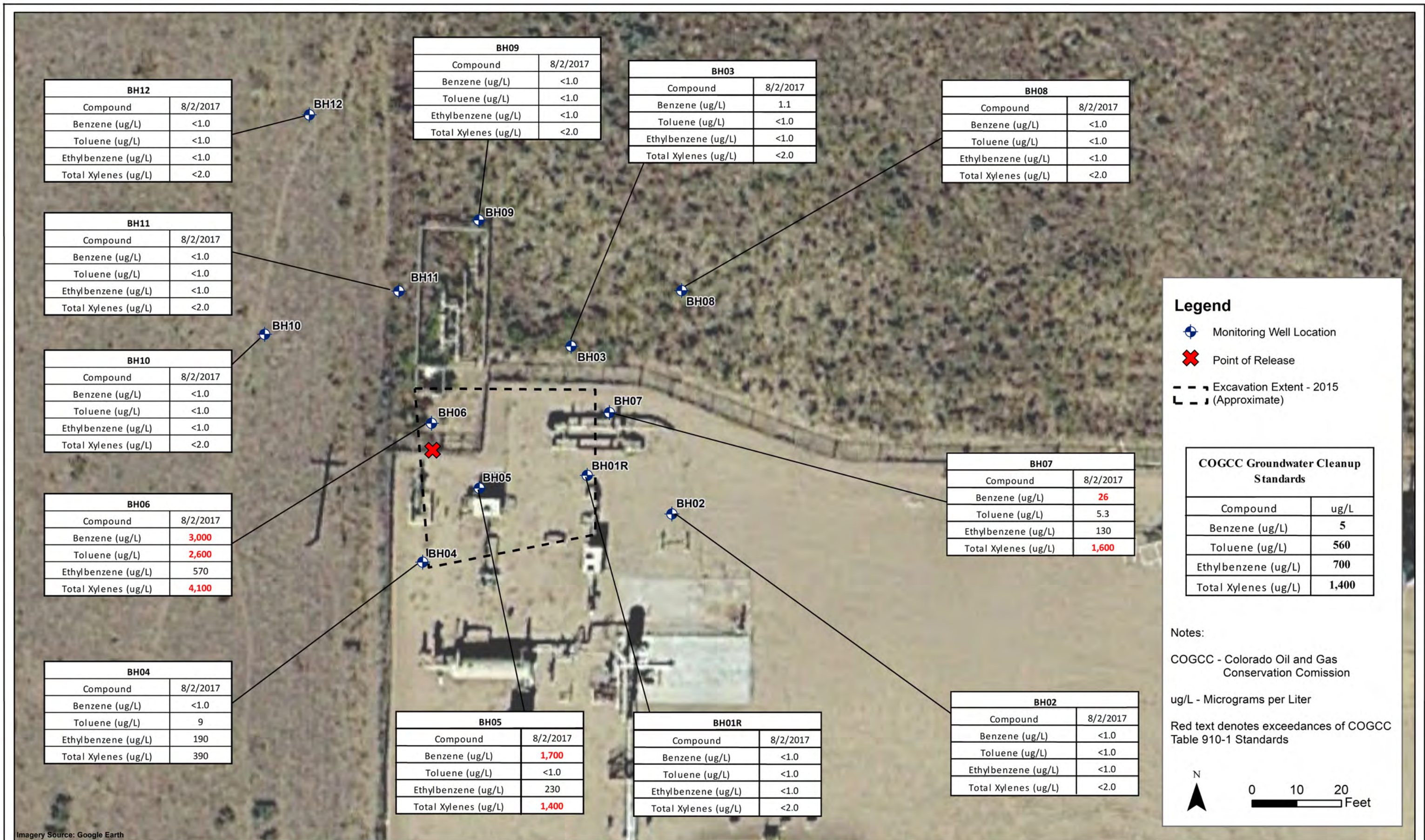
Tasman Geosciences Inc.
6899 Pecos Street - Unit C
Denver, CO 80221

**DCP Midstream
Tampa Compressor Station**
SWSW Section 31, Township 3 North, Range 63 West
Weld County, Colorado

Site Map with
Monitoring Well Locations

Figure
2





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

Appendix A

Historic Groundwater Analytical Results

APPENDIX A
HISTORIC GROUNDWATER ANALYTIC DATA
DCP TAMPA COMPRESSOR STATION
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	2/19/2015	NS	NS	NS	NS	LNAPL
BH01R	11/12/2015	82	<1.0	7.5	3.8	
BH01R	2/23/2016	35	<1.0	3.7	1.5	
BH01R	5/27/2016	4.2	<1.0	2.0	<1.0	
BH01R	8/17/2016	<1.0	<1.0	<1.0	<1.0	
BH01R	11/9/2016	<1.0	<1.0	3.4	<1.0	
BH01R	2/1/2017	<1.0	<1.0	<1.0	<1.0	
BH01R	5/1/2017	<1.0	<1.0	<1.0	<2.0	
BH01R	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH02	2/19/2015	<1.0	1.7	<1.0	1.1	
BH02	11/12/2015	<1.0	1.6	<1.0	4.5	
BH02	2/23/2016	<1.0	<1.0	<1.0	<1.0	
BH02	5/27/2016	<1.0	<1.0	<1.0	<1.0	
BH02	8/17/2016	<1.0	<1.0	<1.0	<1.0	
BH02	11/9/2016	<1.0	<1.0	<1.0	<1.0	
BH02	2/1/2017	<1.0	<1.0	1.9	<1.0	
BH02	5/1/2017	<1.0	<1.0	<1.0	<2.0	
BH02	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH03	2/19/2015	NS	NS	NS	NS	LNAPL
BH03	11/12/2015	NS	NS	NS	NS	LNAPL
BH03	2/23/2016	NS	NS	NS	NS	LNAPL
BH03	5/27/2016	53	65	100	700	
BH03	8/17/2016	<1.0	<1.0	<1.0	<1.0	
BH03	11/9/2016	<1.0	<1.0	<1.0	<1.0	
BH03	2/1/2017	<1.0	<1.0	<1.0	<1.0	
BH03	5/1/2017	<1.0	<1.0	<1.0	<2.0	
BH03	8/2/2017	1.1	<1.0	<1.0	<2.0	
BH04	11/12/2015	NS	NS	NS	NS	LNAPL
BH04	2/23/2016	NS	NS	NS	NS	LNAPL
BH04	5/27/2016	120	490	560	2,600	
BH04	8/17/2016	28	73	140	840	LNAPL
BH04	11/9/2016	120	590	1,800	5,500	LNAPL
BH04	2/1/2017	3.9	46	220	560	
BH04	5/1/2017	1.0	13	83	280	
BH04	8/2/2017	<1.0	8.6	190	390	
BH05	11/12/2015	6,700	590	610	2,300	
BH05	2/23/2016	2,900	180	540	1,500	
BH05	5/27/2016	2,300	130	610	2,900	
BH05	8/17/2016	1,800	30	100	1,100	
BH05	11/9/2016	19,000	2,000	3,500	15,000	
BH05	2/1/2017	2,300	95	450	1,800	
BH05	5/1/2017	1,500	17	210	1,000	
BH05	8/2/2017	1,700	<1.0	230	1,400	
BH06	11/12/2015	NS	NS	NS	NS	LNAPL
BH06	2/23/2016	NS	NS	NS	NS	LNAPL
BH06	5/27/2016	6,500	6,200	2,500	14,000	
BH06	8/17/2016	5,400	3,100	1,400	7,600	
BH06	11/9/2016	NS	NS	NS	NS	LNAPL
BH06	2/1/2017	2,000	800	510	2,100	LNAPL
BH06	5/1/2017	1,100	620	260	1,900	LNAPL
BH06	8/2/2017	3,000	2,600	570	4,100	

APPENDIX A
HISTORIC GROUNDWATER ANALYTIC DATA
DCP TAMPA COMPRESSOR STATION
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	
BH07	11/12/2015	1,600	1,000	290	1,000	
BH07	2/23/2016	130	70	170	110	
BH07	5/27/2016	3,100	1,500	500	2,700	
BH07	8/17/2016	2,500	170	550	2,600	
BH07	11/9/2016	790	71	510	2,400	
BH07	2/1/2017	240	30	410	2,000	
BH07	5/1/2017	56	9.3	300	1,400	
BH07	8/2/2017	26	5.3	130	1,600	
BH08	11/12/2015	160	16	11	40	
BH08	2/23/2016	150	37	15	74	
BH08	5/27/2016	60	10	19	110	
BH08	8/17/2016	5.1	6.2	20	320	
BH08	11/9/2016	<1.0	<1.0	<1.0	9.1	
BH08	2/1/2017	4.6	<1.0	11	32	
BH08	5/1/2017	<1.0	<1.0	4.7	6.8	
BH08	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH09	11/12/2015	610	46	18	80	
BH09	2/23/2016	23	<1.0	<1.0	<1.0	
BH09	5/27/2016	8.0	<1.0	<1.0	<1.0	
BH09	8/17/2016	<1.0	<1.0	<1.0	<1.0	
BH09	11/9/2016	<1.0	<1.0	<1.0	<1.0	
BH09	2/1/2017	<1.0	<1.0	<1.0	<1.0	
BH09	5/1/2017	<1.0	<1.0	<1.0	<2.0	
BH09	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH10	11/12/2015	<1.0	<1.0	<1.0	<1.0	
BH10	2/23/2016	<1.0	<1.0	<1.0	<1.0	
BH10	5/27/2016	<1.0	<1.0	<1.0	<1.0	
BH10	8/17/2016	<1.0	<1.0	<1.0	<1.0	
BH10	11/9/2016	<1.0	<1.0	<1.0	<1.0	
BH10	2/1/2017	<1.0	<1.0	<1.0	<1.0	
BH10	5/1/2017	<1.0	<1.0	<1.0	<2.0	
BH10	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH11	11/12/2015	2,100	1,800	200	840	
BH11	2/23/2016	NS	NS	NS	NS	LNAPL
BH11	5/27/2016	2,100	180	600	1,900	
BH11	8/17/2016	1,100	3.5	34	770	
BH11	11/9/2016	27	<1.0	100	260	
BH11	2/1/2017	2.0	<1.0	290	330	
BH11	5/1/2017	<1.0	<1.0	160	14	
BH11	8/2/2017	<1.0	<1.0	<1.0	<2.0	
BH12	11/12/2015	<1.0	<1.0	<1.0	<1.0	
BH12	2/23/2016	<1.0	<1.0	<1.0	<1.0	
BH12	5/27/2016	<1.0	<1.0	<1.0	<1.0	
BH12	8/17/2016	<1.0	<1.0	<1.0	<1.0	
BH12	11/9/2016	<1.0	<1.0	<1.0	<1.0	
BH12	2/1/2017	<1.0	<1.0	<1.0	<1.0	
BH12	5/1/2017	<1.0	<1.0	<1.0	<2.0	
BH12	8/2/2017	<1.0	<1.0	<1.0	<2.0	

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.

LNAPL - Light non-aqueous phase liquid

Appendix B

Laboratory Analytical Report
Summit Scientific – 1708022

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401

303.277.9310 - laboratory ♦ 303.277.9531 - fax

August 09, 2017

Steve Weathers
DCP Operating Company
370 17th Street #2500
Denver, CO 80202
RE: Tampa Compressor Station

Enclosed are the results of analyses for samples received by Summit Scientific on 08/02/17 17:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'Ben Shrewsbury', with a long, sweeping horizontal line extending to the right.

Ben Shrewsbury
Laboratory Manager



DCP Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station

Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
BH01R	1708022-01	Water	08/02/17 11:00	08/02/17 17:15
BH02	1708022-02	Water	08/02/17 10:50	08/02/17 17:15
BH03	1708022-03	Water	08/02/17 11:15	08/02/17 17:15
BH04	1708022-04	Water	08/02/17 11:15	08/02/17 17:15
BH05	1708022-05	Water	08/02/17 11:40	08/02/17 17:15
BH06	1708022-06	Water	08/02/17 11:25	08/02/17 17:15
BH07	1708022-07	Water	08/02/17 11:40	08/02/17 17:15
BH08	1708022-08	Water	08/02/17 11:30	08/02/17 17:15
BH09	1708022-09	Water	08/02/17 11:20	08/02/17 17:15
BH10	1708022-10	Water	08/02/17 10:45	08/02/17 17:15
BH11	1708022-11	Water	08/02/17 10:55	08/02/17 17:15
BH12	1708022-12	Water	08/02/17 11:05	08/02/17 17:15

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.

Summit Scientific

1708022.1

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 1 of 2

Client: DCP Midstream / Tasman

Address:

City/State/Zip:

Phone:

Fax:

Sampler Name: Max Gasta, Colleen Olson

Project Manager: Steve Weathers

E-Mail: swweathers@dcpmidstream.com, blamphrey@tasman-gro.com

Project Name: Tampa Compressor Station

Project Number: N/A

Sample Description	Date Sampled	Time Sampled	Number of Containers	Preservative				Matrix			Analyze For:												Special Instructions			
				HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)															
BH01R	8/2/17	1100	3			X		X				BTEX														
BH02		1050																								
BH03		1115																								
BH04		1115																								
BH05		1140																								
BH06		1125																								
BH07		1140																								
BH08		1130																								
BH09		1120																								
BH10		1045																								

Relinquished by: <u>Max Gasta</u>	Date/Time: <u>8/2/17 1715</u>	Received by: <u>[Signature]</u>	Date/Time: <u>8/2/17 1715</u>	Turn Around Time (Check) 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"/>	Notes: <u>on ice</u>
Relinquished by:	Date/Time:	Received by:	Date/Time:	Sample Integrity: Temperature Upon Receipt: <u>5.1°C</u> Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Relinquished by:	Date/Time:	Received in Lab by:	Date/Time:		

Summit Scientific

1708022.2

741 Corporate Circle Suite I ♦ Golden, Colorado 80401
303-277-9310 ♦ 303-374-5933 Fax

Page 2 of 2

Client: DCP Midstream / Tasman

Address:

City/State/Zip:

Phone:

Fax:

Sampler Name: Max Gustin Colleen Olson

Project Manager: Steve Weathers

E-Mail: swswaters@deprindstream.com, ^{Engineering} ~~swswaters@~~ tasman-geo.com

Project Name: Tampa Compressor Station

Project Number: NJA

				Preservative		Matrix		Analyze For:													
Sample Description	Date Sampled	Time Sampled	Number of Containers	HCl	HNO ₃	None	Other (Specify)	Groundwater	Soil	Air - Canister Serial #	Other (Specify)									Special Instructions	
BH 11	8/2/17	1055	3			X		X				X									
BH 12		1105				X		X				X									
Relinquished by: [Signature]				Date/Time: 8/2/17 1215		Received by: [Signature] 8/2/17 1715				Date/Time:		Turn Around Time (Check) 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"/>								Notes: on ice	
Relinquished by:				Date/Time:		Received by:				Date/Time:		Sample Integrity: Temperature Upon Receipt: 5.1° C Intact: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>									
Relinquished by:				Date/Time:		Received in Lab by:				Date/Time:											

1708022

Sample Receipt Checklist

S2 Work Order: _____

Client: DGP Midstream/Tasman Client Project ID: Tampa Compressor StationShipped Via: PIU
(UPS, FedEx, Hand Delivered, Pick-up, etc.)

Airbill #: _____

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

Cooler ID					
Temp (°C)	5.1				

Thermometer ID: 61857155-K

	Yes	No	N/A	Comments (if any)
If samples require cooling, was the temperature at 4°C +/- 2°C ⁽¹⁾ ?				
NOTE: If samples are delivered the same day of sampling, this requirement is met provided that there is evidence that cooling has begun.	✓			
Were all samples received intact ⁽¹⁾ ?	✓			
Was adequate sample volume provided ⁽¹⁾ ?	✓			
If custody seals are present, are they intact ⁽¹⁾ ?			✓	
Are short holding time analytes or samples with HTs due within 48 hours present?			✓	
Is a chain-of-custody (COC) form present and filled out completely ⁽¹⁾ ?	✓			
Does the COC agree with the number and type of sample bottles received ⁽¹⁾ ?	✓			
Do the sample IDs on the bottle labels match the COC ⁽¹⁾ ?	✓			
Is the COC properly relinquished by the client w/ date and time recorded ⁽¹⁾ ?	✓			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		✓		
Are samples preserved that require preservation (excluding cooling) ⁽¹⁾ ?				
Note the type of preservative in the Comments column – HCl, H ₂ SO ₄ , NaOH, HNO ₃ , ect			✓	
If samples are acid preserved for metals, is the pH ≤ 2 ⁽¹⁾ ?			✓	
Record the pH in Comments.			✓	
If dissolved metals are requested, were samples field filtered?			✓	
Additional Comments (if any):				

⁽¹⁾ If NO, then contact the client before proceeding with analysis and note in case narrative.Nakita
Custodian Printed NameMA
Signature or Initials of Custodian8/2/17 1745
Date/Time



DCP Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH01R
1708022-01 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		95.1 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH02
1708022-02 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 10:50**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.5 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.2 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH03
1708022-03 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1.1	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.4 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		98.6 %	45-146		"	"	"	"	

Summit Scientific

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DCP Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH04
1708022-04 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	8.6	1.0	"	"	"	"	"	"	
Ethylbenzene	190	10	"	10	"	"	"	"	
Xylenes (total)	390	20	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:15**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		101 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.8 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH05
1708022-05 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	1700	10	ug/l	10	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	1	"	"	"	"	
Ethylbenzene	230	10	"	10	"	"	"	"	
Xylenes (total)	1400	20	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		101 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		96.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		100 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH06
1708022-06 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	3000	100	ug/l	100	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	2600	100	"	"	"	"	"	"	
Ethylbenzene	570	100	"	"	"	"	"	"	
Xylenes (total)	4100	200	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:25**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		105 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		103 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		97.5 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH07
1708022-07 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	26	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	5.3	1.0	"	"	"	"	"	"	
Ethylbenzene	130	10	"	10	"	"	"	"	
Xylenes (total)	1600	20	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:40**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<i>Surrogate: 1,2-Dichloroethane-d4</i>		108 %	37-154		"	"	"	"	
<i>Surrogate: Toluene-d8</i>		99.2 %	45-149		"	"	"	"	
<i>Surrogate: 4-Bromofluorobenzene</i>		107 %	45-146		"	"	"	"	

Summit Scientific

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DCP Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH08
1708022-08 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:30**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		102 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.2 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		99.4 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH09
1708022-09 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:20**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		103 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.3 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.6 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH10
1708022-10 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 10:45**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		104 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.7 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		96.7 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH11
1708022-11 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/08/17	08/08/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 10:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		110 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		98.4 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		97.8 %	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 Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

BH12
1708022-12 (Water)

Summit Scientific

Volatile Organic Compounds by EPA Method 8260B

Date Sampled: **08/02/17 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Benzene	ND	1.0	ug/l	1	1708047	08/05/17	08/05/17	EPA 8260B	
Toluene	ND	1.0	"	"	"	"	"	"	
Ethylbenzene	ND	1.0	"	"	"	"	"	"	
Xylenes (total)	ND	2.0	"	"	"	"	"	"	

Date Sampled: **08/02/17 11:05**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Surrogate: 1,2-Dichloroethane-d4		106 %	37-154		"	"	"	"	
Surrogate: Toluene-d8		99.3 %	45-149		"	"	"	"	
Surrogate: 4-Bromofluorobenzene		94.8 %	45-146		"	"	"	"	

Summit Scientific

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DCP Operating Company
370 17th Street #2500
Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

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 1708047 - EPA 5030 Water MS

Blank (1708047-BLK1)

Prepared & Analyzed: 08/05/17

Benzene	ND	1.0	ug/l							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes (total)	ND	2.0	"							
Surrogate: 1,2-Dichloroethane-d4	13.3		"	13.3		99.5	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	45-149			
Surrogate: 4-Bromofluorobenzene	13.1		"	13.3		98.4	45-146			

LCS (1708047-BS1)

Prepared & Analyzed: 08/05/17

Benzene	28.9	1.0	ug/l	33.3		86.7	51-132			
Toluene	34.0	1.0	"	33.3		102	51-138			
Ethylbenzene	38.1	1.0	"	33.1		115	58-146			
m,p-Xylene	73.5	2.0	"	66.5		110	57-144			
o-Xylene	35.2	1.0	"	32.7		108	53-146			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	37-154			
Surrogate: Toluene-d8	13.0		"	13.3		97.3	45-149			
Surrogate: 4-Bromofluorobenzene	12.8		"	13.3		96.1	45-146			

Matrix Spike (1708047-MS1)

Source: 1708022-01

Prepared & Analyzed: 08/05/17

Benzene	28.7	1.0	ug/l	33.3	ND	86.0	34-141			
Toluene	33.6	1.0	"	33.3	ND	101	27-151			
Ethylbenzene	38.4	1.0	"	33.1	ND	116	29-160			
m,p-Xylene	73.9	2.0	"	66.5	ND	111	20-166			
o-Xylene	35.4	1.0	"	32.7	ND	108	33-159			
Surrogate: 1,2-Dichloroethane-d4	14.0		"	13.3		105	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.8	45-149			
Surrogate: 4-Bromofluorobenzene	12.9		"	13.3		96.8	45-146			

Summit Scientific

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Denver CO, 80202

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Project Manager: Steve Weathers

Reported:
08/09/17 15:07

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 1708047 - EPA 5030 Water MS

Matrix Spike Dup (1708047-MSD1)		Source: 1708022-01			Prepared & Analyzed: 08/05/17					
Benzene	29.1	1.0	ug/l	33.3	ND	87.2	34-141	1.39	32	
Toluene	33.8	1.0	"	33.3	ND	101	27-151	0.356	25	
Ethylbenzene	38.2	1.0	"	33.1	ND	116	29-160	0.444	50	
m,p-Xylene	73.7	2.0	"	66.5	ND	111	20-166	0.244	36	
o-Xylene	35.5	1.0	"	32.7	ND	109	33-159	0.282	26	
Surrogate: 1,2-Dichloroethane-d4	15.2		"	13.3		114	37-154			
Surrogate: Toluene-d8	12.9		"	13.3		96.9	45-149			
Surrogate: 4-Bromofluorobenzene	13.2		"	13.3		98.9	45-146			

Summit Scientific

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Denver CO, 80202

Project: Tampa Compressor Station
Project Number: [none]
Project Manager: Steve Weathers

Reported:
08/09/17 15:07

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