WATTENBERG DISPOSAL, LLC

DENVER ENERGY CENTER

1675 BROADWAY, 28TH FLOOR

DENVER, COLORADO 80202-4628

TELEPHONE (303) 825-4822

FACSIMILE (303) 825-4825

WWW.KPK.COM

July 31, 2017

Mr. Don Breffle
United States EPA Region 8
8OC-EISC
1595 Wynkoop Street
Denver, CO 80202-1129

CO10938-02115

RE: Wattenberg Disposal, LLC
Suckla Farms Injection Well #1 – 2017 2nd Quarterly Report

Dear Mr. Breffle;

Enclosed please find Wattenberg Disposal, LLC's (Wattenberg) Quarterly Injection Report for the period of April 1, 2017 through June 30, 2017, for the Suckla Farms Injection Well #1 facility (facility) located in the SWNW Section 10, T1N, R67W, in Weld County, Colorado.

The Semi-Annual Groundwater Monitoring Report by Apex Consulting Services has been included. The next semi-annual groundwater monitoring event is scheduled for November 2017. Following the conclusion of the next semi-annual groundwater monitoring event, the data will be evaluated to determine if there is a significant change in groundwater elevation and/or quality.

Monthly analysis of waste fluid stored at the facility performed by Summit Scientific has been included within the included quarterly report. Comparison of the waste fluid analyses with the established three (3) year baseline has also been included. A change in total dissolved solids (TDS) was observed during the sampling process. Recently improved operational procedures at the injection facility are believed to be causing increased agitation of fluids within the storage tanks, affecting samples collected, resulting in higher TDS. As such, the sampling location will be adjusted to be more representative of actual injected fluids.

No seismic events with a magnitude of 2.5 or greater were recorded by the U.S. Geological Survey within fifty (50) miles of the facility.

U2 Entered
Date 8/07/17
Initial JB

Sincerely,

Susana Lara-Mesa
VP of Engineering

Enclosures

Cc: Eric Jacobs, CDPHE
Stuart Ellsworth, COGCC
James Taloumis, WCDPHE
KPK file

TAB	GREEN	BLUE	CBI
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WATTENBERG DISPOSAL, LLC

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DENVER, COLORADO 80202-4628

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July 31, 2017

Mr. Eric Jacobs
Colorado Department of Public Health and Environment
HM-WMD-B2
4300 Cherry Creek Drive South
Denver, CO 80246-1530

RE: Wattenberg Disposal, LLC
Suckla Farms Injection Well #1 – 2017 2nd Quarterly Report

Dear Mr. Jacobs;

Enclosed please find Wattenberg Disposal, LLC's (Wattenberg) Quarterly Injection Report for the period of April 1, 2017 through June 30, 2017, for the Suckla Farms Injection Well #1 facility (facility) located in the SWNW Section 10, T1N, R67W, in Weld County, Colorado.

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No seismic events with a magnitude of 2.5 or greater were recorded by the U.S. Geological Survey within fifty (50) miles of the facility.

If you have any questions or need additional information, please do not hesitate contacting me at 303-825-4822 or slaramesa@kpk.com

Sincerely,

Susana Lara-Mesa
VP of Engineering

Enclosures

Cc: Don Breffle, EPA
James Taloumis, WCDPHE
Stuart Ellsworth, COGCC
KPK files

WATTENBERG DISPOSAL, LLC

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DENVER, COLORADO 80202-4628

TELEPHONE (303) 825-4822

FACSIMILE (303) 825-4825

WWW.KPK.COM

July 31, 2017

Mr. James Taloumis
Environmental Health Specialist
Weld County Department of Public Health and Environment
1555 North 17th Ave.
Greeley, CO 80631

RE: Wattenberg Disposal, LLC
Suckla Farms Injection Well #1 – 2017 2nd Quarterly Report

Dear Mr. Taloumis;

Enclosed please find Wattenberg Disposal, LLC's (Wattenberg) Quarterly Injection Report for the period of April 1, 2017 through June 30, 2017, for the Suckla Farms Injection Well #1 facility (facility) located in the SWNW Section 10, T1N, R67W, in Weld County, Colorado.

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No seismic events with a magnitude of 2.5 or greater were recorded by the U.S. Geological Survey within fifty (50) miles of the facility.

Sincerely,

Susana Lara-Mesa
VP of Engineering

Enclosures

Cc: Don Breffle, EPA
Eric Jacobs, CDPHE
Stuart Ellsworth, COGCC
KPK files

WATTENBERG DISPOSAL, LLC

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DENVER, COLORADO 80202-4628

TELEPHONE (303) 825-4822

FACSIMILE (303) 825-4825

WWW.KPK.COM

July 31, 2017

Mr. Stuart Ellsworth
Colorado Oil and Gas Conservation Commission
1120 Lincoln Street, Suite 801
Denver, CO 80203

RE: Wattenberg Disposal, LLC
Suckla Farms Injection Well #1 – 2017 2nd Quarterly Report

Dear Mr. Ellsworth;

Enclosed please find Wattenberg Disposal, LLC's (Wattenberg) Quarterly Injection Report for the period of April 1, 2017 through June 30, 2017, for the Suckla Farms Injection Well #1 facility (facility) located in the SWNW Section 10, T1N, R67W, in Weld County, Colorado.

Please note for your records that Wattenberg Disposal, LLC is the owner of the above-referenced Class I UIC commercial injection facility, which is under the joint jurisdiction of the Environmental Protection Agency (EPA) and the Colorado Department of Public Health and Environment (CDPHE). Wattenberg Disposal, LLC provides Quarterly and other reports to your agency as a courtesy only.

If you have any questions or need additional information, please do not hesitate contacting me at 303-825-4822 or slaramesa@kpk.com.

Sincerely,

Susana Lara-Mesa
VP of Engineering

Enclosures

Cc: Don Breffle, EPA
James Taloumis, WCDPHE
Eric Jacobs, CDPHE
KPK file

WATTENBERG DISPOSAL, LLC

Suckla Farms Injection Well #1
Class I Nonhazardous Industrial Waste
Permit # CO10938-02115

Weld County, Colorado

2017 2nd Quarter Report

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1. 2nd Quarter 2017 EPA Injection Well Monitoring Report
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   b. May 2017 Injection Report
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2. 2nd Quarter 2017 Analog Charts

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   a. April 2017 Waste Fluid Analysis
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   c. June 2017 Waste Fluid Analysis

4. 1st Quarter 2017 Lease Injection Data

5. 2nd Quarter 2017 Lease Injection Data

6. Groundwater Report

OMB No. 2040-0042 Approval Expires 12/31/2018

EPA

United States Environmental Protection Agency
Washington, DC 20460

Injection Well Monitoring Report

Year 2017	Month	Month	Month
Injection Pressure (PSI)	April	May	June
1. Minimum	0.00	0.00	0.00
2. Average	502.10	317.00	211.26
3. Maximum	993.00	905.00	967.00
Injection Rate (Gal/Min)	April	May	June
1. Minimum	0.00	0.00	0.00
2. Average	1388.83	881.21	687.11
3. Maximum	2050.00	2139.00	2020.00
Annular Pressure (PSI)	April	May	June
1. Minimum	0.00	0.00	0.00
2. Average	74.77	44.32	42.86
3. Maximum	104.00	115.00	130.53
Injection Volume (Gal)	April	May	June
1. Monthly Total	582414	301854	320670
2. Yearly Cumulative	9842691	10144545	10465215
Temperature (F °)	April	May	June
1. Minimum	80	87	98
2. Average	45	55	68
3. Maximum	22	32	46
pH	April	May	June
1. Minimum	6.79	6.78	6.65
2. Average	6.79	6.78	6.65
3. Maximum	6.79	6.78	6.65
Other	April	May	June
Class I - Non-Hazardous	0	0	0
Class I - Non-Hazardous Cumlative	0	0	0

Name and Address of Permittee		Permit Number
Wattenberg Disposal, LLC, 8979 WCR 22, Ft. Lupton, CO 80621		CO-10938-2115
Name and Official Title *(Please type or print)*	**Signature**	**Date Signed**
Susana Lara-Mesa, VP of Engineering	Slara M	07/28/2017

EPA Form 7520-8 (Rev. 12-11)

Paperwork Reduction Act

The public reporting and record keeping burden for this collection of information is estimated to average 25 hours per quarter for operators of Class I hazardous wells, 16 hours per quarter for operators of Class I non-hazardous wells, and 30 hours per quarter for operators of Class III wells.

Burden means the total time, effort, or financial resource expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal Agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to the collection of information; search data sources; complete and review the collection of information; and, transmit or otherwise disclose the information. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including the use of automated collection techniques to Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822), 1200 Pennsylvania Ave., NW., Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed forms to this address.

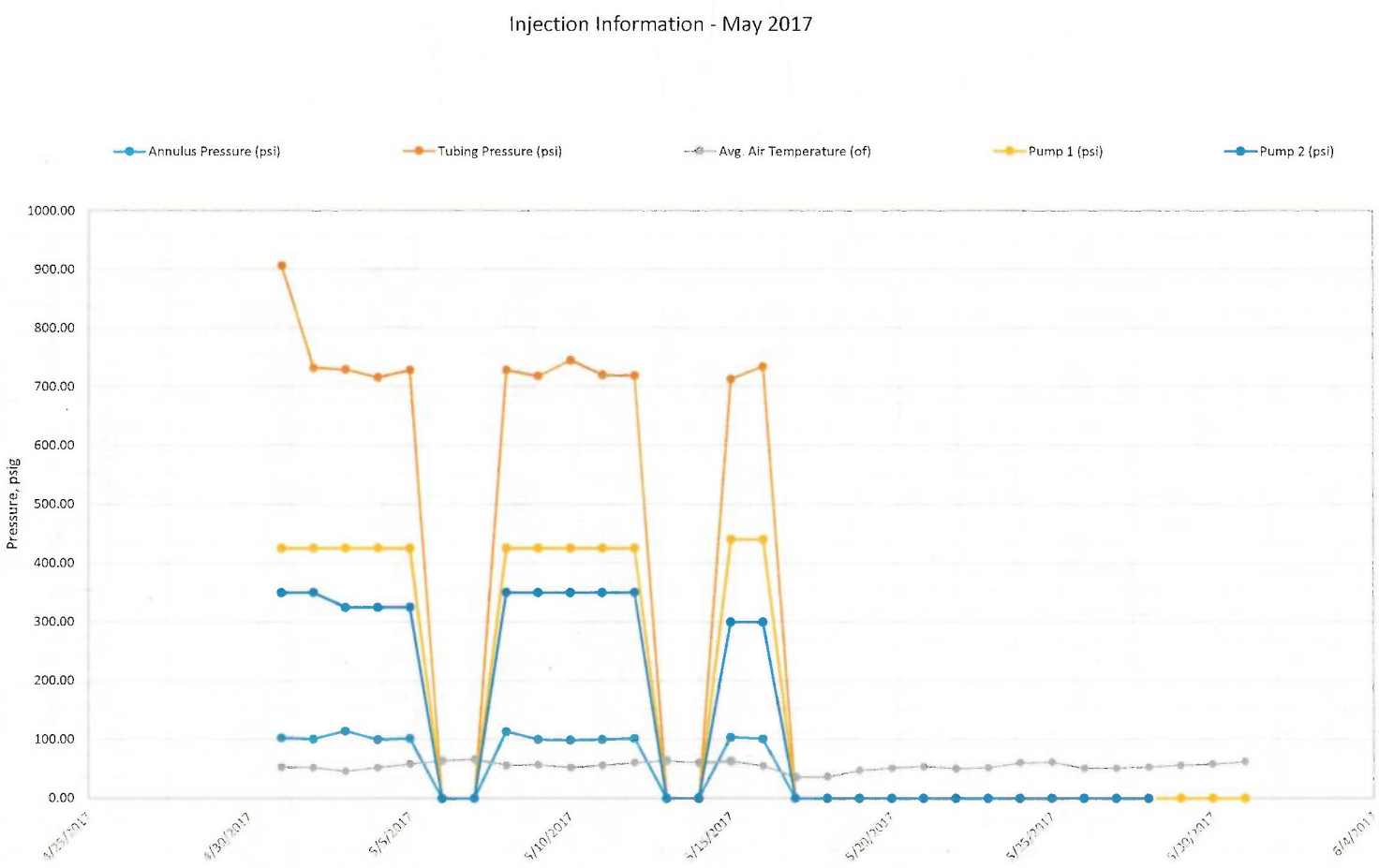
Wattenberg Disposal, LLC. Suckla Farms Injection Well #1 April 2017 Injection Report

Date	Injecting Fluid?	Pressured Annulus?	Injection Rate (bbl/day)	Tubing Pressure (psi)	Annulus Pressure (psi)	Initial Volume Meter (bbl)	Final Volume Meter (bbl)	Volume Injected (bbl)	Hauled DCP (bbl)	Hauled KPK (bbl)	Avg. Air Temperature (°f)	Pump 1 (psi)	Pump 2 (psi)
4/1/2017	Yes	Yes	1877.00	676.00	102.00	945104	945615	511	0	600	38	400	300
4/2/2017	No	No	0.00	0.00	0.00	945615	945615	0	0	480	46	0	0
4/3/2017	Yes	Yes	1975.00	665.00	101.00	945615	946461	846	0	1020	47	400	325
4/4/2017	Yes	Yes	1925.00	665.00	101.00	946461	947309	848	0	765	36	400	325
4/5/2017	Yes	Yes	2020.00	695.00	102.00	947309	948108	799	0	595	39	400	325
4/6/2017	Yes	Yes	1930.00	693.00	102.00	948108	948795	687	0	925	49	400	325
4/7/2017	Yes	Yes	1875.00	689.00	103.00	948795	949240	445	0	770	56	400	325
4/8/2017	No	No	0.00	0.00	0.00	949240	949240	0	0	0	62	0	0
4/9/2017	No	No	0.00	0.00	0.00	949240	949240	0	0	0	47	0	0
4/10/2017	Yes	Yes	1789.00	648.00	103.00	949240	949858	618	0	775	46	400	325
4/11/2017	Yes	Yes	1839.00	652.00	101.00	949858	950572	714	0	610	47	400	325
4/12/2017	Yes	Yes	1839.00	632.00	104.00	950572	951112	540	0	1050	54	400	325
4/13/2017	Yes	Yes	1803.00	634.00	103.00	951112	951868	756	0	810	57	400	325
4/14/2017	Yes	Yes	1865.00	626.00	102.00	951868	952464	596	0	1230	58	400	323
4/15/2017	Yes	Yes	1803.00	615.00	99.00	952464	952700	236	0	0	54	400	325
4/16/2017	No	No	0.00	0.00	0.00	952700	952700	0	0	0	52	0	325
4/17/2017	Yes	Yes	1823.00	623.00	102.00	952700	953245	545	0	715	57	425	325
4/18/2017	Yes	Yes	1745.00	640.00	101.00	953245	953898	653	0	930	60	425	325
4/19/2017	Yes	Yes	1720.00	640.00	104.00	953898	954523	625	0	855	56	425	325
4/20/2017	Yes	Yes	1710.00	680.00	99.00	954523	955196	673	0	615	49	425	325
4/21/2017	Yes	Yes	2001.00	702.00	104.00	955196	955771	575	0	730	44	425	300
4/22/2017	No	No	0.00	0.00	0.00	955771	955771	0	0	0	47	0	0
4/23/2017	No	No	0.00	0.00	0.00	955771	955771	0	0	0	54	0	0
4/24/2017	Yes	Yes	2006.00	701.00	101.00	955771	956458	687	0	620	55	425	300
4/25/2017	Yes	Yes	2047.00	703.00	103.00	956458	957111	653	0	670	46	425	325
4/26/2017	Yes	Yes	2004.00	703.00	102.00	957111	957680	569	0	195	45	425	360
4/27/2017	Yes	Yes	2050.00	993.00	102.00	957680	958399	719	0	695	46	425	325
4/28/2017	Yes	Yes	2019.00	788.00	102.00	958399	958971	572	0	980	42	425	350
4/29/2017	No	No	0.00	0.00	0.00	958971	958971	0	0	0	32	0	0
4/30/2017	No	No	0.00	0.00	0.00	958971	958971	0	0	0	43	0	0
Average			1388.83	502.10	74.77								
Minimum			0.00	0.00	0.00								
Maximum			2050.00	993.00	104.00								
TOTAL								13867	0	16635			

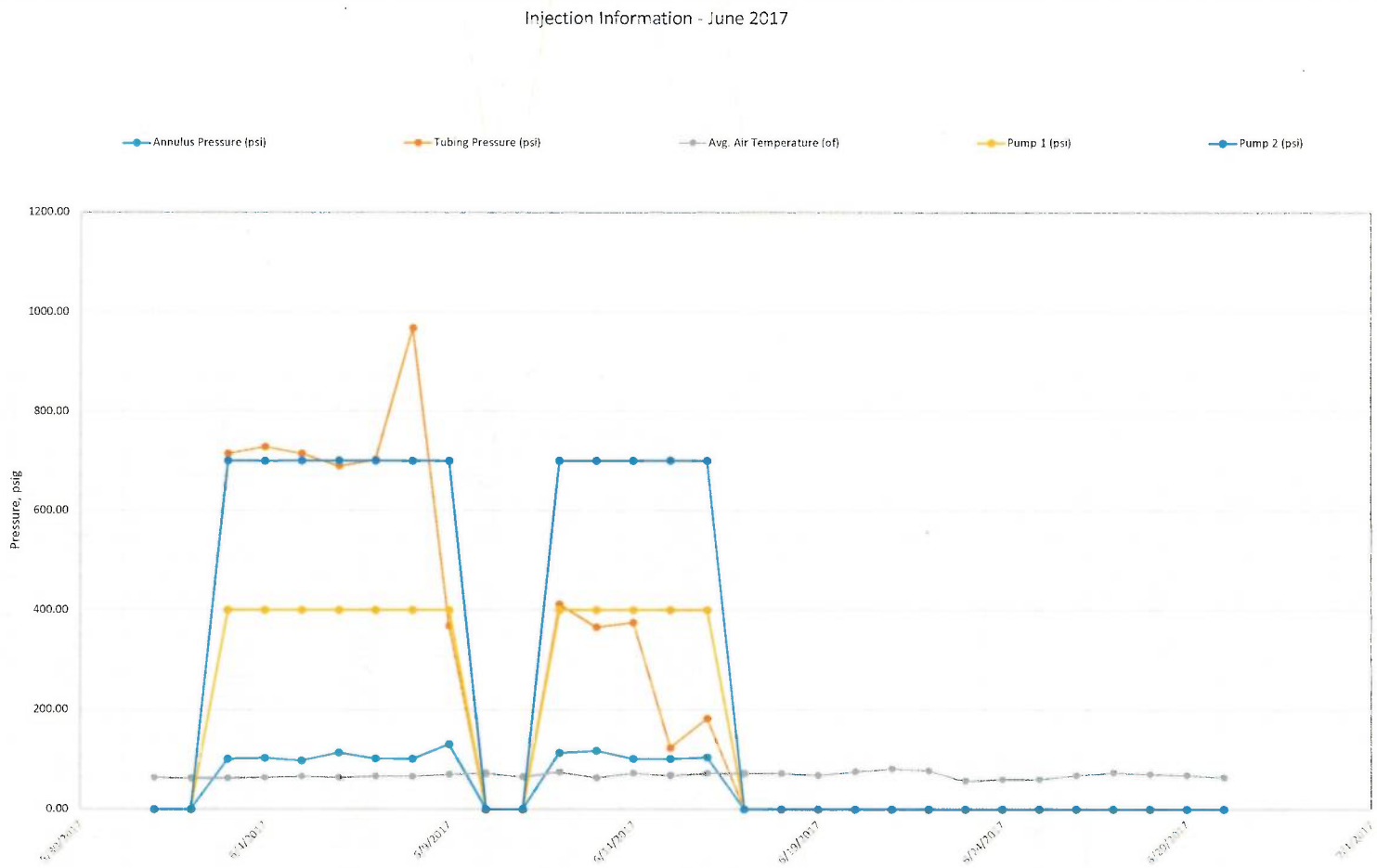
Injection Information - April 2017
Annulus Pressure (psi)
Tubing Pressure (psi)
Avg. Air Temperature (of)
Pump 1 (psi)
Pump 2 (psi)
Pressure, psig
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00
3/26/2017
3/31/2017
4/5/2017
4/10/2017
4/15/2017
4/20/2017
4/25/2017
4/30/2017
5/5/2017

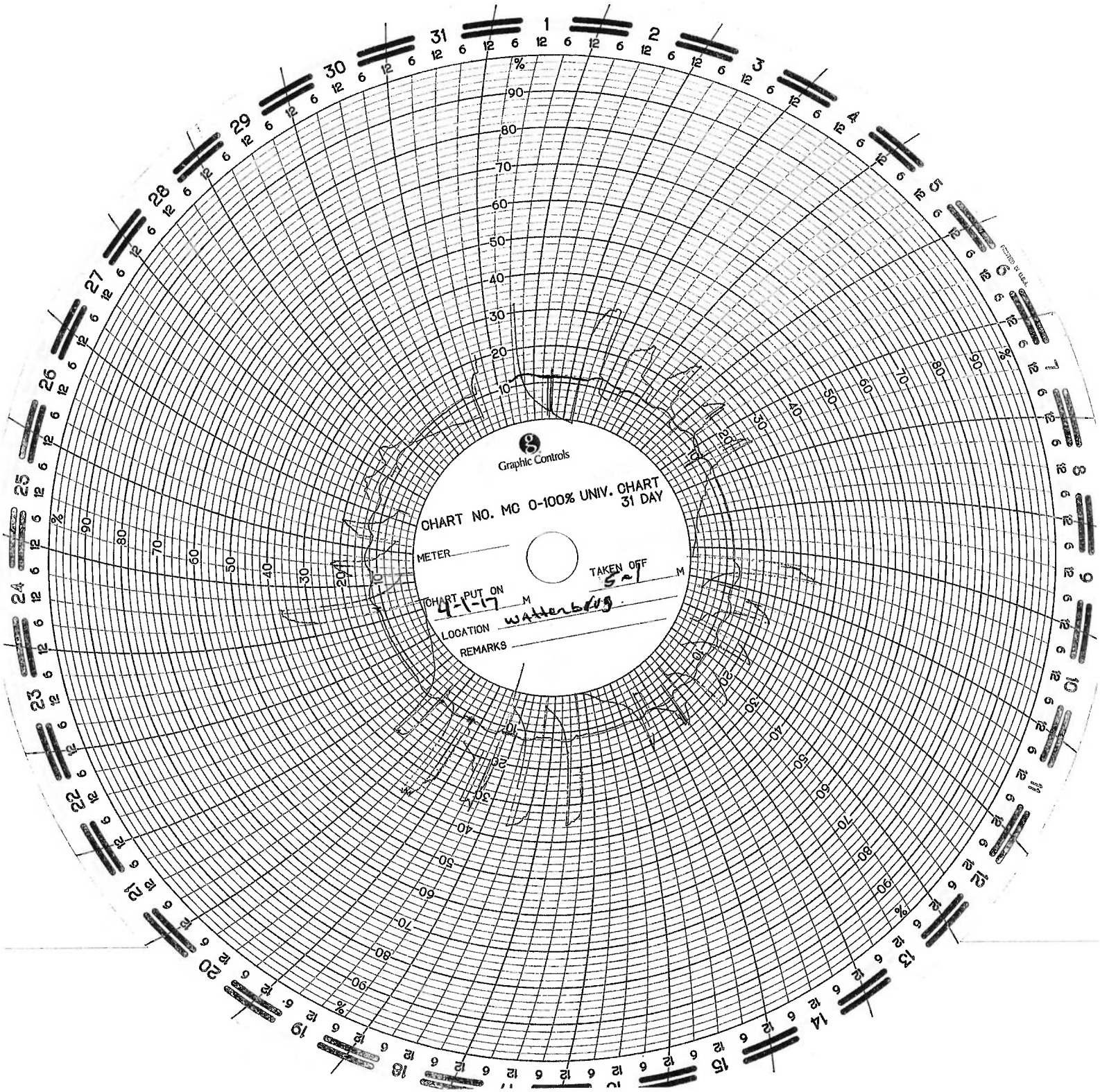
Wattenberg Disposal, LLC. Suckla Farms Injection Well #1 May 2017 Injection Report

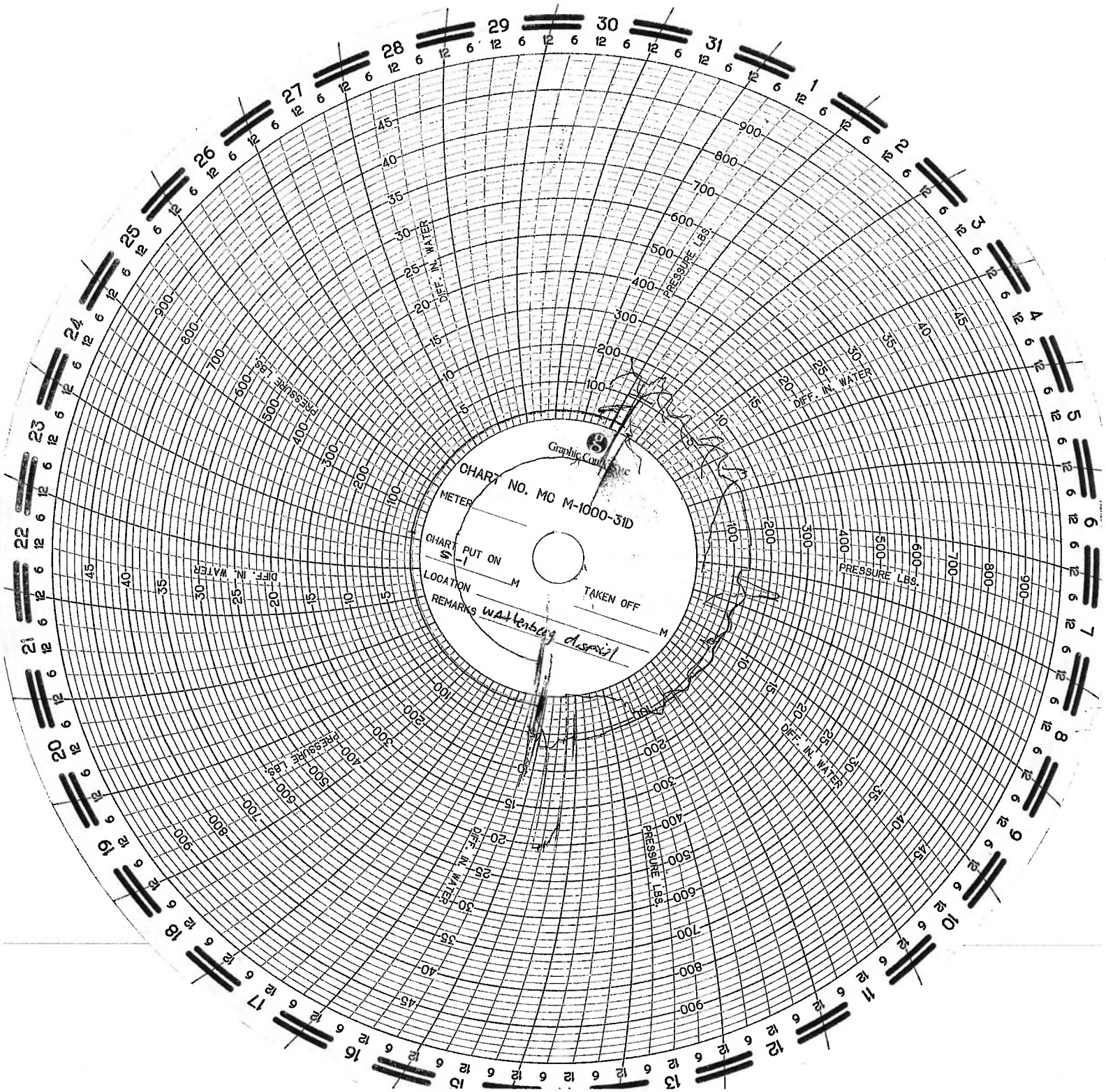
Date	Injecting Fluid?	Pressured Annulus?	Injection Rate (bbl/day)	Tubing Pressure (psi)	Annulus Pressure (psi)	Initial Volume Meter (bbl)	Final Volume Meter (bbl)	Volume Injected (bbl)	Hauled DCP (bbl)	Hauled KPK (bbl)	Avg. Air Temperature (°f)	Pump 1 (psi)	Pump 2 (psi)
5/1/2017	Yes	Yes	2049.00	905.00	103.00	958971	959580	609	0	717	53	425	350
5/2/2017	Yes	Yes	2087.00	731.00	101.00	959580	960155	575	0	390	52	425	350
5/3/2017	Yes	Yes	2064.00	728.00	115.00	960155	960689	534	0	765	46	425	325
5/4/2017	Yes	Yes	2028.00	715.00	100.00	960689	961405	716	0	569	52	425	325
5/5/2017	Yes	Yes	2013.00	727.00	102.00	961405	962167	762	0	875	58	425	325
5/6/2017	No	No	0.00	0.00	0.00	962167	962167	0	0	0	64	0	0
5/7/2017	No	No	0.00	0.00	0.00	962167	962167	0	0	0	66	0	0
5/8/2017	Yes	Yes	2012.00	727.00	114.00	962167	962868	701	0	795	56	425	350
5/9/2017	Yes	Yes	2044.00	717.00	100.00	962868	963552	684	0	455	57	425	350
5/10/2017	Yes	Yes	2139.00	744.00	99.00	963552	964096	544	0	770	52	425	350
5/11/2017	Yes	Yes	2089.00	719.00	100.00	964096	964760	664	0	1040	56	425	350
5/12/2017	Yes	Yes	2027.00	718.00	102.00	964760	965146	386	0	465	60	425	350
5/13/2017	No	No	0.00	0.00	0.00	965146	965146	0	0	0	64	0	0
5/14/2017	No	No	0.00	0.00	0.00	965146	965146	0	0	0	60	0	0
5/15/2017	Yes	Yes	2022.00	712.00	104.00	965146	966039	893	0	0	63	440	300
5/16/2017	Yes	Yes	2100.00	733.00	101.00	966039	966158	119	0	0	55	440	300
5/17/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	36	0	0
5/18/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	36	0	0
5/19/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	47	0	0
5/20/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	51	0	0
5/21/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	54	0	0
5/22/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	50	0	0
5/23/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	52	0	0
5/24/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	60	0	0
5/25/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	61	0	0
5/26/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	51	0	0
5/27/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	51	0	0
5/28/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	53	0	0
5/29/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	0	56	0	0
5/30/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	220	58	0	0
5/31/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	320	62	0	0
Average			881.21	317.00	44.32								
Minimum			0.00	0.00	0.00								
Maximum			2139.00	905.00	115.00								
TOTAL								7187	0	7381			

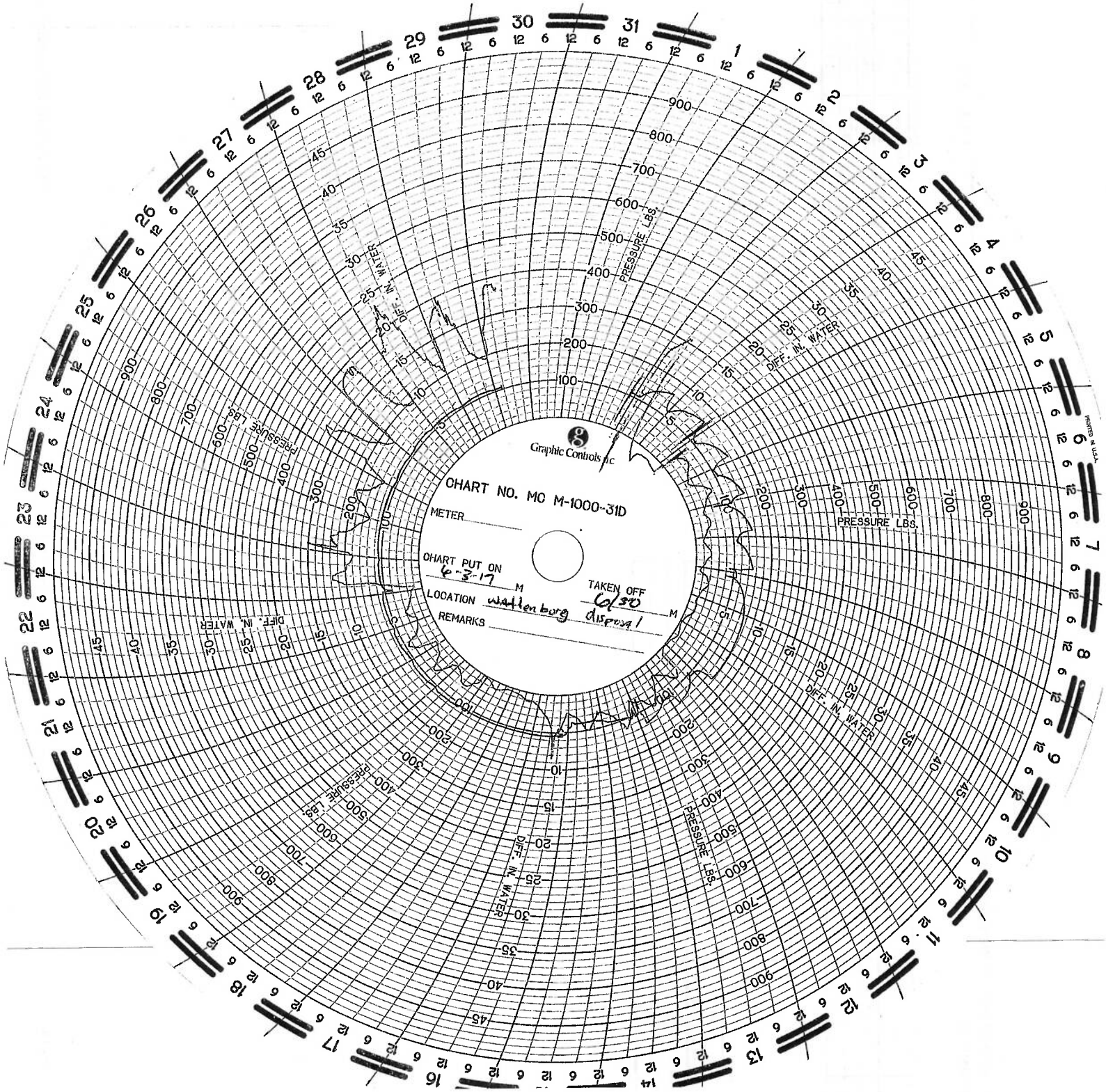

Injection Information - May 2017
Annulus Pressure (psi)
Tubing Pressure (psi)
Avg. Air Temperature (of)
Pump 1 (psi)
Pump 2 (psi)
Pressure, psig
1000.00
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
4/25/2017
4/30/2017
5/5/2017
5/10/2017
5/15/2017
5/20/2017
5/25/2017
5/30/2017
6/4/2017

Date	Injecting Fluid?	Pressured Annulus?	Injection Rate (bbl/day)	Tubing Pressure (psi)	Annulus Pressure (psi)	Initial Volume Meter (bbl)	Final Volume Meter (bbl)	Volume Injected (bbl)	Hauled DCP (bbl)	Hauled KPK (bbl)	Avg. Air Temperature (°f)	Pump 1 (psi)	Pump 2 (psi)
6/1/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	340	63	0	0
6/2/2017	No	No	0.00	0.00	0.00	966158	966158	0	0	492	62	0	0
6/3/2017	Yes	Yes	2017.00	714.00	101.00	966158	966695	537	0	0	62	400	700
6/4/2017	Yes	Yes	2005.00	728.00	103.00	966695	967037	342	0	0	64	400	700
6/5/2017	Yes	Yes	2014.00	714.00	98.00	967037	967668	631	0	650	66	400	700
6/6/2017	Yes	Yes	1997.00	689.00	114.00	967668	968396	728	0	1065	64	400	700
6/7/2017	Yes	Yes	2014.00	702.00	102.00	968396	969002	606	0	1215	66	400	700
6/8/2017	Yes	Yes	2020.00	967.00	101.00	969002	969613	611	0	801	66	400	700
6/9/2017	Yes	Yes	849.17	368.10	130.53	969613	970309	696	0	1195	70	400	700
6/10/2017	No	No	0.00	0.00	0.00	970309	970309	0	0	0	72	0	0
6/11/2017	No	No	0.00	0.00	0.00	970309	970309	0	0	0	65	0	0
6/12/2017	Yes	Yes	898.08	410.62	113.15	970309	971043	734	0	660	74	400	700
6/13/2017	Yes	Yes	790.07	365.48	117.15	971043	971769	726	0	695	63	400	700
6/14/2017	Yes	Yes	2012.00	374.56	101.00	971769	972388	619	0	750	72	400	700
6/15/2017	Yes	Yes	1987.00	123.00	101.00	972388	973117	729	0	495	67	400	700
6/16/2017	Yes	Yes	2010.00	182.00	104.00	973117	973793	676	0	450	72	400	700
6/17/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	72	0	0
6/18/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	72	0	0
6/19/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	68	0	0
6/20/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	75	0	0
6/21/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	81	0	0
6/22/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	77	0	0
6/23/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	56	0	0
6/24/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	60	0	0
6/25/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	60	0	0
6/26/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	68	0	0
6/27/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	73	0	0
6/28/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	70	0	0
6/29/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	68	0	0
6/30/2017	No	Yes	0.00	0.00	0.00	973793	973793	0	0	0	64	0	0
Average			687.11	211.26	42.86								
Minimum			0.00	0.00	0.00								
Maximum			2020.00	967.00	130.53								
TOTAL								7635	0	8808			


Injection Information - June 2017
Annulus Pressure (psi)
Tubing Pressure (psi)
Avg. Air Temperature (of)
Pump 1 (psi)
Pump 2 (psi)
Pressure, psig
1200.00
1000.00
800.00
600.00
400.00
200.00
0.00


Graphic Controls
CHART NO. MC 0-100% UNIV. CHART
31 DAY
METER
TAKEN OFF
M
CHART PUT ON
4-1-17
M
LOCATION
REMARKS


Graphic Controls Corp.
CHART NO. MC M-1000-31D
METER
CHART PUT ON
M
TAKEN OFF
M
LOCATION
REMARKS
DIFF. IN. WATER
PRESSURE LBS.


Graphic Controls Inc
CHART NO. MC M-1000-31D
METER
CHART PUT ON
6-3-17
M
TAKEN OFF
6/30
M
LOCATION
wallenburg disposal
REMARKS
PRESSURE LBS.
DIFF. IN. WATER
PRINTED IN U.S.A.

Suckla Farms #1 Well 2nd Qtr. Waste Fluid Analysis Data - 2017
Baseline Comparison

	General Chemistry									Dissolved Metals			
Date	Chloride (mg/l)	HEM Oil & Grease (mg/l)	Nitrogen, Nitrate (mg/l)	Nitrogen, Nitrite (mg/l)	TDS (mg/l)	SG	Sulfate (mg/l)	Total Organic Carbon (mg/l)	pH	Calcium (ug/l)	Magnesium (ug/l)	Potassium (ug/l)	Sodium (ug/l)
4/28/2017	13900	270.0	19.1	ND	30200	1.012	13.3	111.5	6.79	230000	36400	209000	5970000
5/30/2017	460	42.6	7.75	ND	29900	1.0039	5.7	168.0	6.78	33700	38800	78200	4340000
6/28/2017	819	165	ND	533	37200	1.020	3030.0	1269.9	6.65	746000	71.1	117000	8510000

Baseline data based on three (3) years of monitoring events (2014-2012)

	TDS (mg/l)	pH	SG
Average:	16778.571	7.374	1.011

Baseline Data Comparison

Date	pH	TDS	TDS Difference	SG	SG Difference
	<2 and/or >12.5	20% > Baseline	TDS/Baseline	10% > Baseline	SG/Baseline
4/28/2017	No	Yes	80.0%	No	0.1%
5/30/2017	No	Yes	78.2%	No	-0.7%
6/28/2017	No	Yes	121.7%	No	0.9%

Summit Scientific

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401
303.277.9310 - laboratory ♦ 303.277.9531 - fax

April 28, 2017

Susana Lara-Mesa
K.P. Kauffman Company, Inc
1675 Broadway, Suite 2800
Denver, CO 80202-4628
RE: Wattenberg Tank

Enclosed are the results of analyses for samples received by Summit Scientific on 04/20/17 14:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury
President

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tank-1	1704214-01	Water	04/20/17 00:00	04/20/17 14:05

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	Reported: 04/28/17 07:59

CHAIN OF CUSTODY

1704214

APEX CONSULTING SERVICES, INC.
BOX 369, LOUSIVILLE, CO 80027-0369
303-665-1400

FED-EX Tracking # | Bottle Order Control # | Accutest Quote # | Accutest Job #

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver State: CO Zip: 80202-4628
Project Contact: Susana Lara-Mesa SLaraMesa@kpk.com
Phone #: 303-825-4822
Sampler's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: U	HCl	HNO3	H2SO4	NaOH	NaHSO4	NaOH+ZnAc	ZnOAc	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - I		4/20	-	MDH	LIQ	5				X					X	X	X	X	X	X	X					

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Turnaround Time (Business days): X Std.

Approved By / Date:

Data Deliverable Information: Commercial "A"; Commercial "B"; NJ Reduced; NJ Full; X Hard Copy; FULL CLP; NYASP Category A; NYASP Category B; State Forms; X PDF

Comments / Remarks: Full QA/QC Package Needed for Report; PDF copy to Susan Lara-Mesa at Slaramesa@kpk.com; PDF copy to Mike Hattel with APEX at mhattel@msn.com

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date:	Received By:	Date Time:
[signature]	4/20/17	[signature] 4-20-17	14:05
Relinquished by: [signature] 4-20-17	Date Time: 18:10	Received By:	Date Time:
Relinquished By:	Date Time:	Received By:	Custody Seal # / Preserved where applicable / On Ice / Cooler Temp.

5.4°C on ice

S2

Sample Receipt Checklist

S2 Work Order 1704214

Client [redacted] Apex Client Project ID Wattenberg Tank

Shipped Via H.D. on ice (UPS FedEx Hand Delivered Pick-up etc.) Airbill # _____

Matrix (check all that apply) ____Air ____Soil/Solid ✓ Water ____Other _____ (Describe)

Cooler ID				
Temp (°C)	5.4			

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 [1]? NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.	✓			on ice
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?	✓		✓	pH. Nitrate/Nitrite
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, H2SO4, NaOH, HNO3, ect	✓			H_2SO_4
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.**

Muri P. — **Custodian Printed Name**

MR 4-20-17 — **Signature or Initials of Custodian**

15:00 — **Date/Time**

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	Reported: 04/28/17 07:59

Tank-1
1704214-01 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **04/20/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**230**	0.0500	mg/L	1	1704253	04/25/17	04/25/17	EPA 200.8	
Magnesium	**36.4**	0.0500	"	"	"	"	"	"	
Potassium	**209**	0.0500	"	"	"	"	"	"	
Sodium	**5970**	0.0500	"	"	"	"	"	"	

Oil and Grease by EPA 1664A (Aqueous)

Date Sampled: **04/20/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Oil & Grease (HEM)	**270**	5.00	mg/L	1	1704238	04/21/17	04/24/17	EPA 1664A	

Anions by EPA Method 300.0

Date Sampled: **04/20/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nitrate + Nitrite as N	**19.1**	0.820	mg/L	1	[CALC]	04/21/17	04/21/17	Calculation	
Sulfate	**13.3**	1.00	"	"	1704229	"	"	EPA 300.0	
Nitrite as N	ND	0.0200	"	"	"	"	"	"	
Chloride	**13900**	5000	"	5000	"	"	"	"	
Nitrate as N	**19.1**	0.800	"	1	"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **04/20/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**6.79**	1.00	pH Units	1	1704228	04/20/17	04/20/17	SM 4500_H+	

Specific Gravity, SM 2710 F

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Tank-1
1704214-01 (Water)

Summit Scientific

Specific Gravity, SM 2710 F

Date Sampled: **04/20/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Gravity	**1.0120**	0.0010000	N/A	1	1704291	04/27/17	04/27/17	SM 2710 F, Specific Gravity	

Total Dissolved Solids by 160.1

Date Sampled: **04/20/17 00:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	**30200**	8.00	mg/L	1	1704254	04/25/17	04/25/17	EPA 160.1	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Total Metals by EPA Method 200.8 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1704253 - EPA 200.8										
Blank (1704253-BLK1)				Prepared & Analyzed: 04/25/17						
Calcium	ND	0.0500	mg/L							
Magnesium	ND	0.0500	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (1704253-BS1)				Prepared & Analyzed: 04/25/17						
Calcium	5.33	0.0500	mg/L	5.00		107	85-115			
Magnesium	5.01	0.0500	"	5.00		100	85-115			
Potassium	4.79	0.0500	"	5.00		95.8	85-115			
Sodium	5.21	0.0500	"	5.00		104	85-115			
Duplicate (1704253-DUP1)		**Source: 1704214-01**		Prepared & Analyzed: 04/25/17						
Calcium	256	0.0500	mg/L		230			10.6	20	
Magnesium	38.9	0.0500	"		36.4			6.80	20	
Potassium	234	0.0500	"		209			11.4	20	
Sodium	6410	0.0500	"		5970			6.98	20	
Matrix Spike (1704253-MS1)		**Source: 1704214-01**		Prepared & Analyzed: 04/25/17						
Calcium	243	0.0500	mg/L	5.00	230	266	75-125			QM-02
Magnesium	42.7	0.0500	"	5.00	36.4	126	75-125			QM-02
Potassium	224	0.0500	"	5.00	209	297	75-125			QM-02
Sodium	6240	0.0500	"	5.00	5970	NR	75-125			QM-02
Matrix Spike Dup (1704253-MSD1)		**Source: 1704214-01**		Prepared & Analyzed: 04/25/17						
Calcium	238	0.0500	mg/L	5.00	230	148	75-125	2.46	25	QM-02
Magnesium	41.6	0.0500	"	5.00	36.4	106	75-125	2.41	25	
Potassium	220	0.0500	"	5.00	209	217	75-125	1.79	25	QM-02
Sodium	6170	0.0500	"	5.00	5970	NR	75-125	1.07	25	QM-02

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Oil and Grease by EPA 1664A (Aqueous) - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1704238 - General Preparation										
Blank (1704238-BLK1)				Prepared: 04/21/17		Analyzed: 04/24/17				
Oil & Grease (HEM)	ND	5.00	mg/L							
LCS (1704238-BS1)				Prepared: 04/21/17		Analyzed: 04/24/17				
Oil & Grease (HEM)	39.0	5.00	mg/L	40.0		97.5	82.2-110			
Duplicate (1704238-DUP1)		**Source: 1704210-01**		Prepared: 04/21/17		Analyzed: 04/24/17				
Oil & Grease (HEM)	2.40	5.00	mg/L		2.00			18.2	20	
Matrix Spike (1704238-MS1)		**Source: 1704210-01**		Prepared: 04/21/17		Analyzed: 04/24/17				
Oil & Grease (HEM)	36.2	5.00	mg/L	40.0	2.00	85.5	80-110			

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1704229 - General Preparation										
Blank (1704229-BLK1)				Prepared & Analyzed: 04/21/17						
Nitrite as N	ND	0.0200	mg/L							
Chloride	ND	1.00	"							
Sulfate	ND	1.00	"							
Nitrate as N	ND	0.800	"							
LCS (1704229-BS1)				Prepared & Analyzed: 04/21/17						
Chloride	2.91	1.00	mg/L	3.00		97.1	90-110			
Nitrite as N	3.22	0.0200	"	3.00		107	90-110			
Sulfate	15.6	1.00	"	15.0		104	90-110			
Nitrate as N	2.97	0.800	"	3.00		99.1	90-110			
Duplicate (1704229-DUP1)		**Source: 1704214-01**		Prepared & Analyzed: 04/21/17						
Chloride	13800	5000	mg/L		13900			0.285	20	
Sulfate	13.4	1.00	"		13.3			0.465	20	
Nitrite as N	ND	0.0200	"		ND				10	
Nitrate as N	19.0	0.800	"		19.1			0.331	20	
Matrix Spike (1704229-MS1)		**Source: 1704214-01**		Prepared & Analyzed: 04/21/17						
Nitrite as N	ND	0.0200	mg/L	3.00	ND		90-110			QM-02
Sulfate	20.5	1.00	"	15.0	13.3	47.9	90-110			QM-02
Chloride	ND	1.00	"	3.00	13900	NR	90-110			QM-02
Nitrate as N	20.7	0.800	"	3.00	19.1	53.5	90-110			QM-02

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1704228 - General Preparation										
LCS (1704228-BS1)				Prepared & Analyzed: 04/20/17						
pH	8.02	1.00	pH Units	8.00		100	95-105			
Duplicate (1704228-DUP1)		**Source: 1704211-01**		Prepared & Analyzed: 04/20/17						
pH	7.56	1.00	pH Units		7.58			0.264	13.7	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Specific Gravity, SM 2710 F - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1704291 - General Preparation										
Duplicate (1704291-DUP1)		**Source: 1704214-01**		Prepared & Analyzed: 04/27/17						
Specific Gravity	1.0120	0.0010000	N/A		1.0120			0.00	20	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 04/28/17 07:59

Total Dissolved Solids by 160.1 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1704254 - General Preparation										
Blank (1704254-BLK1)				Prepared & Analyzed: 04/25/17						
Total Dissolved Solids	ND	8.00	mg/L							
Duplicate (1704254-DUP1)		**Source: 1704214-01**		Prepared & Analyzed: 04/25/17						
Total Dissolved Solids	30200	8.00	mg/L		30200			0.0663	20	

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.

Colorado Analytical
LABORATORIES, INC.

Analytical Results

TASK NO: 170421063

Report To: Paul Shrewsbury
Company: Summit Scientific
741 Corporate Circle, Suite J
Golden CO 80401

Bill To: Accounts Payable
Company: Summit Scientific
741 Corporate Circle, Suite J
Golden CO 80401

Task No.: 170421063
Client PO:
Client Project: 1704214

Date Received: 4/21/17
Date Reported: 5/2/17
Matrix: Water - Ground

Customer Sample ID Tank 1
Sample Date/Time: 4/20/17
Lab Number: 170421063-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Total Organic Carbon	**111.5 mg/L**	SM 5310-B	1.0 mg/L	5/1/17	ISG

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

DATA APPROVED FOR RELEASE BY

Chain of Custody Form

Report To Information	Bill To Information (If different from report to)	Project Name
Company Name: Summit Scientific Contact Name: Paul Shrewsbury	Company Name: Same Contact Name: ____	1704214 ____
Address: 741 Corporate Circle Suite J City Golden State CO Zip80401	Address: Same ____ City ____ State __ Zip ____	Task Number (Lab Use Only) CAL Task No. 170421063 EMN
Phone:303-277-9310 Fax:303-374-5933	Phone: Fax:	
Email: pshrewsbury@s2scientific.com	Email:	Disposal Date(Lab Use Only)
Sample Collector:	PO No.:	

Colorado Analytical Laboratories, Inc.

Brighton Lab
240 South Main Street
Brighton, CO 80601
Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Sample Matrix (Select One Only)

Waste Water ☐	Soil ☐	Plant Tissue ☐
Ground Water ☑	Sludge ☐	Other ☐
Surface Water ☐	Compost ☐	____

Date	Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	TOC
4/20/17	?	Tank-1	1	☑ ☐	☑

Instructions:

C/S Info:

Deliver Via: hand

C/S Charge ☐

Seals Present Yes ☐ No ☑

Temp. 6.6 °C/Ice Y

Sample Pres. Yes ☑ No ☐

Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	4/21/17 1528	Elise Nelson	4/21/17 1525				

S2

Notes and Definitions

QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
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

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401
303.277.9310 - laboratory ♦ 303.277.9531 - fax

July 27, 2017

Susana Lara-Mesa
K.P. Kauffman Company, Inc
1675 Broadway, Suite 2800
Denver, CO 80202-4628
RE: Wattenberg Groundwater

Enclosed are the results of analyses for samples received by Summit Scientific on 05/31/17 14:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Paul Shrewsbury
President

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tank - 1	1705301-01	Water	05/31/17 11:55	05/31/17 14:00

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

CHAIN OF CUSTODY

1705301

APEX CONSULTING SERVICES, INC.
BOX 369, LOUISVILLE, CO 80027-0369
303-665-1400

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #:

Client / Reporting Information

Company Name: K.P. Kauffman Company, Inc.
Address: 1675 Broadway, Suite 2800
City: Denver | State: CO | Zip: 80202-4628
Project Contact: Susana Lara-Mesa | SLaraMesa@kpk.com
Phone #: 303-825-4822
Samplers's Name: MICHAEL HATTEL (303-665-1400)

Project Information

Project Name: WATTENBERG TANK
Street:
City: Fort Lupton | State: CO
Project #:
Fax #:
Client Purchase Order #: 7591

Requested Analysis

Matrix Codes: DW- Drinking Water; GW- Ground Water; WW- Water; SW- Surface Water; SO- Soil; SL-Sludge; OI-Oil; LIQ- Other Liquid; AIR- Air; SOL-Other Solid; WP-Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	MEOH	HNO3	H2SO4	NaOH	NaHSO4	MEOH	NaCO3	OIL & GREASE 1664	ANIONS (NITRATE, NITRITE, SULFATE, CHLORIDE)	pH	CATIONS (Ca, K, Mg, NA)	SPECIFIC GRAVITY	TDS	TOC					LAB USE ONLY
	TANK - 1		5/31/17	1155	MDH	LIQ	1/5				x					X	X	X	X	X	X	X					

Turnaround Time (Business days): [X] Std.
Approved By / Date:

Data Deliverable Information:
- [ ] Commercial "A"
- [ ] Commercial "B"
- [ ] NJ Reduced
- [ ] NJ Full
- [X] Hard Copy
- [ ] FULL CLP
- [ ] NYASP Category A
- [ ] NYASP Category B
- [ ] State Forms
- [X] PDF

Comments / Remarks:
Full QA/QC Package Needed for Report
PDF copy to Susan Lara-Mesa at Slaramesa@kpk.com
PDF copy to Mike Hattel with APEX at mhattel@msn.com

Emergency T/A data available VIA Lablink

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date: 5/31/17 14:00	Received By:	Date Time:
Relinquished by: 5-31-17 16:00	Date Time:	Received By:	Date Time:
Relinquished by:	Date Time:	Received By:	Custody Seal # / Preserved where applicable / On Ice / Cooler Temp.

S2

Sample Receipt Checklist

S2 Work Order: 1705301

Client: K.P. Kauffman Client Project ID: Wattenberg Tank

Shipped Via: H.D. on ice (UPS, FedEx, Hand Delivered, Pick-up, etc.) Airbill #: _____

Matrix (check all that apply): ____Air ____Soil/Solid x Water ____Other: _____ (Describe)

Cooler ID					
Temp (°C)	11.8				

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 [1]? NOTE: If samples are delivered the same day of sampling, this requirement is waived provided that there is evidence that cooling has begun.	x			on ICI
Were all samples received intact [1]?	x			
Was adequate sample volume provided [1]?	x			
If custody seals are present, are they intact [1]?	~~x~~		x	
Are short holding time analytes or samples with HTs due within 48 hours present?			x	
Is a chain-of-custody (COC) form present and filled out completely [1]?	x			
Does the COC agree with the number and type of sample bottles received [1]?	x			
Do the sample IDs on the bottle labels match the COC [1]?	x			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	x			
For volatiles in water – is there headspace present? **If yes, contact client and note in narrative.**		x		
Are samples preserved that require preservation **(excluding cooling)**[1]? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	x			H_2SO_4 HNO_3
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?		x		
Additional Comments (if any):				

[1] **If NO, then contact the client before proceeding with analysis and note in case narrative.**

Muri P. — **Custodian Printed Name**

S.31-17 — **Signature or Initials of Custodian**

15:45 — **Date/Time**

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Tank - 1
1705301-01 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **05/31/17 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**337**	0.0500	mg/L	1	1706046	06/06/17	06/06/17	EPA 200.8	
Magnesium	**38.8**	0.0500	"	"	"	"	"	"	
Potassium	**78.2**	0.0500	"	"	"	"	"	"	
Sodium	**4340**	0.0500	"	"	"	"	"	"	

Oil and Grease by EPA 1664A (Aqueous)

Date Sampled: **05/31/17 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Oil & Grease (HEM)	**42.6**	5.00	mg/L	1	1706007	06/01/17	06/05/17	EPA 1664A	

Anions by EPA Method 300.0

Date Sampled: **05/31/17 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nitrate + Nitrite as N	**7.75**	0.820	mg/L	1	[CALC]	05/31/17	05/31/17	Calculation	
Sulfate	**5.69**	1.00	"	"	1705312	"	"	EPA 300.0	
Nitrite as N	ND	0.0200	"	"	"	"	"	"	
Chloride	**6270**	1000	"	1000	"	"	06/08/17	"	
Nitrate as N	**7.75**	0.800	"	1	"	"	05/31/17	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **05/31/17 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**6.78**	1.00	pH Units	1	1706012	05/31/17	05/31/17	SM 4500_H+	

Specific Gravity, SM 2710 F

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Tank - 1
1705301-01 (Water)

Summit Scientific

Specific Gravity, SM 2710 F

Date Sampled: **05/31/17 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Gravity	**1.0039**	0.0010000	N/A	1	1706094	06/08/17	06/08/17	SM 2710 F, Specific Gravity	

Total Dissolved Solids by 160.1

Date Sampled: **05/31/17 11:55**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	**29900**	8.00	mg/L	1	1706024	06/04/17	06/04/17	EPA 160.1	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Total Metals by EPA Method 200.8 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706046 - EPA 200.8										
Blank (1706046-BLK1)				Prepared & Analyzed: 06/06/17						
Calcium	ND	0.0500	mg/L							
Magnesium	ND	0.0500	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (1706046-BS1)				Prepared & Analyzed: 06/06/17						
Calcium	5.13	0.0500	mg/L	5.00		103	85-115			
Magnesium	5.45	0.0500	"	5.00		109	85-115			
Potassium	5.53	0.0500	"	5.00		111	85-115			
Sodium	5.54	0.0500	"	5.00		111	85-115			
Duplicate (1706046-DUP1)		**Source: 1705301-01**		Prepared & Analyzed: 06/06/17						
Calcium	368	0.0500	mg/L		337			8.81	20	
Magnesium	41.6	0.0500	"		38.8			7.06	20	
Potassium	85.3	0.0500	"		78.2			8.77	20	
Sodium	4610	0.0500	"		4340			6.13	20	
Matrix Spike (1706046-MS1)		**Source: 1705301-01**		Prepared & Analyzed: 06/06/17						
Calcium	363	0.0500	mg/L	5.00	337	528	75-125			QM-02
Magnesium	43.0	0.0500	"	5.00	38.8	84.6	75-125			
Potassium	83.7	0.0500	"	5.00	78.2	110	75-125			
Sodium	4820	0.0500	"	5.00	4340	NR	75-125			QM-02
Matrix Spike Dup (1706046-MSD1)		**Source: 1705301-01**		Prepared & Analyzed: 06/06/17						
Calcium	357	0.0500	mg/L	5.00	337	415	75-125	1.57	25	QM-02
Magnesium	44.0	0.0500	"	5.00	38.8	105	75-125	2.40	25	
Potassium	83.6	0.0500	"	5.00	78.2	109	75-125	0.0856	25	
Sodium	4540	0.0500	"	5.00	4340	NR	75-125	5.98	25	QM-02

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Oil and Grease by EPA 1664A (Aqueous) - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706007 - General Preparation										
Blank (1706007-BLK1)				Prepared: 06/01/17	Analyzed: 06/05/17					
Oil & Grease (HEM)	ND	5.00	mg/L							
LCS (1706007-BS1)				Prepared: 06/01/17	Analyzed: 06/05/17					
Oil & Grease (HEM)	42.4	5.00	mg/L	40.0		106	82.2-110			
Matrix Spike (1706007-MS1)		**Source: 1705301-01**		Prepared: 06/01/17	Analyzed: 06/05/17					
Oil & Grease (HEM)	82.2	5.00	mg/L	40.0	42.6	99.0	80-110			
Matrix Spike Dup (1706007-MSD1)		**Source: 1705301-01**		Prepared: 06/01/17	Analyzed: 06/05/17					
Oil & Grease (HEM)	84.2	5.00	mg/L	40.0	42.6	104	80-110	2.40	20	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1705312 - General Preparation										
Blank (1705312-BLK1)				Prepared & Analyzed: 05/31/17						
Nitrite as N	ND	0.0200	mg/L							
Sulfate	ND	1.00	"							
Chloride	ND	1.00	"							
Nitrate as N	ND	0.800	"							
LCS (1705312-BS1)				Prepared & Analyzed: 05/31/17						
Nitrite as N	3.13	0.0200	mg/L	3.00		104	90-110			
Chloride	3.08	1.00	"	3.00		103	90-110			
Sulfate	15.0	1.00	"	15.0		100	90-110			
Nitrate as N	3.00	0.800	"	3.00		100	90-110			
Duplicate (1705312-DUP1)		**Source: 1705281-01**		Prepared & Analyzed: 05/31/17						
Nitrite as N	ND	0.0200	mg/L		ND				10	
Sulfate	1040	100	"		1020			2.83	20	
Chloride	490	100	"		460			6.30	20	
Nitrate as N	ND	0.800	"		ND				20	
Matrix Spike (1705312-MS1)		**Source: 1705281-01**		Prepared & Analyzed: 05/31/17						
Nitrite as N	2.98	0.0200	mg/L	3.00	ND	99.5	90-110			
Sulfate	1010	1.00	"	15.0	1020	NR	90-110			QM-02
Chloride	421	1.00	"	3.00	460	NR	90-110			QM-02
Nitrate as N	3.02	0.800	"	3.00	ND	101	90-110			

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706012 - General Preparation										
LCS (1706012-BS1)				Prepared: 05/31/17 Analyzed: 06/08/17						
pH	8.04	1.00	pH Units	8.00		100	95-105			
Duplicate (1706012-DUP1)		**Source: 1706009-01**		Prepared & Analyzed: 05/31/17						
pH	7.60	1.00	pH Units		7.56			0.528	13.7	

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.

S2

Specific Gravity, SM 2710 F - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706094 - General Preparation										
Duplicate (1706094-DUP1)		**Source: 1705301-01**		Prepared & Analyzed: 06/08/17						
Specific Gravity	1.0035	0.0010000	N/A		1.0039			0.0392	20	

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Groundwater Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 07/27/17 16:01

Total Dissolved Solids by 160.1 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706024 - General Preparation										
Blank (1706024-BLK1)				Prepared & Analyzed: 06/04/17						
Total Dissolved Solids	ND	8.00	mg/L							
Duplicate (1706024-DUP1)		**Source: 1706020-01**		Prepared & Analyzed: 06/04/17						
Total Dissolved Solids	1010	8.00	mg/L		1020			0.691	20	

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.

Colorado Analytical
LABORATORIES, INC.

Analytical Results

TASK NO: 170601010

Report To: Paul Shrewsbury
Company: Summit Scientific
741 Corporate Circle, Suite J
Golden CO 80401

Bill To: Accounts Payable
Company: Summit Scientific
741 Corporate Circle, Suite J
Golden CO 80401

Task No.: 170601010
Client PO:
Client Project: 1705301

Date Received: 6/1/17
Date Reported: 6/9/17
Matrix: Wastewater

Customer Sample ID Tank 1
Sample Date/Time: 5/31/17 11:55 AM
Lab Number: 170601010-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Total Organic Carbon	**168.0 mg/L**	SM 5310-B	1.0 mg/L	6/5/17	VDB

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

DATA APPROVED FOR RELEASE BY

240 South Main Street / Brighton, CO 80601-0507 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

Colorado Analytical LABORATORIES, INC.

Detailed Analytical QC Summary

TASK NO: 170601010

Report To: Paul Shrewsbury
Summit Scientific

Receive Date: 6/1/17
Collector:

Project Name: 1705301

Test	QC Type	QC Batch	Result	Method
Total Organic Carbon	Blank	QC28065	<1.0 mg/L	SM 5310-B

Test	QC Type	QC Batch	LCL	UCL	% Rec	RPD	Method
Total Organic Carbon	Duplicate	QC28065	0	20		8.7	SM 5310-B
	LCS		90	110	99.8		

Approved: Steve Nielson Date: 6/9/17

(d) RPD acceptable due to low duplicate and sample concentrations.
(s) Spike amount low relative to the sample amount.

1/1

Chain of Custody Form

Colorado Analytical Laboratories, Inc.

Brighton Lab
240 South Main Street
Brighton, CO 80601
Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information	Bill To Information (If different from report to)	Project Name
Company Name: Summit Scientific	Company Name: f	1705301
Contact Name: Paul Shrewsbury	Contact Name: ____	____
Address: 741 Corporate Circle Suite J City Golden State CO Zip80401	Address: ____ ____ City ____ State __ Zip ____	Task Number (Lab Use Only) CAL Task No. 170601010 EMN
Phone:(303)2779310 Fax:	Phone: Fax:	
Email: pshrewsbury@s2scientific.com	Email:	Disposal Date(Lab Use Only)
Sample Collector:	PO No.:	

Sample Matrix (Select One Only)

Waste Water ☑	Soil ☐	Plant Tissue ☐
Ground Water ☑	Sludge ☐	Other ☐
Surface Water ☐	Compost ☐	____

Date	Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	TOC
5/31	1155	Tank-1	1	☑	☑
			(1)		

Instructions: Need QC

C/S Info: Deliver Via: hand C/S Charge ☐

Seals Present Yes ☐ No ☑

Temp. 8.9 °C/Ice ✓ Sample Pres. Yes ☑ No ☐

Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	6/1/17 1038	Elise Mulsa	6/1/17 1038				

Chain of Custody Form

Colorado Analytical Laboratories, Inc.

Brighton Lab
240 South Main Street
Brighton, CO 80601
Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information	Bill To Information (If different from report to)	Project Name
Company Name: Summit Scientific	Company Name: f	1705 301
Contact Name: Paul Shrewsbury	Contact Name: ____	____
Address: 741 Corporate Circle Suite J City Golden State CO Zip80401	Address: ____ ____ City ____ State __ Zip ____	Task Number (Lab Use Only) CAL Task No. 170601010 EMN
Phone:(303)2779310 Fax:	Phone: Fax:	
Email: pshrewsbury@s2scientific.com	Email:	Disposal Date(Lab Use Only)
Sample Collector:	PO No.:	

Sample Matrix (Select One Only)

Waste Water ☑	Soil ☐	Plant Tissue ☐
Ground Water ☑	Sludge ☐	Other ☐
Surface Water ☐	Compost ☐	____

Date	Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	TOC
5/31	1155	Tank-1	1	☑	☑
			(1)		

Instructions: Need QC

C/S Info: Deliver Via: Level C/S Charge ☐

Seals Present Yes ☐ No ☑

Temp. 8.9 °C/Ice ✓ Sample Pres. Yes ☑ No ☐

Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	6/1/17 1038	Reise Mulan	6/1/17 1038				

S2

Notes and Definitions

QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
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

741 Corporate Circle – Suite I ♦ Golden, Colorado 80401
303.277.9310 - laboratory ♦ 303.277.9531 - fax

June 28, 2017

Susana Lara-Mesa
K.P. Kauffman Company, Inc
1675 Broadway, Suite 2800
Denver, CO 80202-4628
RE: Wattenberg Tank

Enclosed are the results of analyses for samples received by Summit Scientific on 06/14/17 15:50. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ben Shrewsbury
Laboratory Manager

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Tank - I	1706152-01	Water	06/14/17 15:00	06/14/17 15:50

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	Reported: 06/28/17 14:48

Summit Scientific

S2

1706052

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

Page 1 of 1

Client: K.P. Kauffman Co. Inc
Address: 1675 Broadway, Suite 2800
City/State/Zip: Denver CO 80202
Phone: 303-825-4822 Fax:
Sampler Name: Mike Hattel

Project Manager: Susana Lara-Mesa
E-Mail: slaramesa@kpk.com
Project Name: Wattenberg Tank
Project Number:

ID	Sample Description	Date Sampled	Time Sampled	# of containers	Preservative: HCl	HNO3	None	Other (Specify)	Matrix: Groundwater	Soil	Air-Canister #	Other (Specify)	Analysis Requested: Oil & Grease	Anions (Chloride, Nitrate, Sulfate)	pH	Cations	Spec. Conductivity	TDS	TOC	Special Instructions
1	Tank-I	6-14-17	1500	5				X					X	X	X	X	X	X	X	
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				

Relinquished by:	Date/Time:	Received by:	Date/Time:
[signature]		[signature]	6-14-17 15:50
[signature]	6-15-17 18:15		

Turn Around Time (Check)
Same Day ___ 72 hours ___
24 hours ___ Standard X
48 hours ___

Sample Integrity:
Temperature Upon Receipt: 8.8
Intact: (Yes) No

Notes:
PDF copy for report to Mike Hattel - mhattel@msn.com
pH = 6.64

www.s2scientific.com

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	Reported: 06/28/17 14:48

Sample Receipt Checklist

S2 Work Order: 1706152

Client: KP Kauffman Client Project ID: Wattenberg Tank

Shipped Via: H.D. on ice (UPS, FedEx, Hand Delivered, Pick-up, etc.) Airbill #: _____

Matrix (check all that apply): ____Air ____Soil/Solid __x__Water ____Other: _____ (Describe)

Cooler ID					
Temp (°C)	8.8				

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.	x			on ice
Were all samples received intact [1]?	x			
Was adequate sample volume provided [1]?	x			
If custody seals are present, are they intact [1]?			x	
Are short holding time analytes or samples with HTs due within 48 hours present?			x	
Is a chain-of-custody (COC) form present and filled out completely [1]?	x			
Does the COC agree with the number and type of sample bottles received [1]?	x			
Do the sample IDs on the bottle labels match the COC [1]?	x			
Is the COC properly relinquished by the client w/ date and time recorded [1]?	x			
For volatiles in water – is there headspace present? If yes, contact client and note in narrative.		x		
Are samples preserved that require preservation (excluding cooling) [1]? Note the type of preservative in the Comments column – HCl, H2SO4, NaOH, HNO3, ect	x			HCL to S_2O_4
If samples are acid preserved for metals, is the pH ≤ 2 [1]? Record the pH in Comments.	x	~~x~~		6.64 add'l nitric
If dissolved metals are requested, were samples field filtered?		x		
Additional Comments (if any):				

[1] If NO, then contact the client before proceeding with analysis and note in case narrative.

Muri P. — Custodian Printed Name

[signature] 6-15-17 — Signature or Initials of Custodian

Date/Time

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Tank - I
1706152-01 (Water)

Summit Scientific

Total Metals by EPA Method 200.8

Date Sampled: **06/14/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Calcium	**746**	0.0500	mg/L	1	1706154	06/15/17	06/15/17	EPA 200.8	
Magnesium	**71.1**	0.0500	"	"	"	"	"	"	
Potassium	**117**	0.0500	"	"	"	"	"	"	
Sodium	**8510**	0.0500	"	"	"	"	"	"	

Oil and Grease by EPA 1664A (Aqueous)

Date Sampled: **06/14/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Oil & Grease (HEM)	**165**	5.00	mg/L	1	1706208	06/20/17	06/21/17	EPA 1664A	

Anions by EPA Method 300.0

Date Sampled: **06/14/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nitrate + Nitrite as N	**533**	100	mg/L	1000	[CALC]	06/15/17	06/15/17	Calculation	
Sulfate	**3030**	1000	"	"	1706166	"	"	EPA 300.0	
Nitrite as N	**533**	20.0	"	"	"	"	"	"	
Chloride	**819**	100	"	100	"	"	"	"	
Nitrate as N	ND	80.0	"	"	"	"	"	"	

Physical Parameters by APHA/ASTM/EPA Methods

Date Sampled: **06/14/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
pH	**6.65**	1.00	pH Units	1	1706201	06/14/17	06/14/17	SM 4500_H+	

Specific Gravity, SM 2710 F

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Tank - I
1706152-01 (Water)

Summit Scientific

Specific Gravity, SM 2710 F

Date Sampled: **06/14/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Specific Gravity	**1.0200**	0.0010000	N/A	1	1706194	06/19/17	06/19/17	SM 2710 F, Specific Gravity	

Total Dissolved Solids by 160.1

Date Sampled: **06/14/17 15:00**

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Total Dissolved Solids	**37200**	8.00	mg/L	1	1706192	06/19/17	06/19/17	EPA 160.1	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Total Metals by EPA Method 200.8 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706154 - EPA 200.8										
Blank (1706154-BLK1)				Prepared & Analyzed: 06/15/17						
Calcium	ND	0.0500	mg/L							
Magnesium	ND	0.0500	"							
Potassium	ND	0.0500	"							
Sodium	ND	0.0500	"							
LCS (1706154-BS1)				Prepared & Analyzed: 06/15/17						
Calcium	5.07	0.0500	mg/L	5.00		101	85-115			
Magnesium	5.02	0.0500	"	5.00		100	85-115			
Potassium	5.39	0.0500	"	5.00		108	85-115			
Sodium	5.31	0.0500	"	5.00		106	85-115			
Duplicate (1706154-DUP1)		**Source: 1706125-01**		Prepared & Analyzed: 06/15/17						
Calcium	424	0.0500	mg/L		417			1.73	20	
Magnesium	20.5	0.0500	"		19.8			3.51	20	
Potassium	3.42	0.0500	"		3.35			1.84	20	
Sodium	240	0.0500	"		229			4.56	20	
Matrix Spike (1706154-MS1)		**Source: 1706125-01**		Prepared & Analyzed: 06/15/17						
Calcium	412	0.0500	mg/L	5.00	417	NR	75-125			QM-02
Magnesium	24.6	0.0500	"	5.00	19.8	96.9	75-125			
Potassium	7.82	0.0500	"	5.00	3.35	89.4	75-125			
Sodium	238	0.0500	"	5.00	229	182	75-125			QM-02
Matrix Spike Dup (1706154-MSD1)		**Source: 1706125-01**		Prepared & Analyzed: 06/15/17						
Calcium	415	0.0500	mg/L	5.00	417	NR	75-125	0.635	25	QM-02
Magnesium	25.8	0.0500	"	5.00	19.8	121	75-125	4.86	25	
Potassium	7.90	0.0500	"	5.00	3.35	90.9	75-125	0.972	25	
Sodium	247	0.0500	"	5.00	229	350	75-125	3.46	25	QM-02

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S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Oil and Grease by EPA 1664A (Aqueous) - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706208 - General Preparation										
Blank (1706208-BLK1)				Prepared: 06/20/17	Analyzed: 06/21/17					
Oil & Grease (HEM)	ND	5.00	mg/L							
LCS (1706208-BS1)				Prepared: 06/20/17	Analyzed: 06/21/17					
Oil & Grease (HEM)	39.8	5.00	mg/L	40.0		99.5	82.2-110			
Duplicate (1706208-DUP1)		**Source: 1706152-01**		Prepared: 06/20/17	Analyzed: 06/21/17					
Oil & Grease (HEM)	152	5.00	mg/L		165			8.20	20	
Matrix Spike (1706208-MS1)		**Source: 1706152-01**		Prepared: 06/20/17	Analyzed: 06/21/17					
Oil & Grease (HEM)	175	5.00	mg/L	40.0	165	25.0	80-110			QM-01

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Anions by EPA Method 300.0 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706166 - General Preparation										
Blank (1706166-BLK1)				Prepared & Analyzed: 06/15/17						
Sulfate	ND	1.00	mg/L							
Nitrite as N	ND	0.0200	"							
Chloride	ND	1.00	"							
Nitrate as N	ND	0.800	"							
LCS (1706166-BS1)				Prepared & Analyzed: 06/15/17						
Sulfate	16.0	1.00	mg/L	15.0		107	90-110			
Chloride	2.79	1.00	"	3.00		93.1	90-110			
Nitrite as N	2.92	0.0200	"	3.00		97.4	90-110			
Nitrate as N	3.16	0.800	"	3.00		105	90-110			
Duplicate (1706166-DUP1)		**Source: 1706152-01**		Prepared & Analyzed: 06/15/17						
Chloride	752	100	mg/L		819			8.53	20	
Sulfate	3230	1000	"		3030			6.48	20	
Nitrite as N	533	20.0	"		533			0.00	10	
Nitrate as N	ND	80.0	"		ND				20	

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S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Physical Parameters by APHA/ASTM/EPA Methods - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706201 - General Preparation										
LCS (1706201-BS1)				Prepared & Analyzed: 06/14/17						
pH	8.03	1.00	pH Units	8.00		100	95-105			
Duplicate (1706201-DUP1)		**Source: 1706151-01**		Prepared & Analyzed: 06/14/17						
pH	8.67	1.00	pH Units		8.70			0.345	13.7	

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S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Specific Gravity, SM 2710 F - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706194 - General Preparation										
Duplicate (1706194-DUP1)		**Source: 1706152-01**		Prepared & Analyzed: 06/19/17						
Specific Gravity	1.0198	0.0010000	N/A		1.0200			0.0196	20	

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.

S2

K.P. Kauffman Company, Inc 1675 Broadway, Suite 2800 Denver CO, 80202-4628	Project: Wattenberg Tank Project Number: [none] Project Manager: Susana Lara-Mesa	**Reported:** 06/28/17 14:48

Total Dissolved Solids by 160.1 - Quality Control

Summit Scientific

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1706192 - General Preparation										
Blank (1706192-BLK1)				Prepared & Analyzed: 06/19/17						
Total Dissolved Solids	ND	8.00	mg/L							
Duplicate (1706192-DUP1)		**Source: 1706151-01**		Prepared & Analyzed: 06/19/17						
Total Dissolved Solids	757	8.00	mg/L		748			1.20	20	

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.

Colorado Analytical
LABORATORIES, INC.

Analytical Results

TASK NO: 170615009

Report To: Paul Shrewsbury
Company: Summit Scientific
741 Corporate Circle, Suite J
Golden CO 80401

Bill To: Accounts Payable
Company: Summit Scientific
741 Corporate Circle, Suite J
Golden CO 80401

Task No.: 170615009
Client PO:
Client Project: 1706152

Date Received: 6/15/17
Date Reported: 6/27/17
Matrix: Wastewater

Customer Sample ID Tank -1
Sample Date/Time: 6/14/17 3:00 PM
Lab Number: 170615009-01

Test	Result	Method	ML	Date Analyzed	Analyzed By
Total Organic Carbon	**1269.9 mg/L**	SM 5310-B	1.0 mg/L	6/23/17	VDB

Abbreviations/ References:

ML = Minimum Level = LRL = RL
mg/L = Milligrams Per Liter or PPM
ug/L = Micrograms Per Liter or PPB
mpn/100 mls = Most Probable Number Index/ 100 mls
Date Analyzed = Date Test Completed

DATA APPROVED FOR RELEASE BY

240 South Main Street / Brighton, CO 80601-0507 / 303-659-2313
Mailing Address: P.O. Box 507 / Brighton, CO 80601-0507 / Fax: 303-659-2315

Chain of Custody Form

Colorado Analytical Laboratories, Inc.

Brighton Lab
240 South Main Street
Brighton, CO 80601
Lakewood Lab
12860 W. Cedar Dr, Suite 100A
Lakewood CO 80228

Phone: 303-659-2313
Fax: 303-659-2315

www.coloradolab.com

Report To Information	Bill To Information (If different from report to)	Project Name
Company Name: Summit Scientific	Company Name: ____	1706152
Contact Name: Paul Shrewsbury	Contact Name: ____	____
Address: 741 Corporate Circle Suite J City Golden State CO Zip80401	Address: ____ ____ City ____ State __ Zip ____	Task Number (Lab Use Only) CAL Task No. 170615009 EMN
Phone:(303)2779310 Fax:	Phone: Fax:	
Email: pshrewsbury@s2scientific.com	Email:	Disposal Date(Lab Use Only)
Sample Collector:	PO No.:	

Sample Matrix (Select One Only)

Waste Water ☒	Soil ☐	Plant Tissue ☐
Ground Water ☐	Sludge ☐	Other ☐
Surface Water ☐	Compost ☐	____

Date	Time	Sample ID	No. of Containers	Grab or (Check One Only) Composite	TOC
6/14/17	15:00	*Tank-1*	1	☒	☒
			1		

Instructions:

C/S Info:

Deliver Via: hand

C/S Charge ☐

Seals Present Yes ☐ No ☒

Temp. 12.4 °C/Ice Y

Sample Pres. Yes ☒ No ☐

Relinquished By:	Date/Time:	Received By:	Date/Time:	Relinquished By:	Date/Time:	Received By:	Date/Time:
[signature]	10:03 6/15/17	Elise Nielsen	6/15/17 1003				

S2

Notes and Definitions

QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
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

Date	Lease Name	Volume (bbl)
1/2/2017	LANSON FARM	50
1/2/2017	ROLLIE VINCENT J #3	50
1/2/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
1/3/2017	HEIN	50
1/4/2017	AMOCO ENERGY SMITS	40
1/4/2017	Grant	45
1/4/2017	CARL A MILLER SUB BATTERY	70
1/4/2017	FACILITY #4	130
1/4/2017	FACILITY #7	100
1/4/2017	BERNHARDT #1-11	40
1/4/2017	BERNHARDT #7-14; 7-16	50
1/4/2017	AMEN #1	40
1/4/2017	ANDERSON SPRAGUE	55
1/4/2017	LANSDOWN-LEGG	55
1/4/2017	NORTH WASHINGTON #1-23	100
1/5/2017	KUNZMAN	40
1/5/2017	Noel #3-18	1
1/5/2017	LANSON FARM	80
1/6/2017	Sierra Mitchell #32-8	20
1/6/2017	SUCKLA FARMS A;C;D	30
1/6/2017	UPRR 43 I	100
1/9/2017	FACILITY #4	130
1/9/2017	FACILITY #S4WA	120
1/9/2017	GREELEY NATIONAL BANK B	80
1/9/2017	Grant	50
1/9/2017	FACILITY #1	130
1/9/2017	Front Range #11-17-10	80
1/9/2017	ELKHORN	50
1/10/2017	FACILITY #7	130
1/10/2017	CLEMENTINE B COBURN	40
1/10/2017	FACILITY #2	100
1/10/2017	BAURER/EIBERGER	65
1/10/2017	Front Range #11-17-10	10
1/10/2017	MATSUSHIMA #1-5; 2-6X	80
1/10/2017	WALTER HUNZIKER	60
1/10/2017	LANSON FARM	80
1/10/2017	AMOCO ENERGY SMITS	40
1/10/2017	FACILITY #5	130
1/11/2017	Suckla Brown Unit #17	35
1/11/2017	NRC #9-9-15H	65
1/11/2017	CARL A MILLER SUB BATTERY	75
1/11/2017	HORST-SCHUTT	40
1/11/2017	PETE MONTOYA B	20
1/11/2017	Jillson A #1; 2; 3; 4	115
1/11/2017	LAURIDSON #31-24; 42-24	60
1/11/2017	Walsh #2; 3; 4; 5	40

Date	Lease Name	Volume (bbl)
1/11/2017	UPRR 42 PAN AM N #4	25
1/11/2017	North Washington #8-23	70
1/12/2017	FACILITY #3	25
1/12/2017	Woolley #1; #2	50
1/12/2017	Jillson #1; 2; 3; 4; 5; 6	25
1/12/2017	Grenemeyer #1-A	125
1/12/2017	MCCRUMB	40
1/12/2017	Rollie J Vincent J #3	50
1/13/2017	GUILDNER	25
1/13/2017	MARIE GERHARDT B	25
1/13/2017	FIRECRACKER	60
1/13/2017	LANSON FARM	70
1/13/2017	NEWLANDER #1	40
1/13/2017	DWIGHT G HANKS B	40
1/13/2017	MARTIN T HART	30
1/13/2017	UPRR 42 PAN AM G	40
1/13/2017	PREMIUM TURKEY FARMS	30
1/13/2017	VAWTER #13-2; #14-2	60
1/13/2017	SRC Pratt #29XD	100
1/13/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	80
1/16/2017	FACILITY #7	40
1/16/2017	FACILITY #4	130
1/16/2017	MARGARET TWOMBLY B #1; 3; 5	60
1/17/2017	ROLLIE VINCENT J #3	40
1/17/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
1/17/2017	UPRR 43 I	30
1/17/2017	SIDNEY STREAR	50
1/17/2017	NEWLANDER #1	40
1/17/2017	GUTHRIE	30
1/17/2017	LANSON FARM	80
1/17/2017	FACILITY #8	100
1/18/2017	FACILITY #2	130
1/18/2017	LANSDOWN-LEGG	40
1/18/2017	ANDERSON SPRAGUE	35
1/18/2017	BAURER/EIBERGER	30
1/18/2017	Grant	5
1/19/2017	Albert Sack F #1	25
1/19/2017	FACILITY #4	110
1/19/2017	Doris Ackerson Unit #4	2
1/19/2017	STATE #14	130
1/19/2017	EDKAM #2-23	45
1/19/2017	EDKAM #3-28	20
1/19/2017	MONFORT #1-29	25
1/20/2017	NORMAN W YURK	50
1/20/2017	NEWLANDER #1	30
1/20/2017	LANSON FARM	60

Date	Lease Name	Volume (bbl)
1/20/2017	CARL A MILLER SUB BATTERY	70
1/20/2017	GREELEY NATIONAL BANK B	60
1/20/2017	ROLLIE VINCENT J #3	30
1/20/2017	Millard #43-30	100
1/20/2017	Neff #1; #2	80
1/20/2017	ELKHORN	40
1/20/2017	ZARLENGO #14-4	50
1/23/2017	FACILITY #7	130
1/23/2017	SIERRA MITCHELL #32-8	45
1/23/2017	R HORTH #1-2	45
1/23/2017	STATE #2-26; 3-26	40
1/23/2017	HEPP #31-32	40
1/23/2017	SUNMARKE BATTERY	60
1/23/2017	KOESTER BATTERY	40
1/24/2017	LOEFFLER #2-24	25
1/24/2017	MARTIN T HART B	40
1/24/2017	WAGNER #1	50
1/24/2017	HILL #3-10; 4-10	25
1/24/2017	FACILITY #S4WB	110
1/24/2017	FINDLAY SUB BATTERY	130
1/24/2017	CLEMENTINE B COBURN	30
1/24/2017	FACILITY #2	40
1/25/2017	WILLIAM D LANSDOWN	40
1/25/2017	BAURER/EIBERGER	90
1/25/2017	Christensen #4-9	60
1/25/2017	Zarlengo #14-4	30
1/25/2017	FACILITY #7	5
1/25/2017	Rollie J Vincent J #3	40
1/25/2017	ALFRED HERMAN	40
1/25/2017	Newlander #1	50
1/25/2017	Suckla Farms Inc E #1	10
1/26/2017	Tippett #6-2	40
1/26/2017	JACK BERGER A	40
1/26/2017	MARGARET TWOMBLY B #1; 3; 5	40
1/26/2017	MCCRUMB	50
1/26/2017	FINDLAY SUB BATTERY	60
1/26/2017	FINDLAY SUB BATTERY	25
1/26/2017	VAWTER #15-2; #16-2	50
1/26/2017	VAWTER #13-2; #14-2	40
1/26/2017	FACILITY #2	130
1/26/2017	LANSDOWN-LEGG	1
1/27/2017	LANSDOWN-LEGG	100
1/27/2017	NORTH YORK #13-12; #14-12	65
1/27/2017	STANDLEY #5-2; 6-2; 8-3	60
1/27/2017	Standley #1-2	65
1/27/2017	CARL A MILLER SUB BATTERY	50

Date	Lease Name	Volume (bbl)
1/27/2017	NRC #9-9-15H	60
1/27/2017	FACILITY #7	120
1/27/2017	FACILITY #S4WA	120
1/27/2017	FACILITY #4	130
1/27/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	60
1/27/2017	FACILITY #1	130
1/27/2017	SAM FUNAKOSHI	45
1/27/2017	CARL R DEEPE C	35
1/27/2017	FRONT RANGE #11-17-5 & 6	70
1/27/2017	Koester #3-33-3	45
1/29/2017	LANSON FARM	65
1/30/2017	Wenzel-Hosmer #4-4	40
1/30/2017	SHELDON SICKLER	130
1/30/2017	HEIN-HALEY-MILLER	20
1/30/2017	Rollie J Vincent J #3	20
1/30/2017	CHARLES C BELL	80
1/30/2017	Fern Miller Wikstrand #2	20
1/30/2017	Pace Connelly #1; 2; 5	20
1/31/2017	State #1-16	80
1/31/2017	FACILITY #2	130
1/31/2017	DEVORE	35
1/31/2017	ROY DUTCHER	80
1/31/2017	FACILITY #7	130
1/31/2017	FACILITY #4	130
1/31/2017	AMOCO ENERGY SMITS	50
1/31/2017	SIDNEY STREAR	50
2/1/2017	AMOCO-CHARTER-SCHNEIDER	130
2/1/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	35
2/1/2017	UPRR 42 PAN AM N #4	15
2/1/2017	Pace Connelly #1; 2; 5	10
2/2/2017	BAURER/EIBERGER	110
2/2/2017	Sprague A M A #1	45
2/2/2017	NELS CHRISTIANSEN	40
2/2/2017	Grant	40
2/2/2017	FACILITY #4	40
2/2/2017	Amen #1	40
2/2/2017	LANSON FARM	80
2/3/2017	LANSON FARM	60
2/3/2017	FACILITY #1	75
2/3/2017	Rollie J Vincent A #1	40
2/3/2017	Rollie J Vincent J #3	30
2/3/2017	Jillson A #1; 2; 3; 4	45
2/3/2017	Jillson #1; 2; 3; 4; 5; 6	20
2/5/2017	LANSON FARM	70
2/6/2017	ANDERSON BATTERY	40
2/6/2017	Grant	50

Date	Lease Name	Volume (bbl)
2/6/2017	FACILITY #4	80
2/6/2017	Robert A Houtchens #2	130
2/6/2017	FACILITY #7	130
2/6/2017	CARL A MILLER SUB BATTERY	60
2/6/2017	Lauridson #1-A; #2-A	70
2/6/2017	VAWTER #13-2; #14-2	100
2/7/2017	CLEMENTINE B COBURN	40
2/7/2017	EWING-SHANNON	80
2/7/2017	Robert G Burge #2	50
2/7/2017	FACILITY #5	130
2/7/2017	MCCRUMB	40
2/7/2017	VINCENT-EWING	40
2/7/2017	Newlander #1	40
2/8/2017	LANSON FARM	45
2/8/2017	Grant	45
2/8/2017	UPRR 42 Pan Am N #4	85
2/8/2017	FACILITY #2	60
2/8/2017	LANSDOWN-LEGG	70
2/8/2017	Millard #43-30	105
2/9/2017	BAURER/EIBERGER	90
2/9/2017	Pace Connelly #5	90
2/9/2017	FACILITY #8	60
2/9/2017	MARGARET TWOMBLY B #1; 3; 5	40
2/9/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
2/9/2017	R HORTH #1-2	30
2/9/2017	UPRR 23 PAN AM M #1-2	30
2/9/2017	GENESIS #3 & #9-2	70
2/10/2017	Phelps #1-13	30
2/10/2017	Phelps #2-17	30
2/10/2017	Genesis #1	40
2/10/2017	SUCKLA FARMS A;C;D	40
2/10/2017	GUTHRIE	30
2/10/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	20
2/10/2017	Rollie J Vincent J #3	30
2/10/2017	CHARLES C BELL	80
2/10/2017	NRC #9-9-15H	70
2/10/2017	Suckla Brown Unit #17	40
2/10/2017	FIRECRACKER	70
2/10/2017	Briggs #1	40
2/10/2017	Frederick #1; #4	80
2/13/2017	UPRR 43 I	55
2/13/2017	FACILITY #6	115
2/13/2017	FACILITY #4	60
2/13/2017	Grant	45
2/13/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
2/13/2017	MUSICK-McCLINTOCK #3; 5	40

Date	Lease Name	Volume (bbl)
2/14/2017	SIDNEY STREAR	15
2/14/2017	SIDNEY STREAR	15
2/14/2017	HORST-SCHUTT	30
2/14/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
2/14/2017	MCCRUMB	20
2/14/2017	GUILDNER	20
2/14/2017	FACILITY #7	120
2/14/2017	Dechant State #1; 2; 3; 4; 5; 6; 7	45
2/14/2017	NORTH WASHINGTON #1-23	190
2/14/2017	PREMIUM TURKEY FARMS	40
2/14/2017	KUNZMAN	40
2/15/2017	FACILITY #3	60
2/15/2017	SHAW	60
2/15/2017	CARL A MILLER SUB BATTERY	80
2/15/2017	Newlander #1	40
2/15/2017	EDKAM #4-33; 5-34	35
2/15/2017	Murphy #5-2	35
2/15/2017	RRR&S (ROSENFIELD) #6-1; 6-2	35
2/15/2017	RRR&S (Rosenfield) #6-5	45
2/15/2017	STATE #14	15
2/16/2017	A.D. Jeffers A #1	130
2/16/2017	FACILITY #1	130
2/16/2017	FACILITY #5	130
2/16/2017	SUCKLA FARMS E	115
2/16/2017	FACILITY #2	130
2/16/2017	Goetz 3-23; Greenlaugh N. 1-23	65
2/16/2017	Christensen #4-9	50
2/16/2017	Zarlengo #14-4	50
2/17/2017	Mahoney 1-2; Mahoney-Perrin 1-2	92
2/17/2017	BAURER/EIBERGER	100
2/17/2017	Becky #1; #5-6	65
2/17/2017	DEVORE	40
2/17/2017	Carter #21-33	130
2/17/2017	JAMES A DAMIANA	40
2/17/2017	GREELEY NATIONAL BANK B	45
2/17/2017	Rollie J Vincent J #3	45
2/17/2017	Fern Miller Wikstrand #2	60
2/17/2017	Fern Miller Wikstrand #2	2
2/17/2017	HAZEL MCHALE	20
2/17/2017	WUERTZ #12-3	1
2/17/2017	Wuertz #12-3	2
2/17/2017	Dnr Hartman-State #11-16	80
2/20/2017	MUSICK-McCLINTOCK #3; 5	40
2/20/2017	MUSICK-MCCLINTOCK #1; 2; 4; 7	30
2/20/2017	UPRR 23 PAN AM M #1-2	50
2/20/2017	Uprr 23 Pan Am D #4	30

Date	Lease Name	Volume (bbl)
2/20/2017	R HORTH #1-2	50
2/20/2017	PETE MONTOYA	40
2/20/2017	MCCRUMB	40
2/20/2017	CHARLES C BELL	80
2/20/2017	Sprague A M A #1	40
2/20/2017	MILLARD	35
2/20/2017	Pace Connelly #5	130
2/20/2017	Neff #1; #2	60
2/20/2017	Parker #1; #2	100
2/21/2017	Pace Connelly #1; 2; 5	90
2/21/2017	Cosslett #1; #2	70
2/21/2017	LANSDOWN-LEGG	40
2/21/2017	AMOCO ENERGY SMITS	30
2/21/2017	ALFRED HERMAN	50
2/21/2017	FACILITY #4	130
2/21/2017	FACILITY #4	130
2/21/2017	FACILITY #1	130
2/21/2017	LANSON FARM	80
2/21/2017	Noel #3-18	50
2/22/2017	Newlander #1	25
2/22/2017	STATE #14	80
2/22/2017	Sierra Mitchell #32-8	50
2/22/2017	Dacono #1; #2; #3	30
2/23/2017	PACE-CONNELLY #3 & #8	60
2/23/2017	Walsh #2; 3; 4; 5	35
2/23/2017	ROY DUTCHER	50
2/23/2017	SIDNEY STREAR	45
2/23/2017	GENESIS #3 & #9-2	30
2/23/2017	FACILITY #7	130
2/23/2017	SHAW	60
2/23/2017	UPRR 43 I	60
2/23/2017	Grant	45
2/23/2017	MEREDITH	40
2/23/2017	Hankins #1	35
2/24/2017	HEIN	30
2/24/2017	ROLLIE VINCENT J #3	45
2/24/2017	NRC #9-9-15H	65
2/24/2017	Rocky Mountain Fuel C #12	20
2/24/2017	FACILITY #4	130
2/24/2017	FRONT RANGE #11-17-7 & 8	20
2/24/2017	Koester #3-33-3	40
2/24/2017	Bernhardt #1-11	20
2/24/2017	ELKHORN	35
2/24/2017	Carter #21-33	130
2/24/2017	Bredehoft #1	35
2/27/2017	VAWTER #13-2; #14-2	60

Date	Lease Name	Volume (bbl)
2/27/2017	FACILITY #2	130
2/27/2017	FACILITY #2	130
2/27/2017	Jillson #1; 2; 3; 4; 5; 6	40
2/27/2017	DWIGHT G HANKS B	25
2/27/2017	FACILITY #4	130
2/27/2017	FACILITY #S4WB	70
2/27/2017	Grant	20
2/28/2017	MARIE GERHARDT B	40
2/28/2017	CHARLES C BELL	70
2/28/2017	JACK BERGER A	30
2/28/2017	FIRECRACKER	40
2/28/2017	MARTIN T HART	30
2/28/2017	MUSICK-McCLINTOCK #3; 5	40
2/28/2017	LANSON FARM	40
3/1/2017	Newlander #1	40
3/1/2017	HILL #3-10; 4-10	20
3/1/2017	ANDERSON BATTERY	10
3/1/2017	MATSUSHIMA #1-5; 2-6X	50
3/1/2017	FINDLAY SUB BATTERY	130
3/1/2017	CARL A MILLER SUB BATTERY	70
3/1/2017	Robert G Burge #2	130
3/1/2017	Teets Perrin #1; 2; 3; 4; 5	80
3/1/2017	EWING-SHANNON	70
3/1/2017	SRC Pratt #29PD	130
3/2/2017	North Washington #8-23	65
3/2/2017	North Washington #1-23	65
3/2/2017	LANSDOWN-LEGG	40
3/2/2017	JACOBUCCI; JEAN #1; 2; 3; 4	80
3/2/2017	Robert G Burge #2	100
3/2/2017	FACILITY #4	130
3/2/2017	Montgomery #1-27	25
3/2/2017	KAMMERZELL #1-9; 7-4	40
3/2/2017	Edkam #3-28	40
3/2/2017	Boxer #25	45
3/2/2017	Sierra Mitchell #32-8	10
3/3/2017	Moser #1-A	30
3/3/2017	LANSON FARM	50
3/3/2017	Strong #1-7	30
3/3/2017	UPRR 42 PAN AM G	40
3/3/2017	FIRECRACKER	65
3/3/2017	GREELEY NATIONAL BANK B	60
3/3/2017	JOHNSON	30
3/3/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	65
3/3/2017	Woolley #1; #2	65
3/3/2017	Funakoshi #2	40
3/3/2017	Jillson A #1; 2; 3; 4	65

Date	Lease Name	Volume (bbl)
3/3/2017	LANSDOWN-LEGG	30
3/3/2017	DEVORE	30
3/3/2017	CLEMENTINE B COBURN	25
3/3/2017	STANDLEY #5-2; 6-2; 8-3	60
3/6/2017	Zarlengo #14-4	35
3/6/2017	Rollie J Vincent J #3	45
3/6/2017	MEREDITH	50
3/6/2017	MCCRUMB	40
3/6/2017	FACILITY #4	130
3/6/2017	Wind #1	50
3/6/2017	State #1-26	35
3/7/2017	MUSICK-MCCLINTOCK #1; 2; 4; 7	40
3/7/2017	Lorenz #1-D	5
3/7/2017	JAMES A DAMIANA	35
3/7/2017	ELKHORN	40
3/7/2017	FACILITY #8	80
3/7/2017	McConahay #33-34	80
3/8/2017	Carter #21-33	130
3/8/2017	Sprague A M A #1	40
3/8/2017	AMOCO ENERGY SMITS	30
3/8/2017	HAUDRICH	35
3/8/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	50
3/8/2017	FACILITY #4	130
3/8/2017	WALTER HUNZIKER	40
3/9/2017	FACILITY #1	120
3/9/2017	Koester #3-33-3	30
3/9/2017	KOESTER BATTERY	40
3/9/2017	Newlander #1	40
3/9/2017	HAROLD W HOSMER #1-2	20
3/9/2017	Wuertz #12-3	30
3/9/2017	FINDLAY SUB BATTERY	30
3/9/2017	UPRR 43 I	60
3/9/2017	Franklin Stermole Unit #1	40
3/9/2017	MARGARET TWOMBLY B #1; 3; 5	40
3/9/2017	AMOCO-CHARTER-SCHNEIDER	30
3/9/2017	CHARLES C BELL	60
3/9/2017	EARL ANDERSON #1-2	40
3/9/2017	KUNZMAN	30
3/9/2017	Millard #43-30	80
3/9/2017	Pace Connelly #1; 2; 5	80
3/9/2017	Pace Connelly #5	200
3/10/2017	FACILITY #2	130
3/10/2017	Grant	35
3/10/2017	CARL A MILLER SUB BATTERY	70
3/10/2017	NRC #9-9-15H	60
3/10/2017	FACILITY #6	40

Date	Lease Name	Volume (bbl)
3/10/2017	LANSON FARM	80
3/10/2017	GUTHRIE	50
3/13/2017	Boxer #25	110
3/13/2017	FACILITY #4	130
3/13/2017	Suckla Brown Unit #17	40
3/13/2017	Marie Gerhardt B #5	70
3/13/2017	HLADKY-OGORMAN	20
3/13/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	40
3/13/2017	FACILITY #2	130
3/13/2017	BAURER/EIBERGER	80
3/13/2017	Doversberger; Eugene #2	20
3/13/2017	Jacobucci; Jean #1	50
3/14/2017	Doversberger; Eugene #2	5
3/14/2017	Dacono #1; #2; #3	60
3/14/2017	Loehr; Larry R #1	130
3/14/2017	LANSDOWN-LEGG	40
3/14/2017	MILLARD	35
3/14/2017	WILLIAM D LANSDOWN	40
3/14/2017	MARIE GERHARDT B	40
3/14/2017	BURKHARDT	20
3/15/2017	BURKHARDT	40
3/15/2017	Wuertz #12-3	35
3/15/2017	MUSICK-McCLINTOCK #3; 5	30
3/15/2017	Parr #2	35
3/15/2017	GENESIS #3 & #9-2	60
3/15/2017	FACILITY #8	45
3/15/2017	Christensen #4-9	80
3/15/2017	VAWTER #13-2; #14-2	80
3/15/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	110
3/16/2017	LANSDOWN-LEGG	20
3/16/2017	Cosslett #2	20
3/16/2017	Walsh #2; 3; 4; 5	45
3/16/2017	LOEFFLER #2-24	30
3/16/2017	UPRR 42 PAN AM G	35
3/16/2017	Loeffler #1-18	30
3/16/2017	HAUDRICH	30
3/17/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
3/17/2017	HEIN-HALEY-MILLER	35
3/17/2017	Rollie J Vincent J #3	45
3/17/2017	CARL A MILLER SUB BATTERY	45
3/17/2017	FIRECRACKER	45
3/17/2017	FACILITY #4	130
3/17/2017	VINCENT-EWING	35
3/17/2017	BAURER/EIBERGER	60
3/17/2017	FACILITY #8	100
3/17/2017	FACILITY #2	130

Date	Lease Name	Volume (bbl)
3/17/2017	CLEMENTINE B COBURN	30
3/24/2017	JOHNSON; ROLLAND	40
3/24/2017	LANSDOWN-LEGG	80
3/24/2017	SUCKLA FARMS A;C;D	40
3/27/2017	SUNMARKE BATTERY	50
3/27/2017	MARIE GERHARDT B	40
3/27/2017	FACILITY #2	130
3/27/2017	JOHNSON; ROLLAND	40
3/27/2017	SRC Pratt #29PD	100
3/27/2017	NORTH YORK #13-12; #14-12	70
3/28/2017	Bredehoft #1	40
3/28/2017	EWING-SHANNON	60
3/28/2017	Loehr; Larry R #1	130
3/28/2017	Loehr; Larry R #1	130
3/28/2017	LAURIDSON #31-24; 42-24	70
3/28/2017	CHARLES C BELL	70
3/28/2017	FACILITY #4	130
3/28/2017	FACILITY #4	130
3/28/2017	FACILITY #6	130
3/28/2017	Owen #12-1	70
3/28/2017	FACILITY #1	130
3/28/2017	TOM L RUSSELL	5
3/29/2017	HORST-SCHUTT	40
3/29/2017	FACILITY #1	130
3/29/2017	DNR HARTMAN-STATE #11-16	40
3/29/2017	BAURER/EIBERGER	90
3/29/2017	Dacono #1; #2; #3	25
3/29/2017	FACILITY #8	100
3/30/2017	FACILITY #2	130
3/30/2017	LANSDOWN-LEGG	30
3/30/2017	PREMIUM TURKEY FARMS	30
3/30/2017	CLEMENTINE B COBURN	20
3/30/2017	WAGNER B	15
3/30/2017	ROCKY MTN FUEL 15-9; 33-9; C-8	25
3/30/2017	GREELEY NATIONAL BANK B	50
3/30/2017	FRANKLIN STERMOLE UNIT #1	35
3/31/2017	MARIE GERHARDT B	15
3/31/2017	FIRECRACKER	30
3/31/2017	FACILITY #5	120
3/31/2017	FACILITY #4	120
3/31/2017	MUSICK-MCCLINTOCK #1; 2; 4; 7	30
3/31/2017	MUSICK-McCLINTOCK #3; 5	20
3/31/2017	NOEL #3-18	40
3/31/2017	LANSON FARM	60
3/31/2017	UPRR 42 PAN AM AF	35
3/31/2017	Hill #3-10	30

Date	Lease Name	Volume (bbl)
3/31/2017	Johnson; Rolland A Unit B #1	40
3/31/2017	LANSDOWN-LEGG	30
3/31/2017	Mahoney 1-2; Mahoney-Perrin 1-2	90
3/31/2017	Cosslett #1; #2	30

Date	Lease Name	Volume (bbl)
4/3/2017	BAURER/EIBERGER	80
4/3/2017	NORTH WASHINGTON #1-23	140
4/3/2017	FACILITY #8	80
4/3/2017	JOHNSON; ROLLAND	80
4/3/2017	STANDLEY #5-2; 6-2; 8-3	80
4/3/2017	FACILITY #4	15
4/3/2017	UPRR 43 I	65
4/4/2017	CARL A MILLER SUB BATTERY	70
4/4/2017	FACILITY #4	10
4/4/2017	GUILDNER	40
4/4/2017	SAM FUNAKOSHI	30
4/4/2017	DWIGHT G HANKS B	40
4/4/2017	JOHNSON; ROLLAND	45
4/4/2017	Loehr; Larry R #1	100
4/4/2017	Loehr; Larry R #1	100
4/4/2017	Millard #43-30	70
4/5/2017	Frederick #1; #4	10
4/5/2017	Walsh #2; 3; 4; 5	35
4/5/2017	JACOBUCCI; JEAN #1; 2; 3; 4	60
4/5/2017	FACILITY #2	130
4/5/2017	LANSDOWN-LEGG	40
4/5/2017	FACILITY #1	130
4/5/2017	Strong #1-7	60
4/5/2017	MEREDITH	40
4/5/2017	FACILITY #4	30
4/6/2017	FACILITY #4	130
4/6/2017	ROCKY MTN FUEL 15-9; 33-9; C-8	30
4/6/2017	FIRECRACKER	40
4/6/2017	IONE LAND & CATTLE CO	35
4/6/2017	Grant	50
4/6/2017	CHARLES C BELL	45
4/6/2017	1415 CORP UNIT C #1-2	35
4/6/2017	FACILITY #1	130
4/6/2017	STATE #14	130
4/6/2017	FACILITY #8	110
4/6/2017	BAURER/EIBERGER	80
4/6/2017	STANDLEY #5-2; 6-2; 8-3	50
4/7/2017	SRC Pratt #41-29D	130
4/7/2017	Neff #1; #2	40
4/7/2017	Loehr; Larry R #1	130
4/7/2017	Carter #21-33	130
4/7/2017	Boxer #25	80
4/7/2017	FINDLAY SUB BATTERY	130
4/7/2017	FACILITY #5	130
4/10/2017	FACILITY #7	130
4/10/2017	FIRECRACKER	70

Date	Lease Name	Volume (bbl)
4/10/2017	MUSICK-McCLINTOCK #3; 5	40
4/10/2017	BOXER BATTERY	30
4/10/2017	UPRR 42 PAN AM N #4	40
4/10/2017	JOHNSON; ROLLAND	50
4/10/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/10/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/10/2017	Standley #1-2	60
4/11/2017	Jillson #1; 2; 3; 4; 5; 6	40
4/11/2017	ELKHORN	40
4/11/2017	DEVORE	40
4/11/2017	CLEMENTINE B COBURN	20
4/11/2017	FACILITY #2	130
4/11/2017	SIDNEY STREAR	40
4/11/2017	CAMENISCH BATTERY 2	55
4/11/2017	MCCARTY #2	75
4/11/2017	1415 CORP UNIT C #1-2	45
4/11/2017	AMOCO ENERGY SMITS	30
4/11/2017	JAMES A DAMIANA	30
4/11/2017	HAUDRICH	35
4/12/2017	CARL A MILLER SUB BATTERY	130
4/12/2017	NRC #9-9-15H	130
4/12/2017	FACILITY #4	40
4/12/2017	Seltzer #1-A	80
4/12/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/12/2017	Parker #1; #2	80
4/12/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	110
4/12/2017	Jacobucci; Jean #1	130
4/13/2017	Jacobucci; Jean #1	130
4/13/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/13/2017	Moser #1-A	50
4/13/2017	LANSON FARM	70
4/13/2017	Wuertz #12-3	35
4/13/2017	Stroh #28-10	50
4/13/2017	Strong #2-8	5
4/13/2017	UPRR 42 PAN AM G	35
4/13/2017	FACILITY #4	130
4/13/2017	FACILITY #4	20
4/13/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	45
4/13/2017	MARIE GERHARDT B	35
4/13/2017	JACK BERGER A	35
4/14/2017	CHARLES C BELL	50
4/14/2017	FIRECRACKER	50
4/14/2017	FRISBIE	130
4/14/2017	UPRR 43 I	30
4/14/2017	FACILITY #7	130
4/14/2017	FACILITY #5	130

Date	Lease Name	Volume (bbl)
4/14/2017	Seltzer #1-A	10
4/14/2017	Dacono #1; #2; #3	30
4/14/2017	Loehr; Larry R #1	130
4/14/2017	BAURER/EIBERGER	80
4/14/2017	FACILITY #8	130
4/14/2017	LANSDOWN-LEGG	30
4/14/2017	Carter #21-33	120
4/14/2017	Jacobucci; Jean #1	120
4/17/2017	SRC Pratt #29XD	130
4/17/2017	Zarlengo #2	80
4/17/2017	SRC Pratt #41-29D	130
4/17/2017	JOHNSON; ROLLAND	45
4/17/2017	FACILITY #4	15
4/17/2017	CARL A MILLER SUB BATTERY	65
4/17/2017	Suckla Brown Unit #17	40
4/17/2017	UPRR 43 I	110
4/17/2017	GREELEY NATIONAL BANK B	65
4/18/2017	FINDLAY SUB BATTERY	130
4/18/2017	STATE #14	20
4/18/2017	RRR&S (ROSENFIELD) #6-1; 6-2	35
4/18/2017	RRR&S (Rosenfield) #6-5	20
4/18/2017	Sierra Mitchell #32-8	25
4/18/2017	HAZEL MCHALE	160
4/18/2017	LANSDOWN-LEGG	40
4/18/2017	MILLARD	40
4/18/2017	FACILITY #2	150
4/18/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/18/2017	Zarlengo #1	75
4/18/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	80
4/19/2017	POW WOW UNIT	70
4/19/2017	Achziger; Harry N #2	80
4/19/2017	PACE-CONNELLY #3 & #8	50
4/19/2017	Millard #43-30	80
4/19/2017	FACILITY #1	130
4/19/2017	Stroh #28-10	30
4/19/2017	MUSICK-McCLINTOCK #3; 5	40
4/19/2017	FACILITY #4	130
4/19/2017	FACILITY #4	20
4/19/2017	FACILITY #7	130
4/19/2017	HAUDRICH	40
4/19/2017	MCCRUMB	40
4/20/2017	FACILITY #4	10
4/20/2017	NRC #9-9-15H	60
4/20/2017	Bernhardt #1-11	40
4/20/2017	GUTHRIE	40
4/20/2017	Stroh #28-10	30

Date	Lease Name	Volume (bbl)
4/20/2017	Koester #3-33-3	40
4/20/2017	GRAY-HEPP	40
4/20/2017	VINCENT-EWING	30
4/20/2017	Baurer #41-36	90
4/20/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/20/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/20/2017	FACILITY #8	120
4/20/2017	LANSDOWN-LEGG	30
4/21/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/21/2017	JACOBUCCI; JEAN #1; 2; 3; 4	100
4/21/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	80
4/21/2017	SRC Pratt #31-29D	80
4/21/2017	SRC Pratt #29XD	100
4/21/2017	BURKHARDT	30
4/21/2017	FIRECRACKER	70
4/21/2017	FACILITY #4	70
4/21/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	40
4/21/2017	Grant	35
4/22/2017	MARTIN T HART	15
4/24/2017	Stroh #28-10	35
4/24/2017	Wenzel-Hosmer #4-4	40
4/24/2017	UPRR 43 I	50
4/24/2017	CARL A MILLER SUB BATTERY	60
4/24/2017	Boxelder #27-2	60
4/24/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/24/2017	FACILITY #2	130
4/24/2017	JOHNSON; ROLLAND	45
4/24/2017	KUNZMAN	35
4/25/2017	Carter #21-33	130
4/25/2017	CLEMENTINE B COBURN	35
4/25/2017	BAURER/EIBERGER	80
4/25/2017	WAGNER B	15
4/25/2017	FACILITY #4	130
4/25/2017	CHARLES C BELL	70
4/25/2017	NELS CHRISTIANSEN	35
4/25/2017	Rollie J Vincent J #3	45
4/25/2017	MARGARET TWOMBLY B #1; 3; 5	30
4/25/2017	Stroh #28-10	20
4/26/2017	MARTIN T HART	5
4/26/2017	AMOCO ENERGY SMITS	30
4/26/2017	FACILITY #7	130
4/26/2017	UPRR 42 PAN AM N #4	30
4/27/2017	Becky #1; #5-6	40
4/27/2017	JACOBUCCI; JEAN #1; 2; 3; 4	80
4/27/2017	North Washington #2-23	130
4/27/2017	SHELDON SICKLER	130

Date	Lease Name	Volume (bbl)
4/27/2017	Haugen #1-30	30
4/27/2017	MUSICK-McCLINTOCK #3; 5	30
4/27/2017	Edkam #4-33	130
4/27/2017	Edkam #4-33	130
4/27/2017	RRR&S (Rosenfield) #6-5	20
4/27/2017	Sierra Mitchell #32-8	5
4/28/2017	FACILITY #4	130
4/28/2017	FACILITY #4	80
4/28/2017	JAMES A DAMIANA	35
4/28/2017	HEIN-HALEY-MILLER	40
4/28/2017	Rocky Mountain Fuel #9-8	40
4/28/2017	North York #13-12	80
4/28/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/28/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
4/28/2017	Teets Perrin #1; 2; 3; 4; 5	70
4/28/2017	Sprague A M A #1	40
4/28/2017	WILLIAM D LANSDOWN	35
4/28/2017	FACILITY #8	130
5/1/2017	LANSDOWN-LEGG	35
5/1/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/1/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/1/2017	NRC #9-9-15H	50
5/1/2017	NRC #9-9-15H	40
5/1/2017	LANSON FARM	2
5/1/2017	Edkam #4-33	130
5/1/2017	Edkam #4-33	130
5/1/2017	MATSUSHIMA #3-14; 4-19X	5
5/2/2017	Dnr Hartman-State #11-16	5
5/2/2017	Moser #1-A	35
5/2/2017	LANSON FARM	1
5/2/2017	BAURER/EIBERGER	40
5/2/2017	Loehr; Larry R #1	130
5/2/2017	Loehr; Larry R #1	130
5/2/2017	Carter #21-33	130
5/3/2017	Goetz 3-23; Greenlaugh N. 1-23	100
5/3/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/3/2017	North York #13-12	80
5/3/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	130
5/3/2017	LANSON FARM	45
5/3/2017	MARTIN T HART B	40
5/3/2017	MARIE GERHARDT B	40
5/4/2017	Hankins #1	40
5/4/2017	CARL R DEEPE C	35
5/4/2017	North York #13-12	100
5/4/2017	Walsh #2; 3; 4; 5	45
5/4/2017	Millard #43-30	85

Date	Lease Name	Volume (bbl)
5/4/2017	McConahay #33-34	110
5/4/2017	Sprague A M A #1	35
5/5/2017	BAURER/EIBERGER	85
5/5/2017	FACILITY #8	130
5/5/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/5/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/5/2017	WALTER HUNZIKER	40
5/5/2017	SUCKLA FARMS A;C;D	30
5/5/2017	FACILITY #1	80
5/5/2017	FACILITY #1	40
5/5/2017	EDKAM #4-33; 5-34	100
5/5/2017	HILL #3-10; 4-10	30
5/5/2017	Rollie J Vincent J #3	40
5/5/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	30
5/5/2017	CARL A MILLER SUB BATTERY	50
5/8/2017	GREELEY NATIONAL BANK B	40
5/8/2017	ALFRED HERMAN	45
5/8/2017	MUSICK-McCLINTOCK #3; 5	35
5/8/2017	GENESIS #3 & #9-2	30
5/8/2017	KOESTER BATTERY	35
5/8/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/8/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/8/2017	FACILITY #7	130
5/8/2017	CLEMENTINE B COBURN	25
5/8/2017	DEVORE	40
5/8/2017	ROY DUTCHER	40
5/8/2017	ELKHORN	40
5/8/2017	MILLARD	35
5/9/2017	ROY DUTCHER	10
5/9/2017	NORMAN W YURK	50
5/9/2017	FACILITY #1	80
5/9/2017	PETE MONTOYA B	30
5/9/2017	Grant	40
5/9/2017	Rollie J Vincent A #1	40
5/9/2017	Rollie J Vincent A #1	20
5/9/2017	MEREDITH	45
5/9/2017	FIRECRACKER	40
5/9/2017	Leppla Estate #1	20
5/10/2017	FACILITY #5	130
5/10/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	40
5/10/2017	NORMAN W YURK	50
5/10/2017	EDKAM #4-33; 5-34	130
5/10/2017	FACILITY #5	80
5/10/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/10/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/10/2017	North York #13-12	80

Date	Lease Name	Volume (bbl)
5/11/2017	North York #13-12	40
5/11/2017	JACOBUCCI; JEAN #1; 2; 3; 4	110
5/11/2017	Dechant State #1; 2; 3; 4; 5; 6; 7	60
5/11/2017	Carter #21-33	130
5/11/2017	ELKHORN	20
5/11/2017	JOHNSON; ROLLAND	50
5/11/2017	FACILITY #2	130
5/11/2017	Edkam #4-33	100
5/11/2017	Edkam #4-33	100
5/11/2017	CF&C #3-83 (HILL 1A)	40
5/11/2017	CHARLES C BELL	80
5/11/2017	FACILITY #7	120
5/11/2017	FINDLAY SUB BATTERY	20
5/12/2017	MCCRUMB	40
5/12/2017	BURKHARDT	35
5/12/2017	DWIGHT G HANKS B	35
5/12/2017	MARTIN T HART	35
5/12/2017	LANSDOWN-LEGG	50
5/12/2017	ANDERSON SPRAGUE	45
5/12/2017	Jillson #1; 2; 3; 4; 5; 6	10
5/12/2017	BAURER/EIBERGER	80
5/12/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
5/12/2017	North York #13-12	5
5/15/2017	STROH BATTERY 2	80
5/25/2017	SRC PRATT 41-29D	20
5/30/2017	MCCOY-WOOLEY	20
5/30/2017	FRONT RANGE #11-17-10	60
5/30/2017	State #2-26	30
5/30/2017	State #2-26	80
5/30/2017	R HORTH #1-2	60
5/31/2017	GUTHRIE	35
5/31/2017	NEWLANDER #1	35
5/31/2017	Nels Christiansen #1	40
5/31/2017	Parker #1; #2	80
5/31/2017	Becky #1; #5-6	65
5/31/2017	Jillson A #1; 2; 3; 4	65
6/1/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/1/2017	DEVORE	40
6/1/2017	SIDNEY STREAR	40
6/2/2017	Genesis #1	7
6/2/2017	FRONT RANGE #11-17-5 & 6	75
6/2/2017	Newlander #1	10
6/2/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	40
6/2/2017	JACOBUCCI; JEAN #1; 2; 3; 4	100
6/2/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/2/2017	BAURER/EIBERGER	100

Date	Lease Name	Volume (bbl)
6/5/2017	Brand #1	45
6/5/2017	Walsh #2; 3; 4; 5	25
6/5/2017	KUNZMAN	40
6/5/2017	UPRR 42 PAN AM N #4	40
6/5/2017	FINDLAY SUB BATTERY	130
6/5/2017	FRONT RANGE #11-17-5 & 6	80
6/5/2017	FACILITY #1	130
6/6/2017	SUCKLA FARMS A;C;D	40
6/6/2017	A.D. Jeffers #1	80
6/6/2017	Front Range #11-17-8	120
6/6/2017	Donald E Miller B #1	90
6/6/2017	JAMES A DAMIANA	40
6/6/2017	CHARLES C BELL	55
6/6/2017	MCCRUMB	40
6/6/2017	MARGARET TWOMBLY B #1; 3; 5	40
6/6/2017	Sprague A M A #1	50
6/6/2017	Carter #21-33	130
6/6/2017	LANSDOWN-LEGG	40
6/6/2017	FACILITY #8	10
6/6/2017	SRC Pratt #29XD	130
6/6/2017	North York #1	40
6/7/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	130
6/7/2017	FACILITY #8	10
6/7/2017	FACILITY #2	130
6/7/2017	ELKHORN	35
6/7/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/7/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/7/2017	FACILITY #7	130
6/7/2017	FINDLAY SUB BATTERY	130
6/7/2017	McGill #1	40
6/7/2017	Newlander #1	30
6/8/2017	MUSICK-McCLINTOCK #3; 5	35
6/8/2017	RRR&S (Rosenfield) #6-1	48
6/8/2017	Sierra Mitchell #32-8	48
6/8/2017	MOSER #1-A	35
6/8/2017	FRONT RANGE #11-17-5 & 6	50
6/8/2017	STRONG #1-7	35
6/8/2017	PETE MONTOYA B	10
6/8/2017	Rocky Mountain Fuel #9-8	40
6/8/2017	NORTH QUEBEC #1; 12-8; 16-8	45
6/8/2017	Pace Connelly #5	40
6/8/2017	BAURER/EIBERGER	100
6/8/2017	CARTER #21-33	130
6/9/2017	ROY DUTCHER	60
6/9/2017	FACILITY #2	130
6/9/2017	LANSDOWN-LEGG	5

Date	Lease Name	Volume (bbl)
6/9/2017	FACILITY #8	20
6/9/2017	Lauridson #1-A; #2-A	50
6/9/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/9/2017	HLADKY-OGORMAN	35
6/9/2017	GREELEY NATIONAL BANK B	60
6/9/2017	CARL A MILLER SUB BATTERY	80
6/9/2017	FACILITY #7	130
6/9/2017	Front Range #11-17-10	45
6/12/2017	Front Range #11-17-10	80
6/12/2017	UPRR 42 PAN AM AF	35
6/12/2017	Suckla Brown Unit #17	35
6/12/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	45
6/12/2017	ALFRED HERMAN	45
6/12/2017	JACK BERGER A	35
6/12/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/12/2017	ELKHORN	35
6/12/2017	SRC PRATT #29XD	130
6/13/2017	CARTER #21-33	130
6/13/2017	FACILITY #2	130
6/13/2017	Millard #43-30	100
6/13/2017	FRANKLIN STERMOLE UNIT #1	35
6/13/2017	HEIN-HALEY-MILLER	35
6/13/2017	SHELDON SICKLER	45
6/13/2017	MARTIN T HART	40
6/13/2017	KOESTER #3-33-3	40
6/13/2017	GENESIS #1	50
6/13/2017	Burkhardt #1	25
6/13/2017	Newlander #1	35
6/13/2017	HILL #3-10; 4-10	30
6/14/2017	Front Range #11-17-10	70
6/14/2017	WELD COUNTY B-C	130
6/14/2017	BAURER/EIBERGER	130
6/14/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/14/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/15/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/15/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/15/2017	FACILITY #8	130
6/15/2017	DWIGHT G HANKS B	50
6/15/2017	CARL R DEEPE C	35
6/15/2017	HORST-SCHUTT	15
6/15/2017	Genesis #3	5
6/16/2017	FRONT RANGE #11-17-7 & 8	80
6/16/2017	Newlander #1	35
6/16/2017	Haugen #1-30	35
6/16/2017	State #2-26	45
6/16/2017	Sierra Mitchell #32-9	40

Date	Lease Name	Volume (bbl)
6/16/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	35
6/16/2017	Rollie J Vincent J #3	35
6/16/2017	ALFRED HERMAN	40
6/16/2017	Grant	45
6/16/2017	FACILITY #5	130
6/16/2017	JOHNSON; ROLLAND	10
6/19/2017	NORTH WASHINGTON #1-23	80
6/19/2017	BAURER/EIBERGER	100
6/19/2017	Conner #21-34	20
6/19/2017	Goetz 3-23; Greenlaugh N. 1-23	100
6/19/2017	STANDLEY #5-2; 6-2; 8-3	40
6/19/2017	AMOCO-CHARTER-SCHNEIDER	110
6/19/2017	FRONT RANGE #11-17-7 & 8	80
6/19/2017	Front Range #11-17-10	55
6/20/2017	Genesis #1	50
6/20/2017	SUCKLA FARMS A;C;D	40
6/20/2017	MUSICK-McCLINTOCK #3; 5	40
6/20/2017	CHARLES C BELL	55
6/20/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/20/2017	Sprague A M A #1	50
6/20/2017	CLEMENTINE B COBURN	25
6/20/2017	LANSDOWN-LEGG	50
6/21/2017	FACILITY #2	130
6/21/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/21/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/21/2017	ZARLENGO #1; 2; 3; 4; B1; 6-4	130
6/21/2017	Zarlengo #14-4	35
6/21/2017	Newlander #1	20
6/21/2017	BERNHARDT #7-14; 7-16	5
6/21/2017	Monfort #1-29	5
6/21/2017	FRONT RANGE #11-17-7 & 8	80
6/22/2017	Hosmer #4-9	10
6/22/2017	VAWTER #13-2; #14-2	35
6/23/2017	GITTLEIN #2-4; 7-4; 8-4; 17-4	50
6/23/2017	Carter #21-33	130
6/23/2017	ELKHORN	40
6/23/2017	Loeffler #1-18	20
6/23/2017	State #2-26	35
6/23/2017	STATE #14	45
6/23/2017	Front Range #11-17-10	80
6/23/2017	Loeffler #2-24	20
6/23/2017	JAMES A DAMIANA	40
6/23/2017	ROCKY MTN FUEL 9-8; C-4; C-9; C-10	40
6/23/2017	FACILITY #7	90
6/23/2017	CARL A MILLER SUB BATTERY	80
6/24/2017	Front Range #11-17-10	80

Date	Lease Name	Volume (bbl)
6/25/2017	Front Range #11-17-10	50
6/25/2017	Genesis #1	30
6/26/2017	Monfort #2-30	50
6/26/2017	FRONT RANGE #11-17-5 & 6	70
6/26/2017	STROH BATTERY 1	40
6/26/2017	Amen #1	5
6/26/2017	Bernhardt #1-11	30
6/26/2017	Newlander #1	30
6/26/2017	ROY DUTCHER	25
6/26/2017	FACILITY #8	130
6/26/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/26/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/27/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/27/2017	FACILITY #2	130
6/27/2017	UPRR 42 PAN AM N #4	40
6/27/2017	Boxelder #13-28	40
6/27/2017	North Washington #2-23	130
6/27/2017	Zarlengo #14-4	30
6/27/2017	Sterkel #1	35
6/27/2017	MARTIN T HART	40
6/27/2017	NELS CHRISTIANSEN	40
6/28/2017	NRC #9-9-15H	65
6/28/2017	FINDLAY SUB BATTERY	15
6/28/2017	WELD COUNTY B-C	1
6/28/2017	Genesis #1	35
6/28/2017	Boxelder #27-1	80
6/28/2017	DEVORE	40
6/28/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/29/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/29/2017	Carter #21-33	130
6/29/2017	FACILITY #2	130
6/29/2017	FACILITY #8	130
6/29/2017	SRC Pratt #29XD	130
6/29/2017	FRONT RANGE #11-17-5 & 6	40
6/29/2017	FACILITY #1	130
6/29/2017	FACILITY #7	130
6/29/2017	FACILITY #7	130
6/30/2017	FACILITY #5	130
6/30/2017	FACILITY #4	40
6/30/2017	FACILITY #4	130
6/30/2017	Firecracker Unit #1	55
6/30/2017	GREELEY NATIONAL BANK B	45
6/30/2017	Rocky Mountain Fuel #9-8	30
6/30/2017	WALTER HUNZIKER	30
6/30/2017	Bernhardt #7-14	20
6/30/2017	Newlander #1	30

Date	Lease Name	Volume (bbl)
6/30/2017	SRC PRATT #29XD	100
6/30/2017	JACOBUCCI; JEAN #1; 2; 3; 4	130
6/30/2017	GITTLEIN #2-4; 7-4; 8-4; 17-4	50
6/30/2017	Becky #1	50
6/30/2017	BAURER/EIBERGER	80

APEX CONSULTING SERVICES, INC.
566 West Willow Court
Reply to: P.O. Box 369
Louisville, CO 80027-0369
Phone: 303-665-1400
email: mhattel@msn.com

June 13, 2017

Ms. Susana Lara-Mesa
K.P. Kauffman Company, Inc.
World Trade Center
1675 Broadway, Suite 2800
Denver, CO 80202-4825

Re: May 2017, Groundwater Monitoring, Wattenberg Disposal Facility, Weld County, Colorado

Dear Ms. Lara-Mesa:

Apex Consulting Services, Inc. (APEX) has completed the most recent semi-annual groundwater monitoring at the Wattenberg Disposal Facility (Facility) in Weld County, Colorado (Figure 1). This letter report presents a summary of the work performed, the results of the groundwater analysis, and our conclusions.

BACKGROUND

The Facility was originally constructed in 1972 by the Amoco Production Company to dispose of production water from oil and gas wells in the D-J Basin. Wright's Disposal, Inc. purchased the Facility from Amoco in June 1989 and K.P. Kaufman Company, Inc. (KPK) purchased the Facility in June 1998. KPK currently operates the Facility for deep injection disposal of non-hazardous Class I and Class II liquid waste as defined in 40 CFR 144.6. The Facility is operated under the U.S. EPA Underground Injection Control Program, Final Permit No. CO 1516-2115. Three groundwater observation wells (OW-1, OW-2, and OW-3) are located around the periphery of the Facility to monitor groundwater flow direction, gradient, and quality. A groundwater monitoring plan was prepared by Nationwide Environmental Services, Inc. on January 3, 2002. The monitoring plan was subsequently approved by the Solid Waste Unit of the Colorado Department of Public Health and Environment. The monitoring plan included semi-annual groundwater monitoring (OW-1, OW-2, and OW-3) for major cations (calcium, magnesium, potassium, and sodium), major anions (bicarbonate, carbonate, chloride, nitrate, nitrite, and sulfate), Total Organic Carbon (TOC), benzene, toluene, ethylbenzene, and total xylenes (BTEX), and Total Petroleum Hydrocarbons (TPH). During the January 2007 sampling event, product was encountered on the groundwater in observation well OW-3. Contaminated soils in the vicinity of observation well OW-3 were excavated and replaced with clean fill. Observation well OW-3 was removed during the excavation of the contaminated soils. Following the removal of the contaminated soil, a new observation well (OW-3) was installed at the previous location. At the request of the Colorado Department of Public Health and Environment, an additional observation well (OW-4) was installed to the north of the Facility in June 2009. In July and October 2013, confirmation sampling for BTEX compounds confirmed the presence of benzene in observation well OW-1. In a September 2013 meeting with CDPHE, KPK noted that a release from an up-gradient facility occurred in 2008. In the meeting, KPK agreed to analyze laboratory data from OW-1 (from 2008 to the present) and to include STIFF diagrams in the December 2013 monitoring report. On March 4, 2014, an additional observation well (OW-5) was completed to the southeast of the Facility. The observation well was completed to a total depth of 24 feet. To date, groundwater has not been measured in the observation well.

GROUNDWATER SAMPLING

Groundwater samples were collected for laboratory analyses from observation wells OW-1, OW-2, OW-3 and OW-4 on May 30, 2017. Groundwater was not present in observation well OW-5. Prior to groundwater

sampling, groundwater elevations were measured and recorded in each of the aforementioned observation wells located at the Property. The locations of the observation wells are illustrated on Figure 2. Each of the wells was surveyed to a local datum. Shallow groundwater was present in the wells at depths ranging from approximately 14.2 (OW-1) to 21.2 (OW-4) feet below the ground surface (bgs). The groundwater elevation for each well is illustrated on Table 1. Relative groundwater elevations are shown on Figure 2. Groundwater flow direction was determined to be to the north-northwest for this monitoring period. Free product was not present on the groundwater in any of the wells. The observation wells were prepared for sampling by purging three wet well volumes of groundwater from each well with a dedicated bailer. During purging of each observation well, pH, specific conductance, and temperature were measured. The probes were calibrated before (within 2 hours) taking the measurements. Specific conductance was measured using equivalent EPA standard method 9050. Temperature and pH were measured using a standard probe equivalent to EPA standard method 9040 or 150.1. Groundwater was sampled from the observation wells with a dedicated bailer when pH, specific conductance, and temperature parameters were stable. The pH, specific conductance, and temperature measurements recorded for each sample are summarized on Tables 1, 2, and 3.

GROUNDWATER LABORATORY ANALYSES

The groundwater samples were handled with clean, new, nitrile gloves and placed in laboratory supplied vials and bottles. The samples and a trip blank (distilled water) were stored on ice in a cooler on ice. The samples were delivered under chain of custody to Summit Scientific in Golden, Colorado for laboratory analysis. The groundwater samples collected from the observation wells were analyzed for calcium, magnesium, potassium, sodium, chloride, nitrate, nitrite, sulfate, TOC, bicarbonate, carbonate, BTEX, and TPH. Laboratory results are summarized on Tables 1, 2, and 3. Laboratory reports provided by Summit Scientific are included in Attachment I.

CONCLUSIONS

Groundwater samples were collected for laboratory analysis from the observation wells OW-1, OW-2, OW-3 and OW-4 on May 30, 2017. The analytical results for this monitoring event are consistent with the results from historical monitoring except for sulfate and chloride. The detected sulfate and chloride concentrations in the samples collected from observation wells OW-2, OW-3 and OW-4 are lower than historical values. Additionally, the depth to groundwater and groundwater flow direction are consistent with historical results.

The next semi-annual groundwater monitoring event is scheduled for November 2017. Following the conclusion of the next semi-annual groundwater monitoring event, the data will be evaluated to determine if there is a significant change in groundwater elevation and/or quality (sulfate and/or chloride).

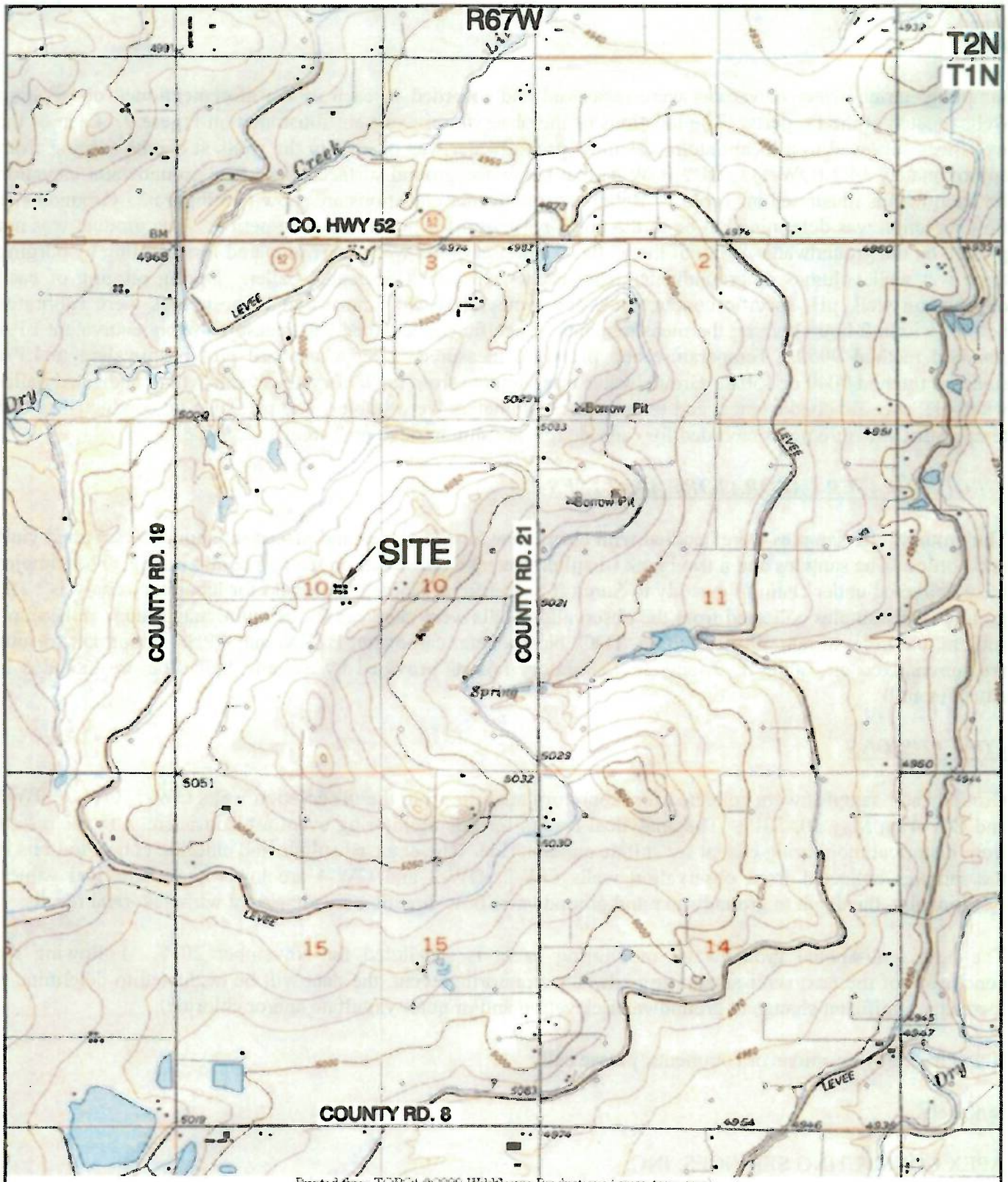
If you have any questions or comments, please call.

Sincerely,

APEX CONSULTING SERVICES, INC.

Michael Hattel

Michael D. Hattel, P.G., P.E.S.
Attachments
C:\Users\Owner\Documents\KPK (025)\Wattenberg\Rpts\KPK.GW.RPT.0517.rtf



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APEX JOB: 1-0025.001.00

NORTH

0 1000 2000

SCALE: 1" = 2000'

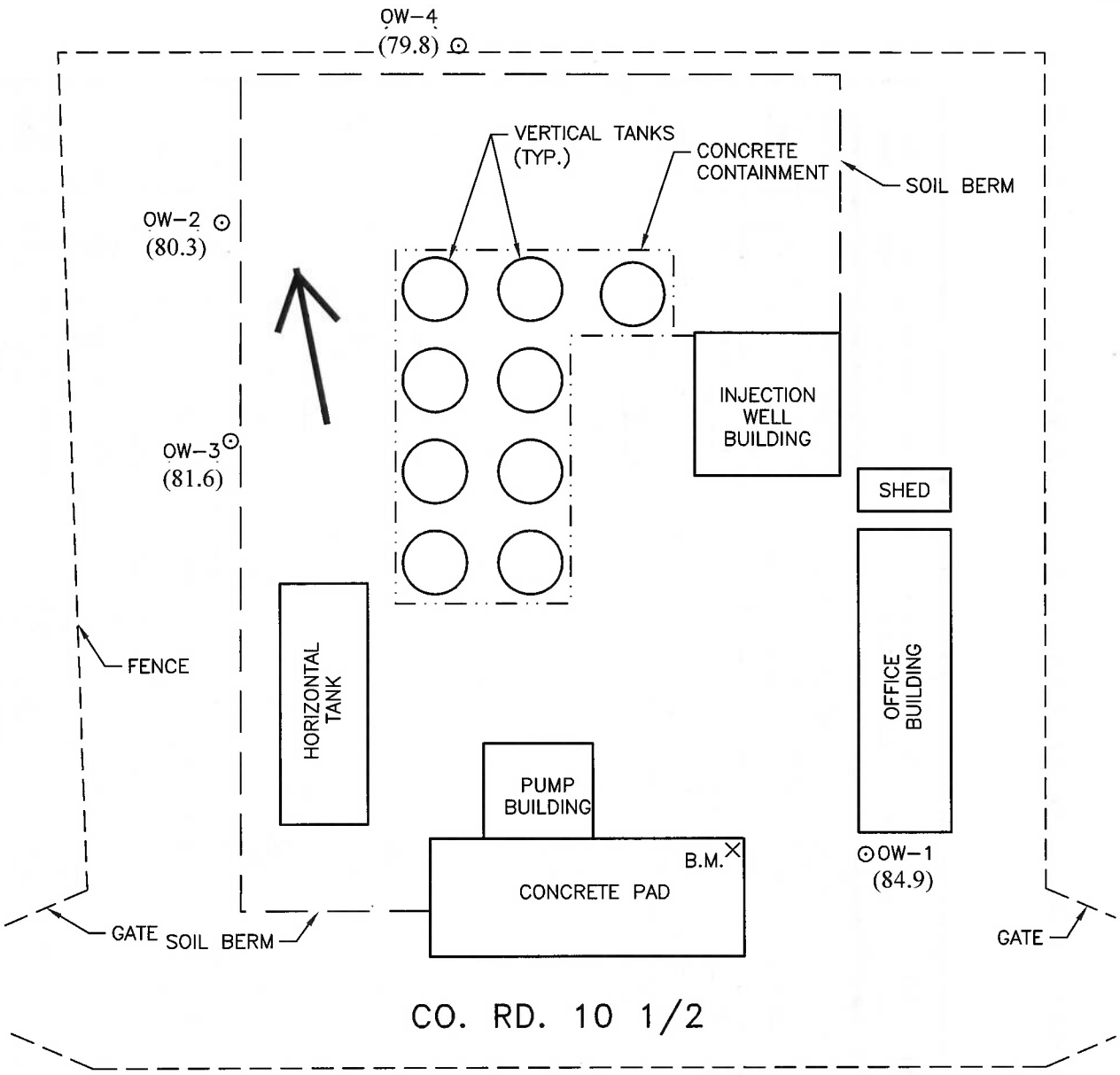
WATTENBERG DISPOSAL FACILITY
VICINITY MAP

APEX

FIGURE:

1

MDS FILE: 01-054\VICINITY-WATTENBERG.DWG



LEGEND:

⊙ OW-2 (80.7)	OBSERVATION WELL, NUMBER, AND RELATIVE GROUNDWATER ELEVATION
↖	CURRENT GROUNDWATER FLOW DIRECTION
B.M.	BENCH MARK, ELEVATION 100.00 FEET
ND	NO DATA

APEX JOB: 1-0025.001.00

NORTH

0 30 60

SCALE: 1" = 60'

WATTENBERG DISPOSAL FACILITY
SITE MAP
MAY 30, 2017

APEX

FIGURE:
2

C:\MDS WORK FILES\files\01-054\SITEMAP-WATTENBERG_12-12

TABLE 1

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	Depth to Water (ft.)	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-1	9/18/02	83.9	6.46	17.5	>4000	<.15	<.18	<.24	<.63	<1.6	79.0
	12/16/02	83.5	6.54	14.9	>4000	<.15	<.18	<.24	<.63	<1.6	29.0
	6/30/03	84.6	6.64	13.2	>4000	<1.5	<.18	<.24	<.63	<1.6	250.0
	12/30/03	83.7	6.54	14.1	>4000	<.15	<.18	<.24	<.63	<1.6	86.0
	6/30/04	83.7	6.19	13.2	>4000	<.18	<.21	<.17	<.96	<1.5	28.0
	12/29/04	83.8	6.30	12.9	>4000	<.18	<.21	<.17	<.96	<1.6	33.0
	6/30/05	84.4	6.60	13.2	>4000	<.07	<.07	<.07	<.20	<1.5	27.0
	12/28/05	83.9	6.85	15.5	>4000	<.07	<.07	<.08	<.20	<1.5	27.0
	6/29/06	83.7	6.54	13.5	>4000	1.00	<.07	1.1	5.00	<1.5	140.0
	7/27/06[5]	83.6	6.51	13.6	>4000	<.07	<.07	<.08	<.20	NA	NA
	1/25/07	82.3	6.81	13.3	>4000	<1.0	<2.0	<2.0	<4.0	5.3	28.7
	7/2/07	85.3	6.59	12.9	>4000	<1.0	<2.0	<2.0	<4.0	15.0	30.0
	1/31/08	83.8	6.69	12.9	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	30.3
	6/24/08	84.7	6.52	12.3	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	31.4
	12/29/08	84.1	6.50	14.7	>4000	<1.0	<2.0	<2.0	<4.0	6.2	30.1
	6/29/09	85.3	6.52	14.9	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	30.8
	12/15/09	84.4	6.51	13.3	>4000	<1.0	<2.0	<2.0	<4.0	5.9	30.6
	6/23/10	86.0	6.61	12.4	>4000	<1.0	<2.0	<2.0	<4.0	5.0	31.8
	12/13/10	84.9	6.80	14.6	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	31.7
	6/21/11	85.8	6.62	12.3	>4000	0.28	<1.0	<1.0	<2.0	7.1	29.2
	7/12/11	85.7	6.58	12.4	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
	12/21/11	85.0	6.56	13.8	>4000	1.00	<2.0	<2.0	<2.0	10.3	34.5
	1/13/12	86.2	6.55	14.0	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
	6/19/12	85.2	6.76	13.4	>4000	<2.0	<2.0	<2.0	<2.0	<4.9	33.3
	12/17/12	86.1	6.80	14.3	>4000	<0.2	<1.0	<1.0	<2.0	5.8	31.8
	06/13/13	86.2	6.65	12.6	>4000	1.70	<1.0	<1.0	<2.0	<5.2	26.2
	07/1/13	86.7	6.70	12.5	>4000	1.50	<1.0	<1.0	<2.0	NA	NA
	10/10/13	87.1	6.71	12.6	>4000	3.60	<1.0	<1.0	<2.0	NA	NA
	12/12/13	87.0	6.75	14.1	>4000	3.00	<1.0	<1.0	<2.0	<4.9	22.9
	6/23/14	87.0	6.68	12.7	>4000	45.50	<2.0	1.7J	<2.0	<4.8	42.8
	7/9/14	90.2	6.60	12.5	>4000	12.00	<1.0	<1.0	<2.0	NS	NS

TABLE 1

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	Depth to Water (ft.)	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-1	12/9/14	87.0	6.73	12.5	>4000	0.96	<1.0	<1.0	<2.0	6.4	18.8
(Cont.)	1/2/15	86.9	6.70	12.3	>4000	<1.0	<2.0	<2.0	<2.0	NS	NS
	5/28/15	88.1	6.71	12.7	>4000	<1.0	<2.0	<2.0.	<2.0.	<4.8	17.2
	11/16/15	82.9	6.69	12.4	>4000	<1.0	<2.0	<2.0	<2.0	<5.3	13.0
	5/23/16	86.4	6.70	12.6	>4000	<1.0	<1.0	<1.0	<1.0	<5.0	73.5
	11/15/16	83.4	6.70	12.3	>4000	<1.0	<1.0	<1.0	<1.0	<10.0	74.5
	5/30/17	84.9	6.73	12.5	>4000	<1.0	<1.0	<1.0	<2.0	16.6	117.7
OW-2	9/18/02	80.3	7.05	14.8	>4000	<.15	<.18	<.24	<.63	<1.6	230.0
	12/16/02	79.8	7.09	14.0	>4000	<.15	<.18	<.24	<.63	<1.6	60.0
	6/30/03	80.1	7.28	12.9	>4000	<.15	<.18	<.24	<.63	<1.7	150.0
	12/30/03	80.1	7.23	13.3	>4000	<.15	<.18	<.24	<.63	<1.7	58.0
	6/30/04	80.1	6.86	13.0	>4000	<.18	<.21	<.17	<.96	<1.5	37.0
	12/29/04	80.0	6.80	12.3	>4000	<.18	<.21	<.17	<.96	<1.4	54.0
	6/30/05	80.1	7.18	12.5	>4000	<.07	<.07	<.07	<.20	<1.5	48.0
	12/28/05	79.4	7.23	14.5	>4000	<.07	<.07	<.07	<.20	<1.5	48.0
	6/29/06	79.5	7.22	12.9	>4000	<.07	<.07	<.08	<.20	<1.5	59.0
	1/25/07	80.2	7.37	12.8	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	44.4
	7/2/07	79.6	7.18	13.3	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	36.7
	1/31/08	79.6	7.27	12.6	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	43.0
	6/24/08	80.3	7.18	12.1	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	47.1
	12/29/08	80.4	7.13	14.0	>4000	<1.0	<2.0	<2.0	<4.0	<4.0	45.4
	6/29/09	80.4	7.15	14.2	>4000	<1.0	<2.0	<2.0	<4.0	5.7	43.9
	12/15/09	80.6	7.11	13.0	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	43.1
	6/23/10	80.5	7.30	12.4	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	43.5
	12/13/10	80.9	7.14	13.6	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	44.5
	6/21/11	80.8	7.19	12.5	>4000	<0.2	<1.0	<1.0	<2.0	4.9	37.2
	12/21/11	80.8	7.21	12.5	>4000	0.25	<2.0	<2.0	<2.0	12.8	46.4
	1/13/12	80.6	7.20	13.0	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
	6/19/12	80.7	7.30	12.4	>4000	<1.0	<2.0	<2.0	<2.0	<4.8	45.4
	12/17/12	80.6	7.34	13.2	>4000	<0.2	<1.0	<1.0	<2.0	<4.8	46.2
	6/13/13	81.8	7.15	12.5	>4000	<0.2	<1.0	<1.0	<2.0	<4.9	46.2

TABLE 1

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	Depth to Water (ft.)	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-2	12/12/13	83.6	7.35	13.8	>4000	<0.2	<1.0	<1.0	<2.0	<4.9	42.6
(Cont.)	6/23/14	84.9	7.10	12.5	>4000	<0.2	<1.0	<1.0	<2.0	<4.9	33.6
	12/9/14	85.0	7.21	12.2	>4000	1.60	<1.0	<1.0	<2.0	<5.1	33.6
	1/2/15	84.9	7.20	12.3	>4000	<1.0	<2.0.	<2.0	<2.0	NS	NS
	5/28/15	82.7	7.15	12.4	>4000	<1.0	<2.0	<2.0	<2.0	<5.0	44.1
	11/16/15	82.4	7.20	12.3	>4000	<1.0	<2.0	<2.0	<2.0	<4.8	46.3
	5/23/16	83.3	7.17	12.4	>4000	<1.0	<1.0	<1.0	<1.0	<5.0	19.3
	11/15/16	82.9	7.19	12.3	>4000	<1.0	<1.0	<1.0	<1.0	<10.0	24.6
	5/30/17	80.3	7.22	12.6	>4000	<1.0	<1.0	<1.0	<2.0	16.2	
OW-3	9/18/02	78.2	6.88	15.4	>4000	<.15	<.18	<.24	<.63	<5.1	95.0
	12/16/02	77.8	7.08	15.3	>4000	<.15	<.18	<.24	<.63	<1.6	63.0
	6/30/03	78.5	7.05	14.6	>4000	<.15	<.18	<.24	<.63	<1.6	200.0
	12/30/03	78.6	7.27	13.4	>4000	<.15	<.18	<.24	<.63	<1.8	85.0
	6/30/04	77.4	6.89	12.4	>4000	3.5	1.3	<.17	<.96	<2.0	68.0
	9/9/04[5]	77.9	6.86	13.5	>4000	<.18	<.17	<.17	<.96	NA	NA
	12/29/04	77.4	6.65	12.3	>4000	<.18	<.21	<.17	<.96	<1.5	78.0
	6/30/05	78.0	6.90	12.5	>4000	<.07	<.07	<.09	<.20	<1.6	80.0
	12/28/05	77.2	7.12	15.2	>4000	<.07	<.07	<.09	<.20	<1.5	92.0
	6/29/06	77.3	7.59	15.8	>4000	<.07	<.07	<.09	<.20	<1.5	82.0
	1/25/07	77.6	7.47	12.7	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	62.9
	7/2/07	77.6	6.90	13.7	>4000	1500	71000	19000	178000	NA	NA
	1/31/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	6/24/08	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	1/05/09	75.9	7.05	14.0	>4000	<1.0	<2.0	<2.0	<4.0	<5.0	53.0
	6/29/09	78.0	7.15	14.1	>4000	1.0	<2.0	<2.0	<4.0	5.0	43.5
	7/27/09	78.1	7.11	14.2	>4000	NA	NA	NA	NA	NA	NA
	12/15/09	79.0	7.17	13.0	>4000	1.6	<2.0	<2.0	<4.0	<6.33	46.4
	1/04/10	79.2	7.15	13.2	>4000	<1.0	<2.0	<2.0	<4.0	NA	NA
	6/23/10	80.3	7.35	12.3	>4000	<1.0	<2.0	<2.0	<4.0	<13.0	44.8
	12/13/10	79.4	7.05	13.2	>4000	<1.0	<2.0	<2.0	<4.0	7.6	45.0

TABLE 1

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	Depth to Water (ft.)	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-3	6/21/11	79.9	7.19	12.3	>4000	1.4	<1.0	<1.0	<2.0	<6.2	40.1
(Cont.)	7/12/11	79.9	7.15	12.4	>4000	<1.0	<1.0	<1.0	<1.0	NA	NA
	12/21/11	81.7	7.20	12.0	>4000	1.3	<2.0	<2.0	<2.0	7.3	45.9
	1/13/12	81.7	7.15	11.9	>4000	<1.0	<2.0	<2.0	<2.0	NA	NA
	6/19/12	81.6	7.41	13.3	>4000	<1.0	<2.0	<2.0	<2.0	<5.0	40.5
	12/17/12	81.4	7.33	13.5	>4000	<0.2	<1.0	<1.0	<2.0	<5.0	37.3
	6/13/13	81.7	7.20	12.3	>4000	2.70	<1.0	<1.0	<2.0	<5.4	37.3
	7/01/13	81.7	7.15	12.3	>4000	<0.2	<1.0	<1.0	<2.0	NA	NA
	12/12/13	83.1	7.03	13.3	>4000	<0.2	<1.0.	<1.0	<2.0	<5.0	36.0
	6/23/14	86.0	7.19	12.4	>4000	2.60	<1.0	<1.0	<2.0	<5.0	32.8
	7/17/14	85.9	7.11	12.5	>4000	<0.20	<1.0	<1.0	<2.0	NS	NS
	12/9/14	82.8	7.07	12.2	>4000	<0.20	<1.0	<1.0	<2.0	<5.1	43.0
	5/28/15	83.7	7.10	12.3	>4000	<1.0	<2.0	<2.0	<2.0	<5.0	33.9
	11/16/15	83.1	7.11	12.4	>4000	<1.0	<2.0	<2.0	<2.0	<5.1	33.8
	5/23/16	85.6	7.08	12.2	>4000	<1.0	<1.0	<1.0	<1.0	<5.0	6.9
	11/15/16	83.1	7.11	12.4	>4000	<1.0	<1.0	<1.0	<1.0	<10.0	9.7
	5/30/17	81.6	7.06	12.6	>4000	<1.0	<1.0	<1.0	<1.0	<10.0	14.2
OW-4	12/15/09	71.7	7.14	12.9	>4000	<1.0	<2.0	<2.0	<4.0	NA	68.9
	6/23/10	73.8	7.17	13.5	>4000	<1.0	<2.0	<2.0	<4.0	<7.4	78.4
	12/13/10	74.3	7.18	13.1	>4000	<1.0	<2.0	<2.0	<4.0	<11	69.9
	6/21/11	72.7	7.23	12.2	>4000	<0.2	<1.0	<1.0	<2.0	<6.4	68.1
	12/21/11	73.9	7.12	11.7	>4000	<0.2	<2.0	<2.0	<2.0	8.1	73.8
	6/19/12	72.3	7.41	14.0	>4000	<1.0	<2.0	<2.0	<2.0	<5.2	71.3
	12/17/12	73.1	7.33	12.7	>4000	<0.2	<1.0	<1.0	<2.0	<6.3	70.5
	6/13/13	72.4	7.25	12.3	>4000	<0.2	<1.0	<1.0	<2.0	<7.4	68.3
	12/12/13	74.6	7.29	12.9	>4000	<0.2	<1.0	<1.0	<2.0	<5.3	64.8
	6/23/14	74.2	7.21	12.4	>4000	<0.2	<1.0	<1.0	<2.0	<6.8	65.8
	12/9/14	74.7	7.28	12.4	>4000	<0.2	<1.0	<1.0	<2.0	<5.4	66.1
	5/28/15	74.4	7.25	12.3	>4000	<1.0	<2.0	<2.0	<2.0	<5.0	23.8
	11/16/15	76.5	7.29	12.3	>4000	<1.0	<2.0	<2.0	<2.0	<7.5	39.2
	5/23/16	74.6	7.27	12.4	>4000	<1.0	<1.0	<1.0	<1.0	<5.0	12.6

TABLE 1

Summary of BTEX[1], TPH[2] and TOC[3] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	Depth to Water (ft.)	pH	Temperature (Celsius)	Specific Conductance[3]	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	TPH (mg/L)	TOC[4] (mg/L)
OW-4	11/15/16	79.8	7.10	12.8	>4000	<1.0	<1.0	<1.0	<1.0	<10.0	15.6
(Cont.)	5/30/17	79.8	7.12	12.5	>4000	<1.0	<1.0	<1.0	<2.0	15.4	

1 Benzene, toluene, ethylbenzene, and total xylenes by Method 8021B.
2 Total petroleum hydrocarbons by Method 1664.
3 Specific conductance in micro-siemens at 25 degrees Celsius.
4 Total organic carbon by Method 415.1.
5 Second sample collected in accordance with ground water monitoring plan.

J Estimated value.
mg/L milligrams per liter.
NA Not Analyzed
ug/L micrograms per liter.
NS No Sample

TABLE 2

Summary of Major Cation[1] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[2]	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
OW-1	9/18/02	6.46	17.5	>4000	330	310	11	2300
	12/16/02	6.54	14.9	>4000	370	320	15	2500
	6/30/03	6.64	13.2	>4000	370	350	12	2600
	12/30/03	6.54	14.1	>4000	500	340	12	2600
	6/30/04	6.19	13.2	>4000	300	300	11	2000
	12/29/04	6.30	12.9	>4000	420	360	14	2600
	6/30/05	6.73	13.2	>4000	410	370	12	2500
	12/28/05	6.85	15.5	>4000	420	380	18	2700
	6/29/06	6.54	13.5	>4000	440	410	26	2700
	1/25/07	6.81	13.3	>4000	380	350	14	2300
	7/2/07	6.59	12.9	>4000	450	400	21	2700
	1/31/08	6.69	12.9	>4000	460	420	14	2900B
	6/24/08	6.52	12.3	>4000	410	380	11	2800
	12/29/08	6.50	14.7	>4000	460	420	12	2700
	6/29/09	6.52	14.9	>4000	440	410	11	2800
	12/15/09	6.51	13.3	>4000	470	470	15	2400
	6/23/10	6.61	12.4	>4000	554	501	<50	2810
	12/13/10	6.80	14.6	>4000	472	450	13	2540
	6/21/11	6.62	12.3	>4000	457	415	11.7	2400
	12/21/11	6.56	13.8	>4000	427	407	11.9	2530
	6/19/12	6.76	13.4	>4000	510	463	12.6	2720
	12/17/12	6.80	14.3	>4000	437	417	13.5	2300
	6/13/13	6.65	12.6	>4000	273	253	9.65	1990
	12/12/13	6.75	12.5	>4000	260	210	9.51	1830
	6/23/14	6.68	12.7	>4000	116	144	4.32	1170
	12/9/14	6.73	12.5	>4000	138	127	4.26	1410
	5/28/15	6.71	12.7	>4000	160	123	<50	1240
	11/16/15	6.69	12.4	>4000	108	80.2	5.94	752
	5/23/16	6.70	12.6	>4000	246	163	7.12	1234

TABLE 2 (continued)

Summary of Major Cation[1] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[2]	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
	11/15/16	6.70	12.7	>4000	172	141	15.3	1289
	5/30/17	6.73	12.5	>4000	143	149	6.57	1370
OW-2	9/18/02	7.05	14.8	>4000	600	680	18	3800
	12/16/02	7.09	14.0	>4000	690	700	23	3700
	6/30/03	7.28	12.9	>4000	600	660	21	4200
	12/30/03	7.23	13.3	>4000	770	640	21	4300
	6/30/04	6.86	13.0	>4000	480	610	18	3500
	12/29/04	6.80	12.3	>4000	600	630	19	4000
	6/30/05	7.18	12.5	>4000	640	670	19	3800
	12/28/05	7.23	14.5	>4000	550	640	22	4000
	6/29/06	7.22	12.9	>4000	580	670	24	4700
	1/25/07	7.37	12.8	>4000	550	620	25	3600
	7/2/07	7.18	13.3	>4000	620	660	38	4300
	1/31/08	7.27	12.6	>4000	600	640	20	4100B
	6/24/08	7.18	12.1	>4000	530	580	18	4000
	12/29/08	7.13	14.0	>4000	570	630	19	4100
	6/29/09	7.15	14.2	>4000	510	560	17	4000
	12/15/0	7.11	13.0	>4000	560	670	22	3300
	6/23/10	7.30	12.4	>4000	648	698	<50	4000
	12/13/10	7.14	13.6	>4000	573	669	17.7	3730
	6/21/11	7.19	12.5	>4000	536	606	17.3	3470
	12/21/11	7.21	12.5	>4000	568	682	19.9	4050
	6/19/12	7.30	12.4	>4000	405	425	10.4	2400
	12/17/12	7.34	13.2	>4000	593	760	20.1	3920
	6/13/13	7.15	12.5	>4000	504	621	22.1	3770
	12/12/13	7.35	13.8	>4000	538	534	20.7	3840
	6/23/14	7.10	12.5	>4000	476	535	15.9	3030
	12/9/14	7.21	12.2	>4000	441	460	15.4	3080
	5/28/15	7.15	12.4	>4000	534	547	<50	3520
	11/16/15	7.20	12.3	>4000	531	550	21.5	2150

TABLE 2 (continued)

Summary of Major Cation[1] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[2]	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
OW-2	5/23/16	7.17	12.4	>4000	581	518	14.6	2859
(Cont.)	11/15/16	7.19	12.3	>4000	493	544	19.0	3442
	5/30/17	7.22	12.6	>4000	502	561	13.6	3550
OW-3	9/18/02	6.88	15.4	>4000	480	690	16	3900
	12/16/02	7.08	15.3	>4000	530	720	20	4100
	6/30/03	7.13	14.6	>4000	490	670	17	4200
	12/30/03	7.27	13.4	>4000	640	650	17	4300
	6/30/04	6.89	12.4	>4000	490	610	18	3500
	12/29/04	6.65	12.3	>4000	530	660	18	4100
	6/30/05	6.90	12.5	>4000	530	710	18	4100
	12/28/05	7.12	15.2	>4000	520	730	20	4200
	6/29/06	7.29	15.8	>4000	510	730	22	4400
	1/25/07	7.47	12.7	>4000	510	640	24	3700
	7/2/07	6.90	13.7	>4000	NA	NA	NA	NA
	1/31/08	NS	NS	NS	NS	NS	NS	NS
	6/24/08	NS	NS	NS	NS	NS	NS	NS
	1/05/09	7.05	14.0	>4000	500	630	20	4400
	6/29/09	7.15	14.1	>4000	520	570	17	4200
	12/15/09	7.17	13.0	>4000	460	630	26	3900
	6/23/10	7.35	12.3	>4000	564	695	<50	4310
	12/13/10	7.05	13.2	>4000	512	639	18.9	4030
	6/21/11	7.19	12.3	>4000	422	511	15.5	3130
	12/11/11	7.20	12.0	>4000	455	596	18.0	3960
	6/19/12	7.41	13.3	>4000	447	528	16.8	3530
	12/17/12	7.33	13.5	>4000	466	596	18.9	3520
	6/13/13	7.20	12.3	>4000	412	491	23.8	3790
	12/12/13	7.03	13.3	>4000	426	419	15.9	3030
	6/23/14	7.19	12.4	>4000	411	442	15.1	2590
	12/9/14	7.07	12.2	>4000	541	607	17.4	3910
	5/28/15	7.10	12.3	>4000	472	407	<50	2380
	11/16/15	7.11	12.4	>4000	514	365	13.8	2880

TABLE 2 (continued)

Summary of Major Cation[1] Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[2]	Calcium (mg/L)	Magnesium (mg/L)	Potassium (mg/L)	Sodium (mg/L)
OW-3	5/23/16	7.08	12.2	>4000	508	409	17.6	2235
(Cont.)	11/15/16	7.11	12.4	>4000	413	402	28.2	2490
	5/30/17	7.06	12.6	>4000	358	426	14.4	3260
OW-4	12/15/09	7.14	12.9	>4000	500	600	29	3800
	6/23/10	7.17	13.5	>4000	602	617	<50	4610
	12/13/10	7.18	13.1	>4000	497	583	21.4	3800
	6/21/11	7.23	12.2	>4000	501	559	21	3890
	12/21/11	7.12	11.7	>4000	507	578	22	3910
	6/19/12	7.41	14.0	>4000	504	539	17.9	3740
	12/17/12	7.33	12.7	>4000	519	632	21.5	3950
	6/13/13	7.25	12.3	>4000	475	508	26.8	4100
	12/12/13	7.29	12.9	>4000	510	532	22.4	3700
	6/23/14	7.21	12.4	>4000	510	537	20.8	3310
	12/9/14	7.28	12.4	>4000	538	576	20.3	4220
	5/28/15	7.25	12.3	>4000	992	1210	<50	1510
	11/16/15	7.29	12.3	>4000	329	301	20.1	648
	5/23/16	7.27	12.4	>4000	471	384	16.3	2809
	11/15/16	7.10	12.8	>4000	295	254	17.4	2526
	5/30/17	7.12	12.5	>4000	326	345	12.8	3060

1 By Method 6010B.
B Analyte detected in blank
2 Specific conductance in micro-siemens at 25 degrees Celsius.

NS No Sample
mg/L milligrams per liter.

TABLE 3

Summary of Major Anion Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[1]	Bicarbonate (mg/L)	Carbonate (mg/L)	Nitrate as N[3] (mg/L)	Nitrite as N[3] (mg/L)	Sulfate[3] (mg/L)	Chloride[3] (mg/L)
OW-1	9/18/02	6.46	17.5	>4000	890	<1	<.36	<.34	2500	3300
	12/16/02	6.54	14.9	>4000	880	<1	<1.4	<1.3	2400	3800
	6/303/03	6.64	13.2	>4000	NS	NS	<1.8	<2.5	1900	3400
	12/30/03	6.54	14.1	>4000	880	<1.2	<0.01	<0.02	2300	1000
	6/30/04	6.19	13.2	>4000	780	<1.2	<0.02	<0.02	2100	3800
	12/29/04	6.30	12.9	>4000	840	<3.4	<0.07	<0.04	2100	3400
	6/30/05	6.73	13.2	>4000	850	<1.2	<0.02	<0.02	2400	3900
	12/28/05	6.85	15.5	>4000	860	<1.2	<0.02	<0.02	2600	4500
	6/29/06	6.54	13.5	>4000	850	<1.2	<0.02	<0.02	2700	4800
	1/25/07	6.81	13.3	>4000	1000	<5.0	<0.56	<0.76	2030	3880
	7/2/07	6.59	12.9	>4000	976	<5.0	<0.10	<0.40	1970	3940
	1/31/08	6.69	12.9	>4000	977	<5.0	<0.25	<0.40	1870	4210
	6/24/08	6.52	12.3	>4000	936	<5.0	<2.3	<6.1	1830	4400
	12/29/08	6.50	14.7	>4000	754	<5.0	<.45	<15	1730	9070
	6/29/09	6.52	14.9	>4000	763	<5.0	<.90	<3.1	1690	4690
	12/15/09	6.51	13.3	>4000	742	<5.0	<1.5	<1.5	1640	4880
	6/23/10	6.61	12.4	>4000	707	<5.0	<0.90	<6.1	1650	4780
	12/13/10	6.80	14.6	>4000	740	<5.0	<0.90	<15	1740	5080
	6/21/11	6.62	12.3	>4000	705	<5.0	<0.45	<15	1680	4650
	12/21/11	6.56	13.8	>4000	803	<5.0	<0.90	<6.1	1660	4150
	6/19/12	6.76	13.4	>4000	822	<5.0	<0.90	<2.5	1790	4170
	12/17/12	6.80	14.3	>4000	792	<5.0	<0.20	<0.4	1890	4120
	6/13/13	6.65	12.6	>4000	972	<5.0	<0.50	<0.2	2260	2480
	12/12/13	6.75	12.5	>4000	888	<5.0	<0.10	<0.04	2000	2090
	6/23/14	6.68	12.7	>4000	1070	<5.0	<0.10	<0.04	281	1600
	12/9/14	6.73	12.5	>4000	1020	<5.0	<0.20	0.90	1150	1330
	5/28/15	6.71	12.7	>4000	858	<5.0	<0.10	<0.40	1580	981
	11/16/15	6.69	12.4	>4000	588	<5.0	<0.05	0.09	933	548
	5/23/16	6.70	12.6	>4000	840	<1.0	<2.0	<2.0	1100	980
	11/15/16	6.70	12.7	>4000	620	<1.0	<2.0	<2.0	1350	1200
OW-2	9/18/02	7.05	14.8	>4000	1100	<1	13	<.84	5200	5300

TABLE 3 (continued)

Summary of Major Anion Analytical Results for Groundwater Samples Collected from Wattenberg Disposal Facility, Weld County, Colorado

Sample	Date	pH	Temperature (Celsius)	Specific Conductance[1]	Bicarbonate (mg/L)	Carbonate (mg/L)	Nitrate as N[3] (mg/L)	Nitrite as N[3] (mg/L)	Sulfate[3] (mg/L)	Chloride[3] (mg/L)
OW-2	12/16/02	7.09	14.0	>4000	1100	<1	5	<1.7	4700	5800
(cont)	6/30/03	7.28	12.9	>4000	NS	NS	16	<2.5	5300	4200
	12/30/03	7.23	13.3	>4000	1100	<1.2	16	<0.099	5200	4500
	6/30/04	6.86	13.0	>4000	960	<1.2	16	<0.25	5700	5000
	12/29/04	6.80	12.3	>4000	1000	<3.4	13	<0.04	5000	4300
	6/30/05	7.18	12.5	>4000	1100	<1.2	12	<0.25	5800	4500
	12/28/05	7.23	14.5	>4000	1000	<1.2	14		5600	5400
	6/29/06	7.22	12.9	>4000	970	<1.2	9	<0.25	5600	6100
	1/25/07	7.37	12.8	>4000	1210	<5.0	7.1	<1.9	4930	5000
	7/2/07	7.18	13.3	>4000	1190	<5.0	9	<1.0	5270	4790
	1/31/08	7.27	12.6	>4000	1200	<5.0	6.6	<.40	4640	4500
	6/24/08	7.18	12.1	>4000	1170	<5.0	4.26	<6.1	4400	5200
	12/29/08	7.13	14.0	>4000	950	<5.0	7.8	<15	4830	4940
	6/29/09	7.15	14.2	>4000	931	<5.0	7.2	<6.1	4900	5070
	12/15/09	7.11	13.0	>4000	930	<5.0	12.2	<1.5	6240	4230
	6/23/10	7.30	12.4	>4000	904	<5.0	6.4	<15.0	4960	5160
	12/13/10	7.14	13.6	>4000	930	<5.0	7.9	<15.0	6160	5750
	6/21/11	7.19	12.5	>4000	948	<5.0	5.7	<15.0	4740	4870
	12/21/11	7.21	12.5	>4000	986	<5.0	8.8	<6.1	5270	4740
	6/19/12	7.30	12.4	>4000	951	<5.0	4.3	<2.5	4730	4890
	12/17/12	7.34	13.2	>4000	950	<5.0	7.1	<1.0	5520	5060
	6/13/13	7.15	12.5	>4000	982	<5.0	5.9	<0.8	5170	4840
	12/12/13	7.35	13.8	>4000	944	<5.0	9.5	<0.08	5500	4320
	6/23/14	7.10	12.5	>4000	937	<5.0	7.9	<0.20	4700	4000
	12/9/14	7.21	12.2	>4000	1060	<5.0	3.6	1.600	4460	2690
	5/28/15	7.15	12.4	>4000	1040	<5.0	8.1	<2.0	5140	3740
	11/16/15	7.2	12.3	>4000	992	<5.0	7.7	<2.0	5290	3370
	5/23/16	7.17	12.4	>4000	720	<1.0	5.0	<2.0	4000	2640
	11/15/16	7.19	12.3	>4000	980	<1.0	3.4	<2.0	6300	3240
OW-3	9/18/02	6.88	15.4	>4000	NS	NS	NS	NS	NS	NS