

BPX ENERGY INC.**GCU # 170 - (Production Tank & Historical Releases)**

Unit Letter K, Section 35, T29N, R12W - API Number: 30-045-07658
 Administrative/Environmental Order #: 3RP-422-0 | Incident/Application #: nAUTOfWCO00211

Field & Laboratory Data from Groundwater Monitoring Wells**RECEIVED**

By Mike Buchanan at 3:55 pm, Jan 31, 2024

FIELD &/or LAB									
Sample ID	Sample Date	Sample Time	Depth to Groundwater (feet)	Total MW Length (feet)	pH (Lab)	(Lab) Conductivity (µmhos/cm)	(Field) Conductivity (µmhos/cm)	Temperature (°Celsius)	Purged Volume (gallons)
MW # 2A (source area)	04/17/17	1002	8.71	14.80	7.63	1,400	1,680	13.2	3.00
	08/10/17	0942	7.43	"	7.63	1,100	1,070	16.0	3.75
	10/19/17	0944	7.02	"	7.45	1,200	1,570	15.7	4.00
	04/10/18	0842	7.21	"	7.49	1,400	1,440	14.5	3.75
	09/19/18	0915	6.99	"	7.62	1,000	1,310	18.1	4.00
	06/25/19	0915	6.70	"	7.27	1,300	2,000	15.2	3.10
	12/11/19	0939	8.01	"	7.70	1,500	1,490	13.2	3.50
	03/25/20	0936	8.87	"	7.58	1,600	1,660	11.4	3.00
	08/12/20	0952	6.47	"	7.36	3,700	1,410	16.3	4.25
MW # 3A (source area)	04/17/17	1104	7.92	15.88	7.49	1,500	1,790	13.1	4.00
	08/10/17	1145	6.74	"	7.59	2,100	1,850	16.5	5.25
	10/19/17	1001	6.43	"	7.47	2,000	1,250	15.7	4.75
	04/10/18	0918	6.60	"	7.60	2,000	1,520	14.4	4.50
	09/19/18	0932	6.39	"	7.62	1,700	1,280	18.2	4.75
	06/25/19	0949	7.80	"	7.30	1,800	1,410	16.5	4.10
	12/11/19	1014	7.22	"	7.81	1,600	1,430	13.1	4.25
	03/25/20	0924	7.98	"	7.96	1,800	1,670	10.9	4.00
	08/12/20	0917	6.02	"	7.48	1,800	1,790	16.2	4.75
MW # 4A (source area)	04/17/17	0906	8.86	15.98	7.70	1,100	1,450	12.1	3.50
	08/10/17	1023	7.51	"	7.73	950	1,110	16.1	4.25
	10/19/17	0922	7.10	"	7.52	990	1,090	16.3	4.50
	04/10/18	0829	7.31	"	7.67	1,100	1,100	14.8	4.25
	09/19/18	0903	7.12	"	7.69	1,000	1,110	17.8	4.50
	06/25/19	0851	8.78	"	7.41	1,100	1,100	14.9	3.00
	12/11/19	0915	8.09	"	7.82	1,400	1,460	13.6	4.00
	03/25/20	0913	8.98	"	7.80	1,100	1,310	11.0	3.50
	08/12/20	1008	6.67	"	7.53	4,000	5,700	16.8	4.50
MW # 5 (down gradient)	04/17/17	1225	7.47	19.24	7.58	1,900	1,710	13.3	5.75
	08/10/17	1321	6.42	"	7.74	4,200	2,200	16.4	6.50
	10/19/17	1158	6.15	"	7.44	3,500	1,620	15.9	6.50
	04/10/18	1015	6.26	"	7.60	2,400	1,830	14.7	6.50
	09/19/18	0830	6.10	"	7.95	2,100	1,360	16.3	6.50
	06/25/19	1023	7.29	"	7.37	2,200	1,800	15.7	6.00
	12/11/19	1054	6.82	"	7.87	2,000	2,000	13.3	6.25
	03/25/20	1002	7.50	"	7.79	2,100	2,100	11.8	6.00
	08/12/20	0900	5.73	"	7.51	1,800	1,560	17.1	6.50
MW # 6 (up gradient)	08/10/17	0908	8.47	"	7.69	820	820	15.8	4.00
	10/19/17	0902	7.98	"	7.40	1,000	920	15.6	4.00
	04/10/18	0806	8.27	"	7.67	930	900	14.1	3.75
	09/19/18	0752	7.98	"	7.67	1,200	1,210	17.9	4.00
	06/25/19	0902	9.99	"	7.42	880	850	14.6	3.00
	12/11/19	0928	9.20	"	7.63	830	850	13.6	3.50
	03/25/20	0900	10.21	"	7.97	800	800	11.6	3.00
	08/12/20	1022	7.36	"	7.60	850	810	17.9	4.25
MW # 7 (side gradient)	04/17/17	1036	9.25	18.78	7.60	1,900	1,850	14.1	4.75
	08/10/17	1104	8.17	"	7.60	1,800	1,960	16.8	5.50
	10/19/17	1102	7.81	"	7.40	1,900	1,670	16.1	5.50
	04/10/18	0933	7.99	"	7.56	1,800	1,710	14.5	5.25
	09/19/18	0948	7.72	"	7.66	1,500	1,250	17.7	5.50
	06/25/19	0933	9.20	"	7.34	1,800	1,420	16.6	4.80
	12/11/19	1004	8.61	"	7.82	1,900	1,770	12.3	5.00
	03/25/20	0950	9.36	"	7.95	1,900	1,830	10.8	4.75
	08/12/20	0940	7.39	"	7.66	1,700	1,490	17.1	5.75

NMWQCC STANDARDS - 6 - 9

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FIELD &/or LAB PARAMETERS									
Sample ID	Sample Date	Sample Time	Depth to Groundwater (feet)	Total MW Length (feet)	pH (Lab)	Conductivity (Lab) (µmhos/cm)	Conductivity (Field) (µmhos/cm)	Temperature (°Celcius)	Volume Purged (gallons)
MW # 8 (down gradient)	04/17/17	1157	8.63	18.08	7.58	2,300	2,300	13.4	4.75
	08/10/17	1245	7.78	"	7.69	2,000	1,900	16.3	5.25
	10/19/17	1129	7.54	"	7.53	2,200	1,780	15.7	5.25
	04/10/18	0954	7.64	"	7.63	2,000	1,880	14.2	5.25
	09/19/18	0848	7.45	"	8.10	2,100	1,820	16.0	5.50
	06/25/19	1008	8.54	"	7.40	2,000	1,190	15.6	4.80
	12/11/19	1025	8.12	"	7.84	2,200	2,100	12.6	5.00
	03/25/20	1016	8.72	"	7.97	2,100	2,000	11.0	4.75
	08/12/20	0840	7.20	"	7.61	2,600	2,600	15.9	5.25
MW # 9 (down gradient)	04/17/17	1130	11.38	18.43	7.75	1,200	1,530	13.8	3.50
	08/10/17	1218	10.16	"	7.81	1,100	1,210	16.3	4.25
	10/19/17	1029	9.84	"	7.66	1,200	1,070	16.3	4.25
	04/10/18	0858	9.98	"	7.72	970	1,240	14.5	4.25
	09/19/18	0809	9.85	"	7.91	1,100	1,180	16.4	4.25
	06/25/19	0840	11.22	"	7.56	1,100	240	14.4	3.60
	12/11/19	0900	10.63	"	7.88	1,500	1,450	13.6	4.00
	03/25/20	0847	11.44	"	7.91	1,500	1,440	11.6	3.50
	08/12/20	0930	9.36	"	7.71	1,400	2,400	16.5	4.50
NMWQCC STANDARDS -					6 - 9				

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LABORATORY PARAMETERS									
Sample ID	Sample Date	Sample Time	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl - benzene (µg/L)	Total Xylenes (µg/L)
MW # 2A (source area)	04/17/17	1002	8.8	440	1,010	<1.0	<1.0	<1.0	<1.5
	08/10/17	0942	8.1	220	780	<1.0	<1.0	<1.0	<1.5
	10/19/17	0944	5.3	210	795	<1.0	<1.0	<1.0	<1.5
	04/10/18	0842	6.6	340	1,000	-	-	-	-
	09/19/18	0915	6.0	140	706	-	-	-	-
	06/25/19	0915	8.6	350	940	-	-	-	-
	12/11/19	0939	11	420	1,090	-	-	-	-
	03/25/20	0936	17	490	1,240	-	-	-	-
	08/12/20	0952	140	1600	3,060	-	-	-	-
MW # 3A (source area)	04/17/17	1104	13	520	1,160	<1.0	<1.0	<1.0	<1.5
	08/10/17	1145	6.5	980	1,940	<1.0	<1.0	<1.0	<1.5
	10/19/17	1001	6.1	820	1,670	<1.0	<1.0	<1.0	<1.5
	04/10/18	0918	9.6	810	1,680	-	-	-	-
	09/19/18	0932	6.4	710	1,310	-	-	-	-
	06/25/19	0949	8.0	790	1,550	-	-	-	-
	12/11/19	1014	8.5	680	1,400	-	-	-	-
	03/25/20	0924	11	820	1,570	-	-	-	-
	08/12/20	0917	45	630	1,290	-	-	-	-
MW # 4A (source area)	04/17/17	0906	7.7	270	770	<1.0	<1.0	<1.0	<1.5
	08/10/17	1023	6.0	140	650	<1.0	<1.0	<1.0	<1.5
	10/19/17	0922	7.4	140	596	<1.0	<1.0	<1.0	<1.5
	04/10/18	0829	10.0	140	740	-	-	-	-
	09/19/18	0903	8.2	140	690	-	-	-	-
	06/25/19	0851	10	140	185	-	-	-	-
	12/11/19	0915	79	230	955	-	-	-	-
	03/25/20	0913	27	190	820	-	-	-	-
	08/12/20	1008	340	1500	3,140	-	-	-	-
MW # 5 (down gradient)	04/17/17	1225	12	840	1,490	<1.0	<1.0	<1.0	<1.5
	08/10/17	1321	8.4	2,500	3,460	<1.0	<1.0	<1.0	<1.5
	10/19/17	1158	6.1	1,800	3,060	<1.0	<1.0	<1.0	<1.5
	04/10/18	1015	8.7	1,100	2,140	-	-	-	-
	09/19/18	0830	7.3	910	1,610	-	-	-	-
	06/25/19	1023	8.3	1,100	1,610	-	-	-	-
	12/11/19	1054	7.6	980	1,660	-	-	-	-
	03/25/20	1002	11	1,100	1,880	-	-	-	-
	08/12/20	0900	12	700	1,400	-	-	-	-
MW # 6 (up gradient)	04/17/17	0935	5.6	85	450	<1.0	<1.0	<1.0	<1.5
	08/10/17	0908	7.6	76	560	<1.0	<1.0	<1.0	<1.5
	10/19/17	0902	5.7	77	540	<1.0	<1.0	<1.0	<1.5
	04/10/18	0806	6.8	75	580	-	-	-	-
	09/19/18	0752	16.0	130	780	-	-	-	-
	06/25/19	0902	<5.0	72	395	-	-	-	-
	12/11/19	0928	4.0	75	610	-	-	-	-
	03/25/20	0900	4.3	77	585	-	-	-	-
	08/12/20	1022	<2.5	53	516	-	-	-	-
MW # 7 (side gradient)	04/17/17	1036	7.7	930	1,610	<1.0	<1.0	<1.0	<1.5
	08/10/17	1104	17.0	690	1,570	<1.0	<1.0	<1.0	<1.5
	10/19/17	1102	<5.0	730	1,510	<1.0	<1.0	<1.0	<1.5
	04/10/18	0933	6.6	720	1,480	-	-	-	-
	09/19/18	0948	6.9	500	1,100	-	-	-	-
	06/25/19	0933	9.7	710	1,180	-	-	-	-
	12/11/19	1004	11	920	1,670	-	-	-	-
	03/25/20	0950	8.6	940	1,680	-	-	-	-
	08/12/20	0930	15	730	1,350	-	-	-	-
NMWQCC STANDARDS -			250	600	1,000	10	750	750	620

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Administrative/Environmental Order #: 3RP-422-0 | Incident/Application #: nAUTOfWCO00211

LABORATORY PARAMETERS

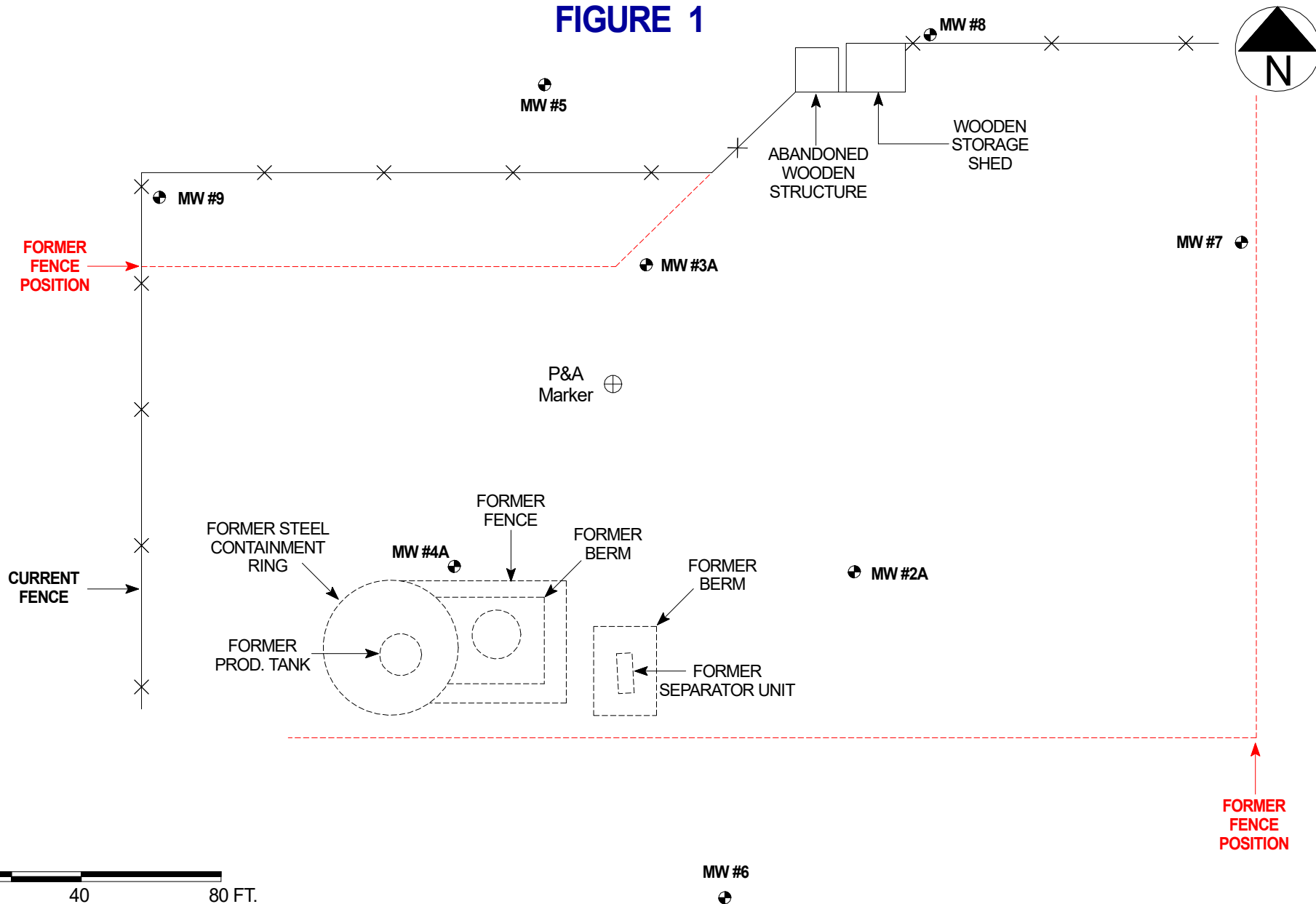
Sample ID	Sample Date	Sample Time	Chloride (mg/L)	Sulfate (mg/L)	TDS (mg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl - benzene (µg/L)	Total Xylenes (µg/L)
MW # 8 (down gradient)	04/17/17	1157	12	1,200	1,880	<1.0	<1.0	<1.0	<1.5
	08/10/17	1245	8.7	1,100	1,760	<1.0	<1.0	<1.0	<1.5
	10/19/17	1129	6.3	920	1,760	<1.0	<1.0	<1.0	<1.5
	04/10/18	0954	7.5	680	1,600	-	-	-	-
	09/19/18	0848	15.0	910	1,650	-	-	-	-
	06/25/19	1008	8.2	930	1,660	-	-	-	-
	12/11/19	1025	11	990	1,940	-	-	-	-
	03/25/20	1016	9	1,200	1,970	-	-	-	-
	08/12/20	0840	33	1100	2,120	-	-	-	-
MW # 9 (down gradient)	04/17/17	1130	55	220	800	<1.0	<1.0	<1.0	<1.5
	08/10/17	1218	38	210	850	<1.0	<1.0	<1.0	<1.5
	10/19/17	1029	21	190	710	<1.0	<1.0	<1.0	<1.5
	04/10/18	0858	24	120	615	-	-	-	-
	09/19/18	0809	22	150	700	-	-	-	-
	06/25/19	0840	23	220	650	-	-	-	-
	12/11/19	0900	18	500	1,180	-	-	-	-
	03/25/20	0847	31	460	1,060	-	-	-	-
	08/12/20	0930	93	230	932	-	-	-	-
NMWQCC STANDARDS -			250	600	1,000	10	750	750	620

Notes: Depth to groundwater measured from casing top of monitor well.
Groundwater standards are applied to values assigned in blue highlighted boxes or confirmed background levels, whichever is higher.

MW - Monitor well
µmhos/cm - Micromhos per centimeter
TDS - Total dissolved solids

mg/L - Milligram per Liter
µg/L - Microgram per liter
NMWQCC - New Mexico Water Quality Control Commission

FIGURE 1



BP AMERICA PRODUCTION COMPANY

GCU # 170

NE/4 SW/4 SEC. 35, T29N, R12W

SAN JUAN COUNTY, NEW MEXICO

BLAGG ENGINEERING, INC.

CONSULTING PETROLEUM / RECLAMATION SERVICES

P.O. BOX 87

BLOOMFIELD, NEW MEXICO 87413

PHONE: (505) 632-1199

PROJECT: GROUNDWATER MONITORING

DRAWN BY: NJV

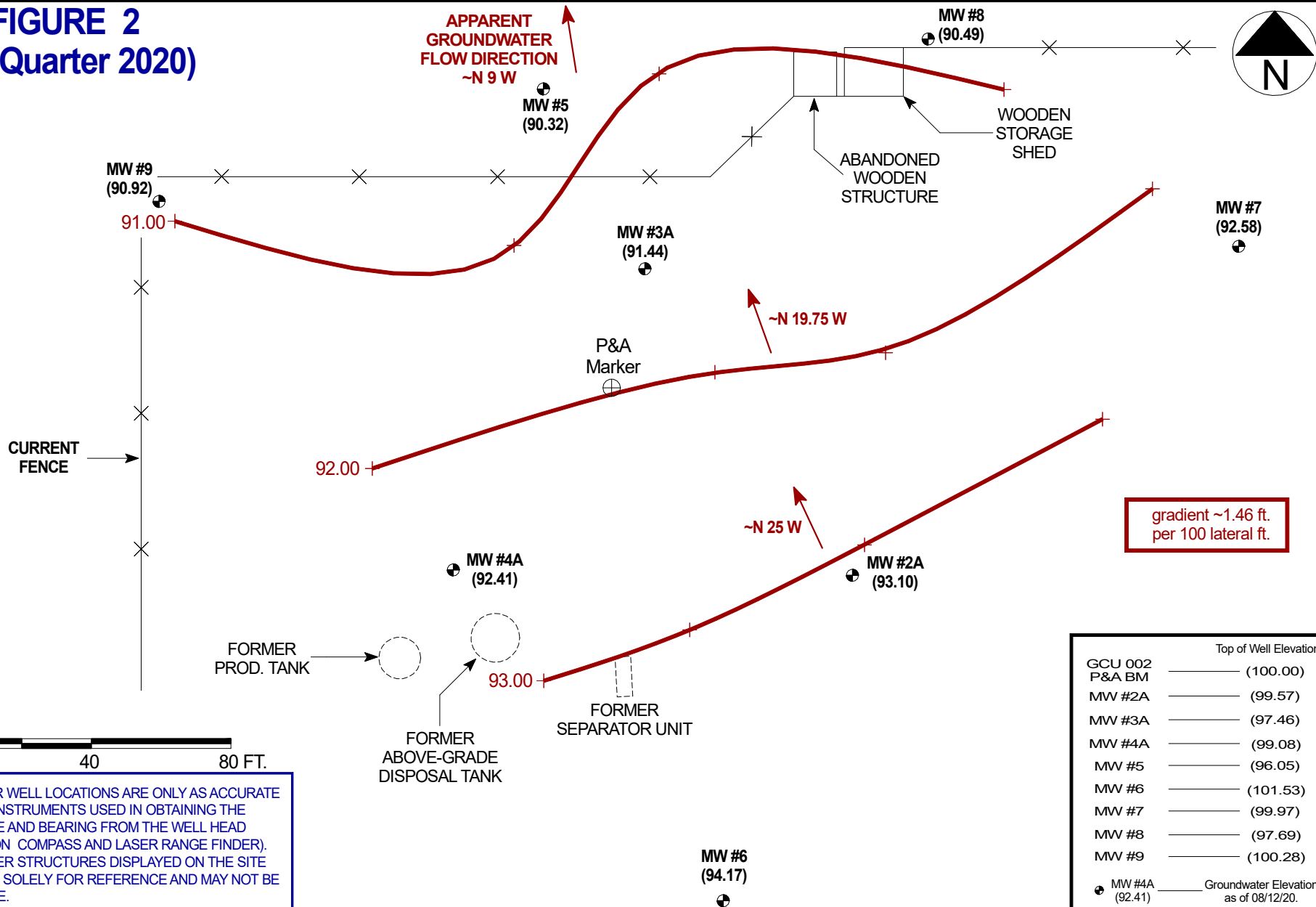
DRAFTED: 04/21/2017

FILENAME: GCU170 SM 2017-04-17.SKF

**SITE
MAP**

04/17

FIGURE 2
(3rd Quarter 2020)



BP AMERICA PRODUCTION COMPANY

GCU # 170

NE/4 SW/4 SEC. 35, T29N, R12W

SAN JUAN COUNTY, NEW MEXICO

COTTONWOOD CONSULTING, LLC
ENVIRONMENTAL CONSULTING
P.O. BOX 1653
DURANGO, COLORADO 81302
PHONE: (970) 764-7356

PROJECT: GROUNDWATER MONITORING
FILENAME: GCU170 gw map 20200812.SKF
DRAFTED: 08/26/2020
DRAWN BY: NJV

**GROUNDWATER
CONTOUR
MAP**
August 2020

BLAGG ENGINEERING, INC.

MONITOR WELL DEVELOPMENT & / OR SAMPLING DATA

CLIENT : **BPX ENERGY INC.**

CHAIN-OF-CUSTODY # :

N / A

GCU # 170

UNIT K, SEC. 35, T29N, R12W

LABORATORY (S) USED :

HALL ENVIRONMENTAL

Date : August 12, 2020

DEVELOPER / SAMPLER : N J V / J C B

Filename : GCU 170 mw log 2020-08-12.xls

PROJECT MANAGER : S. MOSKAL

WELL #	WELL ELEV. (ft)	WATER ELEV. (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH (ft)	SAMPLING TIME	pH	CONDUCT (umhos)	TEMP. (celcius)	VOLUME PURGED (gal.)
2A	99.57	93.10	6.47	14.80	0952	6.9	1,410	16.3	4.00
3A	97.46	91.44	6.02	15.88	0917	7.0	1,790	16.2	4.75
4A	99.08	92.41	6.67	15.98	1008	7.2	5,700	16.8	4.50
5	96.05	90.32	5.73	19.30	0900	6.9	1,560	17.1	6.75
6	101.53	94.17	7.36	15.98	1022	6.8	810	17.9	4.25
7	99.97	92.58	7.39	18.78	0940	7.0	1,490	17.1	5.50
8	97.69	90.49	7.20	18.08	0840	7.1	2,600	15.9	5.25
9	100.28	90.92	9.36	18.43	0930	7.2	2,400	16.5	4.50

INSTRUMENT CALIBRATIONS =

4.01/7.00/10.00

1,000

DATE & TIME =

08/12/20

0700

NOTES : Volume of water purged from well prior to sampling: $V = \pi \times r^2 \times h \times 7.48 \text{ gal./ft}^3 \times 3 \text{ (wellbores)}$.(i.e. 2" MW $r = (1/12) \text{ ft.}$ $h = 1 \text{ ft.}$) (i.e. 4" MW $r = (2/12) \text{ ft.}$ $h = 1 \text{ ft.}$)

Ideally a minimum of three (3) wellbore volumes:

2.00" well diameter = 0.49 gal./ft. of water.

Comments or note well diameter if not standard 2".

Excellent recovery in all monitor wells. Collected sample for general chemistry analyses. Purged all well using new & disposable 2 inch hand bailers. All monitor wells displayed murky brown appearance. No physical indicators observed within purged waters of any hydrocarbon components (sheen, odor, etc.).

Monitor well tops surveyed on 04/20/2017, benchmark used for elevations near GCU 002 P&A marker.

MW #2A, #3A, #4A, #5, & #6 casing tops completed with locking caps & flush mount well covers.

MW #7, #8, & #9 casing tops completed with slip caps & above-grade well protectors with padlocked lids.

on-site	8:00 AM	temp	63 F
off-site	10:45 AM	temp	81 F
sky cond.	Mostly sunny		
wind speed	0 - 5	direct.	ENE - E

Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 2A

Project: GCU #170

Collection Date: 8/12/2020 9:52:00 AM

Lab ID: 2008712-001

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	1500	6.6		mg/L	1	8/18/2020	R71134
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.002	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/18/2020 12:59:33 AM	A71158
Chloride	140	10		mg/L	20	8/13/2020 11:36:38 PM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/13/2020 11:23:45 PM	R71064
Bromide	1.7	0.50		mg/L	5	8/13/2020 11:23:45 PM	R71064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/13/2020 11:23:45 PM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/13/2020 11:23:45 PM	R71064
Sulfate	1600	25		mg/L	50	8/18/2020 1:11:57 AM	A71158
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	3700	10		µmhos/c	1	8/17/2020 1:12:58 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	529.9	20.00		mg/L Ca	1	8/17/2020 1:12:58 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 1:12:58 PM	R71119
Total Alkalinity (as CaCO ₃)	529.9	20.00		mg/L Ca	1	8/17/2020 1:12:58 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	3060	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.36		H	pH units	1	8/17/2020 1:12:58 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	420	5.0		mg/L	5	8/18/2020 4:15:24 AM	54458
Iron	25	1.0		mg/L	50	8/19/2020 2:59:58 AM	54458
Magnesium	110	5.0		mg/L	5	8/18/2020 4:15:24 AM	54458
Potassium	7.3	1.0		mg/L	1	8/18/2020 3:14:28 AM	54458
Sodium	420	5.0		mg/L	5	8/19/2020 2:58:03 AM	54458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 3A

Project: GCU #170

Collection Date: 8/12/2020 9:17:00 AM

Lab ID: 2008712-002

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	790	6.6		mg/L	1	8/18/2020	R71134
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9978	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	0.51	0.50		mg/L	5	8/18/2020 1:24:22 AM	A71158
Chloride	45	2.5		mg/L	5	8/13/2020 11:49:30 PM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/13/2020 11:49:30 PM	R71064
Bromide	0.54	0.50		mg/L	5	8/13/2020 11:49:30 PM	R71064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/13/2020 11:49:30 PM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/13/2020 11:49:30 PM	R71064
Sulfate	630	10		mg/L	20	8/14/2020 12:02:22 AM	R71064
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	1800	10		µmhos/c	1	8/17/2020 1:34:17 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	386.3	20.00		mg/L Ca	1	8/17/2020 1:34:17 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 1:34:17 PM	R71119
Total Alkalinity (as CaCO ₃)	386.3	20.00		mg/L Ca	1	8/17/2020 1:34:17 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	1290	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.48		H	pH units	1	8/17/2020 1:34:17 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	250	5.0		mg/L	5	8/18/2020 4:17:19 AM	54458
Iron	6.2	0.20		mg/L	10	8/19/2020 3:03:42 AM	54458
Magnesium	38	1.0		mg/L	1	8/18/2020 3:16:38 AM	54458
Potassium	4.6	1.0		mg/L	1	8/18/2020 3:16:38 AM	54458
Sodium	130	5.0		mg/L	5	8/19/2020 3:01:55 AM	54458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 4A

Project: GCU #170

Collection Date: 8/12/2020 10:08:00 AM

Lab ID: 2008712-003

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	1300	6.6		mg/L	1	8/18/2020	R71134
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.002	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/18/2020 1:36:47 AM	A71158
Chloride	340	10		mg/L	20	8/14/2020 12:28:08 AM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/14/2020 12:15:15 AM	R71064
Bromide	3.0	0.50		mg/L	5	8/14/2020 12:15:15 AM	R71064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/14/2020 12:15:15 AM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/14/2020 12:15:15 AM	R71064
Sulfate	1500	25		mg/L	50	8/18/2020 1:49:12 AM	A71158
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	4000	10		µmhos/c	1	8/17/2020 1:50:42 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	487.0	20.00		mg/L Ca	1	8/17/2020 1:50:42 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 1:50:42 PM	R71119
Total Alkalinity (as CaCO ₃)	487.0	20.00		mg/L Ca	1	8/17/2020 1:50:42 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	3140	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.53		H	pH units	1	8/17/2020 1:50:42 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	410	5.0		mg/L	5	8/18/2020 4:19:08 AM	54458
Iron	21	1.0		mg/L	50	8/19/2020 3:07:28 AM	54458
Magnesium	80	1.0		mg/L	1	8/18/2020 3:18:57 AM	54458
Potassium	8.6	1.0		mg/L	1	8/18/2020 3:18:57 AM	54458
Sodium	480	5.0		mg/L	5	8/19/2020 3:05:35 AM	54458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 5

Project: GCU #170

Collection Date: 8/12/2020 9:00:00 AM

Lab ID: 2008712-004

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	940	6.6		mg/L	1	8/18/2020	R71134
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.002	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/14/2020 12:41:00 AM	R71064
Chloride	12	2.5		mg/L	5	8/14/2020 12:41:00 AM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/14/2020 12:41:00 AM	R71064
Bromide	ND	0.50		mg/L	5	8/14/2020 12:41:00 AM	R71064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/14/2020 12:41:00 AM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/14/2020 12:41:00 AM	R71064
Sulfate	700	10		mg/L	20	8/14/2020 12:53:53 AM	R71064
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	1800	10		µmhos/c	1	8/17/2020 2:10:44 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	415.2	20.00		mg/L Ca	1	8/17/2020 2:10:44 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 2:10:44 PM	R71119
Total Alkalinity (as CaCO ₃)	415.2	20.00		mg/L Ca	1	8/17/2020 2:10:44 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	1400	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.51		H	pH units	1	8/17/2020 2:10:44 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	310	5.0		mg/L	5	8/18/2020 4:21:03 AM	54458
Iron	19	0.40		mg/L	20	8/19/2020 3:11:42 AM	54458
Magnesium	43	1.0		mg/L	1	8/18/2020 3:21:06 AM	54458
Potassium	11	1.0		mg/L	1	8/18/2020 3:21:06 AM	54458
Sodium	91	1.0		mg/L	1	8/19/2020 3:09:36 AM	54458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 6

Project: GCU #170

Collection Date: 8/12/2020 10:22:00 AM

Lab ID: 2008712-005

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	430	6.6		mg/L	1	8/18/2020	R71134
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9950	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/18/2020 2:01:37 AM	A71158
Chloride	ND	2.5		mg/L	5	8/14/2020 1:32:36 AM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/14/2020 1:32:36 AM	R71064
Bromide	ND	0.50		mg/L	5	8/14/2020 1:32:36 AM	R71064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/14/2020 1:32:36 AM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/14/2020 1:32:36 AM	R71064
Sulfate	53	2.5		mg/L	5	8/18/2020 2:01:37 AM	A71158
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	850	10		µmhos/c	1	8/17/2020 2:28:24 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	417.6	20.00		mg/L Ca	1	8/17/2020 2:28:24 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 2:28:24 PM	R71119
Total Alkalinity (as CaCO ₃)	417.6	20.00		mg/L Ca	1	8/17/2020 2:28:24 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	516	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.60		H	pH units	1	8/17/2020 2:28:24 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	140	5.0		mg/L	5	8/18/2020 4:22:58 AM	54458
Iron	12	0.40		mg/L	20	8/19/2020 3:15:30 AM	54458
Magnesium	17	1.0		mg/L	1	8/18/2020 3:23:14 AM	54458
Potassium	4.2	1.0		mg/L	1	8/18/2020 3:23:14 AM	54458
Sodium	38	1.0		mg/L	1	8/19/2020 3:13:33 AM	54458

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 7

Project: GCU #170

Collection Date: 8/12/2020 9:40:00 AM

Lab ID: 2008712-006

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	820	6.6		mg/L	1	8/24/2020	R71304
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	0.9984	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/18/2020 2:14:01 AM	A71158
Chloride	15	2.5		mg/L	5	8/14/2020 1:58:20 AM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/14/2020 1:58:20 AM	R71064
Bromide	ND	0.50		mg/L	5	8/14/2020 1:58:20 AM	R71064
Nitrogen, Nitrate (As N)	0.61	0.50		mg/L	5	8/14/2020 1:58:20 AM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/14/2020 1:58:20 AM	R71064
Sulfate	730	10		mg/L	20	8/18/2020 2:26:25 AM	A71158
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	1700	10		µmhos/c	1	8/17/2020 2:45:47 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	279.5	20.00		mg/L Ca	1	8/17/2020 2:45:47 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 2:45:47 PM	R71119
Total Alkalinity (as CaCO ₃)	279.5	20.00		mg/L Ca	1	8/17/2020 2:45:47 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	1350	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.66		H	pH units	1	8/17/2020 2:45:47 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	290	5.0		mg/L	5	8/24/2020 5:36:06 AM	54504
Iron	7.3	0.20		mg/L	10	8/24/2020 5:49:03 AM	54504
Magnesium	23	1.0		mg/L	1	8/21/2020 6:08:27 AM	54504
Potassium	4.4	1.0		mg/L	1	8/21/2020 6:08:27 AM	54504
Sodium	76	5.0		mg/L	5	8/24/2020 5:36:06 AM	54504

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 8

Project: GCU #170

Collection Date: 8/12/2020 8:40:00 AM

Lab ID: 2008712-007

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	1300	6.6		mg/L	1	8/24/2020	R71304
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.002	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/14/2020 2:24:06 AM	R71064
Chloride	33	2.5		mg/L	5	8/14/2020 2:24:06 AM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/14/2020 2:24:06 AM	R71064
Bromide	ND	0.50		mg/L	5	8/14/2020 2:24:06 AM	R71064
Nitrogen, Nitrate (As N)	0.56	0.50		mg/L	5	8/14/2020 2:24:06 AM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/14/2020 2:24:06 AM	R71064
Sulfate	1100	25		mg/L	50	8/18/2020 3:03:38 AM	A71158
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	2600	10		µmhos/c	1	8/17/2020 2:59:07 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	404.0	20.00		mg/L Ca	1	8/17/2020 2:59:07 PM	R71119
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/17/2020 2:59:07 PM	R71119
Total Alkalinity (as CaCO ₃)	404.0	20.00		mg/L Ca	1	8/17/2020 2:59:07 PM	R71119
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	2120	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.61		H	pH units	1	8/17/2020 2:59:07 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	440	20		mg/L	20	8/24/2020 5:51:42 AM	54534
Iron	13	0.40		mg/L	20	8/24/2020 5:51:42 AM	54534
Magnesium	36	1.0		mg/L	1	8/21/2020 5:58:50 AM	54534
Potassium	6.4	1.0		mg/L	1	8/21/2020 5:58:50 AM	54534
Sodium	210	20		mg/L	20	8/24/2020 5:51:42 AM	54534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

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Analytical Report

Lab Order 2008712

Date Reported: 8/26/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Blagg Engineering

Client Sample ID: MW 9

Project: GCU #170

Collection Date: 8/12/2020 9:30:00 AM

Lab ID: 2008712-008

Matrix: AQUEOUS

Received Date: 8/13/2020 7:55:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SM2340B: HARDNESS							Analyst: pmf
Hardness (As CaCO ₃)	540	6.6		mg/L	1	8/24/2020	R71304
SPECIFIC GRAVITY							Analyst: JRR
Specific Gravity	1.000	0			1	8/21/2020 8:12:00 AM	R71252
EPA METHOD 300.0: ANIONS							Analyst: JMT
Fluoride	ND	0.50		mg/L	5	8/14/2020 2:49:50 AM	R71064
Chloride	93	2.5		mg/L	5	8/14/2020 2:49:50 AM	R71064
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	8/14/2020 2:49:50 AM	R71064
Bromide	ND	0.50		mg/L	5	8/14/2020 2:49:50 AM	R71064
Nitrogen, Nitrate (As N)	ND	0.50		mg/L	5	8/14/2020 2:49:50 AM	R71064
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	8/14/2020 2:49:50 AM	R71064
Sulfate	230	10		mg/L	20	8/18/2020 3:16:02 AM	A71158
SM2510B: SPECIFIC CONDUCTANCE							Analyst: MH
Conductivity	1400	10		µmhos/c	1	8/17/2020 3:31:29 PM	R71119
SM2320B: ALKALINITY							Analyst: MH
Bicarbonate (As CaCO ₃)	418.8	20.00		mg/L Ca	1	8/19/2020 12:36:26 PM	R71199
Carbonate (As CaCO ₃)	ND	2.000		mg/L Ca	1	8/19/2020 12:36:26 PM	R71199
Total Alkalinity (as CaCO ₃)	418.8	20.00		mg/L Ca	1	8/19/2020 12:36:26 PM	R71199
SM2540C MOD: TOTAL DISSOLVED SOLIDS							Analyst: MH
Total Dissolved Solids	932	40.0	*D	mg/L	1	8/19/2020 4:25:00 PM	54515
SM4500-H+B / 9040C: PH							Analyst: MH
pH	7.71		H	pH units	1	8/17/2020 3:31:29 PM	R71119
EPA 6010B: TOTAL RECOVERABLE METALS							Analyst: pmf
Calcium	180	5.0		mg/L	5	8/24/2020 6:03:57 AM	54534
Iron	3.9	0.10		mg/L	5	8/24/2020 6:03:57 AM	54534
Magnesium	19	1.0		mg/L	1	8/21/2020 6:00:56 AM	54534
Potassium	2.8	1.0		mg/L	1	8/21/2020 6:00:56 AM	54534
Sodium	110	5.0		mg/L	5	8/24/2020 6:03:57 AM	54534

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Page 8 of 19

Chain-of-Custody Record

Client: **BLAGG ENGR. / BPX ENERGY**

Mailing Address: **P.O. BOX 87**
BLOOMFIELD, NM 87413

Phone #: **(505) 632-1199**

email or Fax#:

QA/QC Package:
☒ Standard ☐ Level 4 (Full Validation)

Accreditation:
☐ NELAP ☐ Other _____
☐ EDD (Type) _____

Turn-Around Time:
☒ Standard ☐ Rush _____

Project Name:
GCU # 170

Project #:

Project Manager:
STEVE MOSKAL

Sampler: **JEFFREY C. BLAGG**

On Ice: ☒ Yes ☐ No

Sample Temperature: *See Remarks*



HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.	BTEX + MTBE	BTEX + MTBE	TPH 8015B (G	TPH (Metho	EDB (Metho	PAH (8310 c	RCRA 8 Met	Anions (F,Cl,	Total Dissolve	8260B (VOA	8270 (Semi-	API Water + pH	Grab sample	5 pt. compo	Air Bubbles (Y
						2008712															
8/12/20	0952	WATER	MW # 2A	1000 ML -1	Cool	001												✓	✓		
8/12/20	0917	WATER	MW # 3A	1000 ML -1	Cool	002												✓	✓		
8/12/20	1008	WATER	MW # 4A	1000 ML -1	Cool	003												✓	✓		
8/12/20	0900	WATER	MW # 5	1000 ML -1	Cool	004												✓	✓		
8/12/20	1022	WATER	MW # 6	1000 ML -1	Cool	005												✓	✓		
8/12/20	0940	WATER	MW # 7	1000 ML -1	Cool	006												✓	✓		
8/12/20	0840	WATER	MW # 8	1000 ML -1	Cool	007												✓	✓		
8/12/20	0930	WATER	MW # 9	1000 ML -1	Cool	008												✓	✓		

Date: *8/12/2020* Time: *1610* Relinquished by: *JH Blagg*

Date: *8/12/2020* Time: *1914* Relinquished by: *Christina Wachs*

Received by: *Christina Wachs* Date: *8/12/2020* Time: *1610*

Received by: *one courier* Date: *8/13/20* Time: *0755*

Remarks: *3.3 ± 0.3*
BILL DIRECTLY TO BPX: 0.8 ± 0.3
 Contact: Steve Moskal *3.9 ± 0.3* to be provided
0.6 ± 0.6

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008712

26-Aug-20

Client: Blagg Engineering**Project:** GCU #170

Sample ID: MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: R71064	RunNo: 71064								
Prep Date:	Analysis Date: 8/13/2020	SeqNo: 2476586 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID: LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: R71064	RunNo: 71064								
Prep Date:	Analysis Date: 8/13/2020	SeqNo: 2476587 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	97.0	90	110			
Nitrogen, Nitrite (As N)	0.96	0.10	1.000	0	96.4	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P)	4.6	0.50	5.000	0	92.6	90	110			
Sulfate	9.7	0.50	10.00	0	97.1	90	110			

Sample ID: MB	SampType: mblk	TestCode: EPA Method 300.0: Anions								
Client ID: PBW	Batch ID: A71158	RunNo: 71158								
Prep Date:	Analysis Date: 8/17/2020	SeqNo: 2481250 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Sulfate	ND	0.50								

Sample ID: LCS	SampType: lcs	TestCode: EPA Method 300.0: Anions								
Client ID: LCSW	Batch ID: A71158	RunNo: 71158								
Prep Date:	Analysis Date: 8/17/2020	SeqNo: 2481251 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	109	90	110			
Sulfate	9.6	0.50	10.00	0	95.8	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2008712

26-Aug-20

Client: Blagg Engineering
Project: GCU #170

Sample ID: Ics-1 99.5uS eC		SampType: Ics		TestCode: SM2510B: Specific Conductance						
Client ID: LCSW		Batch ID: R71119		RunNo: 71119						
Prep Date:		Analysis Date: 8/17/2020		SeqNo: 2480786		Units: µmhos/cm				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	99	10	99.50	0	99.1	85	115			

Sample ID: Ics-2 99.5uS eC		SampType: Ics		TestCode: SM2510B: Specific Conductance						
Client ID: LCSW		Batch ID: R71119		RunNo: 71119						
Prep Date:		Analysis Date: 8/17/2020		SeqNo: 2480813		Units: µmhos/cm				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	99.50	0	105	85	115			

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008712

26-Aug-20

Client: Blagg Engineering**Project:** GCU #170

Sample ID: MBLK-54458	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 54458	RunNo: 71134								
Prep Date: 8/17/2020	Analysis Date: 8/18/2020	SeqNo: 2479884 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								

Sample ID: LCS-54458	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 54458	RunNo: 71134								
Prep Date: 8/17/2020	Analysis Date: 8/18/2020	SeqNo: 2479893 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	101	80	120			
Magnesium	52	1.0	50.00	0	103	80	120			
Potassium	51	1.0	50.00	0	102	80	120			

Sample ID: MBLK-54458	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 54458	RunNo: 71189								
Prep Date: 8/17/2020	Analysis Date: 8/19/2020	SeqNo: 2482686 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID: LCS-54458	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 54458	RunNo: 71189								
Prep Date: 8/17/2020	Analysis Date: 8/19/2020	SeqNo: 2482691 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	49	1.0	50.00	0	97.8	80	120			

Sample ID: MBLK-54504	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 54504	RunNo: 71189								
Prep Date: 8/18/2020	Analysis Date: 8/19/2020	SeqNo: 2482849 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008712

26-Aug-20

Client: Blagg Engineering**Project:** GCU #170

Sample ID: LCS-54504	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 54504	RunNo: 71189								
Prep Date: 8/18/2020	Analysis Date: 8/19/2020	SeqNo: 2482851	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	47	1.0	50.00	0	93.6	80	120			
Magnesium	48	1.0	50.00	0	96.0	80	120			
Potassium	48	1.0	50.00	0	95.7	80	120			
Sodium	48	1.0	50.00	0	96.0	80	120			

Sample ID: MBLK-54534	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 54534	RunNo: 71268								
Prep Date: 8/19/2020	Analysis Date: 8/21/2020	SeqNo: 2486841	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: LCS-54534	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 54534	RunNo: 71268								
Prep Date: 8/19/2020	Analysis Date: 8/21/2020	SeqNo: 2486843	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	48	1.0	50.00	0	96.0	80	120			
Magnesium	49	1.0	50.00	0	97.4	80	120			
Potassium	48	1.0	50.00	0	97.0	80	120			
Sodium	49	1.0	50.00	0	97.2	80	120			

Sample ID: LCSD-54534	SampType: LCSD	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSS02	Batch ID: 54534	RunNo: 71268								
Prep Date: 8/19/2020	Analysis Date: 8/21/2020	SeqNo: 2486844	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	97.6	80	120	1.67	20	
Magnesium	49	1.0	50.00	0	98.9	80	120	1.48	20	
Potassium	49	1.0	50.00	0	97.0	80	120	0.0578	20	
Sodium	49	1.0	50.00	0	97.4	80	120	0.178	20	

Sample ID: 2008712-006BMS	SampType: MS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: MW 7	Batch ID: 54504	RunNo: 71268								
Prep Date: 8/18/2020	Analysis Date: 8/21/2020	SeqNo: 2486852	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008712

26-Aug-20

Client: Blagg Engineering**Project:** GCU #170

Sample ID: 2008712-006BMS	SampType: MS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: MW 7	Batch ID: 54504	RunNo: 71268								
Prep Date: 8/18/2020	Analysis Date: 8/21/2020	SeqNo: 2486852 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	73	1.0	50.00	22.99	99.1	75	125			
Potassium	53	1.0	50.00	4.401	96.7	75	125			

Sample ID: 2008712-006BMSD	SampType: MSD	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: MW 7	Batch ID: 54504	RunNo: 71268								
Prep Date: 8/18/2020	Analysis Date: 8/21/2020	SeqNo: 2486853 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	71	1.0	50.00	22.99	96.4	75	125	1.87	20	
Potassium	52	1.0	50.00	4.401	94.3	75	125	2.28	20	

Sample ID: MBLK-54504	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 54504	RunNo: 71304								
Prep Date: 8/18/2020	Analysis Date: 8/24/2020	SeqNo: 2488232 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID: LCS-54504	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 54504	RunNo: 71304								
Prep Date: 8/18/2020	Analysis Date: 8/24/2020	SeqNo: 2488234 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	100	80	120			

Sample ID: MBLK-54534	SampType: MBLK	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: PBW	Batch ID: 54534	RunNo: 71304								
Prep Date: 8/19/2020	Analysis Date: 8/24/2020	SeqNo: 2488235 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

Sample ID: LCS-54534	SampType: LCS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSW	Batch ID: 54534	RunNo: 71304								
Prep Date: 8/19/2020	Analysis Date: 8/24/2020	SeqNo: 2488237 Units: mg/L								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.51	0.020	0.5000	0	102	80	120			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008712

26-Aug-20

Client: Blagg Engineering**Project:** GCU #170

Sample ID: LCSD-54534	SampType: LCSD	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: LCSS02	Batch ID: 54534	RunNo: 71304								
Prep Date: 8/19/2020	Analysis Date: 8/24/2020	SeqNo: 2488238	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	99.7	80	120	2.75	20	

Sample ID: 2008712-006BMS	SampType: MS	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: MW 7	Batch ID: 54504	RunNo: 71304								
Prep Date: 8/18/2020	Analysis Date: 8/24/2020	SeqNo: 2488246	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	350	5.0	50.00	291.8	122	75	125			
Sodium	130	5.0	50.00	75.71	107	75	125			

Sample ID: 2008712-006BMSD	SampType: MSD	TestCode: EPA 6010B: Total Recoverable Metals								
Client ID: MW 7	Batch ID: 54504	RunNo: 71304								
Prep Date: 8/18/2020	Analysis Date: 8/24/2020	SeqNo: 2488247	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	340	5.0	50.00	291.8	91.4	75	125	4.45	20	
Sodium	120	5.0	50.00	75.71	93.0	75	125	5.74	20	

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: 2008712
26-Aug-20

Client: Blagg Engineering
Project: GCU #170

Sample ID: 2008712-008A DUP		SampType: dup		TestCode: SM4500-H+B / 9040C: pH						
Client ID: MW 9		Batch ID: R71119		RunNo: 71119						
Prep Date:		Analysis Date: 8/17/2020		SeqNo: 2480871		Units: pH units				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	7.73									H

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT**Hall Environmental Analysis Laboratory, Inc.**

WO#: 2008712

26-Aug-20

Client: Blagg Engineering**Project:** GCU #170

Sample ID: mb-1 alk	SampType: mblk	TestCode: SM2320B: Alkalinity								
Client ID: PBW	Batch ID: R71119	RunNo: 71119								
Prep Date:	Analysis Date: 8/17/2020	SeqNo: 2480723 Units: mg/L CaCO3								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: lcs-1 alk	SampType: lcs	TestCode: SM2320B: Alkalinity								
Client ID: LCSW	Batch ID: R71119	RunNo: 71119								
Prep Date:	Analysis Date: 8/17/2020	SeqNo: 2480724 Units: mg/L CaCO3								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.12	20.00	80.00	0	96.4	90	110			

Sample ID: mb-3 alk	SampType: mblk	TestCode: SM2320B: Alkalinity								
Client ID: PBW	Batch ID: R71119	RunNo: 71119								
Prep Date:	Analysis Date: 8/18/2020	SeqNo: 2480772 Units: mg/L CaCO3								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: lcs-3 alk	SampType: lcs	TestCode: SM2320B: Alkalinity								
Client ID: LCSW	Batch ID: R71119	RunNo: 71119								
Prep Date:	Analysis Date: 8/18/2020	SeqNo: 2480773 Units: mg/L CaCO3								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.00	20.00	80.00	0	97.5	90	110			

Sample ID: mb-1 alk	SampType: mblk	TestCode: SM2320B: Alkalinity								
Client ID: PBW	Batch ID: R71199	RunNo: 71199								
Prep Date:	Analysis Date: 8/19/2020	SeqNo: 2483765 Units: mg/L CaCO3								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: lcs-1 alk	SampType: lcs	TestCode: SM2320B: Alkalinity								
Client ID: LCSW	Batch ID: R71199	RunNo: 71199								
Prep Date:	Analysis Date: 8/19/2020	SeqNo: 2483766 Units: mg/L CaCO3								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.64	20.00	80.00	0	97.0	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.
D Sample Diluted Due to Matrix
H Holding times for preparation or analysis exceeded
ND Not Detected at the Reporting Limit
PQL Practical Quantitative Limit
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank
E Value above quantitation range
J Analyte detected below quantitation limits
P Sample pH Not In Range
RL Reporting Limit

Page 16 of 19

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2008712

26-Aug-20

Client: Blagg Engineering
Project: GCU #170

Sample ID: mb-3 alk		SampType: mblk		TestCode: SM2320B: Alkalinity						
Client ID: PBW		Batch ID: R71199		RunNo: 71199						
Prep Date:		Analysis Date: 8/20/2020		SeqNo: 2483811		Units: mg/L CaCO3				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)		ND	20.00							

Sample ID: lcs-3 alk		SampType: lcs		TestCode: SM2320B: Alkalinity						
Client ID: LCSW		Batch ID: R71199		RunNo: 71199						
Prep Date:		Analysis Date: 8/20/2020		SeqNo: 2483812		Units: mg/L CaCO3				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)		77.84	20.00	80.00	0	97.3	90	110		

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2008712

26-Aug-20

Client: Blagg Engineering

Project: GCU #170

Sample ID: 2008712-001ADUP		SampType: DUP		TestCode: Specific Gravity						
Client ID: MW 2A		Batch ID: R71252		RunNo: 71252						
Prep Date:		Analysis Date: 8/21/2020		SeqNo: 2485939		Units:				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravity	0.9985	0						0.350	20	

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2008712

26-Aug-20

Client: Blagg Engineering

Project: GCU #170

Sample ID: MB-54515	SampType: MBLK	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: PBW	Batch ID: 54515	RunNo: 71182								
Prep Date: 8/18/2020	Analysis Date: 8/19/2020	SeqNo: 2482498	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: LCS-54515	SampType: LCS	TestCode: SM2540C MOD: Total Dissolved Solids								
Client ID: LCSW	Batch ID: 54515	RunNo: 71182								
Prep Date: 8/18/2020	Analysis Date: 8/19/2020	SeqNo: 2482499	Units: mg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Qualifiers:

- *

Value exceeds Maximum Contaminant Level.
- D

Sample Diluted Due to Matrix
- H

Holding times for preparation or analysis exceeded
- ND

Not Detected at the Reporting Limit
- PQL

Practical Quantitative Limit
- S

% Recovery outside of range due to dilution or matrix
- B

Analyte detected in the associated Method Blank
- E

Value above quantitation range
- J

Analyte detected below quantitation limits
- P

Sample pH Not In Range
- RL

Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Blagg Engineering

Work Order Number: 2008712

RcptNo: 1

Received By: Cheyenne Cason

8/13/2020 7:55:00 AM

Completed By: Emily Mocho

8/13/2020 10:44:40 AM

Reviewed By: *EM*

8/13/20

Chain of Custody

1. Is Chain of Custody complete? Yes ☒ No ☐ Not Present ☐
2. How was the sample delivered? Courier

Log In

3. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
4. Were all samples received at a temperature of $>0^{\circ}\text{C}$ to 6.0°C ? Yes ☒ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☒ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☒ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☒ No ☐
8. Was preservative added to bottles? Yes ☒ ~~No ☒~~ EM 8/13/20 ☐
9. Received at least 1 vial with headspace $<1/4$ " for AQ VOA? Yes ☒ No ☐ NA ☐
10. Were any sample containers received broken? Yes ☐ No ☒
11. Does paperwork match bottle labels?
(Note discrepancies on chain of custody) Yes ☒ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☒ No ☐
13. Is it clear what analyses were requested? Yes ☒ No ☐
14. Were all holding times able to be met?
(If no, notify customer for authorization.) Yes ☒ No ☐

of preserved
bottles checked
for pH: 8
or >12 unless noted)

Adjusted? yes

Checked by: EM 8/13/20

Special Handling (if applicable)

15. Was client notified of all discrepancies with this order? Yes ☐ No ☐ NA ☒

Person Notified:		Date:	
By Whom:		Via:	☐ eMail ☐ Phone ☐ Fax ☐ In Person
Regarding:			
Client Instructions:			

16. Additional remarks: Poured off ~250 mL from fraction A for fraction B for All samples, then added 0.5 mL HNO₃ to fraction B for 001-008 to preserve with pH < 2 for metals analysis.
17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.3	Good	Not Present			
2	0.3	Good	Not Present			
3	3.9	Good	Not Present			
4	0.6	Good	Not Present			

EM 8/13/20

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 15287

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID:	329736
	Action Number:	15287
	Action Type:	
	[UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)	

CONDITIONS

Created By	Condition	Condition Date
michael.buchanan	Received for the record	1/31/2024