

DE BEQUE WATER STATION OPERATING PLAN

OVERVIEW

The De Beque Water Station will be designed for the collection of produced water from surrounding oil and gas operations along with raw water from the Colorado River. The proposed facility is located approximately 2.2 miles southwest of De Beque, Colorado in the SE ¼ of the SW ¼ of Section 29, Township 8 South, Range 97 West, 6th P.M.

The De Beque Water Station facility will consist of three lined reservoirs for the storage of produced water and raw water, a pump station, a lay down yard and an office building. A layout of the facility is shown on Exhibit 1. Pond 1 is designated as a produced and raw water pond while Ponds 2 and 3 are designated as produced water only. This gives the operator more flexibility for water storage.

The project will be split into several components. The first component is Pond 1, which is covered in this operating plan. Ponds 2 and 3 will be another component and will be submitted for review at a later date as part of the Form 28 permit.

OPERATING PLAN CRITERIA

The criteria used for the operating plan of Pond 1 were based on the COGCC 900 Series Rules under Section 908.B.

WATER SOURCE, TREATMENT AND FLOW RATES

Three natural gas fields will be the sources of produced water to be stored in proposed ponds. These fields are named Winter Flats, Homer Deep, and Horseshoe Canyon. The fields can be seen on Exhibit 2. Pipelines have been constructed to connect each field to the De Beque pump station building. Produced water will be pre-treated at each wellhead via an oil/water separator prior to transport to the De Beque Water Station. All produced flow back water will enter the pump station building and flow through an oil skimming system before being pumped to Pond 1 for storage. Any produced water that is delivered to the site via truck will also be pumped through the oil skimming system and then to Pond 1.

To determine the anticipated flow rates of the return flow at the De Beque Water Station, flow back data from Well Number: DHS3C-19 D17998 (Well C19) and DHS3C-20 D17998 (Well C20) was reviewed. From 12/5/2013 to 2/26/2014, Well C19 had 79 days of return water flow. During this time, the well averaged approximately 519 bbls/day of water with a minimum of 2 bbls/day and a maximum of 3,270 bbls/day. Well C20 had 34 days of return water flow from 1/21/2014 to 2/26/2014. During this time, the

well averaged 229 bbls/day of water with a minimum of 0 bbls/day and maximum of 2096 bbls/day. For the purpose of estimating the design flow back, a peak daily flow of 3,270 bbls/day will be used. Tables with flow back data for Wells C19 and C20 are located in Attachment A.

Oil/water ratios were estimated by comparing typical oil production values to the quantity of return water flow for each day. It was noted that the data supplied for these wells was taken at a sampling point corresponding to a flow back separator, which is estimated to remove 90% of the hydrocarbons present in the flow back water. Based on these estimates, an average oil removal of 5.8 gallons per hour (gph) will be required with a peak removal of 15.2 gph.

Flow back water will flow through an oil skimming system to remove hydrocarbons prior to being pumped to Pond 1 for storage. The oil removal system will consist of a two part system. First, a gravity separation tank will be required to reduce the kinetic energy of the influent and to provide sufficient detention time to allow the oil and water to separate. Effluent will be allowed to leave the bottom of the gravity separation tank, via a sump pump, leaving the lighter oils at the surface of the tank. Second, an oil skimmer will be required to remove the separated oil from the tank.

DUST AND MOISTURE CONTROL

The main access road into the site and to the lay down yard and pump station building will be a gravel surface that will be sprayed with magnesium chloride to provide dust suppression. The maintenance road along the Pond 1 berm will be a graveled surface. If dust becomes an issue on these roads or any other areas on-site, the raw water supplied from the Colorado River will be used for dust suppression.

During large rainfall events, conveyance ditches will be constructed around the perimeter of the site to route storm water runoff. This runoff water will be conveyed to an on-site detention pond and an existing drainage ditch.

SAMPLING

Three groundwater monitoring wells have been installed around the perimeter of the site with each well 100 feet deep. These wells were drilled in February of 2014 and have been monitored monthly since their installation. The groundwater level has remained greater than 100 feet since the monitoring wells were installed as no water has been detected in any well. Due to this depth of groundwater, no groundwater samples will be required for this project.

The water in Pond 1 will be sampled on a regular basis and analyzed for the constituents listed in Table 910-1 in the COGCC regulations. Initially water samples will

be collected on a monthly basis and can be adjusted to a more frequent basis if conditions warrant.

INSPECTION AND MAINTENANCE

The anticipated inspection, operation and maintenance of Pond 1 tasks that Black Hills will perform are listed below:

- Black Hills operators will be at Pond 1 on a daily basis and will do a basic visual observation of the pond for any apparent problems. This will include watching for leaks in any equipment, damage to any fencing, and orientation of floating cover;
- Black Hills will provide operators with an inspection check list to be used during inspections conducted once per week;
- Black Hills operators will ensure all facility monitoring systems are operating correctly and reporting critical information in real-time;
- Black Hills operators will be responsible for ensuring all equipment and system components are inspected and serviced per the manufacturer's instructions;
- Maintenance will be done on the facility as recommended by the manufacturer of the liners and as needed based on weekly inspections;
- All reporting requirements will be imposed per the COGCC standard;
- Pond 1 has been designed with a leak detection system between the primary and secondary liners. The leak detection system will be monitored regularly for water accumulation between these two liners. The leak detection system will be inspected weekly when water is being stored in the pond.

EMERGENCY RESPONSE

All incidents that occur on the facility shall be reported to the facility supervisor with Black Hills. The contact information for the facility supervisor is listed below.

Brett Hurlbut
1515 Wynkoop St., Suite 500
Denver, CO 80202
(303) 566-3491 (office)
(303) 828-7816 (cell)

In the event of an emergency that requires immediate medical attention, personnel shall call 9-1-1 emergency services. The closest nearest hospital is located in Grand Junction and is the Community Hospital. The Community Hospital is located approximately 35 miles south of the facility, and the contact information is listed below.

Grand Junction Community Hospital
2021 N. 12th St.
Grand Junction, CO 81501
(970) 242-09220

The produced water that will be pumped into Pond 1 from the producing natural gas wells will contain a very low percentage of hydrocarbons as it will go through a flow back separator at the well site and an additional oil skimming chamber in the pump station building. The produced water in the pond will also be mixed with raw water from the Colorado River, further reducing the hydrocarbon percentage. The low hydrocarbon content of the pond water reduces the risk of fire in the pits. In case of a fire occurring at the facility, the contact information for the De Beque Fire Protection Division is listed below.

De Beque Fire Protection Division
380 Curtis Ave.
De Beque, CO 81630
(970) 283-8632

In the event that law enforcement officials may be contacted, the Colorado State Police and De Beque Town Marshall's Office contact information is given below.

Colorado State Police
202 Centennial St.
Glenwood Springs, CO 81601
(970) 945-6198 (business hours)
(970) 824-6501 (dispatch)

De Beque Town Marshall/Police Chief's Office
381 Minter Ave.
De Beque, CO 81630
(970) 283-5475

Operational emergencies including large amounts of spilled fluids or complete embankment failure, the Mesa County Office of Emergency Management may be contacted. The contact information for this office is given below.

Mesa County Office of
Emergency Management
215 Rice Street
Grand Junction, CO 81501
Office: (970) 244-1763

In the case of a medical emergency, injury, fire, or facility operational emergency, personnel shall notify the facility supervisor immediately after contacting the appropriate emergency personnel. In the case of a fire or unauthorized release, the Colorado Oil

and Gas Conservation Commission (COGCC) shall be notified. The contact information for the COGCC is given below.

Colorado Oil and Gas Conservation Commission (district office)
796 Megan Ave., Suite 201
Rifle, CO 81650
Office: (970) 625-2497

Colorado Oil and Gas Conservation Commission (main office)
1120 Lincoln St., Suite 801
Denver, CO 80203
Office: (303) 894-2100

RECORD-KEEPING

The offices of Black Hills will handle record keeping for the facility. The facility supervisor will be responsible for ensuring the accuracy and completeness of the records showing volumes of water stored in the facility. Record-keeping will be composed of the following elements: date water was transported, method of transportation (truck or pipeline), approximate volume of water, and source of water. All records will be available for the COGCC upon request.

SITE SECURITY

The site is secured with a 7 feet high industrial strength chain link fence with 3 strands of barbed wire along the top. The fence is designed to keep livestock, wildlife and unauthorized personnel from entering the site. The fence completely surrounds the facility. A 7 feet high automated gate will be installed at the site entrance adjacent to county road V 2/10. The gate will only open via an electronic card reader on the unsecured side of the gate. The gate will automatically close once the vehicle has entered the facility. The pump station building will be locked at all times and can be accessed with a card reader. The facility will be manned during all pumping operations.

HOURS OF OPERATION

Water may be flowing into and out of Pond 1, 24 hours per day, 7 days per week. The facility will be manned as needed during normal daylight hours and will be manned at all times during pumping operations.

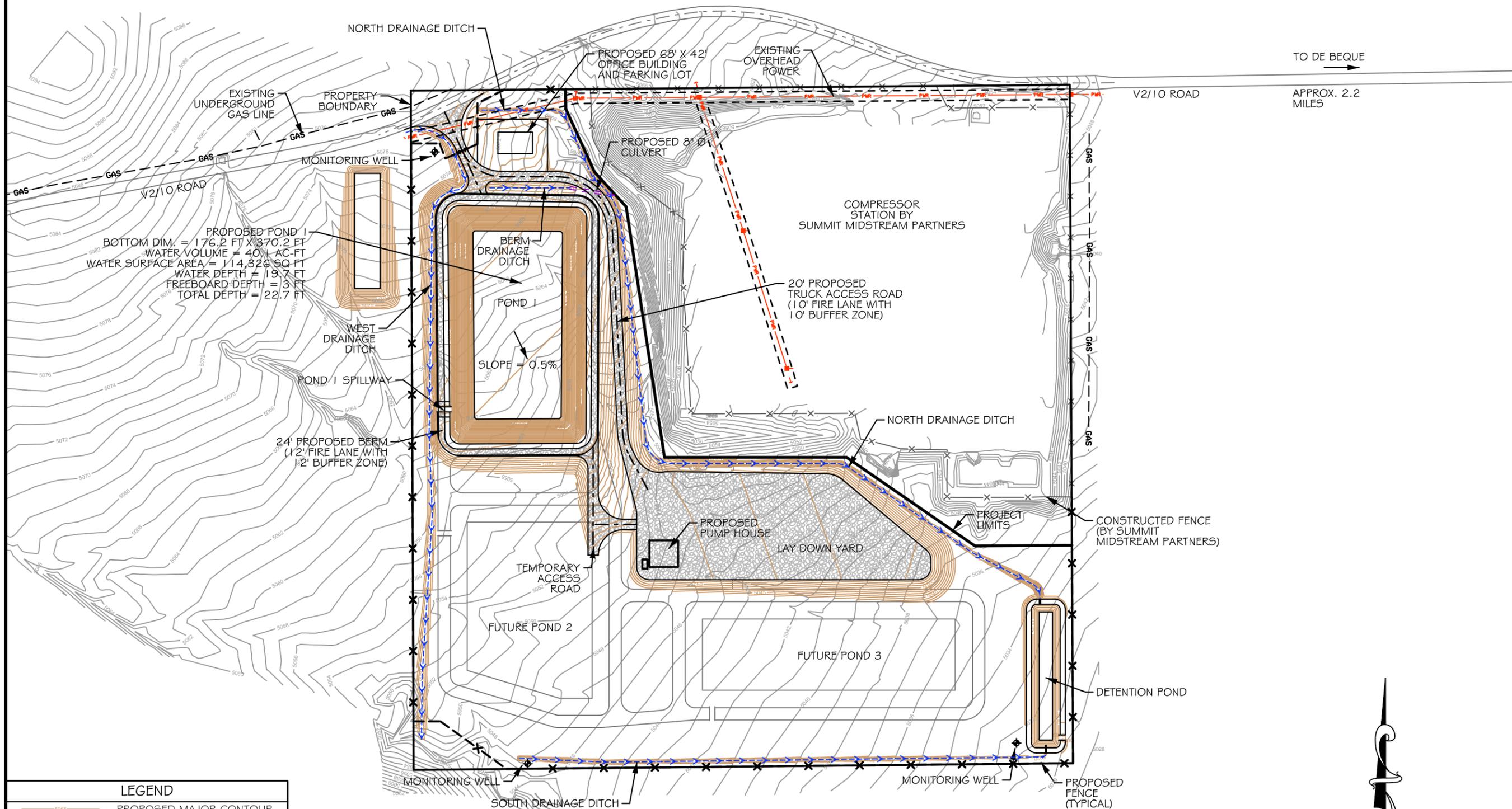
NOISE AND ODOR MITIGATION

Low noise levels are anticipated. The pumps that supply water for fracing operations are located within an enclosed pump station building. The building will be insulated which will help mitigate noise pollution. Odor mitigation will be accomplished by installing a floating cover on the water surface of Pond 1. As the water level fluctuates, the cover will raise or lower with the water level. This cover will also deter birds from landing on the pond surface.

FINAL DISPOSITION OF WASTE

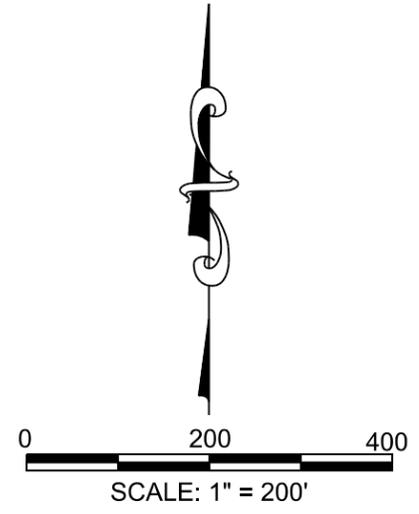
The only anticipated waste from the facility will be hydrocarbons removed from the oil skimming system and motor oil used in the pumps. These waste products will be collected on a regular basis and disposed of at a certified disposal site.

EXHIBITS



LEGEND

	PROPOSED MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	EXISTING MINOR CONTOUR
	FLOWLINE
	OVERHEAD POWER
	PROPOSED FENCE
	EXISTING FENCE
	EASEMENT
	GAS LINE



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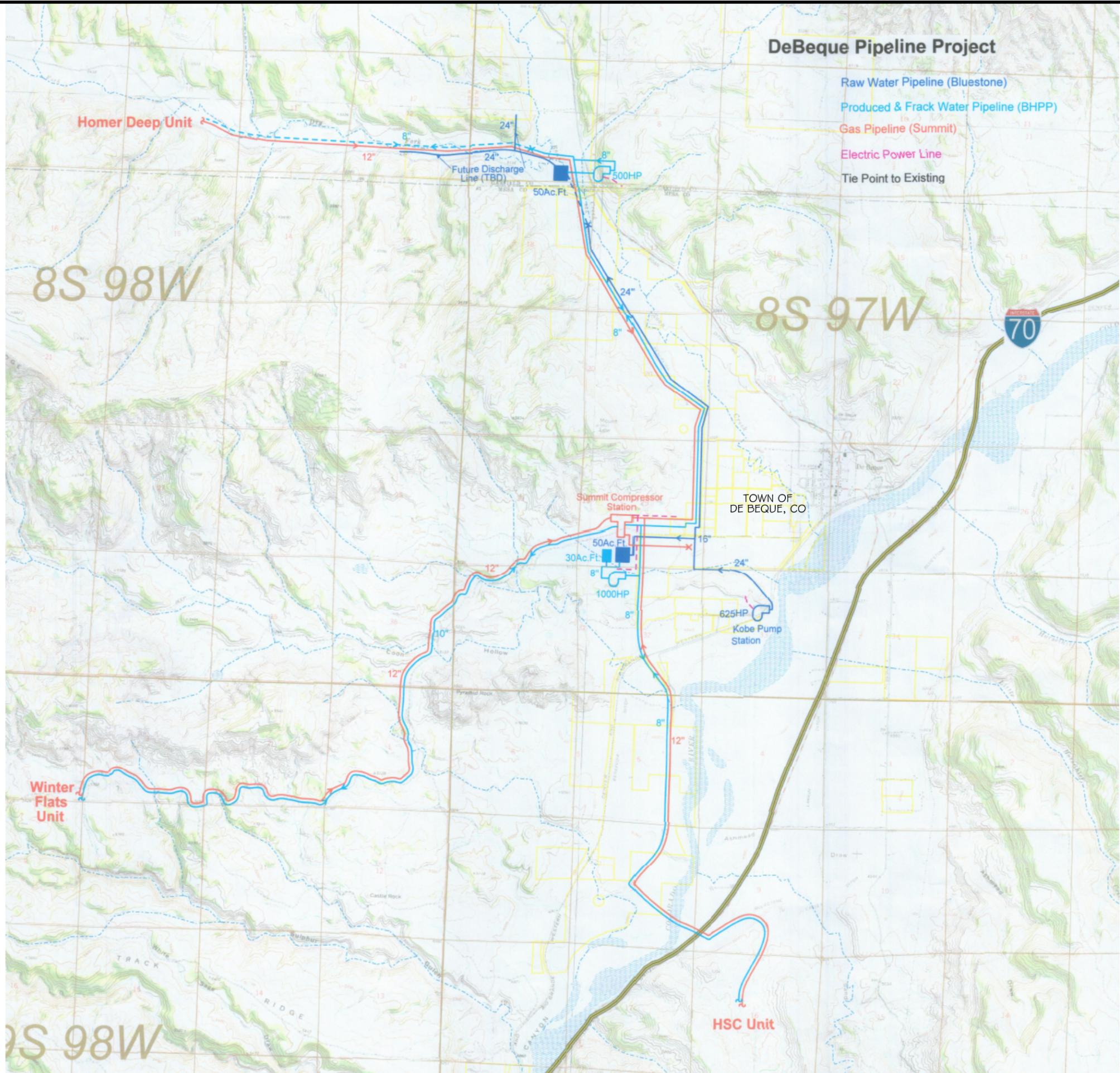
WWC ENGINEERING
 1275 MAPLE STREET, SUITE F
 HELENA, MT 59601
 (406) 443-3962

Black Hills Exploration & Production
 A Black Hills Corporation Subsidiary
 1515 WYNKOOP ST., SUITE 500
 DENVER, CO 80202
 (303) 566-3356

DGN	DATE	CKD
GPV	6/17/14	STH
REV	DATE	CKD

JOB # 2013-134

DE BEQUE STATION
SITE PLAN
EXHIBIT 1



DeBeque Pipeline Project

- Raw Water Pipeline (Bluestone)
- Produced & Frack Water Pipeline (BHPP)
- Gas Pipeline (Summit)
- Electric Power Line
- Tie Point to Existing

NOTE:
PIPELINE MAP PROVIDED
BY BLACK HILLS
EXPLORATION AND
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WWC ENGINEERING
1275 MAPLE STREET, SUITE F
HELENA, MT 59601
(406) 443-3962

Black Hills Exploration & Production
A Black Hills Corporation Enterprise
2350 G Road, Suite 101
Grand Junction, CO 81505

DSGN	DATE	CKD
DDP	3/4/14	STH
REV	DATE	CKD

JOB # 2013-134

DE BEQUE STATION
Pipe System Details

APPENDIX A

EXISTING WELL FLOW BACK DATA



COMPANY: Blackhills
 WELL: Well C20
 FIELD: _____

Day Lead: wes bybee
 Day Tech: robert willams
 Night Lead: russ rowe
 Night Tech: Bryan Schmidt
 FIELD REP: Michael Durham

Phone # 307-371-9519
 Phone # 970-217-0791
 Phone # 303-709-1266
 Phone # 970-556-5789
 Phone # 505 220 2865

DATE 02/26/14
 PACKER @ _____
 PERF: _____

WELL HEAD DATA					GAS VOLUME DATA										WATER DATA					REMARKS											
TIME	CHOKE SIZE	WELLHEAD PRESS (psi)	WELLHEAD TEMP	CSG PRESS	ORIFICE READINGS				ORIFICE PLATE	SALES LINE PRES	58332			6785		66822.75		SALES MMCF/D	OIL (BBL/SHR)	OIL (BBL/DAY)	729		CORROS READING	WATER (BBL/SHR)	WATER (BBL/D)	6788		SALINITY (PPM)	SAND	PH	COMMENTS
					METER RUN	DIFF	PRESS	TEMP			SALES GAS	FLARE GAS	SCANNER 2000	SCANNER 2000	TOTAL OIL BBL/D	TOTAL OIL BBL/D	TOTAL WATER				WATER LEFT TO RECOVER										
7:00	20/64	1875	74	0	3.826	17	202	56	2.500	182	89	0	89	2136	1	24	730	0	3	72	6791	531128									
8:00	20/64	1925	72	0	3.826	8	201	62	2.500	175	85	0	85	2040	3	72	733	0	1	24	6792	531127									
9:00	20/64	1900	82	0	3.826	32	197	66	2.500	179	90	0	90	2160	4	96	737	0	3	72	6795	531124									
10:00	20/64	1925	80	0	3.826	23	199	57	2.500	181	115	0	115	2760	3	72	740	0	6	144	6801	531118									
11:00	22/64	1950	83	0	3.826	23	200	59	2.500	184	86	0	86	2064	4	96	744	0	3	72	6804	531115									
12:00	22/64	1950	90	0	3.826	26	209	71	2.500	190	108	0	108	2592	0	0	744	0	0	0	6804	531115									
13:00	22/64	1950	82	0	3.826	20	212	54	2.500	196	121	0	121	2904	4	96	748	0	3	72	6807	531112									
14:00	22/64	1950	82	0	3.826	22	215	61	2.500	199	81	0	81	1944	0	0	748	0	2	48	6809	531110									
15:00	20/64	1950	81	0	3.826	20	209	62	2.500	201	95	0	95	2280	1	24	749	0	3	72	6812	531107									
16:00	18/64	1975	80	0	3.826	15	211	59	2.500	197	79.75	1.25	81	1914	0	0	749	0	3	72	6815	531104								16:45 went to full flare because static on sales line reached 211	
17:00	16/64	1925	80	0	3.826	24	186	58	2.500	207	60	24	84	1440	1	24	750	0	1	24	6816	531103									
18:00	16/64	1900	79	0	3.826	20	176	60	2.500	190	0	85	85	0	1	24	751	0	1	24	6817	531102									
19:00	16/64	1875	77	0	3.826	18	161	57	2.500	151	0	85	85	0	0	0	751	0	1	24	6818	531101								19:05 static on sales line dropped, opened sales	
20:00	18/64	1900	74	0	3.826	19	160	56	2.500	139	42	42	84	1008	1	24	752	0	2	48	6820	531099								20:00 closed flare	
21:00	18/64	1900	77	0	3.826	25	178	61	2.500	158	100.75	1.25	102	2418	1	24	753	0	3	72	6823	531096									
22:00	18/64	1925	77	0	3.826	28	185	60	2.500	166	101.75	1.25	103	2442	2	48	755	0	2	48	6825	531094									
23:00	18/64	1925	75	0	3.826	24	186	61	2.500	170	104.75	1.25	106	2514	2	48	757	0	2	48	6827	531092									
0:00	18/64	1925	76	0	3.826	23	188	58	2.500	171	103.75	1.25	105	2490	1	24	758	0	3	72	6830	531089									
1:00	18/64	1925	76	0	3.826	24	192	60	2.500	174	102.75	1.25	104	2466	2	48	760	0	2	48	6832	531087									
2:00	18/64	1925	78	0	3.826	23	196	57	2.500	179	104.75	1.25	106	2514	2	48	762	0	3	72	6835	531084									
3:00	18/64	1925	78	0	3.826	24	200	62	2.500	182	100.75	1.25	102	2418	1	24	763	0	3	72	6838	531081									
4:00	18/64	1925	80	0	3.826	23	200	60	2.500	183	98.75	1.25	100	2370	1	24	764	0	2	48	6840	531079									
5:00	18/64	1925	80	0	3.826	24	200	61	2.500	186	95	0	95	2280	0	0	764	0	2	48	6842	531077									
6:00	18/64	1925	81	0	3.826	22	209	59	2.500	191	83	0	83	1992	1	24	765	0	1	24	6843	531076									

GAS PROD (MCF/D):	2295	ACCUM PROD GAS(MCF) SCANNER 2000	69117.75	OIL PROD (BBL/DAY):	36	H2O PROD (BBL/DAY):	55	CHLORIDES (PPM):	
SALES GAS(MCF/D):	2047.75	ACCUM SALES GAS(MCF) TOTAL FLOW	60379.75	OIL RECOVERED (BBL):	765	H2O RECOVERED (BBL):	6843	H2S (PPM):	0
FLARE GAS(MCF/D):	247.25	ACCUM FLARE GAS(MCF)	7032	BLWTR:	531.076	H2O % Recovered:	1.29%	CO2 (%):	
SALES MMCF/D AVERAGE:	85.32								



COMPANY: Blackhills
 WELL: Well C19
 FIELD: _____

Day Lead: Wes Bybee
 Day Tech: Robert Williams
 Night Lead: Russ Rowe
 Night Tech: Bryan Schmidt
 FIELD REP: Michael Durham

Phone # 307-371-9519
 Phone # _____
 Phone # 307-389-0668
 Phone # 970-556-5789
 Phone # 505 220 2865

DATE 02/26/14
 PACKER @ _____
 PERF: _____

WELL HEAD DATA					GAS VOLUME DATA										WATER DATA					REMARKS						
TIME	CHOKE SIZE	WELLHEAD PRESS (psi)	WELLHEAD TEMP	CSG PRESS	ORIFICE READINGS				ORIFICE PLATE	SALES LINE PRES			SALES MMCF/D	OIL (BBL/HR)	OIL (BBL/DAY)	2548 TOTAL OIL BBL/D	CORIOLIS READING	WATER (BBL/HR)	WATER (BBL/D)	36782 429 230		SALINITY (PPM)	SAND	PH	COMMENTS	
					METER RUN	DIF	PRESS	TEMP		SALES GAS	FLARE GAS	SCANNER 2000								TOTAL WATER	WATER LEFT TO RECOVER					
7:00	24/64	1200	59	0	3.826	13	198	76	2.500	182	89	0	89	2136	1	24	2549	0	0	0	35782	429230				
8:00	24/64	1200	73	0	3.826	13	190	76	2.500	175	85	0	85	2040	2	48	2551	0	1	24	35783	429229				
9:00	24/64	1200	72	0	3.826	21	195	71	2.500	179	90	0	90	2160	1	24	2552	0	1	24	35784	429228				
10:00	26/64	1100	79	0	3.826	20	198	75	2.500	181	115	0	115	2760	1	24	2553	0	1	24	35785	429227				
11:00	26/64	950	82	0	3.826	23	202	74	2.500	184	86	0	86	2064	1	24	2554	0	3	72	35788	429224				
12:00	26/64	1000	94	0	3.826	24	200	73	2.500	190	108	0	108	2592	0	0	2554	0	2	48	35790	429222				
13:00	26/64	1000	85	0	3.826	20	212	73	2.500	196	121	0	121	2904	1	24	2555	0	3	72	35793	429219				
14:00	26/64	1000	82	0	3.826	19	215	73	2.500	199	81	0	81	1944	0	0	2555	0	2	48	35795	429217				
15:00	24/64	1000	77	0	3.826	20	212	74	2.500	201	95	0	95	2280	1	24	2556	0	0	0	35795	429217				
16:00	24/64	950	75	0	3.826	10	211	75	2.500	197	81	0	81	1944	0	0	2556	0	0	0	35795	429217				16:45 went to full flare because static on sales line reached 211
17:00	20/64	950	76	0	3.826	14	186	72	2.500	207	60	24	84	1440	0	0	2556	0	0	0	35795	429217				
18:00	20/64	925	75	0	3.826	14	175	74	2.500	190	0	85	85	0	0	0	2556	0	3	72	35798	429214				
19:00	20/64	900	74	0	3.826	13	156	72	2.500	151	0	85	85	0	0	0	2556	0	2	48	35800	429212				19:05 static on sales line dropped, opened sales
20:00	24/64	900	68	0	3.826	14	159	76	2.500	139	42	42	84	1008	1	24	2557	0	3	72	35803	429209				20:00 closed flare
21:00	24/64	925	81	0	3.826	26	178	77	2.500	158	102	0	102	2448	2	48	2559	0	2	48	35805	429207				
22:00	24/64	1000	78	0	3.826	22	185	76	2.500	166	103	0	103	2472	1	24	2560	0	2	48	35807	429205				
23:00	24/64	1000	70	0	3.826	21	187	77	2.500	170	106	0	106	2544	1	24	2561	0	1	24	35808	429204				
0:00	24/64	950	71	0	3.826	19	188	78	2.500	171	105	0	105	2520	1	24	2562	0	1	24	35809	429203				
1:00	24/64	925	68	0	3.826	18	191	75	2.500	174	104	0	104	2496	1	24	2563	0	0	0	35809	429203				
2:00	24/64	900	71	0	3.826	17	196	75	2.500	179	106	0	106	2544	1	24	2564	0	1	24	35810	429202				
3:00	24/64	900	71	0	3.826	16	199	75	2.500	182	102	0	102	2448	2	48	2566	0	0	0	35810	429202				
4:00	24/64	900	74	0	3.826	15	199	75	2.500	183	100	0	100	2400	2	48	2568	0	1	24	35811	429201				
5:00	24/64	900	72	0	3.826	18	204	74	2.500	186	95	0	95	2280	0	0	2568	0	0	0	35811	429201				
6:00	24/64	900	73	0	3.826	18	208	76	2.500	191	83	0	83	1992	1	24	2569	0	0	0	35811	429201				

GAS PROD (MCF/D): 2295	ACCUM PROD GAS(MCF) SCANNER 2000	346126	OIL PROD (BBL/DAY): 21	H2O PROD (BBL/DAY): 29	CHLORIDES (PPM):
SALES GAS(MCF/D): 2059	ACCUM SALES GAS(MCF) TOTAL FLOW	23759	OIL RECOVERED (BBL/D): 2.569	H2O RECOVERED (BBL/D): 35811	H2S (PPM): 0
FLARE GAS(MCF/D): 236	ACCUM FLARE GAS(MCF)	263091	BLWTR: 429,201	H2O % Recovered: 8.34%	CO2 (%):
SALES MMCF/D AVERAGE: 85.79					