

State of Colorado
Oil and Gas Conservation Commission

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Document Number:

403201527

Date Received:

12/01/2022

UNDERGROUND INJECTION FORMATION PERMIT APPLICATION

Per Rule 803, this form shall be submitted with all required attachments.

A Form 31 – Intent shall be submitted and approved prior to completing an injection zone.

A Form 31 – Subsequent shall be submitted following collection of water samples and injectivity test (if performed) and must be approved prior to injection in any new injection facility.

NOTE: Per Rule 802.a, an aquifer exemption is required for any injection formation with water quality less than 10,000 mg/L total dissolved solids (TDS). Contact the Commission for further requirements if the TDS as determined by water analysis for the injection zone is less than 10,000 mg/L.

Form 31 Type

Intent

Subsequent

UIC Facility ID

UIC Facility ID Required for Subsequent Form 31

UIC FACILITY INFORMATION

Facility Name and Number: Mutual 0780 S17 Pad

County: JACKSON

Facility Location: NWNW / 17 / 7N / 80W / 6

Field Name and Number: NORTH PARK HORIZONTAL 60120
NIOBRARA

Facility Type: Enhanced Recovery

Disposal

Simultaneous Disposal

Single or Multiple Well Facility? Single

Multiple

Proposed Injection Program Summary (Required by Rule 803.g.(5). Attach Stratigraphic Column separately.):

Fulcrum Energy Operating LLC operates several existing Oil & Gas Facilities which may be utilized for the proposed Mutual EOR Unit as follows:

MUTUAL 0780 S17 PAD (COGCC Location ID 324757)

This pad was originally constructed by EOG Resources in 2008 and expanded by SandRidge Exploration & Production in 2016. This pad will NOT need to be expanded for the Mutual EOR operations. There are currently eight producing wells located on the Mutual S17 pad, all producing from the Niobrara Formation. Electric power on the Mutual S17 Pad will be provided by two or more gas-fired generators located on the pad. Four of the wells located on this pad produce crude oil and natural gas from lands located outside of the proposed Mutual EOR Unit. The four existing wells on this pad which are located within the proposed Mutual EOR Unit ("Unit Wells") are as follows:

- Mutual 7-17H
- Mutual 0780 2-8H
- Mutual 0780 3-8H (proposed injection well)
- Mutual 0780 4-8H

BIG HORN 0780 S17 CTB FACILITY (COGCC Location ID 446174)

This pad was constructed by SandRidge Exploration & Production in 2016 as a central production facility only. This pad will NOT need to be expanded for the Mutual EOR operations. There is one saltwater disposal well located on this pad. There are no producing oil and gas wells located on this site. Electric power for operations on the Big Horn S17 CTB will be provided by one or more gas-fired generators located on the pad. All of the crude oil and water produced from the Unit Wells will be transported via buried pipeline from the Mutual S17 Pad to the Big Horn 17 CTB for separation, storage and marketing. Produced water will be transported from the water storage tanks via buried flow line to the Big Horn 1-17 SWD. Excess water will be transported via buried pipeline from the Big Horn S17 CTB to the Pintail S16 SWD Facility. Crude oil will be sold and transported via tanker trucks from the Big Horn S17 CTB load-out facility.

GREGORY 0780 S9 PAD (COGCC Location ID 439603)

This pad was originally constructed by SandRidge Exploration & Production in 2016 and expanded in 2018. This pad will NOT need to be expanded for the Mutual EOR operations. There are currently nine producing wells located on the Gregory S9 pad; however, none of the producing wells are located within the proposed Mutual EOR Unit. Pursuant to four (4) permits currently approved, Fulcrum may develop up to four (4) additional horizontal wells from this pad in the Mutual EOR Unit, which may contribute natural gas to injection operations within the unit. Electric power for operations on the Gregory S9 Pad will be provided by three or more gas-fired generators located on the pad ("Gregory Generators"). Also located on the Gregory S9 Pad will be a gas processing plant and one or more data processing units (powered by natural gas). A portion of the natural gas produced from wells located on this pad will be sold to a third-party and used to power data processing centers. Neither Fulcrum nor any of the well owners have any ownership in data processing facilities.

SUMMARY OF OPERATIONS FOR THE PROPOSED MUTUAL EOR UNIT

The Mutual 0780 3-8H well will be converted into an injection well for the Mutual EOR Unit. The three remaining Unit Wells will continue to produce crude oil, natural gas and water from the Niobrara Formation. Production from each of the producing Unit Wells will go through a designated Allocation Separator located on the Mutual S17 Pad where (i) the crude oil and water will be separated, measured, re-combined and transported via buried pipeline to the Big Horn S17 CTB; and (ii) the natural gas will be separated and measured. Thence, a portion of the unit gas will be delivered by buried flow lines to the Mutual Generators which generate electricity for operations on the Mutual S17 Pad. Excess gas (if any) will then be transported via buried flow lines to the two Mutual EOR Injection Compressors located on the Mutual S17 Pad and injected at approximately 4500 psi into the Mutual 0780 3-8H Injection Well. Production from each producing well located on the Gregory S9 Pad will go through a designated Allocation Vessel located on the pad where (i) the crude oil and water will be separated, measured, re-combined and transported via buried pipeline to the Big Horn S17 CTB; and (ii) the natural gas will be separated and measured. A portion of the unprocessed gas will be used on-site to power the Gregory Generators. A portion of the unprocessed gas may be transported via buried pipeline to the Mutual 0780 3-8H Injection Well. Thence, the remaining unprocessed natural gas produced from wells located on the Gregory S9 Pad will be delivered via buried flow lines to the gas processing plant. The residue gas remaining after processing at the tailgate of the gas processing plant will be delivered via buried pipeline to the third-party data processing units. The liquids recovered from the gas processing plant will be measured and stored on the well pad until marketed.

OPERATOR INFORMATION

OGCC Operator Number: <u>10805</u>	Contact Name and Telephone:
Name of Operator: <u>FULCRUM ENERGY OPERATING LLC</u>	Name: <u>Doug Sandridge</u>
Address: <u>240 SAINT PAUL STREET SUITE 502</u>	Phone: <u>(303) 330 4847</u> Fax: <u>()</u>
City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80206</u>	Email: <u>doug@fulcrumef.com</u>

INJECTED FLUID TYPE

All injected fluids must be Exempt E&P waste per RCRA Subpart C.

(Check all that apply.)

- | | | | |
|---|---|--|--|
| <input type="checkbox"/> Produced Water | <input checked="" type="checkbox"/> Natural Gas | <input type="checkbox"/> CO2 | <input type="checkbox"/> Drilling Fluids |
| <input type="checkbox"/> Exempt Gas Plant Waste | <input type="checkbox"/> Used Workover Fluids | <input type="checkbox"/> Flowback Fluids | |

Other Fluids (describe):

Commercial Disposal Facility

Yes

No

Commercial UIC Bond Surety ID: _____

Commercial Facility Description: Describe the physical region of the facility, the details of the operations, and the type of fluids to be injected.

PROPOSED INJECTION FORMATIONS

FORMATION (Name): NIOBRARA

Porosity: _____ %

Formation TDS: 50800 mg/L

Frac Gradient: 0.79 psi/ft

Permeability: _____ mD

Proposed Stimulation Program: Acid

Frac Treatment

None

New Aquifer Exemption Needed? Yes

No

ANTICIPATED FACILITY OPERATIONS CONDITIONS

Under normal operating conditions, estimated TOTAL fluid injection rates and pressures for this facility:

FOR WATER: Daily Injection Rate Range From _____ to _____ bbls/day

Surface Injection Pressure Range From _____ to _____ psi

FOR GAS: Daily Injection Rate Range From 750 to 750 mcf/day

Surface Injection Pressure Range From 4500 to 4500 psi

Estimated Initial Injection Date: 6/1/2023

AREA OF REVIEW OIL and GAS WELL EVALUATION SUMMARY

Review all existing wells within 1/2 mile for injection formation isolation.

Area Review Date: 11/30/2021

Total number of Oil & Gas Wells within Area of Review: 13

ABANDONED WELLS (All wells that have been plugged: PA and DA status))

Total within Area of Review 3

Number To Be Re-Plugged 0

ACTIVE WELLS (All wells that have not been plugged: AC, DG, DM, IJ, PR, SU, SI, TA, WO, XX, UN status)

Total within Area of Review 10

Number Requiring Casing Repair 0

Number To Be Plugged 0

Operator's Area of Review Contact Email: allen@d90energy.com

No Wells within 2,640'

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Justin Garrett Signed: _____

Title: Sr. Regulatory Analyst Date: 12/1/2022 10:14:14 AM

COGCC Approved: _____ Date: _____

Form 31 - Intent Expiration Date: _____

Per Rule 325.o, a 90 day extension of the Expiration Date may be requested via a Sundry Notice, Form 4 submitted prior to Form 31- Intent expiration

Order Number: _____ UIC FACILITY ID: 0

CONDITIONS OF APPROVAL, IF ANY:

COA Type **Description**

0 COA	
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Attachment List

Att Doc Num	Name
403202013	CORRESPONDENCE
403202016	CORRESPONDENCE
403202017	CORRESPONDENCE
403202022	OTHER
403202043	SURFACE USE AGREEMENT(S)-SALT WATER DISPOSAL
403202057	OTHER
403202060	OTHER
403202131	OTHER
403202137	OTHER
403202145	OTHER
403202159	OTHER
403202165	OTHER
403202167	OTHER
403202170	WELLBORE DIAGRAM-CURRENT
403202176	OTHER
403202182	OTHER
403202192	WELLBORE DIAGRAM-CURRENT
403202194	SURFACE FACILITY DIAGRAM
403202197	OTHER
403202198	STRATIGRAPHIC COLUMN
403202203	OFFSET WELL EVALUATION
403210582	MAP OF SURFACE OWNERS ¼-MILE
403210603	UNIT AREA PLAT
403210608	OTHER
403210621	PROCESS FLOW DIAGRAM
403210622	MAP OF WATER WELLS 1-MILE
403226562	CORRESPONDENCE
403235201	MAP OF MINERAL OWNERS ¼-MILE
403235880	MAP OF MINERAL OWNERS ½-MILE

403245898	LIST OF MINERAL OWNERS ½-MILE
403245900	CORRESPONDENCE
403245910	CORRESPONDENCE
403246031	NOTICE OF APPLICATION

Total Attach: 33 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
		Stamp Upon Approval

Total: 0 comment(s)