

State of Colorado Oil and Gas Conservation Commission

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FOR OGCC USE ONLY

Document Number:

401137060

Date Received:

UNDERGROUND INJECTION FORMATION PERMIT APPLICATION

Per Rule 325, 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 324B, 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 159996

UIC Facility ID Required for Subsequent Form 31

UIC FACILITY INFORMATION

Facility Name and Number: Arikaree Creek Pilot Unit

County: LINCOLN

Facility Location: SESE / 15 / 6S / 54W / 6

Field Name and Number: ARIKAREE CREEK 2914

Facility Type: Enhanced Recovery

Disposal

Simultaneous Disposal

Single or Multiple Well Facility? Single

Multiple

Proposed Injection Program (Required):

Waterflood - See attached COGCC ruling

OPERATOR INFORMATION

OGCC Operator Number: 10399

Name of Operator: NIGHTHAWK PRODUCTION LLC

Address: 1805 SHEA CENTER DR #290

City: HIGHLANDS RANCH State: CO Zip: 80129

Contact Name and Telephone:

Name: Joyce Henkin

Phone: (303) 407-9609 Fax: (303) 407-8790

Email: joycehenkin@nighthawkenergy.com

INJECTED FLUID TYPE

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

(Check all that apply.)

Produced Water

Natural Gas

CO2

Drilling Fluids

Exempt Gas Plant Waste

Used Workover Fluids

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): SPERGEN Porosity: 13 %
Formation TDS: 182253 mg/L Frac Gradient: 0.712 psi/ft Permeability: 40 mD
Proposed Stimulation Program: Acid Frac Treatment None

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 1000 to 2000 bbls/day
Surface Injection Pressure Range From 0 to 1000 psi
FOR GAS: Daily Injection Rate Range From _____ to _____ mcf/day
Surface Injection Pressue Range From _____ to _____ psi

Estimated Initial Injection Date: 10/31/2016

AREA OF REVIEW OIL and GAS WELL EVALUATION SUMMARY

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

Area Review Date: 6/21/2016

Total number of Oil & Gas Wells within Area of Review: 12

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

Total within Area of Review 0
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 2
Number Requiring Casing Repair 0
Number To Be Plugged 0

Operator's Area of Review Contact Email: Koehler COGCC 9-29-16

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: Joyce Henkin Signed: _____

Title: Production Tech Date: _____

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: 556-2 UIC FACILITY ID: 159996

CONDITIONS OF APPROVAL, IF ANY:

<u>COA Type</u>	<u>Description</u>	
<u>Attachment Check List</u>		
<u>Att Doc Num</u>	<u>Name</u>	
401137065	WELLBORE DIAGRAM-SUBSEQUENT	
401137207	WELLBORE DIAGRAM-SUBSEQUENT	
401137208	ANALYSIS OF INJECTION WATER	
401137218	ANALYSIS OF INJECTION ZONE WATER	
401137226	ANALYSIS OF INJECTION ZONE WATER	
401137468	STEP RATE/INJECTIVITY TEST DOCUMENTATION	
401137469	STEP RATE/INJECTIVITY TEST DOCUMENTATION	
Total Attach: 7 Files		
<u>General Comments</u>		
<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Total: 0 comment(s)		