



**COLORADO**

**Oil & Gas Conservation  
Commission**

Department of Natural Resources

1120 Lincoln Street, Suite 801  
Denver, CO 80203

July 31, 2018

Ms. Tammy Fredrickson  
Wexpro Company  
P.O. Box 458  
Rock Springs, WY 82902

Re: Review of Form 28 Centralized E&P Waste Management Facility Permit  
Facility ID #454586, Powder Wash Evaporation Facility  
Wexpro Company  
NWNW Qtr. Section 4, T11N, R97W, 6<sup>th</sup> PM, Powder Wash, Moffat County, Colorado

Dear Ms. Fredrickson:

The Colorado Oil and Gas Conservation Commission (COGCC) has received and reviewed Wexpro Company (Wexpro) submittal for the above referenced permit application for COGCC Facility ID 454586. At this time, the COGCC has the following comments:

Form 28 Centralized E&P Waste Management Facility Permit

Form 28, Attachment Checklist.

**COGCC Comment:** None.

1) Form 28, Question 1.

Is the site in a sensitive area? Answer: No.

**COGCC Comment:** None.

What are the average annual precipitation and evaporation rates for the site? Answer:  
Precipitation-12 inches/year. Evaporation - 36 inches/year.

**COGCC Comment:** None.

3) Form 28, Question 3.

Has a description of the site's general topography, geology, and hydrology been attached? Answer: Yes.

**COGCC Comment:** None.

4) Form 28, Question 4.

Has a description of the adjacent land use been attached? Answer: Yes.

**COGCC Comment:** None.



5) Form 28, Question 5.

Has a 1:24,000 topographic map showing the site location been attached? Answer: Yes.

**COGCC Comment:** None.

6) Form 28, Question 6.

Has a site plan showing drainage patterns, diversion or containment structures, roads, fencing, tanks, pits, buildings and any other pertinent construction details been attached? Answer: Yes.

**COGCC Comment:** None.

7) Form 28, Question 7.

If site is not owned by the operator, is written authorization of the surface owner attached? Answer: Yes.

**COGCC Comment:** Need to verify???

8) Form 28, Question 8.

Has a scaled drawing and survey showing the entire section(s) containing the proposed facility been attached? Answer: Yes.

**COGCC Comment:** None.

9) Form 28, Question 9.

What measures have been implemented to limit access to the facility by wildlife, domestic animals or by members of the public? Answer: Entire perimeter is fenced with a gate at the entrance. Skim pit will be netted and evaporation pond will have a Bird Avert system in place.

**COGCC Comment:** None.

10) Form 28, Question 10.

Is there a planned fire lane of at least 10 feet in width around the active treatment areas and within the perimeter fence? Answer: Yes.

**COGCC Comment:** See comments below under 908.(5).

11) Form 28, Question 11.

Is there an additional buffer zone of at least 10 feet in width within the perimeter fire lane? Answer: Yes.

**COGCC Comment:** See comments below under 908.(5).

12) Form 28, Question 12.

Have surface water diversion structures been constructed to accommodate a 100-year, 24-hour event? Answer: Yes.

**COGCC Comment:** None.

13) Form 28, Question 13.

Has a waste profile been calculated according to Rule 908.b.6? Answer: Yes.

**COGCC Comment:** None.

14) Form 28, Question 14.

Has facility design and engineering been provided as required by Rule 908.b.7? Answer: Yes.  
**COGCC Comment:** None.

15) Form 28, Question 15.

Has an operating plan been completed as required by Rule 908.b.8? Answer: Yes.  
**COGCC Comment:** None.

16) Form 28, Question 16.

Has ground water monitoring for the site been provided? Answer: Yes.

**COGCC Comment:** Has Wexpro conducted site specific groundwater monitoring? If so, please provide details including but not limited to: boring logs; monitoring well installation(s); depth to groundwater; and groundwater quality (i.e. sampling and analyses).

17) Form 28, Question 17.

Has financial assurance been provided as required by Rule 704? Answer: Yes.

**COGCC Comment:** A closure cost estimate is provided in the application of \$192,711.80. Wexpro states that the estimate is based on the understanding that the production equipment will have previously been removed from well pad. The financial assurance shall include costs to remove ALL equipment, remediate any potential impact, and ensure proper reclamation. Wexpro shall provide financial assurance including all of the equipment removal costs, etc. prior to approval of the Form 28. This cost is typically equivalent to the cost for constructing the Facility, including all equipment. The COGCC is having a third party review the closure of the facility and prepare an independent closure cost estimate.

18) Form 28, Question 18.

Has a closure plan been provided? Answer: Yes.

**COGCC Comment:** None. Need to review...

19) Form 28, Question 19.

Have local government requirements for zoning and construction been complied with? Answer: Yes.

**COGCC Comment:** Only applications for various permits have been provided. Recorded copies of the BLM Form 299 Right of Way (ROW) permit, Moffat County Conditional Use permit, CDPHE Construction and APENs permits, and any other permits shall be submitted to the COGCC prior to the Form 28 approval.

20) Form 28, Question 20.

Have permits and notifications required by local governments and other agencies been provided? Answer: Yes.

**COGCC Comment:** See comments to Question 19 above.

## Rule 908.b. Supplemental Narrative

**COGCC Comment:** None.

### Rule 908.b.(1), (2) & (3): Contact Information & Legal Site Description

**COGCC Comment:** Prior to the Form 28 approval, provide BLMs authorization for trucking and bringing in off lease water.

Rule 908.b.(4). : Topography, Geology and Hydrology:

**COGCC Comment:**

See response to Question 16 regarding groundwater monitoring at the site.

Wexpro's May 3, 2018 correspondence (Document ID 2496358) discusses Wexpro's use of the Baraccuda Evaporators as opposed to the Landshark Evaporators.

Rule 908.b.(5).A.: Site Plan:

**COGCC Comment:** Provide a Site Plan.

Rule 908.b.(5).B.: Location Drawing:

**COGCC Comment:** Location Drawing Figure #5. None.

Rule 908.b.(5).C.: Access Control Measures:

**COGCC Comment:** Grading Plan Sheet 2 illustrates a proposed fence around the proposed facility and does not clearly identify access controls. Please provide clarity.

Rule 908.b.(5).D.: Fire Lane & Buffer:

**COGCC Comment:** Provide a plan illustrating a fire lane at least ten (10) feet in width around the active treatment areas and within the perimeter fence and plan illustrating a buffer zone of at least ten (10) feet within the perimeter fire lane.

Rule 908.b.(5).E.: Grading and Drainage Plans:

**COGCC Comment:** None.

Rule 908.b.(6).: Waste Profile:

**COGCC Comment:** Provide the estimate number of trucks per day that will be hauling produced water from each of the fields (Powder Wash, Jacks Draw, and Ace) to the proposed Facility.

Any misting or overspray of the evaporators outside of the berms of the Pit Facility will be considered a Spill/Release outside of secondary containment and shall be reported on a Form 19.

Rule 908.b.(7).A: Facility Design and Engineering-Geology:

**COGCC Comment:** None..

Rule 908.b.(7).B.: Facility Design and Engineering -Hydrology:

**COGCC Comment:** None.

Rule 908.b.7.(C).: Facility Design and Engineering -Engineering Data:

**COGCC Comment:** Submit "Final Stamped and Signed" Plans when available. All as constructed drawings must be stamped and signed by a Colorado P.E.

Rule 908.b.8.: Operating Plan:

**COGCC Comment:** None.

Rule 908.b.9.A.: Water Wells:

**COGCC Comment:** Wexpro states that two monitoring wells will be sampled quarterly during the first year of operation. Provide specific details of these monitoring wells (see Question 16 above). Groundwater monitoring and sampling shall include those analytes under Rule 609. The Operator shall upload the analytical results following the COGCC EDD Information Guidance.

Rule 908.b.(9).B: Site Specific Monitoring Wells:

**COGCC Comment:**

See response to Question 16 regarding groundwater monitoring at the site.

Additional Site Specific Monitoring Wells may be required at a later date.

Rule 908.b.10.: Surface Water Monitoring:

**COGCC Comment:** Current baseline sampling of surface water features should be sampled prior to startup of the Facility. At a minimum, water sampling shall be analyzed for the constituents provided in Rule 609.e. Review for surface water features.

Rule 908.b.11.: Contingency Plan:

**COGCC Comment:** The Emergency Notification List shall be updated when changes in personnel are made.

Rule 908.c.: Permit Approval:

**COGCC Comment:** None.

Rule 908.d: Financial Assurance:

**COGCC Comment:** A See previous comments on financial assurance.

Rule 908.e: Facility Modifications:

**COGCC Comment:** Facility modifications shall be submitted via Sundry prior implementing the modifications.

Rule 908.f: Annual Permit Review:

**COGCC Comment:** Include the "Contributing Wells" API numbers in the Annual Permit Review. Additionally, all incidents including Spills/Releases, accidents, system upsets, corrective actions on inspections, major repairs, etc., shall be included in the annual report.

Rule 908.g.: Closure:

**COGCC Comment:** See previous comments to financial assurance.

Rule 908.h: Local Permitting:

See response to Question 18.

**COGCC Comment:** Submit copies of all required and approved permits from the BLM, CDPHE, Moffat County and any other entities.

Rule 210.c. None.

Rule 210.d. None.

Rule 210.0. None.

Rule 316.c.J. None.

Rule 316.c.M. None.

Form 28 Attachments:

Figures 908.b.

A-1 Water Source Map

According the State Engineers Office (SEO) Division of Water Resources (DWR), Water Well Permit Number 16212R is an abandoned water well. Provide construction details for Water Well Permit Numbers 35879F and 35880F.

A-2 NRCS Soil Data

Soils appear to be highly transmissive.

A-3 Bird Avert Mechanized Falcon and Trailer

None.

#### A-4 Sensitive Wildlife Habitat Map

The proposed Facility Location is outside of any sensitive wildlife habitats.

#### A-5 Facility BMP's

None.

#### A-6 Land Shark Evaporation Unit Noise Modeling Report

Wexpro's May 3, 2018 correspondence (Document ID 2496358) discusses Wexpro's use of the Baraccuda Evaporators as opposed to the Landshark Evaporators. Is there similar noise modeling information for the Baraccuda Evaporators?

#### A-7 HDPE Liner and Geonet Specifications Sheets

Given the elements and the location of the proposed Facility, what are the manufactures life expectancy for the liners?

Rule 904.d requires low permeable soil or a geosynthetic clay line (GCL), the operator proposes "geotextile". Provide supporting documentation stamped by a Colorado Professional Engineer (P.E.) that the liner/foundation system does meet Rule 904.d.

#### A-8 Manufacture's Recommendation for Anchor Trench and Liner Weld System

The anchor trench installation shall follow Rule 904.d.

#### A-9 Oil and Gas Lease COC038749(a)

Is the proposed Facility entirely on Lot 8, NWNW Q of Section 4 T 11N, R 97 W? Or does it partially encroach onto Lot 7, NENW Q of Section 4 T 11N, R 97 W?

#### A-10 Facility Design Drawings/Topo

Title Sheet, Sheet 1.

None.

#### Grading Plan, Sheet 2.

If this sheet is to be used for the site plan, additional information such as the fire lane, buffer land, access, etc. should be included,

#### Cross Sections, Sheet 3.

Submit a copy of the letter from the Colorado Division of Water Resources, confirming that this pit is classified as a non-jurisdictional dam.

#### Details, Sheet 4.

How will fluids be detected in the leak detection system and the observation sumps (manual observation or other)?

Interim Reclamation Plan, Figure 4.

The Operator shall follow the 1000 Series Rules that are in effect at the time of interim reclamation.

Location Drawing, Figure 5. None.

A-11 Furuno Doppler Radar System and Apex Evaporator Software  
None.

A-12 Wexpro Company Storm Water Management Plan

The Operator should have a site specific plan.

A-13 Wexpro Company SPCC Plan  
The Operator should have a site specific plan.

A-14 Powder Wash Camp Water Well Analysis Results - Musser 2 Water Well  
Samples should be collected and analyzed per Rule 609.c. to establish background conditions of the Musser 2 Water Well.

A-15 Archaeology and Paleontology Survey Reports  
None.

908.b(4) Climate Data

The Operator shall ensure that there will be zero misting and migration from the pit during windy conditions.

908.b(5) Site Plan

The Site Plan illustrates a down gradient well 400 ft from pond and 500' feet from pond. Please explain.

908.b(6) Waste Profile

Will the proposed evaporation facility be operable only during the months of April through September, as indicated on the Produced Water Pond Intake/Evaporated table?

908.b(7) Geologic and Hydrologic Data

See previous comments.

9088.b.(7).A

Due to the nature of the surficial soil (sandy-clay) and well drained as described in the "Custom Soil Resource Report", an offload pad or impermeable barrier should be constructed at the

offload area, and the pump skid should be secondary containment. This was not illustrated on the drawings nor addressed in the text.

#### 9088.b.(7).B

##### *Depth to Shallow Groundwater and Major Aquifers*

It is stated that depth to groundwater ranges from 25 feet below ground surface (bgs) to 30 feet bgs at a location approximately 6,500 feet to the north. If Wexpro is assuming that the groundwater at the proposed Powder Wash Evaporation Facility is at similar depth, then monitoring wells will be required. Assuming groundwater at the referenced depth, the base of the pit would be approximately 12 feet to 17 feet above the groundwater.

##### *Existing Quality of Shallow Groundwater*

It is stated that the water quality data for the shallow groundwater onsite is not available. Are there any background water quality results from the six (6) monitoring wells located north of the proposed Powder Wash Evaporation Facility?

##### *Evaluation for Potential Impacts to Surface Water and Ground*

It is stated that "Groundwater samples that have recently been collected and analyzed will be used to establish baseline quality conditions. Analytical parameters will be selected based on the proposed waste streams handled in the impoundment and will include, at a minimum, all major cations and anions, total dissolved solids, iron, nitrates, nitrites, and, pH, and specific conductance."

Provided specifics of where the groundwater samples were collected. At a minimum to establish baseline conditions, the analyte suite in Rule 609.e. should be sampled and analyzed.

#### 908.b(7) Facility Design and Engineering Data

See previous comments under Figures 908.b.

#### 908.b(8) Operating Plan

##### *A Description*

What will be the frequency of removing hydrocarbons from the skim pit?

The offload area where the skid pump is proposed should be engineered to have either a concrete pad apron or an impermeable liner should a spill/release at the offload area occur.

##### *B. Dust and Moisture Control*

No produced water or other E&P waste shall be used for Dust and Moisture Control.

##### *C Sampling*

See previous comments regarding the locations of existing monitoring and groundwater sampling to establish baseline conditions.

##### *D. Inspection and Maintenance*

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Review of Form 28 Centralized E&P Waste Management Facility Permit Application

Facility ID #454586, Powder Wash Evaporation Facility

Wexpro Company

NWNW Qtr. Section 4, T11N, R97W, 6<sup>th</sup> PM, Moffat County, Colorado

See previous comments under A-7 HDPE Liner and Geonet Specifications Sheets.

Is the leak detection manual or automated?

What analytes will be tested for from the sampling the "pond" water?

*L. Facility Closure*

Per Rule, a Form 27 shall be provided to the COGCC for approval prior to commencing closure of the facility.

908.b(9-10) Groundwater and Surface Water Monitoring Sampling and Analysis Plan

See previous comments regarding the locations of existing monitoring and groundwater sampling to establish baseline conditions.

908.b(11) Contingency Plan

Notification and contact names and numbers shall be updated when personnel changes occur.

908.g(1) A Preliminary Closure Plan

Interim and final reclamation shall follow the 1000 Series Rules at the time of closure.

908.g(1) B Preliminary Closure Plan

See previous comments under 17) Form 28, Question 17.

908.h Other Permits

Have all other Federal, State, and local County permits been secured?

Should you have any questions, please contact me at 303-894-2100 extension 5138.

Sincerely,

Alex Fischer, P.G.  
Environmental Supervisor-Western Colorado

Cc: Craig Burger, P.E.  
North West Area Engineer Supervisor

Kris Neidel  
North West Area Environmental Protection Specialist