



COLORADO
Oil & Gas Conservation
Commission

Department of Natural Resources

1120 Lincoln Street, Suite 801
Denver, CO 80203

September 6, 2016

Mr. Chris Clark
Laramie Energy LLC
760 Horizon Drive, Suite 101
Grand Junction, CO 81506

Re: Review of Form 28 Centralized E&P Waste Management Facility Permit
Facility ID 159504, Pond 10
Pit Facility ID 414396 and 437449 (Duplicate IDs)
Pit Facility ID 291946
Laramie Energy LLC
SESW Section 5, T7S, R97W, 6th PM, Garfield County, Colorado

Dear Mr. Clark

The Colorado Oil and Gas Conservation Commission (COGCC) has received and reviewed your submittal for the above referenced permit application for COGCC Centralized Exploration and Production (CE&P) Facility ID 159504 and Pit Facility IDs 414396, 437449, and 291946. At this time, the COGCC has the following comments:

Form 28 Centralized E&P Waste Management Facility Permit

1) Form 28, Attachment Checklist.

COGCC Comment: Site Drainage Map with structures is not checked. Please clarify.

2) Form 28, Question 1.

Is the site in a sensitive area? Answer: Yes.

COGCC Comment: None.

3) Form 28, Question 2.

What are the average annual precipitation and evaporation rates for the site? Answer: **Precipitation-21 inches/year. Evaporation - 10 inches/year.**

COGCC Comment: The evaporation rate provided seems low.

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: Blank

COGCC Comment: Please Clarify.

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: Oxy will install an eight foot tall wildlife exclusion fence around the facility to limit access. Also, the Facility is within Oxy's Cascade Creek operational area which has a perimeter fence around the main road access along Conn Creek Road. Oxy will install netting to prevent birds from entering the Facility.

COGCC Comment: Netting was observed to have multiple large holes during a site visit by COGCC on 8/29/16. Repair all holes in netting. Perform scheduled inspections and repairs as necessary to prevent bird entry.

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: None.

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: None.

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: Drawings indicate two 60 mil HDPE liners, a 300 mil GSE Hypernet geonet, and a GCL are planned. Quantity of materials required for use as a liner are not provided. Permit drawings have been provided. As-built drawings have not been provided. Please clarify.

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: None.

17) Form 28, Question 17.

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

COGCC Comment: A Performance Surety Bond in the amount of \$???? (Surety ID: ??????????) has been provided by the Operator. A Financial Assurance Cost Estimate was provided with the submittal. Prior to approval, financial assurance shall be provided. The COGCC is currently 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.

19) Form 28, Question 19.

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

COGCC Comment: Provide the COGCC with a copy of the recorded LIR from Garfield County.

20) Form 28, Question 20.

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

COGCC Comment: Please see the previous comment above. Additionally, are there any permit requirements by the Colorado Department of Public Health and Environment (CDPHE)?

Supplemental Narrative

Please submit a copy of a letter from the Colorado Division of Water Resources, confirming that this pit is classified as a non-jurisdictional dam and that capturing the stormwater runoff from the approximately 1.3 acre pond is allowed.

908.b.1: Contact Information:

COGCC Comment: Please provide updated contact information.

908.b.2.: Surface Owner & Legal Site Description:

COGCC Comment: States that surface owner is Oxy. Did surface ownership transfer to Laramie?

908.b.3.: Legal Site Description:

COGCC Comment: None.

908.b.4. General topographic, geologic, and hydrologic description:

COGCC Comment: None.

908.b.5.A.: Site Plan:

COGCC Comment: None.

908.b.5.B.: Scaled Drawings:

COGCC Comment: None.

908.b.5.C.: Access Control Measures:

COGCC Comment: None.

908.b.5.D.: Fire Lane & Buffer:

COGCC Comment: None.

908.b.5.E.: Surface Water Diversion Structures:

COGCC Comment: None.

908.b.6.: Waste Profile:

COGCC Comment: None.

908.b.7.A.: Geological Data:

COGCC Comment: None.

908.b.7.B.: Hydrologic Data:

COGCC Comment: None.

908.b.7.C.: Engineering Data:

COGCC Comment: Drawings indicate two 60 mil HDPE liners, a 300 mil GSE Hypernet geonet, and a GCL are planned. Quantity of material required for use as a liner are not provided. Permit drawings have been provided. As-built drawings have not been provided. Please clarify.

908.b.8.: Operating Plan:

COGCC Comment: None.

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

COGCC Comment: None.

908.b.9.B.: Ground Water Monitoring:

COGCC Comment: Upload baseline water quality sampling by submitting EDD to the COGCC.

908.b.10.: Surface Water Monitoring:

COGCC Comment: Conn Creek is less than 500 ft from Pond 10. Provide a surface water sampling and analysis plan for Conn Creek.

908.b.11.: Contingency Plan:

COGCC Comment: None.

908.c.: Permit Approval:

COGCC Comment: None.

908.d: Financial Assurance:

COGCC Comment: A Financial Assurance Cost Estimate was provided with the submittal. Prior to approval, financial assurance shall be provided. The COGCC is currently having a third party review the closure of the facility and prepare an independent closure cost estimate.

908.e: Facility Modifications:

COGCC Comment: None.

908.f: Annual Permit Review:

COGCC Comment: Include the "Contributing Wells" API numbers in the Annual Permit Review.

908.g.: Closure:

COGCC Comment: Please see response to 908.d.

908.h: Local Permitting:

COGCC Comment: See comment above.

Form 28 Figures:

- **COGCC Comment:** Figure 8 indicates a GCL, geonet, two 60 mil HDPE liners, anchor trenches, and two leak detection sumps are planned. Please provide As-Built drawings.

Form 28 Attachments:

I. Attachment: Laboratory analytical results for produced water

- **COGCC Comment:** None.

II. Attachment: Geo-hydrology Report

- **COGCC Comment:** Rock fall hazard is not addressed in the Geologic Hazards section. Please clarify.

III. Attachment: Operating Plan

- **COGCC Comment:** Please address odor control measures, if necessary.

IV. Attachment: Emergency Response Plan

- **COGCC Comment:** Update plan to reflect new operator and any changed contacts.

V. Attachment: Drainage Report Pond 10 Upgrade

- **COGCC Comment:** None.

VI. Attachment: Reclamation Cost Estimate

- **COGCC Comment:** A Financial Assurance Cost Estimate was provided with the submittal. Prior to approval, financial assurance shall be provided. The COGCC is currently having a third party review the closure of the facility and prepare an independent closure cost estimate.

VI. Attachment: Site Reclamation Plan

- **COGCC Comment:** None.

VII. Attachment: Noise Analysis

- **COGCC Comment:** None.

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