



1120 Lincoln Street, Suite 801
Denver, CO 80203

Facility: 440582
Facility: 428147
Document #: 2210724
Date: 12/01/2015

December 22, 2015

Ms. Miracle Pfister
Ms. Julia Carter
EnCana Oil & Gas (USA) Inc.
370 17th Street, Suite 1700
Denver, CO 80202

Re: Review of Form 28 Centralized E&P Waste Management Facility Permit
Facility ID 440582, N Parachute WF A15 596 Pit
Pit Facility ID 428147
EnCana Oil & Gas (USA) Inc.
NENE Section 15, T5S, R96W, 6th PM, Garfield County, Colorado

Dear Ms. Pfister and Ms. Carter:

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 440582 and Pit Facility ID 428147. 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: None.

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-11.61I Inches/year. Evaporation – 60 inches/year.

COGCC Comment: None.

4) Form 28, Question 3.

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

COGCC Comment: None.

5) Form 28, Question 4.

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

COGCC Comment: None.

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Commissioners: Thomas L. Compton - Chairman, Richard Alward, John H. Benton, DeAnn Craig,
James W. Hawkins, Tommy Holton, Andrew L. Spielman, Mike King, Dr. Larry Wolk

John W. Hickenlooper, Governor | Mike King, Executive Director, DNR | Matthew J. Lepore, Director



6) Form 28, Question 5.

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

COGCC Comment: None.

7) 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.

8) Form 28, Question 7.

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

COGCC Comment: The supplemental information submitted indicates EnCana is the surface owner. Please Clarify.

9) 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.

10) 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: Please see section 6 of the supplemental information.

COGCC Comment: None.

11) 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: Rule 908.b.(5).D. Centralized facilities shall have a fire lane of at least ten (10) feet in width around the active treatment areas and within the perimeter fence. In addition, a buffer zone of at least ten (10) feet shall be maintained within the perimeter fire lane. Drawing NP-A15-P-100, of the submittal, does not indicate the required ten (10) foot fire lane around the pit. Please clarify.

12) 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: Please see the previous comment above.

13) Form 28, Question 12.

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

COGCC Comment: None.

14) Form 28, Question 13.

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

COGCC Comment: None.

15) Form 28, Question 14.

Has facility design and engineering been provided as required by Rule 908.b.7? Answer: Yes.

COGCC Comment: None.

16) Form 28, Question 15.

Has an operating plan been completed as required by Rule 908.b.8? Answer: Yes.

COGCC Comment: None.

17) Form 28, Question 16.

Has ground water monitoring for the site been provided? Answer: No.

COGCC Comment: Ground water monitoring maybe required at a later date.

18) Form 28, Question 17.

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

COGCC Comment: Financial Assurance of \$300,000.00 has been provided. The COGCC is currently having a third party review the closure of the facility and prepare an independent closure cost estimate. Based on the third party review, the financial assurance may be less than the estimated \$300,000.00 or more than the estimated \$300,000.00.

19) Form 28, Question 18.

Has a closure plan been provided? Answer: Yes.

COGCC Comment: None.

20) Form 28, Question 19.

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

COGCC Comment: None.

21) Form 28, Question 20.

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

COGCC Comment: None.

Supplemental Information

Provide a narrative of the history of the Location and Pit Facility use including all maintenance of pit and pit liner(s), and any leak detection testing of the existing pit liner(s) system.

908.a: Applicability:

COGCC Comment: Flowback and produced water from other oil and gas operators may be received by this facility on a case-by-case basis through a Rule 502.b variance request and approval, water sharing agreement in place, and permits from other agencies or local entities, if required

1. 908.b.1: Contact Information:

COGCC Comment: None.

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

COGCC Comment: None.

3. 908.b.3.: Legal Site Description:

COGCC Comment: None.

4. 908.b.4.: Topography, Geology and Hydrology:

COGCC Comment: The average annual evaporation is indicated as 60 inches/year on the Form 28, and 57.45 inches/year in section 908.b.(4). 3.6, please clarify.

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

COGCC Comment: None.

6. 908.b.5.B.: Survey Drawings:

COGCC Comment: Survey drawings included in Appendix Number 3 reference surface and bottom hole locations of the existing wells on the pad and do not reference the Pit please clarify.

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

COGCC Comment: None.

8. 908.b.5.D.: Fire Access:

COGCC Comment: Rule 908.b.(5).D. Centralized facilities shall have a fire lane of at least ten (10) feet in width around the active treatment areas and within the perimeter fence. In addition, a buffer zone of at least ten (10) feet shall be maintained within the perimeter fire lane. The drawing referenced for the fire access around the pit does not show the required 10' wide fire access lane around the pit, please clarify.

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

COGCC Comment: A site specific stormwater management plan for the Facility should be provided as opposed to the general North Parachute Ranch area Stormwater Management Plan.

10. 908.b.6.: Waste Profile:

COGCC Comment: None.

11. 908.b.7.A: Facility Design and Engineering-Geology:

COGCC Comment: See comments under Appendix 8, Engineering Drawings.

What was the purpose for advancing soil borings and installing monitoring wells to 85'?

12. 908.b.7.B.: Facility Design and Engineering-Hydrology:

COGCC Comment: Contact information provided in the SPCC Plan and the Oil Spill Contingency Plan should be updated when changes of the contacts have been made. Appendix C.2 "Spill Reporting Flowchart – DJ Basin, Piceance, Paradox, Colorado" in the Oil Spill Contingency Plan should be updated to reflect current Rules and Regulations. Appendix C.5 "SRBU Regulatory Links" in the Spill and Environmental Release Reporting Practice "should be updated to reflect current Rules and Regulations.

13. 908.b.7.C.: Facility Design and Engineering-Engineering Data:

COGCC Comment: The drawing show the upper liner as a 60 mil and lower liner as a 40 mil. Rule 904.d specifies liners shall be 60 mil. Please clarify. Provide the construction details for the offload pad.

14. 908.b.8.: Operating Plan:

COGCC Comment: None.

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

COGCC Comment: None.

16. 908.b.(9).B: Monitoring Wells:

COGCC Comment:

What was the purpose for advancing soil borings and installing monitoring wells to 85' that are dry?

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

COGCC Comment: None.

18. 908.d.: Financial Assurance:

COGCC Comment: See previous comments on Financial Assurance.

19. 908.e: Facility Modifications:

COGCC Comment: None.

20. 908.f: Annual Permit Review:

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

21. 908.g.1.A. Preliminary Closure Plan:
COGCC Comment: Please see response to 908.d.

22. 908.g.1.B.: Preliminary Closure Cost:
COGCC Comment: See previous comments on Financial Assurance.

23. 908.g.2.: Final Closure Plan:
COGCC Comment: None.

24. 908.h.: Other Permits and Notifications:
COGCC Comment: None.

Form 28 Appendices:

I. Appendix 1: A15 Pit – Form 28:

- **COGCC Comment:** None.

II. Appendix 2: A15 Pit – Form 15:

- **COGCC Comment:** None.

III. Appendix 3: Survey Plots:

- **COGCC Comment:** The survey plots included with the submittal all reference the existing wells on the Location, this submittal requires a Survey Plat referencing the Pit location to adjacent Section lines. Please clarify.

IV. Appendix 4: Topographic Maps:

- **COGCC Comment:** None.

V. Appendix 5: Surface Ownership Map:

- **COGCC Comment:** None...

VI. Appendix 6: Geology & Hydrology Report:

- **COGCC Comment:** None.

VII. Appendix 7: Evaporation & Precipitation Data:

- **COGCC Comment:** None.

VIII. Appendix 8: Engineering Drawings:

- **COGCC Comment:** The Engineering Drawings included with this submittal are for the construction of the original A15 Pit. Are any modifications intended, please clarify.

A15-M-2 - Offload Pad Mechanical Layout.

What are the construction details for the Offload Pad? It is suggested that a concrete apron or an impervious material underlay this area.

A15-M-3 -Pump/Filter Pad Layout.

What are the construction details for the Pump/Filter Pad? It is suggested that a concrete apron or an impervious material underlay this area.

A-15-S-1 – Structural Sections and Details.

Are these details for the “Offload Pad”?

NP-A15-P-1—Fire Access. Rule 908.b.(5).D. Centralized facilities shall have a fire lane of at least ten (10) feet in width around the active treatment areas and within the perimeter fence. In addition, a buffer zone of at least ten (10) feet shall be maintained within the perimeter fire lane. The drawing referenced for the fire access around the pit does not show the required 10’ wide fire access lane around the pit, please clarify

IX. Appendix 9: NPR Vicinity Map:

- **COGCC Comment:** None.

X. Appendix 10: Stormwater Management Plan:

- **COGCC Comment:** The stormwater management should be site specific .

XI. Appendix 11: Monitor Well Drilling Logs:

- **COGCC Comment:** See previous comments regarding the boring advancement and monitoring well construction.

XII. Appendix 12: SPCC Plan:

- **COGCC Comment:** See previous comments regarding current contact information, Rules and Regulation changes.

XIII. Appendix 13: Standard Operating Procedure:

COGCC Comment: Submit a copy of EnCana’s’ Flowline testing procedures for the pipelines associated with this facility. Submit a map of EnCana’s’ existing and proposed pipelines associated with this facility and update in the annual report. Include GIS shape files for incorporation into our GIS system. This pipeline information is for internal COGCC use only and is not visible to the public.

XIV. Appendix 14: Water Quality Data Set:

- **COGCC Comment:** None.

XV. Appendix 15: Site Safety Evacuation Plan:

- **COGCC Comment:** Contact information provided should be updated when changes have been made.

XVI. Appendix 16: Emergency Response Plan:

- **COGCC Comment:** Contact information provided should be updated when changes have been made.

XVII: Appendix 17: Financial Assurance:

- **COGCC Comment:** See previous comments regarding financial assurance.

XVIII: Appendix 18: Closure & Reclamation Plan:

- **COGCC Comment:** None.

XIX: Appendix 19: Garfield County Permit Resolution:

- **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: Stephen C. Jenkins, P.E., C.P.E.S.C.
North Central Area Engineer



STATE OF
COLORADO

EnviroScan - DNR, OGCC <dnr_ogcc.enviroscan@state.co.us>

Fwd: Facility ID: 440582 Encana N Parachute WF A15 596 Pit

1 message

Fischer - DNR, Alex <alex.fischer@state.co.us>
 To: OGCC EnviroScan - DNR <dnr_ogcc.enviroscan@state.co.us>
 Cc: Steve Jenkins - DNR <steve.jenkins@state.co.us>

Wed, Dec 23, 2015 at 9:56 AM

Scanning Work Request:

Please upload this email attached filed as follows:

Document Name(s)	1. COGCC Form 28 Review	
Document Number	<i>(leave blank if not already assigned)</i>	
Date Received	12/1/2015	
Is data entry needed?	NO	
Indexing Information	Unique ID Type	Unique ID Number
First	Facility ID	440582
Second	Facility ID (FAC)	428147
Third*		
Additional Instructions	This is an email chain with separate attachments.	

Thanks!

—

Alex Fischer, P.G.

Environmental Supervisor, Western Colorado



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|alex.fischer@state.co.us www.colorado.gov/cogcc

----- Forwarded message -----

From: **Fischer - DNR, Alex** <alex.fischer@state.co.us>
 Date: Wed, Dec 23, 2015 at 9:54 AM
 Subject: Facility ID: 440582 Encana N Parachute WF A15 596 Pit
 To: "Pfister, Miracle" <Miracle.Pfister@encana.com>, "Carter, Julia M" <Julia.Carter@encana.com>
 Cc: Steve Jenkins - DNR <steve.jenkins@state.co.us>

Miracle and Julia,

Please find attached COGCCs review comments for the above referenced Facility.

Thanks
Alex

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Alex Fischer, P.G.

Environmental Supervisor, Western Colorado



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