STATE OF COLORADO
OIL & GAS
CONSERVATION COMMISSION

DEPARTMENT OF NATURAL RESOURCES
John W. Hickenlooper, Governor
1120 Lincoln St. Suite 801
Denver, CO 80203
Phone: (303) 894-2100
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January 3, 2014

Mr. Eric Ward, Operations Manager
Marathon Oil Company
743 Horizon Court, Suite 220
Grand Junction, CO 81506

Re: Review of Form 28 Centralized E&P Waste Management Facility Permit
32C Produced Water Pond
Facility ID #433736, 32C Produced Water Pond
SESW Section 32, T5S, R96W, 6th PM, Garfield County, Colorado

Dear Mr. Ward:

The Colorado Oil and Gas Conservation Commission (COGCC) has received and reviewed your July 1, 2013 submittal for the above referenced permit application for COGCC Facility ID #433736. 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: Please include Local Government Limited Impact Review Documents.

2) Form 28, Question 1.
Is the site in a sensitive area? Answer: No
COGCC Comment: None.

3) Form 28, Question 2.
What are the average annual precipitation and evaporation rates for the site? Answer: Precipitation 16 inches/year. Evaporation 40 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: None.

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: The Site Plan does not show the perpendicular survey ties to at least two section lines as required by the regulation. On the Site Plan, please provide "*The field measured distances from the nearer north or south and nearer east or west section lines, distances shall be measured at ninety (90) degrees from said section lines to facility boundaries and referenced on the drawing.*" This will be a condition of approval on the Form 28.

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: The pond is enclosed by an existing fence and is netted. A manned security post is located at the base of Garden Gulch road which provides access to the facility.
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: The Site Plan and Grading Plan do not show the required 10' Fire Lane, on the North and East sides of the existing pond, due to grading constraints. Marathon Oil has included a Variance Request for the lack of the required Fire Lane on the North and East sides of the pond. Marathon Oil has also included a letter from Grand Valley Fire Protection District indicating that the District does have an issue with the lack of a Fire Lane on the North and East sides of the pond. This has been addressed via the Variance Request approved on January 3, 2014.

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. See Item 10 above.

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: No.
COGCC Comment: Monitoring wells have subsequently been constructed.

17) Form 28, Question 17.
Has financial assurance been provided as required by Rule 704? Answer: No.
COGCC Comment: An estimate of $424,385 has been provided. The COGCC estimate is $1,059,547.55 (See Document Number 2147219). Please review.

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: Please provide a recorded copy of the Garfield County Limited Impact Review.

20) Form 28, Question 20.
Have permits and notifications required by local governments and other agencies been provided? Answer: Yes.
COGCC Comment: Please provide a recorded copy of the Garfield County Limited Impact Review.

32C Produced Water Pond, COGCC Form 28 Supplemental Narrative

1. Rule 904:

COGCC Comment: None.

2. 908.a:

COGCC Comment: None.

3. 908.b. (1):
COGCC Comment: None.

4. 908.b. (2):
COGCC Comment: None.

5. 908.b. (3):
COGCC Comment: None.

6. 908.b. (4):
COGCC Comment: None.

7. 908.b. (5).A:
COGCC Comment: None.

8. 908.b. (5).B:

COGCC Comment: The Site Plan does not show the perpendicular survey ties to at least two section lines as required by the regulation. On the Site Plan, please provide "*The field measured distances from the nearer north or south and nearer east or west section lines, distances shall be measured at ninety (90) degrees from said section lines to facility boundaries and referenced on the drawing.*" This will be a condition of approval on the Form 28.

9. 908.b. (5).C:
COGCC Comment: None.

10. 908.b. (5).D:
COGCC **Comment:** None.

11. 908.b. (5).E:
COGCC Comment: None.

12. 908.b. (6):
COGCC Comment: None.

13. 908.b. (7):
COGCC Comment: None.

14. 908.b. (7).A: Geological Data:
COGCC Comment: None.

15. 908.b. (7).B: Hydrological Data:
COGCC Comment: None.

16. 908.b. (7).C: Engineer Data:
COGCC Comment: None.

17. 908.b. (8): Operating Plan:
COGCC Comment: None.

18. 908.b. (9).A: Ground Water Monitoring:
COGCC Comment: Quarterly groundwater monitoring and sampling will be a condition of approval.

19. 908.b. (9).B: Site Specific Monitoring Wells:
COGCC Comment: Monitoring wells have been installed. Water quality analysis shall include BTEX, TPH-DRO, TPH-GRO, TDS, chloride, sulfate, total suspended solids, and pH. Quarterly groundwater monitoring and sampling will be a condition of approval.

20. 908.b. (10): Surface Water Monitoring:
COGCC Comment: As a condition of approval additional surface water sampling event(s) shall be targeted for the spring 2014 runoff period. Surface water samples shall be collected upstream of 32C, downstream of 32C, and from the spring located approximately 4,000 feet north from the 32C pond. Water quality analysis shall include BTEX, TPH-DRO, TPH-GRO, TDS, chloride, sulfate, total suspended solids, and pH.

21. 908.b. (11): Contingency Plan:
COGCC Comment: None.

22. 908.c.: Permit Approval:
COGCC Comment: Provide financial assurance and approval notices, permits, or similar types of notifications for the facility from local governments or other agencies.

23. 908.d.: Financial Assurances:
COGCC Comment: An estimate of $424,385 has been provided. The COGCC estimate is $1,059,547.55 (See Document Number 2147219). Please review.

24. 908.e.: Facility Modifications:
COGCC Comment: None.

25. 908.f.: Annual Permit Review:
COGCC Comment: None.

26. 908.g.: Closure:
COGCC Comment: None.

27. 908.h.: Local Permitting:
COGCC Comment: Please provide a recorded copy of the Garfield County Limited Impact Review and approval notices, permits, or similar types of notifications for the facility from local governments or other agencies.

Construction Drawing Review:

- 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.