

State of Colorado Energy & Carbon Management Commission

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Document Number: 404021594 Date Received: 12/26/2024

EARTHEN PIT REPORT / PERMIT

This form is to be used for both reporting and permitting pits. Rule 908 describes when a Permit with prior approval, or a Report within 30 days is required for pits. Submit required attachments and forms.

Form Type: [ ] PERMIT [X] REPORT

ECMC PIT NUMBER: 487778

NOTE: Operator to provide ECMC Pit Number only if available on an existing pit for pit report

ECMC Operator Number: 66561 Contact Name: Matt Wells Name of Operator: OXY USA INC Address: PO BOX 173779 Phone: (720) 7209293428 City: DENVER State: CO Zip: 80217-3779 Email: DJRegulatory@oxy.com

Pit Location Information

Operator's Pit/Facility Name: GLADE DRILLING PIT Operator's Pit/Facility Number: 1 API Number (associated well): 05-00 ECMC Location ID (associated location): 487829 Or Form 2A #: 403656949 Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NESW-2-3N-66W-6 Latitude: 40.252936 Longitude: -104.738551 County: WELD

Operation Information

Construction Date: 01/14/2025 Actual or Planned: Planned Pit Type: Lined Per rule 405.c: Operators will provide the Commission written notice 2 business days in advance of a Pit liner installation at any facility. Pit Use/Type (Check all that apply): [X] Drilling: (Ancillary, Completion, Flowback, Reserve Pits) [ ] Oil-based Mud [ ] Salt Sections or High Chloride Mud [ ] Production: [ ] Skimming/Settling [ ] Produced Water Storage [ ] Percolation [ ] Evaporation [ ] Special Purpose: [ ] Flare [ ] Blowdown [ ] BS&W/Tank Bottoms [ ] Multi-Well Pit: [ ] Check if Rule 909.g.(1-4) applies. [ ] Cuttings Trench [ ] Form 15 Exception Pit Submitted within 30 Days after Constructing (908.c): [ ] Emergency [ ] Workover [ ] Plugging Method of treatment prior to discharge into pit: Onsite Solids Control Eq Offsite disposal of pit contents: [ ] Injection; [X] Commercial; [ ] Reuse/Recycle; [ ] NPDES; Permit Number: Other Information:

The pit will be part of the closed loop water-based mud system and will have an outflow and inflow rate at ~700 gpm while drilling. The pit will be filled prior to drilling and will not lose mud unless downhole losses are encountered. No produced fluid will be contained within the pit. Drilling returns (water-based mud) will be sent to this pit after going through solids control equipment to remove cuttings. Drill cuttings will be disposed of at a licensed commercial landfill ( Front Range Landfill). Drilling fluids will be recycled at the Oxy Aggregate Recycle Facility (E&P Waste Management Facility ID: 456644).

The drilling pit is only being installed as a contingency measure for well control scenarios, such as a steam kick, due to the exploratory nature of the wells and the uncertainty of downhole conditions. Its primary purpose will be to capture diverted fluids and provide sufficient volume to retain drilling fluids in such events. The rig will be equipped with a mud gas separator to separate steam from drilling fluids while drilling through the basement rock. In the event of steam generation, the steam will be diverted to the pit, where the resulting fluid will be captured as it condenses. Routine drilling returns will not be directed to the earthen pit. Instead, they will flow into the rig's closed-loop system, which consists of tanks designed for efficient fluid handling and solids control.

This pit is the same as the Temporary Cooling Pit identified on the GLADE Layout Drawings.

**Site Conditions**

Enter 5280 for distance greater than 1 mile.

Distance (in feet) to the nearest surface water: 935 Ground Water (depth): 60 Water Well: 1367  
Distance (in feet) to nearest Building Unit: 1343  
Distance (in feet) to nearest Designated Outside Activity Area: 5280

**Pit Design and Construction**

Size of Pit (in feet): Length: 75 Width: 50 Depth: 8 Calculated Working Volume (in barrels): 2965  
Flow Rates (in bbl/day): Inflow: 20000 Outflow: 20000 Evaporation: 25 Percolation: 0  
Primary Liner. Type: RPE (Reinforced Polyethylene) Thickness (mil): 40  
Operational Lifespan, per manufacturer's specs (years): 20  
Secondary Liner (if present): Type: \_\_\_\_\_ Thickness (mil): \_\_\_\_\_  
Operational Lifespan, per manufacturer's specs (years): 0  
Is Pit Fenced? Yes Is Pit Netted? Yes Leak Detection? No

**Pit Emissions**

Attach Pit Emission Calculations.

Estimated tons per year (tpy) of volatile organic compounds (VOCs): 0 (Round to nearest whole ton.)

Other Information:

0.04081 tpy VOC. The emissions were developed using a mass balance approach and assumes all VOCs will be emitted to atmosphere. The calculation use EPA 1977 emission factors for mud degassing and a gas composition from API 2009 Table 5-17.

Operator Comments:

This is a new Form 15 application for the GLADE drilling pit. The pit size and location has changed. The original approved Form 15 is document #403750374 will need to be closed out.  
A Form 4 sundry for the other surface changes is also going to be submitted (document #404031443).


**Certification**

Rule 909.e.(3): If an Operator allows oil or condensate (free product or sheen) to accumulate in a Pit, then the Director may revoke the Operator's Form 15 and require the Operator to close and remediate the Pit.

I hereby certify all statements made in this form are, to the best of my knowledge, true, correct, and complete.

Signed: \_\_\_\_\_ Print Name: Matt Wells  
Title: Regulatory Advisor Email: matt\_wells@oxy.com Date: 12/26/2024

**Approval**

Signed:  Title: Director of ECMC Date: 01/23/2025

**Best Management Practices**

No	BMP/COA Type	Description
1	General Housekeeping	The Pit will not be utilized longer than three years, unless otherwise approved of by ECMC.
2	Wildlife	A wildlife exclusion fence and netting (or a CPW-approved wildlife exclusion device) will be installed around and over the Pit, pursuant to Rule 1202.a.(4).

3	Storm Water/Erosion Control	Some of the soil from the pit will be used to construct the perimeter berms. The internal slope faces will be protected by the HDPE liner. And external berm face will be track packed and consolidated to prevent erosion. The excess pit soil will be stockpiled on east side of well pad and will be stabilized by straw crimping. The cooling pit soil stockpile will be included in Oxy Stormwater Management program and will be inspected with CDPHE construction stormwater frequency.
4	Material Handling and Spill Prevention	There will be a report of any unauthorized Release of Fluids from a Pit pursuant to Rule 912
5	Construction	A 104'x79' (exterior dimensions) earthen Pit, 8.6 feet deep (minimum) will be constructed with a synthetic 40 MIL liner that also allows for 2' of freeboard. The 2' freeboard will be maintained and monitored through the life of the Pit. The foundation of the liner will not have any sharp debris and will have a minimum thickness of 12 inches after compaction.
6	Construction	The Pit will be constructed, lined, operated, and maintained pursuant to Rules 909 and 910. All manufacture's specifications on constructing, installation, and maintenance activities will be followed as well as good engineering practices. Testing results and repair documentation and dates will be maintained and available for inspection, as requested.
7	Odor mitigation	The Pit will be maintained hydrocarbon free and of any other oil and gas liquids.
8	Final Reclamation	The Pit will be sampled to ensure that any soil left in place meets the cleanup concentrations listed in Table 915-1. A sufficient number of representative samples from locations beneath the Pit will be collected that demonstrate that no leakage of managed fluids has occurred. Once laboratory analysis is back, results will be submitted via Supplemental Form 27 with a request for a final approval for pit closure and reclamation.
9	Final Reclamation	At time of closure, the Pit will be graded to the contour of the well pad and backfilled and compacted with clean fill generated in the construction of the well/pit location. The fence and netting will be removed.
10	Final Reclamation	Interim/Final grading and recontour of the entire location and access road will be completed once the Pit has been closed and seeded (with an approved seed mix) and storm water stabilization will follow after re-spreading of topsoil. The closed pit will not be re-disturbed during the interim or final reclamation phases.
11	Final Reclamation	The constructed soil liner will be either removed for treatment and disposal, or, if left in place the material will be ripped and mixed with native soils in a manner to alleviate compaction and prevent an impermeable barrier to infiltration and groundwater flow.
12	Final Reclamation	The synthetic liner will be removed and disposed of pursuant to all state and federal requirements for Solid Waste Disposal.

Total: 12 comment(s)

**CONDITIONS OF APPROVAL, IF ANY LIST**

<b><u>COA Type</u></b>	<b><u>Description</u></b>
	Drilling pit is not permitted for use longer than three (3) years from date of construction completion.
1 COA	

**ATTACHMENT LIST**

<b>Att Doc Num</b>	<b>Name</b>
404021594	PIT PERMIT SUBMITTED
404031362	DETAILED SITE PLAN
404031363	DESIGN: PLAN AND CROSS SECTION
404031371	OTHER
404035200	PIT EMISSION CALCULATIONS

Total Attach: 5 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Final Review	Additional information requested from operator 1/14/25; responses received 1/15/25. Correspondence added to file. With concurrence from operator, changed pit permit to pit report for pit facility 487778. Added responses from operator to pit report on Operation Information and Conditions/Design&Construction tab. Operator indicated pit fluids will not be stored above surrounding grade.	01/23/2025
OGLA	LAS review is complete.	01/02/2025
OGLA	The Form 15 is being pushed back to DRAFT for the operator to address concerns regarding the Pit Emissions Calculations Report.	12/19/2024
Environmental	No additional comments from ECMC-Environmental other than the missing Pit Emissions Calculations report which has been conveyed to the Operator by ECMC-OGLA Unit via email correspondence on Tuesday 12/17/24.	12/18/2024

Total: 4 comment(s)