

FORM  
15Rev  
10/11

## State of Colorado

## Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



OGCC RECEPTION

Document Number:

2222736

## EARTHEN PIT REPORT / PERMIT

This form is to be used for both reporting and permitting pits. Rule 903 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 ☐ REPORT

OGCC PIT NUMBER: 428147

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

OGCC Operator Number: 100185 Contact Name: HEATHER MITCHELL  
 Name of Operator: ENCANA OIL & GAS (USA) INC  
 Address: 370 17TH ST STE 1700 Phone: #Error  
 City: DENVER State: CO Zip: 80202-5632 Email: heather.mitchell@encana.com

## ATTACHMENTS

Detailed Site Plan

Design/Cross Sec

Topo Map

Calculations

Sensitive Area Info

Mud Program

Form 2A

Form 26

Water Analysis

## Pit Location Information

Operator's Pit/Facility Name: WEST FORK Operator's Pit/Facility Number: A-15 596  
 API Number (associated well): 05- 00  
 OGCC Location ID (associated location): 335800 Or Form 2A #  
 Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NENE-15-5S-96W-6  
 Latitude: 39.62179 Longitude: -108.1489 County: GARFIELD

## Operation Information

Pit Use/Type (Check all that apply): Pit Type: ☒ Lined ☐ Unlined  
☐ 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; ☐ Emergency; ☐ Blowdown; ☐ Workover; ☐ Plugging; ☐ BS&W/Tank Bottoms  
☒ Multi-Well Pit: Construction Date: 03/12/2012 Actual or Planned: Planned  
 Method of treatment prior to discharge into pit: MECHANICAL SETTLING/SEPARATING  
 Offsite disposal of pit contents: ☒ Injection; ☐ Commercial; ☐ Reuse/Recycle; ☐ NPDES; Permit Number:  
 Other Information:

## Site Conditions

Distance (in feet) to the nearest surface water: 177 Ground Water (depth): 30 Water Well: 1204  
 Is this location in a Sensitive Area? Yes Existing Location?

## Pit Design and Construction

Size of Pit (in feet): Length: 404 Width: 84 Depth: 19 Calculated Working Volume (in barrels): 48000  
 Flow Rates (in bbl/day): Inflow: 0 Outflow: Evaporation: Percolation:  
 Primary Liner. Type: HDPE/SECONDARY GCL LINER Thickness (mil): 60  
 Secondary Liner (if present): Type: GCL Thickness (mil):  
 Is Pit Fenced? Yes Is Pit Netted? Yes Leak Detection? Yes  
 Other Information:

Operator  
Comments:

## Certification

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

Signed: Print Name: Heather Mitchell

Title: Regulatory Analyst Email: heather.mitchell@encana.com Date: 01/19/2012

Approval

**BMP**TypeComment

Total: 0 comment(s)

**CONDITIONS OF APPROVAL:**

COA 11 - Prior to multi-well pit construction, a Form 27 (Remediation Workplan/Closure Report) must be submitted via a Form 4 Sundry to the COGCC detailing the closure of the original drilling pits (#425199 and #425200) at this well pad location. This form should include the dates of closure, where the fluids were disposed of, and where any impacted soil was disposed of. In addition, analytical results from soil samples collected below the pit prior to the construction of the new multi-well pit, should also be included. (Form 27 Received on March 2, 2012 [REM#6138]).

COA 90 - Notify COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Field Inspection Supervisor for Northwest Colorado (Shaun Kellerby; email shaun.kellerby@state.co.us) 48 hours prior to start of construction of the pit.

COA 21 - Surface water samples from West Fork (one upstream and one downstream of the well pad/pit location) shall be collected by the operator prior to pit use and every 12 months during operation to evaluate potential impacts from pit operations. At a minimum, the surface water samples will be analyze for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO.

COA 22 - After installation of the uppermost liner and prior to operating the pit, the synthetic liner(s) shall be tested by filling the pit with at least 4 feet of fresh water, measured from the base of the pit (not to exceed the 2-foot freeboard requirement). The operator shall monitor the pit for leaks for a period of 72 hours prior to commencing operations. Operator shall notify the COGCC Oil and Gas Location Assessment (OGLA) Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) 48 hours prior to start of the hydrotest. Successful hydrotest results must be maintained by the operator for the life of the pit and provided to COGCC prior to using the pit.

COA 23 - Operator must ensure 110 percent secondary containment for any volume of fluids contained at the water handling facility site during natural gas development activities and operations; including, but not limited to, construction of a berm or diversion dike, diversion/collection trenches within and/or outside of berms/dikes, site grading, or other comparable measures (i.e., best management practices (BMPs) associated with stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

COA 5 - Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via buried or temporary surface pipelines.

COA 39 - No portion of any pit that will be used to hold liquids shall be constructed on fill material, unless the pit and fill slope are designed and certified by a professional engineer, subject to review and approval by the director prior to construction of the pit. The construction and lining of the pit shall be supervised by a professional engineer or their agent. The entire base of the pit must be in cut.

COA 47 - The production pit must be double-lined. The pit will also require a leak detection system (Rule 904.e).

COA 48 - Operator must submit a professional engineer (PE) approved/stamped as-built drawing (plan view and cross-sections) of the production pit within 14 calendar days of construction. COA 49 - The production pit must be fenced and netted. The operator must maintain the fencing and netting until the pit is closed in accordance with Rule 905. Closure of Pits, and Buried or Partially Buried Produced Water Vessels.

COA 10 - Operator shall pressure test pipelines in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface pipelines or configuration of the permanent pipeline network.

COA 27 - Submit additional disposal facilities (wells, pits, landfills, etc.) for pit contents, if different than what was provided on the Form 15 Pit Permit, to COGCC via a Form 4 Sundry prior to disposal.