

FORM

15

Rev 6/99



State of Colorado

Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



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.

Complete the
Attachment Checklist

FORM SUBMITTED FOR:

☐ Pit Report☒ Pit Permit

Oper OGCC

Detailed Site Plan	✓	
Topo Map w/ Pit Location	✓	
Water Analysis (Form 25)	✓	
Source Wells (Form 26)	✓	
Pit Design/Plan & Cross Sec	✓	
Design Calculations	✓	
Sensitive Area Determ.	✓	
Mud Program	✓	
Form 2A	✓	

OGCC Operator Number: 10091

Name of Operator: Berry Petroleum Company

Address: 1999 Broadway, Suite 3700

City: Denver State: CO Zip: 80202

Contact Name and Telephone:

Kailasandra M. Moran

No: 303-999-4225

Fax: 303-999-4325

API Number (of associated well): See Attached

OGCC Facility ID (of other associated facility):

Pending 335842

Pit Location (QtrQtr, Sec, Twp, Rng, Meridian): NENW, Sec. 32, T5S, R96W, 6th PM

Latitude: 39.575802

Longitude: -108.197883

County: Garfield

Pit Use: ☒ Production ☐ Drilling (Attach mud program) ☐ Special Purpose (Describe Use):Pit Type: ☒ Lined ☐ Unlined Surface Discharge Permit: ☐ Yes ☒ NoOffsite disposal of pit contents: ☐ Injection ☒ Commercial Pit/Facility Name: LATHAM

Pit/Facility No: CD-32

Attach Form 26 to identify Source Wells and Form 25 to provide Produced Water Analysis results. Danish Flats Exp Pit, Cisco, UT

Existing Site Conditions

Is the location in a "Sensitive Area?" ☒ Yes ☐ No Attach data used for determination.

Distance (in feet) to nearest surface water: 1,160' ground water: 900' water wells: 14,575'

LAND USE (or attach copy of Form 2A if previously submitted for associated well) Select one which best describes land use:

Crop Land: ☐ Irrigated ☐ Dry Land ☐ Improved Pasture ☐ Hay Meadow ☐ CRPNon-Crop Land: ☒ Rangeland ☐ Timber ☐ Recreational ☐ Other (describe):Subdivided: ☐ Industrial ☐ Commercial ☐ Residential

SOILS (or attach copy of Form 2A if previously submitted for associated well)

Soil map units from USNRCS survey: Sheet No: CO682 Soil Complex/Series No: 55

Soils Series Name: Parachute-Irigul Complex 5-30% slope Horizon thickness (in inches): A: 10 ; B: 15 ; C: 15

Soils Series Name: Horizon thickness (in inches): A: ; B: ; C:

Attach detailed site plan and topo map with pit location.

Pit Design and Construction

Size of pit (feet): Length: 510' Width: 50' Depth: 10'

Calculated pit volume (bbls): 21,320 Daily inflow rate (bbls/day): 179

Daily disposal rates (attach calculations): Evaporation: 0 bbls/day Percolation: 0 bbls/day

Type of liner material: Polyethylene Plastic Thickness: 2 liners - 24 Mil. & 60 Mil.

Attach description of proposed design and construction (include sketches and calculations).

Method of treatment of produced water prior to discharge into pit (separator, heater treater, other): Separator

Is pit fenced? ☒ Yes ☐ No Is pit netted? ☒ Yes ☐ No

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

Print Name: Kailasandra M. Moran

Signed: *Kailasandra M. Moran*

Title: Permit Agent

Date: 2/14/11

OGCC Approved: *Daniel Kulyfo*

Title: Location Assessment Specialist Date: 3-23-11

CONDITIONS OF APPROVAL, IF ANY:

See Attached Sheets

FACILITY NUMBER: 421661

JAP

Berry Petroleum, Latham CD-32 596 Pad, NWNW Sec 32 T5S R96W, Garfield County, Form 15 Pit Permit Conditions of Approval, Associated Form 2A #400133999

COA 21 - Operator must comply with all provisions of the June 12, 2008 Notice to Operators (NTO) Drilling Wells Within $\frac{3}{4}$ Mile of the Rim of the Roan Plateau in Garfield County – Pit Design, Construction, and Monitoring Requirements.

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 draining the pit and 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. Hydrotest monitoring 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 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 or use of existing pit.

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 completion/flowback fluids multi-well 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 completion/flowback pit within 14 calendar days of construction.

COA 41 - The nearby hillside and fill-material bermed portions of the pit must be monitored for any day-lighting of fluids throughout pit operations.

COA 49 - The completion/flowback fluids multi-well 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 25 - Flowback and stimulation fluids must be sent to tanks to allow the sand to settle out before the fluids can be placed into any pipeline or pit. The flowback and stimulation fluid tanks must be placed on the pad in an area with additional downgradient perimeter berming. The area where flowback fluids

will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material (per Rule 604.a.(4)).

COA 27 - Submit additional disposal facilities (wells, pits, etc.) for pit contents to COGCC via a Form 4 Sundry prior to disposal.

COA 20 - Surface water samples from Little Creek and the north tributary to Little Creek Operator shall be collected prior to pit use and every 12 months 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 91 - At the time of pit closure, operator must submit disposal information via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us). The disposal method will need to be approved prior to operator starting pit closure. In addition, operator will collect a pit water sample and, at a minimum, analyze for the following parameters: pH; alkalinity; specific conductance; major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); BTEX/DRO; TPH; PAH's (including benzo[a]pyrene); and metals (arsenic, barium, calcium, chromium, iron, magnesium, selenium). At the time of closure/disposal of pit water, COGCC may require additional analytes, as appropriate.