

Kubeczko, Dave

From: Kubeczko, Dave
Sent: Monday, March 22, 2010 12:04 PM
To: Kubeczko, Dave
Subject: FW: Berry Petroleum, Oxy I21 697 PAD, NESE Sec 21 T6S R97W, Garfield County, Form 2A #400012430 Review

Scan No 2032990 CORRESPONDENCE 2A#400012430

From: Keidel, Jannette E. [mailto:JEK@bry.com]
Sent: Wednesday, March 10, 2010 9:37 AM
To: Kubeczko, Dave
Subject: RE: Berry Petroleum, Oxy I21 697 PAD, NESE Sec 21 T6S R97W, Garfield County, Form 2A #400012430 Review

Dave,

1. **Facilities (Section 5):** The construction layout drawings (Sheet 4 of 12) indicate that there will be a separate flare pit located east of the reserve pit. This flare pit needs to be marked as a special purpose pit on the Form 2A and a Form 15 (Earthen Pit Report/Permit) must be submitted. I can make the change if you send an email with this request. **Please make change.**
2. **Construction (Section 6):** The dates for construction (03/01/2010) and interim reclamation (08/15/2011) appear to be incorrect since the construction date has already passed. Can you confirm the estimated drilling/completion schedule and these dates. I can make the change if you send an email with this request. **Construction date will now be 7-1-2010 and reclamation will be 11/15/2011 please make this change.**
3. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest surface water is 2377 feet. COGCC's rules state that the distance to the nearest surface water should reflect intermittent, as well as, perennial streams. COGCC's review indicates there is an intermittent stream located approximately 948 feet to the north. I can make the change if you send me an email with this request. **Please make this change.**
4. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest water well is 10000 feet with a depth to groundwater of 300 feet bgs. COGCC's review did not find any water well within this distance. COGCC's review did find another nearby water well located 11140 feet to the south-southeast (Permit No. 35792-F-Tucker, domestic/stock well) with a total depth of 74 feet bgs, a depth to groundwater of 42 feet bgs, and a pumping rate of 15 gpm. I believe this well may be more indicative of groundwater conditions in this area. I can make the changes if you send an email with this request. **Dave please make this change.**
5. **General:** COGCC's review indicates that the well pad location is within the current edge of the area defined in the notice to operators (NTO) for drilling wells on the Roan Plateau in Garfield County. Due to the highly fractured nature of the surface material in the area around the Roan Rim, the following conditions of approval (COAs) will apply:
 - COA 9** - Reserve pit must be lined.
 - COA 40** - The nearby hillside must be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing interval.
 - COA 23** - Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations. If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.
 - COA 38** - The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.
 - 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.

Berry Petroleum Company will abide to these rules.

6. **Notice to Operators (NTO) Drilling Wells on the Roan Plateau in Garfield County:** 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. At a minimum, the following condition of approval (COA) will apply:

COA 6 - All pits must be lined. **Berry Petroleum Company will abide to these rules**

Dave, I can't thank you enough for your help with the 2A process.

Janni

Janni Keidel
Regulatory Agent
Berry Petroleum Company
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Denver, Colorado 80202
303-999-4225 Direct line
303-999-4325 Direct Fax line

From: Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]

Sent: Sunday, March 07, 2010 10:14 AM

To: Keidel, Jannette E.

Subject: Berry Petroleum, Oxy I21 697 PAD, NESE Sec 21 T6S R97W, Garfield County, Form 2A #400012430 Review

Janni,

I have been reviewing the Oxy I21 697 PAD **Form 2A** (#400012430). COGCC requests the following clarifications regarding the data Berry Petroleum has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment.

7. **Facilities (Section 5):** The construction layout drawings (Sheet 4 of 12) indicate that there will be a separate flare pit located east of the reserve pit. This flare pit needs to be marked as a special purpose pit on the Form 2A and a Form 15 (Earthen Pit Report/Permit) must be submitted. I can make the change if you send an email with this request.
8. **Construction (Section 6):** The dates for construction (03/01/2010) and interim reclamation (08/15/2011) appear to be incorrect since the construction date has already passed. Can you confirm the estimated drilling/completion schedule and these dates. I can make the change if you send an email with this request.
9. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest surface water is 2377 feet. COGCC's rules state that the distance to the nearest surface water should reflect intermittent, as well as, perennial streams. COGCC's review indicates there is an intermittent stream located approximately 948 feet to the north. I can make the change if you send me an email with this request.
10. **Water Resources (Section 14):** Form 2A indicates that the distance to the nearest water well is 10000 feet with a depth to groundwater of 300 feet bgs. COGCC's review did not find any water well within this distance. COGCC's review did find another nearby water well located 11140 feet to the south-southeast (Permit No. 35792-F-Tucker, domestic/stock well) with a total depth of 74 feet bgs, a depth to groundwater of 42 feet bgs, and a pumping rate of 15 gpm. I believe this well may be more indicative of groundwater conditions in this area. I can make the changes if you send an email with this request.
11. **General:** COGCC's review indicates that the well pad location is within the current edge of the area defined in the notice to operators (NTO) for drilling wells on the Roan Plateau in Garfield County. Due to the highly fractured nature of the surface material in the area around the Roan Rim, the following conditions of approval (COAs) will apply:

COA 9 - Reserve pit must be lined.

COA 40 - The nearby hillside must be monitored for any day-lighting of drilling fluids throughout the drilling of the surface casing interval.

COA 23 - Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion operations. If fluids are conveyed via pipeline, operator must implement best management practices to contain any unintentional release of fluids.

COA 38 - The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, the drill cuttings must also meet the applicable standards of table 910-1.

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.

12. **Notice to Operators (NTO) Drilling Wells on the Roan Plateau in Garfield County:** 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. At a minimum, the following condition of approval (COA) will apply:

COA 6 - All pits must be lined.

COGCC would appreciate your concurrence with attaching these COAs to the Form 2A permit prior to passing the OGLA review. The other issue also needs to be addressed. If you have any questions, please do not hesitate to call me at (970) 625-2497 x5 (office) or (970) 309-2514 (cell), or email. Thanks.

Dave

David A. Kubeczko, PG
Oil and Gas Location Assessment Specialist

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