

Kubeczko, Dave

From: Kubeczko, Dave
Sent: Wednesday, October 05, 2011 5:27 PM
To: Kubeczko, Dave
Subject: FW: EnCana Oil & Gas (USA), SG L27 496 Pad, NWSW Sec 27 T4S R96W, Garfield County, Form 2A (#400194205) Review
Attachments: SG L27 496.Water Monitoring Map(Oct 2011).pdf
Categories: Orange - Operator Correspondence

Scan No 2034025 CORRESPONDENCE 2A#400194205

From: Carter, Julia M [mailto:Julia.Carter@encana.com]
Sent: Monday, October 03, 2011 2:55 PM
To: Kubeczko, Dave
Subject: RE: EnCana Oil & Gas (USA), SG L27 496 Pad, NWSW Sec 27 T4S R96W, Garfield County, Form 2A (#400194205) Review

Hi Dave,

Thank you for getting back to me. I've attached a map that shows the surface water sampling site along with the SG L27 496 location. The sampling site is in Section 22 T4S-R96W, and is identified as ENPR23ST on the map. It is roughly 1.6 miles north of the SG L27 pad.

Please let me know if there is anything else you need.
Thank you,

Julia Carter
Regulatory Analyst
Encana Oil & Gas (USA) Inc.
720.876.5240 (office) | 303.819.7349 (cell)
720.876.6240 (fax)

From: Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]
Sent: Monday, October 03, 2011 12:26 PM
To: Carter, Julia M
Subject: RE: EnCana Oil & Gas (USA), SG L27 496 Pad, NWSW Sec 27 T4S R96W, Garfield County, Form 2A (#400194205) Review

Julia,

Can you be more specific as to the name of the surface water sampling location and how far and in what direction from the site this location is? COA 21 will be removed. Thanks.

Dave

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

Colorado Oil & Gas Conservation Commission
Northwest Area Office

707 Wapiti Court, Suite 204
Rifle, CO 81650
Phone: (970) 625-2497x5
FAX: (970) 625-5682
Cell: (970) 309-2514
dave.kubeczko@state.co.us



From: Carter, Julia M [mailto:Julia.Carter@encana.com]
Sent: Wednesday, September 21, 2011 10:24 AM
To: Kubeczko, Dave
Subject: RE: EnCana Oil & Gas (USA), SG L27 496 Pad, NWSW Sec 27 T4S R96W, Garfield County, Form 2A (#400194205) Review

Dave,

Encana agrees to the COA's listed below with the following exceptions:

COA 20 – There is no water in the unnamed stream located to the due east of the location. Encana will not monitor in this location but instead a location we have selected to the north of the location.

COA 21 – Encana does not wish to collect pit water samples for analysis. We do not believe this information provides any analytical value or insight into any potentially needed remediation below the pit liner. This information would be provided by the already required soil samples (Rule 905.b.4). Based on the stratified nature (ie, brine water at depth and hydrocarbons at surface) of constituent concentrations within produced water this sampling criteria seems arbitrary.

Thank you,

Julia Carter
Regulatory Analyst
Encana Oil & Gas (USA) Inc.
720.876.5240 (office) | 303.819.7349 (cell)
720.876.6240 (fax)

From: Kubeczko, Dave [mailto:Dave.Kubeczko@state.co.us]
Sent: Thursday, August 25, 2011 2:48 PM
To: Carter, Julia M
Subject: EnCana Oil & Gas (USA), SG L27 496 Pad, NWSW Sec 27 T4S R96W, Garfield County, Form 2A (#400194205) Review

Julia,

I have been reviewing the SG L27 496 Pad **Form 2A** (#400194205). COGCC would like to attach the following conditions of approval (COAs) based on the data EnCana Oil & Gas has submitted on or attached to the Form 2A prior to passing the Oil and Gas Location Assessment (OGLA) review.

1. **General Multi-Well Pit and Roan Rim:** COGCC's review indicates that the well pad location is approximately 10140 feet to the north of 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 throughout the Roan Rim, this location will be designated a *sensitive area*, and the following conditions of approval (COAs) will apply:
 - COA 91** - Notify the 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 construction of the pit.
 - COA 41** - A Form 15 Earthen Pit Permit must be submitted to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and approval must be obtained prior to construction of the completion/flowback fluids pit.
 - COA 26** - Notify the 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 pit and fracing operations.
 - COA 23** - Operator must ensure 110 percent secondary containment for any volume of fluids contained at well site during drilling and completion 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 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 48** - If there are changes to the pit construction (i.e. changes from the submitted construction layout drawings), then the operator must submit a professional engineer (PE) approved/stamped as-built drawing (plan view and cross-sections) of the completion/flowback pit within 30 calendar days of construction.
 - 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 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 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 40** - The nearby hillside and and fill-material bermed portions (if present) 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, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or pit located on the well pad or into tanker trucks for offsite disposal. The flowback and stimulation fluid tanks, separators, or other containment/filtering equipment must be placed

on the well 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.

COA 20 - Surface water samples from the unnamed stream located due east (at the two locations; one upgradient and one downgradient) 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 analyzed for the following parameters: major cations/anions (chloride, fluoride, sulfate, sodium); total dissolved solids (TDS); and BTEX/DRO.

COA 21 - Prior to pit closure, operator must submit E&P waste disposal information via a Form 4 Sundry Notice to the COGCC Location Specialist for Western Colorado (Dave Kubeczko; email dave.kubeczko@state.co.us) and the COGCC Environmental Supervisor for Western Colorado (alex.fischer@state.co.us) for approval. In addition, operator shall 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 and disposal of pit water, COGCC may require additional analyses.

COGCC would appreciate your concurrence with attaching these COAs to the Form 2A permit prior to passing the OGLA review. These COAs will also be placed on the Form 15 Earthen Pit Permit. If you have any questions, please do not hesitate to call me at (970) 309-2514 (cell), or email. Thanks.

Dave

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

Colorado Oil & Gas Conservation Commission
Northwest Area Office
707 Wapiti Court, Suite 204
Rifle, CO 81650
Phone: (970) 625-2497x5
FAX: (970) 625-5682
Cell: (970) 309-2514
dave.kubeczko@state.co.us



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