

**From:** Koepsell, Arthur  
**To:** ["Brian Hedberg"](#)  
**Subject:** RE: Jenny C 1 form 2A Document # 400261755, Natural Resources Group  
**Date:** Monday, July 02, 2012 8:20:00 AM

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Brian,

The attached photos do not meet the requirements for Reference area photos. The photos are required to show undisturbed ground, the photos you included show roads and other disturbance to the ground. Please submit photos that show undisturbed ground similar to the proposed pas location. In addition a reference area map is required per rule 303.d.3.ii.aa.

Please feel free to contact me if you have any questions.

Thanks,

Arthur

Arthur W. Koepsell, P.G.  
Oil & Gas Location Assessment Specialist  
Southern Area

Oil and Gas Location Assessment  
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**From:** brianjhedberg@gmail.com [mailto:brianjhedberg@gmail.com] **On Behalf Of** Brian Hedberg  
**Sent:** Wednesday, June 27, 2012 3:51 PM  
**To:** Koepsell, Arthur  
**Subject:** Re: Jenny C 1 form 2A Document # 400261755, Natural Resources Group

Arthur,

Attached to this email please see the reference area photos (north, south, east and west). The photos were taken of the area immediately adjacent to the north.

We met in person with surface owner Juan Vallejos. Mr. Vallejos has a water well on his property. The water table in the well is 55 feet. The total depth of Mr. Vallejos well is 65 feet. Therefore, we request to amend the stated depth of the water table to 55 feet, and that the additional requirements related to a shallow water table be removed.

Our COO Duane Bacon spoke with Al Trujillo of the Wildlife Department several months ago. Mr. Trujillo requested that we not drill between December and March, which we agreed to. I left a message with Mr. Trujillo today to confirm.

We consent to the amending of the land description on the Form 2 and 2a to rangeland.

Natural Resource Group, Inc. Jenny C #1 Reference Area Photo  
Direction of View - West      Date Taken: 6/25/2012



Natural Resource Group, Inc. Jenny C #1 Reference Area Photo  
Direction of View - South      Date Taken: 6/25/2012



Natural Resource Group, Inc. Jenny C #1 Reference Area Photo  
Direction of View - North Date Taken: 6/25/2012



Natural Resource Group, Inc. Jenny C #1 Reference Area Photo  
Direction of View - East      Date Taken: 6/25/2012



Concerning the 2 drawings (location and construction) we expect to receive these from our surveyor shortly. Thanks,

Brian Hedberg

On Mon, Jun 18, 2012 at 8:36 AM, Koepsell, Arthur <[Arthur.Koepsell@state.co.us](mailto:Arthur.Koepsell@state.co.us)> wrote:  
Brian,

The COGCC requests that NRG either provide the information that has been requested in order to complete the review of the Jenny C 1 Form 2A or withdraw the form 2 and 2a. The original request is included below. The forms can be resubmitted at a later date when NRG has all of the information is available. Please feel free to call me if you have any questions or concerns.

Thanks,

Arthur

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Brian,

The COGCC is reviewing the Form 2A (#400261755) for the Natural Resources Group Jenny C 1 location, located in the NWNW Sec 36 T26S R67W Huerfano County, Colorado. The COGCC requests the following changes to the information provided and acknowledgement of conditions of approval prior to passing the Oil and Gas Location Assessment (OGLA).

Sensitive Wildlife Habitat area

The location falls within a Sensitive Wildlife Habitat and rule 306.C requires that the Colorado Parks and Wildlife provide consultation to the COGCC. The CPW has 40 days from today (5/21/2012) to conduct the consultation. It is likely that they CPW will require a onsite inspection of the location. You may contact Al Trujillo with CPW at [Al.Trujillo@state.co.us](mailto:Al.Trujillo@state.co.us) or [719-227-5232](tel:719-227-5232) to discuss the consultation.

#### Location Drawing

A review of aerial photos indicate that there is a road and a canal within 400 feet of the propose location. Please provide an updated location drawing showing the two improvements within 400 feet of the location. The four hundred feet should be from the outside of the maximum pad size stated in the Form 2A.

#### Construction Layout Drawings

The proposed pit should be shown in the cross section view of the pad. Please provide updated drawings including the pit in cross section view.

#### Depth to Groundwater

The stated depth to water is 14 feet. At this depth to groundwater the location will be considered a sensitive area, the pit will be required to be lined or a closed loop system utilized and cuttings disposed of offsite. If you believe the depth to water is greater than 14 feet please provide the calculations/reasons to support your stated depth.

#### Land Use

Based on a review of aerial photos available on the COGCC website it appears that the current land use around the location is rangeland. The current and future land uses on the form 2a should be amended to range land.

## Reference area and reference photos

Because the location is on range land reference area photos are required.

## Conditions of Approval

- Location is in a sensitive area because of shallow groundwater; therefore, either a lined drilling pit or closed loop system is required.
- Location is in a sensitive area due to shallow groundwater; therefore the operator must provide a waste management plan for approval. The plan should include how drilling waste will be disposed of.
- The operator will conduct baseline sampling of (at a minimum) the two (2) closest water wells. At least one of the sampled wells shall be between the operators proposed location and the Huerfano River. The operator may conduct additional groundwater monitoring at their own discretion.

Laboratory analysis at a minimum will include the following: pH (lab) TDS Conductivity (lab, not resistivity) SAR calculation Ca, K, Mg, Na, As, B, Ba, Cd, Cr, Cu, Fe, Mn, Pb, Se (all total recoverable) Br, Cl, F, SO<sub>4</sub>, Alkalinity (Total, HCO<sub>3</sub> and CO<sub>3</sub> – all expressed as CaCO<sub>3</sub>) benzene toluene ethyl benzene o-xylene m- + p-xylene Dissolved Methane MBAS, DRO, GRO Field parameters including pH, Temperature and Conductivity shall be recorded prior to collecting the sample for laboratory analysis. Field observations such as odor, water color, sediment, bubbles and effervesce shall also be included.

If free gas or a dissolved methane concentration level greater than one (1) milligrams per liter (mg/l) is detected in a water well, gas compositional analysis and stable isotope analysis of the methane (carbon and deuterium) shall be performed to determine gas type (biogenic or thermogenic). If the methane concentration increases by more than five (5) mg/l between sampling periods, or increases to more than ten (10) mg/l, the operator shall notify the Director and the owner of the water well immediately. If thermogenic methane concentrations increase between sampling periods, the operator shall submit to the Director an action plan to determine the source of the increase.

The selected sampling locations will be sampled again 1 year, 3 years and 6 years after completion. Post completion sampling of water wells will consist of the same analyte list as the pre-drilling program. Copies of all test results, field parameters and field observations described above shall be provided to the Director, and the water well owner within three (3) months of collecting the samples. The analytical data and surveyed sample locations shall also be submitted to the Director in an electronic data deliverable format approved by Director.

Participating in the COGA voluntary baseline water quality monitoring program meets the requirements of this COA.

Please feel free to contact me if you have any questions or concerns

Thanks,

Arthur

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