

FORM 2A Rev 04/01

State of Colorado Oil and Gas Conservation Commission 1120 Lincoln Street, Suite 801, Denver, Colorado 80205 Phone: (303) 894-2100 Fax: (303) 894-2109



Table with columns DE, ET, OE, ES

Document Number: 400171900

Oil and Gas Location Assessment

[X] New Location [ ] Amend Existing Location Location#: \_\_\_\_\_

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations.

Location ID: 424211 Expiration Date: 07/13/2014

[X] This location assessment is included as part of a permit application.

1. CONSULTATION

- This location is included in a Comprehensive Drilling Plan. CDP # \_\_\_\_\_
This location is in a sensitive wildlife habitat area.
This location is in a wildlife restricted surface occupancy area.
This location includes a Rule 306.d.(1)A.ii. variance request.

2. Operator

Operator Number: 10338 Name: CARRIZO OIL & GAS INC Address: 1000 LOUISIANA STREET #1500 City: HOUSTON State: TX Zip: 77002

3. Contact Information

Name: Terry Hoffman Phone: (720) 542-8287 Fax: (720) 542-9213 email: terry@rockymountainpermitting.com

4. Location Identification:

Name: A & B Hill Ranch Number: 20-44-7-60 County: WELD Quarter: SESE Section: 20 Township: 7N Range: 60W Meridian: 6 Ground Elevation: 4914 Define a single point as a location reference for the facility location. Footage at surface: 245 feet FSL, from North or South section line, and 664 feet FEL, from East or West section line. Latitude: 40.554070 Longitude: -104.110840 PDOP Reading: 1.7 Date of Measurement: 04/04/2011 Instrument Operator's Name: L. Kelley Stevenson

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits: [ ] Drilling Pits: [2] Wells: [1] Production Pits: [ ] Dehydrator Units: [ ]
Condensate Tanks: [ ] Water Tanks: [1] Separators: [2] Electric Motors: [1] Multi-Well Pits: [ ]
Gas or Diesel Motors: [ ] Cavity Pumps: [ ] LACT Unit: [ ] Pump Jacks: [ ] Pigging Station: [ ]
Electric Generators: [ ] Gas Pipeline: [1] Oil Pipeline: [ ] Water Pipeline: [ ] Flare: [1]
Gas Compressors: [ ] VOC Combustor: [ ] Oil Tanks: [4] Fuel Tanks: [ ]

Other: Freshwater storage pit, heater treater & separators (one high pressure & one low pressure). Jet pump and flare until pipeline connection is ready.

6. Construction:

Date planned to commence construction: 06/15/2011 Size of disturbed area during construction in acres: 5.02  
Estimated date that interim reclamation will begin: 09/15/2011 Size of location after interim reclamation in acres: 1.00  
Estimated post-construction ground elevation: 4913 Will a closed loop system be used for drilling fluids: Yes   
Will salt sections be encountered during drilling: Yes  No  Is H2S anticipated? Yes  No   
Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes  No   
Mud disposal: Offsite  Onsite  Method: Land Farming  Land Spreading  Disposal Facility   
Other: Landfarm Burial or Evaporation

7. Surface Owner:

Name: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_ Fax: \_\_\_\_\_  
Address: \_\_\_\_\_ Email: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ Date of Rule 306 surface owner consultation: \_\_\_\_\_  
Surface Owner:  Fee  State  Federal  Indian  
Mineral Owner:  Fee  State  Federal  Indian  
The surface owner is:  the mineral owner  committed to an oil and gas lease  
 is the executer of the oil and gas lease  the applicant  
The right to construct the location is granted by:  oil and gas lease  Surface Use Agreement  Right of Way  
 applicant is owner  
Surface damage assurance if no agreement is in place:  \$2000  \$5000  Blanket Surety ID \_\_\_\_\_

8. Reclamation Financial Assurance:

Well Surety ID: 20100108  Gas Facility Surety ID: \_\_\_\_\_  Waste Mgnt. Surety ID: \_\_\_\_\_

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes  No   
Distance, in feet, to nearest building: 2089, public road: 646, above ground utilit: 628  
, railroad: 5280, property line: 245

10. Current Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential

11. Future Land Use (Check all that apply):

Crop Land:  Irrigated  Dry land  Improved Pasture  Hay Meadow  CRP  
Non-Crop Land:  Rangeland  Timber  Recreational  Other (describe): \_\_\_\_\_  
Subdivided:  Industrial  Commercial  Residential

12. Soils:

List all soil map units that occur within the proposed location. Attach the National Resource Conservation Service (NRCS) report showing the "Map Unit Description" report listing the soil typical vertical profile. This data is to used when segregating topsoil.

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.gov/> or from the COGCC web site GIS Online map page found at <http://colorado.gov/cogcc>. Instructions are provided within the COGCC web site help section.

NRCS Map Unit Name: 74 Vona sand loam, 3 to 9 percent slopes

NRCS Map Unit Name: 44 Olney fine sandy loam, 0 to 6 percent slopes

NRCS Map Unit Name: \_\_\_\_\_

**13. Plant Community:**

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No

Plant species from:  NRCS or,  field observation Date of observation: \_\_\_\_\_

List individual species: Prairie Sandreed, Sand Bluestem, Switchgrass, Needlegrass & Sand dropseed

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)
- Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)
- Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)
- Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)
- Mountain Riparian (Cottonwood, Willow, Blue Spruce)
- Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)
- Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)
- Alpine (above timberline)
- Other (describe): Dryland Pasture

**14. Water Resources:**

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area:  No  Yes Was a Rule 901.e. Sensitive Areas Determination performed:  No  Yes

Distance (in feet) to nearest surface water: 5064, water well: 1759, depth to ground water: 168

Is the location in a riparian area:  No  Yes Was an Army Corps of Engineers Section 404 permit filed  No  Yes

Is the location within a Rule 317B Surface Water Suppl Area buffer zone:

No  0-300 ft. zone  301-500 ft. zone  501-2640 ft. zone

If the location is within a Rule 317B Surface Water Supply Area buffer have all public water supply systems within 15 miles been notified:  No  Yes

**15. Comments:**

All footages 5280' are 1 mile or greater. The closest water well is Permit #154911A, with a static water level of 168'.

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

Signed: \_\_\_\_\_ Date: 06/07/2011 Email: terry@rockymountainpermitting.com

Print Name: Terry L. Hoffman Title: Permit Agent

**IMPORTANT: SOME DATA FIELDS HAVE BEEN MODIFIED.**

Based on the information provided herein, this Application for Permit-to-Drill complies with COGCC Rules and applicable orders and is hereby approved.

COGCC Approved: \_\_\_\_\_

*David S. Nesline*

Director of COGCC

Date: 7/14/2011

**CONDITIONS OF APPROVAL, IF ANY:**

**All representations, stipulations and conditions of approval stated in this Form 2A for this location shall constitute representations, stipulations and conditions of approval for any and all subsequent operations on the location unless this Form 2A is modified by Sundry Notice, Form 4 or an Amended Form 2A.**

**Attachment Check List**

Att Doc Num	Name
2613760	REFERENCE AREA MAP
400171900	FORM 2A SUBMITTED
400171990	ACCESS ROAD MAP
400171991	CONST. LAYOUT DRAWINGS
400171993	HYDROLOGY MAP
400171994	LOCATION DRAWING
400171996	LOCATION PICTURES
400172001	REFERENCE AREA PICTURES
400172002	CONST. LAYOUT DRAWINGS
400172223	NRCS MAP UNIT DESC
400172224	NRCS MAP UNIT DESC
400172225	OTHER
400172356	REFERENCE AREA MAP

Total Attach: 13 Files

**General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
OGLA	Attached revised reference area map and pictures; The reference area map and pictures show two reference areas, one of which may have been disturbed by previous oil and gas operations associated with the dry and abandoned location Mitzel P and Mitzel P-X. Between both reference area locations, adequate land cover should be available to provide a basis for interim and final reclamation.	7/13/2011 1:00:36 PM
OGLA	phone conversation with Carrizo and PFS - reference area discussed and new map and photos to be supplied week of 7/11.	7/6/2011 2:18:41 PM
OGLA	Requested revised Reference Area Map.	6/9/2011 11:05:08 AM

Total: 3 comment(s)

**BMP**

<u>Type</u>	<u>Comment</u>
Construction	<p>Operator will ensure 110 percent secondary containment for any volume of fluids contained at the well site during drilling and completion.</p> <p>Operator will implement best management practices to contain any unintentional release of fluids.</p> <p>Operator has designed the well pad with insloping and a storm water control ditch to prevent storm water run-on/runoff and the release of fluids from the location. See attached Construction Layout Drawing.</p> <p>Fresh water for the Fresh Water Storage Pit comes from water provider; water sources permitted for consumable industrial use.</p> <p>Operator shall not allow any fluids to flow back to the Fresh Water Storage Pit.</p> <p>Fresh Water Storage Pit shall contain fresh water only and signage prohibiting the use of the pit for any fluid that does not come from municipal, irrigation or surface water source.</p> <p>The location will be fenced and the fenced area will include the Fresh Water Storage Pit.</p> <p>The COGCC to be notified 48 hours prior to construction of the Fresh Water Storage Pit.</p>

Total: 1 comment(s)