


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 border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 25%;">DE</td> <td style="width: 25%;">ET</td> <td style="width: 25%;">OE</td> <td style="width: 25%;">ES</td> </tr> </table> <p>Document Number: 400125302</p>	DE	ET	OE	ES																					
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Oil and Gas Location Assessment			<p>Location ID: 413476</p> <p>Expiration Date: 03/30/2014</p>																									
<p> <input type="checkbox"/> New Location <input checked="" type="checkbox"/> Amend Existing Location Location#: <u>413476</u> </p>																												
<p>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. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this Assessment will allow for the construction of the below specified location; however, it does not supersede any land use rules applied by the local land use authority. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at http://colorado.gov/cogcc/ for all accompanying information pertinent to this Oil and Gas Location Assessment.</p>																												
<p><input checked="" type="checkbox"/> This location assessment is included as part of a permit application.</p>																												
1. CONSULTATION																												
<p> <input type="checkbox"/> This location is included in a Comprehensive Drilling Plan. CDP # _____ <input checked="" type="checkbox"/> This location is in a sensitive wildlife habitat area. <input type="checkbox"/> This location is in a wildlife restricted surface occupancy area. <input type="checkbox"/> This location includes a Rule 306.d.(1)A.ii. variance request. </p>																												
2. Operator		3. Contact Information																										
Operator Number: <u>100322</u> Name: <u>NOBLE ENERGY INC</u> Address: <u>1625 BROADWAY STE 2200</u> City: <u>DENVER</u> State: <u>CO</u> Zip: <u>80202</u>		Name: <u>Tania McNutt</u> Phone: <u>(303) 228-4392</u> Fax: <u>(303) 228-4286</u> email: <u>tmcnutt@nobleenergyinc.com</u>																										
4. Location Identification:																												
Name: <u>Pad 8A- Spruce Creek</u> Number: <u>8-31D</u> County: <u>GARFIELD</u> QuarterQuarter: <u>NENE</u> Section: <u>8</u> Township: <u>7S</u> Range: <u>94W</u> Meridian: <u>6</u> Ground Elevation: <u>6448</u>																												
<p>Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.</p>																												
Footage at surface: <u>422</u> feet <u>FNL</u> , from North or South section line, and <u>1109</u> feet <u>FEL</u> , from East or West section line. Latitude: <u>39.458705</u> Longitude: <u>-107.905975</u> PDOP Reading: <u>2.4</u> Date of Measurement: <u>09/08/2008</u> Instrument Operator's Name: <u>John Richardson</u>																												
5. Facilities (Indicate the number of each type of oil and gas facility planned on location):																												
<table style="width: 100%;"> <tr> <td>Special Purpose Pits: <input type="text" value="1"/></td> <td>Drilling Pits: <input type="text"/></td> <td>Wells: <input type="text" value="16"/></td> <td>Production Pits: <input type="text"/></td> <td>Dehydrator Units: <input type="text"/></td> </tr> <tr> <td>Condensate Tanks: <input type="text" value="8"/></td> <td>Water Tanks: <input type="text"/></td> <td>Separators: <input type="text" value="4"/></td> <td>Electric Motors: <input type="text"/></td> <td>Multi-Well Pits: <input type="text"/></td> </tr> <tr> <td>Gas or Diesel Motors: <input type="text"/></td> <td>Cavity Pumps: <input type="text"/></td> <td>LACT Unit: <input type="text"/></td> <td>Pump Jacks: <input type="text"/></td> <td>Pigging Station: <input type="text" value="1"/></td> </tr> <tr> <td>Electric Generators: <input type="text"/></td> <td>Gas Pipeline: <input type="text" value="1"/></td> <td>Oil Pipeline: <input type="text"/></td> <td>Water Pipeline: <input type="text" value="1"/></td> <td>Flare: <input type="text"/></td> </tr> <tr> <td>Gas Compressors: <input type="text"/></td> <td>VOC Combustor: <input type="text" value="1"/></td> <td>Oil Tanks: <input type="text"/></td> <td>Fuel Tanks: <input type="text" value="1"/></td> <td></td> </tr> </table>				Special Purpose Pits: <input type="text" value="1"/>	Drilling Pits: <input type="text"/>	Wells: <input type="text" value="16"/>	Production Pits: <input type="text"/>	Dehydrator Units: <input type="text"/>	Condensate Tanks: <input type="text" value="8"/>	Water Tanks: <input type="text"/>	Separators: <input type="text" value="4"/>	Electric Motors: <input type="text"/>	Multi-Well Pits: <input type="text"/>	Gas or Diesel Motors: <input type="text"/>	Cavity Pumps: <input type="text"/>	LACT Unit: <input type="text"/>	Pump Jacks: <input type="text"/>	Pigging Station: <input type="text" value="1"/>	Electric Generators: <input type="text"/>	Gas Pipeline: <input type="text" value="1"/>	Oil Pipeline: <input type="text"/>	Water Pipeline: <input type="text" value="1"/>	Flare: <input type="text"/>	Gas Compressors: <input type="text"/>	VOC Combustor: <input type="text" value="1"/>	Oil Tanks: <input type="text"/>	Fuel Tanks: <input type="text" value="1"/>	
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Other: <u>Emergency Flare Pit. Proposing 4 Quad. Separators</u>																												

6. Construction:

Date planned to commence construction: 07/01/2011 Size of disturbed area during construction in acres: 4.30
Estimated date that interim reclamation will begin: 10/01/2011 Size of location after interim reclamation in acres: 2.70
Estimated post-construction ground elevation: 6445 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: Closed Loop

7. Surface Owner:

Name: _____ Phone: _____
Address: _____ Fax: _____
Address: _____ Email: _____
City: _____ State: _____ Zip: _____ Date of Rule 306 surface owner consultation: 03/02/2009
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: 2003009 ☐ Gas Facility Surety ID: _____ ☐ Waste Mgmt. Surety ID: _____

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes ☐ No ☒
Distance, in feet, to nearest building: 4259 , public road: 1485 , above ground utilit: 1485
 , railroad: 16685 , property line: 1185

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 be used when segregating topsoil.

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: Villa Grove-Zoltay Loams, 15 to 30 percent slopes, Map Unit Symbol 71

NRCS Map Unit Name: _____

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: Villa Grove, Zoltay

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): _____

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: 257, water well: 1750, depth to ground water: 176

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 Supply 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:

- The reference well for this pad is Spruce Creek 8-31D. - Noble Energy Inc. plans to drill 16 wells with this application. - The closest water well with available groundwater depth data is Permit No. 228041, Receipt 9500165 (Colorado Division of Water Resources Website). - This location is in a Sensitive Wildlife Habitat, however, a Wildlife Mitigation Plan was executed with the CDOW on May 24th, 2010, that specifically covers this pad and it is valid for six years.

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

Signed: _____ Date: 02/25/2011 Email: tmcnutt@nobleenergyinc.com

Print Name: Tania McNutt Title: Regulatory Analyst

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. Neslin

Director of COGCC

Date: 3/31/2011

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.

GENERAL SITE COAs:

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.

The surface soils and materials are fine-grained and highly unconsolidated; therefore appropriate BMPs need to be in place during all drilling and well completion operations. Standard stormwater BMPs must be implemented at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater runoff.

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 fracing operations.

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 located on the well pad. The flowback and stimulation fluid tanks 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 (per Rule 604.a.(4)).

Berms or other containment devices shall be constructed in compliance with Rule 604.a.(4) around crude oil, condensate, and produced water storage tanks.

SENSITIVE AREA (CLOSE SURFACE WATER) COAs:

Location is in a sensitive area because of proximity to surface water; therefore, 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.

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed temporary surface pipelines or buried pipelines.

Either a lined drilling pit or a closed loop system (which operator has indicated on the Form 2A) must be implemented.

Attachment Check List

Att Doc Num	Name
2033673	CORRESPONDENCE
400125302	FORM 2A SUBMITTED
400126158	NRCS MAP UNIT DESC
400126159	ACCESS ROAD MAP
400126161	HYDROLOGY MAP
400126163	LOCATION PICTURES
400126164	MULTI-WELL PLAN
400126165	CONST. LAYOUT DRAWINGS
400126166	REFERENCE AREA MAP
400126167	REFERENCE AREA PICTURES
400126169	OIL & GAS LEASE
400126183	PROPOSED BMPs
400136676	CONST. LAYOUT DRAWINGS
400136680	LOCATION DRAWING

Total Attach: 14 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Received approval from Jane Stanczyk to approve without Form 2	3/31/2011 1:55:28 PM
OGLA	Initiated/Completed OGLA Form 2A review on 03-21-11 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, lined pits/closed loop, flowback to tanks, tank berming, and cuttings low moisture content COAs from operator on 03-21-11; received acknowledgement of COAs from operator on 03-?-10; passed by CDOW on 02-28-11 with operator submitted BMPs (with permit application) and WMP acceptable; passed OGLA Form 2A review on 03-31-11 by Dave Kubeczko; fluid containment, spill/release BMPs, monitoring hillside, lined pits/closed loop, flowback to tanks, tank berming, and cuttings low moisture content COAs.	3/21/2011 3:37:36 PM
Permit	On hold, waiting on Form 2 submissions	3/16/2011 4:44:25 PM
DOW	This well pad is located within the boundary of an approved, signed Wildlife Mitigation Plan between Noble Energy and the Colorado Division of Wildlife. The BMPs as submitted by the operator are applicable. by Michael Warren on Monday, February 28, 2011 at 10: 25 A.M.	2/28/2011 10:24:46 AM

Total: 4 comment(s)

BMP

<u>Type</u>	<u>Comment</u>

Total: 0 comment(s)