

FORM
2A

Rev
08/13

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109



Document Number:

400557211

Date Received:

04/23/2014

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: _____

Submit signed original form. This Oil and Gas Location Assessment is to be submitted to the COGCC for approval prior to any ground disturbance activity associated with oil and gas operations. Approval of this Oil and Gas Location 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. Please see the COGCC website at <http://cogcc.state.co.us/> for all accompanying information pertinent this Oil and Gas Location Assessment.

Location ID:

437479

Expiration Date:

06/05/2017

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

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.

Operator

Operator Number: 100322
Name: NOBLE ENERGY INC
Address: 1625 BROADWAY STE 2200
City: DENVER State: CO Zip: 80202

Contact Information

Name: Susan Miller
Phone: (303) 228-4246
Fax: (303) 228-4286
email: smiller@nobleenergyinc.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20030009 Gas Facility Surety ID: _____
- Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: SHABLE Number: K08-69HN MULTI
County: WELD
Quarter: NENE Section: 7 Township: 4N Range: 66W Meridian: 6 Ground Elevation: 4715

Define a single point as a location reference for the facility location. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 607 feet FNL from North or South section line
290 feet FEL from East or West section line
Latitude: 40.332480 Longitude: -104.813010
PDOP Reading: 1.1 Date of Measurement: 05/17/2013
Instrument Operator's Name: Wyatt Hall

RELATED REMOTE LOCATIONS

(Enter as many Related Locations as necessary. Enter the Form 2A document # only if there is no established COGCC Location ID#)

This proposed Oil and Gas Location is:

LOCATION ID # FORM 2A DOC #

Production Facilities Location serves Well(s)

319122

FACILITIES

Indicate the number of each type of oil and gas facility planned on location

Wells	4	Oil Tanks	12	Condensate Tanks		Water Tanks	5	Buried Produced Water Vaults	3
Drilling Pits		Production Pits		Special Purpose Pits		Multi-Well Pits		Temporary Large Volume Above Ground Tanks	6
Pump Jacks		Separators	9	Injection Pumps		Cavity Pumps			
Gas or Diesel Motors		Electric Motors		Electric Generators		Fuel Tanks		Gas Compressors	5
Dehydrator Units		Vapor Recovery Unit		VOC Combustor		Flare		LACT Unit	
								Pigging Station	

OTHER FACILITIES

Other Facility Type

Number

Other Facility Type	Number
Gas Lift Skid	3
Blowcase	2
Compressor Skid Vault	5
Knock Out Tank	2
VRT	3
VOC Burner	6
Gas Lift Line	1
Meter Building	1
Flowlines	10
Sand Separator	4
Knock Out Drum	1
Scrubber	3

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

One 3" steel Gas Lift line running approximately 225' east from the drill pad to the compressor. Ten 3-phase 4" steel flowlines. The proposed production facility will be located within the pad disturbance to the east. Existing facility to the east, Loc ID No. 319122, will be removed and reset into this proposed area of disturbance. The existing producing well on Loc ID No. 319122, Shable R K 8-4, API 05-123-10725 will be re-routed to the new facility. The Facilities section reflects the total equipment count.

CONSTRUCTION

Date planned to commence construction: 06/18/2014 Size of disturbed area during construction in acres: 14.80

Estimated date that interim reclamation will begin: 09/18/2014 Size of location after interim reclamation in acres: 4.60

Estimated post-construction ground elevation: 4715

DRILLING PROGRAM

Will a closed loop system be used for drilling fluids: Yes

Is H₂S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Beneficial reuse or land application plan submitted? Yes

Reuse Facility ID: _____ or Document Number: 2614238

Centralized E&P Waste Management Facility ID, if applicable: _____

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: Shable Homestead LLC

Phone: _____

Address: 12705 Highway 60

Fax: _____

Address: _____

Email: _____

City: Milliken State: CO Zip: 80543

Surface Owner: Fee State Federal Indian

Check all that apply. The Surface Owner: is the mineral owner

is committed to an oil and Gas Lease

has signed the Oil and Gas Lease

is the applicant

The Mineral Owner beneath this Oil and Gas Location is: Fee State Federal Indian

The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: No

The right to construct this Oil and Gas Location is granted by: Surface Use Agreement

Surface damage assurance if no agreement is in place: _____ Surface Surety ID: _____

Date of Rule 306 surface owner consultation 08/20/2013

CURRENT AND FUTURE LAND USE

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

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

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 809 Feet
Building Unit: 904 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 722 Feet
Above Ground Utility: 682 Feet
Railroad: 1233 Feet
Property Line: 290 Feet

INSTRUCTIONS:

- All measurements shall be provided from center of nearest Well or edge of nearest Production Facility to nearest of each cultural feature as described in Rule 303.b.(3)A.
- Enter 5280 for distance greater than 1 mile.
- Building - nearest building of any type. If nearest Building is a Building Unit, enter same distance for both.
- Building Unit, High Occupancy Building Unit, and Designated Outside Activity Area - as defined in 100-Series Rules.

DESIGNATED SETBACK LOCATION INFORMATION

Check all that apply. This location is within a: Buffer Zone
 Exception Zone
 Urban Mitigation Area

- Buffer Zone - as described in Rule 604.a.(2), within 1,000' of a Building Unit.
- Exception Zone - as described in Rule 604.a.(1), within 500' of a Building Unit.
- Urban Mitigation Area - as defined in 100-Series Rules.

Pre-application Notifications (required if location is within 1,000 feet of a building unit):

Date of Rule 305.a.(1) Urban Mitigation Area Notification to Local Government: _____
Date of Rule 305.a.(2) Buffer Zone Notification to Building Unit Owners: 10/01/2013

SOIL

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.

The required information can be obtained from the NRCS web site at <http://soildatamart.nrcs.usda.org/> 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: 21: Dacono Clay Loam, 0-1% slopes
NRCS Map Unit Name: _____
NRCS Map Unit Name: _____

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: _____

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): _____

WATER RESOURCES

Is this a sensitive area: No Yes

Distance to nearest

downgradient surface water feature: 100 Feet

water well: 1000 Feet

Estimated depth to ground water at Oil and Gas Location 20 Feet

Basis for depth to groundwater and sensitive area determination:

Due to shallow ground water and the proximity of the Thompson Valley ditch (100' north), Noble considers this site a sensitive area.

Is the location in a riparian area: No Yes

Was an Army Corps of Engineers Section 404 permit filed No Yes If yes attach permit.

Is the location within a Rule 317B Surface Water Supply Area buffer No 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: _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 318A

DESIGNATED SETBACK LOCATION EXCEPTIONS

Check all that apply:

- Rule 604.a.(1)A. Exception Zone (within 500' of Building Unit)
- Rule 604.b.(1)A. Exception Location (existing or approved Oil & Gas Location now within a Designated Setback as a result of Rule 604.a.)
- Rule 604.b.(1)B. Exception Location (existing or approved Oil & Gas Location is within a Designated Setback due to Building Unit construction after Location approval)
- Rule 604.b.(2) Exception Location (SUA or site-specific development plan executed on or before August 1, 2013)
- Rule 604.b.(3) Exception Location (Building Units constructed after August 1, 2013 within setback per an SUA or site-specific development plan)

RULE 502.b VARIANCE REQUEST

- Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number _____

ALL exceptions and variances require attached Request Letter(s). Refer to applicable rule for additional required attachments (e.g. waivers, certifications, SUAs).

OPERATOR COMMENTS AND SUBMITTAL

Comments

This 4-well pad includes proposed: Shable K08-69HN (REF), Shable K08-69-1HN, Shable K08-68-1HN and Shable K08-67HN. The production facilities will be located within the disturbed area and will serve all 4 wells. The surface owner is the same throughout the disturbed area. The 6 LVST's on this location will be used to complete the associated pad wells in order to reduce the surface footprint. The LVST's two manufacturers are MWS and Pinnacle. The LVST's will be onsite for approximately 60-days and are 40,000 to 42,000 bbls. LVST Contingency Plan is available upon request. The temporary water storage area will be removed and reclaimed when completion operations commence. The Canal located 248' north is situated at a higher elevation than the proposed location and will not interfere with operations. Noble respectfully requests the Buffer Zone mitigation measures be included as COA's for the subject permit. Noble is currently working on developing mitigation measures.

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct and complete.
Signed: _____ Date: 04/23/2014 Email: Regulatorynotification@nobleenergyinc.com

Print Name: Susan Miller Title: Regulatory Analyst

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:  Director of COGCC Date: 6/6/2014

Conditions Of Approval

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.

<u>COA Type</u>	<u>Description</u>
	Operator shall comply with Buffer Zone Move-In, Rig-Up Notice Policy dated 12-16-2013.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	i. Where technologically feasible and economically practicable, operators shall consolidate wells to create multi-well pads, including shared locations with other operators. Multi-well production facilities shall be located as far as possible from Building Units. ii. The pad shall be constructed in such a manner that noise mitigation may be installed and removed without disturbing the site or landscaping. iii. Pads shall have all weather access roads to allow for operator and emergency response.
2	Planning	Any material not in use that might constitute a fire hazard shall be removed a minimum of twenty-five (25) feet from the wellhead, tanks and separator. Any electrical equipment installations inside the bermed area shall comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.
3	Planning	Where possible, operators shall provide for the development of multiple reservoirs by drilling on existing pads or by multiple completions or commingling in existing wellbores (see Rule 322). If any operator asserts it is not possible to comply with, or requests relief from, this requirement, the matter shall be set for hearing by the Commission and relief granted as appropriate. During Rule 306 consultation, the operator may develop a mitigation plan to address location specific considerations not otherwise addressed by specific mitigation measures identified in this subsection 604.c.
4	Traffic control	Traffic Plan - A traffic plan has been created for this location. No left turns will be permitted in and out of the well pad and production facility during operations. During heavier truck traffic activities, warning signs and flaggers will be used to aid in safe operations.

5	General Housekeeping	General housekeeping will consist of neat and orderly storage of materials and fluids. Wastes will be temporarily stored in sealed containers and regularly collected and disposed of at offsite, suitable facilities. If spills occur, prompt cleanup is required to minimize any commingling of waste materials with stormwater runoff. Routine maintenance will be limited to fueling and lubrication of equipment. Drip pans will be used during routine fueling and maintenance to contain spills or leaks. Any waste product from maintenance will be containerized and transported offsite for disposal or recycling. There will be no major equipment overhauls conducted onsite. Equipment will be transported offsite for major overhauls. Cleanup of trash and discarded materials will be conducted at the end of each work day. Cleanup will consist of patrolling the roadway, access areas, and other work areas to pick up trash, scrap debris, other discarded materials, and any contaminated soil. These materials will be disposed of properly.
6	General Housekeeping	All surface trash, debris, scrap or discarded material connected with the operations of the property shall be removed from the premises or disposed of in a legal manner. Within ninety (90) days after a well is plugged and abandoned, the well site shall be cleared of all non-essential equipment, trash, and debris. For good cause shown, an extension of time may be granted by the Director.
7	Storm Water/Erosion Control	Stormwater management plans (SWMP) are in place to address construction, drilling and operations associated with Oil & Gas development throughout the state of Colorado in accordance with Colorado Department of Public Health and Environment (CDPHE) and General Permit No. COR-038637. BMP's will be constructed around the perimeter of the site prior to, or at the beginning of construction. This location is located in an agricultural field that has consistently flat topography without significant change in elevation. Due to the use, a ditch and berm will be placed around the pad.
8	Material Handling and Spill Prevention	Spill Prevention Control and Countermeasures (SPCC) plans are in place to address any possible spill associated with Oil & Gas operations throughout the state of Colorado in accordance with CFR 112.
9	Material Handling and Spill Prevention	Leak Detection -Noble Energy Inc. designs facilities to avoid releases and to be compliant with all regulations specific to leak detection and control (i.e. SPCC 40CFR112). Daily, monthly and annual inspections are performed at each facility to confirm operational integrity and regulatory compliance. Noble will perform maintenance if it is deemed necessary through any of the scheduled inspections. Automation technology will be installed at this facility and is monitored 24 hours per day, 7 days per week.
10	Material Handling and Spill Prevention	Berms or other secondary containment devices in Designated Setback Locations shall be constructed around crude oil, condensate, and produced water storage tanks and shall enclose an area sufficient to contain and provide secondary containment for one-hundred fifty percent (150%) of the largest single tank. Berms or other secondary containment devices shall be sufficiently impervious to contain any spilled or released material. All berms and containment devices shall be inspected at regular intervals and maintained in good condition. No potential ignition sources shall be installed inside the secondary containment area unless the containment area encloses a fired vessel. Refer to American Petroleum Institute Recommended Practices, API RP - D16.
11	Material Handling and Spill Prevention	All loadlines shall be bullplugged or capped.

12	Construction	<p>Water Vault BMP:</p> <ol style="list-style-type: none"> 1. A contiguous spray liner will be installed and will underlay the entire tank battery. The location of a partially buried cement water vault will be excavated prior to liner install. 2. A 60 bbl cement water vault will be utilized to collect excess produced water from oil tanks. Produced water in the vault will be removed as needed and disposed of in an approved UIC disposal well. The cement water vault is one piece with no seams designed to minimize potential for leaks. All piping associated with the use of the water vault will be aboveground and visually inspected on a regular basis. 3. The partially buried cement water vault will be installed above the spray in liner. 4. A sized steel secondary containment ring will be installed surrounding the entire tank battery. Sand and gravel bedding will be installed to protect the liner prior to placing equipment in the containment area.
13	Construction	<p>Unless otherwise requested by the Surface Owner, well sites constructed within Designated Setback Locations, shall be adequately fenced to restrict access by unauthorized persons.</p>
14	Construction	<p>All newly installed or replaced crude oil and condensate storage tanks shall be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). The operator shall maintain written records verifying proper design, construction, and maintenance, and shall make these records available for inspection by the Director. Only the 2008 version of NFPA Code 30 applies to this rule. This rule does not include later amendments to, or editions of, the NFPA Code 30. NFPA Code 30 may be examined at any state publication depository library. Upon request, the Public Room Administrator at the office of the Commission, 1120 Lincoln Street, Suite 801, Denver, Colorado 80203, will provide information about the publisher and the citation to the material.</p>
15	Construction	<p>At the time of construction, all leasehold roads shall be constructed to accommodate local emergency vehicle access requirements, and shall be maintained in a reasonable condition.</p>
16	Noise mitigation	<p>Noise/Light - A 16' engineered sound wall will be installed along the west and south sides of the pad. Equipment specific sound barriers may be used if deemed necessary. Rig lights will be positioned down and light plants positioned pointing away from nearby building units. Dust - Road base will be used on the pad to cut down on dust. Water trucks will be used when necessary. A chemical application (magnesium chloride, etc.) will be used along the access road to aid in dust mitigation and also help prevent dirt from being tracked onto County Road 396.</p>
17	Emissions mitigation	<ol style="list-style-type: none"> i. Flow lines, separators, and sand traps capable of supporting green completions as described in Rule 805 shall be installed at any Oil and Gas Location at which commercial quantities of gas are reasonably expected to be produced based on existing adjacent wells within 1 mile. ii. Uncontrolled venting shall be prohibited in an Urban Mitigation Area. iii. Temporary flowback flaring and oxidizing equipment shall include the following: <ol style="list-style-type: none"> aa. Adequately sized equipment to handle 1.5 times the largest flowback volume of gas experienced in a ten (10) mile radius; bb. Valves and porting available to divert gas to temporary equipment or to permanent flaring and oxidizing equipment; and cc. Auxiliary fuel with sufficient supply and heat to sustain combustion or oxidation of the gas mixture when the mixture includes non-combustible gases.
18	Drilling/Completion Operations	<p>Drilling will utilize a closed loop system. Pit level indicators shall be used.</p>

19	Drilling/Completion Operations	<p>BOPE - Blowout prevention equipment for drilling operations in a Designated Setback Location shall consist of (at a minimum):</p> <ul style="list-style-type: none"> i. Rig with Kelly. Double ram with blind ram and pipe ram; annular preventer or a rotating head. ii. Rig without Kelly. Double ram with blind ram and pipe ram. <p>Mineral Management certification or Director approved training for blowout prevention shall be required for at least one (1) person at the well site during drilling operations.</p> <p>BOPE testing - Upon initial rig-up and at least once every thirty (30) days during drilling operations thereafter, pressure testing of the casing string and each component of the blowout prevention equipment including flange connections shall be performed to seventy percent (70%) of working pressure or seventy percent (70%) of the internal yield of casing, whichever is less. Pressure testing shall be conducted and the documented results shall be retained by the operator for inspection by the Director for a period of one (1) year. Activation of the pipe rams for function testing shall be conducted on a daily basis when practicable.</p> <p>BOPE for well servicing -</p> <ul style="list-style-type: none"> i. Adequate blowout prevention equipment shall be used on all well servicing operations. ii. Backup stabbing valves shall be required on well servicing operations during reverse circulation. Valves shall be pressure tested before each well servicing operation using both low-pressure air and high-pressure fluid.
20	Drilling/Completion Operations	Closed chamber drill stem tests shall be allowed. All other drill stem tests shall require approval by the Director.
21	Drilling/Completion Operations	All guy line anchors left buried for future use shall be identified by a marker of bright color not less than four (4) feet in height and not greater than one (1) foot east of the guy line anchor.
22	Final Reclamation	The operator shall identify the location of the wellbore with a permanent monument as specified in Rule 319.a.(5). The operator shall also inscribe or imbed the well number and date of plugging upon the permanent monument.

Total: 22 comment(s)

Attachment Check List

Att Doc Num	Name
2167762	RULE 306.E. CERTIFICATION
400557211	FORM 2A SUBMITTED
400583438	LOCATION DRAWING
400583460	ACCESS ROAD MAP
400583464	ACCESS ROAD MAP
400583469	HYDROLOGY MAP
400583472	LOCATION PICTURES
400583477	MULTI-WELL PLAN
400583480	WASTE MANAGEMENT PLAN
400583481	FACILITY LAYOUT DRAWING
400583485	NRCS MAP UNIT DESC
400589942	SURFACE AGRMT/SURETY
400595561	OTHER

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	5/4/2014 2:42:34 PM
OGLA	Added BMP as provided by Noble.	6/4/2014 11:48:50 AM
OGLA	Reviewed the BMP provided by Noble and requested additional clarification.	5/28/2014 1:16:08 PM
Permit	Attached Rule 306.e Certification as per opr.	5/19/2014 10:02:49 AM
OGLA	Requesting clarification of a comment on the submit tab.	5/14/2014 9:23:05 AM
Permit	Ready to pass pending public comment 5/15/14.	5/8/2014 9:29:18 AM
Permit	This form passes completeness.	4/24/2014 3:06:56 PM
Permit	Returned to draft: 1) Certification letter for Rule 303.b.(3)J.iii not attached. 2) Buffer zone mitigation not included in BMP's.	4/24/2014 11:17:57 AM

Total: 8 comment(s)