

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:

400877885

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Date Received:

12/23/2015

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:

445005

Expiration Date:

02/27/2019

☒ 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: 10598

Name: SANDRIDGE EXPLORATION & PRODUCTION LLC

Address: 123 ROBERT S KERR AVE

City: OKLAHOMA CITY State: OK Zip: 73102

Contact Information

Name: Kimberly Rodell

Phone: (303) 942-0506

Fax: ()

email: krodell@upstreampm.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20130007 ☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Surprise Unit Number: 3-09H

County: JACKSON

QuarterQuarter: NENW Section: 9 Township: 6N Range: 80W Meridian: 6 Ground Elevation: 8262

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: 521 feet FNL from North or South section line

1726 feet FWL from East or West section line

Latitude: 40.510282 Longitude: -106.384304

PDOP Reading: 1.2 Date of Measurement: 05/21/2015

Instrument Operator's Name: Randall R. Miller

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 #

Well Site is served by Production Facilities

436676

400565389

FACILITIES

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

Wells	2	Oil Tanks*		Condensate Tanks*		Water Tanks*		Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	2	Separators*		Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*		Flare*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

Those facilities indicated by an asterisk () shall be used to determine the distance from the Production Facility to the nearest cultural feature on the Cultural Setbacks Tab.

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

There are plans to lay 1- 6" steel oil pipeline from the Surprise Unit 3-09H wellheads to the Surprise Central Production Facility (Location ID 436676); 1 - 6" steel gas pipeline and 1 - 6" steel water pipeline from wellheads to separators at the Surprise Central Production Facility (Location ID 436676); 1 data/electric line from the wellheads to the facility. All oil will be hauled by truck from the Surprise Central Production Facility.

CONSTRUCTION

Date planned to commence construction: 01/01/2016

Size of disturbed area during construction in acres: 2.00

Estimated date that interim reclamation will begin: 06/01/2016

Size of location after interim reclamation in acres: 0.78

Estimated post-construction ground elevation: 8261

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: Commercial Disposal

Cutting Disposal: OFFSITE

Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

The cuttings will be sent offsite for Commercial disposal.

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: North Park Herefords

Phone: _____

Address: P.O. Box 1109

Fax: _____

Address: _____

Email: _____

City: Walden State: CO Zip: 80480

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: Yes

The right to construct this Oil and Gas Location is granted by: oil and gas lease

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

Date of Rule 306 surface owner consultation _____

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

Provide the distance to the nearest cultural feature as measured from Wells or Production Facilities onsite.

	From WELL	From PRODUCTION FACILITY
Building:	3962 Feet	Feet
Building Unit:	4475 Feet	Feet
High Occupancy Building Unit:	5280 Feet	Feet
Designated Outside Activity Area:	5280 Feet	Feet
Public Road:	300 Feet	Feet
Above Ground Utility:	210 Feet	Feet
Railroad:	5280 Feet	Feet
Property Line:	5280 Feet	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.
- For measurement purposes only, Production Facilities should only include those items with an asterisk(*) on the Facilities Tab.

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: _____

FOR MULTI-WELL PADS AND PRODUCTION FACILITIES WITHIN DESIGNATED SETBACK LOCATIONS ONLY:

- ☐ Check this box if this Oil and Gas Location has or will have Production Facilities that serve multiple wells (onll or offsite) and the Production Facilities are proposed to be located less than 1,000 feet from a Building Unit. *(Pursuant to Rule 604.c.(2)E.i., the operator must evaluate alternative locations for the Production Facilities that are farther from the Building Unit, and determine whether those alternative locations were technically feasible and economically practicable for the same proposed development.)*
- ☐ By checking this box, I certify that no alternative placements for the Production Facilities, farther from the nearest Building Unit, were available based on the analysis conducted pursuant to Rule 604.c.(2)E.i.

In the space below, explain rationale for siting the multi-well Production Facility(ies) that supports your Rule 604.c.(2)E.i determination. Attach documentation that supports your determination to this Form 2A.

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 be 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: Te-Tealson-Rock land association

NRCS Map Unit Name: Ca-Cabin sandy loam

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: Big sagebrush, Streambank wheatgrass, Pine needlegrass, Yellow rabbitbrush, Sheep fescue, Muttongrass, Prairie junegrass, Buckwheat, Bluebunch wheatgrass, Bottlebrush squirreltail, Spiny phlox, Needleandthread, Blue grama, Miscellaneous annual forbs.

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: 785 Feet

water well: 2615 Feet

Estimated depth to ground water at Oil and Gas Location 52 Feet

Basis for depth to groundwater and sensitive area determination:

The distance to the nearest water well and depth to groundwater information was taken from Permit 16307.

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: _____

Is the Location within a Floodplain? ☒ No ☐ Yes Floodplain Data Sources Reviewed (check all that apply)

☒ Federal (FEMA)

☒ State

☐ County

☐ Local

☐ Other _____

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

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

The cultural setbacks for Production Facilities are not filled out as there are NO production facilities on this pad. The wells on this pad will be served by the Surprise Central Production Facility as indicated in this filing. There will not be any changes to the Surprise Central Production Facility (Location ID 436676) with the addition of these two wells.

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

Signed: _____ Date: 12/23/2015 Email: krodell@upstreampm.com

Print Name: Kimberly Rodell Title: Permit Agent

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: 2/29/2016

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.

COA Type

Description

	In addition to the notifications required by COGCC listed in the Northwest Notification Policy and Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment; b. Notice of Spud; and c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to pipeline testing (flowlines from wellheads to separators to tanks; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions). The appropriate COGCC individuals will automatically be email notified.
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	<p>Operator must ensure secondary containment for any volume of fluids contained at the well site during drilling and completion operations (as shown on the Proposed BMPs attachment); 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 fluid containment/control as well as stormwater management for the control of run-on and run-off) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals as required by CDPHE (at least every 14 days and after precipitation events), and maintained in good condition. The design/build of any perimeter berm shall be sized, constructed, and compacted sufficiently to contain fluids during drilling operations, as well as all fluids contained in temporary frac tanks during completion operations.</p>	
	<p>A closed loop system (which operator has indicated on the Form 2A) must be implemented during drilling.</p> <p>The moisture content of drill cuttings managed onsite shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, the drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1. After the drill cuttings have been amended (if necessary) and placed on the well pad, sampling frequency of the drill cuttings (to be determined by the operator) shall be representative of the material left on location. No offsite disposal or reuse of drill cuttings to another oil and gas location shall occur without prior approval of a revised Waste Management Plan (submitted via a Form 4 Sundry Notice) and/or a Beneficial Reuse Plan specifying disposal/reuse location and waste characterization method. The operator has indicated that 'Cuttings Disposal' will be "OFFSITE" and that the 'Cuttings Disposal Method' will be "COMMERCIAL DISPOSAL" (as shown in the 'DRILLING WASTE MANAGEMENT PROGRAM SECTION' of the Form 2A). Any liners associated with drilling mud and drill cuttings must be disposed of offsite per CDPHE rules and regulations.</p> <p>If operator changes disposal options for drill cuttings, then a "Waste Management Plan" will be required (submitted via a Form 4 Sundry Notice; detailing cuttings sampling, amending where the cuttings will be placed on this location). All water/bentonite-based mud- (WBM-) generated drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must be representatively sampled (to be determined by the operator), analyzed in accordance with the rules, and meet the concentration levels listed in Table 910-1.</p> <p>If operator determines that long-term (beyond the timeframe allowed for interim reclamation) onsite management of WBM-generated drill cuttings is necessary, a Form 27 remediation plan (submitted via a Form 4 Sundry Notice; detailing amendment procedures and how and where these cuttings will be reused at this location) will be required. After the drill cuttings have been amended to meet the levels listed in Table 910-1, and placed/reused on the well pad, sampling frequency (to be determined by the operator) of these drill cuttings shall be representative of the material left on location.</p> <p>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 storage vessel 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 constructed to be sufficiently impervious to contain any spilled or released material.</p> <p>Operator shall follow all requirements of COGCC's current policy - NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS – STATEWIDE, dated January 12, 2016; and to Rule 912. VENTING OR FLARING NATURAL GAS. a. thru e. in regards to venting and flaring.</p>	
	<p>Operator shall pressure test pipelines (flowlines from wellhead to separator to tanks; and any temporary surface lines used for hydraulic stimulation and/or flowback operations) in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried pipelines and following any reconfiguration of the pipeline network. All permanent flowlines from wellhead to separator and from the separator to the tanks will also be pressure tested annually.</p>	

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Wildlife	<p>1. Adhere to seasonal timing restrictions for greater sage-grouse reproduction periods and avoid all construction, drilling, completions, and work-over activities during the period between March 1st and June 30th.</p> <p>2. Implement daily timing restrictions for access during the GrSG lekking period (March 1 to May 15) to between 10:00 a.m. and 4:00 p.m. (CPW understands that emergency responses and maintenance must occur if needed).</p> <p>3. Use an internal combustor or enclosed flare to reduce the effects of noise and light pollution while flaring.</p> <p>4. Establish company guidelines to minimize wildlife losses from vehicle collisions (slow speeds, awareness, etc.).</p> <p>5. Use electric pumps or otherwise muffle motors on pumps and equipment to minimize noise levels to no more than 10 dBA above ambient levels at this location during the production phase.</p> <p>6. Net, fence, and/or otherwise prevent/exclude wildlife from facilities and infrastructure that may pose a risk to them (toxicity, drowning, burning, etc).</p> <p>7. Reclaim the site to BLMs reclamation requirements and use seed mix recommendations pending final NEPA approval and surface owner authorization.</p>

Total: 1 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2107722	CORRESPONDENCE
2107723	CPW CORRESPONDENCE and WILDLIFE BMPs
400877885	FORM 2A SUBMITTED
400924848	CONST. LAYOUT DRAWINGS
400924849	HYDROLOGY MAP
400924851	LOCATION DRAWING
400924853	LOCATION PICTURES
400924854	MULTI-WELL PLAN
400924857	NRCS MAP UNIT DESC
400924858	REFERENCE AREA MAP
400924860	REFERENCE AREA PICTURES
400924861	WASTE MANAGEMENT PLAN
400925349	ACCESS ROAD MAP

Total Attach: 13 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Complete. Application changed to Sandridge from EE3.	2/29/2016 3:02:25 PM
DOW	<p>CPW has received concurrence by email (Nov. 23, 2015) from the operator that the following BMPs will be implemented at this location. These BMPs were recommended by CPW due to the presence of sensitive greater sage-grouse habitat at this location and its proximity to grouse lekking areas. The operator agrees to:</p> <ol style="list-style-type: none"> 1. Adhere to seasonal timing restrictions for greater sage-grouse reproduction periods and avoid all construction, drilling, completions, and work-over activities during the period between March 1st and June 30th. 2. Implement daily timing restrictions for access during the GrSG lekking period (March 1 to May 15) to between 10:00 a.m. and 4:00 p.m. (CPW understands that emergency responses and maintenance must occur if needed). 3. Use an internal combustor or enclosed flare to reduce the effects of noise and light pollution while flaring. 4. Establish company guidelines to minimize wildlife losses from vehicle collisions (slow speeds, awareness, etc.). 5. Use electric pumps or otherwise muffle motors on pumps and equipment to minimize noise levels to no more than 10 dBA above ambient levels at this location during the production phase. 6. Net, fence, and/or otherwise prevent/exclude wildlife from facilities and infrastructure that may pose a risk to them (toxicity, drowning, burning, etc). 7. Reclaim the site to BLMs reclamation requirements and use seed mix recommendations pending final NEPA approval and surface owner authorization. <p>By: Taylor Elm, 11/23/2015, 15:15</p>	11/23/2015 3:14:56 PM
OGLA	Initiated/Completed OGLA Form 2A review on 11-19-15 by Dave Kubeczko; requested acknowledgement of notification, fluid containment, spill/release BMPs, closed loop, flowback to tanks only, access road sediment and dust control, cuttings low moisture content, cuttings management, and pipeline testing COAs from operator on 11-19-15; reviewed by operator on 11-19-15 with no response - COAs placed on Form 2A on 11-25-15; added flaring and venting policy and Rule 912 adherence COA; corrected distance from WELLHEAD to BUILDING (from 4912' to 3962') and WELLHEAD to PUBLIC ROAD (from 350' to 300') based on distances listed on the associated Form 2s; passed by CPW on 11-23-15 with operator agreed to wildlife BMPs acceptable; revised cuttings disposal to offsite commercial per operator on 01-05-16; passed OGLA Form 2A review on 11-25-15 by Dave Kubeczko; notification, fluid containment, spill/release BMPs, closed loop, flowback to tanks only, access road sediment and dust control, cuttings low moisture content, cuttings management, pipeline testing, and flaring and venting policy and Rule 912 adherence COAs.	11/18/2015 5:09:42 PM
DOW	CPW conducted an onsite of this location in 2013 to assess potential impacts to wildlife. Recommended best management practices to alleviate impacts have been sent to the operator on 11-18-15 for their review/concurrence.	11/18/2015 11:48:37 AM
Permit	Passed completeness.	10/29/2015 8:33:58 AM

Total: 5 comment(s)