

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:

401047210

Date Received:

05/16/2016

Oil and Gas Location Assessment

New Location     Refile     Amend Existing Location    Location#: \_\_\_\_\_

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:

**447902**

Expiration Date:

**09/28/2019**

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: 10520  
 Name: CRESCENT POINT ENERGY U.S. CORP  
 Address: 555 17TH STREET SUITE 1800  
 City: DENVER    State: CO    Zip: 80202

Contact Information

Name: Lauren MacMillan  
 Phone: (303) 382-6787  
 Fax: ( )  
 email: lmacmillan@crecidentpointenergy.com

RECLAMATION FINANCIAL ASSURANCE

- Plugging and Abandonment Bond Surety ID: 20150074     Gas Facility Surety ID: \_\_\_\_\_
- Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Shull Pad    Number: 9-59-31-NENW  
 County: WELD  
 Quarter: NENW    Section: 31    Township: 9N    Range: 59W    Meridian: 6    Ground Elevation: 4905

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: 942 feet FNL from North or South section line  
2148 feet FWL from East or West section line

Latitude: 40.711378    Longitude: -104.022585

PDOP Reading: 1.8    Date of Measurement: 02/24/2016

Instrument Operator's Name: Alec Shull

## 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

401046577

## FACILITIES

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

Wells	8	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	8	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**

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:

Total of sixteen (16) 4" steel pipelines to accommodate the eight (8) proposed wells: one (1) buried 4" steel pipeline for oil emulsion and one (1) buried 4" steel pipeline for casing gas for each proposed well. The 16 buried lines will lead from the proposed Shull Pad 9-59-31-NENW location to the proposed central production facility (Anderson Facility 9-59-31-SESW).

## CONSTRUCTION

Date planned to commence construction: 06/01/2017 Size of disturbed area during construction in acres: 10.14

Estimated date that interim reclamation will begin: 01/01/2018 Size of location after interim reclamation in acres: 3.44

Estimated post-construction ground elevation: 4905

## DRILLING PROGRAM

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

Is H<sub>2</sub>S 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:

see attached waste management plan

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: Mike Shull Phone: 970-656-3639  
 Address: 53004 CR 100 Fax: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: \_\_\_\_\_  
 City: Grover State: CO Zip: 80729  
 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 02/09/2016

**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:	<u>5280</u> Feet	_____ Feet
Building Unit:	<u>5280</u> Feet	_____ Feet
High Occupancy Building Unit:	<u>5280</u> Feet	_____ Feet
Designated Outside Activity Area:	<u>5280</u> Feet	_____ Feet
Public Road:	<u>864</u> Feet	_____ Feet
Above Ground Utility:	<u>5280</u> Feet	_____ Feet
Railroad:	<u>5280</u> Feet	_____ Feet
Property Line:	<u>894</u> 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.  
 - Large UMA Facility – 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 (onl 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 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: 32- Kim Mitchell complex, 6 to 9 percent 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: \_\_\_\_\_ 0 Feet

water well: \_\_\_\_\_ 1455 Feet

Estimated depth to ground water at Oil and Gas Location \_\_\_\_\_ 40 Feet

Basis for depth to groundwater and sensitive area determination:

Depth to groundwater was based on static water level of nearest water well (water well permit #5911). Absence of sensitive areas was field verified. Nearest surface water feature references an abandoned ditch that runs through the northeastern portion of the proposed pad and, according to the landowner, has never been used and was dry at the time of field survey.

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 a Building Unit) and is in an Urban Mitigation Area
- 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 Reference area photos will be submitted via sundry notice, Form 4, within 12 months of Form 2A approval.

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

Signed: \_\_\_\_\_ Date: 05/16/2016 Email: lmacmillan@crescentpointenergy.com

Print Name: Lauren MacMillan Title: Sr Regulatory Specialist

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: 9/29/2016

**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.

<b>COA Type</b>	<b>Description</b>

**Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Storm Water/Erosion Control	Stormwater management plan (SWMP) will be in place to address construction, drilling, and operations associated with oil and gas development throughout the state of Colorado. BMPs will be constructed and used as necessary to prevent stormwater from leaving the construction site. BMPs used will vary according to location, and will remain until the pad is reclaimed.
2	Material Handling and Spill Prevention	Spill Prevention Control and Countermeasure (SPCC) Plan will be in place to address any possible spill associated with oil and gas operations throughout the state of Colorado. -Materials and fluids will be stored in a neat and orderly fashion. -Waste will be collected regularly and disposed of at an onsite facility. -Prompt cleanup is required of spills to minimize waste materials entering the stormwater runoff. -Drip pans will be used during fueling and maintenance to contain spills or leaks. -Cleanup of trash and discarded material will be done at the end of the work day. -Cleanup will consist of monitoring the road, location, and any other work areas. -Material to be cleaned up includes trash, scrap, and contaminated soil.

Total: 2 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2477915	REFERENCE AREA PICTURES
2477916	CORRESPONDENCE
401047210	FORM 2A SUBMITTED
401047256	SURFACE AGRMT/SURETY
401047258	WASTE MANAGEMENT PLAN
401047260	ACCESS ROAD MAP
401047263	HYDROLOGY MAP
401047265	LOCATION DRAWING
401047266	LOCATION PICTURES
401047268	MULTI-WELL PLAN
401047271	NRCS MAP UNIT DESC
401047274	REFERENCE AREA MAP

Total Attach: 12 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed.	9/29/2016 12:50:22 PM
Permit	Permitting Review Complete.	9/21/2016 3:35:21 PM
Permit	Placed ON HOLD: Application for spacing continued to August hearing.	7/29/2016 1:46:13 PM
OGLA	IN PROCESS - Operator confirmed they will not be using salt based mud and provided the Referenece Area photos.  OGLA review complete and task passed.	6/21/2016 10:18:35 AM
OGLA	Operator has indicated the nearest surface water feature is an abandoned ditch running through the northeast portion of the proposed Oil and Gas Location. Operator states the surface owner has indicated the ditch has never been used (see the Water Resources section). The next nearest downgradient surface water feature is Wild Horse Creek located approximately 817 feet south.	3/6/2016 1:21:23 PM
OGLA	ON HOLD - Requested operator confirm they will be using salt based mud and add operator comment about submitting Referenece Area photos via a Form 4 Sundry within 12 months of approval of the Form 2A as an operator BMP. Due by 7/6/16.	3/6/2016 1:16:40 PM
LGD	Oil and Gas Exploration and Production activities are currently considered a Use by Right in the Agricultural Zoned District and no land use permitting is required by the County. A building permit is required for the production facilities (tank battery, separators, pump jacks, etc.) from the Department of Planning Services. A new or expanded access from a county road or the use of a county right-of-way requires a permit from the Department of Public Works. Troy Swain, Weld Oil and Gas Liaison and LGD (970) 353-6100, ext. 3579.	5/26/2016 2:19:23 PM
Permit	Passed completeness.	5/26/2016 11:54:46 AM

Total: 8 comment(s)