

**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:

400538780

Date Received:

01/16/2014

**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:

Expiration Date:

☐ 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: 10447

Name: URSA OPERATING COMPANY LLC

Address: 1050 17TH STREET #2400

City: DENVER State: CO Zip: 80265

**Contact Information**

Name: Rob Bleil

Phone: (970) 329-4373

Fax: ( )

email: rbleil@ursaresources.com

**RECLAMATION FINANCIAL ASSURANCE**

☒ Plugging and Abandonment Bond Surety ID: 20120125    ☐ Gas Facility Surety ID: \_\_\_\_\_

☐ Waste Management Surety ID: \_\_\_\_\_

**LOCATION IDENTIFICATION**

Name: Valley Farms Number: L Pad

County: GARFIELD

QuarterQuarter: SESE Section: 11 Township: 6S Range: 92W Meridian: 6 Ground Elevation: 5582

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: 1244 feet FSL from North or South section line

1112 feet FEL from East or West section line

Latitude: 39.537716 Longitude: -107.629137

PDOP Reading: 2.1 Date of Measurement: 09/05/2013

Instrument Operator's Name: Scott E. Aibner

## 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 #

## FACILITIES

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

Wells	<u>26</u>	Oil Tanks	<u>      </u>	Condensate Tanks	<u>5</u>	Water Tanks	<u>5</u>	Buried Produced Water Vaults	<u>      </u>
Drilling Pits	<u>      </u>	Production Pits	<u>      </u>	Special Purpose Pits	<u>      </u>	Multi-Well Pits	<u>      </u>	Temporary Large Volume Above Ground Tanks	<u>      </u>
Pump Jacks	<u>      </u>	Separators	<u>26</u>	Injection Pumps	<u>      </u>	Cavity Pumps	<u>      </u>		
Gas or Diesel Motors	<u>      </u>	Electric Motors	<u>      </u>	Electric Generators	<u>      </u>	Fuel Tanks	<u>      </u>	Gas Compressors	<u>      </u>
Dehydrator Units	<u>      </u>	Vapor Recovery Unit	<u>      </u>	VOC Combustor	<u>1</u>	Flare	<u>      </u>	LACT Unit	<u>      </u>
								Pigging Station	<u>1</u>

## OTHER FACILITIES

Other Facility Type

Number

<input type="text"/>	<input type="text"/>
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Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

## CONSTRUCTION

Date planned to commence construction: 06/29/2014 Size of disturbed area during construction in acres: 3.30  
Estimated date that interim reclamation will begin: 01/02/2015 Size of location after interim reclamation in acres: 1.30  
Estimated post-construction ground elevation: 5577

## 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: Recycle/reuse

Cutting Disposal: OFFSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

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: Dixon Water Foundation Phone: (432) 729-4600

Address: PO Box 177

Fax: \_\_\_\_\_

Address: \_\_\_\_\_

Email: \_\_\_\_\_

City: Marfa State: TX Zip: 79843

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 08/30/2013

## 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: 1426 Feet  
Building Unit: 1426 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 335 Feet  
Above Ground Utility: 255 Feet  
Railroad: 2859 Feet  
Property Line: 320 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: \_\_\_\_\_

## 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: 55: Potts loam (3-6% 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: 12/03/2013

List individual species: Please see attachment H - NRCS Soil Survey

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): Please see attachment B - Location Photos

## WATER RESOURCES

Is this a sensitive area: ☒ No ☐ Yes

Distance to nearest

downgradient surface water feature: 185 Feet

water well: 815 Feet

Estimated depth to ground water at Oil and Gas Location 13 Feet

Basis for depth to groundwater and sensitive area determination:

Please refer to Attachment P, Q, S and Attachment O. Depth to ground water was determined by using static water level data of Colorado Division of Water Resources (Permit# 55227--/Receipt# 9114174). The static water level was used from the well 1,015' SW of the pad location because there was no static water level data available for nearest water well.

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 501-2640 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

## 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 proposed Valley Farms L 43D-11-06-92 well location was used as the reference point for footages. See attachment A and D (Visible Improvements) for cultural setback distance information. Please refer to the attached multi-well plan for the proposed well locations on this pad referenced under 'related forms'. Distance to downgradient surface water feature and nearest water well was measured from pad center to the ditch as shown on the attached Hydrology Map (Attachment E). Please refer to the BMPs for this pad in regards to Ursa's compliance with Rule 317B notifications. The estimated size of location after interim reclamation is based on temporary reclamation and dependent upon Ursa's plans to return to the location at a later date. For any regulatory questions, please contact Rob Bleil at 720-425-0303 or rbleil@ursaresources.com.

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

Signed: \_\_\_\_\_ Date: 01/16/2014 Email: sdemattee@ursaresources.com

Print Name: Shauna DeMattee Title: Permit Representative

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: \_\_\_\_\_

### **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**

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### **Best Management Practices**

#### **No BMP/COA Type**

#### **Description**

1	Planning	<ul style="list-style-type: none"><li>• Due to the location of Ursa's operations, Ursa determined that the Rifle Office will be staffed with a Regulatory and Environmental Manager, and a landman; these positions didn't exist in the Rifle office under the previous operator. This decision reflects Ursa's commitment to sound environmental stewardship, and to an increased level of communication with all stakeholders (see below).</li><li>• Ursa holds weekly meetings to address new, expanded, or additional wells at an Oil and Gas locations. Once a location was determined feasible, preliminary notifications were made to affected surface owners (see below) as a best management practice (BMP).</li><li>• Prior to initiation of the Form 2A permitting process, an internal onsite was held to determine the feasibility of the location (based on the SUA and landowner preferences), topographic constraints, proximity to building units, and public and environmental concerns including surface waters, traffic/haul routes, 317B applicability, setback requirements, wildlife RSOs and SWH areas, noise potential, soil stability, etc. All information that may affect the location is documented as appropriate in Ursa's "Site Assessment Checklist and Site Assessment Map" as a BMP. A copy of these internal practices was provided to the COGCC at the Setback Training on August 30, 2013 held in Grand Junction.</li><li>• Upon approval of the Form 2A, Ursa holds Pre-Construction, Pre-Spud, Pre-Completions and Pre-Production meetings with contractors performing work at the location as determined necessary by the responsible Ursa Operations Manager or Supervisor. As a BMP, Ursa has developed checklists for these meetings to review COAs, NTOs and related issues.</li><li>• Traffic and Public Safety – Ursa developed a site-specific Emergency Response Plan and Haul Route Map which is communicated to local emergency response agencies and stakeholders, as well as contractors performing work at the location.</li></ul>
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2	Community Outreach and Notification	<ul style="list-style-type: none"> <li>• Voluntary Notifications - Once a new or expanded location, or additional wells are proposed, Ursa's land department contacts the landowner to get an initial approval and approved Surface Use Agreement (SUA), prior to formal Pre-application notifications to all building unit owners (required under COGCC 303 Rules) and affected landowners.</li> <li>• No building units are located within the Buffer Zone (1000'). However, as a BMP, a pre-application notice was sent to the owner of the Silt Sand and Gravel Pit (Frei Family Limited Partnership), who has a small commercial office on the premises. (See Attachment J (2)).</li> <li>• Ursa routinely communicates proposed plans and operations schedules with Community Counts and the GARCO Energy Advisory Board. In addition, periodic stakeholder meetings are held with landowners and affected parties.</li> <li>• Communication with Kirby Wynn and municipal LGDs are also held routinely in addition to communication required by COGCC regulations.</li> </ul>
3	Pre-Construction	<ul style="list-style-type: none"> <li>• MULTI-WELL PAD - The location submittal as proposed will result in the ability to drill 26 wells from a single location and eliminate the need for an additional well pad; hence a reduction in surface disturbance, traffic, and impacts to the environment and wildlife habitat.</li> <li>• SAFETY - The location and site layout has been designed to accommodate all operations within the limits of disturbance while meeting Federal and state safety regulations, including required buffers and distances between operating components and combustion sources.</li> <li>• DUST CONTROL - The pad and access road will be graveled to reduce fugitive dust. In addition, water and other dust suppressants are used as required, dependent upon the level of activity, moisture conditions, etc.</li> <li>• TEMPORARY &amp; INTERIM RECLAMATION - The site will be stabilized using seed mixes and materials compatible with soil types, moisture, and local climate conditions as specified in landowner surface use agreements, or locally acceptable industry practices. Seeding will be in accordance with landowner preference and Ursa's Reclamation Plan; and will be completed during optimum conditions to achieve best results for plant growth. Once all wells at the pad are drilled, the location will be "pulled in", stabilized and reseeded.</li> <li>• STORMWATER - The location will be constructed in accordance with the CDPHE Stormwater regulations as implemented by Ursa's Stormwater Management Plan, so as to control sediment run-off. Stormwater BMPs may also serve as secondary or tertiary containment in the event of a spill. Site specific plans (i.e. diagrams) will be developed and inspected against at the frequency required by CDPHE regulations, to include 14 day, 30 day, and major storm event inspections until 70% reclamation is achieved. Corrective actions will be tracked and implemented. COGCC inspections will be conducted through 80% interim reclamation and annually thereafter. These inspections are also tracked and corrective actions implemented. Native soils will be used whenever available to construct stormwater BMPs, supplemented by non-native materials based on site-specific conditions.</li> <li>• WASTE - The location will be managed in accordance with Ursa's Waste Management Plan as summarized in Attachment J(1) of this applications. The location will be constructed to minimize the potential for any exploration and production wastes, chemicals, fluids, etc. from leaving the location, including berms, barriers, and use of spill control materials.</li> </ul>

4	General Housekeeping	<ul style="list-style-type: none"> <li>• ODORS - Combustor controls will be used to mitigate odors from production tanks.</li> <li>• SPILL PREVENTION – Spills will be managed in accordance with Ursa's SPCC plan including prevention, and in accordance with COGCC 317B and 604 requirements to include spill containment and monthly inspections. High level alarms will be installed on production tanks.</li> <li>• VISUAL IMPACTS - Above-ground facilities (e.g. production tanks) will be managed to minimize visual effects (e.g. painted to blend with environment)</li> <li>• REMOTE MONITORING - Remote monitoring will be used to reduce truck traffic, fugitive dust to the extent practical.</li> <li>• WATER LINES - Water pipeline infrastructure (buried) to connect to Ursa's existing buried water line system will be installed concurrently with the gas pipeline infrastructure where possible. Any surface lines that may fall outside the limits of the well pad will be installed and monitored in accordance with COGCC COAs.</li> <li>• WATER RECYCLING – Produced water used for well completions will be recycled and treated to the maximum extent practical. Water that can't be recycled will be injected through the use of wells approved by COGCC and Garfield County.</li> <li>• WILDLIFE – All separators/dehydrators and heater –treater equipment are outfitted with bird cones.</li> </ul>
5	Wildlife	<ul style="list-style-type: none"> <li>• GENERAL – AGENCY INSPECTIONS / CONCERNS Ursa has developed and implemented processes and systems to track all agency inspections and concerns (e.g. COGCC, CDPHE, BLM...). Corrective actions are typically implemented with 24 hours of discovery.</li> <li>• AIR – Ursa will comply with CDPHE regulations regarding air permits, including the application for general permits, including compliance monitoring. In addition, Ursa is required to track, monitor and report Greenhouse Gas (GHG) emissions to EPA. All stationary air sources required to have AIRS ID will be assigned tracked for compliance and reporting purposes.</li> <li>• CHEMICAL &amp; MATERIAL HANDLING – All materials and chemicals will be managed to minimize environmental contamination. It should be noted that materials and chemicals that are not a waste may be reused or recycled.</li> <li>• NOXIOUS WEEDS – Weeds will be managed in accordance with Ursa's Noxious Weed plan; to include three treatments per year, mapping, etc.</li> <li>• SPILLS / INCIDENTS – Spill prevention is addressed in Ursa's Spill Prevention and Management Plan. This includes training of employees and contractors personnel. Spills response includes notifications, reporting, response actions, remediation and corrective actions. The spill criteria in Ursa's plan requires that waste be properly classified as E&amp;P or non-E&amp;P wastes. For E&amp;P waste, all spills greater than 1 barrel will be reported to the COGCC using a Form 19. Should remediation be required, a Form 27 will be submitted as well. Spills related to non-E&amp;P waste will be managed in accordance with CDPHE and EPA regulations depending on the volume spilled.</li> <li>• WILDLIFE - A Wildlife Mitigation Plan (March 24, 2010) is in place that was agreed to by Ursa (previously Antero). The plan allows for 90+ well pads. Currently, Ursa has 62 well pads. Ursa is current on all obligations under the plan.</li> </ul>
6	Drilling/Completion Operations	<ul style="list-style-type: none"> <li>• DIRECTIONAL DRILLING - Directional / horizontal drilling will be implemented to avoid the need for additional well pads; reducing habitat loss and fragmentation, noise, traffic concerns, etc.</li> <li>• NOISE – Noise levels will be monitored in accordance with COGCC regulations and any COAs.</li> <li>• WASTE - A closed-loop (pitless) drilling system will be used; No cuttings pit will be constructed; cuttings will be hauled to an approved waste facility (see Waste Management Plan Summary – Attachment J(1).</li> <li>• WATER SAMPLING - Baseline and post drilling water well testing will be performed for permitted water wells in accordance with COGCC Sec 609.</li> </ul>



7	Drilling/Completion Operations	<ul style="list-style-type: none"> <li>• CHEMICAL USE – All chemicals used will be tracked and reported in accordance with COGCC rules and submitted through FracFocus within 120 days of initiating well stimulation.</li> <li>• ODORS - Well completions will utilize flowback completion technologies and/or flares to reduce odors from plug drillout, and venting of salable and non-salable gas</li> <li>• WASTE - No stimulation or flowback pits will be constructed.</li> <li>• WORK HOURS - Completions will be conducted during daylight hours to the maximum extent possible.</li> </ul>
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Total: 7 comment(s)

### **Attachment Check List**

<b><u>Att Doc Num</u></b>	<b><u>Name</u></b>
400538780	FORM 2A SUBMITTED
400539521	LOCATION PICTURES
400539522	EQUIPMENT LIST
400539523	HYDROLOGY MAP
400539526	ACCESS ROAD MAP
400539527	NRCS MAP UNIT DESC
400539528	CONST. LAYOUT DRAWINGS
400539529	WASTE MANAGEMENT PLAN
400539530	30 DAY NOTICE LETTER
400539531	MULTI-WELL PLAN
400539535	SENSITIVE AREA MAP
400539538	FACILITY LAYOUT DRAWING
400539540	ACCESS ROAD MAP
400540663	LOCATION DRAWING

Total Attach: 14 Files

### **General Comments**

<b><u>User Group</u></b>	<b><u>Comment</u></b>	<b><u>Comment Date</u></b>
DOW	<p>This location is within the boundary of the approved Antero-URSA Wildlife Mitigation Plan. The BMPs were developed and agreed upon in the consultation and development of the Wildlife Mitigation Plan. CPW affirms that the BMPs and conditions of approval of the Wildlife Mitigation Plan suffice to address wildlife mitigation concerns.</p> <p>Approved: Jim Komatinsky 1-16-2014</p>	1/16/2014 12:01:39 PM
Permit	Passed completeness.	1/16/2014 10:55:43 AM

Total: 2 comment(s)