

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:

400906960

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Date Received:

09/30/2015

Oil and Gas Location Assessment

☐ New Location ☐ Refile ☒ Amend Existing Location Location#: 378716

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:

**378716**

Expiration Date:

**12/17/2018**

☒ 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: 69805  
Name: PETROX RESOURCES INC  
Address: P O BOX 2600  
City: MEEKER State: CO Zip: 81641

Contact Information

Name: Mike Clark  
Phone: (970) 878-5594  
Fax: (970) 878-4489  
email: mike.petrox@gmail.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20120108 ☐ Gas Facility Surety ID: \_\_\_\_\_  
☐ Waste Management Surety ID: \_\_\_\_\_

LOCATION IDENTIFICATION

Name: Lark 33-5 Number: #21-4  
County: ARCHULETA  
QuarterQuarter: SWSW Section: 21 Township: 33N Range: 5W Meridian: N Ground Elevation: 6230  
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: 696 feet FSL from North or South section line  
201 feet FWL from East or West section line  
Latitude: 37.084960 Longitude: -107.405990  
PDOP Reading: 2.0 Date of Measurement: 08/06/2015  
Instrument Operator's Name: Nelson Ross

## 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)

378716

## 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*	1
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks	2	Separators*	2	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*	2	Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*		Flare*		Pigging Station*	

## OTHER FACILITIES\*

**Other Facility Type**

**Number**

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\*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:

Gas and water pipelines already installed and in use. 4" Schedule 160 gasoline, 4" SDR 13 Poly waterling, 2 phase vertical separator with V-cone EFM. The Gas and water lines are buried 6' deep and connected to an existing 16" Red Cedar main line.

## CONSTRUCTION

Date planned to commence construction: 05/01/2016      Size of disturbed area during construction in acres: 0.94  
Estimated date that interim reclamation will begin: 10/01/2016      Size of location after interim reclamation in acres: 0.94  
Estimated post-construction ground elevation: 6235

## 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: ONSITE

Cuttings Disposal Method: Cuttings trench

Other Disposal Description:

Cutting disposal will be onsite if cuttings meet Table 910 specs

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: Jim & Gregoria Lark

Phone: 970-264-5715

Address: 157 Pagosa Street

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

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

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

City: Pagosa Springs State: CO Zip: 81147

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: Surface Use Agreement

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

Date of Rule 306 surface owner consultation 09/17/2015

## 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): Existing Well pad

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:	1287 Feet	1287 Feet
Building Unit:	1287 Feet	1287 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	1984 Feet	1984 Feet
Above Ground Utility:	1984 Feet	1984 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	201 Feet	201 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: VO-CD. Catdraw

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: western wheatgrass, muttongrass, bottlebrush squirreltail, Indian ricegrass, prairie Junegrass, UT serviceberry

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: 1040 Feet

water well: 1200 Feet

Estimated depth to ground water at Oil and Gas Location 9 Feet

Basis for depth to groundwater and sensitive area determination:

Water well permit no. 202714 - MEIER MARK 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 zone: No

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: This is a second well on Location site of Lark 33-5 #21-2. Access road has been constructed, gas and water pipeline has also been constructed and in use. No additional disturbances. Gas Line is a 4" schedule 160 gas line, Water is a 4" SDR 13 Poly water line, and there is a 2-phase vertical Separator with V-cone EFM. All lines are buried 6' ft deep and connected to the existing 16" Red Cedar Gathering main line.

Will send additional Location pictures from Surveyor shortly.

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

Signed: \_\_\_\_\_ Date: 09/30/2015 Email: barb.petrox@gmail.com

Print Name: Barbara J Vaughn Title: Administrative Assistant

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: Matthew Lee Director of COGCC Date: 12/18/2015

## 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>
	In addition to the notifications required by COGCC listed in 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.
	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>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.</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>
	Operator shall pressure test pipelines (flowlines from wellheads to separators 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, or following any reconfiguration of the pipeline network on the well pad.
	<p>No new surface disturbance, construction, or drilling/completion activities in mule deer critical winter range and elk winter concentration area from the time period of December 1 through April 15 annually.</p> <p>Reclamation in mule deer and elk SWH will be with native shrubs, grasses, and forbs appropriate to the ecological site disturbed. Attached is a seed mix specifically developed for the San Juan Basin Area.</p>

### **Best Management Practices**

<b>No</b>	<b>BMP/COA Type</b>	<b>Description</b>
1	Wildlife	<p>1 - Exhaust vent stacks on production equipment will be screened to exclude birds, bats, and other wildlife.</p> <p>2 - Restrict well site visitations to portions of the day between 8:00 am and 5:00 pm during December 1 to April 15.</p>

Total: 1 comment(s)

## Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
901335	REFERENCE AREA MAP
901336	REFERENCE AREA PICTURES
2107709	CORRESPONDENCE
2107710	SURFACE OWNER CORRESPONDENCE TO CPW's RECOMMENDED WILDLIFE BMPs
2107711	CPW RECOMMENDED SEED MIX
2107712	LOCATION DRAWING
2107713	MULTI-WELL PLAN
400906960	FORM 2A SUBMITTED
400908303	HYDROLOGY MAP
400908311	ACCESS ROAD MAP
400908317	LOCATION PICTURES
400908323	CONST. LAYOUT DRAWINGS
400908601	SURFACE AGRMT/SURETY
400910097	NRCS MAP UNIT DESC

Total Attach: 14 Files

## General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final Review Completed. No LGD or public comment received.	12/4/2015 11:24:03 AM
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, cuttings management, wildlife winter timing (December 1 to April15), and pipeline testing COAs and site visit timing and vent protection wildlife BMPs from operator on 11-19-15; received acknowledgement of COAs and BMPs from operator on 11-24-15; passed by CPW on 11-09-15 with surface owner agreed to and operator agreed to wildlife BMPs acceptable; passed OGLA Form 2A review on 11-18-15 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, wildlife winter timing (December 1 to April15), and pipeline testing COAs and site visit timing and vent protection wildlife BMPs.	11/18/2015 3:22:33 PM



DOW	<p>CPW conducted and onsite the proposed Lark location on October 22, 2015 with representatives from Petrox and the COGCC. The well location is located in Sensitive Wildlife Habitat (SWH) mapped as Elk Production, Mule Deer Critical Winter Range and Elk Winter Concentration Area, and as defined by COGCC Rules. Critical Winter Range is a known limiting factor for mule deer and elk populations in Colorado.</p> <p>CPW appreciates the Operators effort to minimizing surface disturbance by consolidating facilities and utilizing existing infrastructure for the new well. Below is a list of Best Management Practices (BMPs) that CPW would like the Operator to consider implementing at this location. Any of these practices that the Operator cannot commit to implementing voluntarily at this location are recommended to COGCC as Conditions of Approval (COAs) to avoid and minimize development impacts on wildlife.</p> <p>No new surface-disturbance, construction, or drilling/completion/workover activities in mule deer critical winter range and elk winter concentration area from the time period of December 1 through April 15 annually.</p> <p>Reclamation in mule deer and elk SWH will be with native shrubs, grasses, and forbs appropriate to the ecological site disturbed. Attached is a seed mix specifically developed for the San Juan Basin Area.</p> <p>The operator indicates that they intend to use a closed loop drilling system. If this type of system is unavailable, then the reserve pits will be fenced and netted to exclude birds, bats, and other wildlife as pits are a significant risk of mortality to wildlife.</p> <p>Secondary containment catchment basins for any vessels holding hazardous materials will be screened to exclude birds, bats, and other wildlife.</p> <p>Exhaust vent stacks on production equipment will be screened to exclude birds, bats, and other wildlife.</p> <p>The surface owners are in agreement and consent to the Conditions of Approval recommended by CPW.</p>	11/9/2015 10:55:27 AM
Permit	BMP pertaining to logging plan was removed, as it is not relevant to the Form 2A.	10/26/2015 9:24:19 AM
Permit	Operator submitted reference area map/pictures, which have been uploaded to this form.	10/16/2015 2:13:38 PM
Permit	Multi-well plan and reference area map/pictures will be forthcoming, per operator.  Passed completeness.	10/2/2015 2:32:51 PM
Permit	<p>Returned to draft.</p> <ul style="list-style-type: none"> <li>-On the consultation and contact info tab, the plugging and abandonment bond surety id is not active.</li> <li>-NRCS report showing map unit description not attached.</li> <li>-On facilities tab, please include a description of all existing pipeline for oil, gas and water.</li> <li>-Reference Area map and Reference Area Pictures are required if the final landuse includes rangeland, recreation, or wildlife habitat, per rule 303b.(3). G.ii</li> <li>-Multi-Well Plan is required if the number in facilities is greater than one.</li> <li>-Related APD's are required on the related forms tab.</li> </ul>	10/1/2015 12:12:44 PM

Total: 7 comment(s)