

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:

401579042

Date Received:

04/26/2018

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:

455725

Expiration Date:

06/28/2021

☒ 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: 10433

Name: LARAMIE ENERGY LLC

Address: 1401 SEVENTEENTH STREET #1400

City: DENVER State: CO Zip: 80202

Contact Information

Name: Joan Proulx

Phone: (970) 263-3641

Fax: ()

email: jproulx@laramie-energy.com

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20120081 ☐ Gas Facility Surety ID: _____

☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Hayward Number: 0993-25-09 Pad

County: MESA

QuarterQuarter: SENE Section: 25 Township: 9S Range: 93W Meridian: 6 Ground Elevation: 8007

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: 2572 feet FNL from North or South section line

850 feet FEL from East or West section line

Latitude: 39.244777 Longitude: -107.715744

PDOP Reading: 1.4 Date of Measurement: 03/01/2018

Instrument Operator's Name: T Sherrill

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	22	Oil Tanks*		Condensate Tanks*	8	Water Tanks*		Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	22	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*	1	Flare*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

4 5-pack and 1 2-pack separators

5

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:

Approximately 549' of a buried 6" gas gathering line and a buried 4" waterline will be installed which will parallel the proposed access road. The 6" gas gathering line will tie into an existing 12" gas gathering line. Flowlines from the wellheads to the separators and from separators to the tanks will be 2" steel. The produced water/condensate flowlines from the separators to the tanks will be 2" steel. All flowlines will be buried 4' deep.

CONSTRUCTION

Date planned to commence construction: 07/13/2018 Size of disturbed area during construction in acres: 7.00

Estimated date that interim reclamation will begin: 09/01/2019 Size of location after interim reclamation in acres: 2.00

Estimated post-construction ground elevation: 8007

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: ONSITE

Cuttings Disposal Method: Other

Other Disposal Description:

See Cuttings Management Plan attachment

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: Hayward Ranch LLC

Phone: 970-257-9999

Address: 2474 Patterson Road, Ste. 200

Fax: _____

Address: _____

Email: tor@majormortgage.com

City: Grand Junction State: CO Zip: 81507

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 01/15/2018

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:	1002 Feet	842 Feet
Building Unit:	1002 Feet	842 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	5280 Feet	5280 Feet
Above Ground Utility:	5280 Feet	5280 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	424 Feet	256 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: 03/26/2018

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 (on 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.

The surrounding area was examined to determine if there were any other suitable surface locations that would accommodate the planned bottom hole locations while minimizing surface impact. Possible alternative locations would require a large amount of new surface disturbance for a new pad and access road(s) due to more challenging topography, and would not allow some of the planned bottom hole locations to be reached.

The conclusion is that the placement of the proposed Hayward 0993-25-09 pad would take advantage of an existing access road within 521' while also providing a suitable surface location for the planned wells to be able to reach their projected bottom hole targets through directional drilling practices.

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: Map Unit Symbol 24, Cochetopa-Clayburn complex, 12 to 40 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:

Slender wheatgrass, Mountain brome, Nodding brome, Columbia needlegrass, Mountain snowberry

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: 427 Feet

water well: 3893 Feet

Estimated depth to ground water at Oil and Gas Location 100 Feet

Basis for depth to groundwater and sensitive area determination:

Water Well permit #243882 (to the SW), gravity fed water, no water level, used for lawn irrigation and water domestic animals Permit #297231, (to the W), water level at 160'. Pad lies 427' west, and 50' higher in elevation, from an intermittent drainage.

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 COGCC GIS.
Mesa County: Flood Zone D: Areas of undetermined risk.

GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

WILDLIFE

☐ This location is included in a Wildlife Mitigation Plan

☐ This location was subject to a pre-consultation meeting with CPW held on _____

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 This is a split estate situation; the surface owner and the mineral lease owner are not the same. The requirement for consultations under Rule 306 is waived in the attached SUA; therefore, no Rule 306.e. Certification Letter is needed.

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

Signed: _____ Date: 04/26/2018 Email: jproulx@laramie-energy.com

Print Name: Joan Proulx 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: 6/29/2018

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
	<p>In addition to the notifications required by COGCC listed in the Northwest Notification Policy (Notice of Intent to Construct a New Location, Notice of Intent to Spud Surface Casing, and Notice of Intent to Commence Hydraulic Fracturing Operations) and Rule 316C. COGCC Form 42. FIELD OPERATIONS NOTICE (a. Notice of Intent to Conduct Hydraulic Fracturing Treatment 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.</p>
	<p>Operator must ensure secondary containment for any volume of fluids contained at the well site during drilling and completion operations; including, but not limited to, reconstruction 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.</p> <p>The access road will be constructed and maintained as to not allow sediment to migrate from the access road to nearby surface water or any drainages leading to surface water.</p> <p>Strategically apply fugitive dust control measures to access roads to reduce fugitive dust and coating of vegetation and deposition in water sources. Operator shall employ practices for control of fugitive dust caused by other operations, including, but not limited to the use of speed restrictions, regular road maintenance, restriction of reconstruction activity during high wind days, and silica dust controls when handling sand used in hydraulic fracturing operations. Additional management practices such as road surfacing, wind breaks and barriers may be used.</p> <p>Berms or other containment devices shall be constructed to be sufficiently impervious (corrugated steel with poly liner or equivalent) to contain any spilled or released material around permanent condensate storage tanks.</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.</p> <p>Flowback and stimulation fluids must be sent to enclosed tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or other open top containment 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. No additional downgradient berming is required if operator constructs a sufficiently sized perimeter berm.</p>
	<p>Potential odors associated with the completions process and/or with long term production operations must be controlled/mitigated.</p>
	<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 surface/buried pipelines and following any reconfiguration of the pipeline network. All permanent flowlines from wellheads to separators and from the separators to the tank will also be pressure tested annually.</p> <p>Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing the surface pipelines, if applicable. This will reduce surface disturbance and fragmentation of wildlife habitat in the area.</p>
<p align="center"><u>Best Management Practices</u></p>	

No	BMP/COA Type	Description
1	Wildlife	<p data-bbox="488 134 618 161">Black Bear</p> <ul data-bbox="480 193 1484 369" style="list-style-type: none"> <li data-bbox="480 193 1438 249">• Initiate a food and waste/refuse management program that uses bear-proof food storage containers and trash receptacles. <li data-bbox="480 252 1166 279">• Initiate an education program that reduces bear conflicts. <li data-bbox="480 281 1328 308">• Establish policy to prohibit keeping food and trash in sleeping quarters. <li data-bbox="480 310 1484 338">• Establish policy to support enforcement of state prohibition on feeding of black bear. <li data-bbox="480 340 997 367">• Report bear conflicts immediately to CPW.

2	Noise mitigation	<p>Laramie Energy</p> <p>RE: Hayward 0993-25-09 Pad SENE Section 25, Township 9S, Ranch 93W Mesa County, Colorado</p> <p>Rule 604.c.2 Mitigation Measures:</p> <p>A. Noise and Lighting - Noise and Lighting Mitigation Measures for the nearby (842') building unit (seasonal cabin used and owned by the surface owner of the well pad location) will likely not be needed as the building is occupied on an intermittent/seasonal basis by ranch hands to move the cattle. The drilling and completion operations are planned to be completed prior to that time.</p> <p>B. Closed Loop Drilling Systems – Pit Restrictions: A closed loop system will be used.</p> <p>C. Green Completions – Emission Control Systems: Green completions will be used.</p> <p>D. Traffic Plan: The pad access road lies entirely on the surface owner's property from County Road 71.4; no traffic plan is required by the local jurisdiction.</p> <p>E. Multi-well Pads: The BCU 13A pad is an existing pad which had been planned to be used as a multi-well pad by two previous operators. Rather than create additional surface disturbance, the existing pad and access road will be utilized to drill 3 wells.</p> <p>F. Leak Detection Plan: A plan is in place to monitor production facilities on a regular schedule to identify fluid leaks.</p> <p>H. Blowout preventer equipment (BOPE): A rig with a Kelly will be utilized.</p> <p>I. BOPE testing for drilling operations: BOPE testing will occur upon initial rig-up and at least once every thirty days during drilling operations.</p> <p>J. BOPE for well servicing operations: Adequate BOP equipment will be used on all well servicing operations.</p> <p>K. Pit level indicators: No pit is planned for this location.</p> <p>M. Fencing requirements: The access road (on the surface owner's property) will be fenced, gated and locked.</p> <p>N. Control of fire hazards: Fire hazards will be controlled.</p> <p>P. Removal of surface trash: Surface trash will be removed.</p> <p>S. Access roads: The access road is existing and has been constructed to accommodate local emergency vehicle access requirements and maintained.</p> <p>T. Well site cleared: Within 90 days after a well is plugged and abandoned, the well site will be cleared of all non-essential equipment, trash, and debris.</p> <p>U. Identification of plugged and abandoned wells: Plugged and abandoned wells will be identified with a permanent monument, including the well number and date of plugging.</p>	
---	------------------	--	--

Total: 2 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2108488	CORRESPONDENCE
401579042	FORM 2A SUBMITTED
401579081	CONST. LAYOUT DRAWINGS
401579083	PROPOSED BMPS
401579086	MULTI-WELL PLAN
401579090	NRCS MAP UNIT DESC
401579091	OTHER
401579096	REFERENCE AREA PICTURES
401579112	LOCATION PICTURES
401579118	LEGAL/LEASE DESCRIPTION
401579132	WASTE MANAGEMENT PLAN
401579133	FACILITY LAYOUT DRAWING
401588073	REFERENCE AREA MAP
401588074	HYDROLOGY MAP
401588076	LOCATION DRAWING
401588077	ACCESS ROAD MAP
401590697	PRE-APPLICATION NOTIFICATION CERTIFICATION
401619046	OTHER
401622542	SURFACE AGRMT/SURETY

Total Attach: 19 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
OGLA	06/27/2018 - Per operator, corrected Noise BMP to indicate seasonal cattlehand's cabin at 816', not 715' (842' from production facility to a framed building is also listed on an accompanying surveyor data distance table attachment labeled as "Other"), plant community has been revised to schrubs and forest land, native grassland has been removed.	06/27/2018
Permit	Removed date of 3/26/2018 from urban mitigation notification with operator concurrence. Final review complete.	06/21/2018
Permit	Preliminary review complete.	05/22/2018
OGLA	05/08/2018 - Location does not fall within 'Sensitive Wildlife Habitat' (SWH) or 'Restricted Surface Occupancy' (RSO), therefore no CPW Wildlife Consultation is required; BLM and FS COAS and stipulations will be acceptable; 05/08/2018 – Initiated / Completed OGLA Form 2A review by Dave Kubeczko; placed the following COAs on the Form 2A - notification, fluid containment and spill/release BMPs, sediment and dust control access road, cuttings containment and management, odor control, flowback to tanks only, pipeline placement, installation, inspection, and pipeline testing; 05/14/2018 - Location onsite by COGCC and operator; 05/30/2018 - The requirement for consultations under Rule 306 is waived in the attached SUA; therefore, no Rule 306.e. Certification Letter from the operator is needed; 05/30/2018 - Passed OGLA Form 2A review by Dave Kubeczko with notification, fluid containment and spill/release BMPs, sediment and dust control access road, cuttings containment and management, odor control, flowback to tanks only, pipeline placement, installation, inspection, and pipeline testing COAs.	05/08/2018
Permit	Form passes completeness.	05/07/2018
OGLA	Passed Buffer Zone completeness review. Changed name of 30 Day Notice Letter attachment to Pre-Application Notification Certification.	05/04/2018
Permit	Back to draft for signed copy of lease agreement.	04/27/2018
Permit	Returning form to draft for signature page on lease and SUA is in Metes and Bounds.	04/26/2018

Total: 8 comment(s)