FORM 2A Rev 04/01

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 Phone: (303) 894-2100 Fax: (303) 894-2109

Oil and Gas Location Assessment

Document Number: 400324683

Date Received: 10/09/2012

Location ID: **431436**

Expiration Date: **01/23/2016**

☒ New Location ☐ Amend Existing Location Location#: _____

Submit original plus one copy. This form is to be submitted to the COGCC prior to any ground disturbance activity associated with oil and gas development operations. This Assessment may be approved as a standalone application or submitted as an informational report accompanying an Application for Permit-To-Drill, Form 2. Approval of this 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. This form may serve as notice to land owners and other interested parties, please see the COGCC web site at http://colorado.gov/cogcc/ for all accompanying information pertinent to this Oil and Gas Location Assessment.

☒ This location assessment is included as part of a permit application.

1. 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.

2. Operator

Operator Number: 10323

Name: ENTEK GRB LLC

Address: 535 16TH STREET #620

City: DENVER State: CO Zip: 80202

3. Contact Information

Name: Kimberly Rodell

Phone: (303) 820-4480

Fax: (303) 820-4124

email: kim@banko1.com

4. Location Identification:

Name: FRU Federal Number: 1-1

County: ROUTT

QuarterQuarter: LOT 5 Section: 1 Township: 11N Range: 88W Meridian: 6 Ground Elevation: 7523

Define a single point as a location reference for the facility location. This point should be used as the point of measurement in the drawings to be submitted with this application. When the location is to be used as a well site then the point shall be a well location.

Footage at surface: 653 feet FNL , from North or South section line, and 689 feet FEL , from East or West section line.

Latitude: 40.948197 Longitude: -107.203917 PDOP Reading: 2.6 Date of Measurement: 09/09/2011

Instrument Operator's Name: Dave Fehringer

5. Facilities (Indicate the number of each type of oil and gas facility planned on location):

Special Purpose Pits:		Drilling Pits:	0	Wells:	1	Production Pits:		Dehydrator Units:			
Condensate Tanks:		Water Tanks:	1	Separators:	1	Electric Motors:	1	Multi-Well Pits:			
Gas or Diesel Motors:		Cavity Pumps:		LACT Unit:		Pump Jacks:	1	Pigging Station:			
Electric Generators:	1	Gas Pipeline:	1	Oil Pipeline	1	Water Pipeline:	1	Flare:			
Gas Compressors:				VOC Combustor:	1	Oil Tanks:	3	Fuel Tanks:	1		

Other: cuttings trench

6. Construction:

Date planned to commence construction: 12/01/2012 Size of disturbed area during construction in acres: 2.20

Estimated date that interim reclamation will begin: 09/01/2013 Size of location after interim reclamation in acres: 1.30

Estimated post-construction ground elevation: 7582 Will a closed loop system be used for drilling fluids: Yes [X]

Will salt sections be encountered during drilling: Yes [ ] No [X] Is H2S anticipated? Yes [ ] No [X]

Will salt (>15,000 ppm TDS Cl) or oil based muds be used: Yes [X] No [ ]

Mud disposal: Offsite [X] Onsite [ ] Method: Land Farming [ ] Land Spreading [ ] Disposal Facility [X]

Other:

7. Surface Owner:

Name: Phone:

Address: Fax:

Address: Email:

City: State: Zip: Date of Rule 306 surface owner consultation: 10/07/2011

Surface Owner: [ ] Fee [ ] State [X] Federal [ ] Indian

Mineral Owner: [ ] Fee [ ] State [X] Federal [ ] Indian

The surface owner is: [X] the mineral owner [X] committed to an oil and gas lease [X] is the executer of the oil and gas lease [ ] the applicant

The right to construct the location is granted by: [X] oil and gas lease [ ] Surface Use Agreement [ ] Right of Way [ ] applicant is owner

Surface damage assurance if no agreement is in place: [ ] $2000 [ ] $5000 [X] Blanket Surety ID 20090128

8. Reclamation Financial Assurance:

[ ] Well Surety ID: [ ] Gas Facility Surety ID: [ ] Waste Mgnt. Surety ID:

9. Cultural:

Is the location in a high density area (Rule 603.b.): Yes [ ] No [X]

Distance, in feet, to nearest building: 5280 , public road: 5280 , above ground utilit: 5280

, railroad: 5280 , property line: 653

10. Current Land Use (Check all that apply):

Crop Land: [ ] Irrigated [ ] Dry land [ ] Improved Pasture [ ] Hay Meadow [ ] CRP

Non-Crop Land: [X] Rangeland [ ] Timber [ ] Recreational [ ] Other (describe):

Subdivided: [ ] Industrial [ ] Commercial [ ] Residential

11. Future Land Use (Check all that apply):

Crop Land: [ ] Irrigated [ ] Dry land [ ] Improved Pasture [ ] Hay Meadow [ ] CRP

Non-Crop Land: [X] Rangeland [ ] Timber [ ] Recreational [ ] Other (describe):

Subdivided: [ ] Industrial [ ] Commercial [ ] Residential

12. Soils:

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.gov/ 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: 185. Impass-Gourley complex, 3 to 25 percent slopes

NRCS Map Unit Name:

NRCS Map Unit Name:

13. 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: 05/31/2012

List individual species: Antelope bitterbrush, Big sagebrush, Matchbrush, Phlox, Serviceberry, Bluegrass, Needle and thread, Thickspike wheatgrass, Lupine, Currant, Snowbush, Dandelion, Yarrow, Wild geranium, Indiant paintbrush.

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):

14. Water Resources:

Rule 901.e. may require a sensitive area determination be performed. If this determination is performed the data is to be submitted with the Form 2A.

Is this a sensitive area: ☐ No ☒ Yes Was a Rule 901.e. Sensitive Areas Determination performed: ☒ No ☐ Yes

Distance (in feet) to nearest surface water: 550 , water well: 16445 , depth to ground water: 40

Is the location in a riparian area: ☒ No ☐ Yes Was an Army Corps of Engineers Section 404 permit filed ☒ No ☐ Yes

Is the location within a Rule 317B Surface Water Suppl Area buffer zone:

☒ No ☐ 0-300 ft. zone ☐ 301-500 ft. zone ☐ 501-2640 ft. 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 ☐ Yes

15. Comments:

There are no railroads, buildings, roads or above ground utilities within one mile of the well. The closest water well is Water Well Permit No. 161233 located in Section 4, T12N R87W. Depth to ground water information was determined from this water well.

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

Signed: Date: 10/09/2012 Email: kim@banko1.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: Matthew Lee **Director of COGCC** Date: 1/24/2013

CONDITIONS OF APPROVAL, IF ANY:

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.

GROUNDWATER/SURFACE WATER BASELINE SAMPLING

Baseline Water Testing: Prior to drilling, operator shall sample the two (2) closest domestic water wells or springs within a one (1) mile radius of the proposed oil and gas location. If possible, the water wells or springs selected should be on opposite sides of the oil and gas location not exceeding a one (1) mile radius. If water wells or springs on opposite sides of the oil and gas location cannot be identified, then the two (2) closest wells or springs within a one (1) mile radius of the oil and gas location shall be sampled. The sample location shall be surveyed in accordance with Rule 215. Sampling and analysis shall be conducted in conformance with an accepted industry standard as described in Rule 910.b.(2).
Initial baseline testing shall include: pH, specific conductance, total dissolved solids (TDS), dissolved gases (methane, ethane, propane), alkalinity (total bicarbonate and carbonate as CaCO3), major anions (bromide, chloride, fluoride, sulfate, nitrate and nitrite as N, phosphorus), major cations (calcium, iron, magnesium, manganese, potassium, sodium), other elements (barium, boron, selenium and strontium), presence of bacteria (iron related, sulfate reducing, slime and coliform), total petroleum hydrocarbons (TPH) and BTEX compounds (benzene, toluene, ethylbenzene and xylenes). Hydrogen sulfide shall also be measured using a field test method. Field observations such as pH, temperature, specific conductance, odor, water color, sediment, bubbles, and effervescence shall also be included. COGCC recommends that the latest version of EPA SW 846 analytical methods be used where possible and that analyses of samples be performed by laboratories that maintain state or national accreditation programs.
If free gas or a dissolved methane concentration greater than 1.0 milligram per liter (mg/l) is detected in a water well, gas compositional analysis and stable isotope analysis of the methane (carbon and hydrogen – 12C, 13C, 1H and 2H) shall be performed to determine gas type. If test results indicated thermogenic or a mixture of thermogenic and biogenic gas. If the methane concentration increases by more than 5.0 mg/l between sampling periods, or increases to more than 10. mg/l, the operator shall notify the Director and the owner of the water well immediately.
After 90 days, but less than 180 days of completion of the first proposed well a “post-completion” test shall be performed for the same analytical parameters listed above and repeated one (1), three (3) and six (6) years thereafter. If the well is a non-producing well, then the one (1), three (3) and six (6) year samples will not be required. If no significant changes from the baseline have been identified after the third test (i.e. the six-year test), no further testing shall be required. Additional “post-completion” test(s) may be required if changes in water quality are identified during follow-up testing. The Director may require further water well sampling at any time in response to complaints from water well owners.
Copies of all test results described above shall be provided to the Director and the landowner where the water quality testing well is located within three (3) months of collecting the samples used for the test. The analytical data and surveyed well locations shall also be submitted to the Director in an electronic data deliverable format.
Operator may conduct baseline groundwater sampling in accordance with the Colorado Oil and Gas Association (COGA) Voluntary Baseline Groundwater Quality Sampling Program (updated November 15, 2011).
Documented refusal to grant access by well owner shall not constitute a violation of this COA.

SITE SPECIFIC COAs:

A closed loop system must be implemented during drilling (which operator has indicated on the Form 2A); or, if a closed loop system drilling rig is not used/available, then an amended Form 2A will need to be submitted/approved to include a drilling pit, and a Form 15 Earthen Pit Permit will also need to be submitted/approved prior to construction of the pit (the drilling pit will be required to be lined, fenced, and netted). All cuttings generated during drilling with oil based muds or high chloride/TDS mud must be kept in containers, a lined/bermed portion of the well pad, or the lined drilling (if permitted and constructed) prior to offsite disposal. The moisture content of any drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts.

Notify the COGCC 48 hours prior to start of pad construction, rig mobilization, spud, and start of hydraulic stimulation operations using Form 42 (the appropriate COGCC individuals will automatically be email notified, including the LGD for hydraulic stimulation operations).

Operator must implement best management practices to contain any unintentional release of fluids, including any fluids conveyed via temporary surface or buried pipelines.

Operator must ensure secondary containment for any volume of fluids contained at 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 stormwater management) sufficiently protective of nearby surface water. Any berm constructed at the well pad location will be stabilized, inspected at regular intervals (at least every 14 days), and maintained in good condition.

The moisture content of any freshwater generated drill cuttings in a cuttings pit, trench, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. At the time of closure, if the drill cuttings are to be left onsite, they must also meet the applicable standards of table 910-1.

Flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline, storage vessel, or lined pit (only if an amended Form 2A has been submitted/approved and a Form 15 Earthen Pit Permitted has been submitted/approved) 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 with additional downgradient perimeter berming. The area where flowback fluids will be stored/reused must be constructed to be sufficiently impervious to contain any spilled or released material.

Berms or other containment devices shall be constructed to be sufficiently impervious (preferably corrugated steel with poly liner) to contain any spilled or released material around crude oil, condensate, and produced water storage tanks.

The access road will be constructed to prevent sediment migration from the access road to nearby surface water or any drainages leading to other nearby surface waters.

Operator shall design and construct the access road utilizing all available soils, geologic, landslide, and hydrogeologic information. The road should also follow any applicable BLM construction standards. Operator shall notify the COGCC and the Routt County LGD 48 hours prior to start of access road construction using Form 42 (and emailing dave.kubeczko@state.co.us, kris.neidel@state.co.us, and cbrookshire@co.routt.co.us).

During all construction, drilling, and completion phases at this location, operator shall be monitoring the wildfire potentials daily and have the appropriate additional equipment and measures in place. This may include smoking bans and additional fire fighting equipment. Operator shall consult with BLM and the NFS as necessary.

Attachment Check List

Att Doc Num	Name
1533750	ACCESS ROAD MAP
1533779	LOCATION DRAWING
1533780	REFERENCE AREA MAP
1533781	HYDROLOGY MAP
2106493	CORRESPONDENCE
2106496	CORRESPONDENCE
400324683	FORM 2A SUBMITTED
400334675	LOCATION PICTURES
400334677	CONST. LAYOUT DRAWINGS
400334679	SURFACE PLAN
400334680	NRCS MAP UNIT DESC

Total Attach: 11 Files

General Comments

User Group	Comment	Comment Date
Permit	LGD comments addressed by attached OGLA correspondence. No public comments. Final Review--passed.	1/22/2013 1:46:04 PM
DOW	CPW affirms that the lease stipulations, conditions of approval, and or other status assigned to this permit by the BLM suffice to address wildlife habitat avoidance, minimization and mitigation concerns. by Michael Warren on Thursday, January, 17, 2003 at 8:20 A.M.	1/17/2013 8:17:54 AM
Permit	CPW comment period extended to 1/17/2013 to resolve issues with BLM wildlife stips.	12/7/2012 12:36:01 PM
Permit	Corrected qtr/qtr, checked "executor", corrected distance to prop. line to 653', removed plugging bond.	11/2/2012 10:54:03 AM
Permit	Attached revised loc. drawing, ref. area map, and hydrology map.	10/26/2012 11:41:59 AM
LGD	LGD Comments Entek GRB LLC Focus Ranch Unit Federal 1-1 Section 1-11-88 Routt County COGCC Doc # 400324683 and 400324784 1.Routt County has a permitting process for all oil/gas operations. All operators must contact Routt County and comply with the Special Use Permit process before operations may proceed. 2.In order to achieve minimal baseline water quality testing, the operator should, at a minimum, comply with the Colorado Oil and Gas Association Voluntary Baseline Groundwater Quality Sampling Program dated November 15, 2011. 3.In order to determine the adequacy of the COGA program as it relates to the protection of water resources, all operators should perform studies of the subsurface geology, gradients, groundwater depth, and water flow direction and submit the findings of these studies to Routt County during the local land use application process.	10/25/2012 8:46:29 AM

4.Routt County requests information from the COGCC after drilling operations are complete for the location of aquifers and showing that casing was completed per minimum requirements of the COGCC regulations to protect all aquifers. This information is generally available via the COGCC website, however, operators may request that this information be confidential. Routt County requests this information be made available to the LGD.

5.There is a stream located near the proposed access road. At this time Routt County has been informed that water ways will not be crossed by the new access road to the well pad. However, it is unclear how close the access will be located from the stream.Routt County has waterbody setback requirements and this access may be reviewed for off-site impacts.

6.The well pad is east of an intermittent drainage. The petitioner agreed during the site visit to reroute the access road to avoid this drainage area.Maps have been submitted to the COGCC reflecting this change, but there are also location maps submitted with both the Forms 2 and 2A showing the previous access. The location maps need to be updated and reflect the re-routed access to avoid the drainage area. Any access roads and the well pad should have a comprehensive BMP plan and be continually monitored for protection of these water sources from erosion and contaminants.

7.Continued best management practices should be used to test or monitor air quality. The COGCC should work with the CDPHE to develop monitoring system requirements and schedules for all operators. New technology should be used to reduce emissions from tanks, equipment and flares at the onset of production.

8.The location of the site is mapped for geologic concerns of landslide area and directly on or immediately adjacent to a fault line. A portion of the proposed access will travel through or immediately adjacent to mapped area of unstable slopes.

9.The area where the well pad is located is mapped for moderate and high wildfire with a S/SW aspect and/or slopes greater than 30%. Fire extinguishers should be on-site during any operations or maintenance.

10.There are mapped wildlife concerns in this area which include Elk winter range; Sharp-tail Grouse production area and Greater Sage Grouse production area and the pad is located immediately north of the mapped area for GSG brood area. During the site visit, noise mitigation for wildlife was discussed including berms to mitigate noise.Wildlife restrictions should be strictly enforced and Entek should adhere to the wildlife mitigation placed by the CDPW.

Routt County recommends the following conditions:

1.Entek must receive a Routt County Special Use Permit before any road construction or drilling operations.

2.Entek must, at a minimum, comply with the COGA sampling program.

3.Entek must perform geological and hydrological studies of the area and submit the findings to Routt County.

4.Notification of depth of aquifer and casing depth below aquifer shall be submitted to Routt County after completion of drilling operations.

5.Entek must supply Routt County with information pertaining to access road location and its proximity to any water body, temporary or permanent.

6.The SWAMP permit must be submitted to Routt County.

7.Entek shall use existing BMPs and incorporate new technologies when practicable to reduce all emissions through all phases of development.

8.A review of the site shall be conducted by the Colorado Geologic Survey to

	determine if the site is located in an area of geologic concerns and if the site should be mitigated or relocated. 9.Fire extinguishers shall be on-site during any operations or maintenance. 10.All restrictions recommended by CDPW shall become conditions of approval and shall be strictly enforced. 11.Access is shown from Moffat County Road 129. If access changes and Routt County roads are used, all applicable permits from the Routt County Road and Bridge Department such as access, SWMP and GG must be obtained.	
OGLA	Initiated/Completed OGLA Form 2A review on 10-24-12 by Dave Kubeczko; requested acknowledgement of fluid containment, spill/release BMPs, tank berming, flowback to tanks, sediment control access road, GW/SW baseline, access road design/construct evaluation, wildfire monitoring, and cuttings low moisture content COAs from operator on 10-24-12 and 01-22-13; received acknowledgement of COAs from operator on 01-22-13; changed to sensitive area due to close SW and shallow GW; passed by CPW on 01-17-13 with BLM wildlife stipulations and COAs acceptable; addressed LGD comments for Form 2A#400324683 and Form 2#400324784 from 10-25-12 on 01-22-13 (email correspondence is attached); passed OGLA Form 2A review on (TBD: 01-22-13) by Dave Kubeczko; fluid containment, spill/release BMPs, tank berming, flowback to tanks, sediment control access road, GW/SW baseline, access road design/construct evaluation, wildfire monitoring, and cuttings low moisture content COAs.	10/24/2012 1:48:33 PM
Permit	Attached revised access road map.	10/15/2012 11:17:52 AM
Permit	This form passed completeness.	10/9/2012 1:59:48 PM

Total: 9 comment(s)

BMP

Type	Comment
Wildlife	Here are the wildlife stips that BLM has placed on the FRU Federal 1-1: - Greater Sage Grouse nesting and Early Brood Rearing Habitat – no activity between March 1 – June 30 - Columbian Sharptail nesting habitat – no activity between March 1 – June 30 - Timing restrictions for Greater Sage Grouse from March 1 – May 15 – activity between 9:00 am to 4:00pm - Implement noise reduction measures for Greater Sage Grouse - BLM recommends avoidance of the nearby Greater Sage Grouse PPH.

Total: 1 comment(s)