

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:

400600597

Date Received:

06/23/2014

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:

**438160**

Expiration Date:

**07/17/2017**

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: 10507  
Name: EXPEDITION WATER SOLUTIONS LLC  
Address: 1023 39TH AVENUE SUITE E  
City: GREELEY State: CO Zip: 80634

Contact Information

Name: Paul Gottlob  
Phone: (720) 420-5747  
Fax: ( )  
email: paul.gottlob@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20140031     Gas Facility Surety ID: \_\_\_\_\_

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

LOCATION IDENTIFICATION

Name: EWS Number: 1A

County: WELD

Quarter: NENW Section: 26 Township: 8N Range: 60W Meridian: 6 Ground Elevation: 4906

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: 325 feet FNL from North or South section line

2406 feet FWL from East or West section line

Latitude: 40.639770 Longitude: -104.059480

PDOP Reading: 1.5 Date of Measurement: 02/12/2014

Instrument Operator's Name: MICHAEL DILKA

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

## OTHER FACILITIES

Other Facility Type

Number

|  |  |
|--|--|
|  |  |
|--|--|

Per Rule 303.b.(3)C, description of all oil, gas, and/or water pipelines:

Intra-facility flow lines generally 4" fusion bonded schedule 160 steel will connect this well to the Facility at the EWS 1 located in the NWNW of same section - due west approx. 2100'. Because of this - NO Facility Diagram is attached. The entire N/2 of the NW Quarter is owned by the Operator/Applicant.

## CONSTRUCTION

Date planned to commence construction: 08/01/2014 Size of disturbed area during construction in acres: 4.00

Estimated date that interim reclamation will begin: 11/01/2014 Size of location after interim reclamation in acres: 1.00

Estimated post-construction ground elevation: 4906

## DRILLING PROGRAM

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

Is H<sub>2</sub>S anticipated? No

Will salt sections be encountered during drilling: No

Will salt based mud (>15,000 ppm Cl) be used? No

Will oil based drilling fluids be used? No

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Method: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Rule 306 Consultation is not needed as the Surface Owner is the applicant.

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: Exploration Water Sol LLC Phone: 970-515-6950  
 Address: P.O. Box 336597 Fax: \_\_\_\_\_  
 Address: \_\_\_\_\_ Email: jgoddard@expedition-water.com  
 City: Greeley State: CO Zip: 80633  
 Surface Owner:  Fee  State  Federal  Indian  
 Check all that apply. The Surface Owner:  is the mineral owner  
 is committed to an oil and Gas Lease  
 has signed the Oil and Gas Lease  
 is the applicant  
 The Mineral Owner beneath this Oil and Gas Location is:  Fee  State  Federal  Indian  
 The Minerals beneath this Oil and Gas Location will be developed from or produced to this Oil and Gas Location: No  
 The right to construct this Oil and Gas Location is granted by: applicant is owner  
 Surface damage assurance if no agreement is in place: \_\_\_\_\_ Surface Surety ID: \_\_\_\_\_  
 Date of Rule 306 surface owner consultation \_\_\_\_\_

**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: 4614 Feet  
Building Unit: 5280 Feet  
High Occupancy Building Unit: 5280 Feet  
Designated Outside Activity Area: 5280 Feet  
Public Road: 306 Feet  
Above Ground Utility: 2437 Feet  
Railroad: 5280 Feet  
Property Line: 250 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 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: Ascalon fine sandy loam #4  
NRCS Map Unit Name: \_\_\_\_\_  
NRCS Map Unit Name: \_\_\_\_\_

## PLANT COMMUNITY:

Complete this section only if any portion of the disturbed area of the location's current land use is on non-crop land.

Are noxious weeds present: Yes  No   
Plant species from:  NRCS or,  field observation Date of observation: \_\_\_\_\_  
List individual species: \_\_\_\_\_

Check all plant communities that exist in the disturbed area.

- Disturbed Grassland (Cactus, Yucca, Cheatgrass, Rye)  
 Native Grassland (Bluestem, Grama, Wheatgrass, Buffalograss, Fescue, Oatgrass, Brome)  
 Shrub Land (Mahogany, Oak, Sage, Serviceberry, Chokecherry)  
 Plains Riparian (Cottonwood, Willow, Aspen, Maple, Poplar, Russian Olive, Tamarisk)  
 Mountain Riparian (Cottonwood, Willow, Blue Spruce)  
 Forest Land (Spruce, Fir, Ponderosa Pine, Lodgepole Pine, Juniper, Pinyon, Aspen)  
 Wetlands Aquatic (Bullrush, Sedge, Cattail, Arrowhead)  
 Alpine (above timberline)  
 Other (describe): \_\_\_\_\_

## WATER RESOURCES

Is this a sensitive area:  No  Yes

Distance to nearest

downgradient surface water feature: 2288 Feet

water well: 2126 Feet

Estimated depth to ground water at Oil and Gas Location 52 Feet

Basis for depth to groundwater and sensitive area determination:

Nearest Water Well is Permit #294126 at 2126' away was permitted 4-22-2014 after the survey work was done- and is Owned by the applicant (Expedition Water Solutions, LLC) - no depth or static water level is listed on the DWR Permit. Water Resources data above is from Water Well Permit #24413 at 4339' away shows depth of 168' and Static Water level of 52'- located in SESE of Sec. 27 to the NW.

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: \_\_\_\_\_

## 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

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

Signed: \_\_\_\_\_ Date: 06/23/2014 Email: paul.gottlob@iptenergyservices.com

Print Name: Paul Gottlob Title: Regulatory & Eng. Tech.

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: 7/18/2014

### **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><u>COA Type</u></b> | <b><u>Description</u></b>  |
|------------------------|--|
|                        | Operator shall provide notice to COGCC 48 hours prior to commencing construction of this Oil and Gas Location via Form 42. |

### **Best Management Practices**

| <b><u>No</u></b> | <b><u>BMP/COA Type</u></b>             | <b><u>Description</u></b>   |
|------------------|--|---|
| 1                | Planning                               | It is a single-well pad located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas.  |
| 2                | Traffic control                        | Access road. The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times.   |
| 3                | General Housekeeping                   | Fencing requirements. A permanent fencing plan will be reviewed by the surface owner / applicant.   |
| 4                | General Housekeeping                   | Removal of surface trash. All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as is applicable.  |
| 5                | Material Handling and Spill Prevention | Leak Detection Plan. Pumper will visit the location daily and visually inspect all tanks and fittings for leaks. Additionally, monthly documented SPCCP inspections are conducted pursuant to 40 CFR §112.  |
| 6                | Material Handling and Spill Prevention | Berm construction. Tank berms shall be constructed of steel rings with a synthetic or engineered liner and designed to contain 150% of the capacity of the largest tank. All berms will be visually checked periodically to ensure proper working condition.  |
| 7                | Material Handling and Spill Prevention | Load-lines. All load-lines shall be bull-plugged or capped.   |
| 8                | Material Handling and Spill Prevention | Tank specifications. Tanks will be designed, constructed and maintained in accordance with NFPA Code 30. The tanks are visually inspected once a day for issues, and recorded inspections are conducted once a month.   |
| 9                | Noise mitigation                       | Lighting abatement measures shall be implemented, including the installation lighting shield devices on all of the more conspicuous lights, low density sodium lighting where practicable; and rig shrouding is not believed necessary as this is an industrial area and the only building unit within 1,000' is owned by the operator, however, at its election the operator may install temporary engineering controls consisting of perimeter sound walls shall be used on the location during drilling and completion activities to provide noise relief. Permanent equipment on location shall be muffled to reduce noise, or shall be appropriately buffered. |
| 10               | Odor mitigation                        | Per Rule 805: Oil & gas facilities and equipment shall be operated in such a manner that odors and dust do not constitute a nuisance or hazard to public welfare.   |
| 11               | Drilling/Completion Operations         | Closed Loop Drilling Systems – Pit Restrictions. Not applicable; a closed-loop system will be used for drilling.  |

|    |                                |  |
|----|--------------------------------|--|
| 12 | Drilling/Completion Operations | Green Completions – Emission Control Systems. Test separators and associated flow lines and sand traps shall be installed on-site to accommodate Green completions techniques pursuant to COGCC Rules. In the anticipated absence of a viable gas sales line, the flow-back gas shall be thermally oxidized in an emissions control device (ECD), which will be installed and kept in operable condition for least the first 90-days of production pursuant to CDPHE rules. This ECD shall have an adequate capacity for 1.5 times the largest flow-back within a 10 mile radius, will be flanged to route gas to other or permanent oxidizing equipment and shall be provided with the equipment needed to maintain combustion where non-combustible gases are present. |
| 13 | Drilling/Completion Operations | Blowout preventer equipment (“BOPE”). A double ram and annular preventer will be used during drilling. At least the drilling company shall have a valid well blowout prevention certifications.  |
| 14 | Drilling/Completion Operations | BOPE for well servicing operations. Adequate BOP equipment shall be used. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.   |
| 15 | Drilling/Completion Operations | Pit level indicators. Not applicable; a closed-loop system will be used and no pits shall be dug.  |
| 16 | Drilling/Completion Operations | Drill stem tests. Not applicable; no Drill Stem tests are planned.   |
| 17 | Drilling/Completion Operations | Control of fire hazards. All materials which are considered fire hazards shall be a minimum of 25’ from the wellhead tanks or separators. Electrical equipment shall comply with API RP 500 and will comply with the current national electrical code. An emergency response plan has been generated for this site.  |
| 18 | Drilling/Completion Operations | Guy line anchors. All guy line anchors shall be brightly marked pursuant to Rule 604.c (2)Q.   |
| 19 | Final Reclamation              | Well site cleared. Within 90-day subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site.   |
| 20 | Final Reclamation              | Identification of plugged and abandoned wells. P&A’d wells shall be identified pursuant to 319.a.(5).  |

Total: 20 comment(s)

### Attachment Check List

| <u>Att Doc Num</u> | <u>Name</u>           |
|--------------------|-----------------------|
| 400600597          | FORM 2A SUBMITTED     |
| 400600679          | NRCS MAP UNIT DESC    |
| 400600730          | ACCESS ROAD MAP       |
| 400600734          | HYDROLOGY MAP         |
| 400600738          | LOCATION DRAWING      |
| 400614044          | LOCATION PICTURES     |
| 400614047          | WASTE MANAGEMENT PLAN |

Total Attach: 7 Files

### General Comments

| <u>User Group</u> | <u>Comment</u>   | <u>Comment Date</u>     |
|-------------------|--|-------------------------|
| Permit            | No LGD comments. Public comments addressed by OGLA review. Final Review--passed. | 7/18/2014<br>9:39:40 AM |

|             |   |                                 |
|-------------|---|---------------------------------|
| <p>OGLA</p> | <p>This oil and gas location will have one injection well with no other associated facilities and there are no Building Units within 1,000 feet of this location. The nearby EWS 1 oil and gas location has already been approved.</p> <p>The Public Comment on this 2A list concerns that are not addressed by the Form 2A process. What a nearby surface owners would allow on their own leases is not germane to the development of this location as the surface owner is the applicant. Management of vehicular traffic and traffic safety on Colorado Highway 14 is the responsibility of Weld County Road &amp; Bridge Department and/or CDOT. The COGCC does not regulate who may use public roads and a traffic study of Public Roads are not the purview of the COGCC nor a requirement for the Form 2A. These concerns should be forwarded to those agencies. Prior testing of nearby domestic water wells is not a requirement of the Form 2A process. Preserving nearby mineral lease and surface property values is not a requirement of the Form 2A process. The Waste Management Plan for the 2A is not designed to cover disposal of wastes that will go into the injection well. These are addressed as part of the Injection Well Permit Form 31 and/or Form 33. The relationship between injection wells and earthquakes is not part of the Form 2A process.</p> | <p>7/16/2014<br/>9:50:23 AM</p> |
|-------------|---|---------------------------------|

|        |   |                         |
|--------|---|-------------------------|
| Public | <p>As a land and mineral owner of property abutting these wells this is written as an objection and protest to both the Injection Disposal wells ESW AND ESW1A LOCATED IN 26 8N60W for the following reasons.</p> <p>1) I have always excluded disposal wells being allowed in leases of my oil and gas leases.</p> <p>2) Had I approved of disposal wells on or bordering my land I would have sold property to Goddard as solicited by his wife, who would not disclose her client or their intent.</p> <p>3) Why are three disposal wells required within one (1) mile of CR105 and Highway 14</p> <p>4) this will create a tremendous truck traffic over load at this intersection which is already stressed by current activity.</p> <p>5) This has always been a dangerous intersection due to a rise in grade to the east on highway 14 limiting the view of west bound vehicles and those entering or crossing highway 14</p> <p>6) I find no supporting study relative to traffic.</p> <p>7) I own the nearest domestic water well. the well listed on the location assessment has not even been drilled. I have received no documentation relative to testing, only a phone call.</p> <p>8) My minerals are not currently leased and these wells will be a negative factor.</p> <p>9) The waste management plan does not address what will be allowed or restricted for injection into the wells, only those items that will go to offsite third party operators are addressed.</p> <p>10) Studies support the fact that injection wells cause earthquakes and tremors</p> <p>11) These facilities will have a negative impact on the value of my property and the environment due to increased traffic and emissions, dust, noise, road maintenance, spills and contamination and all potential to be identified factors resulting from the operation.</p> | 7/11/2014<br>1:24:04 AM |
| OGLA   | OGLA review complete. Waiting on Public Comment period.   | 7/2/2014 1:45:04 PM     |
| Permit | Passed completeness.  | 6/24/2014<br>3:12:08 PM |

Total: 5 comment(s)