

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:

400612430

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:

438495

Expiration Date:

08/09/2017

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: 10311
Name: SYNERGY RESOURCES CORPORATION
Address: 20203 HIGHWAY 60
City: PLATTEVILLE State: CO Zip: 80651

Contact Information

Name: Sonia Spencer
Phone: (720) 420-5700
Fax: (720) 420-5800
email: sonia.spencer@iptenergyservices.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20090043 Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: SRC Gies Number: Pad

County: WELD

Quarter: SESE Section: 15 Township: 7N Range: 65W Meridian: 6 Ground Elevation: 4839

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: 272 feet FSL from North or South section line

1147 feet FEL from East or West section line

Latitude: 40.567348 Longitude: -104.643834

PDOP Reading: 1.3 Date of Measurement: 04/01/2014

Instrument Operator's Name: Brett Birch

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>8</u>	Oil Tanks	<u>16</u>	Condensate Tanks	<u> </u>	Water Tanks	<u>4</u>	Buried Produced Water Vaults	<u> </u>
Drilling Pits	<u> </u>	Production Pits	<u> </u>	Special Purpose Pits	<u> </u>	Multi-Well Pits	<u> </u>	Temporary Large Volume Above Ground Tanks	<u> </u>
Pump Jacks	<u> </u>	Separators	<u>8</u>	Injection Pumps	<u> </u>	Cavity Pumps	<u> </u>		
Gas or Diesel Motors	<u> </u>	Electric Motors	<u> </u>	Electric Generators	<u> </u>	Fuel Tanks	<u> </u>	Gas Compressors	<u> </u>
Dehydrator Units	<u> </u>	Vapor Recovery Unit	<u> </u>	VOC Combustor	<u>4</u>	Flare	<u> </u>	LACT Unit	<u> </u>
								Pigging Station	<u> </u>

OTHER FACILITIES

Other Facility Type

Number

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

Intra flowlines are generally 3" (although may be 2") fusion bonded scheduled 40 steel.

CONSTRUCTION

Date planned to commence construction: 08/04/2014 Size of disturbed area during construction in acres: 4.59
Estimated date that interim reclamation will begin: 02/04/2015 Size of location after interim reclamation in acres: 1.32
Estimated post-construction ground elevation: 4839

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: Commercial Disposal

Cutting Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

Beneficial reuse or land application plan submitted? No

Reuse Facility ID: or Document Number:

Centralized E&P Waste Management Facility ID, if applicable:

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: James L Gies

Phone:

Address: 19382 County Rd. 74

Fax: _____

Address: _____

Email: _____

City: Eaton State: CO Zip: 80615

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: Surface Use Agreement

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: 845 Feet
Building Unit: 846 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 79 Feet
Above Ground Utility: 116 Feet
Railroad: 5280 Feet
Property Line: 73 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: 05/19/2014

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: 4- Aquolls and Aquepts, flooded
NRCS Map Unit Name: 41 - Nunn clay loam, 0 - 1 percent slopes
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: 206 Feet

water well: 703 Feet

Estimated depth to ground water at Oil and Gas Location 10 Feet

Basis for depth to groundwater and sensitive area determination:

CDWR Permit # 229659.

Downgradient surface water feature is the Owl Creek 206' NE

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 318A

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

Attached is the letter to the Director, per Rule 303.b.(3) J iii. that Synergy has complied with the Pre-Application Notices and proof of receipt is on file at their office. BMP's have been addressed concerning the Owl Creek.

Mineral Owner and Surface Owner is the same.

Letters to the Director are marked as "Other" in the attachment Tab.

I have received executed waivers from the Surface Owner and Building Unit Owner waiving the remaining the 30 day notice pursuant to COGCC Rule 305.a. Pre-Application Notification. Attached as " Other"
Reference Well is SRC Gies 34-15-22CHZ

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: sonia.spencer@iptenergyservices.com

Print Name: Sonia Spencer Title: Project Mngr/ Permit

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: 8/10/2014

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.

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

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	Multi-well Pads are located in a manner which allows for resource extraction while maintaining the highest distances possible from the offsetting residential areas and complies with the wishes of the surface owner.
2	Planning	Fencing: A meeting with the surface owner will determine a fencing plan
3	Planning	Visual Impacts: All long term facility structures will be painted a color that enables the facilities to blend in with the natural background color of the landscape, as seen from a viewing distance and location typically used by the public. Maintain appearance with garbage clean-up; a trash bin will be located on site to accumulate waste by the personnel drilling the wells. Site will have unused equipment, trash and junk removed immediately. Berms will be constructed on the east and west sides of the location and be planted with evergreen trees.
4	Planning	Blowout Prevention Equipment ("BOPE"): A double ram and annular preventer will be used during drilling. Stabbing valves shall be installed in the event of reverse circulation and shall be prior tested with low and high pressure fluid.
5	Planning	Control of fire hazards: All material that is considered a fire hazard shall be a minimum of 25' from the wellhead tanks or separators. Electrical equipment shall comply with API IRP 500 and will comply with the current national electrical code.
6	Planning	Construction : 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. Secondary containment devices shall be sufficiently impervious to contain any spilled or released material. Tertiary containment, such as an earthen berm, will be installed around production facilities.
7	Traffic control	Access Roads: The access road will be constructed to accommodate local emergency vehicles. This road will be maintained for access at all times. Traffic will be routed to minimize local interruption. Dust control measures will also be utilized on Weld County Road 80 & 45 as they lead to the location. These portions of the County Roads will be maintained to control ruts, and impose speed restrictions/speed limits for oilfield traffic. Oilfield traffic will access the location from Weld County Road 43 to the west as much as possible.
8	General Housekeeping	Trash Removal: All trash, debris and material not intrinsic to the operation of the oil and gas facility shall be removed and legally disposed of as applicable.

9	Material Handling and Spill Prevention	Leak Detention 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.
10	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.
11	Construction	Berm Construction: Tanks 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.
12	Construction	Light sources during all phases of operations will be directed downwards and away from occupied structures where possible. Once the drilling and completion rigs leave the site, there will be no permanently installed lighting on site. Lighting shall be mounted at compressor stations on a pole or building and directed downward to illuminate key areas within the facility, while minimizing the amount of light projected outside the facility.
13	Noise mitigation	The drill site will be powered by electricity, mitigating the majority of noise from drilling operations. Sound walls and/or hay bales will be used to surround the well site during drilling operations.
14	Noise mitigation	Noise- The drill site will be powered by electricity, mitigating the majority of noise from drilling operations. Sound walls and /or hay bales will be used to surround the well site during drilling operations.
15	Emissions mitigation	Emissions Mitigation Green Completions - Emission Control System: 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 flowback 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 flowback 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 combustions where non-combustible gases are present.
16	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.
17	Drilling/Completion Operations	A closed –loop system will be used for drilling operations.
18	Final Reclamation	Final Reclamation Within 90 days subsequent to the time of plugging and abandonment of the entire site, superfluous debris and equipment shall be removed from the site. Identification of plugged and abandoned wells will be identified pursuant to 319.a.(5)

Total: 18 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
1668404	LOCATION DRAWING
1668406	NRCS MAP UNIT DESC
1668407	CORRESPONDENCE
1668408	CORRESPONDENCE
1668409	PUBLIC COMMENT
1668432	RULE 306.E. CERTIFICATION
2157750	SURFACE AGRMT/SURETY
400612430	FORM 2A SUBMITTED
400616181	LOCATION PICTURES
400616208	WASTE MANAGEMENT PLAN
400619403	ACCESS ROAD MAP
400619405	HYDROLOGY MAP
400619492	NRCS MAP UNIT DESC
400623927	OTHER
400626133	OTHER
400626930	MULTI-WELL PLAN
400630811	FACILITY LAYOUT DRAWING

Total Attach: 17 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Public comments addressed. No LGD comments. Final Review--passed.	3/4/2014 3:50:14 PM
OGLA	Operator agreed to further BMP language concerning visual impacts, traffic control and berm construction in response to concerns from the Building Unit owner in the attached Public Comment. OGLA review complete and task passed.	7/31/2014 9:27:52 AM
OGLA	Received Rule 306.e. Certification letter from Operator. Still waiting to hear back from Synergy on more specific language in regards to the BMPs that address the nearest Building Unit owners concerns.	7/30/2014 4:01:25 PM
Permit	Oper. submitted SUA for different surface owner. Oper. submitted correct SO contact info. No phone # listed.	7/28/2014 11:02:19 AM
OGLA	ON HOLD - Received Public Comment today from nearest Building Unit owner (Jamie Presgrove). She requests a meeting to discuss her concerns. Called Sonia Stephens at IPT (Operator consultant contact) and asked if Synergy had received a meeting request. Was told that they had not but that Craig Rasmusson was still working with the BU Owner. Informed Sonia that we would prefer Synergy work with BU Owner as much as possible to resolve her concerns before COGCC gets involved more directly. Waiting to hear back from Sonia after she discusses the Public Comment concerns with Synergy	7/8/2014 2:01:53 PM
Permit	Req'd SUA as right to construct. SHL is not in proposed GWA wellbore unit. See public comment on APD #400612479 only.	7/8/2014 10:35:59 AM
OGLA	In PROCESS - Operator provided revised size of disturbed area during construction and after interim reclamation, provided additional NRCS Map Unit Description attachment, agreed to revising the estimated depth to groundwater, and provided a Noise mitigation BMPs. Location Pictures do have date taken, just not conspicuously placed. Distances to nearest Public Road, Above Ground Utility, and Property Line in the Cultural Distance section are taken from the nearest production facility (tank battery). OGLA review complete. Waiting on Public Comment period.	7/8/2014 9:48:49 AM
OGLA	ON HOLD - Operator to revise the size of the disturbed area during construction and after interim reclamation, provide additional NRCS Map Unit description, revise estimated depth to groundwater, resubmit Location Pictures that include the date taken, and provide site specific Noise mitigation BMP. Due by 8/7/14.	7/7/2014 3:01:56 PM
Permit	Passed completeness. Located in SESE 15-7N-65W. GIS grid is incorrect. Distances to road & prop. line are from prod. facilities.	6/25/2014 9:26:02 AM

Total: 9 comment(s)