

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:

401116856

Date Received:

09/22/2016

Oil and Gas Location Assessment

New Location Refile Amend Existing Location Location#: 438580

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:

438580

Expiration Date:

02/06/2020

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: 10396

Name: SWN PRODUCTION COMPANY LLC

Address: PO BOX 12359

City: SPRING State: TX Zip: 77391

Contact Information

Name: Sydney Hansen

Phone: (832) 796-7874

Fax: ()

email: swnsandwash@swn.com

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20110201

Gas Facility Surety ID: _____

Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: WELKER 6-92

Number: 1-2H11

County: MOFFAT

Quarter: SESE Section: 2 Township: 6N Range: 92W Meridian: 6 Ground Elevation: 6501

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: 682 feet FSL from North or South section line

786 feet FEL from East or West section line

Latitude: 40.494422 Longitude: -107.680233

PDOP Reading: 2.5 Date of Measurement: 11/18/2014

Instrument Operator's Name: GLENN MCELROY

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>2</u>	Oil Tanks*	<u>3</u>	Condensate Tanks*	<u> </u>	Water Tanks*	<u>2</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>	Modular Large Volume Tanks	<u> </u>
Pump Jacks	<u>2</u>	Separators*	<u>2</u>	Injection Pumps*	<u> </u>	Cavity Pumps*	<u> </u>	Gas Compressors*	<u> </u>
Gas or Diesel Motors*	<u> </u>	Electric Motors	<u> </u>	Electric Generators*	<u>1</u>	Fuel Tanks*	<u> </u>	LACT Unit*	<u> </u>
Dehydrator Units*	<u> </u>	Vapor Recovery Unit*	<u> </u>	VOC Combustor*	<u>1</u>	Flare*	<u> </u>	Pigging Station*	<u> </u>

OTHER FACILITIES*

Other Facility Type

Number

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:

300' OF 2.5" SCH 80 FROM THE WELLHEAD TO THE SEPARATOR
100' OF 2" SCH 80 FROM THE SEPARATOR TO THE TANK BATTERY FOR THE WATER AND OIL DUMPS
150' OF 2" SCH 80 FROM THE SEPARATOR TO THE FLARE STACK

CONSTRUCTION

Date planned to commence construction: 02/06/2017 Size of disturbed area during construction in acres: 2.74
Estimated date that interim reclamation will begin: 09/30/2018 Size of location after interim reclamation in acres: 1.51
Estimated post-construction ground elevation: 6501

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? Yes

Will oil based drilling fluids be used? Yes

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?

Reuse Facility ID: or Document Number:

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

SURFACE & MINERALS & RIGHT TO CONSTRUCT

Name: GLENNON & LARRY WELKER Phone: _____
 Address: P.O. BOX 79 Fax: _____
 Address: _____ Email: _____
 City: GORDONVILL State: MO Zip: 63752
E

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 04/25/2014

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:	3128 Feet	2926 Feet
Building Unit:	5280 Feet	5280 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	4970 Feet	4825 Feet
Above Ground Utility:	3525 Feet	3520 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	660 Feet	624 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

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: _____

- 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.

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.

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: 23. BULKLEY SILT CLAY, 12 TO 15 PERCENT SLOPE _____

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, Chokeycherry)
- 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: 600 Feet

water well: 4472 Feet

Estimated depth to ground water at Oil and Gas Location 40 Feet

Basis for depth to groundwater and sensitive area determination:

THERE ARE NO KNOWN WATER WELLS (WW) IN SECTION 2 OR SECTION 11. NEAREST WW'S ARE IN SEC 12 & 13 AND ALL ARE GREATER THAN 1/2 MILE AWAY. SEVERAL WW WERE REVIEWED IN SECTION 12, 13 AND 14 AS WELL AS TOPOGRAPHY, GRADIENT AND ELEVATION OF WELLS TO DETERMINE ESTIMATED DTW.

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

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 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 PAD HAS BEEN CONSTRUCTED. THE WELKER 6-92 1-2H11 HAS BEEN DRILLED AND IS A PRODUCING WELL. THIS FORM 2A IS BEING FILED TO ALLOW FOR A SECOND WELL TO BE DRILLED ON THIS EXISTING LOCATION. SLIGHT ADJUSTMENTS TO CULTURAL SETBACK FOOTAGES HAVE BEEN MADE USING THE AS BUILT/AS DRILLED INFORMATION TO SHOW FOOTAGES FROM THE WELLHEAD AND THE PRODUCTION FACILITY AS IS NOW REQUIRED ON THE FORM.

SUA IS STILL VALID.

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

Signed: _____ Date: 09/22/2016 Email: swnsandwash@swn.com

Print Name: Sydney Hansen 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: 2/7/2017

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
	If conductors are preset, operator shall comply with Notice to Operators: Procedures for Preset Conductors (dated September 1, 2016).
	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; b. Notice of Spud; and c. Notice of Construction or Major Change); operator shall notify the COGCC 48 hours prior to pipeline testing (flowlines from wellheads to separators to tanks; and/or any temporary surface lines used for hydraulic stimulation and/or flowback operations) using the Form 42 (as described in Rule 316C.m. Notice of Completion of Form 2/2A Permit Conditions). The appropriate COGCC individuals will automatically be email notified.

	<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 and maintenance of the existing berm and diversion/collection trenches within and/or outside of the berms, site grading, or other comparable measures sufficiently protective of nearby surface water. Any berm reconstructed at the well pad location will be stabilized, inspected at regular intervals as required by CDPHE (at least every 14 days and after precipitation events), kept free of weeds, and maintained in good condition. The perimeter berm shall be sized, constructed, and compacted sufficiently to contain fluids during drilling operations, as well as all fluids contained in temporary frac tanks during completion operations.</p> <p>The access road will be 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, including encouraging established speed limits on private roads, to reduce fugitive dust and coating of vegetation and deposition in water sources.</p>
	<p>A closed loop system must be implemented during drilling (as indicated on the Form 2 and Form 2A). All cuttings generated during drilling with oil based mud (OBM) must be segregated from water/bentonite based mud-(WBM-) generated drill cuttings and placed separately on the well pad. All OBM-generated drill cuttings must be kept in tanks/containers, or placed on a lined/bermed portion of the well pad; prior to disposition. The moisture content of any OBM-generated drill cuttings in a tank, cuttings containment area, or pile shall be as low as practicable to prevent accumulation of liquids greater than de minimis amounts. The operator has indicated that 'Cuttings Disposal' will be "OFFSITE" and that the 'Cuttings Disposal Method' will be "COMMERCIAL DISPOSAL" (as shown in the 'DRILLING WASTE MANAGEMENT PROGRAM SECTION' of the Form 2A). All liners associated with oil-based drilling mud and OBM-generated drill cuttings must be disposed of offsite per CDPHE rules and regulations. Any changes to drill cuttings management and disposal at this location will require submittal (via a Form 4 Sundry Notice) and approval of a Waste Management Plan detailing the changes (specifying cuttings characterization methods, cuttings management, amendment, and onsite disposal location[s]).</p> <p>The moisture content of water/bentonite-based mud (WBM) generated cuttings during drilling of the surface casing intervals, that will be managed onsite, shall be kept as low as practicable to prevent accumulation of liquids greater than de minimis amounts. After drilling and completion operations have been completed, any of the WBM drill cuttings that will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit), must meet the applicable standards of Table 910-1. No offsite disposal of cuttings to another oil and gas location shall occur without prior approval of a Waste Management Plan (submitted via a Form 4 Sundry Notice) specifying disposal location and waste characterization method. Operator has indicated that commercial disposal of cuttings will be the method of disposal for all drill cuttings.</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. No open top tanks can be used for initial flowback fluids containment. 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 follow all requirements of COGCC's current policy - NOTICE TO OPERATORS, Rule 912. VENTING OR FLARING PRODUCED NATURAL GAS – STATEWIDE, dated January 12, 2016; and to Rule 912. VENTING OR FLARING NATURAL GAS. a. thru e. in regards to venting and flaring.</p>

Operator shall pressure test pipelines (flowlines from wellheads to separators to tanks; take away pipelines from onsite separators and storage tanks, and any temporary surface lines used for hydraulic stimulation and/or flowback operations) in accordance with Rule 1101.e.(1) prior to putting into initial service any temporary surface or permanent buried flowlines/pipelines and following any reconfiguration of the pipeline network, and tested annually, unless agreed to by both parties that the flowlines can be managed under an approved COGCC variance.

Operator will utilize, to the extent practical, all existing access and other public roads, and/or existing pipeline right-of-ways, when placing/routing pipelines. This will reduce surface disturbance.

Best Management Practices

<u>No</u>	<u>BMP/COA Type</u>	<u>Description</u>
1	Planning	When feasible develop multiple well sites by using directional drilling to reduce cumulative impacts and adverse impacts on wildlife resources.
2	General Housekeeping	Keep well site location, the road, and the pipeline easement free of noxious weeds, litter and debris. Spray for noxious weeds, and implement dust control, as needed. SWN Production Company, LLC (SWN) will not permit the release or discharge of any toxic or hazardous chemicals or chemicals or wastes on Owners' land. Construct and maintain gates where any roads used by SWN cross through fences on the leased premises.
3	Storm Water/Erosion Control	A Storm Water Management Plan will be prepared and will meet all requirements of the COGCC & CDPHE. SWN will use water bars and other measures to prevent erosion and non-source pollution. Implement and maintain BMP's to control storm water runoff in a manner that minimizes erosion, transport of sediment offsite, and site degradation. Co-locate gas and water gathering lines whenever feasible and mitigate any erosion problems that arise due to the construction of any pipeline.
4	Construction	Remove only the minimum amount of vegetation necessary for the construction of roads and facilities. Conserve topsoil during excavation and reuse as cover on disturbed areas to facilitate regrowth or vegetation. No construction or routine maintenance activities will be performed during periods when the soil is too wet to adequately support construction equipment.
5	Interim Reclamation	Utilize only such area around each producing well as is reasonably necessary. Restore the remainder of the well site location to its original condition within a reasonable time after the completion of operations. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner.
6	Final Reclamation	All surface restoration shall be accomplished to the satisfaction of Owner. All reseeding shall be done with grasses consistent with the Rocky Mountain native mix or other grasses reasonably requested by surface owner and during planting period suggested by Owner. Final reclamation shall be completed to the reasonable satisfaction of the owner as soon as practical after installation (weather permitting) and in accordance with regulatory agency standards.

Total: 6 comment(s)

Attachment Check List

<u>Att Doc Num</u>	<u>Name</u>
2108030	PREVIOUS CPW CORRESPONDENCE
2108040	OPERATOR CORRESPONDENCE
401116856	FORM 2A SUBMITTED
401117079	MULTI-WELL PLAN
401117081	FACILITY LAYOUT DRAWING

Total Attach: 5 Files

General Comments

<u>User Group</u>	<u>Comment</u>	<u>Comment Date</u>
Permit	Final review complete.	01/31/2017
OGLA	Initiated/Completed OGLA Form 2A review on 12-22-16 by Dave Kubeczko; Conditions of Approval (COAs) previously agreed to by the operator and placed on the previously submitted and approved Form 2A #400615185 (approved on 08-16-14; OGCC ID #438580) will apply; requested acknowledgement of previous and new COAs - including notification, fluid containment and spill/release BMPs, sediment and dust control access road, closed loop system only, flowback to tanks, cuttings containment and management, odor control, adherence to venting and flaring policy and rules, and flowline, subsurface take away pipelines, and surface pipeline testing from operator on 12-22-16; received concurrence of COAs from operator on 01-03-17; revised 'Date planned to commence construction from 06/30/2014 to 02/06/2017'; passed by CPW on 10-17-16 with CPW indicating that mitigation that was attached to the original application for this site apply for the new well; passed OGLA Form 2A review on 01-20-17 by Dave Kubeczko; notification, fluid containment and spill/release BMPs, sediment and dust control access road, closed loop system only, flowback to tanks, cuttings containment and management, odor control, adherence to venting and flaring policy and rules, and flowline, subsurface take away pipelines, and surface pipeline testing COAs; repassed OGLA Form 2A review on 01-31-17 by Dave Kubeczko to revise date of regrading/reconstruction.	12/22/2016
Permit	Date of construction is in the past. (6/30/14) READY FOR APPROVAL After OGLA review.	11/30/2016
DOW	SWN Production Company LLC WELKER 6-92 1-2H11 Doc. No. 401116856 This is an existing location, and the mitigation that was attached to the original application for this site also applies to the additional well that will be drilled on this location. BRETT SMITHERS, 10/17/2016 15:00	10/17/2016
Permit	Passed completeness.	10/13/2016
Permit	Returned to Draft: * Please add related Form 02 DocNum and info. * On the Submit Tab, please list which specific updates have been made. * Is SUA on file still Valid? If it's not, please attach a current one.	10/03/2016

Total: 6 comment(s)