

**APPLICATION FOR PERMIT TO:**

**Drill**       Deepen       Re-enter       Recomplete and Operate

TYPE OF WELL    OIL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> COALBED <input type="checkbox"/> OTHER _____ ZONE TYPE       SINGLE ZONE <input type="checkbox"/> MULTIPLE ZONES <input checked="" type="checkbox"/> COMMINGLE ZONES <input type="checkbox"/>	Refiling <input type="checkbox"/> Sidetrack <input type="checkbox"/>
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Date Received:  
04/05/2018

Well Name: Conundrum Fee      Well Number: 0297-20-15

Name of Operator: ANSCHUTZ EXPLORATION CORP      COGCC Operator Number: 3104

Address: 555 17TH ST STE 2400

City: DENVER      State: CO      Zip: 80202

Contact Name: Randy Maxey      Phone: (303)299-1510      Fax: (    )

Email: randy.maxey@aec-denver.com

**RECLAMATION FINANCIAL ASSURANCE**  
Plugging and Abandonment Bond Surety ID: 20130080

**WELL LOCATION INFORMATION**

QtrQtr: Lot 28    Sec: 20    Twp: 2N    Rng: 97W    Meridian: 6

Latitude: 40.123908      Longitude: -108.298267

Footage at Surface:      1314    Feet    FSL      1558    Feet    FEL

Field Name: WILDCAT      Field Number: 99999

Ground Elevation: 5641      County: RIO BLANCO

GPS Data:  
Date of Measurement: 10/02/2017    PDOP Reading: 1.7    Instrument Operator's Name: John Floyd

If well is     Directional     Horizontal (highly deviated)    **submit deviated drilling plan.**

Footage at Top of Prod Zone:    FNL/FSL      FEL/FWL    Bottom Hole:    FNL/FSL      FEL/FWL

Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_    Sec: \_\_\_\_\_ Twp: \_\_\_\_\_ Rng: \_\_\_\_\_

**LOCATION SURFACE & MINERALS & RIGHT TO CONSTRUCT**

Surface Ownership:     Fee     State     Federal     Indian

The Surface Owner is:     is the mineral owner beneath the location.  
(check all that apply)     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 by this Well:    Yes

The right to construct the Oil and Gas Location is granted by:    Surface Use Agreement

Surface damage assurance if no agreement is in place: \_\_\_\_\_    Surface Surety ID: \_\_\_\_\_

**LEASE INFORMATION**

Using standard QtrQtr, Sec, Twp, Rng format, describe one entire mineral lease that will be produced by this well (Describe lease beneath surface location if produced. Attach separate description page or map if necessary.)

Township 2 North - Range 97 West  
a portion of the SW/4SE/4 Section 20  
See attached lease map.

Total Acres in Described Lease: 158 Described Mineral Lease is:  Fee  State  Federal  Indian

Federal or State Lease # \_\_\_\_\_

Distance from Completed Portion of Wellbore to Nearest Lease Line of described lease: 700 Feet

**CULTURAL DISTANCE INFORMATION**

Distance to nearest:

Building: 2141 Feet  
 Building Unit: 2251 Feet  
 High Occupancy Building Unit: 5280 Feet  
 Designated Outside Activity Area: 5280 Feet  
 Public Road: 349 Feet  
 Above Ground Utility: 289 Feet  
 Railroad: 5280 Feet  
 Property Line: 701 Feet

**INSTRUCTIONS:**

- All measurements shall be provided from center of the Proposed Well to nearest of each cultural feature as described in Rule 303.a.(5).  
 - 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: \_\_\_\_\_

**SPACING and UNIT INFORMATION**

Distance from completed portion of proposed wellbore to nearest completed portion of offset wellbore permitted or completed in the same formation: 5280 Feet

Distance from Completed Portion of Wellbore to Nearest Unit Boundary \_\_\_\_\_ Feet (Enter 5280 for distance greater than 1 mile.)

Federal or State Unit Name (if appl): \_\_\_\_\_ Unit Number: \_\_\_\_\_

**SPACING & FORMATIONS COMMENTS**

\_\_\_\_\_

**OBJECTIVE FORMATIONS**

Objective Formation(s)	Formation Code	Spacing Order Number(s)	Unit Acreage Assigned to Well	Unit Configuration (N/2, SE/4, etc.)
DAKOTA	DKTA			
FRONTIER	FRTR			
MORRISON	MRSN			
NIOBRARA	NBRR			

## DRILLING PROGRAM

Proposed Total Measured Depth: 12100 Feet

Distance from the proposed wellbore to nearest existing or proposed wellbore belonging to another operator, including plugged wells:

Enter distance if less than or equal to 1,500 feet: 623 Feet  No well belonging to another operator within 1,500 feet

Will a closed-loop drilling system be used? Yes

Is H<sub>2</sub>S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H<sub>2</sub>S Drilling Operations Plan)

Will salt sections be encountered during drilling? No

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

Will oil based drilling fluids be used? Yes

BOP Equipment Type:  Annular Preventor  Double Ram  Rotating Head  None

## GROUNDWATER BASELINE SAMPLING AND MONITORING AND WATER WELL SAMPLING

Water well sampling required per Rule 609

## DRILLING WASTE MANAGEMENT PROGRAM

Drilling Fluids Disposal: OFFSITE Drilling Fluids Disposal Methods: Commercial Disposal

Cuttings Disposal: OFFSITE Cuttings Disposal Method: Commercial Disposal

Other Disposal Description:

All water/bentonite-based mud drill cuttings that meet Table 910-1 levels may be disposed of onsite in a dry cuttings trench, or used onsite during reclamation and/or long-term stormwater/erosion controls.

Beneficial reuse or land application plan submitted?                     

Reuse Facility ID:                      or Document Number:                     

## CASING PROGRAM

Casing Type	Size of Hole	Size of Casing	Wt/Ft	Csg/Liner Top	Setting Depth	Sacks Cmt	Cmt Btm	Cmt Top
CONDUCTOR	26	16	42.05	0	80			
SURF	13+1/2	10+3/4	40.5-45.5	0	2800	860	2800	0
1ST	9+7/8	7+5/8	29.7	0	8900	880	8900	2600
2ND	6+3/4	4+1/2	11.6	0	12100	245	12100	9500

Conductor Casing is NOT planned

## 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)

## GREATER WATTENBERG AREA LOCATION EXCEPTIONS

Check all that apply:

- Rule 318A.a. Exception Location (GWA Windows).
- Rule 318A.c. Exception Location (GWA Twinning).

**RULE 502.b VARIANCE REQUEST**

Rule 502.b. Variance Request from COGCC Rule or Spacing Order Number \_\_\_\_\_

**OTHER LOCATION EXCEPTIONS**

Check all that apply:

Rule 318.c. Exception Location from Rule or Spacing Order Number \_\_\_\_\_

Rule 603.a.(2) Exception Location (Property Line Setback).

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 All oil based drilling mud generated cuttings will be disposed of offsite at an approved commercial disposal site.

Nearest wellbore is the 1-20 Caldwell owned by 31 Operating. This distance of 623 feet was measured using ArcGis and the current well status is producing. Since their completed portions are greater than 150 feet, no stimulation setback consent is needed.

The surface owner is:  
 1) is the mineral owner beneath the location – NO – split estate  
 2) is committed to an Oil and Gas Lease –NO (we have leases from the fee minerals who acquired/reserved minerals several decades ago)  
 3) has signed the Oil and Gas Lease – NO (see #2)  
 4) is the applicant NO – we are the applicant

The Conundrum Fee 0297-20-15 well will be a stratigraphic test borehole and Anschutz does not initially intend on producing from it; so no flowlines or pipelines will be required at this time; however, facilities listed on the Form 2A would be placed on this location if results from this stratigraphic borehole testing indicate indicate economically producible quantities of oil and gas, at which time, additional and / or supplemental flowline and pipeline information would be provided.

The plan of operations for this location is to drill the well, test the listed formations, case the well based on test results, and if any gas is producing, shut the well in.

This application is in a Comprehensive Drilling Plan No CDP #: \_\_\_\_\_

Location ID: \_\_\_\_\_

Is this application being submitted with an Oil and Gas Location Assessment application? Yes

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

Signed: \_\_\_\_\_ Print Name: Jason Sutton

Title: Agent Date: 4/5/2018 Email: jsutton@gmecwy.com

Operator must have a valid water right or permit allowing for industrial use or purchased water from a seller that has a valid water right or permit allowing for industrial use, otherwise an application for a change in type of use is required under Colorado law. Operator must also use the water in the location set forth in the water right decree or well permit, otherwise an application for a change in place of use is required under Colorado law. Section 37-92-103(5), C.R.S. (2011).

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: [Signature] Director of COGCC Date: 11/19/2018

Expiration Date: 11/18/2020

<b>API NUMBER</b>
05 103 12342 00

## Conditions Of Approval

All representations, stipulations and conditions of approval stated in the Form 2A for this location shall constitute representations, stipulations and conditions of approval for this Form 2 Permit-to-Drill and are enforceable to the same extent as all other representations, stipulations and conditions of approval stated in this Permit-to-Drill.

<u>COA Type</u>	<u>Description</u>
	<p><b>Drilling/Completion Operations:</b>            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) of the horizontal production interval of the well borehole 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. All liners associated with oil-based drilling mud and OBM-generated drill cuttings must be disposed of offsite per CDPHE rules and regulations.            The moisture content of water/bentonite based mud (WBM) generated drill cuttings 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, if any of the WBM drill cuttings will remain on the well pad location (cuttings management area, the cut portion of the pad, cuttings trench, dry cuttings drilling pit, or used onsite during reclamation and/or long-term stormwater/erosion controls), they must be sampled and meet the applicable standards of Table 910-1. After the drill cuttings have been amended (if necessary) and meet the levels in Table 910-1, they may be placed on the well pad as need.</p>
	<p><b>Emissions Mitigation:</b>            If operator decides to produce from this well, green completion techniques need to be implemented and operator shall indicate that their is sufficient pipeline capacity is in place prior to production. Test separators and associated flowlines, sand traps, and emission control systems shall be installed onsite to accommodate green completions techniques. When commercial quantities of salable quality gas are achieved, the gas shall be immediately directed to a sales line or shut in and conserved. If a sales line is unavailable or other conditions prevent placing the gas into a sales line, the operator shall not produce the wells without an approved variance per Rule 805.b.(3)C.            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>
	<p>1)Operator shall comply with the most current revision of the Northwest Notification Policy.</p> <p>2) Oil-based drilling fluid is to be used only after all fresh water aquifers are covered.</p> <p>3)Operator shall provide cement coverage from the intermediate casing shoe (7 5/8" FIRST STRING) to a minimum of 200' above the surface casing shoe to provide isolation of all Cretaceous (including Mesaverde Group) oil, gas, and water-bearing sandstone and coalbed formations that are not otherwise covered by surface casing. Verify intermediate casing cement coverage with a cement bond log.</p> <p>4)Operator acknowledges the proximity of the listed well. Operator agrees to provide mitigation option 4 (per the Statewide Horizontal Offset Policy). This well is not to be hydraulically stimulated other than low volume formation testing such as DFIT.            PARKER UNIT #1A-20 API #103-07583</p>

## Best Management Practices

No BMP/COA Type	Description
1 Planning	<p>Access Road and Well Pad Planning and Traffic Control:</p> <p>A. In an effort to minimize disturbance, equipment and vehicles will be confined to the proposed access. Existing roads will be maintained and kept in the same condition as previously approved, with the exception of existing unimproved road segments which will be upgraded if required by landowner agreements. All improved access roads and associated structures will be constructed or reconstructed to the minimum standards of Rio Blanco County and BLM.</p> <p>B. Reduced Speed Signs will be used where necessary along the proposed access road, particularly at the ninety (90) degree corners on the access road and the portion of the access road where it accesses Highway 64. During the initial planning of the project, Anschutz utilized the following practices to minimize the total disturbance of the project.</p> <p>i. Where possible, the proposed pad location may be placed near an existing improved access road with only short proposed approaches to the location, if an agreement with the surface owner and / or well pad operator can be reached.</p> <p>ii. Access road widths were kept to the minimum safe width appropriate for vehicle volume.</p> <p>iii. Additional wells (if determined to be economical at this location), will be co-located on this well pad to reduce the total number of well pads required.</p> <p>iv. After drilling and testing of this stratigraphic test borehole has been completed, Anschutz will evaluate whether certain zones (Formations) may be economically produced. Additional wells or horizontal extended laterals may be planned for this wellbore, when possible, to reduce the total number of wells drilled within a lease as well as the total number of pads and associated access, thereby reducing overall surface disturbances.</p>
2 General Housekeeping	<p>General Housekeeping and Handling Waste:</p> <p>A. This Well will be drilled using a closed loop system.</p> <p>i. Anschutz plans on using both freshwater and Oil Based Mud (OBM) systems to drill the wells.</p> <p>B. A third-party service company will be contracted to manage, treat, and dispose of all drilling related wastes associated with proposed wells.</p> <p>C. As the drill cuttings move off the shaker, they will be properly screened, chemically treated with a drying agent, and placed into metal storage containers. The containers are then hauled off by a third-party service company.</p> <p>D. There will not be a reserve pit on proposed pads. Drilling fluids will be hauled and disposed of at a commercial disposal facility.</p> <p>i. Upon completion of drilling operations, any remaining oil-based mud (OBM) fluids would be removed from the well location and either recycled into the OBM system on a subsequent well or disposed of at a commercial disposal facility that can accept oil-based drilling fluids (the exact facility will depend on proximity and availability to accept such fluids in a timely manner).</p> <p>E. At any given time, Anschutz proposes to truck waste from flowback fluids, completion/stimulation frac waters, and produced water to one or more commercially permitted disposal well(s) and or evaporation ponds (the exact facility will depend on proximity and availability to accept such fluids in a timely manner).</p> <p>F. No trash will be buried on location. A covered, bear-proof, trash container will be on site during all drilling/completion operations to contain trash, and this will be hauled off location to an approved landfill within the timeframe outlined in COGCC's rules and regulations, but no longer than thirty (30) days after completion or shutting-in of the proposed well (if not brought on to production status).</p> <p>G. A portable, self-contained chemical toilet will be provided for human waste disposal during drilling and completion operations. Upon completion of operations, or as required, the toilet holding tank will be pumped and the contents disposed of in an approved sewage disposal facility. It will be removed within ten (10) days following well completion or any future workover operations.</p>

<p>3 Storm Water/Erosion Control</p>	<p>Storm Water / Erosion Control:</p> <p>A. Temporary controls may be used in conjunction with permanent controls around draws, or at locations where erosion hazards are high. BMPs will be used as designed for the specific areas to reduce any migration of soils onto and off of site. Energy dissipating controls will be installed at culverts and other areas that have the potential for increasing the concentration of water volume and velocity that could increase erosion.</p> <p>B. Drainage dips, ditch relief culverts, and water wings, when used, will be spaced and placed to divert water flow off the graded rights-of-way onto well-vegetated areas with low erosion potential.</p> <p>C. Non-structural Practices Spoils excavated will be stored in a manner to prevent displacement. Wattles or other adequate erosion control practices will be implemented around the spoils to minimize erosion. Interim stabilization controls will be used throughout construction and after construction until a permanent vegetative cover is in place. All Best Management Practices (BMPs) employed will be designed to withstand a twenty-five (25) year weather event. The type and frequency of BMPs used will be determined by slope, topography, soil types, vegetation and potential of runoff from adjacent areas that could affect the overall performance of the controls. Structural Practices-Surface water diversion ditches, when used, will be constructed above and below the disturbed area to intercept water. Diversion ditches will be designed to discharge runoff into well vegetated areas or locations with a low erosion potential. Water bars or wings, when used, will be spaced and placed to divert water flow off disturbed areas and onto well-vegetated areas. Temporary controls may be used in conjunction with permanent controls around spoil piles, draws, or at locations where erosion hazards are high. BMPs will be used as designed for the specific areas to reduce any migration of soils off site. Energy dissipating controls will be installed at culverts and other areas that have the potential for increasing the concentration of water volume and velocity that could increase erosion.</p> <p>D. Due to this location being within a Zone A Floodplain (based on the National Flood Insurance Program, Flood Insurance Rate Map [FIRM] for Unincorporated Areas of Rio Blanco County; Panel 325 of 975; Community-Panel Number 080288 325A, Dated February 16, 1990), Anschutz will Operator must ensure that the well pad is constructed with sufficient secondary containment for any volume of fluids contained at the well site during drilling and completion operations.</p> <p>i. These may include, but are 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 sufficiently protective of nearby surface water. Any berm constructed 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), and maintained in good condition.</p> <p>ii. The design/build of any perimeter berm or fluid management structure shall be sized, constructed, and compacted sufficiently to contain and/or manage potential fluid releases during operations in a manner that prevents or controls potential sedimentation and scouring on adjacent lands and drainages. Such design/build of perimeter berms or fluid management structures may include, but are not limited to the following: on location berms; diversion ditches; down gradient baffles intended to slow and control water flow and sediment; enhanced vegetation; or other design features necessary to achieve the goal of protecting adjacent lands and drainages from potential sedimentation and scouring.</p> <p>iii. The location is adjacent (immediately to the west-southwest) to an area of moderate to high run-on/run-off potential; therefore substantial stormwater BMPs will be implemented; prior to, during, and after construction, as well as during drilling and production operations; at this location to insure compliance with CDPHE and COGCC requirements and to prevent any stormwater run-on and /or stormwater run-off.</p> <p>E. Rat and mouse holes will be backfilled on release of the completion rig from the location. Backfilling, leveling and re-contouring are planned as soon as reasonably possible following drilling and completion operations. Fill slopes will be smoothed and reshaped to near pre-disturbed conditions to match the native contour. Fill slopes will be restored to cuts and blended or reshaped into large natural berms that provided visual and storm water benefits. If damage to reclaimed areas occurs as a result of well operations and maintenance, including work over operations, affected areas will be reclaimed again following operations.</p>
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4	Construction	<p>Construction:</p> <p>A. Construction activity may be restricted due to weather, wildlife stipulations, or constraints placed on the leaseholder in the area by federal and/or state agencies. Pad and road construction is usually completed within a short time frame with permanent controls installed once the construction activities are completed.</p> <p>B. Construction Specifications</p> <p>i. The areas to be excavated or occupied by fill material, shall initially be cleared and grubbed of all vegetation, boulders, and debris. All such material will be disposed of by stacking, piling, windrowing, removal from site, or other approved methods. After removal of bulk surficial materials, the operator shall separate and store the topsoil horizon or the top six (6) inches, whichever is deeper, and mark or document stockpile locations to facilitate subsequent reclamation.</p> <p>ii. Clearing of vegetation should be kept to the minimum necessary for construction plus the installation of sediment controls. The areas to be excavated or occupied by fill shall initially be cleared and grubbed of all vegetation, boulders, and debris. All such material will be disposed of by stacking, piling, windrowing, removal from site, or other approved methods. After removal of bulk surficial materials, the operator shall separate and store the topsoil horizon or the top six (6) inches, whichever is deeper, and mark or document stockpile locations to facilitate subsequent reclamation.</p> <p>C. Site Stabilization During Construction</p> <p>i. Controls such as roughening, seeding, and re-vegetation practices will be used to stabilized berms, cut and fill slopes, and other disturbed areas on location. The designated seed mix may be drilled into berms, cut and fill slopes, and other disturbed areas to maximize the potential for germination. The berms, cut and fill slopes, and any other disturbed areas will be monitored to ensure slope stabilization.</p> <p>ii. Waterways of the state will be protected with barriers of vegetation, berms, diversion trenches, rock and straw wattles, silt fences, or other CDPHE and CDOT recommended/established techniques to prevent disturbed soils from migrating off site.</p> <p>Waterways of the state will be protected with barriers of vegetation, berms, diversion trenches, rock and straw wattles, silt fences, or other CDPHE and CDOT recommended/established techniques to prevent disturbed soils from migrating off site.</p> <p>iii. Fill material will be placed in compacted lifts or layers over the length of the fill. Each lift shall be compacted by compaction equipment such as a sheep's foot or pad roller, with compaction to visible non-movement of the embankment material. Compaction efforts shall not exceed optimum moisture limits. Each lift shall be adequately compacted before beginning the next lift.</p>
5	Drilling/Completion Operations	<p>Rule 317.p – Requirements to log well:  Open-hole resistivity log with gamma-ray will be run from TD into the surface casing. A Cement Bond Log (CBL) with gamma-ray will be run on production casing, or on intermediate casing if a production liner is run. The Form 5, Completion Report, will list all logs run and have those logs attached.</p>

Total: 5 comment(s)

**Applicable Policies and Notices to Operators**

NW Colorado Notification Policy.  
[http://cogcc.state.co.us/documents/reg/Policies/nw\\_notification\\_procedures.pdf](http://cogcc.state.co.us/documents/reg/Policies/nw_notification_procedures.pdf)

Notice Concerning Operating Requirements for Wildlife Protection.  
[http://cogcc.state.co.us/documents/reg/Policies/Wildlife\\_Notice.pdf](http://cogcc.state.co.us/documents/reg/Policies/Wildlife_Notice.pdf)

**Attachment Check List**

Att Doc Num	Name
2168317	MINERAL LEASE MAP
401484638	FORM 2 SUBMITTED
401488476	OffsetWellEvaluations Data
401488549	DIRECTIONAL DATA
401488550	DRILLING PLAN

401488551	DEVIATED DRILLING PLAN
401488552	WELL LOCATION PLAT
401596959	SURFACE AGRMT/SURETY
401845936	OFFSET WELL EVALUATION

Total Attach: 9 Files

### General Comments

<b>User Group</b>	<b>Comment</b>	<b>Comment Date</b>
Permit	Final review complete.	11/19/2018
OGLA	Substantial revisions and changes to both the Form 2A and Form 2 have been made to the BMP section, well identification and purpose, and COAs (details will be provided in a subsequent 'CORRESPONDENCE' attachment); 11/19/2018 - place form 2 back into "IN PROCESS" ..	09/11/2018
Permit	Corrected zone type to multiple zone.	08/02/2018
Engineer	<p>Offset water well check: COGCC evaluated offset water wells within one mile of this proposed well's surface hole location. All permitted water wells within the search radius show zero for reported depths. Depths to formation tops in offset oil and gas wells, locally-available geophysical logs, and hydrogeologic information was used to evaluate the adequacy of the operator's proposed surface casing setting depth.</p> <p>COGCC's geologic map indicates alluvium or the lower part of the Green River Formation is at the surface at this location. There is offset Wasatch production within one mile. Proposed surface casing setting depth will not provide full coverage of the Mesaverde Group based on Operator's geologic prognosis. Minimum cement coverage requirements are specified in Condition of Approval #3.</p> <p>Offset Well Evaluation: Offset well evaluation: P&amp;A well PARKER UNIT #1A-20 API #103-07583 was drilled to the Weber. Niobrara at 10,044. Plugged with CIBP at 13,743', 7" casing cut at 2,950', cement plug of unknown quantity across stub, 20 sacks at surface. Does not meet standards for offset Niobrara, Morrison, Dakota, or Frontier stimulation. Emailed operator. Per operator, hydraulic stimulation of this well is not planned.</p>	07/23/2018
Engineer	<p>Attached drilling plan lists Niobrara as primary objective. Morrison is the only objective formation listed.</p> <p>Liner top is shown at surface. Emailed operator.</p> <p>7/23: Per operator, changed liner to second string and added Niobrara, Frontier, and Dakota to formations.</p>	07/05/2018
Permit	Attached mineral lease map from operator and changed verbiage to say see attached lease map.	07/03/2018
Permit	Requested lease map.	06/20/2018
Permit	Returned to draft for: No wellbore integrity contact email.	06/18/2018
Permit	Requested further description of mineral lease. What is described is the same as the SUA. Returned form to draft.	05/10/2018
Permit	<p>Back to draft for:</p> <p>Unlisted surety ID Christina Warren not a designated agent. Lot designation should be used rather than QtrQtr.</p>	04/25/2018

Total: 10 comment(s)