

APPLICATION FOR PERMIT TO:

Drill Deepen Re-enter Recomplete and Operate

TYPE OF WELL OIL GAS COALBED OTHER _____ Refilling

ZONE TYPE SINGLE ZONE MULTIPLE ZONES COMMINGLE ZONES Sidetrack

Well Name: Miller Well Number: 13D-6-791

Name of Operator: VANGUARD OPERATING LLC COGCC Operator Number: 10531

Address: 5847 SAN FELIPE #3000

City: HOUSTON State: TX Zip: 77057

Contact Name: Crissy Venturo Phone: (720)352-7916 Fax: ()

Email: cventuro@progressivepcs.net

RECLAMATION FINANCIAL ASSURANCE

Plugging and Abandonment Bond Surety ID: 20140092

WELL LOCATION INFORMATION

QtrQtr: Lot 4 Sec: 6 Twp: 7S Rng: 91W Meridian: 6

Latitude: 39.475304 Longitude: -107.604534

Footage at Surface: 549 feet FNL/FSL FNL 381 feet FEL/FWL FWL

Field Name: MAMM CREEK Field Number: 52500

Ground Elevation: 6094 County: GARFIELD

GPS Data:
Date of Measurement: 07/08/2010 PDOP Reading: 6.0 Instrument Operator's Name: James A. Kalmon

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 |
| <u>459</u> | FNL <u>648</u> | FWL <u>459</u> | FNL <u>648</u> | FWL <u>459</u> | FWL <u>648</u> |
| Sec: <u>6</u> | Twp: <u>7S</u> | Rng: <u>91W</u> | Sec: <u>6</u> | Twp: <u>7S</u> | Rng: <u>91W</u> |

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: oil and gas lease

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.)

The S2NE, S2NW, S2 of Section 36, T6S, R92W; Lots 4-5 of Section 6, T7S, R91W; Additional portions of T6S, R91W and R92W please see attached mineral lease map.

Total Acres in Described Lease: 857 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: 648 Feet

CULTURAL DISTANCE INFORMATION

Distance to nearest:

Building: 953 Feet
Building Unit: 953 Feet
High Occupancy Building Unit: 5280 Feet
Designated Outside Activity Area: 5280 Feet
Public Road: 274 Feet
Above Ground Utility: 415 Feet
Railroad: 5280 Feet
Property Line: 1127 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: 01/08/2016

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: 308 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

The following lands are unspaced for ILES 191-10: Lots 1, 2, 4, 5, SE1/4 SW1/4, SW1/4 SE1/4 and WMFK 191-8: Lots 1, 2, 4, 5, SE1/4 SW1/4, SW1/4 SE1/4. (No unit was created).

OBJECTIVE FORMATIONS

| Objective Formation(s) | Formation Code | Spacing Order Number(s) | Unit Acreage Assigned to Well | Unit Configuration (N/2, SE/4, etc.) |
|------------------------|----------------|-------------------------|-------------------------------|--------------------------------------|
| ILES | ILES | 191-10 | | |
| WILLIAMS FORK | WMFK | 191-8 | | |

DRILLING PROGRAM

Proposed Total Measured Depth: 6824 Feet

Distance from proposed wellbore to nearest existing or permitted wellbore belonging to another operator:

1313 Feet (Including plugged wells)

Will a closed-loop drilling system be used? Yes

Is H2S gas reasonably expected to be encountered during drilling operations at concentrations greater than or equal to 100 ppm? No (If Yes, attach an H2S 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? No

BOP Equipment Type: [X] Annular Preventor [X] 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: Recycle/reuse

Cuttings Disposal: ONSITE Cuttings Disposal Method: Beneficial reuse

Other Disposal Description:

Please see attached Waste Management Plan.

Beneficial reuse or land application plan submitted?

Reuse Facility ID: or Document Number:

CASING PROGRAM

Table with 9 columns: Casing Type, Size of Hole, Size of Casing, Wt/Ft, Csg/Liner Top, Setting Depth, Sacks Cmt, Cmt Btm, Cmt Top. Rows include CONDUCTOR, SURF, and 1ST.

[] 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 This well permit is being refiled due to expiration. The Miller 9 well pad has not been constructed. There are no changes to the previously approved APD for the proposed SHL, BHL, drilling plan, casing and cement program, and mineral lease information. The previously approved well location plat and directional remain the same. The distance to nearest well completed in the same formation / permitted or existing well penetrating objective formation was measured to the proposed Miller 13C-6-791. The distance from the proposed wellbore to the nearest wellbore belonging to another operator was measured to the producing Twin Creek #1-9A1 (O1EB) (05-045-19543). Please note the drilling fluids disposal, cuttings disposal, and WMP have been updated per Vanguard's drilling and completion operations. Vanguard will not utilize a completion pit because the pad is in a setback location. A sundry notice with the revised BMPs and WMP has been submitted for the location (Doc # 401032560).

This application is in a Comprehensive Drilling Plan _____ CDP #: _____

Location ID: 424213

Is this application being submitted with an Oil and Gas Location Assessment application? No

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

Signed: _____ Print Name: Crissy Venturo

Title: Regulatory Analyst Date: _____ Email: cventuro@progressivepcs.net

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: _____

Expiration Date: _____

API NUMBER

05 045 20851 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.

COA Type

Description

| COA Type | Description |
|----------|-------------|
| | |

Best Management Practices

| No | BMP/COA Type | Description |
|-----------|--------------------------------|--|
| 1 | Traffic control | <ul style="list-style-type: none"> • Rule 604.c.(2).D. Traffic Plan: Site specific traffic control plans were not required by the county or BLM. Install approved MUTCD traffic control/warning devices before work begins and through the duration of drilling and completion. Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multifunction contractors, where practicable. Pipelines are proposed and include a gas line and two water lines. Water line infrastructure will assist to reduce traffic. |
| 2 | Dust control | <ul style="list-style-type: none"> • 805.c. Dust: During construction and operation, operator will implement dust abatement measures, as needed, to prevent fugitive dust from vehicular traffic, equipment operations, or wind events. |
| 3 | Noise mitigation | <ul style="list-style-type: none"> • Rule 604.c.(2).A. Noise: Mufflers on the rig will be oriented away from the nearest building unit to minimize engine noise. Plumb dump lines into tanks to muffle sound. Rubber cushions in lubricators are used to muffle sound for plunger lift. Vanguard will adhere to Rule 802 noise abatement. |
| 4 | Odor mitigation | <ul style="list-style-type: none"> • 805.b. Odors: Potential odors associated with the completions process and/or with long term production operations will be controlled/ mitigated. |
| 5 | Drilling/Completion Operations | <ul style="list-style-type: none"> • 317.p. Requirement to log well: One of the first wells drilled on the pad will be logged with open-hole Resistivity Log and Gamma Ray Log from TD into the surface casing. All wells on the pad will have a cement bond log with gamma-ray run on production casing (or on intermediate casing if production liner is run) into the surface casing. The Form 5, Completion Report, for each well on the pad will list all logs run and have those logs attached. The Form 5 for a well without open-hole logs will clearly state "No open-hole logs were run" and will clearly identify (by API#, well name & number) the well in which open-hole logs were run. |

Total: 5 comment(s)

Attachment Check List

| Att Doc Num | Name |
|--------------------|-----------------------|
| 400818782 | FORM 2 SUBMITTED |
| 400968018 | FORM 2 SUBMITTED |
| 400968019 | FORM 2 REJECTED |
| 401033578 | 30 DAY NOTICE LETTER |
| 401033583 | MINERAL LEASE MAP |
| 401035669 | WASTE MANAGEMENT PLAN |

Total Attach: 6 Files

General Comments

| User Group | Comment | Comment Date |
|-------------------|----------------|---------------------|
| | | |

Total: 0 comment(s)