

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:

401263853

(SUBMITTED)

Date Received:

Oil and Gas Location Assessment

☐ New Location ☒ Refile ☐ Amend Existing Location Location#: 424213

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:

424213

Expiration Date:

☐ 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: 10531
Name: VANGUARD OPERATING LLC
Address: 5847 SAN FELIPE #3000
City: HOUSTON State: TX Zip: 77057

Contact Information

Name: Jack Desmond
Phone: (303) 309-1654
Fax: ()
email: jdesmond@progressivepcs.net

RECLAMATION FINANCIAL ASSURANCE

☒ Plugging and Abandonment Bond Surety ID: 20140092 ☐ Gas Facility Surety ID: _____
☐ Waste Management Surety ID: _____

LOCATION IDENTIFICATION

Name: Miller Pad #9 Number: 13A-6-791
County: GARFIELD
Quarter: LOT 4 Section: 6 Township: 7S Range: 91W Meridian: 6 Ground Elevation: 6093
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: 564 feet FNL from North or South section line
369 feet FWL from East or West section line
Latitude: 39.475263 Longitude: -107.604575
PDOP Reading: 6.0 Date of Measurement: 07/08/2010
Instrument Operator's Name: JAMES KALMON

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	8	Oil Tanks*		Condensate Tanks*	4	Water Tanks*	2	Buried Produced Water Vaults*	
Drilling Pits		Production Pits*		Special Purpose Pits		Multi-Well Pits*		Modular Large Volume Tanks	
Pump Jacks		Separators*	2	Injection Pumps*		Cavity Pumps*		Gas Compressors*	
Gas or Diesel Motors*		Electric Motors		Electric Generators*		Fuel Tanks*		LACT Unit*	
Dehydrator Units*		Vapor Recovery Unit*		VOC Combustor*	1	Flare*		Pigging Station*	

OTHER FACILITIES*

Other Facility Type

Number

2" flowline per well	8
2" gas pipeline (steel)	1
500 bbl temp frac tanks	30
6" waterline (poly)	1
6" waterline (steel)	1
Cuttings Trench	1
frac sand pile	1

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:

See pipeline and flowline counts above. When possible temporary water pipelines will carry water from storage tanks or water sources to well completion sites. Pipes will be made of flexible and rigid materials (plastic, aluminum and steel); The length will be determined by the distance to the well site to be serviced for the fracing operation. This will greatly minimize the number of truck trips required for the well completion.

CONSTRUCTION

Date planned to commence construction: 09/01/2017 Size of disturbed area during construction in acres: 4.25

Estimated date that interim reclamation will begin: 12/01/2017 Size of location after interim reclamation in acres: 1.08

Estimated post-construction ground elevation: 6091

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: ONSITE

Drilling Fluids Disposal Method: Evaporation

Cutting Disposal: ONSITE

Cuttings Disposal Method: Cuttings trench

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: Miller Land and Cattle Co

Phone: _____

Address: 7121 Country Rd 311

Fax: _____

Address: _____

Email: _____

City: New Castle State: CO Zip: 81647

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: oil and gas lease

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

Date of Rule 306 surface owner consultation 06/05/2008

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:	935 Feet	744 Feet
Building Unit:	1262 Feet	981 Feet
High Occupancy Building Unit:	5280 Feet	5280 Feet
Designated Outside Activity Area:	5280 Feet	5280 Feet
Public Road:	264 Feet	158 Feet
Above Ground Utility:	403 Feet	399 Feet
Railroad:	5280 Feet	5280 Feet
Property Line:	1122 Feet	1181 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

- 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.

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: 07/03/2017

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.

The landowner requested the placement of the wells and production facility. The production facilities have been located as far as possible from Building Units. Due to the site topography and steep grade, there are no additional options for facility placement on lease.

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: 41. Kim Loam, 6 to 12 percent slopes

NRCS Map Unit Name: 66. Torriothents-Camborthids-Rock outcrop complex, steep

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: 07/08/2010

List individual species: Shrub and brush land

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: 1420 Feet

water well: 900 Feet

Estimated depth to ground water at Oil and Gas Location 115 Feet

Basis for depth to groundwater and sensitive area determination:

Sensitive area determination is based on distance to nearest downgradient water feature.
The nearest down gradient water feature is located to the west of the west of Miller Pad #9.
Nearest water well measured to receipt number 9501223A (permit number 241251).

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 zone: No

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

WILDLIFE

- ☐ This location is included in a Wildlife Mitigation Plan
- ☐ This location was subject to a pre-consultation meeting with CPW held on _____

Operator Proposed Wildlife BMPs

No	Target Species	BMP Type	Description
1	Deer and Elk	Wildlife - Minimization	The operator agrees to preclude new oil and gas operations within CPW-identified mule deer critical winter range and elk winter concentration areas.

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: This location assessment is being refiled due to expiration. The Miller 13A-6-791 (API: 05-045-20852) was used as the reference point for footages, cultural distances and lat/long data listed under the Location Identification data. There have been no changes to pad disturbance size. There will be no additional surface disturbance or additional wells on location from the originally approved Form 2A. A completion pit will not be constructed or utilized at the subject location, as approved on sundry, doc #401032560. This location is in a Buffer Zone, please find attached the Operator Certification of Pre-Application Notifications per Rule 305.a.(2).

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

Signed: _____ Date: _____ Email: jdesmond@progressivepcs.net

Print Name: Jack Desmond 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: _____

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

Best Management Practices

No	BMP/COA Type	Description
1	Planning	<ul style="list-style-type: none"> • Rule 604.c.(2).E. Multi-Well Pads: The oil and gas location includes 8 proposed wells. No suitable existing locations are in the area. • Rule 604.c.(2).Q. Guy Line Anchors: Should guy line anchors be left buried for future use, they will be identified by a bright marker greater than four (4) feet high and no more than one (1) foot east of the guy line anchor. • Rule 604.c.(2).R. Tank Specifications: Condensate storage tanks will be designed, constructed, and maintained in accordance with National Fire Protection Association (NFPA) Code 30 (2008 version). Vanguard will maintain written records to verify proper design, construction, and maintenance. All records will be available for inspection by Director. • Rule 604.c.(2).S. Access Roads: Roads will be crowned, ditched, surfaced, drained with culverts and/or water dips, and constructed to BLM Gold Book standards. Initial gravel application will be a minimum of 6 inches. Vanguard will provide timely year-round road maintenance and cleanup on the access roads. A regular schedule for maintenance will include, but not be limited to, blading, ditch and culvert cleaning, road surface replacement, and dust abatement. Roads will be properly constructed and maintained to accommodate for local emergency vehicle access. • Rule 604.c.(2).V. Development From Existing Well Pads: An existing pad was not available to utilize to develop these wells and their BHLs.
2	Community Outreach and Notification	<ul style="list-style-type: none"> • Rule 305.a.(2) Notice of Intent to Conduct Operations: Notice of Intent to conduct operations was sent to each building unit owner within the Buffer Zone Setback. Recipients did not contact Vanguard. Proper notifications required by COGCC regulations or policy memos will be adhered to.
3	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.
4	General Housekeeping	<ul style="list-style-type: none"> • Rule 604.c.(2).O. Loadlines: All loadlines will be bullplugged or capped. • Rule 604.c.(2).P. Removal of Surface Trash: All employees are trained in spill response, good housekeeping, material management practices, and procedures for equipment and container washing annually. Trash would be contained in a trash cage and hauled away to an approved disposal after the completion of drilling operations. • Rule 804. Visual Impact Mitigation: All facilities to be painted Shadow Gray (or appropriate/BLM recommended color) to blend into the natural vertical elements. Downcasting lights will be installed on permanent facilities.

5	Wildlife	<p>GENERAL WILDLIFE AND ENVIRONMENTAL PROTECTION MEASURES:</p> <ul style="list-style-type: none"> – Establish policies to protect wildlife (e.g., no poaching, no firearms, no dogs on location, no feeding of wildlife, etc.) – Promptly report spills that affect wildlife to the Water Quality Control Division of CDPHE and CDOW – Avoid location staging, refueling, and storage areas within 300 feet, of any reservoir, lake, wetland, or natural perennial or seasonal flowing stream or river. <p>INFRASTRUCTURE LAYOUT WILDLIFE PROTECTION MEASURES:</p> <ul style="list-style-type: none"> – Implementing fugitive dust control measures – limit parking to disturber areas <p>DRILLING AND PRODUCTION OPERATION WILDLIFE PROTECTION MEASURES:</p> <ul style="list-style-type: none"> – Reduce visits to well-sites through remote monitoring (i.e. SCADA) and the use of multifunction contractors. – Install exclusionary device to prevent bird and other wildlife access to equipment stacks, vents and openings. – Establish company guidelines to minimize wildlife mortality from vehicle collision on roads. <p>FLUID PIT/POND WILDLIFE PROTECTION MEASURES:</p> <ul style="list-style-type: none"> – Install and maintain adequate measures to exclude all types of wildlife (e.g., big game and birds) from all fluid pits/ponds with fencing, flagging and other appropriate exclusion measures). BBC currently installs 6' wildlife proof fences on all freshwater ponds. <p>INVASIVE/NON-NATIVE VEGETATION CONTROL:</p> <ul style="list-style-type: none"> – Educate employees and contractors about noxious and invasive weed issues. <p>RESTORATION, RECLAMATION AND ABANDONMENT:</p> <ul style="list-style-type: none"> – Avoid aggressive non-native grasses and shrubs in mule deer and elk habitat restorations. – Revegetate with seed mixtures that are of the surface owner's preference that are compatible with both livestock and wildlife.
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6	Storm Water/Erosion Control	<ul style="list-style-type: none"> • Limit the amount of land disturbed during construction of pad, access road, and facilities. The well pad and access road were designed to minimize erosion. Routine inspections and controls are to be implemented, as necessary. Conduct internal storm water inspections per applicable stormwater regulations. Any excessive precipitation accumulation within containment should be removed as appropriate and disposed of properly. • Utilize diking and other forms of secondary containment around tanks, drums, chemicals, liquids, pits, impoundments, or well pads. • Use drip pans, sumps, or liners where appropriate. • Limit the amount of land disturbed during construction of pad, access road, and facilities • Employ spill response plan (SPCC) for all required facilities. • Properly dispose of any wastes fluids and other materials. <p>MATERIAL HANDLING, ACTIVITIES, PRACTICES AND STORM WATER DIVERSION</p> <ul style="list-style-type: none"> • Secondary containment of tanks, drums, and storage areas is mandatory to prohibit discharges to surface waters. A minimum of 150% capacity required of largest storage tank within a containment area • Material handling, spill prevention procedures and practices will be followed to help prohibit discharges to surface waters. • Proper loading and transportation procedures to be followed for all materials to and from locations <p>EROSION CONTROL</p> <ul style="list-style-type: none"> • Pad and access road to be designed to minimize erosion. • Pad and access road to implement appropriate erosion control devices where necessary to minimize erosion. • Routine inspections of sites and controls to be implemented with additions, repairs, and optimization to occur, as necessary, to minimize erosion. <p>SELF INSPECTION, MAINTENANCE, AND HOUSEKEEPING</p> <ul style="list-style-type: none"> • All employees are trained in spill response, good housekeeping, material management practices, and procedures for equipment and container washing annually. • Conduct internal storm water inspections per applicable stormwater regulations. • Conduct routine informal inspections of all tanks and storage facilities at least weekly • All containment areas are to be inspected weekly or following a heavy rain event. • Any excessive stormwater accumulation within containment should be removed as appropriate and disposed of properly • All structural berms, dikes, and secondary containments will be inspected periodically to ensure they are operating correctly. <p>SPILL RESPONSE</p> <ul style="list-style-type: none"> • Spill response procedures as per the field SPCC Plan. <p>LOCATION PROCEDURES</p> <ul style="list-style-type: none"> • Location to be treated to eliminate weeds and bladed when necessary • CDPHE Stormwater Permit Number: COR-039752
7	Material Handling and Spill Prevention	<ul style="list-style-type: none"> • Rule 604.c.(2).F. Leak Detection Plan: Vanguard maintains a spill response plan (SPCC) for all facilities. Routine informal inspections of all tanks and storage facilities occur daily as part of the production operations. Tank batteries will be placed within engineered, steel secondary containments with an impervious liner system. These secondary containment systems will be sized to account for 150% of the volume of the tank. The use drip pans, sumps, liners or other BMPs will be utilized where appropriate. Vanguard will implement best management practices to contain any unintentional releases and all E&P waste or other materials will be properly disposed of. • Rule 604.c.(2).N. Control of Fire Hazards: Vanguard will ensure that any material that might be deemed a fire hazard will remain no less than twenty-five (25) feet from the wellhead(s), tanks and separator(s). Any electrical equipment installations inside the bermed area will comply with API RP 500 classifications and comply with the current national electrical code as adopted by the State of Colorado.
8	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.

9	Construction	<ul style="list-style-type: none"> • Rule 604.c.(2).G. Berm Construction: Secondary containment will be constructed around crude oil, condensate, and produced water storage tanks and will enclose an area sufficient to contain and provide secondary containment for one-hundred fifty percent (150%) of the largest single tank. Berms or other secondary containment devices will be sufficiently impervious to contain any spilled or released material. All berms and containment devices will be inspected at regular intervals and maintained in good condition. No potential ignition sources will be installed inside the secondary containment area unless the containment area encloses a fired vessel. Temporary frac tanks installed on location will have proper secondary containment according to SPCC regulations such as either putting a perimeter berm around location or around the frac tanks. • Rule 604.c.(2).M. Fencing Requirements: Unless otherwise requested by the Surface Owner, locations will be adequately fenced to restrict access by unauthorized persons.
10	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.
11	Emissions mitigation	<ul style="list-style-type: none"> • Rule 604.c.(2).C. Green - Completions - Emission Control Systems: A combustor will be installed for control of associated condensate and produced water tank emissions with 95% control efficiency. Green completion practices to be utilized. All green flow back equipment will be able to handle more than 1.5 times the amount of any known volumes in the surrounding field.
12	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.

13	Drilling/Completion Operations	<ul style="list-style-type: none"> • Rule 604.c.(2).B. Closed Loop Drilling Systems - Pit Restrictions: Vanguard will use a closed loop and pitless system for drilling and fluid management. Drill cuttings from the wellbore will be directed into lined and bermed surface containments. Any free liquids accumulated in the containment would be removed as soon as practicable. If the well(s) is(are) to be hydraulically stimulated, flowback and stimulation fluids must be sent to tanks, separators, or other containment/filtering equipment before the fluids can be placed into any pipeline or storage vessel located on the well pad; or into tanker trucks for offsite disposal. • Rule 604.c.(2).H. Blowout Preventer Equipment: Vanguard will utilize a rig with a double ram with blind and pipe ram and annular preventer. • Rule 604.c.(2).I. BOPE Testing for Drilling Operations: After installation of the BOPE, Vanguard will conduct a pressure test on the BOPE and will test at a minimum ever 30 days. All tests are documented and any failed equipment or seals are replaced and re-tested. • Rule 604.c.(2).J. BOPE For Well Servicing Operations: Blowout prevention equipment will be used on any servicing operations associated with the well pad. Backup stabbing valves will be used during any future servicing operations during reverse circulation. Valves will be pressure tested before each well servicing operation using low-pressure air and high-pressure fluid. • Rule 604.c.(2).K. Pit Level Indicators: All storage tanks used for active drilling operations (used in lieu of pits) will contain pit level indicators. • Rule 604.c.(2).L. Drill Stem Tests: No drill stem tests are planned and none will be performed without prior approval from the Director. <p>803. Lighting: Lightings will be positioned to downcast during drilling/completion activities.</p> <p>• 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.</p>
14	Interim Reclamation	<ul style="list-style-type: none"> • Facilities are constructed to maximize reclamation success. All disturbed areas affected by drilling or subsequent operations, except areas reasonably needed for production operations or for subsequent drilling operations to be commenced within twelve (12) months, will be reclaimed as early and as nearly as practicable to their original condition or their final land use as designated by the surface owner. Vanguard will adhere to Rule 1003 and all requirements pertaining to interim reclamation.
15	Final Reclamation	<ul style="list-style-type: none"> • Rule 604.c.(2).T. Well Site Cleared: The wellsite will be cleared of all non-essential equipment within ninety (90) days after all wells associated with the pad have been plugged and abandoned. Vanguard will begin final reclamation activities so that seeding occurs in the optimal growing season. Reclamation is not expected to occur until after the timing limitations end for big game. Vanguard will adhere to Rule 1004 and all requirements pertaining to final reclamation. • Rule 604.c.(2).U. Identification of Plugged and Abandoned Wells: Pursuant to rule 319.a.(5)., once the well has been plugged and abandoned, Vanguard will identify the location of the wellbore with a permanent monument that will detail the well name and date of plugging.

Total: 15 comment(s)

Attachment Check List

Att Doc Num

Name

401365200

PRE-APPLICATION NOTIFICATION CERTIFICATION

Total Attach: 1 Files

General Comments

User Group

Comment

Comment Date

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Stamp Upon Approval

Total: 0 comment(s)



Public Comments

No public comments were received on this application during the comment period.

