
DUST MITIGATION PLAN

BNL | ENTERPRISE

Bolling 09 NWNW 2960

Sec. 9 T29S R60W (NW/4 NW/4)

Las Animas County, Colorado

Surface: Fee

Submitted as an accompaniment to the Form 2A Application
and consistent with the requirements of Rule 427.a.

May 17, 2023

BNL (Enterprise) Inc. Las Animas County, Colorado

Dust Mitigation Plan

Project Summary:

BNL (Enterprise) Inc.'s ("BNL's") proposed Bolling 09 NWNW 2960 "Location" is in Sec. 9 T29S R60W in Las Animas County, Colorado. BNL plans to drill and test one **helium** well. If the well produces commercial quantities of helium the well will be shut-in until helium production/processing facilities can be constructed at an offsite facility location. The helium facility will be on lands outside of the Oil and Gas Development Plan. The facility will be constructed on private surface. The landowner agreement provides for the installation of the gas gathering line. The production/processing facilities will not require an Oil and Gas Development Plan. The well will be drilled vertically and will not require hydraulic fracturing. The proposed location is fee surface and fee minerals with a total pad disturbance of ± 1.2 acres. The graded site elevation is expected to be approximately 5,455'. No federal surface or minerals are involved in this project. All operations would be conducted in compliance with all federal, state, and local applicable laws, rules, and regulations.

Plan

Project Overview:

BNL's Dust Mitigation Plan is intended to facilitate compliance with the applicable regulations of the Colorado Oil and Gas Conservation Commission, the Colorado Department of Public Health and Environment and Las Animas County.

BNL's development of the Bolling 09 NWNW 2960 wellpad ("Location") requires earth disturbing activities and travel on unpaved roads which has the potential to produce fugitive dust emissions.

Dust associated with the Location activities and traffic on roads will be minimized throughout all phases such that there are minimal visible dust emissions from the Location or associated roads to the maximum extent practicable given wind and other weather conditions.

No proppant will be used in completion operations.

Any chemical application will have Safety Data Sheets on location.

Compliance with Rule 427.a.

1. Wellpad soil types:

WM – Minnequa-Wilid silt loam, 1 to 6 percent slopes

Access Road soil types:

WM – Minnequa-Wilid silt loam, 1 to 6 percent slopes

WV – Almagre-Villedry complex, 1 to 4 percent slopes

Flowline soil types:

WM – Minnequa-Wilid silt loam, 1 to 6 percent slopes

WV – Almagre-Villedry complex, 1 to 4 percent slopes

2. Proposed vehicle speed limit: 20 MPH or less on roads; 5 MPH or less on the Location.
3. Total disturbed area: 3.3 acres
 - Wellpad: 1.2 acres
 - Access Road: 1.8 acres (a portion of the flowlines will be installed in the access road ROW and is included in this disturbance calculation).
 - Flowline: 0 acres (all disturbance of flowlines is contained in the common access road construction).
 - **Total Acres of disturbance: 3.0 acres**
4. Access roads will not be paved. During the drilling and testing phase, the existing access road will be minimally upgraded, if necessary, to allow for construction and if needed emergency vehicles. If the well proves to be commercial, road will be crowned (with a minimum of four inches of gravel) and ditched, as agreed to by the private surface owner. Road surfacing material will consist of limestone, scoria or river rock or as agreed upon by the private surface owner and will be sourced as locally as possible to minimize travel distance.
5. Number of truck trips during the Construction, Drilling, Completion and Production stages:

Phase of Development	Monthly Truck Trips	Yearly Truck Trips
Construction (Wellpad & Access)	96	96
Drilling/Testing/Completion	104	104
Production/Daily Operations	30	365
Total Truck Trips	230	565

Traffic counts are approximate, based on round trips, and may vary due to circumstances.

6. Plan for Suppressing Fugitive Dust Caused by Wind:
 - Stop work orders will be issued during high wind conditions, when possible, with contiguous activities on location (sustained winds of 25 MPH or greater).
 - Regular road maintenance will be implemented to mitigate fugitive dust.
 - Avoid unnecessary work on dust generating on high wind days.
 - Natural or artificial windbreaks may be utilized as appropriate.
 - Utilize gravel in high wind areas on specific portions of roads and wellpads.

7. Best Management Practices:

- The wellpad will be constructed to a minimum size to accommodate all equipment but allowing for maximum safety precautions. The rig mat will eliminate fugitive dust from the wellpad. See attached product specs.
- Utilize existing vegetation, trees slash or brush piles to cover disturbed areas not used for vehicle traffic.
- Application of fresh water during dry season.
- Operations will be confined to the wellpad working surface.
- Continuous monitoring of disturbed areas to evaluate additional BMPs needed.
- Fresh water application to disturbed areas during construction.
- Fresh water or magnesium chloride application to graveled surfaced of the Location and associated roads.
- Speed limit signs will be posted per surface owner agreement.
- Contractors will be notified of speed limits if no signs are posted.
- Regular road maintenance such as grading and adding additional gravel as needed.

Las Animas County Area, Colorado, Parts of Huerfano and Las Animas Counties

WM—Minnequa-Wilid silt loams, 1 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2rgqn

Elevation: 4,500 to 6,500 feet

Mean annual precipitation: 12 to 14 inches

Mean annual air temperature: 48 to 54 degrees F

Frost-free period: 125 to 170 days

Farmland classification: Not prime farmland

Map Unit Composition

Minnequa and similar soils: 45 percent

Wilid and similar soils: 40 percent

Minor components: 15 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Minnequa

Setting

Landform: Pediments, ridges

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Linear

Across-slope shape: Linear, convex

Parent material: Slope alluvium over residuum weathered from limestone and shale

Typical profile

A - 0 to 6 inches: silt loam

Bw - 6 to 18 inches: silt loam

Bky - 18 to 32 inches: loam

Cr - 32 to 60 inches: bedrock

Properties and qualities

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 39 inches to paralithic bedrock

Drainage class: Well drained

Runoff class: Medium

Capacity of the most limiting layer to transmit water

(Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum content: 45 percent

Gypsum, maximum content: 5 percent

Maximum salinity: Nonsaline to slightly saline (0.1 to 4.0 mmhos/cm)

Sodium adsorption ratio, maximum: 8.0
Available water supply, 0 to 60 inches: Low (about 4.8 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: C
Ecological site: R069XY006CO - Loamy Plains, LRU's A and B
10-14 Inches, P.Z.
Forage suitability group: Loamy (G069XW017CO)
Other vegetative classification: Loamy (G069XW017CO)
Hydric soil rating: No

Description of Wilid

Setting

Landform: Interfluves
Landform position (two-dimensional): Footslope, toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Loess

Typical profile

A - 0 to 6 inches: silt loam
Bt - 6 to 10 inches: silty clay loam
Btk - 10 to 30 inches: silty clay loam
Bk1 - 30 to 44 inches: silty clay loam
Bk2 - 44 to 79 inches: silt loam

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water
(Ksat): Moderately high (0.20 to 0.60 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to slightly saline (0.5 to 4.0
mmhos/cm)
Sodium adsorption ratio, maximum: 4.0
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 6c
Hydrologic Soil Group: C
Ecological site: R069XY006CO - Loamy Plains, LRU's A and B
10-14 Inches, P.Z.
Forage suitability group: Loamy (G069XW017CO)

Other vegetative classification: Loamy (G069XW017CO), Loamy
Plains #6 (069XY006CO_2)

Hydric soil rating: No

Minor Components

Manzanola

Percent of map unit: 8 percent

Landform: Drainageways, fans

Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Base slope, talf

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains, LRU's A and B
10-14 Inches, P.Z.

Other vegetative classification: Saline Overflow #37
(069XY037CO_2), Clayey (G069XW001CO)

Hydric soil rating: No

Penrose

Percent of map unit: 5 percent

Landform: Hills, hogbacks, scarps

Landform position (two-dimensional): Shoulder, summit, backslope

Landform position (three-dimensional): Crest, side slope

Down-slope shape: Linear, convex

Across-slope shape: Linear, convex

Ecological site: R069XY058CO - Limestone Breaks LRU's A and B

Other vegetative classification: Limestone Breaks #58
(069XY058CO_2), Not Suited (G069XW000CO)

Hydric soil rating: No

Shingle

Percent of map unit: 2 percent

Landform: Hills, pediments

Landform position (two-dimensional): Shoulder, backslope

Landform position (three-dimensional): Head slope, side slope, rise

Down-slope shape: Convex

Across-slope shape: Linear, convex

Ecological site: R069XY046CO - Shaly Plains LRU's A and B

Other vegetative classification: Needs Field Review
(G069XW050CO), Shaly Plains #46 (069XY046CO_2)

Hydric soil rating: No

Data Source Information

Soil Survey Area: Las Animas County Area, Colorado, Parts of Huerfano and
Las Animas Counties

Survey Area Data: Version 24, Aug 31, 2021

Las Animas County Area, Colorado, Parts of Huerfano and Las Animas Counties

WV—Almagre-Villedry complex, 1 to 4 percent slopes

Map Unit Setting

National map unit symbol: 2rgqf
Elevation: 4,500 to 6,500 feet
Mean annual precipitation: 12 to 14 inches
Mean annual air temperature: 48 to 54 degrees F
Frost-free period: 125 to 170 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Almagre and similar soils: 47 percent
Villedry and similar soils: 35 percent
Minor components: 18 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Almagre

Setting

Landform: Interfluves
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loess over residuum weathered from sandstone

Typical profile

A - 0 to 5 inches: silt loam
BA - 5 to 9 inches: silt loam
Bt - 9 to 23 inches: silty clay loam
Btk - 23 to 30 inches: silty clay loam
Bk1 - 30 to 40 inches: silt loam
Bk2 - 40 to 50 inches: loam
R - 50 to 79 inches: bedrock

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: 40 to 59 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 4 percent

Maximum salinity: Nonsaline to slightly saline (1.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 6.0
Available water supply, 0 to 60 inches: High (about 9.2 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: C
Ecological site: R069XY006CO - Loamy Plains, LRU's A and B
10-14 Inches, P.Z.
Forage suitability group: Loamy (G069XW017CO)
Other vegetative classification: Loamy Plains #6
(069XY006CO_2), Loamy (G069XW017CO)
Hydric soil rating: No

Description of Villedry

Setting

Landform: Interfluves
Landform position (two-dimensional): Shoulder, backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Loess over residuum weathered from sandstone

Typical profile

A - 0 to 4 inches: silt loam
BA - 4 to 7 inches: silt loam
Bt - 7 to 15 inches: silty clay loam
Btk - 15 to 25 inches: silty clay loam
Bk1 - 25 to 33 inches: clay loam
2Bk2 - 33 to 38 inches: gravelly loam
R - 38 to 70 inches: bedrock

Properties and qualities

Slope: 1 to 4 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately high (0.00 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 40 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (1.0 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 5.0
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): 3e

Land capability classification (nonirrigated): 4c

Hydrologic Soil Group: C

Ecological site: R069XY006CO - Loamy Plains, LRU's A and B
10-14 Inches, P.Z.

Forage suitability group: Loamy (G069XW017CO)

Other vegetative classification: Loamy Plains #6
(069XY006CO_2), Loamy (G069XW017CO)

Hydric soil rating: No

Minor Components

Wilid

Percent of map unit: 10 percent

Landform: Interfluves

Landform position (two-dimensional): Summit

Landform position (three-dimensional): Interfluve

Down-slope shape: Linear

Across-slope shape: Linear

Ecological site: R069XY006CO - Loamy Plains, LRU's A and B
10-14 Inches, P.Z.

Other vegetative classification: Loamy Plains #6 (069XY006CO_2),
Loamy (G069XW017CO)

Hydric soil rating: No

Travessilla

Percent of map unit: 6 percent

Landform: Scarps

Landform position (two-dimensional): Summit, shoulder

Landform position (three-dimensional): Crest

Down-slope shape: Convex

Across-slope shape: Convex

Ecological site: R069XY053CO - Sandstone Breaks LRU's A and B

Other vegetative classification: Needs Field Review
(G069XW050CO), Sandstone Breaks #53 (069XY053CO_2)

Hydric soil rating: No

Rock outcrop

Percent of map unit: 2 percent

Landform: Scarps

Hydric soil rating: No

Data Source Information

Soil Survey Area: Las Animas County Area, Colorado, Parts of Huerfano and
Las Animas Counties

Survey Area Data: Version 24, Aug 31, 2021