



Dust Mitigation Plan

Date: 5/4/2023

Location: OGDG DP455 / YY18-07 Pad

Legal Description: SWNE Section 18, Township 2 North, Range 63 West, 6th P.M., Weld County, Colorado

Location Information

This document provides site-specific information for the OGDG DP455 YY18-07 Pad. The information in this document relates specifically to the time during the construction, drilling, completion, and production of the eight (8) proposed horizontal wells on this location.

The proposed location is northeast of the intersection of Weld County Road 59 and Weld County Road 20. The Pad will be in the SWNE Section 18, Township 2 North, Range 63 West, 6th P.M. zoned agricultural within the Weld County Near-Urban Planning Area.

The proposed YY18-07 Pad oil and gas location disturbance will be 9.6 acres, reduced to 2.3 acres after interim reclamation. The proposed working pad surface will be 6.4 acres. The YY18-07 Pad will be on Weld County Parcel 130318000012 owned by Gutteresen Ranches LLC. The location is currently used for rangeland.

The YY18-07 Pad will produce to the existing Y11-28 Multi (COGCC Location ID: 450627) located to the northwest. Equipment at the YY18-07 Pad will include chemical injection skids, meter buildings, multi-phase flow meters, a communication tower, flowline manifolds, a temporary MLVT, and solar skids.

Phase	Duration (days)	Estimated Start Date
Construction (Daylight Only)	60 days	4th Quarter 2024
Drilling	40 days	1st Quarter 2025
Completion	40 days	4th Quarter 2025
Flowback	N/A	Flowing back directly to permanent facility
Production	30 years	4th Quarter 2025
Interim Reclamation (Daylight Only)	60 days	1st Quarter 2026

Potentially Impacted Parties

The Working Pad Surface of the YY18-07 Pad is within 2,000 feet of zero (0) Residential Building Units, zero (0) High Occupancy Building Units (HOBUs), and zero (0) Designated Outside Activity Areas. The nearest Disproportionately Impacted Community (DIC) is over 1 mile from the location. The location is not within COGCC designated High Priority Habitat (HPH).

The YY18-07 Pad is within 2,000 feet of the municipal boundary of Keenesburg. Noble has submitted a COGCC Rule 302.e. Notice to Proximate Local Government and has consulted with the Town of Keenesburg. The Town of Keenesburg has no objections to the location of the proposed Pad. Noble is in the process of amending an existing Road Maintenance Agreement (RMA) with the Town of Keenesburg to address use of Town roads for this project.

Dust Mitigation Plan Specific Data

Pad Soil type(s), 9.6 Disturbed Acres:

- 45 – Olney loamy sand, 3 to 5 percent slopes

Access Soil type(s)*, 5.4 Disturbed Acres:

- 35 – Loup-Boel loamy sands, 0 to 3 percent slopes; 45 – Olney loamy sand, 3 to 5 percent slopes; 49 – Osgood sand, 0 to 3 percent slopes; 70 – Valent sand, 3 to 9 percent slopes

Flowline Corridor Soil type(s)*, 15.7 Disturbed Acres:

- 35 – Loup-Boel loamy sands, 0 to 3 percent slopes; 45 – Olney loamy sand, 3 to 5 percent slopes; 49 – Osgood sand, 0 to 3 percent slopes; 70 – Valent sand, 3 to 9 percent slopes

*NRCS data is not accurate at scale for access roads or flowline corridors.

Truck Traffic and Cumulative Dust Impacts

The table below estimates the number of anticipated truck trips for this location and the combined trips for the entirety of DP455, which includes the Y12-15 Pad and the YY18-07 Pad. The trip counts are further divided by individual phase of field operation and do not include trip values for the existing Y11-28 Multi Facility, where the wells from these pads will produce. Operations for the pads will convey traffic along Weld County Road 59.

The daily number of trips will typically be split evenly amongst each day of an operation's duration. However, the heaviest periods of vehicle traffic will occur during the first two and last two days of both drilling and completions, when additional equipment mobilization will occur. During these days, the trips per day will increase by approximately 80 Heavy Truck Trips and 40 Light Truck Trips. The production phase trips will encompass regular operations and maintenance over a period of 30 years.

YY18-07 Pad Baseline Traffic Summary			
Phase	Heavy Truck Trips Per Location	Light Truck Trips Per Location	DP455 Cumulative Trips
Construction	1,080	105	2,370
Drilling	3,634	3,636	14,540
Completions	4,783	2,723	15,012
Interim Reclamation	465	50	1,030
Production ⁽¹⁾	0	10,950	10,950

⁽¹⁾ Production trips will be combined for multiple locations within DP455 and the Y11-28 Multi Facility whenever possible.

The expected travel route is indicated on the attached Access Road Map. The entrance to the unpaved access roads for this location will be from Weld County Road 59. In addition, there is an increased potential for dust generated from nearby seasonal agricultural activities. These activities should not negatively impact the public health, wildlife welfare and/or resources.

Mitigation Measures and Best Management Practices

Noble Energy shall employ practices for control of fugitive dust caused by their operations. Such practices shall include the use of speed restrictions, regular road maintenance, pipeline infrastructure to provide takeaway for oil, gas, and produced water (reducing number of trips from heavy trucks), restriction of construction activity during high-wind days, and silica dust controls* when handling sand used in hydraulic fracturing operations. Additionally, Noble Energy has implemented the use of traffic signs when leaving the location to remind drivers of specific routes to utilize.

**Silica dust control will include dust suppression with non-potable water, well-ventilated work site, pre-planned personnel rotation of work site, as well as other recommended measures included in OSHA Standard 29 CFR 1926.1153 Respirable Crystalline Silica.*

- When Noble Energy is required to suppress dust, its selected vendor will be reminded of the following:

- Use only fresh water sources (non-potable) when watering areas within 300 feet of the ordinary high-water mark of any water body.
- Maintain a current Safety Data Sheet (SDS) in their company vehicle when using a dust suppressor containing chemicals, in accordance with OSHA Standard 29 CFR 1910.1200 (Hazard Communication) as well as local and state requirements.
- Ensure watering practices do not create additional hazards on access roads (slick roads, muddy conditions, etc.).
- All soil piles created by construction activities will be managed utilizing Hydro-mulch, straw crimping, and/or tracking methods to prevent dust from exiting location and creating a hazard during pre-production activities. Soil piles will be graded and/or seeded to prevent erosion and the generation of dust post-production.
- Noble Energy will minimize the amount of fugitive dust using speed restrictions. All vehicles will be subject to a speed limit of 20 MPH on all lease roads to minimize dust.
- Noble Energy will mitigate the creation of fugitive dust through regular road maintenance as coordinated through agreements with Weld County and any Relevant Local Governments or Agencies with road jurisdiction.
- Noble Energy will use methods including wind breaks and barriers, road or facility surfacing, and soil stockpile stabilization measures to suppress fugitive dust caused solely by wind.
- Noble Energy will avoid the creation of fugitive dust by restricting or limiting construction activity during high wind days.
- Noble Energy will not use any of the following fluids for dust suppression:
 - Produced water
 - E&P waste or hazardous waste
 - Crude oil or any oil specifically designed for road maintenance
 - Chemical solvents
 - Process fluids
- Access road(s) will be watered or treated with one of the following commercial dust suppressants, as needed:
 - Roadsaver (magnesium chloride)
 - Roadsaver Compaction Aid (magnesium chloride)
 - DuraBlend (magnesium chloride)

- Prior to the application of dust suppressant to any county or public roads, coordination will be conducted with Weld County Department of Public Works by Noble Energy and any relevant vendors.
- Noble Energy will maintain safety data sheets (SDS) for any chemical-based dust suppressant and make the SDS immediately available upon request to the COGCC Director, Weld County, and to any other Local Government or Agency. Safety Data Sheet(s) for any chemical-based dust suppressant will be archived and maintained until the site passes final site Reclamation and transfer the records upon transfer of property ownership.
- All secondary roads created for this project (non-public roadways) will be finished with $\frac{1}{2}$ " – $\frac{3}{4}$ " crushed stone road base.
- Based on the currently anticipated construction schedule, there is a high likelihood of continued dry conditions and the potential for high winds during construction operations. As a result, Noble will ensure that additional storage of water and water dispersing equipment, such as water cannons or water trucks, are staged at the location to be immediately available to mitigate dust related to construction. As noted elsewhere in this plan, Noble will curtail construction activities during periods of high winds.
- Silica dust from handling sand used in hydraulic fracturing operations will be mitigated by utilization of the enclosed Sand Box delivery systems. As such, no pneumatic transportation of sand will be conducted at this location.
- Noble will take all necessary and reasonable precautions to ensure that dust from the Oil and Gas Location does not unnecessarily impact the health, safety, and welfare of Wildlife within 2,000 feet of the Oil and Gas Location. These actions include:
 - Identify permanent and temporary housing of resident wildlife and ensure locations are recorded in wildlife reports kept in-house by HSE.
 - Conduct a daily walkthrough of the location to ensure no wildlife have built nest(s) in or around disruptive or dangerous locations. If nest(s) are found, HSE reporting will be issued to appropriate personnel to either remove the nest and/or temporarily abandon the area or equipment until nest is abandoned.

Supplemental Information

Vendors

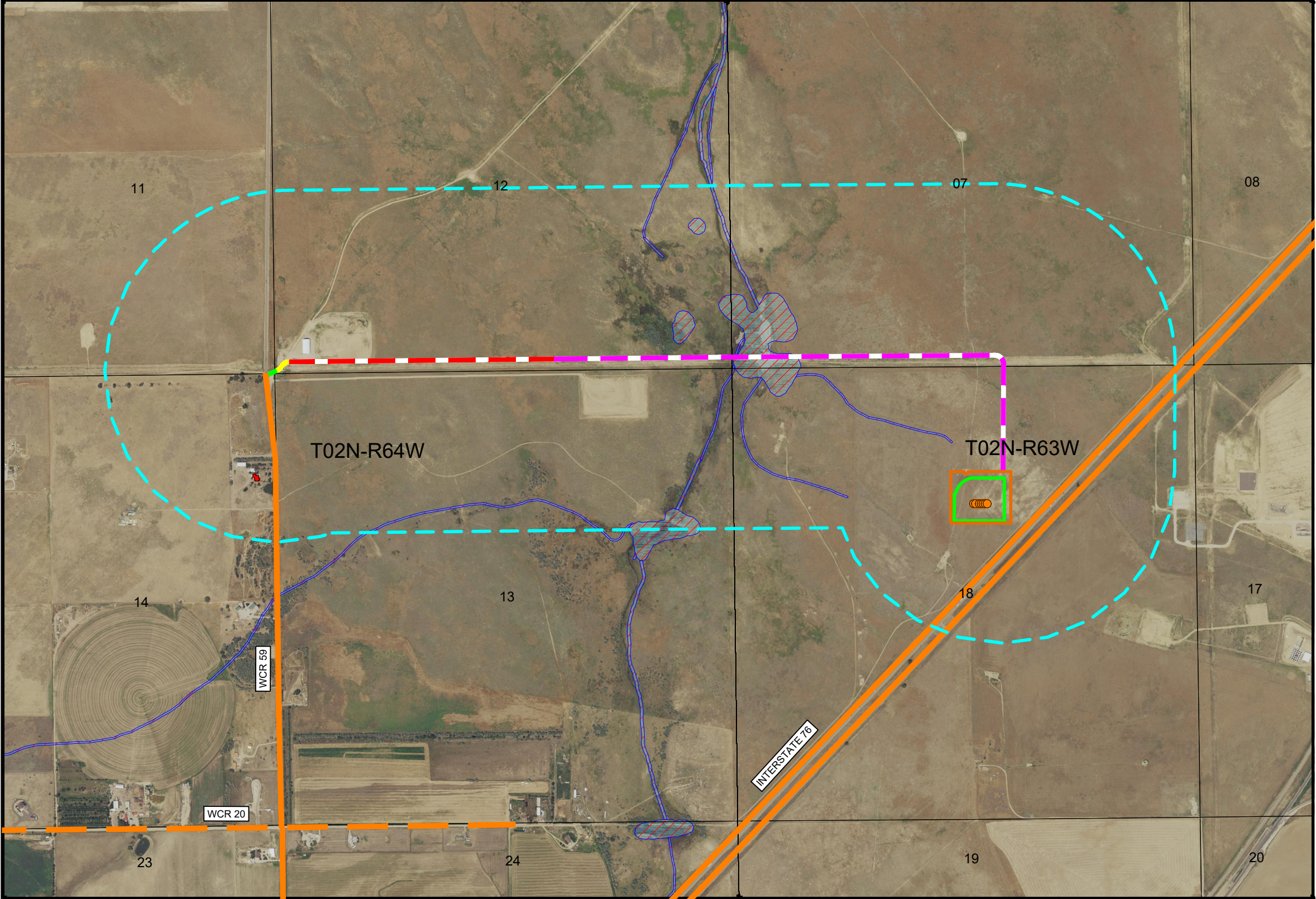
Noble Energy will occasionally reach out to third-party vendors to help ensure compliance with all applicable standards. Below is the list of vendors who have been selected:

- Envirotech Services, Inc.
3860 N. Revere St., Suite C
303.903.6079

Exhibits/References/Appendices

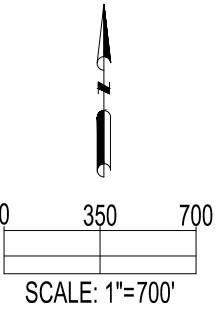
- Access Road Map

YY18-07 PAD
ACCESS ROAD MAP



RESIDENTIAL BUILDING UNITS: (WITHIN 2000' ACCESS ROAD BUFFER)	
RESIDENTIAL BUILDING UNITS:	1
HIGH OCCUPANCY BUILDING UNITS:	0
SCHOOLS:	0
CHILD CARE CENTERS:	0

ACCESS ROAD LENGTH:	
PROPOSED ACCESS ROAD LENGTH:	±6,553'
PROPOSED Y12-15 ACCESS ROAD LENGTH:	±3,202'
EXISTING ACCESS ROAD (TO BE IMPROVED) LENGTH:	±154'
EXISTING ACCESS ROAD LENGTH:	±118'



DISCLAIMER:
THIS PLOT DOES NOT REPRESENT A MONUMENTED LAND SURVEY AND SHOULD NOT BE RELIED UPON TO DETERMINE BOUNDARY LINES.
PROPERTY OWNERSHIP OR OTHER PROPERTY INTERESTS, IF DEPICTED HAVE NOT BEEN FIELD VERIFIED AND MAY BE BASED
UPON PUBLICLY AVAILABLE DATA THAT ALSO HAS NOT BEEN INDEPENDENTLY VERIFIED.



FIELD
DATE:
04-18-23

DRAWN BY:
HJL

DRAWING
DATE:
05-09-23

CHECKED BY:
CSG

SITE NAME:
YY18-07 PAD

SURFACE LOCATION:
SW 1/4 NE 1/4 SEC. 18, T2N, R63W, 6TH P.M.
WELD COUNTY, COLORADO

DATA SOURCE:
AERIAL IMAGERY: NAIP 2021

PUBLICLY AVAILABLE DATA SOURCES HAVE NOT
BEEN INDEPENDENTLY VERIFIED BY ASCENT.

LEGEND:

● = PROPOSED WELL

— = EXISTING ACCESS ROAD
— = PROPOSED ACCESS ROAD
— = EXISTING ACCESS ROAD
(TO BE IMPROVED)
— = PROPOSED Y12-15 ACCESS ROAD

— = WETLAND
— = RESIDENTIAL BUILDING UNIT
— = 2000' ACCESS ROAD BUFFER
— = OIL & GAS LOCATION
— = WORKING PAD SURFACE

— = PUBLIC ROAD - PAVED
— = SECTION LINE
— = TOWNSHIP LINE
— = PUBLIC ROAD - GRAVEL

PREPARED FOR: