

Dust Mitigation Plan

Sammons Ranch
Helium Gas Well 315310C



January 2022

1.0 Introduction

This Dust Mitigation Plan (Plan) has been prepared by Vecta Oil & Gas, Ltd. (Vecta) for its Sammons Ranch helium gas well development in Las Animas County, Colorado. The Plan addresses the Colorado Oil & Gas Conservation Commission (COGCC) requirement at Rule 304.c.(5) to prepare a Dust Mitigation Plan and the dust mitigation criteria in Rule 427.

2.0 Soil Type

Soil types are listed in Table 1.

Table 1. Soil Type

Disturbance	Soil Type	Description
Oil and Gas Location	<i>WC – Plughat-Villegreen Complex</i>	1 to 4 percent slopes; weathered from sandstone; A-horizon topsoil of 0 to 6 inches of loam and silt loam; depths of 3 to 9 inches are silty clay loam; well drained.
	<i>WeB – Wiley Silt Loam</i>	0 to 3 percent slopes; A-horizon topsoil of 0 to 4 inches of silt loam; depths of 4 to 9 inches are silty clay loam; well drained.
Access	<i>BaA – Baca Silt Loam</i>	0 to 3 percent slopes; A-horizon topsoil of 0 to 3 inches of silt loam; depths of 3 to 6 inches are silty clay loam; well drained.
	<i>WC – Plughat-Villegreen Complex</i>	See Above
	<i>WeB – Wiley Silt Loam</i>	See Above
Flowline	Same as Access	Same as Access

Source: Natural Resources Conservation Service, National Cooperative Soil Survey.

3.0 Vehicle Speed Limit to Minimize Dust

Sammons Ranch will be accessed using Colorado Highway 109, an existing section of unpaved ranch road, and new access. Drivers will be instructed to maintain a speed of 15 mph on Sammons Ranch roads to minimize fugitive dust, road wear, and erosion.

4.0 Area of Soil Disturbance

The areas of soil disturbance are shown in Table 2. Interim reclamation will reduce the well pad size to approximately 0.2 acre and stabilize and revegetate the area in accordance with COGCC Rule 1003.

Table 2. Area of Disturbance

Disturbance ¹	Soil Type	Disturbance (ac)
Oil and Gas Location	<i>WC – Plughat-Villegreen Complex</i>	0.35
	<i>WeB – Wiley Silt Loam</i>	0.75
Access	<i>BaA – Baca Silt Loam</i>	0.35
	<i>WC – Plughat-Villegreen Complex</i>	0.35
	<i>WeB – Wiley Silt Loam</i>	0.20

¹Flowline will be constructed within the road disturbance.

5.0 Whether Access Roads are Paved

Access will be provided by paved Highway 109 and unpaved Sammons Ranch roads.

6.0 Anticipated Truck Trips

Table 3 lists anticipated truck trips. Truck trips are considered travel in and out of the location, not round trip. Each location is expected to require 1 day to construct. Well drilling and completion are expected to require up to 10 days. The short durations will limit vehicle trips and minimize fugitive dust. The access roads have no nearby receptors; the nearest residence is greater than 1 mile away.

Table 3. Anticipated Truck Trips

Phase	Truck Trips
Construction (Total)	2
Drilling (Total)	12
Completion (Total)	12
Production (Per Month)	30

7.0 Plan for Suppressing Fugitive Dust Caused Solely by Wind

Because well pad construction is expected to require 1 day to complete, scheduling will consider the potential for a high wind warning issued for eastern Las Animas County to avoid this period. After pad construction, fugitive dust will be minimized during well drilling and completion because a single mobilization for the drill rig and other equipment is needed to support a conventional vertical helium gas well. Traffic and parking on the well pad will be staged to minimize travel across the pad from light duty trucks. After well drilling and completion, a water truck will be used to wet the pad surface in areas not targeted for interim reclamation if the areas fail to stabilize and form a crust.

8.0 Best Management Practices

Best management practices to minimize fugitive dust are shown in Table 4.

Table 4. Best Management Practices

	Best Management Practices
Speed Restrictions	Speeds will be limited to 15 mph on the Sammons Ranch access roads.
Regular Road Maintenance	- Regular inspection will occur for the Sammons Ranch access roads for evidence of inadequate drainage and formation of potholes. - Grading, blading, and filling potholes will be performed to maintain the road surface and discourage vehicles from widening the roadway or contributing to erosion.
Restricting Construction Activity During High Wind Days	The 1-day well pad construction will be scheduled to avoid high-wind warnings issued for eastern Las Animas County.

	Best Management Practices
Dust Suppression	• Blowing soil and failure of the soil to stabilize and form a crust on the location during construction and after interim reclamation will indicate that a dust suppression BMP is needed. In that event, a water truck will be used to wet the pad surface to form a crust.
Interim Reclamation	• Area not needed for production will be reclaimed in accordance with Rule 1003.
Dust Tracking	• Aggregate will be placed at the apron where the Sammons Ranch access road ties into Highway 109. The aggregate will serve as a wheel shaker to reduce dirt from being tracked onto the paved road.
Topsoil Stockpile	• The stockpile will be mounded with a slope of approximately 1:3 to prevent loose soils and promote vegetative growth. • Vehicle tracking perpendicular to the slope angle will be used to improve short term stabilization. • Vegetation will be allowed to establish, with crimped straw mulching, in order to stabilize the stockpile, outcompete weeds, and promote soil microbial activity.