



**Great Western Operating Company, LLC**  
**Fugitive Dust Mitigation Plan**

**Edmundson 30**  
**SESE SEC 30 T1S R66W**  
**Adams County, CO.**

**OVERVIEW**

This Fugitive Dust Mitigation Plan is intended to facilitate compliance with Colorado Oil and Gas Conservation Commission (COGCC) Rules and Regulations, Rule 427. Great Western shall employ practices for control of fugitive dust caused by their operations and has conducted a Traffic Impact Study per the Adams County AUSR Requirements. Oil and gas facilities and equipment shall be operated in such a manner that dust does not constitute a nuisance or hazard to public welfare. Great Western's development of the Project necessitates earth disturbing activities and travel on unpaved roads which has the potential to produce fugitive dust emissions. Dust associated with Site activities and traffic on Roads will be minimized throughout all phases of operations, including Construction, Drilling & Completions, and Production, such that there are minimal visible dust emissions from Sites and/or Roads to the maximum extent practicable given wind conditions.

**427.a. MITIGATION PRACTICES**

Mitigation measures will be applied to the subject Oil & Gas Location, in accordance with Rule 427.a. (1)-(7) when appropriate.

- (1) Soil Type: Working Pad Area & Access Road: NuA – Nunn clay loam, 0 to 1 percent slopes.
- (2) Great Western will post speed restrictions signs along the access road. 15 MPH speed restriction will be enforced by Great Western personnel.
- (3) Total Area of Disturbance:
  - 30' wide Access Road R-O-W disturbance: 2,406'; ± 1.657 acres
  - Well Site Disturbance: ± 6.202 acres
  - Total Surface Use Area Disturbance: ± 7.859 acres
- (4) Access Road & Location Construction:
  - Per the Approved Adams County AUSR, the driveway must be paved with a minimum of four (4) inches of asphalt or concrete within the County Right-of-Way.
  - The length of the access road from the driveway to the working pad surface will be construction of road base aggregate (crushed asphalt) material.

- The Oil & Gas Location will be constructed of compact native soils, as well as six (6) inches of road base aggregate (crushed asphalt) material, compacted to a total depth of four (4) inches.
- The crushed asphalt serves as natural dust and mud mitigation.

(5) Anticipated Truck Traffic:

<b>Pad Summary</b>	<b>Heavy</b>	<b>Light</b>	<b>Days per activity</b>
Pad Construction	185	192	15
Battery Construction	101	695	84
Drilling Operations	709	840	52
Completions Operations	3,587	2,141	101
Production Operations	1	2	-
<b>Pad Totals</b>	<b>4,583</b>	<b>3,870</b>	<b>252</b>
<b>Per Well Totals</b>	<b>573</b>	<b>483</b>	<b>32</b>
<b>Average per day</b>	<b>18</b>	<b>15</b>	

(6) Suppressing fugitive dust caused solely by wind:

- During high wind conditions, the use of fresh water as a dust suppressant will be utilized on the access road and location.
- Construction operations, such as excavation, dirt work and clearing, will be curtailed during high wind conditions if water application is unsuccessful.
- If further mitigation measures are necessary, construction operations will be restricted until wind event has diminished.

(7) Best Management Practices:

- During the construction phase, Great Western will have a water truck available onsite to water roads as necessary to prevent dust on dirt roads.
- Limit disturbance of natural vegetation to only that area that is reasonably necessary for construction.
- Use of fresh water as a dust suppressant will be utilized on the access road and location. Construction operations, such as excavation, dirt work and clearing, will be curtailed during high wind conditions if water application is unsuccessful. If further mitigation measures are necessary, construction operations will be restricted until wind event has diminished.
- Regular road maintenance.
- Street sweeper will be on call to limit dust when necessary.
- Silica dust controls when handling sand used in hydraulic fracturing operations. Great Western utilizes a gravity fed box proppant delivery system which meets OSHA standards, rather than the historic pneumatic proppant transfer system (which required supplemental dust control to meet OSHA requirements). This helps to reduce sand dust during fracing operations by dropping sand directly into the blender sand hopper. All hydraulic fracturing service providers monitor this process in accordance with OSHA testing standards to ensure operations are in compliance.

(8) **b. WINDBORNE FUGITIVE DUST**

Great Western, through the practices mentioned above, will minimize fugitive dust caused by their operations, or dust originating from areas disturbed by their Oil & Gas Operations that becomes windborne.

#### **427.c. DUST SUPPRESSANT APPLICATION**

- (1) Great Western utilizes only fresh water for dust suppression on the working pad surface and lease access roads. Great Western may utilize “road saver” or Mag Chloride for dust suppression on county roads, when authorized and instruction from the County has been given to do so.
- (2) Great Western will utilize only fresh water (potable or non-potable) to conduct dust suppression activities within 300 feet of the ordinary high-water mark of any water body.
- (3) Great Western maintains records for all relevant safety data sheets (“SDS”), and will have the information available at the request of the Director or the Local Government, Adams County.

#### **427.d. OIL & GAS LOCATIONS WITHIN 2,000’ OF RESIDENTIAL BUILDING UNITS**

If Great Western is notified of a complaint, the Community Relations department will dispatch a GW employee to further investigate. The team member contacted will depend on which phase of operations the site is currently in. Once the team member is able to investigate, they will report their findings back to the Community Relations department. If it is determined that additional mitigation is needed, GW will work to complete mitigation measures. Timing will depend on which mitigation measures are needed. Resolutions are communicated back to the stakeholder. Such practices may include, but are not limited to:

- Road surfacing.
- Installation of wind breaks and barriers.
- Automation of wells in order to reduce truck traffic during production operations.
- Topsoil stabilization and revegetation measures.

#### **427.e. CUMULATIVE DUST IMPACTS**

Great Western understands that the Commission may require the operator to adopt additional dust mitigation practices to reduced cumulative dust impacts, based on the following considerations:

- (1) The number of anticipated truck trips for the Oil and Gas Facility seeking Commission approval combined with the number of anticipated truck trips at any other Oil & Gas Locations within 1-mile radius during the same time period;
- (2) Whether the truck traffic for the Oil & Gas Facility seeking Commission approval will use any of the same unpaved roads as the truck traffic for any other Oil & Gas Facility; and
- (3) Whether there are other major sources of dust in the area, which may or may not be Oil & Gas Facilities, which will result in the area bearing a cumulative dust risk that could harm public health, safety, welfare, the environment, or wildlife resources, including impacts to plants, such as burial or significant damage to photosynthetic processes.