

DUST MITIGATION PLAN
FOR
Bonanza Creek Energy Operating Company, LLC
State Antelope B-2 Well Pad

PREPARED FOR:



1120 Lincoln Street #801
Denver, CO 80203
www.cogcc.state.co.us

PREPARED BY:



600 17th Street, Suite 2800
Denver, CO 80202
www.rpgres.com

DATE PREPARED: July 2021

Contents

PLAN PURPOSE..... 3

OPERATOR FIELD WIDE DUST MITIGATION PLAN 3

SITE SPECIFIC DUST MITIGATION PLAN 4

LITERATURE CITED 5

PLAN PURPOSE

The purpose and intent of this plan is to provide field wide and site specific guidance and recommended best management practices that demonstrate one or more methods of meeting the requirements of Rule 427 as an attachment to the Form 2A submittal of the titled project location. Bonanza Creek Energy Inc. (BCEI), as the operator, is submitting this site specific plan to be satisfy all the requirements of Rule 427 as well as the Local Governing Body (Weld County) and Federal Government (if applicable).

OPERATOR FIELD WIDE DUST MITIGATION PLAN

BCEI's operational field sits primarily within Weld County and across the following townships 5N 63W, 5N 64W, 5N65W. As such, Bonanza Creek will implement the following Best Management Practices throughout this geographic area, where applicable, and during all phases of activity to effectively mitigate dust.

Fugitive Dust

To the greatest extent practicable, BCEI will exercise techniques to minimize fugitive dust caused as a result of ongoing operations or ground surface areas disturbed by associated Oil and Gas activities that become windborne. BCEI will primarily utilize water and/or chemical soil-binding dust suppressants to limit and creation and spread of fugitive dust on trafficked roads and pad locations. Additionally, the operator will work diligently to ensure all disturbed surfaces due to the Oil and Gas Operations are properly stabilized to minimize any dust migration. If these measures cannot be resolved in a timely fashion, BCEI will cease activities until weather conditions improve or dust concerns are resolved using the methods discussed above.

Applying Dust Suppressant

BCEI will rely on the application of freshwater as a primary means of reducing soil agitation and dust migration on its locations. The following fluids will not be used at any time by the operator:

- Produced Water
- E&P Waste or hazardous waste
- Crude oil or any oil not specifically designed for road maintenance
- Solvents
- Any process fluids

BCEI will use only freshwater (potable or non-potable) to conduct dust suppression activities when within 300 feet of the high water mark of any water body.

While the operator plans to use freshwater for dust suppression efforts, in some situations, chemical based palliatives may be considered as a necessary long-term dust mitigation solution. Should chemical soil binding compounds such as magnesium chloride or similar products be used, BCEI will maintain the requisite safety data sheets (SDS) and make said SDS documentation available to state and local government officials.

Sensitive Areas

In the event operational activities occur within or adjacent to certain sensitive areas such as Colorado Parks and Wildlife designated High Priority Habitats or within 2000 feet of building units, additional dust control measures will be carefully considered and implemented as necessary. These measures may include, but are not limited to the following:

- Constructing wind breaks and barriers
- Automation of wells to reduce associated vehicular traffic
- Road or facility grading and resurfacing
- Soil stockpile stabilization measures

BCEI will be open to recommendations from the director and work to reach a reasonable solution when working in these sensitive areas.

Cumulative Dust Impacts

Where circumstances dictate, BCEI will work to minimize cumulative dust impacts resulting from site operations. Such situations may include nearby Oil and Gas truck traffic, sharing of unpaved roads, as well as other major sources of dust in the area which may or may not be derived from Oil and Gas activities. As necessary, BCEI will work with offset operators and any other dust source activities within a reasonable proximity to actively manage cumulative dust impacts.

SITE SPECIFIC DUST MITIGATION PLAN

BCEI's State Antelope B-2 is located in Township 5 North, Range 62 West, Section 2 in Weld County, CO. Below is the site-specific information for managing and mitigating any dust associated at State Antelope B-2 and its associated haul routes.

LITERATURE CITED

Colorado Oil and Gas Conservation Commission. 2020. Operations and Reporting 400 Series. Colorado Department of Natural Resources.

Field-Wide Stormwater Management for Construction Activities, Wattenberg Field, DJ Basin, Weld County, Colorado, prepared for Bonanza Creek Energy Operating Company, LLC, prepared by LT Environmental, Inc., April 2019



DUST MITIGATION PLAN



Project Name:	State Antelope B-2	Region:	DJ Basin
Report Date:	7/8/2021	Field Name:	Wattenberg
County, State:	Weld, CO	Proposed Start Date:	5/1/2022
Location (Township, Range, Section):	5N 62W, Section 2	Project Lat - Long:	

Site Specific Information	
Requested Information	Operator Responses
(1) Soil Type	92.2% Osgood sand (0-3% slope), 7.8% Valent Sand (3-9% slope)
(2) Ingress/Egress to Location	The proposed location will utilize an existing access road for the existing State Antelope B-2 location. All traffic will be go north to CR62 (not county maintained). From there all traffic will be routed east along CR62 until the intersection of CR89. From CR89 traffic will run either north to Highway 392 or south to Highway 34. The proposed speed limit is 25 MPH.
(3) Total Area of Soil disturbance (in acres)	11.92 (Pad Location); 11.39 (Access/Pipeline/Utilities), all in acres
(4) Access Road Details	<u>Design</u> - The access road will be designed to shed water off the road into appropriate roadside channels and culverts.
	<u>Construction</u> - The access road will be constructed using native materials to achieve appropriate subgrade elevations. Topsoil will be salvaged and redistributed along roadside ditches/channels to stabilize and promote growth of grass-lined channels. The road will be topped and compacted with Class 5 or 6 roadbase (gravel) to form a stablized and sturdy driving surface.
	<u>Maintenance</u> - The access road will be re-graded with a motor grader periodically if rutting or wind rowing occurs due to wind or water erosion or heavy usage. Additional roadbase will be added as needed to maintain road integrity. Roadside channels and culvert will be cleaned periodically to ensure BMPs are functioning as designed.
(5) Number of anticipated truck trips during each stage of wellpad construction, drilling, completion, and production	<u>Construction</u> - For this location, approximately 30 vehicle trips are expected per day over the course of 14 days.
	<u>Drilling</u> - This phase of the project is expected to last 55 days with daily trips averaging 50 per 24 hours
	<u>Completion</u> - Completion operations are expected to last 44 days with average trip traffic about 95 per 24 hours.
	<u>Production</u> - truck traffic during this phase will average 5 trucks per day.
(6) A Plan for suppressing fugitive dust caused solely by wind	At all phases of construction the operator shall require its contractor to have water trucks on standby to be used to suppress dust either on location or nearby heavily trafficed roads as a result of construction. Within 14 days of completing construction, the operator shall stablize disturbed soil surfaces either by ECB, hydromulch or compacted road base. During drilling, completion and production operations, the operator will apply the best management practices below to mitigate fugitive dust.
(7) Best Management Practices that will be used.	Speed Restrictions - For this project, the operator will implement a strict 25 mph maximum speed on all ingress and engress routes on unpaved roads.
	Regular road maintenece - The operator will utilize an on call contractor to perform periodic road maintenance on all non county maintained ingress and engress roads to the project location.
	Completions - BCEI uses a gravity fed box proppant delivery system that meets OSHA standards. With a gravity fed proppant delivery system, the delivery container is also a well pad storage container, eliminating the need for frac sand silos on location. Storing frac sand in containers reduces sand dust during fracing operations by dropping sand directly from the container into the blender sand hopper.
	Automation - Automation will used on all new wells and wherever practicable to minimize truck traffic.
	High Winds - The operator will cease all activity if wind speeds exceed 25 mph for a sustained period of time. In addition, the operator will monitor the weather and condition roads as preventative measures prior to high wind events.

Reviewed By:	Joe Schultz	Title: Project Manager
Signature:		Date: 5/19/2021