

Attachment O

Dust Control Plan



FUGITIVE DUST CONTROL PLAN for the Daneros Mine

Prepared by:



Energy Fuels Resources (USA) Inc.
225 Union Blvd., Suite 600
Lakewood, Colorado 80228

March 2015

TABLE OF CONTENTS

Contents

1.0	Introduction.....	1
2.0	Purpose.....	1
3.0	Fugitive Dust Control Measures	2
3.1	Travel on Unpaved Roads	2
3.1.1	Vehicle speeds	2
3.1.2	Road Treatments	3
3.2	Material Handling	3
3.3	Wind Erosion from Disturbed Surface Areas	3
4.0	References.....	4

Figures

Figure 1 Site Location

Figure 2 Daneros Mine Area

Attachment

Attachment A Fugitive Dust Control Plan Training Documentation

1.0 INTRODUCTION

This fugitive dust control plan was developed by Energy Fuels Resources (USA) Inc. (Energy Fuels) to identify the procedures that will be employed to control fugitive dust emissions at the Daneros Mine (the Mine). The Mine is an underground uranium mine permitted predominantly by the Utah Division of Oil, Gas and Mining (DOGM), the Bureau of Land Management (BLM), and the Utah Division of Air Quality (DAQ). Historic mining has occurred throughout the region but more recently, mining at this site began in 2009 and stopped in 2012 when the site was put on temporary suspension due to depressed uranium market prices. Mining is expected to continue for 20 years depending on market prices and other factors.

The Daneros Mine is located in Bullseye Canyon, in the central portion of the Colorado Plateau in southeastern Utah, as shown on Figure 1. The project is located approximately 4 miles southwest of Fry Canyon, in western San Juan County. The Mine is accessed from Highway 95 to Radium King Road county road (CR) B258 and CR D0029, as shown on Figure 2. Existing and future surface disturbances at the Mine may include three different portal areas, each containing development rock areas, ore pads, generators, air compressors, small buildings and mine yards. Additional existing and future surface disturbances in the area include a water supply well, ventilation shafts, exploration drilling and associated access roads. Ore is transported to the White Mesa Mill near Blanding, UT. No ore processing will occur at the Mine.

Activities at the Mine may be performed by Energy Fuels personnel or independent contractors. Site operator training will be conducted by an Energy Fuels Supervisor prior to performing work at this site and will include training operators to implement the fugitive dust control measures set forth in this plan. Training will be documented on Attachment A, Fugitive Dust Control Plan Training Documentation. Energy Fuels and contractor supervisors will be issued a copy of this plan for their reference and use.

2.0 PURPOSE

The BLM's Decision Record Conditions of Approval require preparation of this Plan and implementation of dust suppression measures on and off site including tarping of truck beds on ore haul trucks prior to leaving the Mine, and application of water and/or other approved dust suppressants on the Mine haulage road and other areas of the mine (BLM 2011).

This plan was prepared to address fugitive dust emissions created by construction, operations and reclamation activities related to the Mine. This plan establishes methods to control fugitive dust emissions from vehicle travel on unpaved roads, material handling, and wind erosion from disturbed areas. These measures will be implemented, as needed, for the duration of the project.

Implementing control measures within the mine area to minimize fugitive particulate emissions into the atmosphere are specified by UAC R307-205-7 and are required by the Mine's DAQ Air Order (AO) DAQE-AN144920002-14 (DAQ 2014). The DAQ AO limits on-site fugitive dust visible emissions from haul road, mobile equipment and loading operations to 15 percent opacity, limits vehicle speed to 15 mph, and requires all regularly-travelled unpaved roads or other unpaved areas to be water sprayed and/or chemically treated to control fugitive dust.

Visible emission determinations will use procedures similar to EPA Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Visible emissions will be measured at the densest point of the plume but at a point not less than 1/2 vehicle length behind the vehicle and not less than 1/2 the height of the vehicle (DAQ 2014).

This plan does not address dust generation or mitigation in the underground mine operations. The Federal Coal Mine Health and Safety Act of 1969 regulates dust concentrations in mines, and respirable dust levels are closely monitored.

3.0 FUGITIVE DUST CONTROL MEASURES

Particulate matter is the main source of haze that reduces visibility and, while efforts can be made to control dust, some dust emissions are unavoidable from mining activities at the surface and motor vehicle travel over unpaved roads.

3.1 Travel on Unpaved Roads

Access to the mine area by haul trucks and other vehicles requires travel for approximately 13 miles one-way on unpaved CR B258 and CR D0029. Both roads are designated routes in the BLM Monticello Field Office Travel Plan but are owned and maintained year-round by San Juan County. On-site traffic will travel short distances within the mine area on unpaved roads, accessing ore stockpiles, development rock areas and maintenance facilities.

Energy Fuels is responsible for impacts to the roads and dust generated by mining and hauling activities. As a result, the dominant methods of dust control, vehicle speed limits and road treatments, will be implemented on-site and along the unpaved county roads to maintain opacity below 15 percent (DAQ 2014).

3.1.1 Vehicle speeds

The beginning stretch of Radium King Road (CR B258), just after turning off Highway 95, is generally straight and level and a speed of 25 miles per hour (mph) will be allowed for mine-related traffic. Once the road turns to the west and heads up the side of the mesa, vehicle speeds will be limited to 15 mph all the way to the Mine and throughout the mine area.

The vehicle speed on the haul road will be posted, at a minimum, on site at the beginning of the haul road, and at the point that the speed limit changes, so that it is clearly visible from the haul road and drivers will obey all speed signs (DAQ 2014). Based on daily moisture levels and conditions, mine supervisors will inform drivers when they need to reduce speeds even lower to avoid raising excessive dust.

3.1.2 Road Treatments

Water will be applied by water trucks as necessary on unpaved roads and mine yards to suppress fugitive dust emissions. If necessary, BLM-approved chemical dust suppressants may also be applied to unpaved road surfaces to control dust emissions. Chemical suppressants (such as magnesium-chloride) could be applied by a contractor two or more times per year.

Allowing greater vehicle speeds on the straight section of Radium King Road will increase the potential for dust generation, therefore this stretch of road may be treated more regularly and may be graveled. If applying gravel is deemed appropriate, Energy Fuels will coordinate with the San Juan County Road Department prior to application and will obtain gravel from an authorized county material source.

3.2 Material Handling

Fugitive dust from loading operations will not exceed 15 percent visual opacity (DAQ 2014). In order to meet this requirement, loader and backhoe/tracker operators will be encouraged to drop material from their buckets at lower heights whenever possible. Loads may also be sprayed with water prior to or during unloading.

In accordance with the Mine's Transportation Policy (Energy Fuels 2014), haul truck beds will be covered with a tarpaulin at all times, other than loading and unloading. This will limit the spread of fugitive dust while ore is being transported for milling.

3.3 Wind Erosion from Disturbed Surface Areas

Disturbed areas, such as laydown yards, parking areas, stockpiles, development rock areas, and temporary roads are susceptible to wind-blown fugitive dust generation. Fugitive dust emissions from these areas will be limited by using best management practices such as applying water or chemical dust suppressants, covering, landscaping, detouring or barring access.

Disturbed areas that will be inactive for longer periods, such as soil and inert material stockpiles, will be seeded in order to encourage a vegetative cover that will stabilize the soil. Seeding will take place during the appropriate season and will use a seed mix approved by DOGM and the BLM.

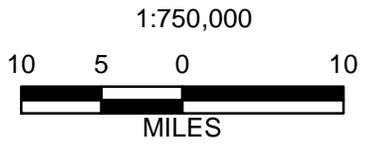
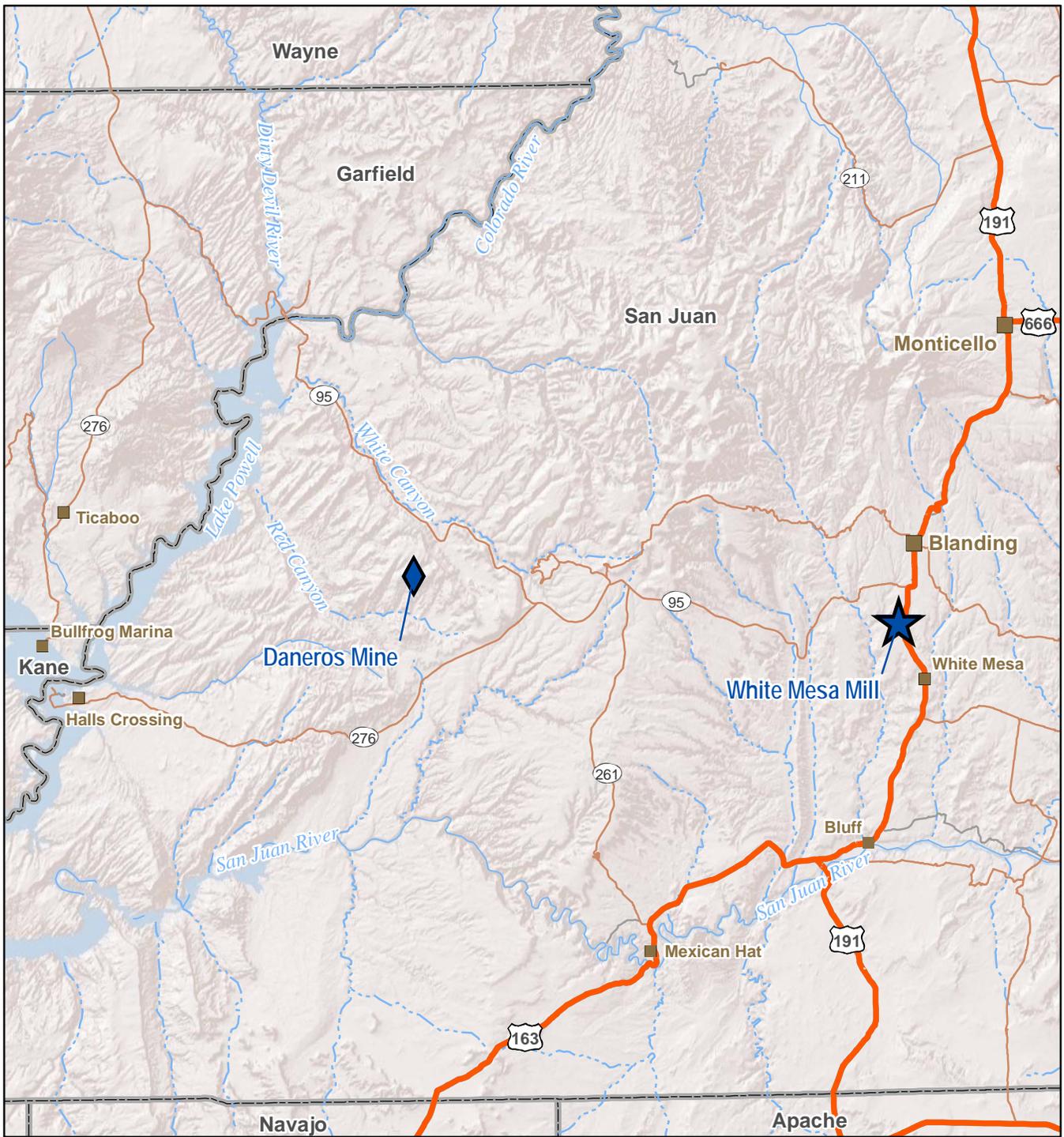
4.0 REFERENCES

Bureau of Land Management. 2011. Decision Record, Finding of No Significant Impact, and Environmental Assessment for the Daneros Mine Project. Monticello Field Office. June.

Energy Fuels Resources (USA) Inc. 2014. Transportation Policy for Shipments of Colorado Plateau Uranium Ores to the White Mesa Uranium Mill. July 2014.

Utah Division of Air Quality. 2014. Approval Order for a New Underground Uranium Mine, Approval Order Number DAQE-AN144920002-14. Issued by the Utah Division of Air Quality to Energy Fuels Resources (USA) Inc. Daneros Mine. July 8, 2014.

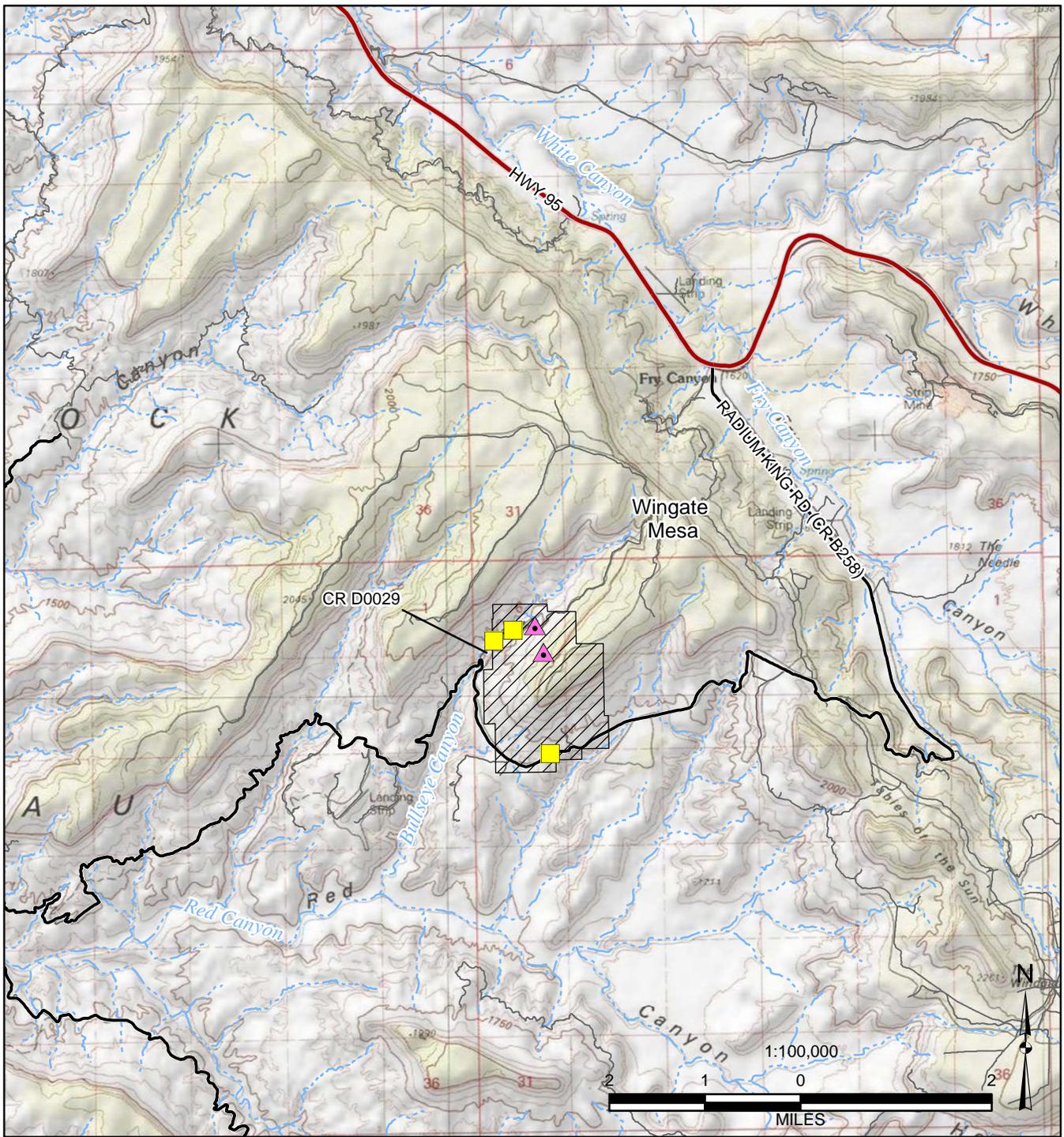
FIGURES



Base Layers: ESRI, 2014.
 Coordinate System: NAD 1983 StatePlane Utah South FIPS 4303 Feet

		Project: DANEROS MINE	
		County: San Juan	State: Utah
REVISIONS		Location: T37S R16E	
Date:	By:	FIGURE 1 SITE LOCATION MAP	
Author: areither		Date: 2/12/2015	Drafted By: areither

S:\Source\UT\Daneros\Maps\Figure 1 Site Location.mxd / 2/12/2015 1:54:27 PM by areither



Legend

- Existing Vent Shaft
- Existing/Future Mine Portal
- Future Vent Area
- Highway
- Local Road
- Rural Road
- Ephemeral Drainage

Base Layers: ESRI, 2014; USGS, 2013.
 Coordinate System: NAD 1983 StatePlane Utah South FIPS 4303 Feet



ENERGY FUELS

REVISIONS		Project: DANEROS MINE	
Date:	By:	County: San Juan	State: Utah
		Location: T37S R16E	
FIGURE 1			
DANEROS MINE AREA			
		Author: areither	Date: 2/12/2015
		Drafted By: areither	

ATTACHMENT A

