M0470089

Leslie Heppler - Large Mine Notification

From: Leslie Heppler
To: Janice Reed-Campbell; Matthew Seddon
Date: 5/12/2008 11:05 AM
Subject: Large Mine Notification
CC: Susan White
Attachments: Susan White

Please see attached the Executive Summary for a Large Mine permit in Uintah Co.

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EXECUTIVE SUMMARY

Date Summary Prepared: May 8, 2008

Mine Name: TME Asphalt Ridge Mine #1	**I.D. Number:** M0470089
Operator: Temple Mountain Energy Asphalt Ridge, LLC.	**Date Original Notice Received:** April 11, 2006
Address: 2400 E. Highway 40	**County:** Uintah
Vernal, UT 84078	**New/Existing:** New LMO on site of Existing SMO
	Mineral Ownership: SITLA and Fee
Telephone: (435) 781-8022	**Surface Ownership:** SITLA and Fee
Contact Person: Jim Runquist	**Lease No.(s):** SITLA Lease ML-50058; SITLA Lease ML47446
Telephone: (435) 781-8022	**Permit Term**: Life of Mine

Life of Mine: Phase 1 - 2.5 years. Phases 2 and 3 may extend the life of mine to 5 and 10 years or more.

Legal Description: Sections 31 and 36, Township 5 South, Range 22 East, SLBM

Mineral(s) to be Mined: Bitumen, Oil Sand, Silica Sand, and Asphalt

Acres to be Disturbed: 214.8

Present Land Use: Wildlife Habitat and Mining

Postmining Land Use: Wildlife Habitat

Variances from Reclamation Standards (Rule R647) Granted: None.

SOILS AND GEOLOGY

Soil Description: Soil samples identified by USDA, NRCS indicate two soil types as Badland-Rock outcrop complex and Clapper gravelly loam. The depth of the soils vary and sections of the site have been disturbed by historic mining. Soils are mostly derived from the local stratigraphy and alluvial sources. Surface soils for revegetation will be removed to a nominal depth of 12 inches from undisturbed areas within the permit boundary

pH: 7.5-8.0 (3 samples pH=8.0; 1 sample pH=7.5)

Special Handling Problems: None

Geology Description: The mine is in the Uinta Basin Section of the Colorado Plateau Geologic Province. The site consists of rolling terrain with 2 shallow ephemeral creek channel extending south towards the Green River. Asphalt Ridge is underlain primarily by the Brennan Basin member of the Duchesne River Formation and to a lesser degree by the upper unit of the Mesaverde Group. The Brennan Basin Member consists of lithic sandstone

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and siltstone with minor amounts of mudstone and conglomerate. The Mesaverde group consists of moderately resistant lenticular, cross-bedded sandstone with carbonaceous shale and thick coal beds.

HYDROLOGY

Ground Water Description: No ground water wells are within S31, T5S, R22E. Drill logs do not indicate ground water was intercepted during drilling. Historic mining proximal to the stream channel to depth of 40 feet below the elevation of the stream channel did not intercept ground water. The only spring in the area issues from the Uintah Boundary fault.

Surface Water Description: The surface water in the area exists as a spring feeding an ephemeral creek that flows through the mine site. The headwaters for the intermittent creek are approximately 0.6 miles from the permit boundary. The yield point for the seepage coincides with the Uintah Boundary fault zone. The surface water appears to be constrained by the low permeable clays and the oil sands. Surface storm water diversion channels were designed to intercept off-site drainage using the 10-year, 24-hour storm event criteria. V-ditches were designed along the side of the overburden and surface stockpile for onsite drainage and routed to depressions prior to release from the site. There is one sediment ponds as well as several existing depression basins, these diversions are used to capture runoff from the surface facilities site. Additional sediment controls, like silt fences, earthen berms, etc., will be used in areas where additional treatment is necessary.

Water Monitoring Plan: TME commits to construct 3- 150 ft piezometer wells for the monitoring of static groundwater

ECOLOGY

Vegetation Type(s); Dominant Species: Dominant species in the area include shadscale, bottlebrush squirreltail, Indian ricegrass, and black sage. The principal species in the riparian area is coyote willow. There are areas that were previously disturbed with little vegetation and some reclaimed areas containing forage kochia in addition to the native species.

Percent Surrounding Vegetative Cover: Varies from 11.4 up to 50 percent

Wildlife Concerns: No threatened or endangered species, individuals were identified on the property, but through water consumption, the project is considered to jeopardize the four endangered fish species of the Upper Colorado River Basin. The water is being provided by the Uintah Basin Water Conservancy District, so they are negotiating mitigation measures with the Fish and Wildlife Service.

MINING AND RECLAMATION PLAN SUMMARY:

Surface Facilities: The process surface facilities will include four process modules, a process pond, ore stockpile, sand processing load out area, storage area and associated pipelines and power lines. The mining areas include a surface soil stockpile, overburden pile, mining pit, access roads, and various runoff control facilities.

During Operations: TME intends to expand the Asphalt Ridge mine from a Small Mine to a Large mine

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operation. Soil will be stockpiled on the southern permit boundary. An overburden stockpile will be created from the waste rock from the Phase 1 – 2.5 year pit. Future mine expansion to the north will backfill the previous mine pits. Pit slope angles will not exceed 63 %. The Process area will ultimately consist of 4 modules. The initial module will be a scale-up of the existing pilot plant and is anticipated to achieve a process rate of 100 tph. Products from the processing of the native tars/asphaltic material include the primary product bitumen and silica sand as a secondary product. Both the primary and secondary products are anticipated to be stored on site awaiting sale and off site transportation. There will be no discharge from the process pond, which is to be lined with asphaltic material. Sediment controls will be used in remote areas. The existing intermittent creek crossing will be utilized and no additional creek crossings are permitted.

Air quality will be protected in accordance with provisions in the project's Air Quality Operating Permit. Fugitive dust will be controlled through Best Management Practices to include speed control, treatment of roads with water and paving.

The current mining proposal is for the first of three phases. During Phase 1, the primary focus will be to construct processing facilities and mine Phase 1 pit. Ultimately, the operator intends to mine to expand the operation to the north.

After Operations: Ultimately all processing facilities will be removed following mining. Facilities will be demolished and, as appropriate, recycled, hauled to a disposal facility. All mine site and access roads will reclaimed through regarding and slope reduction following mining with the exception of one main east-west access road. The diversions collecting undisturbed drainage will remain and the sediment pond will be breached so it exists as a flow thru basin. Internal to the site will be a diversion which collects runoff and route it through the reclaimed pit with the aid of energy dissipation in the form of check dams. Following regrading, disturbed areas will be covered with about six inches of soil and seeded with a mix that includes both native and introduced species adapted to the area.

SURETY

Amount: $*,***,***. The reclamation cost estimate will be prepared and based on RS MEANS.
Form: Surety

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