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## **BIOLOGICAL RESOURCES REPORT**

### **JD-8 MINE EXPANSION MONTROSE COUNTY, COLORADO**

*Prepared for*

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**ERO Project #5231**



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MONTROSE COUNTY, COLORADO**

**JULY 2012**

**Background**

ERO conducted field surveys to determine the presence of wetlands and other waters of the U.S., noxious weeds, and threatened, endangered, and sensitive species in the vicinity of the JD-8 existing portals and dump area. ERO was contracted by Cotter Corp. to conduct these site surveys for the mine portal and dump area, and three proposed new vent holes and associated access roads.

**Location**

The project area is on the Bull Canyon, Colorado 7.5-minute U.S. Geological Survey (USGS) quadrangle (Figure 1). The legal location is Sections 17, 19, and 20 of Township 46 North, Range 17 West of the New Mexico Principal Meridian. The project is located in the Department of Energy Uranium Reserve and on Cotter Corp's privately owned claims.

Specifically, the project area is located on the top and north-facing slope of Monogram Mesa, adjacent and south of Paradox Valley. The elevation of the project area ranges from 6,460 to 7,000 feet above sea level (asl). The vegetation includes sagebrush, pinyon-juniper woodland, and short grasses with eolian deposits in a tan sandy loam.

**Project Description**

The existing JD-8 Uranium Mine is submitting an amendment to incorporate an Environmental Protection Plan for the 3 new vent holes and associated access roads.

**Methods**

The biological resources survey was conducted by an ERO biologist walking the existing portal and proposed mine dump area, and proposed vent hole and access road sites, which were flagged at the time of the survey. ERO was accompanied by Glen

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Williams, Cotter Corp, for an accurate description and review of proposed activities and operations for the mine. Scanning for habitat, birds and nests was done with 8x21 power binoculars. Field notes were kept on vegetation, weeds, potential habitat and wildlife observed as well as photos taken. Plant identification and nomenclature was supported by A Colorado Flora, Western Slope (Weber and Wittmann 2012) and Grasses of Colorado (Shaw 2008).

### **Site Summary**

The project area is located on the top and north-facing slope of Monogram Mesa, adjacent to and south of Paradox Valley.

The project area is sparsely vegetated by juniper (*Sabina osteosperma*) and pinyon (*Pinus edulis*) with a ricegrass (*Achnatherum hymenoides*), snakeweed (*Gutierrezia sarothrae*), and rabbitbrush (*Chrysothamnus* spp.) understory. There are a few areas vegetated by sage (*Seriphidium tridentatum*) and scrub oak (*Quercus gambelii*). The project area is primarily disturbed areas, bare soil, and rocky outcroppings. Vegetation observed at specific locations is summarized below in Table 4 through Table 9. The vegetation within the proposed access road locations is consistent with the overall project area. Very few wildlife species and species signs were observed during the site visit. Bear scat was observed near the proposed Vent Hole No. 3 location and a gopher snake was observed near a reclaimed exploration access road within the project area.

### **Wetlands and Waters of the U.S.**

On June 14<sup>th</sup>, 2012, ERO reviewed the project area for wetlands and other waters of the U.S. There are no wetlands in the vicinity of the project. One ephemeral drainage was observed along the access road to one of the vent locations. This is an existing access road (previously constructed for exploration access, and reclaimed following exploration activities), although there is one location that is impassable currently due to a washed out culvert. ERO recommends reviewing the proposed action and the ephemeral drainage in more detail; it is possible that the road improvements could meet the criteria for a maintenance exemption, or fit within the impact thresholds of a Nationwide Permit

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(specifically, NWP 14 for Linear Transportation Projects). It may or may not require notification to the Corps.

### Threatened, Endangered, and Sensitive Species

Lists for Federal Threatened, Endangered, and Candidate species, BLM Uncompahgre Field Office (UFO) species of concern, and Birds of Conservation Concern for the BLM UFO are located in Table 1 through Table 3. Habitat is documented for each of the species and potential habitat for specific species is noted. No potential habitat for any Federally listed or candidate species was observed. Species descriptions for species with potential habitat in the region follow the table.

**Table 1. Montrose County Federal Threatened, Endangered, and Candidate Species**

Species	Listing	Habitat	Habitat Observed in Project Area?
Black-footed ferret <i>Mustela nigripes</i>	E	Species requires prairie dog colonies on greater than 200 acres	No
Clay-loving wild buckwheat <i>Eriogonum pelinophilum</i>	E	Found at elevations between 5,200 and 6,400 feet asl in Mancos shale badlands	No
Canada lynx <i>Lynx canadensis</i>	T	Species prefers aspen stands, spruce-fir, and mountain shrub communities.	No
Colorado hookless cactus <i>Sclerocactus glaucus</i>	T	Typically found in salt-desert shrub in clay soils at elevations from 4,500 to 6,000 feet asl.	No
Greenback cutthroat trout <i>Oncorhynchus clarki stomias</i>	T	Species requires cold streams and lakes	No
Mexican spotted owl <i>Strix occidentalis</i>	T	Species found in steep-walled canyons and mixed-conifer forests	No
Gunnison's prairie dog <i>Cynomys gunnisoni</i>	C	Requires grasslands, montane shrublands, and semi-desert shrublands	No

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Species	Listing	Habitat	Habitat Observed in Project Area?
Gunnison sage grouse <i>Centrocercus minimus</i>	C	Sagebrush communities, sagebrush-grass forb, and wet meadows	No
North American wolverine <i>Gulo gulo luscus</i>	C	Alpine and arctic tundra	No
Western yellow-billed cuckoo <i>Coccyzus americanus</i>	C	Riparian areas, moist thickets, orchards	No

Source: FWS 2012  
BLM 2011

## Mexican Spotted Owl

### ***Species Background and Environmental Baseline***

The Mexican spotted owl (spotted owl) is listed as threatened under the ESA and as a Colorado threatened species. Threats include habitat loss and fragmentation. The population trend is probably downward because of past and continuing loss and/or fragmentation of habitat, especially even-age timber management; threatened in some areas by the potential for catastrophic fire; total population was at least 800 to 1,500 in the early 1990s (NatureServe 2012a).

The spotted owl is found from Colorado to Utah through portions of New Mexico, Arizona, and Texas, south to central Mexico. In Colorado, the spotted owl typically inhabits areas with steep exposed cliffs; canyons that are characterized by pinyon-juniper; and old-growth forests mixed with Douglas-fir, ponderosa pine, and white fir (Andrews and Righter 1992; USFS 1995). Designated critical habitat occurs in the Pike National Forest in western El Paso and Douglas counties, and eastern Teller and Fremont counties (69 FR 53182 (August 31, 2004)).

The project area does not include suitable habitat for the Mexican spotted owl, because it lacks appropriate steep-walled canyon areas and appropriate forest types. Based on

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ERO's review of the project area, it is our best professional opinion that there will be no impact to the Mexican spotted owl based on the lack of habitat.

## **Gunnison sage grouse**

### ***Species Background and Environmental Baseline***

The Gunnison sage grouse requires large areas of continuous sage brush in flat or rolling terrain (Kingery, editor 1998). There are small areas of sagebrush near Vent Hole 1, but the remainder of the project area is steep and doesn't provide suitable habitat. These birds require large areas of continuous sage brush.

There will be reconstruction of existing roads, short sections of new roads to vent hole sites and limited construction in some sagebrush stands. Based on ERO's review of the project area, it is our best professional opinion that there will be no impact to the Gunnison Sage Grouse based on the lack of habitat.

## **Other BLM sensitive Species**

Potential habitat for most BLM sensitive species is not present in the project area due to the site conditions, existing vegetation communities, and existing disturbance. Limited areas of potential habitat for Colorado (adobe) desert parsley were observed; however this species was not observed within the project area during site surveys.

The big free-tailed bat and Townsend's big eared bat both have potential foraging habitat within the project area. However, due to the limited additional surface disturbance and that no potential roosting areas will be disturbed, it is unlikely that the project will have an impact on either of these species. The milk snake also has potential habitat in the project area, but it is unlikely that the small amount of additional disturbance will have an impact on this species.

**Table 2. BLM Sensitive Species of the UFO**

Species	Habitat	Habitat Observed in Project Area?
Roundtail chub <i>Gila robusta</i>	Warm water creeks, rivers, and reservoirs	No

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Species	Habitat	Habitat Observed in Project Area?
Bluehead sucker <i>Catostomus discobolus</i>	Warm to cold rivers and streams	No
Flannelmouth sucker <i>Catostomus latipinnis</i>	Warm medium to large rivers	No
Colorado River cutthroat trout <i>Oncorhynchus clarki pleuriticus</i>	Cool streams and rivers with vegetated streambanks	No
Desert bighorn sheep <i>Ovis canadensis nelson</i>	Steep, hilly or mountainous terrain vegetated by grass and low shrubs	No
White-tailed prairie dog <i>Cynomys leucurus</i>	Grasslands and semi-desert grasslands	No
Kit fox <i>Vulpes macrotis</i>	Semi-desert shrublands vegetated by greasewood, shadscale, and saltbrush	No
Allen's (Mexican) big-eared bat <i>Idionycteris phyllotis</i>	Oak brush, pinyon-juniper woodland, riparian woodland, Ponderosa pine; generally found near rocky outcrops, boulders, and cliffs; typically forages near ponds and streams.	Yes, however, there are no known occurrences of these bats within Montrose County (NatureServe 2012b). Also the lack of water in the project area is not conducive to adequate bat habitat.
Big free-tailed bat <i>Nyctinomops macrotis</i>	Requires rugged terrain in desert and woodland habitats and rocky areas; utilizes buildings, caves, and rock crevices in cliffs for roosting.	Yes
Spotted bat <i>Euderma maculatum</i>	Typically found in canyon bottoms, desert shrub, pinyon –juniper woodland, ponderosa pine, open pasture and hayfields; requires surface water near roosting areas	No, habitat not suitable due to lack of surface water, open pasture, and hayfields in the project area.

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Species	Habitat	Habitat Observed in Project Area?
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Conifer forests, deciduous forest, juniper woodlands, and sagebrush steppe; requires mines and caves for roosting.	Yes
Fringed myotis <i>Myotis thysanodes</i>	Woodlands habitats including ponderosa pine, pinyon-juniper, greasewood, saltbush, scrub oak; roosts in caves, mines, buildings, and rock crevices.	Yes, however, there are no known occurrences of this bat in Montrose County (NatureServe 2012c)
Bald eagle <i>Haliaeetus leucocephalus</i>	Forested rivers and lakes; winters in upland areas near lakes	No
Northern goshawk <i>Accipiter gentilis</i>	Nests in deciduous, coniferous, or mixed forests; willow or aspen forests.	No
American peregrine falcon <i>Falco peregrines anatum</i>	Prefers open areas near cliff habitat often near water sources; nests in cliffs and rocky outcrops.	No
Ferruginous hawk <i>Buteo regalis</i>	Grasslands and shrub-steppe communities or cultivated fields	No
Burrowing owl <i>Athene cunicularia</i>	Grasslands and semi-desert grasslands near prairie dog colonies.	No
Columbian sharp-tailed grouse <i>Tympanuchus phasianellus columbian</i>	Bunchgrass and shrub-steppe communities are used for nesting; prefers mountain shrubs for winter foraging and cover.	No
Long-billed curlew <i>Numenius americanus</i>	Requires lakes or wetlands with adjacent shrub and grass community.	No
White-faced ibis <i>Plegadis chihi</i>	Rivers, swamps, marshes, and lakes	No



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Species	Habitat	Habitat Observed in Project Area?
American white pelican <i>Pelecanus erythrorhynchos</i>	Water bodies including large reservoirs, lakes, and ponds; requires islands for nesting	No
Brewer's sparrow <i>Spizella breweri</i>	Mountain mahogany or rabbit brush, sagebrush shrublands	Yes
Black swift <i>Cypseloides niger</i>	Requires precipitous cliffs near or behind waterfalls for nesting	No
Longnose leopard lizard <i>Gambelia wislizenii</i>	Scattered shrubs in desert and semi-desert areas typically below 5,000 feet asl	No
Midget faded rattlesnake <i>Crotalus viridis concolor</i>	Rocky outcrops typically near riparian areas.	No
Milk snake <i>Lampropeltis triangulum taylori</i>	Shrubby hillsides, open ponderosa stands and pinyon-juniper woodlands, canyons, arid river valleys, animal burrows; hibernates in rock crevices	Yes; no species observed during the site visit.
Northern leopard frog <i>Rana pipiens</i>	Marshes, springs, bogs, slow-moving streams, and ponds, wet meadows and fields may be used in summer months.	No
Canyon treefrog <i>Hyla arenicolor</i>	Rocky canyon bottoms along perennial or intermittent streams in permanent or temporary pools or arroyos.	No
Boreal toad <i>Anaxyrus boreas boreas</i>	Requires mountain ponds, meadows, lakes, and wetlands in subalpine forests.	No

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Species	Habitat	Habitat Observed in Project Area?
Grand Junction milkvetch <i>Astragalus linifolius</i>	Found in sparsely vegetated habitats in pinyon-juniper and sagebrush communities, often within selenium-bearing soils and Chinle and Morrison Formations. 4,800 to 6,200 feet asl	No
Naturita milkvetch <i>Astragalus naturitenis</i>	Pinyon-juniper woodlands within cracks and crevices of sandstone cliffs and flat bedrock with shallow soils.	No
San Rafael milkvetch <i>Astragalus rafaensis</i>	At foot of sandstone outcrops, on banks of sandy clay gulches and hills, and among boulders along dry watercourses. 4,500 to 5,300 feet asl.	No
Sandstone milkvetch <i>Astragalus sesquiflorus</i>	Sandstone rock ledges typically in the Entrada formation; 5,000 to 5,500 feet asl	No
Gypsum Valley cateye <i>Cryptantha gypsophila</i>	Confined to grayish-white, often lichen covered soils and scattered gypsum outcrop soils of the Paradox Member of the Hermosa Formation; 5,200 to 6,500 feet asl.	No
Fragile (slender) rockbrake <i>Cryptogramma stelleri</i>	Sheltered, moist, cool rock ledges and calcareous cliff crevices.	No
Kachina daisy (fleabane) <i>Erigeron kachinensis</i>	Saline soils in alcoves and seeps in canyon walls; 4,800 to 5,600 feet asl.	No
Montrose (Uncompahgre) bladderpod <i>Lesquerella vicina</i>	Sandy-gravel soils derived mostly of sandstone fragments over Mancos Shale. Typically in pinyon-juniper woodlands, sagebrush steppe. 5,800 to 7,500 feet asl.	No

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Species	Habitat	Habitat Observed in Project Area?
Colorado (adobe) desert parsley <i>Lomatium concinnum</i>	Plains and adobe hills on rocky soils derived from Mancos Formation shale; shrublands vegetated with sagebrush, greasewood, shadscale, or scrub oak. 5,500 to 7,000 feet asl.	Yes; no individuals observed
Paradox Valley (Payson's) lupine <i>Lupinus crassus</i>	Clay barrens derived from Chinle or Mancos Formation shale, or pinyon-juniper woodlands; often found in draws and washes with little vegetation; 5,000 to 5,800 feet asl.	No
Dolores skeleton plant <i>Lygodesmia doloresensis</i>	Sandy reddish purple alluvium and cooluviums of the Cutler Formation between canyon walls and river or streams dominated by shadscale, juniper, and sagebrush communities; 4,000 to 5,500 feet asl.	No
Eastwood's monkey-flower <i>Mimulus eastwoodiae</i>	Seeps and shallow caves on steep canyon walls; 4,700 to 5,800 feet asl.	No
Paradox (Aromatic Indian) breadroot <i>Pediumelum aromaticum</i>	Found in open pinyon-juniper woodlands in sandy soils or adobe hills; 4,800 to 5,700 feet asl	No
Great Basin silverspot butterfly <i>Speyeria Nokomis</i> <i>Nokomis</i>	Streamside meadows and seepage areas dominated by violets.	No

Source: BLM 2011

**Table 3. Birds of Conservation Concern of the UFO with Potential Habitat in the Project Area**

Species	Habitat	Potential Habitat/Species Observed in Project Area?
Gray vireo <i>Vireo vicinior</i>	Open juniper grassland and pinyon-juniper.	Yes/None observed

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Species	Habitat	Potential Habitat/Species Observed in Project Area?
Pinyon jay <i>Gymnorhinus cyanocephalus</i>	Pinyon-juniper woodland	Yes/None observed
Juniper titmouse <i>Baeolophus griseus</i>	Pinyon juniper woodlands, especially juniper nests in tree cavities.	Yes/None observed
Bendire's thrasher <i>Toxostoma bendirei</i>	Juniper woodland; desert, especially areas with tall vegetation, cholla cactus, yucca, and creosote bush.	No
Brewer's sparrow <i>Spizella breweri</i>	Mountain mahogany or rabbit brush, sagebrush shrublands, occasionally in pinyon-juniper woodlands.	Yes/None observed

Source: BLM 2011

Gray vireo, pinyon jay, juniper titmouse, and Brewer's sparrow have potential to inhabit the project area. Given the limited new surface disturbance, impacts to these species would be minimal. ERO recommends that clearing take place outside of nesting season, or that a migratory bird survey be completed to clear the area prior to removal of potential nesting habitat.

## Vegetation

Vegetation type and cover has low variability across the project area. The project area is primarily Pinyon-juniper woodlands with existing disturbance from prior mining activities, access roads and other uses. Vegetation species and percentage cover was documented at six locations within the project area, including three locations at the existing patented mine, and one at each of the proposed vent hole locations (see the attached Photo Log).

The existing mine site was active until 2006. Equipment, structures, vents, waste rock piles, topsoil stockpiles, and access roads occupy the existing patented claims area (see Photos 2, 4, and 5 in the attached Photo Log). This location is on a north-facing steep slope overlooking the Paradox Valley. Location 1 was scraped and cleared in 2004

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for ongoing mining operations, and is partially revegetated with low shrubs, grasses and forbs (see Table 4 and Photo 1 in the attached Photo Log).

**Table 4. Area Scraped and Cleared in 2004 (Location No.1)**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Percentage Documented at Location No. 1</b>
Rabbitbrush	<i>Chrysothamnus</i> spp.	30%
Snakeweed	<i>Gutierrezia sarothrae</i>	10%
Ricegrass	<i>Achnatherum hymenoides</i>	10%
Milkvetch	<i>Astragalus</i> spp.	Trace
Curly cup gumweed	<i>Grindelia squarrosa</i>	Trace
Squirreltail grass	<i>Elymus elymoides</i>	Trace
Cowboy's delight	<i>Sphaeralcea coccinea</i>	Trace
Sage	<i>Seriphidium tridentatum</i>	Trace
Utah juniper	<i>Sabina osteosperma</i>	Trace
Cheatgrass	<i>Anisantha tectorum</i>	Trace
Russian thistle	<i>Salsola australis</i>	Trace
Cateye	<i>Cryptantha</i> ssp.	Trace
Yellow sweetclover	<i>Melilotus officinalis</i>	Trace
Serviceberry	<i>Amelanchier</i> ssp.	Trace

Location 2 is south of the work area for the existing mine site (see Photo 3 in the attached Photo Log). Native vegetation occupies this area, and is primarily sparse Juniper woodlands with shrub and grass cover (see Table 5).

**Table 5. Location No. 2**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Percentage Documented at Location No. 2</b>
Thickspike wheatgrass	<i>Elymus lanceolatus</i> fm. <i>dasystachya</i>	25%
Serviceberry	<i>Amelanchier</i> ssp.	10%

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Common Name	Scientific Name	Percentage Documented at Location No. 2
Juniper	<i>Sabina osteosperma</i>	10%
Rabbitbrush	<i>Chrysothamnus</i> spp.	2%
Mormon tea	<i>Ephedra viridis</i>	2%
Junegrass	<i>Koeleria macrantha</i>	1%
Pinyon	<i>Pinus</i> spp.	1%

Location No. 3 is located adjacent to the mine portal and is a flat excavated work area occupied by structures and mining equipment. Some sparse vegetation, dominated by sweetclover, has grown in this area (see Table 6).

**Table 6. West End of Site (Location No. 3)**

Common Name	Scientific Name	Percentage Documented at Location No. 3*
Yellow sweet clover	<i>Melilotus officinalis</i>	10%
White sweet clover	<i>Alba officinalis</i>	5%
Ricegrass	<i>Achnatherum hymenoides</i>	5%
Rabbitbrush	<i>Chrysothamnus</i> spp.	5%
Snakeweed	<i>Gutierrezia sarothrae</i>	4%
Squirreltail grass	<i>Elymus elymoides</i>	4%
Desert princes-plume	<i>Stanleya pinnata</i>	4%

**\*Disturbed area – some revegetation**

Vent hole 1 is south of the mine site on a flat bench, about 7,000 feet in elevation (see Photos 6 and 7 in the attached Photo Log). Existing reclaimed mine roads from exploration activities and other surface disturbance are evident throughout the area. The vent hole location is a pinyon-juniper woodland with sage and grass understory (see Table 7).

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**Table 7. Vent Hole No. 1**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Percentage Documented at Vent Hole No. 1 Location</b>
Utah juniper	<i>Sabina osteosperma</i>	15%
Pinyon pine	<i>Pinus</i> ssp.	15%
Big sage	<i>Seriphidium tridentatum</i>	10%
Black sage	<i>Artemisia</i> ssp.	5%
Sheep fescue	<i>Festuca orina</i>	Trace
Snakeweed	<i>Gutierrezia sarothrae</i>	Trace
Junegrass	<i>Koeleria macrantha</i>	Trace
Grama	<i>Bouteloua gracilis</i>	Trace
Ricegrass	<i>Achnatherum hymenoides</i>	Trace

Vent hole 2 is west of vent hole 1 on an existing, partially revegetated surface exploration drill road (see Photo 8 in the attached Photo Log). The vent location is largely unvegetated, with sparse pinyon-juniper woodlands along the edges of the proposed location, and grasses and forbs in the understory. Low, immature shrubs are present at the proposed location and surrounding area (see Table 8).

**Table 8. Vent Hole No. 2**

<b>Common Name</b>	<b>Scientific Name</b>	<b>Percentage Documented at Vent Hole No. 2 Location*</b>
Ricegrass	<i>Achnatherum hymenoides</i>	5%
Pinyon	<i>Pinus</i> ssp.	5%
Juniper	<i>Sabina osteosperma</i>	3%
Oak scrub	<i>Quercus gambelii</i>	2%
Snakeweed	<i>Gutierrezia sarothrae</i>	2%
Mountain mahogany	<i>Cercocarpus montanus</i>	1%

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Common Name	Scientific Name	Percentage Documented at Vent Hole No. 2 Location*
Galleta grass	<i>Hilaria jamesii</i>	Trace
Sheep fescue	<i>Festuca ovina</i>	Trace
Serviceberry	<i>Amelanchier</i> ssp.	Trace
Mountain lover	<i>Paxistima myrsinites</i>	Trace
Pricklypear cactus	<i>Opuntia</i> ssp.	Trace

\*Mostly bare soil and rock (80%)

Vent Hole 3 is located at the end of an previously reclaimed surface exploration drill road west of the other proposed and existing facilities (see Photos 9, 10, and 11 in the attached Photo Log). The existing road traverses a west-facing drainage area to the vent hole. An ephemeral drainage parallels the access road, and in some places there is evidence of flow along the road itself. Downgradient of the Vent Hole 3 location, the drainage is shown on the USFS topographic map as an intermittent drainage that is tributary to Wild Steer Canyon west of the project area. Partway along its length the road is crossed by another ephemeral drainage. This crossing is supported by an existing culvert that has been partially washed out by stormwater flows. The vent hole location is at a previously reclaimed surface exploration drillhole site on a small bench. Vent Hole 3 is surrounded by low rocky cliff areas and sparse Ponderosa pine (as well as the vegetation noted in Table 9). These areas were closely observed for evidence of raptor nesting. No nests, whitewash, or other evidence of raptor use was observed; however it is likely that raptors use the vicinity for foraging.

**Table 9. Vent Hole No. 3**

Common Name	Scientific Name	Percentage Documented at Vent Hole No. 3 Location*
Pinyon	<i>Pinus</i> ssp.	15%
Juniper	<i>Sabina osteosperma</i>	2%
Mountain mahogany	<i>Cercocarpus montanus</i>	1%



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Common Name	Scientific Name	Percentage Documented at Vent Hole No. 3 Location*
Snakeweed	<i>Gutierrezia sarothrae</i>	1%
Oak scrub	<i>Quercus gambelii</i>	1%
Ricegrass	<i>Achnatherum hymenoides</i>	1%
Serviceberry	<i>Amelanchier</i> ssp.	1%
Sheep fescue	<i>Festuca ovina</i>	Trace

\*Primarily rocky outcrops and bare soil.

## Noxious Weeds

Montrose County follows the State of Colorado Noxious Weed List (2012), and has a list of priority species for the county (White Top (Hoary Cress), Spotted Knapweed, Yellow Starthistle, Purple Loosestrife, Yellow Toadflax, Russian Knapweed, Diffuse Knapweed, and Tamarisk). No state-listed noxious weeds were observed within the project area.

## References

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JD-8 URANIUM MINE  
VENT HOLES AND ASSOCIATED ACCESS ROADS  
BIOLOGICAL RESOURCES REPORT

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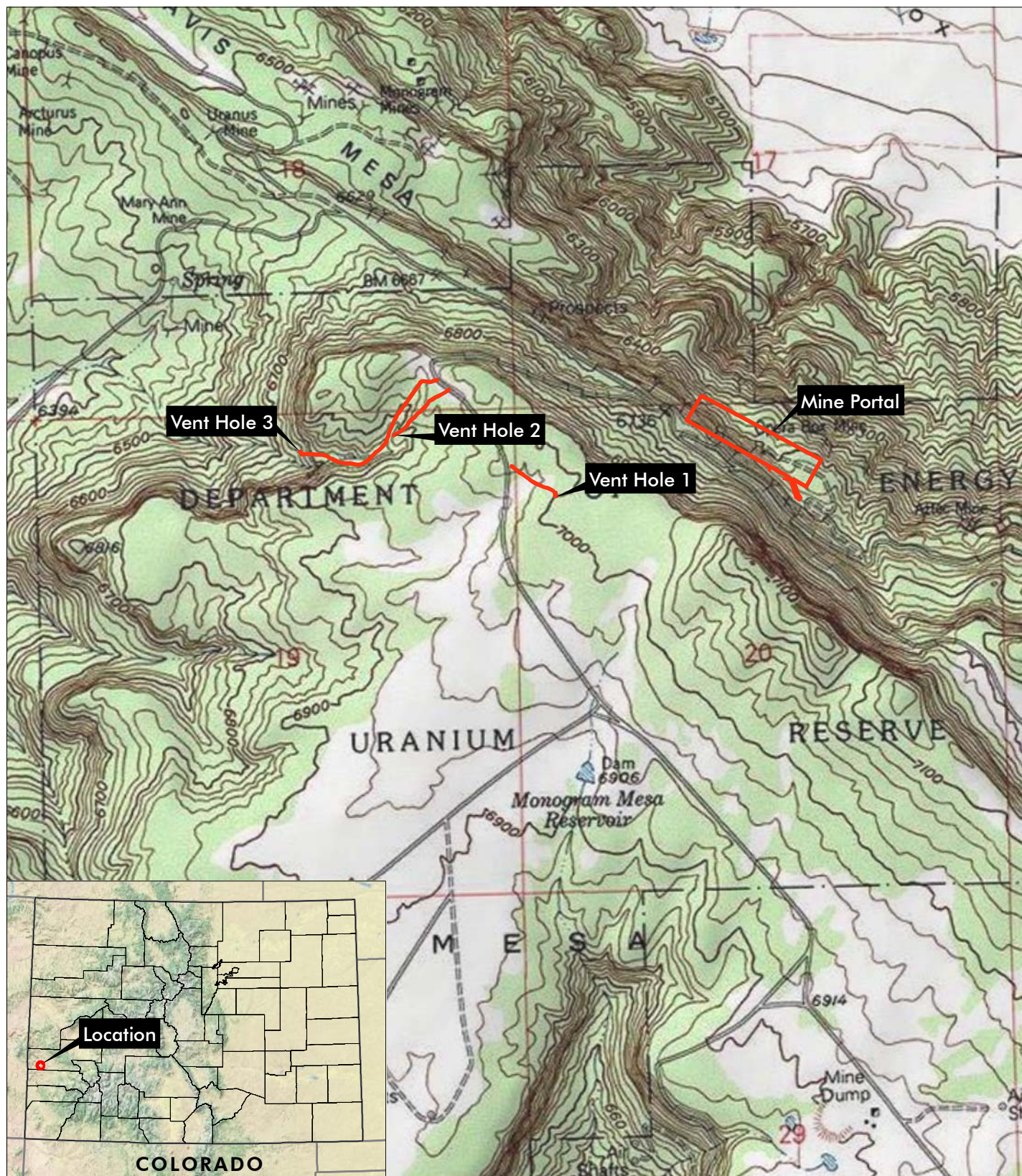
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### Cotter Corp Utah-Paradox

Sections 17-20, T46N, R17W; New Mexico PM

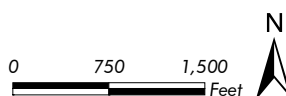
UTM NAD 83: Zone 12N; 694571mE, 4233706mN

Latitude, Longitude: 38.230235°N, 108.776915°W

USGS Bull Canyon, CO Quadrangle

Montrose County, Colorado

— Mine Portal and Waste Rock Storage



**Figure 1**  
**Site Location**

Prepared for: Cotter Corp.  
File: 5231 JD-8 Figure 1.mxd [dlH]  
July 2012

**ERO**  
ERO Resources Corp.



## Photo Log for JD-8 Mine Expansion



**Photo 1.** Location 1 (see Table 4).



**Photo 2.** North edge of existing mine.

## Photo Log for JD-8 Mine Expansion



**Photo 3.** Location 2 – South edge of existing mine.



**Photo 4.** Mine site (see Table 6).



## Photo Log for JD-8 Mine Expansion



**Photo 5.** View toward water tank at south edge of mine site.



**Photo 6.** Vent Hole 1 location (see Table 7).

## Photo Log for JD-8 Mine Expansion



**Photo 7.** View west down road to Vent Hole 1.



**Photo 8.** Vent Hole 2 location (see Table 8).



## Photo Log for JD-8 Mine Expansion



**Photo 9.** Vent Hole 3 location (see Table 9).



**Photo 10.** View southeast along road to Vent Hole 3 location.



## Photo Log for JD-8 Mine Expansion



**Photo 11.** View along road to Vent Hole 3 location.