Implementation of any of the specific mitigation outlined in these measures for springs located on private land would be subject to the authorization of the private land owner. Mitigation for loss of water available would also mitigate the loss of vegetation (livestock forage). Additionally, where livestock and wild horse use overlap those mitigation measures identified for wild horses (Mitigation Measure 1, Wild Horses) would also benefit livestock.

8 NATIVE AMERICAN TRADITIONAL VALUES

Mitigation Measure 1: In the case of inadvertent discovery of human remains, the BMDO Policy for the Discovery of Human Remains (IM NV-2010-001) – notification procedures - would be followed. If the remains are determined to be native, NAGPRA inadvertent discovery procedures would be adhered to. Under the NAGPRA, section (3)(d)(1), it states that the discovering individual must notify the land manager in writing of such a discovery. If the discovery occurs in connection with an authorized use, the activity, which caused the discovery, is to cease and the materials are to be protected until the land manager can respond to the situation. Tribes, tribal organizations, possible lineal descendants, and individuals would then be contacted to determine cultural affiliation and subsequent transfer of custody procedures would begin.

Mitigation Measure 2: In years of greater than average cone production, as determined by the BLM and requested by the tribes, EML would make areas within the Project Area fence available for Native American pine nut gathering, subject to all applicable MSHA requirements.

9 VEGETATION

Mitigation Measure 1: During periods of high fire danger, EML would utilize welding tents during welding activities along the pipeline or powerline routes in the Project Area.

10 VISUAL RESOURCES

Mitigation Measure 1: For reducing visual contrast, minimization of disturbance would be the most effective mitigation technique. Where disturbance is proposed, repetition of the basic landscape elements (form, line, color, and texture) would be implemented to minimize visual change. In order to lessen long-term visual impacts from the pit wall, treatment may be required to ensure that the final pit wall mimics the surrounding landscape colors as visible from KOP #2. Methods could include, but are not limited to, painting, staining, varnishing, or some other treatment that minimizes the contrast of the visibly exposed and unweathered rock of the pit wall. Any mitigation applications must be pH neutral and contain no caustic or alkaline chemicals to avoid potential adverse environmental impacts. Treatment may occur when the pit wall reaches its final slope configuration. The need for this treatment would be determined by the BLM at that time based on the color of the exposed pit wall surface and its contrast with the surrounding landscape. Specific dimensions and areas of mitigation would be determined by the BLM, based on the actual color of the final pit wall.

Clearing of land for WRDFs and facility construction would be done by creating curvilinear boundaries instead of straight lines to minimize disturbance of the landscape. Grading would

proceed in a manner that would minimize erosion and conform to the natural topography. Revegetation following recontouring would also reduce visual impacts. The specifics on the final reclamation design implementation would be completed in consultation with interested parties.

Mitigation Measure 2: Visual contrast, associated with the buildings, would be reduced by using construction materials or paints that are earth tones. This would minimize color contrasts with the surrounding landscape and help meet VRM objectives.

Mitigation Measure 3: To maintain dark sky conditions, and minimize visual disturbance, facility perimeter lighting, including lighting used to illuminate walkways, roadways, staging areas and parking areas, would be shielded so that the light would be cast in a downward direction. Low-pressure sodium lighting (or an improved technology, if readily available) would be used to reduce or eliminate detrimental lighting impacts and prevent unnecessary light pollution.

11 WATER QUANTITY

11.1 Surface Water Resources

Mitigation Measure 1: Specific mitigation for the two perennial stream segments and 22 perennial or potentially perennial spring sites are outlined in Table 3.2-9 of the EIS. Figure 3.2.21 of the EIS shows the anticipated location for the components of the facilities necessary to implement the mitigation measures outlined in Table 3.2-9 of the EIS. Implementation of any of the specific mitigation outlined in Table 3.2-9 of the EIS for springs located on private land would be subject to the authorization of the private land owner. The site-specific evaluation of the effectiveness of this specific mitigation for each identified surface water resource within the mine-related ground water drawdown area is presented in Table 3.2-9 of the EIS. The site-specific measures include one or more methods identified in Mitigation Measure 2 (Water Quantity). Similar methods (as identified in Table 3.2-9) would also be applied to streams and springs not identified in this analysis, if monitoring indicates that there are impacts that the BLM determines can be attributed to the mining operation. Implementation of the mitigation outlined in Table 3.2-9 of the EIS would result in up to approximately 37.2 acres of additional surface disturbance associated with road and pipeline construction and maintenance, as well as the need for approximately 302 acre-feet of water that would at least initially come from EML's existing water rights if additional water rights have not yet been secured. This specific mitigation would be implemented, as determined by the BLM, based on the results of the monitoring that is also outlined in this mitigation measure. EML would implement the water monitoring provisions outlined in Section 2.1.15 and Appendix C of the EIS to track the drawdown associated with the open pit dewatering and ground water production activities. In addition, EML would periodically update the ground water flow model as determined by the BLM. EML would be responsible for monitoring and annual reporting of changes in ground water levels and surface water flows prior to and during operation, and for a period of up to 30 years in the post mining and milling phase. The reports would be in a format and with a content that is acceptable to the BLM. The monitoring outlined in Appendix C of the EIS and required in this mitigation measure would be used to document the effectiveness of the implemented specific mitigation activities. In addition, the BLM has the ability to require the implementation of additional mitigation measures if the initial implementation is unsuccessful.

Mitigation Measure 2: If monitoring (Mitigation Measure 1, Water Quantity) indicates that flow reductions of perennial surface waters are occurring and that these reductions are likely the result of mine-induced drawdown, the following measures would be implemented:

1. The BLM would evaluate the available information and determine whether mitigation is required.

2. If mitigation would be required by the BLM, then EML would be responsible for preparing a detailed, site-specific plan to enhance or replace the impacted perennial water resource(s). Potential adverse effects to water rights from the Project would be mitigated under NDWR jurisdiction, as well as potential need for additional BLM permit acquisition activities and NEPA analysis. The mitigation plan would be submitted to the BLM identifying the excess amount of drawdown or drawdown impacts to surface water resources. Mitigation would depend on the actual impacts, site-specific conditions, and historical use and could include a variety of measures (e.g., flow augmentation, on-site or off-site improvements). Methods to enhance or replace the impacted perennial water resources include, but are not limited to, the following:

   - Modification, including cessation, of pumping distribution in the water supply well field;
   - Injection to confine the drawdown cone;
   - Installation of a water-supply pump in an existing well (e.g., monitoring well);
   - Installation of a new water production well;
   - Piping from a new or existing source;
   - Installation of a guzzler;
   - Enhanced development of an existing seep or spring to promote additional flow;
   - Water hauling;
   - Removal of piñon-juniper in impacted watersheds; or
   - Fencing or other protective measures for an existing seep to maintain flow.

3. An approved site-specific mitigation plan would be implemented followed by monitoring and reporting to measure the effectiveness of the implemented measures.

Mitigation Measure 3: The numerical ground water flow modeling indicates that some impacts to springs may occur after the end of mining and milling operations, when some of the operational measures described above may not be available. For the post-Project delayed impacts of drawdown, the ground water flow model would be updated during the closure process consistent with regulations and policies using the accumulated field data for pumping rates, consumptive use, and observed drawdown within the HSA to re-evaluate projected drawdown that would occur after the end of mining and milling operations. If the BLM determines that the Project impacts perennial stream segments or springs in this post-operational phase, mitigation consisting of one or both of the following measures would be required:

1. Installation of a well and pump at affected stream or spring locations to restore the historic yield of the affected surface water resource.

2. Posting of an additional financial guarantee to provide for potentially affected water supplies in the future.

11.2 Ground Water Resources

Mitigation Measure 4: For the seven wells with associated active ground water use with water rights EML would assess the distance of the screened interval and the pumping below the ground water table. If that difference is greater than maximum predicted drawdown, then EML would pay the water right holder for the increase in pumping costs based on historical usage. If the difference is greater than ten feet, then EML would pay for either the lowering of the pump to a depth greater than the maximum drawdown in the well, or the completion of a new well with the screened depth greater than the maximum predicted drawdown and pay the water right holder for the increase in pumping costs based on historic usage. In addition, EML would implement the water monitoring provisions outlined in Section 2.1.15 and in Appendix C of the EIS. If, through implementation of the water monitoring, it is determined that there are impacts to wells with associated active ground water use with water rights attributable to the Project, whether predicted or not, then the following mitigation measures would be implemented.

Mitigation Measure 5: If monitoring (Mitigation Measure 1, Water Quantity) indicates that mine-induced drawdown impacts a well with associated active water use with rights, the following measures would be implemented:

1. The BLM would evaluate the available information and determine whether mitigation is required.

2. If mitigation is required by the BLM, then EML would be responsible for preparing a detailed, site-specific plan to enhance or replace the impacted ground water. The mitigation plan would be submitted to the BLM identifying drawdown impacts to ground water resources. Mitigation would depend on the actual impacts and site-specific conditions and could include the following:

   - Lowering the pump in an existing well;
   - Deepening an existing well;
   - Drilling a new well for replacement of water supply;
   - Providing a replacement water supply of equivalent yield and general water quality;
   - Pay for any incremental increase in pumping costs;
   - Modifying the KVCWF pumping regime (well locations or rates) during operations to reduce drawdown in the area of the impacted ground water resources;
   - Infiltrating or injecting water during operations at strategic locations to limit drawdown propagation in certain areas.

3. An approved site-specific mitigation plan would be implemented followed by monitoring and reporting to measure the effectiveness of the implemented measures.

Mitigation Measure 6: For any significant impacts to wells with associated active ground water use with water rights that do not occur until after the end of mining and milling operations, the operational measures described above may not be available. For the post-Project delayed impacts of drawdown, the ground water flow model would be updated during the closure process consistent with regulations and policies using the accumulated field data for pumping rates, consumptive use, and observed drawdown within the HSA to re-evaluate projected drawdown that would occur after the end of mining and milling operations. Wells with associated active ground water use with water rights not owned or controlled by EML that are indicated to be significantly impacted would then be mitigated by EML using one or more of the following measures, as directed by the BLM:

1. Installation of a deeper well and pump at affected locations to restore the historical yield of the well (including incremental increase in pumping costs).

2. Posting of a funding mechanism to provide for potential future impacts to potentially affected water sources.

Mitigation Measure 7: EML would be responsible for specifically monitoring for fissure gully development. If fissure gullies form, they would be filled in with clean, coarse-grained alluvium, with the intent of providing a rapid means of dissipation for any surface water entering the fissure and thereby reducing the propagation of the fissure through continued erosion. The fill material then would be seeded with a BLM-approved seed mix.

12 WATER QUALITY

Mitigation Measure 1: EML would submit a North TSF upstream diversion structure design. This design would be of sufficient capacity to divert run-on from the North TSF so that the current evaporate pond design would be sufficient to contain the designed storm events. The design would be submitted to the BLM 24 months prior to the anticipated start of construction. The BLM would approve the design prior to the commencement of construction.

Mitigation Measure 2: The measures outlined under Mitigation Measures 1, 2, and 3 would address the potential reduced flows outlined in the impact.

13 WETLAND AND RIPARIAN ZONES

Mitigation 1: As stated in Mitigation Measure 1 for Water Quantity specific mitigation for the two perennial stream segments and 22 perennial or potentially perennial spring sites are outlined in Table 3.2-9 of the EIS. Implementation of the mitigation outlined in this table would result in up to 46.3 acres of additional surface disturbance associated with the pipeline construction and maintenance. This supplemental water should sustain riparian vegetation. EML, in coordination with the BLM, would identify sites for mitigation in the area affected and implement mitigation measures at a three to one ratio with local cuttings, plugs, or seeds within one year of direct disturbance. EML would monitor these sites on an annual basis for at least three years after treatment to ensure effectiveness.

14 WILD HORSES

Mitigation Measure 1: Specific mitigation for surface water resources identified as being impacted by the Project is listed in Table 3.2-9 of the EIS. In order to further mitigate the loss of habitat and water sources to wild horses through the Project Area, EML would provide alternative water sources for wild horses. Six locations within the Whistler Mountain and Roberts Mountain HMAs have been identified in coordination with the BLM and would be developed as water sources for horses and could also be used by wildlife and livestock in areas historically used by wild horses (Figure 3.13.1 of the EIS). These sites consist of existing stock wells that are not currently functioning or do not have pumps or troughs and two new sources tapped from Project production wells. These sources would provide water where it has not been available previously or where availability has been limited. These sources would replace water sources located within the Project boundary fence that would no longer be available to wild horses. Distribution of wild horse use would also be improved. The Project's Mitigation Plan is included in this EIS as Appendix D.

The development of these six sites is detailed in Appendix D, Attachment 2. Appendix D, Attachment 2 includes a description of how each site would be developed. The sites would be owned and operated by EML. Operations would include periodic inspections and maintenance, turning water on and off, and winterizing water sources as determined through coordination with the BLM. Upon Project completion, improvements associated with the stock watering wells and spring would remain in place for the continued support of wild horses, wildlife, and livestock within the HMAs and grazing allotments. EML would implement the mitigation plan in Appendix D, Attachment 2. Should EML decide not to retain ownership of the associated water rights, agreements would be reached at that time between EML, and those associated with the current grazing privileges on the specific allotment(s), NDOW, and BLM to transfer ownership of these improvements to the appropriate parties.

The selection of new or replacement troughs and tanks would be based on design to reduce evaporation in the summer and reduce freezing in the winter. All pipelines from wellheads to the Project fenceline under this mitigation would be buried below the ground to avoid limiting wild horse movement.

If Project activities caused a water source to become unavailable to wild horses, the Authorized Officer could require a new well to be drilled or another water development to be constructed in the general area to provide adequate water for the wild horses. Should monitoring indicate that wild horses were being negatively impacted by the mining activities, the Mount Lewis Field Manager could require additional measures for the protection of wild horses such as seasonal restrictions during the peak foaling period.

Mitigation could include annual, biennial, or quarterly helicopter population inventory flights of the area in addition to on the ground monitoring by BLM and Project personnel. However, the use of a helicopter below 500 feet would not occur between March 1 and June 30 in order to prevent disruption during foaling period, causing orphaned or abandoned foals.

Fences constructed around the Project Area would use white-topped steel posts. Additional reflectors may be necessary if problems with horses impacting fences occur. Fences should be

continuous with no breaks (no drift fences). Horses climb steep or rocky terrain and may go around the ends of fences.

Should horses be discovered within the fenced areas, Project personnel would contact the BLM immediately to assist with the removal of the horses. Wild horses could be fence-wise and difficult to push through gates or fence openings. This often results in horses attempting to jump fences and becoming cut by barbed wire. BLM staff have materials to assist in the removal of wild horses. Project personnel would not "haze" wild horses out of fenced areas.

EML would avoid the BLM's Key Management Areas for vegetation monitoring established near Mount Hope and in Kobeh Valley.

Additional mitigation for livestock grazing and production is summarized in Appendix D.

15 WILDLIFE AND FISHERIES RESOURCES

Mitigation Measure 1: Mitigation for noise impacts is included in Mitigation Measure 3 (as identified in the Sage Grouse Conservation Measures in Appendix D, Attachment 3) and includes noise reducing enclosures that would be installed on the Project's booster stations in Kobeh Valley as well as possible modification to the pumping regime during lekking season.

Mitigation Measure 2: Mitigation for the potential loss of water would include the development of six water sites (Figure 3.13.1 of the EIS) that were identified for wild horses and two additional sites that would be designed specifically for wildlife use. Although the sites shown on Figure 3.13.1 of the EIS were identified as part of mitigation for wild horses (Section 3.13 of the EIS), development of the sites could also result in indirect beneficial impacts to wildlife species throughout the Project Area. The locations and design of the wildlife-specific water developments would be determined by the Wildlife Working Group described in the Sage Grouse Conservation Measures in Appendix D, Attachment 3. Additional mitigation has been proposed for wetland vegetation in Section 3.11 of the EIS (Mitigation Measure 1, Wetland and Riparian Zones).

Mitigation Measure 3: Mitigation measures are identified in the Mount Hope Sage Grouse Conservation Measures (Appendix D, Attachment 3). The measures identified in this attachment include the following: conservation measures for low profile camouflaged equipment, water pipelines, transmission lines, nesting/perching maintenance, noise, perimeter fence collision prevention, seasonal restrictions, and minimization of additional disturbance; off-site mitigation; formation of a Wildlife Working Group; research; and treatment options for burial of the above-ground powerline and vegetation treatments. Additional mitigation developed for pygmy rabbits (Mitigation Measure 6, Wildlife and Fisheries Resources) would reduce the effect to sagebrush habitat utilized by greater sage-grouse. Mitigation Measure 1 (Wild Horses), also minimizes habitat fragmentation from the wellfield pipeline.

Mitigation Measure 4: Land clearing would be conducted outside the avian breeding season, which is March 1st through August 31st for raptors and April 1st through August 1st for other migratory birds. If this is not possible, then a qualified biologist would survey the area to be cleared prior to clearing, within 14 days of disturbance. If disturbance has not occurred within 14

days of the survey, another survey would be conducted. If active nests were identified, or if other evidence of nesting (mated pairs, territorial defense, carrying nesting material, transporting food) was observed as a result of this survey, then a protective buffer (the size of which would depend on the requirements of the species) would be delineated and the delineated protective buffer avoided to prevent destruction or disturbance to nests until the nests were no longer active or nesting activities were no longer observed.

Mitigation Measure 5: All suitable golden eagle nesting habitat located within a five-mile radius of the Project Area boundary would be surveyed twice a year by a qualified biologist for the life of the Project to check the use status of golden eagle nests and habitat. If a nest is determined to be active, the nests would be monitored by video (with still images recorded every five minutes) and the recording would be reviewed by a qualified biologist once a week until the young have fledged. During the 18- to 24-month construction phase, the timing of weekly monitoring of active nests would occur from sunrise to sunset by video (with still images recorded every five minutes). During the 44-year mine life, the weekly monitoring for active nests would coincide with blasting activities. The video camera would record the nest beginning two hours before the blast and end two hours after the blast (with continuous video images recording). Annual reports would be submitted to the BLM biologist summarizing the results of the surveys. Following one year of monitoring, the qualified biologist would develop interpretable metrics to evaluate whether disturbance affects golden eagles. If there are impacts to golden eagles identified, the qualified biologist would coordinate with the BLM and USFWS to develop an adaptive management strategy to mitigate impacts for subsequent years. If a negative impact to nesting golden eagles is detected during monitoring, the BLM biologist would be contacted by electronic mail or phone by the next business day.

Mitigation Measure 6: EML would fund future sagebrush habitat improvement projects in the area that would directly benefit pygmy rabbits. Based on a ratio of two acres per every acre disturbed, EML would provide 950 acres of habitat improvement projects. Projects would be selected by the Wildlife Working Group which would review greater sage-grouse habitat projects (described in Appendix D, Attachment 3). Projects that benefit both greater sage-grouse and pygmy rabbits could count toward both acreage requirements as approved by the Wildlife Working Group.

Mitigation Measure 7: The mitigation measures identified in Section 3.2.3 of the EIS would be sufficient to mitigate the impacts to LCT from the Proposed Action.

Mitigation Measure 8: In order to minimize impacts to bat habitat, prior to the initiation of Project activities, EML would close those mine workings that would be removed over the life of the Project (after bats have been evacuated) and install bat-friendly closures on openings that would not be directly impacted by the Project in order to preserve access to the remaining bat habitat (also see Appendix D, Attachment 4).

ATTACHMENT 1

PONY EXPRESS TRAIL
ACCESS MITIGATION PLAN

Pony Express Trail Access Mitigation Plan
Eureka Moly, LLC

Introduction

Eureka Moly, LLC (EMLLC) is currently developing a mine to extract molybdenum ore from the Mount Hope deposit located in Eureka County, Nevada. The project is located 22 miles north of the town of Eureka on State Highway 278. The approximately one-billion-ton molybdenite ore body will produce an estimated 1.3 billion pounds of recoverable molybdenum during its 44-year lifetime.

Site Description

The mine facility will include an open pit, waste rock facilities, ore stockpile, two tailings storage facilities (TSFs), and processing and maintenance facilities. The TSFs will be located south of the mine site. The Pony Express Trail (PET) is located south of the mine facilities and north of the TSFs, bisecting the area between the TSFs and main mining facilities. The entire mining project area will be fenced to restrict access to the active operations. The fenced area delineates the active mining areas and prohibits access to the operation for safety and security purposes. Figure 1 shows the location of the PET in relation to the mine facilities.

A primary concern for EMLLC is the safety of all workers and visitors while on the mine property. The United States Department of Labor, Mine Safety and Health Administration (MSHA) provides federal oversight for safe operations of the mining facilities. EMLLC will work directly with MSHA to implement and enforce MSHA safety regulations.

As part of the safety regulations, MSHA requires that site-specific hazard awareness training, as detailed in 30 CFR § 46.11(b), be provided to all individuals prior to exposure to hazards that are inherent to mining activities. This training requirement also applies to non-employees, such as agency personnel and other visitors. Safety training would identify specific safety issues present at the mine, and training criteria would include awareness of potential hazards throughout the entire project area.

PET Historical Significance

EMLLC recognizes the important historical heritage and recreational values of the PET. Usage of the PET through the Mt. Hope operations boundary is encourage, while maintaining safe travel conditions. EMLLC will maintain the historical quality of this trail/road feature by limiting mine traffic on the PET within the project boundary. Mine equipment will be prohibited from traveling on the PET. Mine vehicles (e.g., pick-up trucks) will travel on the PET only for specific and limited work related activities within the immediate area of the PET. Prior to maintenance travel on the PET, mine personnel must receive approval from the Mt. Hope Environmental Department at the Mt. Hope project site. Signage at PET access points will

indicate travel prohibited unless pre-approved by the Environmental Department. Primary travel for mine vehicles through operations area will be by designated routes.

Purpose and Scope

Approximately 4 miles of the PET will cross the active mining area. Restricted access on the east and west ends of the PET will be established for safety reasons. EMLLC recognizes the important historical heritage and recreational values of the PET and encourages the use and enjoyment of the PET. Therefore, the primary purpose of this plan is to identify safe travel/access alternatives for travel for PET travelers, while remaining in compliance with required federal and state regulations and policies.

For this Access Mitigation Plan, travelers along the PET are defined as equestrians, pedestrians, bicyclists, and operators of various types of motorized vehicles.

PET Travel Alternatives

Three alternative options have been developed for safe means of travel along the PET. Signage will be posted to identify requirements for access and provide contact information.

Alternative 1, Annual Re-ride: EMLLC understands that an organized group traditionally conducts an annual re-ride event along the PET. To support the historical and recreational qualities of this event, special accommodations to allow access for travel along the PET through the active mining area will be provided during this once a year, one day event. All participants and their support personnel will be allowed to travel along this portion of the route. A "safe zone" will be established along the Mt. Hope portion of the PET specifically for the annual re-ride. The safe zone temporarily suspends MSHA requirements within the specific designation area of the PET only for an identified event. The safe zone allows the travelers to proceed through the active mining area with minimum stipulations. No alcohol or firearms will be allowed on the property at any time. In addition, due to the inherent hazards associated with the site, mine personnel will be assigned as escorts and will travel with riders to ensure safe passage through the active mining area. A Hazard Training Checklist has been developed and provides guidelines designed to protect visitors while adhering to MSHA policies. Travelers will be required to review the checklist with MSHA-trained mine personnel prior to commencing travel on this portion of the PET. This review would likely take 20 minutes or less and would be conducted at the gate where the trail enters the project area. A copy of the checklist will be given to the travelers to have with them as they proceed through the project area. The Hazard Training Checklist is provided in Addendum A.

A minimum 30-day advance written notice is requested from the organizers of the annual re-ride. The advance notice information should include dates, approximate times of travel within the project area, number of participants and mode of travel (e.g., horseback, pedestrian, vehicle, etc.). This advance notice will help EMLLC provide appropriate resources and allow adequate

preparation time in order to safely expedite travel through the project area during the re-ride event.

Support vehicles pulling trailers can easily by-pass the mine project area via Highway 278 and the Henderson Creek road, if an alternative route is preferred for larger vehicles.

Waiver: PET travelers who travel within the operations boundary under the provisions of Alternative 1 will be required to sign a liability waiver in addition to the Hazard Training Checklist.

Alternative 2, Independent Travelers (non-association): For those travelers independent of the re-ride event and exploring the trail on their own at all other times, access through the Mt. Hope project on the PET may be obtained based on the following conditions.

The 30-day advance notice is required for independent travelers to allow mine personnel to prepare for traveler access to the PET. A specific date and time must be agreed upon to establish adequate coordination. Depending on the situation, a safe zone may be established along the PET as described in Alternative 1. However, it may not be feasible to provide a safe zone for all independent PET travelers. Therefore, specific guidelines would be implemented when a safe zone was not practicable.

Per MSHA requirements, in absence of an established safe zone, site-specific training shall be given to each individual accessing the PET. Training would likely take 20 minutes or less and would be conducted at the gate where the trail enters the project area. Upon completion of the site-specific training, each individual must sign the training document to acknowledge receipt of the training. Safety requirements include the use of personal protective equipment (PPE). PPE will need to be worn at all times while within the active mining area. At a minimum, PPE will include hard hats, steel toe boots, safety glasses, long pants and safety vests. Each traveler will supply their own PPE. Access will be denied if a traveler is not equipped with the proper PPE.

Alcohol or firearms will be prohibited on the property at all times. Due to the inherent hazards associated with the site mine personnel will escort all travelers and associated support vehicles to ensure safe passage through the active mining area.

Waiver: PET travelers who travel within the operations boundary under the provisions of Alternative 2 will be required to sign a liability waiver in addition to the Hazard Training Checklist.

Alternative 3, Route By-Pass: Figure 1 identifies an alternative PET route that would by-pass the active mine area to the north. This route is outside the active mine area and the requirements in Alternative 1 and 2 do not apply.

Due to the difficult terrain for motorized vehicles, two proposed routes have been identified. Motorized vehicles would use the Highway 278 to Henderson Creek road. This route is furthest to the north and is an improved road in active use. A shorter but more difficult route would be

available for travelers on horseback. This route is tentatively proposed and requires further field review by EMLLC. The route may be adjusted following the field review and Figure 1 would be revised and resubmitted. To aid in travel, the equestrian by-pass route will be posted with signs identifying the by-pass.

Waiver: PET travelers who bypass the Mt. Hope portion of the PET under the provisions of Alternative 3 will not be required to sign a liability waiver or participate in the Hazard Training.

Revisions to this document: This document may be revised and updated with the goal of streamlining and improving this plan to better expedite travel through the project area.

Any changes in this mitigation plan would be subject to BLM approval.

Addendum A

Pony Express Trail Travel Hazard Training Checklist

Pony Express Trail Travel
Hazard Training Checklist

The Mt. Hope Mine is owned and operated by Eureka Moly, LLC (EMLLC). The United States Department of Labor, Mine Safety and Health Administration (MSHA) provides federal oversight for safe operations of the mining facilities. The operation of the mine is subject to the Code of Federal Regulations Section 30, parts 1-199. Within these regulations, the operator is required to protect all persons who access the mine project area. A small portion of the Pony Express Trail (PET) crosses within the operational boundary of the Mt. Hope Project area and is therefore subject to regulatory requirements under MSHA.

For travel along the PET during mine operations, a Safe Zone will be established during this time. The Safe Zone is specific to the area of the Pony Express Trail and guidelines within this document are designed to protect visitors while adhering to the regulating policies set forth by MSHA. Therefore, all visitors will be required to follow certain safety procedures that will be directed by EMLLC to ensure their safety.

The entire mining area is fenced to restrict access to the active operations. An allowance of a gated entrance at either end of the trail allows entrance to visitors under specific guidelines while escorted by company appointed personnel. These gates remained locked and posted "No Entrance" during normal operations. The annual re-ride and pre-arranged independent travelers allow for company escorted travel on the PET. Each person accessing the property along PET shall receive Hazard Training complying with 30 CFR 48-31 as set forth in the accompanied *Hazard Training Checklist For Visitors to Mt. Hope Mine.* Please review the checklist with the EMLLC representative and initial each item following the review and return the signed portion to the EMLLC representative.

For your convenience the items on the checklist are listed below:

- Not under the influence of alcohol or any illegal drugs.
- Received instruction in site specific hazards /emergency evacuation procedure.
- Comply with all signs and posted regulations.
- No photographs allowed while on mine property unless approved by escort.
- Removal of EMLLC property from the mine site is prohibited except with specific authorization.
- No horseplay while on mine property.
- Remain on designated trail, except at authorized locations while on mine property.
- Remain in the vehicle except at authorized locations.
- While in a vehicle, seat belts will be worn while on the mine site.
- Please remain with the escort at all times (should you be separated, remain in that location until help arrives).
- No firearms or hazardous materials are allowed on mine property.

Mt. Hope Project

Eureka Moly, LLC.

Hazard Training Checklist for Pony Express Trail Visitor:

Name: _____ **Date:** _____

Purpose of Visit: _____ **Time:** _____

Issued By: _____

Hazard Training

Complies with 30 CFR 48-31

Hazard training covered below permits a visitor to travel while escorted by a company appointed experienced miner, but does not permit the visitor to do work of any type during his/her visit.

I have been to the Mt. Hope Mine before. Yes____ No____

Initial

_____ I verify that I am not under the influence of alcohol or any illegal drugs.

_____ I have received instruction in site specific hazards /emergency evacuation procedure.

_____ I will comply with all signs and posted regulations.

_____ I will not take photographs while on mine property unless approved by escort.

_____ I will not remove EMLLC property from the mine site without required authorization.

_____ I will not engage in horseplay while on mine property.

_____ I will remain on designated trail, except at authorized locations while on mine property.

_____ I will remain in the vehicle except at authorized locations.

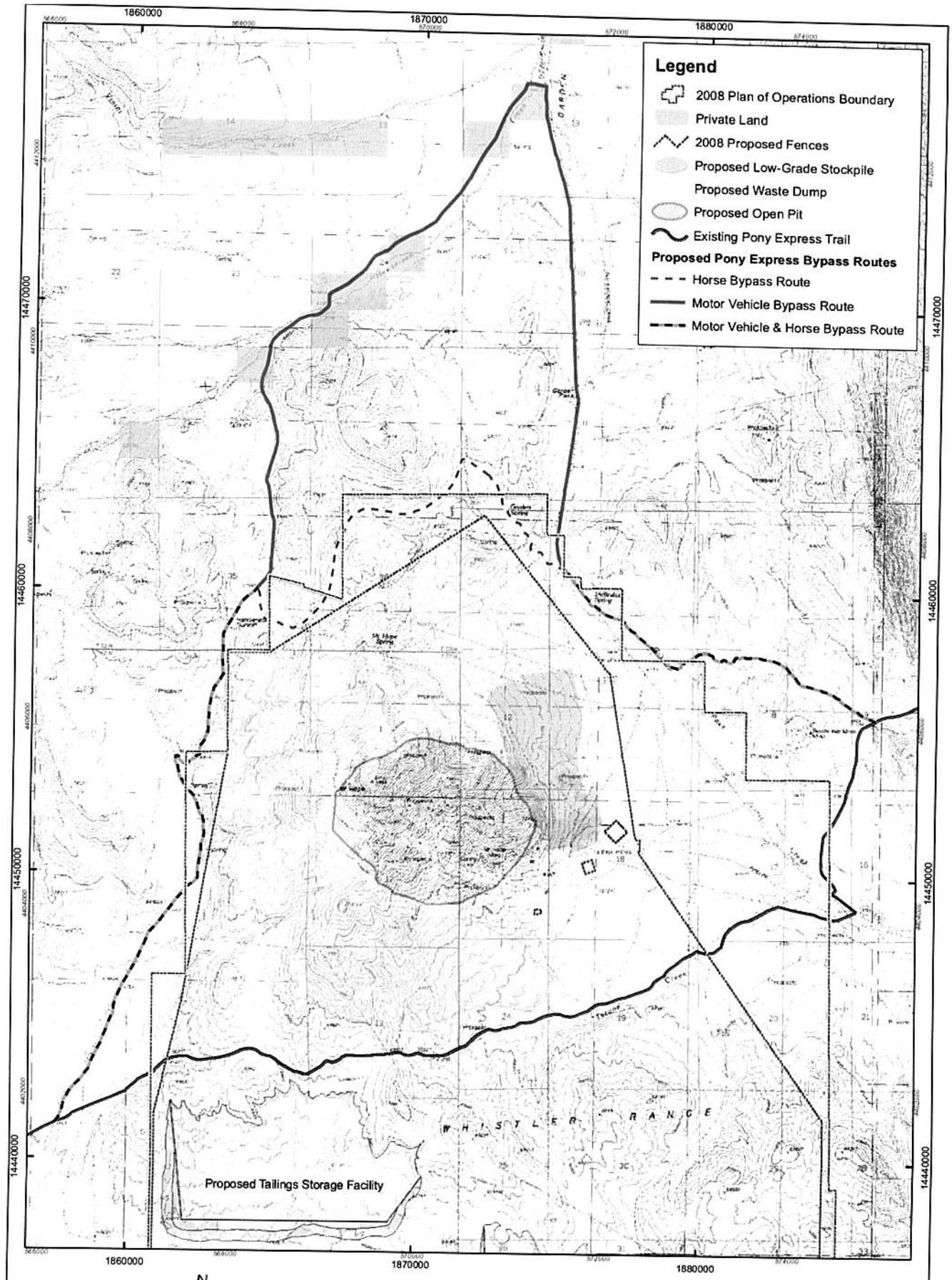
_____ I will use seat belts while in vehicles while on the mine site.

_____ I will remain with my escort at all times (should I be separated I will remain in that location until help arrives).

_____ I understand that no firearms or hazardous materials are allowed on mine property.

I have read and understand the above rule and agree to abide by them as a condition of entry to the mine. Any failure to comply may result in my removal from the property.

Signature_____



N

0 3,000 6,000 9,000 12,000 Feet

0 1,000 2,000 3,000 4,000 Meters

Datum: NAD83 UTM Zone 11N
Projection: Transverse_Mercator (US feet)

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Eureka Moly, LLC

Mt. Hope Project

Eureka County, Nevada

Pony Express Trail Mitigation Plan, Proposed Alternate Route

November 20, 2008

ATTACHMENT 2

WILD HORSE AND WILDLIFE WATER SOURCE MITIGATION PLAN

Mount Hope Project
Wild Horse and Wildlife
Water Source Mitigation Plan

Purpose

Eureka Moly LLC plans to develop the Mount Hope Molybdenum Mine and Processing Project in central Nevada about 23 miles northwest of Eureka, Nevada. The proposed project would be located on public land administered by the U.S. Bureau of Land Management and on private land controlled by EMLLC. In order to safely operate the mining and processing operations, EMLLC will be required to install a perimeter fence that will exclude wild horses, some wildlife and livestock from the operating area. In addition several existing water sources within the footprint of the proposed operations will be lost as a result of mining and contruction activities. These mitigation measures are designed to reduce impacts to wild horses, other wildlife and livestock in the vicinity of the Mount Hope operations.

Goal

These mitigation measures are intended to minimize impacts to wild horses and wildlife. The wild horses in the Roberts Mountain and Whistler Mountain Herd Management Areas (HMAs) have been successful due to the presence of adequate food and water. The goal of the Wild Horse and Wildlife Water Source Mitigation Plan is to minimize impacts to wild horses and wildlife by restoring water sources, maintaining existing sources and creating new water sources to replace those that will no longer be available. This work will be done in concert with applicable state and federal agencies and other private stakeholders.

Mitigation Considerations

Mitigation measures proposed in this plan are designed to address several potential impacts that may threaten water sources in the project area. These potential impacts were identified through discussions between EMLLC and the Bureau of Land Management. EMLLC has evaluated these impacts and has designed engineered and administrative mitigation measures to address them. Specific impacts/threats that EMLLC is seeking to mitigate are as follows:

- Loss of water sources for animal watering
- Loss of habitat acreage created by the installation of project fencing
- Excess noise and disturbance created by pumps, vehicles and equipment

Mitigation Measures

The mitigation measures for surface water resources impacted by ground water drawdown (as described in Chapter 9 **of the Plan of Operations**) may also serve to mitigate the impacts on water availability for wild horses. In order to mitigate the loss of acreage and water sources throughout the Mount Hope Project, measures have been developed to provide alternative water sources. Six

alternative water source locations within the Whistler Mountain and Roberts Mountain HMAs have been identified that would be developed. These sites consist of three existing stock wells, one spring and two sources tapped from Mount Hope Project production wells. See Attachments A through F. These new locations will provide water where it has not been available previously or where availability has been limited. These sources will replace water sources that will no longer be available as they will be located within the Mount Hope Project operational fence. Distribution of wild horses, wildlife, and livestock use would also be improved, which will mitigate acreage losses by increasing usability of other areas within the HMAs.

Water sources will be owned and operated by **EML**. Operations will include periodic quarterly inspections and maintenance, turning water on and off, and winterizing water sources as needed. **EML** will ensure that adequate water rights will be designated for wild horses and wildlife at each of the locations.

Upon final completion of the Mount Hope Project, improvements associated with the stock watering wells and spring will remain in place for the continued support of wild horses, wildlife and livestock within the HMA's and grazing allotments. Should Eureka Moly decide not to retain ownership of the associated water rights, agreements will be reached at that time between Eureka Moly, allotment owners/leasees, the Nevada Department of Wildlife and the BLM to transfer ownership of these improvements to the appropriate parties.

Additional mitigation measures beyond the 6 water source improvements are as follows:

- Helicopter use below 500' AGL will not be allowed between March 1 and June 30 to prevent disruption during foaling period.
- Range fences constructed for the Mount Hope Project area will use white-topped steel posts.
- Fences will be continuous, with no breaks (no drift fences).
- The selection of troughs and tanks will be based on design to reduce evaporation in summer and reduce freezing in winter.
- Should horses be discovered within the fenced areas, mine personnel will contact the BLM to assist with the removal.
- Mine staff will not "**herd**" wild horses out of fenced areas without prior authorization from the BLM.
- Should monitoring indicate that wild horses are being negatively impacted by the mining activities, additional measures for the protection of wild horses and wildlife will be negotiated with the Mount Lewis Field Office.

Attachment A

Whistler Mountain (NV0608)

Romano Stock Well

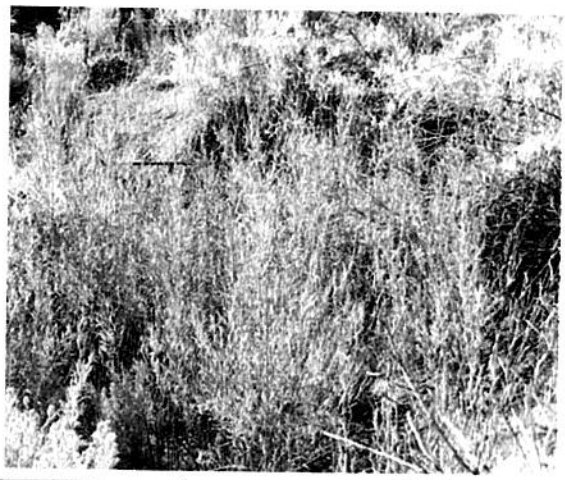
- Historically used for livestock
- Re-install piping to trough
- Replace dismantled windmill with solar operated low-flow submersible pump

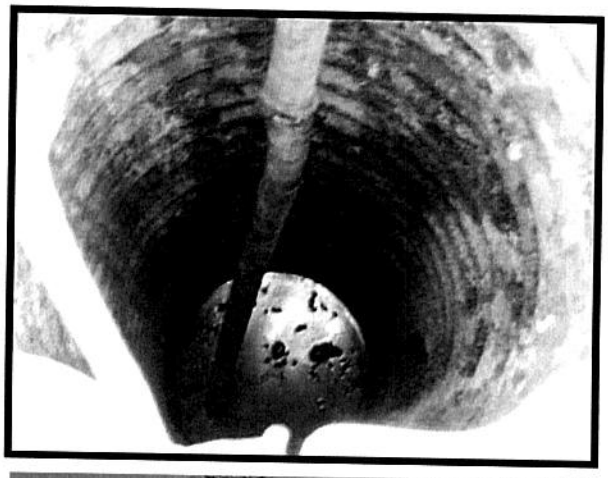
Attachment B

Whistler Mountain (NV0608)

Stinking Spring

- Historically used for livestock
- Evaluate springbox and valve construction –rehabilitate if needed
    - Completed - Springbox and valve in working order
- Re-install piping to trough
    - Completed – spring box has been re-connected to trough
- Currently operational and maintained by Permittee



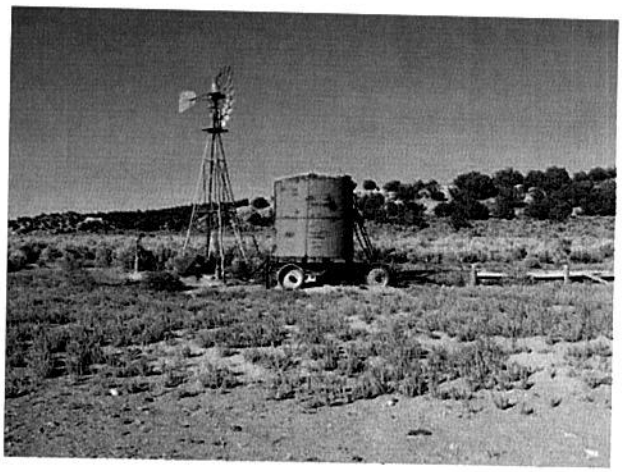


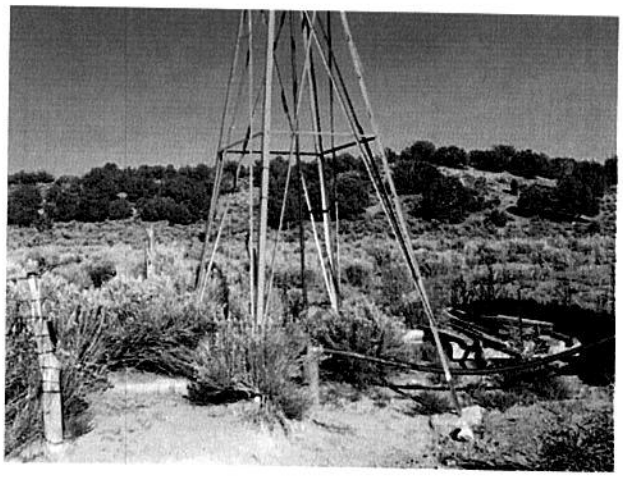
Attachment C

Roberts Mountain (NV0607)

Big Windmill

- Historically used for livestock
- The windmill would need to be turned on and the system assessed for any potential repairs
    - The windmill is in good condition, regular maintenance and winterization have been maintained by Permittee
- Piping and troughs are in good condition



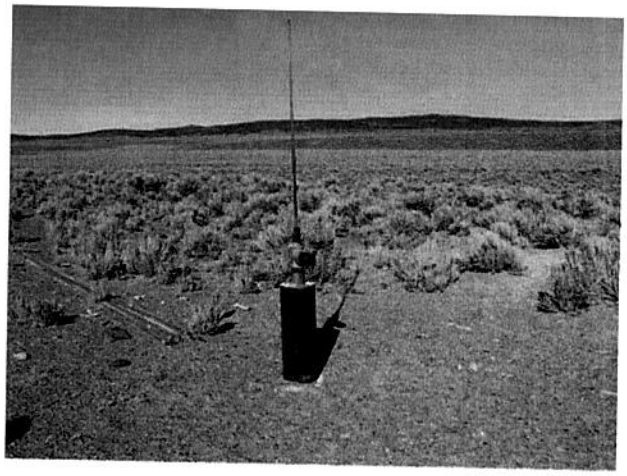


Attachment D

Roberts Mountain (NV0607)

Old Stock Well (BLM map ID #12)

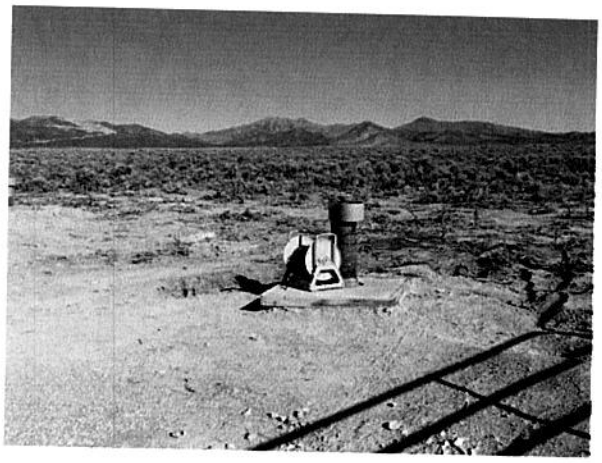
- Historically used for livestock
- Originally pumped with windmill, casing and rod still in place, no troughs or piping remaining
- Rod will be pulled and well assessed
    - Completed
- Install solar operated low-flow submersible pump
- Re-install piping and trough



Attachment E

GMI Production Well RWX-222

- Install a tap in the pipeline to feed a trough in the vicinity of the well



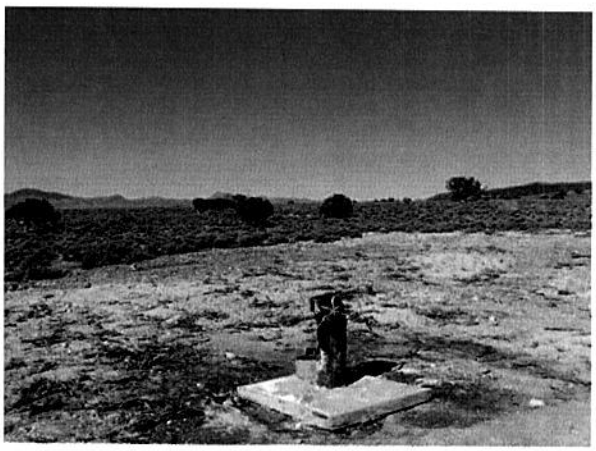
Please note that the Mount Hope production wells will likely be on a rotational operation and maintenance schedule. There may be times when wells will be shut off for maintenance or due to the need to allow the aquifer to rest. Eureka Moly will consider water availability for wild horses and wildlife in its rotation schedule.

Attachment F

Whistler Mountain (NV0608)

GMI Production Well RWX-220

- Install a tap in the pipeline to feed a trough in the vicinity of the well



Please note that the Mount Hope production wells will likely be on a rotational operation and maintenance schedule. There may be times when wells will be shut off for maintenance or due to the need to allow the aquifer to rest. Eureka Moly will consider water availability for wild horses and wildlife in its rotation schedule.

ATTACHMENT 3

MOUNT HOPE GREATER SAGE-GROUSE CONSERVATION MEASURES

Mount Hope Greater Sage-Grouse Conservation Measures

Purpose

Eureka Moly LLC (EML) plans to develop the Mount Hope Molybdenum Mine and Processing Project in central Nevada about 23 miles northwest of Eureka, Nevada. The proposed project would be located on public land administered by the U.S. Bureau of Land Management (BLM) and on private land controlled by EML. In order to provide water necessary for mining and processing operations, EML is developing a well field in Kobeh Valley directly west of the mine and processing operations. These conservation measures are designed to reduce impacts to greater sage-grouse from the mining and processing operations and within the production water well field within Kobeh Valley.

Goal

These conservation measures are intended to minimize impacts to greater sage-grouse resulting from the Mount Hope Project. Greater sage-grouse have recently been identified as a concern by numerous Federal and state agencies in the United States due to declining populations. Reasons for this decline were detailed by the U.S Fish and Wildlife Service in the following Federal Register publication: Endangered and Threatened Wildlife and Plants; 12-Month Findings for Petitions to List the greater sage-grouse (*Centrocercus urophasianus*) as Threatened or Endangered (Fed. Reg. 3/5/2010). Although greater sage-grouse have not been formally listed as Threatened and Endangered (the USFWS listing decision established the species as warranted but precluded, placing greater sage-grouse on the candidate species list); EML is committed to minimizing impacts. Greater sage-grouse use a variety of habitat in and around the project area. The goal of the measures is to avoid greater sage-grouse habitat where possible and, where avoidance is not possible, reduce impacts to an acceptable level or provide off-site mitigation where impacts are unavoidable or cannot be reduced through mitigation. This work will be done in concert with applicable state and Federal agencies and other private stakeholders.

Proposed Project Summary

The 80-year project would have an 18- to 24-month construction phase, 44 years of mining and ore processing, 30 years of reclamation, and five years of post-closure monitoring. Concurrent reclamation would not commence until after the first 15 years of the Project. Optimal development of the molybdenum deposit, to meet the market conditions and maximize molybdenum production, would utilize an open pit mining method and would process the mined ore using a flotation and roasting process. The permanent surface disturbance associated with the proposed activities totals 8,355 acres on both public and private lands.

The well field is planned to target both the carbonate and alluvial aquifers located in Kobeh Valley. The carbonate aquifers are generally located at the foot of the Roberts Mountains in the area of Roberts, Rutabaga, and Coils Creeks. The targeted alluvial aquifers are located primarily in the northeast quadrant of Kobeh Valley north of Lone Mountain to the base of the Roberts Mountains, West of Whistler Ridge and east of Coils Creek. The well field will consist of:

- production and monitoring wells
- vertical line shaft or submersible pumps and motors
- electrical controls and cabinetry
- water pipelines
- booster stations
- electric transmission lines, and
- access roads.

Conservation measures proposed in this plan are designed to address several potential impacts that may threaten greater sage-grouse success in Kobeh Valley. These potential impacts were identified through discussions between EML, the Nevada Department of Wildlife, and the Bureau of Land Management. EML has evaluated these impacts and has developed design features and mitigation measures to address them. Specific impacts/threats that EML is seeking to avoid are as follows:

- Raptor / scavenger predation from elevated equipment and power poles
- Visual encroachment/interruptions created by elevated equipment, power poles, vehicular travel and dust
- Interruption of "bird foot traffic" created by above ground pipes, extended elevated berms, or other linear features that may block passage
- Noise created by pumps, vehicles and equipment
- Unreclaimed surface disturbance resulting in habitat loss

Conservation Measures

Low profile camouflaged equipment

- Low profile pumps and cabinetry will be specified and installed. If feasible, equipment will be painted or covered to minimize contrast with the surrounding environment.
- Where possible, terrain/topography will be used to minimize the site distance for permanent equipment.

Water Pipelines

- Cross country water pipelines will be buried to minimize the impacts on wildlife travel and fragmentation of habitat. Disturbed surfaces will be graded and seeded immediately (first spring or fall) following construction. Where burial is not practical, as determined by EML and the BLM, earthen pipe crossings will be provided every 300 feet to allow bridging of the pipeline. They will be approximately 20 feet wide with an approximate

slope of 6:1 and seeded with an appropriate seed mix determined by the BLM to 1) preclude the establishment of noxious and invasive non-native weeds and 2) provide adequate cover for greater sage-grouse.

Transmission Lines

- The transmission line connecting the project to the Machacek Substation will parallel the existing Falcon-Gondor transmission line to minimize additional disturbance and eliminate an additional corridor that could result in perching structures or migration impediments.
- Well field electrical transmission lines will be buried within the two-mile buffer around active greater sage-grouse leks.
- Conductors will be spaced in accordance with recommended construction specifications to prevent electrocution of raptors or other birds that may attempt to land on transmission line poles or equipment.
- Above ground power lines would be constructed with vertical wire orientation and equipped with Zena Perch Preventers (or an alternative design approved by the BLM) and flight diverters to deter predatory perching and collisions.
- Zena Perch Preventers (or an alternative design approved by the BLM where modifications are necessary) will be installed on other fixed equipment, where determined by the BLM to be necessary, within .6 miles of an active greater sage-grouse lek to minimize perching opportunities for raptors and ravens.
- The existing Atlas transmission line will be upgraded in Kobeh Valley to include Zena Perch Preventers (or alternative design approved by the BLM) and flight diverters between the western boundary of the project area and the tree line on Whistler Mountain.

Nesting/Perching Maintenance Program

- In accordance with treaties, statutes and regulation, a program will be implemented to inspect and remove nesting or other materials from transmission lines and equipment that reduce the effectiveness of the anti-perching measures. Depredation permits would be obtained as needed. EML would comply with all USFWS standards regarding the removal of nesting materials.

Noise

- Noise reducing enclosures will be installed around booster stations within the two-mile buffer around recognized leks. Enclosures will be designed to achieve a noise level of 30 dB (10 dB above ambient) or less at greater sage-grouse leks.
- Between March 1st and May 31st, the pumping regime in the well field may be modified, where possible, to reduce noise disturbance at active greater sage-grouse leks.

Perimeter Fence Collision Prevention

- Perimeter fences in preliminary priority habitat and preliminary general habitat will be constructed with permanently affixed reflectors or other devices approved by the BLM to maximize their visibility for wildlife and minimize the potential for collisions.

Seasonal Restrictions (March 1st- May 31st)

- Construction would not take place within the two-mile buffer area of active leks unless a determination is made by the BLM and NDOW that no bird breeding or nesting is occurring in the area.
- No vehicle traffic within ¼ mile of active leks will be allowed between one hour before sunrise and 10am.
- Vehicle speeds within the two mile buffer area of active leks will be limited to 25 mph

Minimization of Additional Disturbance

- To the extent possible, existing transmission lines, roads and other surface disturbance will be used to minimize additional disturbance to preliminary priority and preliminary general habitat.

Off-Site Mitigation

In addition to the conservation measures listed above, EML will also complete off-site terrestrial habitat restoration/enhancement and other activities to compensate for the permanent disturbance of preliminary priority habitat (PPH) and preliminary general habitat (PGH) in accordance with Nevada IM 2008-204 *Off-site Mitigation*. Current calculations of these areas equate to 3,287 acres of PPH and 1,965 acres of PGH. If, through field verification by the BLM in consultation with NDOW, it is determined that some of the area included in the below calculations is not of sufficient quality to be characterized as PPH or PGH or areas that aren't currently designated on the map are of sufficient quality to be included as PPH or PGH, the required acreage of off-site mitigation may be adjusted accordingly. EML will fund all restoration and enhancement projects to BLM specifications and follow all BLM requirements.

Acreage Calculation

PPH will be replaced at a 3:1 ratio, which equates to a total of 9,861 acres (3 x 3,544 acres) of habitat restoration/enhancement. PGH will be replaced at a 2:1 ratio, which equates to a total of 3,930 acres (2 x 1,965 acres)[1]. The total obligation for off-site restoration/enhancement would be 13,791 acres. The potential or likely treatment areas to be restored/enhanced include public land within the Three Bar Population Management Unit (PMU). These potential treatment areas will

[1] These ratios are derived from the Governor's Sage-Grouse Conservation Team document (GSGCT, 2010) titled Nevada Energy and Infrastructure Development Standards to Conserve Greater Sage-Grouse Populations and Their Habitats. Although these standards have not been adopted by the BLM, they were used as a reference for determining appropriate acreage equivalents.

be identified on a case-by-case basis, based on field inventory of habitats, conditions, and potential value to greater sage-grouse as well as indications of effects to greater sage-grouse based on monitoring results. While the project will directly and indirectly impact priority habitat in the Roberts Mountain/Kobeh Valley areas, the goal of the restoration/enhancement efforts will focus on entire habitat throughout the life cycle of greater sage-grouse within the Three Bar PMU. Habitat treatments will be prescribed for specific sites based on the probability of successful restoration/enhancement and the greatest benefit to local greater sage-grouse metapopulations (i.e., a group of spatially separated populations of the same species, which interact at some level). The determination of where a specific project is located and when work would be conducted would rest with the Wildlife Working Group to allow for incorporation of applicable study or monitoring data and identification of areas with the best habitat potential. Prior to implementation of these various or potential treatment options (and after an area is designated for treatment) cultural surveys and Native American Consultation/Coordination will be completed per BLM protocols.

Wildlife Working Group

A Wildlife Working Group (WWG) will be established and will meet annually, at a minimum, to identify, discuss, and select habitat enhancement treatments, ensure appropriate implementation has taken place for previous treatments, and track the corresponding acreage to confirm compliance with the off-site mitigation requirement. Project suggestions will be accepted from the member agencies or the public and the WWG would serve as the deciding body for final project selection. The WWG will also provide direction on possible research that could fulfill a portion of the acreage requirement, as specified below. The WWG will consist of members from the BLM, NDOW, and EML.

Treatment Options

- Burial of Above-Ground Power Line:

  The Plan of Operations for the Mount Hope Project proposes to bury the well field power line only within two miles of greater sage-grouse leks. The well field power line is ancillary to the overall mining operations and, subsequently, the standards for burial of power lines permitted under the right-of-way regulations do not apply. However, as an incentive to prevent further habitat degradation resulting from a new above-ground power line in intact PPH, an acreage credit would be granted toward the overall off-site mitigation requirement if the power line is buried. There are two separate portions of power line that may be above-ground. The first is located around the northernmost booster station shown on Figure ES.3 in the EIS. At this location, there are 1.7 miles of proposed power line located outside of the 2-mile buffers from active greater sage-grouse

leks, which would equate to an acreage credit of 402 acres[2]. The second area is the southernmost 8.4 miles of proposed power line within the wellfield, which equates to an acreage credit of 1,985 acres.

- Research

  Up to ten percent of the acreage obligation, a total of 1,379 acres could be met by funding research studies as determined by the Wildlife Working Group. Acreage credit would be granted at a rate of one acre per $600 of research funding.[3]

- Vegetation Treatments:

  Treatments may include, but are not limited to, the following:

  - Burn restoration (historic burns) including: seedings (sagebrush and understory vegetation via broadcast, broadcast and harrow, drill or hand planting of seedlings), noxious and non-native invasive plant treatment (Plateau® for cheatgrass and other herbicides as needed for other invasive and/or noxious weed species), and possible temporary fencing to protect areas of restoration.
  - Brush thinning via mechanical methods, herbicide or hand thinning followed by seeding (seeding to be done via broadcast or drill methods) to increase the diversity in monotypic sagebrush habitats;
  - Mechanical or hand shrub thinning or green stripping to reduce fuels and fire risk to greater sage-grouse habitats followed with successful seeding (seeding to be done via broadcast or drill methods);
  - Weed treatment followed with successful seeding (seeding to be done via broadcast or drill methods);
  - Mechanical or hand thinning of pinõn-juniper areas in which shrubs are still the dominant form (phase I pinõn-juniper woodland) or are co-dominant (early phase II pinõn-juniper woodland).
  - Diversification of seedings: seeding of shrubs and forbs into historical crested wheatgrass seedings.
  - Restoration and fencing of springs and wet meadows.
  - Application of prescribed fire or wildland fire for resource benefit.

- Additional activities deemed appropriate by the WWG. Equivalent acreage credits would be assigned by the WWG as appropriate.

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[2] This calculation is based on the GSGCT, 2010 document that recognizes a 600-meter "zone of influence" on both sides of above-ground power lines. The calculation discounts the acreage by 50 percent since the burial of the power line would simply prevent further degradation rather than providing any enhancement to existing habitat and the area would likely require additional temporary disturbance in the future for maintenance purposes. The 50 percent discount rate was developed in consultation with NDOW.

[3] This rate is based on the GSGCT, 2010 document that recognizes $600 as the approximate cost to restore a degraded acre of habitat.

Completion Schedule

Within the first five years from the date of the Record of Decision, EML will be responsible for completing 3,300 acres of vegetation treatments. Within the first 15 years from the date of the Record of Decision, the equivalent of 10,100 acres must be restored. The equivalent of the total amount of 13,791 acres must be restored within 25 years from the date of the Record of Decision. During the first five years, the acreage requirement must be met through vegetation treatments only. During the remaining years the acreage requirements can be achieved using any of the Treatment Options listed above. If there are remaining acres that have not been completed by the 25-year point, EML will provide $600 per acre to the BLM to be placed in an interest bearing account for use on projects selected by the WWG that would comply with the Treatment Options listed above.

Effectiveness of Proposed Mitigation

Vegetation treatments have been successfully completed elsewhere on the Battle Mountain District and on land administered by the BLM throughout the western United States. Research and vegetation treatments, as proposed, would be selected by the WWG to address the highest priority areas that would benefit the local population of greater sage-grouse, which would enhance the effectiveness of the mitigation. These combined measures will minimize the development impacts and maintain or improve greater sage-grouse habitat throughout the Three Bar PMU. Increasing the quality and the quantity of currently degraded greater sage-grouse habitat will benefit not only individuals but also the local population.

Mitigation Impacts

Site-specific impacts resulting from vegetation treatments will be analyzed through separate NEPA processes such as the 3 Bars Ecosystem and Landscape Restoration Project, which is already underway, and other future documents.

ATTACHMENT 4

MITIGATION STRATEGY FOR PROTECTING IMPORTANT ROOSTING COLONIES OF TOWNSEND'S BIG-EARED BATS AT THE MOUNT HOPE MINE

Mitigation strategy for protecting important roosting colonies of Townsend's big-eared bats at the Mount Hope Mine by Eureka-Moly, LLC

Submitted to:

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By:

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for

Holistic Wildlife Services, LLC
112 Hampton Roads Avenue
Hampton, VA 23661

BACKGROUND

Surveys investigating the use of abandoned mines by bats were conducted at the Mount Hope Mine project area (MHP) between March 6-11, 2007 and June 22-27, 2007. During these surveys we identified 12 discrete mines accessed through 21 openings. These mines included simple prospects, small production mines and one large complex mine. The Mount Hope Project Area includes mine workings which represent hibernation habitat for small-footed myotis and Townsend's big-eared bat. Most notable use was documented in the largest and most complex of the mines within the project area, the Mount Hope Mine (accessed through MHP Adit 01, MHP Shaft 06, MHP Stope, and MHP Adit 09). Cold season use by bats of other workings in the project area was relatively light and not exceptional.

Evidence of warm season use was documented throughout the project area with virtually all mines realizing some level of warm season use by bats. The most important mine for summer use is the Mount Hope Mine in which evidence was found of significant summer habitat for Townsend's big-eared bat. Biological residues associated with maternity use (guano, a single dead bat, and egg casings associated with parasites of ectoparasites) were documented in portions of this mine most closely associated with MHP Adit 9. Additionally the distribution of Townsend's big-eared bat guano in the Lorraine Mine suggests that this or another maternity colony occasionally uses these workings. Full descriptions of sites and details of biological findings are included in a final report submitted to the client in 2007. For sake of clarity however, a brief description of each site is included in Appendix I for reference.

Eureka Moly, LLC (EMLLC) proposed to mitigate for bats through a two phase strategy in which the least biologically important bat roosts were closed during Phase I in the fall of 2008 (report submitted). Other sites with moderately important bat habitat found within the footprint of the future operating areas (MHP Adit 6, Shaft 02, Shaft 03 complex; Lorraine Mine Portal 1 and 2; Vinnie Mine) are proposed for exclusion and backfill during Phase II. While exclusion of these sites prior to backfill attenuates the risk of any direct mortality resultant from the securing of these mines, it does not provide mitigation for the associated loss of habitat, particularly for subterranean habitat that would be lost through the closure of the Mount Hope Mine proper (MHP Adit 01, MHP Shaft 06, MHP Stope, and MHP Adit 09). All exclusions will follow protocols established in "Managing Abandoned Mines for Bats" (Sherwin et al. 2009) and all mines realizing hard (destructive) closures will be confirmed vacant prior to final closure. Details of past treatments and locations of openings are included in Figures 1 and 2.

PROPOSED MITIGATION STRATEGY

The greatest biological concern (for bats) has been the intense use of subterranean environments associated with the Mount Hope Mine complex (accessed through MHP Adit 01, MHP Shaft 06, MHP Stope, MHP Adit 09). This large mine (described in Appendix 1) is used by a maternity colony of Townsend's big-eared bats. Additionally, lower levels are used by bachelor Townsend's big-eared bats and small-footed myotis and for winter hibernation by a variety of species. The intensity and variety of use makes mitigating for the potential loss of this mine a challenge for a several reasons. First, it would be difficult to locate nearby mitigation habitat to replace this site as there are few abandoned mines of any size immediately adjacent to the MHP area, and secondly this site is used in such a

significant way that true replacement habitat is unlikely to be found locally. With this in mind EMLLC proposes that the Mount Hope Mine and all associated openings be preserved *in situ,* with all openings protected with bat compatible closures. This strategy is strongly supported by Dr. Rick Sherwin. The protection and maintenance of the Mount Hope Mine underground workings will offset the losses of habitat included in all other mines (closed in Phase I and proposed for exclusion and closure in Phase II) of this project. Additionally, bats excluded from other mines in the project area are familiar with this mine and will take advantage of its preservation. Finally, preservation of this site ensures that EMLLC is mitigating for colonies of bats directly impacted by this project, instead of simply trading these colonies for some located elsewhere, in a more convenient to manage location.

In preparation for this mitigation strategy each opening of the Mount Hope Mine has been revisited by Dr. Sherwin and designs of bat compatible closures for these openings have been prepared. Proposed closure designs are described below with specifications for gates included in Appendix 2.

MHP Adit 01

This opening accesses the primary haulage level of the Mount Hope Mine. The portal measures roughly 5 feet high and 4 feet wide. The initial 40 feet of the mine is driven through unconsolidated material and is supported by timberwork. This portal will be secured with a bat compatible closure, placed into a 3 foot diameter, 15 foot long culvert. Spacing on the horizontal bars will be no less than 5 inches. Removable bars will be used to allow future access.

MHP Shaft 06

This opening measures roughly 4 feet by 4 feet and accesses the emergency manway exit of the mine. This portal will be secured with a steel grate constructed of 2 inch square stock or similar material, with 4 inch spacing maintained between the bars. In order to maintain life of the grate and minimize vandalism this gate will be anchored into a cement collar, constructed around the shaft.

MHP Stope

This large glory hole measures roughly 30 feet by 40 feet and drops vertically into a large stope system. The edges of the stope are undercut, producing a very dangerous working. This opening will be secured with a chain link fence (or similar) constructed around the open stope at a sufficient distance to ensure human safety.

MHP Adit 09

This opening provides access to the upper stopes of the Mount Hope Mine though a 200' long decline. The opening measures 4 feet by 3 feet and is driven through unconsolidated material for the initial 10 feet. This portal will be secured with a bat compatible closure, placed into a 3 foot diameter, 15 foot long culvert. Spacing on the horizontal bars will be no less than 5 inches. Removable bars will be used to allow future access.

Figure 1. Map of mine openings in the Mount Hope Mine Project Area.

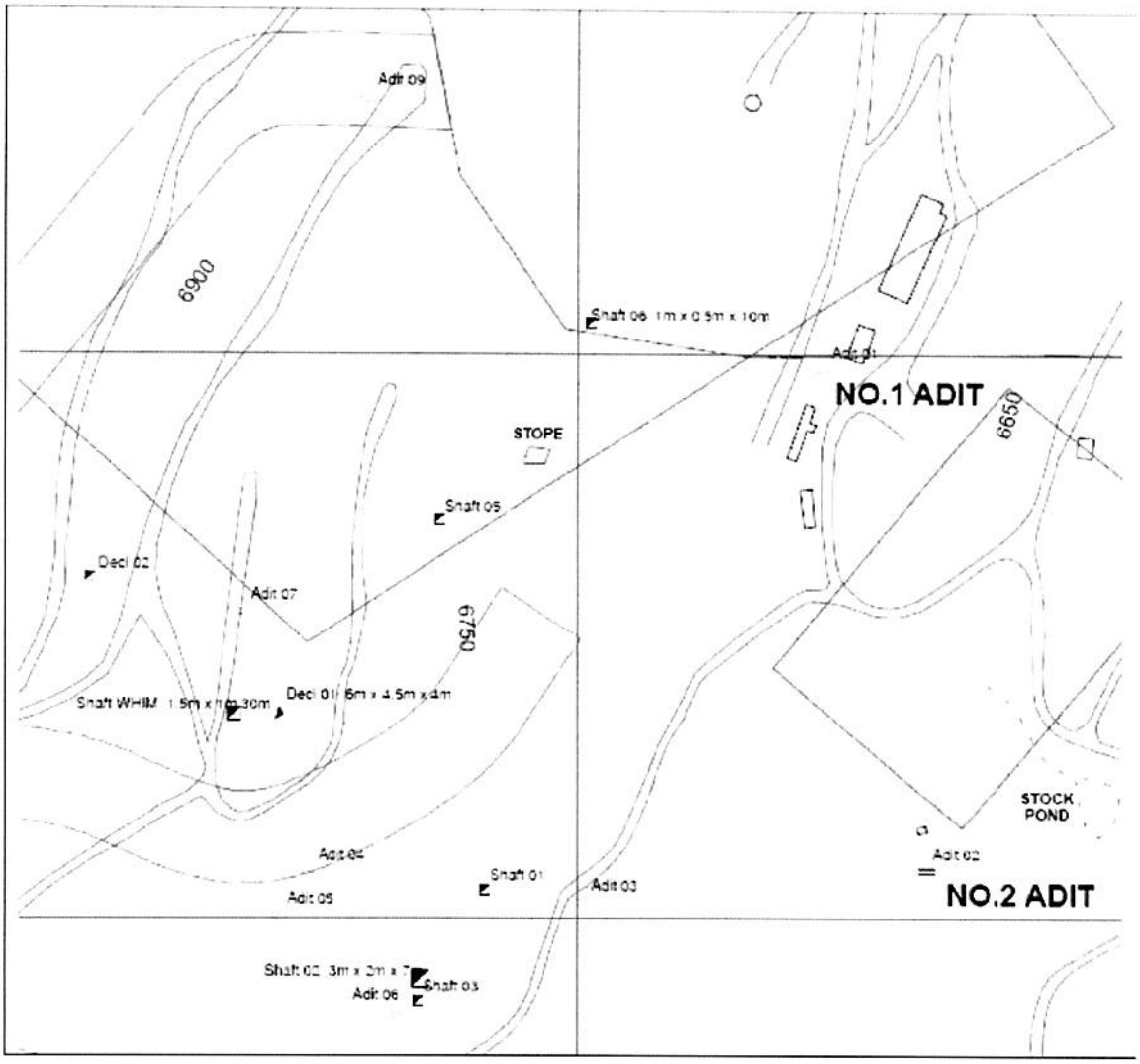
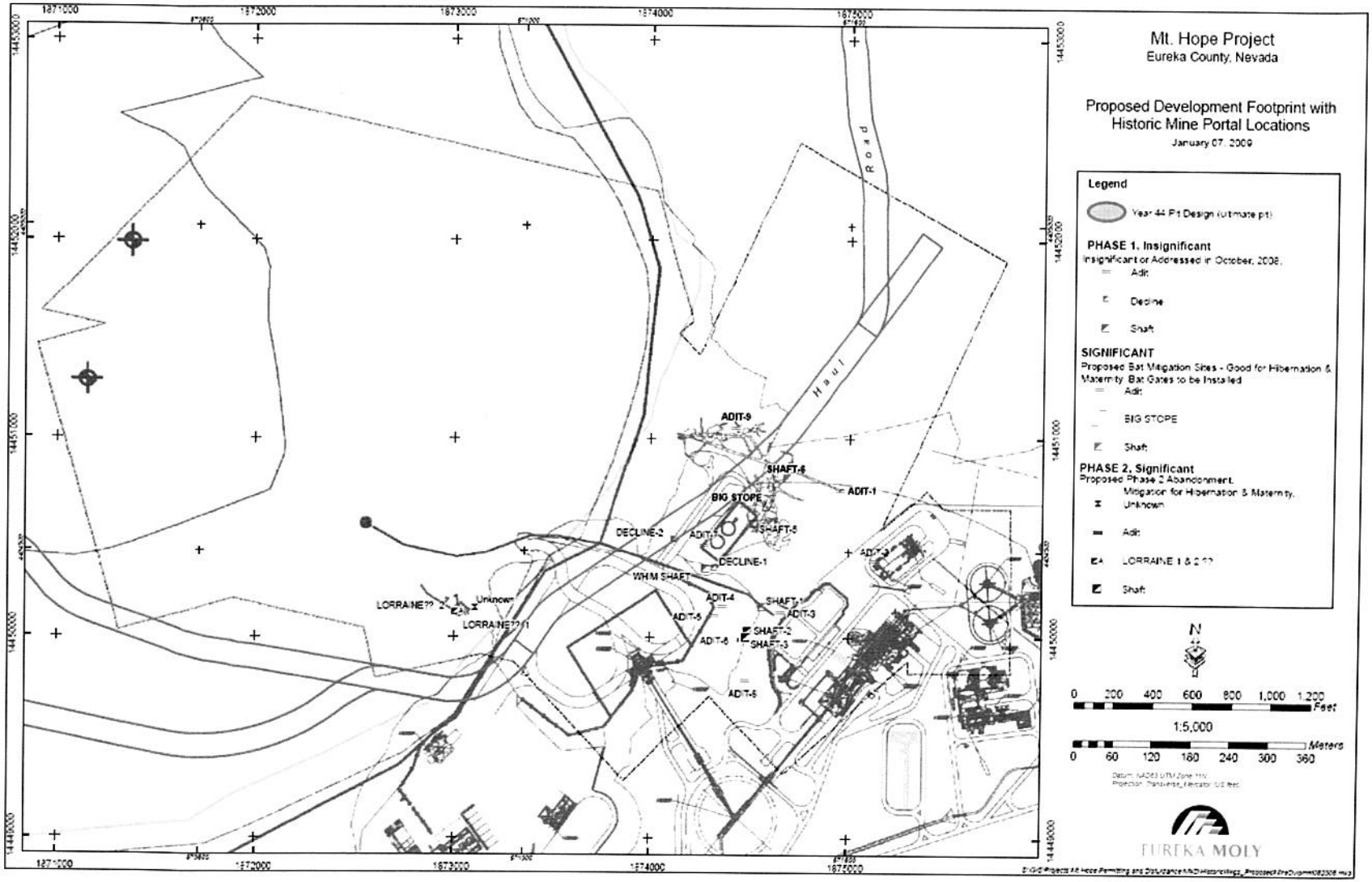


Figure 2. Map of mine openings in the Mount Hope Mine Project Area along with overview of footprint of mining operations and portal treatments completed to date (if any).



APPENDIX 1

Site Descriptions, Biological Evaluations, and Recommendations

(Excerpted from "Results of Cold and Warm Season Bat Surveys of Abandoned Mines at Mount Hope, Nevada"

We surveyed a total of 12 discrete mines accessed through 21 openings (Figure 1). Surveyed mines included simple prospects, small production mines and one large complex mine. Internal climatic conditions varied dramatically throughout the MHP area, with internal condition largely reflecting the number and placement of openings. Descriptions of mine interiors, biological findings, and specific recommendations are given below and in Table 1. Cold season surveys were conducted March 6-11, 2007 and warm season surveys were conducted June 22-27, 2007.

Mount Hope Mine (MHP Adit 01, MHP Shaft 06, MHP Stope, MHP Adit 09)

The Mount Hope Mine is a relatively large, complex mine that includes several thousand feet of horizontal workings broadcast across at least 6 discrete levels. The primary haulageway (accessed through MHP Adit 01) trends west into the hillside for approximately 1,000 feet. Drifts and crosscuts driven from the haulageway add an additional 1,800 feet of workings on this level. A series of raises, and inclines were driven from the main haulage level to access upper ore bodies. Removal of ore bearing materials from these areas has produced a series of large "ballrooms" that are ultimately accessible through an upper level decline (accessed through MHP Adit 09), an emergency manway exit (MHP Shaft 06) and a glory hole (MHP Stope). Lower levels (defined as those below the level of MHP Adit 01) are accessible through underhand stopes, winzes, and declines. These lower levels provide access to a series of large stopes that appear to be the most recently worked areas of the mine.

During cold season surveys we found hibernating Townsend's big-eared bats and small-footed myotis within the mine along with evidence of Townsend's big-eared bat maternity activity in the upper decline. At that time we documented 13 individual smallfooted Myotis scattered throughout this mine and a single Townsend's big-eared bat roosting in the primary haulage level. The propensity of myotids to roost in cracks and crevices and the complexity of the mine make it possible that other individuals were in the mine at time of survey but were unobservable.

During our warm season surveys we observed pregnant Townsend's big-eared bats in the upper level decline, but the bats had not yet formed a maternity cluster or given birth. Individuals were active at time of survey making it difficult to assess colony size, but at least 30 individuals were present at that time. We also located guano accumulations in workings surrounding the base of the MHP Stope that indicate that the maternity colony also uses this portion of the mine during the maternity period. Based on the sizes of located guano piles and staining (produced by pararhinal glandular secretions) on the back, it is likely that the number of mature females in this colony does not exceed 75 individuals. We found scattered guano and insect parts throughout the mine suggesting moderate levels of warm season use of all levels of the mine.

Recommendation

In the case that mining operations result in the destruction of, or otherwise negatively impact these workings, it is critical that adequate mitigatory actions precede and accompany their destruction. I recommend that the openings to this mine be left open

and accessible to bats until maternity use has ended, at which point intensive exclusion activities should be conducted (see Guidelines for Exclusions). Immediately following verification of site vacancy all openings to the mine should be permanently sealed with backfill or similar materials.

MHP Adit 02

The original adit opening is largely plugged with debris yet remains open to bats, where human access is provided through a vertical excavation that penetrates the workings at a depth of approximately 75 feet into the hillside. The mine openings were only recently excavated and stabilized by personnel from Idaho General Mines. The openings provide access to a crosscut that has been driven 1,200 feet into the hillside. Short drifts at 600, 900, and 1,150 feet represent the only lateral workings. A raise accesses the base of the decline in the MHP Adit 03/MHP Shaft 01 complex; however this connection is completely plugged with muck making it impossible to move between workings. The plug is sufficiently porous however that measurable airflow is moving between workings. A 20 foot deep winze 50 feet from the face of the primary crosscut represents the only lower workings in this mine. A small dam has been constructed near the portal to capture water draining through the mine. This water retention has resulted in the accumulation of silt behind the dam such that the distance between the sill and back slowly lessens until reaching a large series of fractures (620 feet -presumably where the water flows into the mine) at which point the dimensions return to historical size. The initial 300 feet beyond the dam was flooded to a depth of 8 inches and stains on the ribs indicate that water levels have historically reached as high as 2-3 feet. The interior of this mine was uniformly humid and wet.

We found no evidence that bats have recently used this mine in either the warm or cold seasons, which is not surprising based on the fact that the site was completely sealed until very recently. The internal conditions appear conducive to hibernation use by bats and it is likely that winter use will be realized if the site were to remain open and accessible.

Recommendation for Closure

This mine was only recently reopened and there is no evidence that bats have used this site in the recent past. In the case that mining operations result in the destruction of, or otherwise negatively impact these workings I recommend that the site be backfilled following their exclusion. Immediately following verification of site vacancy both openings to the mine should be permanently sealed with backfill or similar materials.

MHP Adit 03/MHP Shaft 01 Complex

These openings access the uppermost level of workings associated with MHP Adit 02, and include roughly 340 feet of workings on 2 discrete levels. The adit opening (recently opened by personnel from Idaho General Mines) accesses a crosscut that has been driven west for a distance of approximately 100 feet at which point it intersects the base of MHP Shaft 01. Drifts have been driven south and northwest from the base of the shaft for distances of 15 and 45 feet respectively. A 50 foot deep decline continues west from the base of the shaft and provides access to a 20 foot long crosscut, and once connected with

the MHP Adit 02 level. This historical connection is now plugged with muck essentially dividing the mine into two discrete sections.

We found no evidence of cold season use of this mine by any species of bats, nor were any bats present during warm season surveys. We did observe scattered guano throughout the mine suggesting occasional warm season use by Townsend's big-eared bat and a small species of myotis (likely from small-footed myotis).

Recommendations for Closure
The adit opening was only recently opened and has likely greatly enhanced the quality of the underground environment by increasing internal airflow and associated thermal complexity. In the case that mining operations result in the destruction of, or otherwise negatively impact these workings I recommend that measures be taken to minimize the likelihood of direct mortality associated with portal closure. Therefore I recommend that both openings be closed following adequate exclusion efforts.

MHP Adit 04
This large opening accesses a declined trench that terminates in a 20 foot deep prospect. We found scattered moth wings in this mine suggesting occasional use of this site by night roosting bats. This mine offers very little protection from ambient conditions and it is unlikely that it realizes anything but the most occasional use by any local species of bat.

Recommendation for Closure
Based on the limited internal dimensions of this mine it is unlikely that bat use will be overlooked by visual inspection. I recommend that the site be inspected for occupancy by bats, followed immediately by permanent closure with backfill materials.

MHP Adit 05
This site has been completely reclaimed and does not represent potential bat habitat.

Recommendation for Closure
No further closure action is necessary at this site.

MHP Adit 06/MHP Shaft 02/MHP Shaft 03 Complex
This small mine includes an open trench that leads to an adit opening which accesses approximately 250 feet of workings on two levels. The adit travels due north from the adit portal for approximately 40 feet where it intersects MHP Shaft 3 (at the 30' level). This shaft continues 60 feet below the adit level and terminates at a small pocket stope driven 15 feet into the west rib from the sump. The drift continues north beyond the windlass station for another 30 feet where it opens into the base of MHP Shaft 2. The adit turns west and continues for an additional 10 feet beyond this point.

We observed 2 small-footed myotis hibernating in the pocket stope at the base of MHP Shaft 3. There were no bats roosting in the mine during our warm season surveys, however we did observe scattered guano throughout this mine suggesting light levels of warm season use by Townsend's big-eared bat and a smaller species of myotis (most

likely from small-footed myotis).

Recommendation for Closure
In the case that mining operations result in the destruction of, or otherwise negatively impact these workings, measures should be taken to minimize the likelihood of direct mortality associated with portal closure. I recommend that exclusion materials be placed over all three mine openings and that the site be backfilled immediately following confirmation of site vacancy.

MHP Adit 07
This opening accesses a small prospect that has been driven roughly 30 feet west into the hillside. We found no evidence that bats have used this mine in any significant way in the recent past. Additionally, the small internal dimensions and lack of variability of internal surfaces suggest that this mine is of little consequence to local species of bats.

Recommendation for Closure
I recommend that exclusion materials be placed over this mine opening and that the site be backfilled immediately following confirmation of site vacancy.

MHP Adit 08
This site has been completely reclaimed and does not represent potential bat habitat.

Recommendation for Closure
No further closure action is necessary at this site.

MHP WHIM Mine (Whim Shaft and MHP Decline 01)
The Whim Mine is one of the oldest mines in the Mount Hope Project Area. Historical maps suggest that the primary shaft once reached a depth of 175 feet at which point it connected with some relatively large stopes. Internal surveys revealed that debris from the mill site has been dumped into the shaft and it is now completely plugged with these materials at a depth of 130 feet. Workings above this plug include stub drifts driven 30 foot into the north rib at depths of 30, and 125 feet. The 30 foot level drift undercuts an inclined stope driven from the north east rib of the shaft. This stope connects to the surface through MHP Decline 01.

We found no evidence that bats have recently used this mine in any significant way during either the cold or warm seasons; however the mine includes sufficient internal dimensions and climatic variability that bats likely make occasional use of this site.

Recommendation for Closure
If mining operations will result in the closure of this mine, I recommend that the decline be closed immediately with backfill material. Exclusion materials should be placed over the shaft opening and the site should be sealed immediately following confirmation of site vacancy. This shaft could be effectively sealed with backfill to depth or foam (PUF plug) with backfill cover.

MHP Decline 02

This opening accesses a 40 foot long pit that declines south to a depth of 25 feet where only the last 10 feet are underground. We found no evidence that bats have used this mine in any significant way in the recent past. Additionally, the small internal dimensions of this mine suggest that it is of little consequence to local species of bats.

Recommendation for Closure

Based on the limited internal dimensions of this mine it is unlikely that bat use will be overlooked by visual inspection. I recommend that the site be visually inspected for occupancy by bats, followed immediately by permanent closure with backfill materials.

MHP Shaft 05

This feature appears to be the remains of a structure rather than a mine opening. However, it is possible that the timbers represent the remains of a manway that may have accessed the Mount Hope Mine complex. If this site is indeed the remains of a mine it is now neither open nor accessible to bats.

Recommendation for Closure

If this feature was once a mine opening it is now completely plugged. No further action is necessary at this site.

The Lorraine Mine (Portal 1 and Portal 2)

The Lorraine Mine is accessed through two cable netted adit openings. These openings provide access to a relatively large mine that includes over 600' of drifts, crosscuts and stopes on at least 3 discrete levels. Additional lower levels appear to have been silted in through natural erosion processes associated with valley drainage. One of the uppermost stopes of the mine appears to open to the surface through a timber covered shaft (we were able to detect light coming through a plug in the back). However we were unable to locate this portal during surface searches.

We observed several small-footed myotis hibernating in this mine during cold season surveys. No bats were present during warm season survey, however we found abundant Townsend's big-eared bat guano scattered throughout this mine suggesting moderate levels of warm season use, and occasional use of the workings by the Townsend's big-eared bat maternity colony.

Recommendation for Closure

In the case that mining operations result in the destruction of, or otherwise negatively impact these workings, it is critical that adequate mitigatory actions precede and accompany their destruction. I recommend that the openings to this mine be left open and accessible to bats until maternity use has ended, at which point intensive exclusion activities should be conducted. Immediately following verification of site vacancy all openings to the mine should be permanently sealed with backfill or similar materials.

Vinnie Mine

This opening accesses a 100 foot long crosscut from which a 75 foot long drift has been driven. The mine is of relatively consistent height of six feet and width of 4 feet. We observed hibernating Townsend's big-eared bats and small-footed myotis in the mine during cold season surveys. This mine is used as a hibernation roost by Townsend's bigeared bats and small-footed myotis. Additionally we observed a single Townsend's bigeared bat roosting in the mine during warm season surveys. Scattered guano indicates that warm season use of this mine is relatively common.

Recommendation for Closure

In the case that mining operations result in the destruction of, or otherwise negatively impact this mine, measures should be taken to minimize the likelihood of direct mortality associated with portal closure. I recommend that exclusion materials be placed over the mine opening and that the site be backfilled immediately following confirmation of site vacancy.

APPENDIX 2

Recommended Gate Designs

(Designs from the Utah Division of Oil, Gas and Mining
that have proven effective throughout Utah)

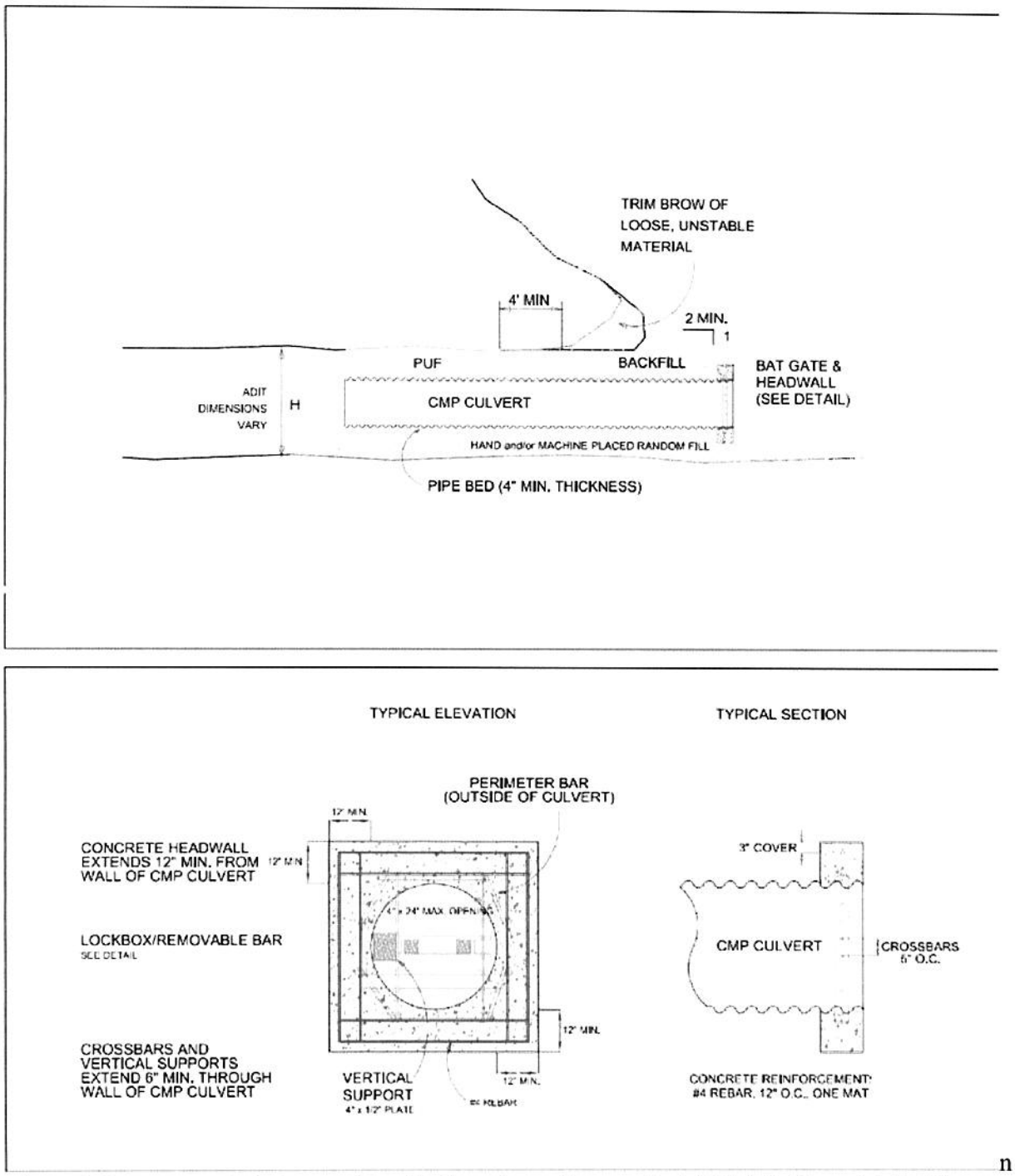


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Figure 3. Recommended plans and details for culvert closures for MHP Adit 01 and Adit 09. Gates should be constructed of angle-iron, or 1 inch square stock steel.

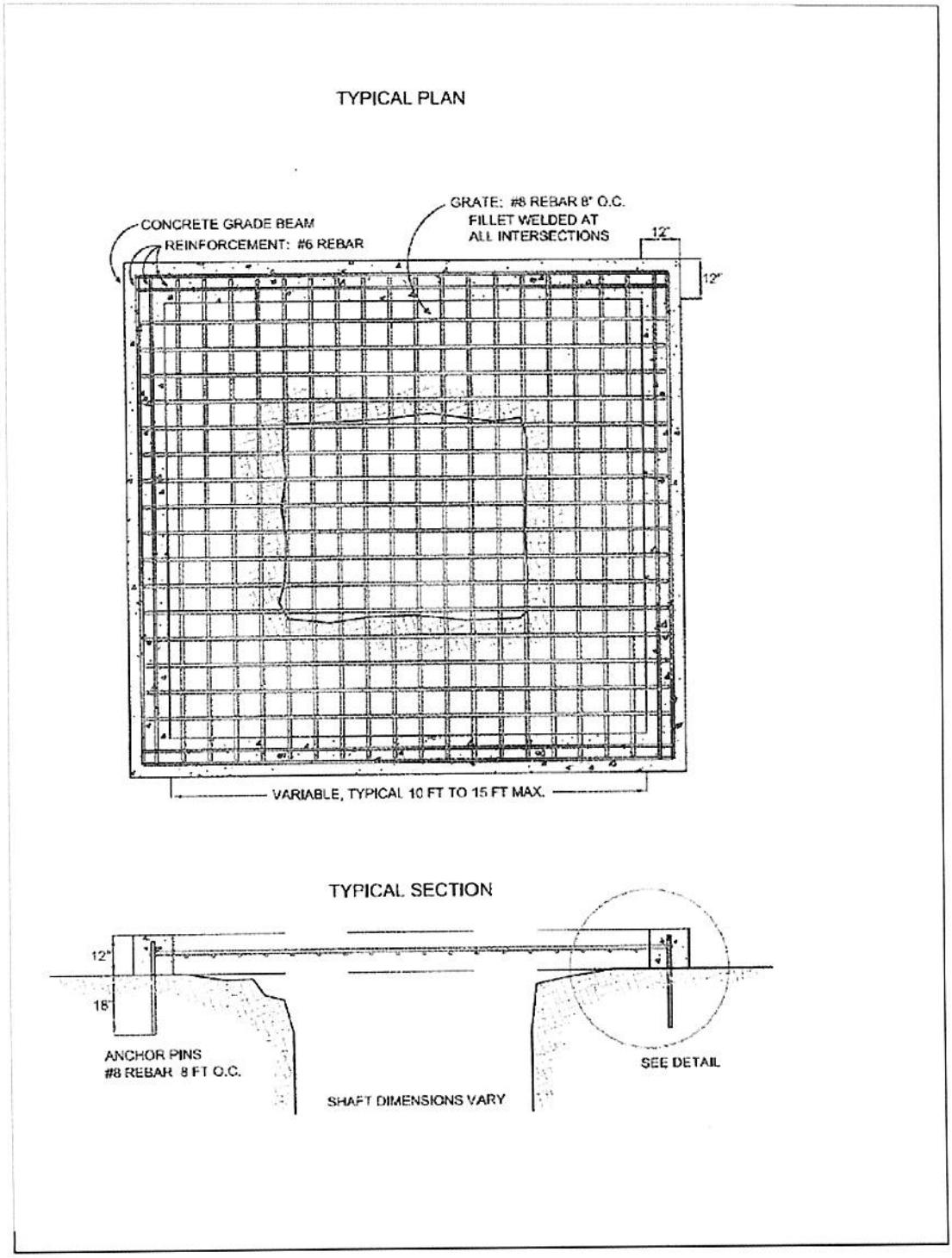

Figure 4. Recommended closure design for MHP Shaft 06. Grate materials should be constructed of either #08 rebar, 1 inch square stock steel, or angle iron as deemed most appropriate for structural integrity of the site.

APPENDIX E

MOUNT HOPE SOCIOECONOMIC SUPPLEMENTAL ANALYSIS AND ECSD DATA

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Memorandum

To: Angelica D. Rose
Planning & Environmental Coordinator
US BLM Battle Mountain District Office

From: George Blankenship, BCLLC & Ron Dutton, Sammons/Dutton LLC

Date: March 20, 2009

Subject: Supplemental information to address Eureka County concerns with the June 2, 2008 Mount Hope Project Socioeconomic Assessment

Eureka County has raised a number of issues and concerns regarding the June 2, 2008 Mount Hope Project Socioeconomic Assessment prepared by Blankenship Consulting LLC and Sammons/Dutton LLC (the socioeconomic assessment). This memo summarizes the process and results of efforts taken in consultation with Abby Johnson and Rex Massey, consultants to the Eureka County NEPA Committee, to address five areas of those concerns.

1. Mount Hope-related population estimates
2. The characterization of the southern Eureka County economy
3. The description of the Eureka utility infrastructure and existing deficiencies
4. The effects of the Mount Hope Project on the existing Whiskey Flats landfill
5. The assessment and portrayal of the fiscal conditions and potential effects of the project

The individuals identified above worked cooperatively to reach mutually acceptable understandings and resolutions to items #1 through #4. The results of those efforts are presented below. With regard to Item # 5, the group was unable to achieve a similar level of agreement. Consequently, we understand that Eureka County intends to submit additional information on fiscal impacts identified in their report, Eureka County Fiscal Impact Review and Analysis of the Mt. Hope Project (Research and Consulting Services, Inc., December 2008) for the BLM's consideration in the NEPA process. Item # 5 in this memo summarizes the findings of the County's fiscal assessment and identifies our general concerns associated with some of those findings.

1. **Mount Hope-related population estimates**: *Eureka County noted the uncertainties that exist with respect to the Mount Hope Project operations phase resident population projections and some of the household size, employee per household and school age children per household factors used in the socioeconomic assessment. The socioeconomic assessment assumed that 35 percent of the Mount Hope operations workforce would be comprised of households relocating to southern Eureka County and the remainder of the workforce would be comprised of daily and weekly commuters and local hires. The*