2.0 EIS Addendum

This chapter contains specific modifications and updates to the Project Draft EIS published in June 2012. These revisions were made in response to comments received during the 45-day public comment period from June 1 through July 17, 2012. **Table 2-1** identifies the text revisions. Where text has been modified or added, the new text appears in ***bold italic*** print. Deleted text appears with a ~~strikeout line~~ through the text. Revised tables are presented in their entirety following **Table 2-1**.

Rodeo Creek Gold Inc. (RCG) made a slight change to the existing Hollister operations since the Draft EIS was published in June 2012. RCG replaced the two diesel generators that supply electric power for the Hollister operations with two liquid natural gas (LNG)-fired generators. This change in fuel source from diesel to LNG resulted in lower emissions for existing operations. This change also resulted in a minor change in the Proposed Action as the emergency backup power to the proposed overhead electric transmission line would now be provided by LNG-fired generators instead of diesel. The text and tables have been modified accordingly based on this change. No additional air dispersion modeling was performed for the Final EIS based on this change because air emissions would be less than what was predicted in the Draft EIS and emissions would not exceed state and national Ambient Air Quality Standards.

The proposed conversion of power from on-site generators to overhead electrical transmission line would include construction of one transmission line and one distribution line as described in the Draft EIS (Section 2.4.6.1): a 120-kilovolt (kV) transmission line extension from the Coyote Creek Substation located east of the Project Area to the proposed Rodeo Creek Substation, and a 24.9-kV distribution line to bring electrical power from the proposed Rodeo Creek substation to the Hollister Underground Mine area. RCG's right-of-way (ROW) for the 24.9-kV overhead distribution line and substation has been assigned BLM project file number NVN-091723. NV Energy's ROW for the 120-kV overhead transmission line has been assigned BLM project file number NVN-091724. A summary of RCG's Plan of Development (POD) for the 24.9-kV overhead distribution line is provided below. A summary of NV Energy's POD for the 120-kV overhead transmission line also is provided below.

2.4.6.1 (Addendum) Rodeo Creek Gold's 24.9-kV Overhead Distribution Line Plan of Development

RCG applied for a ROW grant for a 24.9-kV overhead distribution line. This ROW project would consist of constructing a 24.9-kV overhead distribution line, a substation located on private land adjacent to Antelope Creek, a switch gear facility located in the Hollister Underground Mine area, and associated access roads and routes. This electric power distribution line would be approximately 6.2 miles long, of which 4.5 miles would parallel Little Antelope Creek Road between the proposed substation located adjacent to Antelope Creek and the proposed switch gear facility located in the Project area, with 1.7 miles of line supplying power to facilities. Electric power would be reduced from the 120-kV overhead transmission line to the 24.9-kV overhead distribution line at the proposed substation (RCG 2012a).

The 24.9-kV distribution line would consist of approximately twenty single wooden poles with wooden double support crossbars. RCG would use Avian Power Line Interaction Committee raptor deterring design measures, which may include but are not limited to, a 60-inch separation between conductors and/or grounded hardware in eagle-use areas as well as the use of insulating or cover-up materials for perch management (RCG 2012a).

A 1-acre temporary construction lay-down (equipment storage) area would be established on private land adjacent to the proposed Rodeo Creek Substation. Existing roads and overland travel would be utilized where possible for construction and maintenance. Access roads would only be constructed as

needed, resulting in approximately 15.2 acres of total disturbance. Access roads may be graveled to maintain a 15-foot-wide roadbed (RCG 2012a).

2.4.6.1 (Addendum) NV Energy's 120-kV Overhead Transmission Line Plan of Development

Land/ROW Requirements for Temporary Construction Activities

NV Energy would require a permanent 90-foot-wide ROW the length of the proposed electric power transmission line corridor. Access to the corridor would be via existing roads, overland travel, and new spur roads that would be constructed from the existing Antelope Creek Road (NV Energy 2012).

Roads

None of the existing roads would be widened; however, they may be graded. Vegetation would be trimmed as necessary to approximately 3 to 6 inches above grade, leaving stems and root systems intact to allow for regrowth. Overland travel would be limited to an average width of 10 feet. Overland travel would involve all necessary construction equipment including track and rubber tired vehicles.

New spur roads would have an average width of 20 feet. Construction would involve light grading in most areas, but may receive extensive blading and side cuts to produce safe and level access. Erosion and sediment control measures would be installed as needed and would abide by BLM's best management practices (BMPs). After transmission line construction is complete, the spur roads would be re-contoured and seeded with a BLM-approved native seed mix (NV Energy 2012).

Transmission Structures

Transmission structure work areas would disturb BLM land and private land. Temporary work pads measuring 150 feet x 150 feet in size would be used for each 2-pole H-frame structure (for the 24.9-kV line); 200 feet x 200 feet pads would be created for each 3-pole structure (for the 120-kV line). Three pull sites 300 feet in diameter would be necessary for conductoring of the line; temporary work pads would fit within the pulling sites. Two staging areas also would be created along the proposed transmission line on private land. Areas would be graded, and soil may be imported to achieve flat surface elevations as necessary along the ROW and temporary work space areas.

All proposed transmission line construction activities would be conducted within the 0.25-mile-wide study corridor where vegetation, wildlife, special status species, cultural resources, and waters of the U.S. (including wetlands) took place (described in Draft EIS Sections 3.12, 3.14, 3.16; and Final EIS Chapter 2.0).

Two holes would be excavated for each 2-pole H-frame structure. Three holes per structure would be excavated for the new 3-pole tap structures. Holes would be 3 feet in diameter and approximately 10 feet deep. In addition, holes for guy wire placement would be excavated at the 3-pole structures. Blasting may be required in rocky areas.

The conductor installed would consist of 397.5 aluminum conductor steel reinforced cable. Three pull sections would accommodate this process, requiring pulling sites on either end. The conductor would be installed onto new transmission structures by a sock line (a small cable used to pull the conductor) attached to the other end of the new conductor and pulled into the travelers using the pulling equipment staged at pulling sites. The line would be installed with a minimum ground clearance of 22 feet (NV Energy 2012).

Post-construction

Post-construction cleanup and demobilization would consist of spreading shredded vegetation previously collected from the cleared ROW as mulch for erosion control. Rocks removed during construction would be redistributed over the ROW to match adjacent site conditions. Previously existing roads that required grading for the transmission line construction would remain improved.

Overland disturbance and new spur roads created by the Project would be reclaimed to preconstruction conditions. Disturbed areas within the ROW and temporary work space areas would be recontoured, decompacted, and seeded with BLM-approved seed mixes (NV Energy 2012).

Long-term Operations and Maintenance Activities

NV Energy operations and maintenance personnel would conduct annual inspections of the line switching facility, and substation by helicopter, all-terrain vehicles, or line trucks. Every 10 years, NV Energy would conduct structure climbing inspections. In addition to inspections, NV Energy personnel also would access the line in the event that maintenance of a structure is required or under emergency conditions. Access to the line would be via existing roads or overland travel (NV Energy 2012).

Proposed Environmental Protection Measures

Pursuant to NV Energy's POD under their ROW application for construction of the transmission line, NV Energy has committed to implementing the following proposed environmental protection measures.

General Measures

All environmentally sensitive areas would be fenced or avoided. Personnel would be instructed regarding the protection of sensitive biological, cultural, and paleontological resources that may occur on site. Vehicle movement would be restricted to the ROW. Non-specular conductors would be installed to reduce visual impacts. All existing roads would be left in equal or better condition than preconstruction.

Soil Disturbance

Where significant grading is required, topsoil would be stockpiled and segregated for later application. Construction would be prohibited when soil is too wet to adequately support construction equipment.

Blasting

Potential rockslide/landslide areas would be avoided whenever possible. Blasts would be designed to minimize ground vibrations that may cause slope instability or impacts to wells and/or springs. Blasting within 500 feet of wells and/or springs would be avoided. All underground utilities would be located and marked prior to blasting to determine their location in relation to the ROW. Proper precautions would be used to minimize or avoid damaging structures or utilities located within 150 feet of blasting operations. Blasting mats would be used to prevent or minimize the amount of rock particles cast into the air following detonation.

Storm Water Management

NV Energy would apply for a storm water permit and would develop a Storm Water Pollution Prevention Plan that incorporates BMPs.

Noxious Weeds and Non-native Invasive Plant Species

Prior to construction, NV Energy would identify all noxious weeds and non-native invasive plant species present on land to be disturbed by construction activities and treat them as required by BLM. All gravel and fill material used would be certified weed-free. All off-road equipment would be cleaned prior to moving on to public land and if in noxious weed and/or non-native invasive plant species infested areas, would be cleaned before moving to a new location. Disturbing areas infested with noxious weeds and non-native invasive plant species would be avoided.

Post-construction, disturbed areas would be re-seeded with BLM-approved native seed mixes; and the NV Energy project area would be monitored annually for 3 years to identify and treat any new infestations of noxious weeds.

Water Features

All construction vehicles and equipment staging or storage as well as construction activities would take place at least 100 feet away from any streams, wetlands, and other water features.

Wildlife and Sensitive Species

Prior to construction, biological surveys of the ROW, access roads, and temporary work spaces would be conducted; potential habitat for listed species identified during surveys would be fenced for avoidance.

Excavations left open overnight would be covered or fenced to prevent livestock or wildlife from falling in. If a sensitive plant or animal species is identified during construction, work near the sensitive species would be halted and a qualified biologist would determine appropriate protective measures.

The new H-frame structure would incorporate perch deterrents in the form of a metal strip 75 millimeters (mm) in height and 3 mm thick, welded to the length of the metal cross arm; and all structures would have pole-top cones installed to prevent raptors from perching on the pole tops.

Cultural and Paleontological Resources

An initial intensive cultural resource inventory survey was completed (described in Draft EIS, Section 3.16.1.7). Prior to construction, all cultural finds within the Project corridor and temporary work spaces would be flagged for avoidance. Workers and individuals involved with the Project would be trained regarding the potential to encounter historic or prehistoric sites and objects, the proper procedures in the event that cultural items or human remains are encountered, prohibitions on artifact collection, and respect for Native American religious concerns. All personnel would be instructed to inspect for paleontological and cultural objects when excavating or conducting other ground-disturbing activities.

During construction, if potential resources are found, work would be halted within a minimum distance of 300 feet from the discovery and a professional archaeologist would be mobilized to the site to determine the appropriate protective measures. If human remains are encountered, BLM and Nevada SHPO representatives would be notified and procedures set forth in 43 CFR Part 10 Native American Graves Protection and Repatriation regulations would be followed as appropriate. Native American human remains discovered on state or private lands would be treated under the provisions of the Protection of Indian Burial Sites section of the Nevada Revised Statues (NRS) in Chapter 383. Procedures for inadvertent discovery are listed under NRS 383.170.

Hazardous Materials and Solid Waste

All construction vehicles would be maintained in accordance with the manufacturer's recommendations and inspected for leaks prior to entering the job site.

All hazardous waste materials would be properly labeled in accordance with Title 40 of the CFR Part 262. Hazardous material storage, equipment fueling and repair would be conducted at least 100 feet away from streams and other water features. Spilled material would be cleaned up immediately. All sanitary waste would be collected and managed in accordance with local requirements.

Air Quality

Driving speeds would be limited to 20 miles per hour (mph) on unpaved roads and on the ROW. All areas subject to ground disturbance would be watered as needed for dust control. Excavation and grading activities would be suspended when winds exceed 25 mph.

Fire Prevention and Response

NV Energy would designate a fire marshal who would coordinate with the BLM's fire management representative, as necessary. This individual would be responsible for conducting regular inspections of tools, equipment, flammable fuel storage areas/handling practices as well as fire inspections along the ROW to confirm compliance with fire prevention measures. The NV Energy fire marshal would remain on duty and on site when construction activities are in progress, would ensure that all workers are aware of all fire protection measures, would report all wildfires in accordance with BLM stipulations, and would initiate fire suppression activities until relieved by agency or local firefighting services in the event of a project-related fire.

Workers would stop or reduce construction activities that pose a significant fire hazard until appropriate safeguards are taken. Fire suppression equipment would be present in areas where construction tools or equipment have the potential to spark a fire. Extra precautions would be taken when fire danger is considered to be high. All field personnel would be instructed regarding emergency fire response.

All flammable material would be cleared a minimum of 10 feet from areas of equipment operation that may generate sparks or flames. All welding or cutting of power line structures or their component parts would be approved by the NV Energy's construction foreman and in areas cleared of vegetation a minimum of 10 feet around the area. All internal combustion engines would be equipped with approved spark arresters. Equipment parking areas and gas/oil storage areas would be cleared of all extraneous flammable materials. Fuel tanks would be grounded. All motorized vehicles and equipment would be equipped with fire protection items (shovel, fire extinguishers, etc.). During periods of increased fire danger, a fire suppression vehicle would be available in the construction area (NV Energy 2012).

3.9.1 (Addendum) Summary Results of Wetland Delineation Report

AMEC E&I, Inc. (AMEC) conducted a field delineation on July 16-20, and August 22, 2012, to identify jurisdictional waters of the U.S., including wetlands, on the approximately 10,168-acre project area (AMEC 2012). The purpose of the delineation was to identify jurisdictional waters of the U.S., including wetlands, which are potentially subject to regulation by the U.S. Army Corps of Engineers (USACE). The waters of the U.S. and wetlands delineation was conducted according to the USACE 1987 Wetland Delineation Manual (Environmental Laboratory 1987), its Arid West Supplement v2 (USACE 2008a), Minimum Standards for Acceptance of Preliminary Wetland Delineations and A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western U.S. (USACE 2008b). The AMEC field delineation performed in 2012 updates the jurisdictional waters determination study performed by JBR Environmental Consultants, Inc. (JBR) in 2003 for the Hollister Development Block Project (JBR 2003a).

Prior to the AMEC field investigation, mapping of the site was reviewed for indications of ephemeral, intermittent, and perennial drainages. The U.S. Fish and Wildlife Service prepared the National Wetlands Inventory (NWI) maps for the area based on air photo interpretation to identify areas dominated by wetland plants. The NWI map does not identify any wetlands within the Project area. During the wetland delineation evaluation, AMEC considered the annual precipitation in the Elko area, a mean of 10.27 inches per year (Western Regional Climate Center 2012).

AMEC surveyed the Project area for indications of waters of the U.S. A total of 36 ephemeral drainage systems depicted characteristics of waters of the U.S. in the Project area. Details of the study,

including photos, NWI maps, and delineation forms are found in the report (AMEC 2012). AMEC's proposed jurisdictional determination is preliminary.

Table 2-1 Modifications and Updates to the Draft EIS

Draft EIS Section Number	Page	Paragraph[1]	Line(s)	Revised Text
2.2.7.1	2-13	1-2	all	Two ***liquid natural gas (LNG)-fired*** ~~diesel~~ generators at the Hollister Site provide electric power. ***Each LNG generator*** ~~Generator #1~~ produces approximately ~~2,922~~ ***1,945*** horsepower (hp) (**RCG** ~~2011~~ ***2012a*****)** ~~and Generator #2 produces 2,333 hp~~**.** The two generators and accompanying fuel storage tanks are located on the southwest side of the East Pit (**Figure 2-1**). The generators supply the necessary power for all permitted Hollister operations. On-site fuel storage includes aboveground gasoline and diesel tanks. A 5,000-gallon capacity gasoline tank fuels the light vehicles. ~~Three~~ ***Two*** 10,000-gallon tanks store diesel fuel for the ***backup*** diesel generator~~s~~ and underground mobile equipment.
2.2.8	2-16	Table 2-2	13th row	Methane has been added to Table 2-2, Chemicals Currently Used at Hollister Site. Common Name = ***Liquefied Natural Gas (LNG)***; Quantity =***24,400 gal***; Location = ***Fuel Storage Area***; Area Used = ***LNG Generators***; Rate of Use Per Year = ***2,845,522 gal***; Shipment Quantity = ***12,200 gal***.
2.4.6.1	2-53	1	1-6	Transmission line poles would be wooden with wooden cross-arms. ***Three-pole structures would be used for the 120-kV line, and two-pole H-frame structures would be used for the 24.9-kV line per NV Energy POD (NV Energy 2012). The new H-frame structure would incorporate perch deterrents in the form of a metal strip 75 mm in height and 3 mm thick, welded to the length of the metal cross arm; and all structures would have pole-top cones installed to prevent perching on the pole tops.*** ~~The 120-kV line would be an H-frame (two poles with one wooden cross bar). The 24.9-kV transmission line would have single wooden poles with double support crossbars.~~ RCG would use Avian Power Line Interaction Committee (APLIC) raptor deterring design measures, which may include, but are not limited to, a 60-inch separation between conductors and/or grounded hardware in eagle-use areas as well as the use of insulating or cover up materials for perch management (APLIC 2006).
3.9.3	3.9-9	3		Additional paragraphs to insert after paragraph 3: ***Primary riparian and wetland areas potentially impacted within the cumulative effects study area include the upper and middle reaches of Antelope Creek and supporting spring systems on adjacent hillsides. Information on habitat conditions in these areas was collected by BLM in 2011 (BLM 2011).*** ***The upper reach represents a unique ecological area represented by a complex of springs. Some of these springs support springsnails. Conditions are generally good although impacts from***

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				livestock in the form of trampling and compaction are evident in some locations. The springs occur in a group on a hillside adjacent to the confluence of Squaw and Antelope creeks. Surrounding uplands provide important terrestrial wildlife habitat. The area occurs in a relatively small basin and likely has very high value for wildlife as a result of the complexity and distribution of varied riparian and upland habitat types. Although an old fence surrounds the area, it is in disrepair and livestock are using the spring and adjacent streamside riparian areas. ***The middle reach represents the main stem of Antelope Creek above the confluence of Little Antelope Creek. Although flows are interrupted, riparian habitat conditions are trending upward as a result of changes in livestock grazing patterns and/or favorable climatic conditions. The new floodplain (relative to the historic floodplain which is now a terrace) is situated between cut banks and is sufficiently wide to provide an excellent base for growth and establishment of riparian vegetation. Dominant riparian species include coyote willow, American bulrush and Nebraska sedge. Willow regeneration is excellent in some locations. Livestock use was observed to be slight to light on herbaceous and woody riparian species. Significant infestations of scotch thistle were noted within the floodplain in some areas.***
3.13.1.1	3.13-1	2	2	Based on wetland surveys conducted within the Project area by JBR Environmental Consultants, Inc. (JBR) (2003a), ~~several small areas of perennial flow were identified along Little Antelope Creek~~ there are perennial reaches in Little Antelope Creek (Figure 3.9-1).
3.16.1.1	3.16.1	3	10	. . . Protocol Agreement (signed in 1999 and amended in ~~2009~~ ***2012***) between the BLM and Nevada SHPO. . .
3.16.4	3.16-18	1		Unavoidable adverse effects to known Historic Properties identified within the APE would be mitigated in accordance with the PA~~ and Historic Properties Treatment Plan~~. The BLM, in consultation with SHPO and ACHP, ~~is developing~~ ***would develop*** a mitigation and treatment plan ***as needed,*** that would address identified adverse effects of the project on Historic Properties. Any subsurface archaeological material discovered during construction activities would be treated in accordance with the PA, Applicant committed Environmental Protection Measures and 3809 Regulations. ***The PA includes an avoidance plan to benefit the Tosawihi Quarries Archaeological District and the TCPs. In the event a cultural resource site requires mitigation, the BLM would follow the Section 106 Process, including the BLM policy and guidance and the regulations to perform data recovery or mitigation of a cultural site.*** Per the PA, the BLM, SHPO, Tribes, and Nevada Site Stewards may monitor proposed disturbance

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				and any Historic Properties that remain untreated within or adjacent to the APE. Monitoring of Historic Properties around areas of exploration and mining would be effective in ensuring inadvertent damage would not occur to these properties.
3.17.1.3	3.17-4	Table 3.17-1		See Addendum Table 3.17-1b, Summary of Native American Consultation and Communication.
3.17.4	3.17-13	2		Unavoidable adverse effects to known Historic Properties, as well as sites of tribal importance identified within the APE would be mitigated in accordance with the PA ~~and Historic Properties Treatment Plan~~. Any subsurface archaeological material, including human remains, discovered during construction activities would be treated in accordance with the PA and NAGPRA, if applicable. ***The PA includes an avoidance plan to benefit the Tosawihi Quarries Archaeological District and the TCPs. In the event a cultural resource site requires mitigation, the BLM would follow the Section 106 Process, including the BLM policy and guidance and the regulations to perform data recovery or mitigation of a cultural site.*** Per the PA, the BLM, SHPO, and Tribes may monitor proposed disturbance and any Historic Properties that remain untreated within or adjacent to the APE. Monitoring of Historic Properties, including sites of tribal importance, around areas of exploration and mining would be effective in ensuring inadvertent damage would not occur to these properties. No additional mitigation is recommended.
3.19.1.2	3.19-9	Table 3.19-3		$PM_{2.5}$, Annual Average, Primary ($\mu g/m^3$), ~~15~~ ***12***
3.19.1.2	3.19-10	Table 3.19-3		Source: . . .(USEPA) ~~2010~~ ***2013***.[1]
3.19.2.1	3.19-11	1	12	. . . the Proposed Action, except the existing Hollister site power source, the two ~~diesel~~ ***liquid natural gas-fired (LNG)*** generators . . .
3.19.2.1	3.19-11	1	15	. . . reducing the ***criteria*** emissions associated with the generators.
3.19.2.1	3.19-12	Table 3.19-4		See revised Table 3.19-4, Total Annual Emissions for Proposed Action
3.19.2.1	3.19-13	Table 3.19-5	$PM_{2.5}$	Annual, Percent of NAAQS (%), ~~18.5~~ ***23.3***
3.19.2.1	3.19-13	Table 3.19-6		See revised Table 3.19-6, Stationary Source Emissions for Proposed Action

[1] USEPA 2010 has been superseded and is replaced by USEPA 2013. Modifications to this section are based on USEPA 2013.

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3.19.2.1	3.19-14	1	5	. . . such permits. ***The modeling analyses previously performed included the Hollister Site stationary sources firing diesel fuel. Since these analyses, the Hollister Site diesel-fired engines have been replaced by LNG engines that have lower emissions and similar stack characteristics. Air quality impacts at the Hollister Site were shown to be in compliance with all AAQS when diesel-fired stationary sources were modeled; therefore, it is highly likely that the LNG stationary sources are in compliance with all AAQS and additional modeling is not required.***
3.19.2.1	3.19-14	3	6-8	. . . No Action Alternative ***with all stationary sources firing diesel fuel.*** It is anticipated that impacts for the Proposed Action would be lower due to the reduction of ~~diesel~~ generator emissions ***due to reduced operating hours, as well as*** ~~and~~ the removal of other stationary sources.
3.19.2.1	3.19-14	Table 3.19-7	$PM_{2.5}$	Annual, NAAQS (µg/m^3) ~~15~~***12***, Percent of NAAQS, ~~40~~***50***
3.19.2.1	3.19-14	4	1-3	A modeling analysis was conducted as described in the Air Quality Technical Support Document for comparison to the 1-hour NO_2 NAAQS ***with the emergency generators operating on diesel fuel***. The SCREEN3 predicted maximum impacts from the stationary source emergency generators are shown in Table 3.19-8, and are below the 1-hour NO_2 NAAQS ***and would remain below the NAAQS with the switch to LNG generators.***
3.19.2.1	3.19-15	1	2	Proposed mining operations at the Hollister site would involve combustion of diesel~~, propane, and gasoline,~~ ***and LNG*** all of which contribute CO_2 and other GHG to the atmosphere.
3.19.2.1	3.19-15	2	2	Under the Proposed Action, the ~~diesel~~ ***LNG*** generators at the mine would be decommissioned and would operate fewer than 500 hours per year as emergency power back-up.
3.19.2.1	3.19-15	2	4-5	Stationary sources at the mine then would have the potential to emit about ~~1,342~~ ***743*** tons per year (tpy) of ***direct*** GHG.

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3.19.2.1	3.19-15	2	6	Hauling ore to the Esmeralda Mill for processing would result in additional GHG emissions of about ~~10,515~~***7,635*** tpy, ***resulting in a maximum of 8,378 tpy of direct GHG emissions for the Proposed Action.*** Hollister Mine would require electrical generation by a utility (NV Energy) to supply power to the mine through the proposed 120-kV and 24.9-kV transmission lines. The net effect on GHG emissions from stationary sources would be a net increase from utility supplied electricity. If all of the Hollister Mine ore went to Midas Mill for processing ***instead of the Esmeralda Mill***, the haul trucks have the potential to generate about 744 tpy of ***GHG, resulting in 1,544 tpy of direct GHG emissions.*** ***In addition to direct GHG emissions, under the Proposed Action,*** Hollister Mine would require electrical generation by a utility ***(***NV Energy***)*** to supply power to the mine through the proposed 120-kV and 24.9-kV transmission lines. ***The corresponding indirect GHG emissions from proposed electricity consumption are 17,238 tpy. The total GHG emissions from both direct and indirect sources under the Proposed Action are 25,616 tpy of GHG if all ore were transported to Esmeralda Mill.*** The net effect on GHG emissions ~~from stationary sources~~ ***under the Proposed Action*** would be a net increase ***of 8,508 tpy GHG relative to the No Action Alternative. The increased GHG emissions are*** from utility supplied electricity ***and increased ore hauling activities.*** Section 3.25, Energy Requirements, Climate Change, and West Nile Virus, summarizes the estimated fuel and electrical power consumption for the proposed Project and alternatives.
3.19.2.1	3.19-15	3	1-5	The only Hazardous Air Pollutant (HAP) ***identified as being a potential issue of concern*** ~~that would be emitted due to~~***for*** this project is mercury. ***Other HAPs could be emitted in trace levels from combustion sources including LNG-fired stationary sources, drill rigs, and other mobile equipment. However, the HAPs that would be emitted from these sources are 2 or more orders of magnitude lower than NO_X emissions and are not evaluated further.*** Mined ore containing mercury would be processed at either the . . .
3.19.2.1	3.19-16	Table 3.19-9		See revised Table 3.19-9, Total Annual Emissions for Proposed Action when Ore is Transported to Midas Mill

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3.19.2.1	3.19-16	2	1-4	Based on the total emissions presented in Table 3.19-9, Q would be equal to ~~338.5~~***320.4*** tons. The Jarbidge Wilderness Area is 62 miles (100 km) away which gives a total Q/D of approximately ~~2.10~~**5.17** tons per mile (~~3.39~~***3.20*** tons/km), well below the upper limit of 10. Based on this screening method, the Q/D value of ~~2.10~~***5.17*** tons per mile (~~3.39~~ ***3.20*** tons/km) shows that the emissions from the Hollister Mine would have negligible visibility impacts at the Jarbidge Wilderness Area.
3.19.2.5	3.19-18	1	1	Under the No Action Alternative, the proposed project would not be developed, and the associated air quality impacts would not occur. Under this alternative, the existing Hollister Site would continue to operate under current authorizations ~~with the exception that all diesel-fried stationary sources would be converted to LNG fired sources~~. No exceedences of the applicable national and state AAQS are expected.
3.19.2.5	3.19-19	2	4	Based on these analyses, the modeled concentrations of criteria pollutants are well within the applicable ambient air quality standards ***and are expected to remain that way with the conversion to LNG fired stationary sources***.
3.19.3	3.19-20	Table 3.19-11		See revised Table 3.19-11, Total Annual Emissions for the Proposed Action and Other Sources in the CESA.
3.24.1.2	3.24-3		1st bullet	Any “hazardous substances” or “extremely hazardous substances” as well as petroleum products such as gasoline, diesel, ***liquid natural gas***, or propane, that are subject to reporting requirements…
3.24.1.3	3.24-3	1	1st bullet	***Liquid natural gas***, diesel fuel, gasoline, oils, greases, anti-freeze, and solvents used for equipment operation and maintenance;
3.25.1	3.25-1	2	7	. . . 2.2 million tons ~~or~~ ***(***2.0 million metric tons***)*** of CO_2 per year, ~~is~~ ***are*** from mining . . .
3.25.1	3.25-1	3	2	~~30,768~~***25,616*** tpy (~~27,912~~***23,238*** metric tons per year) of CO_2e GHGs, which. . .is approximately ~~1.4~~***1.2*** percent of the CO_2e GHGs, which . . .
3.25.2	3.25-2	Table 3.25-1		See revised Table 3.25-1, Estimated Fuel and Electrical Power Consumption
3.25.2.1	3.25-4	1	1	The proposed Project would emit approximately ~~30,768~~***25,616*** tpy (~~27,912~~***23,238*** metric tons per year) of . . .
3.25.2.1	3.25-4	3	4-5	The proposed Project represents ~~1.4~~***1.2*** percent of the GHG emissions . . . approximately ~~0.05~~**0.04**

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				percent of CO_2e . . .
Appendix G	AA-1			***LNG = Liquefied Natural Gas***
Appendix G	ES-1	4 (***New***)		***The modeling analyses previously performed included the Hollister Site stationary sources firing diesel fuel. Since these analyses, the Hollister Site diesel-fired engines have been replaced by liquefied natural gas (LNG) engines that have lower emissions and similar stack characteristics. Air quality impacts at the Hollister Site were shown to be in compliance with all NAAQS when diesel-fired stationary sources were modeled; thus, it is highly likely that the LNG stationary sources are in compliance with all NAAQS and additional modeling is not required. Therefore, all results presented in this Appendix are based on modeling conducted for diesel-fired stationary sources, but the impacts from LNG stationary sources are potentially lower.***
Appendix G	ES-1	5	1	The existing Hollister site power source, the two Cummins ~~diesel~~ ***LNG*** generators . . .
Appendix G	ES-1	5	4	. . . emissions associated with the ~~diesel~~ ***LNG*** generators, which will remain on-site . . .
Appendix G	ES-1	9	2	. . . emitted by stationary sources such as the two ~~diesel~~ ***LNG*** generators, would . . .
Appendix G	ES-2	2	5	. . . Additionally, the change from ~~diesel~~ ***LNG*** generated power . . .
Appendix G	1-1	6th bullet	2	. . . replace power provided by two existing ~~diesel~~ ***LNG*** generators;
Appendix G	1-2	3	3	. . . estimated based on the existing air permit. ***Other HAPs could be emitted in trace levels from combustion sources including LNG-fired stationary sources, drill rigs, and other mobile equipment. However, the HAPs that would be emitted from these sources are two or more orders of magnitude lower than NO_X emissions and are not evaluated further.***
Appendix G	2-1	Table 2-1	$PM_{2.5}$	Annual Average, Primary ($\mu g/m^3$), ~~15~~***12***
Appendix G	2-2	Table 2-1	Source:	. . . USEPA ~~2010~~***2013***.
Appendix G	3-1	3	1-6	Stationary sources currently ~~permitted to~~ opera***ting*** ~~at~~ the Hollister Site are listed in Table 3-1. Physical source parameters and the total estimated annual emissions for the No Action Alternative ***used for the modeling analysis*** are shown in Tables 3-2 and 3-3. The ***modeled*** stationary sources ~~for the existing Hollister operations are permitted by BAPC to operate and have~~ demonstrated compliance with applicable NAAQS (RCG 2010, 2009, 2007) ***and current equipment has lower emission rates***.

Table 2-1 Modifications and Updates to the Draft EIS

Draft EIS Section Number	Page	Paragraph[1]	Line(s)	Revised Text
				Therefore, it is not necessary to conduct modeling of the current stationary sources and the impacts of the No Action Alternative would not be evaluated further.
Appendix G	3-1	Table 3-1		See revised Table 3-1, Current Operation of Hollister Site Existing Stationary Sources for the No Action Alternative
Appendix G	3-2	Table 3-2		See revised Table 3-2, Stationary Source Model Input Physical Source Parameters.
Appendix G	3-2	Table 3-3	Title	***Modeled*** Annual Emissions of Hollister Site Stationary Source for No Action Alternative
Appendix G	3-2	2	4	In addition, the existing site power source, the two ~~diesel~~ ***LNG*** generators. . .
Appendix G	3-5	3	1	The existing two Cummins ~~diesel~~ ***LNG*** generators located in the East Pit . . .
Appendix G	3-5	3	3	In addition to the modifications to the ~~diesel~~ ***LNG*** generators, both the . . .
Appendix G	3-5	3	7-11	The total annual emissions for the Proposed Action were ~~calculated from emission rates published in the permit applications~~ ***provided by RCG*** (RCG ***2012b***, 2010, 2009)~~ with adjustments to the annual operating hours for the two generators. In addition, the emissions of CO2 were estimated for the Proposed Action. CO2 emissions were estimated using an emission factor of 1,150.82 lb CO2/hp •hour of operation (USEPA 1996)~~. The horsepower and . . .
Appendix G	3-5	Table 3-4		See revised Table 3-4, Hollister Site Stationary Sources for the Proposed Action
Appendix G	3-6	Table 3-5		See revised Table 3-5, Annual Emissions of Hollister Site Stationary Sources for the Proposed Action
Appendix G	3-6	3	1-3	A modeling analysis was conducted for comparison to the 1-hour NO_2 NAAQS ***using diesel-fired generators. The LNG generators were not modeled because diesel generators represented the worst case.*** Modeled diesel generator emission rates for NO_X are provided in Table 3-6 ***and are compared with the potential emissions of the LNG equipment that would be used for the Proposed Action***. The physical source parameters ***used in the modeling analysis are*** shown in Table 3-2, ~~are assumed to remain the same~~ ***and are similar*** for the Proposed Action.
Appendix G	3-6	Table 3-6		See revised Table 3-6, Modeled Diesel Generator Emission Rates ***Compared with Proposed Action LNG Emission Rates***
Appendix G	3-12	Table 3-17		See revised Table 3-17, Total Annual Emissions (tpy) for the Proposed Action

Table 2-1 Modifications and Updates to the Draft EIS

Draft EIS Section Number	Page	Paragraph[1]	Line(s)	Revised Text
Appendix G	3-12	2	1	The only HAP ~~that would be emitted due to~~ ***identified as a potential concern for*** this project is mercury. ***Other HAPs could be emitted in trace levels from combustion sources including LNG-fired stationary sources, drill rigs, and other mobile equipment. However, the HAPs that would be emitted from these sources are two or more orders of magnitude lower than NO_X emissions and are not evaluated further.*** Mined ore . . .
Appendix G	5-2	3	5-7	. . . 24-hour standards for $PM_{2.5}$. The $PM_{2.5}$ impacts shown in Table 5-2 are for the No Action Alternative ***modeled with diesel-fired equipment*** and the impacts for the Proposed Action would be lower due to the ~~reduction of~~ change from diesel***-fired equipment to LNG equipment and the decreased hours of operation*** ~~generators emissions and other sources~~.
Appendix G	5-2	Table 5-2	$PM_{2.5}$	Annual, NAAQS (µg/m^3), ~~15~~***12***, Percent of NAAQS, ~~40~~***50***
Appendix G	5-2	4	1-3	For the Proposed Action, the only stationary sources that would emit NO_X are the ~~diesel~~ ***LNG*** generators used for backup power. The emergency generator impacts were assessed ***for diesel-fired generators*** at a distance ranging from . . .
Appendix G	5-3	Table 5-3	Title	Table 5-3 Hollister Mine SCREEN3 Model Results for Emergency Generators ***Fired with Diesel Fuel***
Appendix G	5-3	Table 5-4	$PM_{2.5}$	Annual, NAAQS (µg/m^3), ~~15~~***12***, Percent of NAAQS (%), ~~17.9~~***22.5***
Appendix G	5-4	Table 5-5	$PM_{2.5}$	Annual, NAAQS (µg/m^3), ~~15~~***12***, Percent of NAAQS (%), ~~18.5~~***23.3***
Appendix G	5-5	Table 5-6		See revised Table 5-6, Total Annual Emissions for Proposed Action when Ore is Transported to the Midas Mill
Appendix G	5-5	2	1-5	Based on the total emissions of NO_X, SO_2, and PM_{10} presented in Table 5-6, Q would be equal to ~~338.5~~***320.4*** tons. The Jarbidge Wilderness Area is 62 miles (100 kilometers) away which gives a total Q/D of approximately ~~3.39~~***3.20*** tons/km, well below the upper limit of 10. Based on this screening method, the Q/D value of ~~3.39~~***3.20*** tons/km shows that the emissions from the Hollister Site would have negligible visibility impacts at the Jarbidge Wilderness Area.
Appendix G	6-1	1	7-8	The existing Hollister site power source, . . . two Cummins ~~diesel~~ ***LNG*** generators . . .
Appendix G	7-1	13 (***New***)		***Rodeo Creek Gold, Inc. (RCG). 2012b. Update emissions for stationary sources and stack parameters provided by RCG. November 8, 2012 and December 11, 2012.***

Table 2-1 Modifications and Updates to the Draft EIS

Draft EIS Section Number	Page	Paragraph[1]	Line(s)	Revised Text
Appendix G	7-2	1 (***New***)		***United States Environmental Protection Agency (USEPA). 2013. Clean Air Act Sec. 176 (c) (1) United States Environmental Protection Agency: http://www.epa.gov/air/criteria.html/. Accessed February 11, 2013.***

[1] Paragraph number includes the first partial paragraph at the top of the page, if applicable. Paragraph numbering begins anew when a new section number is encountered on a page.

2.1 Updated Tables

Table 3-17b Native American Consultation and Information Sharing Timeline Summary Updates since March 2012

2011 to 2012	The Shoshone-Paiute Tribal Council cancelled several government-to government consultation meetings and/or information sharing meetings scheduled with the BLM Elko District Office, including the Tuscarora Field Office.
September 1, 2011	The BLM sent a copy of the Draft (version August 29, 2011) PA for the Hollister Underground Mine Project to the following Tribal councils for review and comment: South Fork Band Council, Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, Te-Moak Tribe of Western Shoshone, Battle Mountain Band Council, Elko Band Council, Wells Band Council, Ely Shoshone Tribe, Yomba Shoshone Tribe, and Duckwater Shoshone Tribe.
May 9, 2012	The BLM met with the Shoshone-Paiute Tribal Council in Owyhee to discuss and conduct government-to-government consultation on the Hollister Underground Mine Project EIS. The Tribal Council requested a public meeting on the Hollister Underground Mine Project Draft EIS to be held in Owyhee.
May 14, 2012	The Western Shoshone Committee contacted the BLM regarding the status of the Hollister Underground Mine Project EIS.
May 15, 2012	The BLM sent a copy of the Ethnography report completed as supplemental information for the Hollister Underground Mine Project EIS to the Shoshone-Paiute Tribe of the Duck Valley Indian Reservation per their request.
May 15, 2012	A copy of the PA (version dated October 5, 2011) was mailed to the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation for review and comment.
May 16, 2012	The BLM attempted to contact the Western Shoshone Committee via phone call regarding the status of the Hollister Underground Mine Project EIS.
May 25, 2012	The BLM sent a letter to the Shoshone-Paiute Tribal Council responding to some issues discussed during the government-to-government consultation meeting held on May 9, 2012, regarding the Hollister Underground Mine Project EIS.
May 29, 2012 to June 12, 2012	The Tribal Councils, Western Shoshone organizations, and Western Shoshone (individuals) that are listed on the Draft EIS mailing list received copies of the Hollister Underground Mine Project Draft EIS. Draft EIS comment period ended July 16, 2012.
June 1, 2012	The BLM attempted to contact the Battle Mountain Band via phone call to discuss the Hollister Underground Mine Project EIS.
June 7, 2012	The BLM made follow-up phone calls to the Te-Moak, Battle Mountain Band, Elko Band, South Fork Band and Wells Band to discuss the Hollister Underground Mine Project Draft EIS.

Table 3-17b Native American Consultation and Information Sharing Timeline Summary Updates since March 2012

June 11, 2012	The BLM mailed a copy of the Draft PA (version dated October 5, 2011) for review and comment and provided notification of the availability of the Hollister Underground Mine Project Draft EIS to the following Tribal Councils, Western Shoshone organizations, and BIA: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, Yomba Shoshone Tribe, Ely Shoshone Tribe, Duckwater Shoshone Tribe, South Fork Band Council, Battle Mountain Band Council, Te-Moak Tribe of Western Shoshone, Wells Band Council, Elko Band Council, Confederate Tribes of the Goshute Indian Reservation, Western Shoshone Committee, Western Shoshone Defense Project, Western Shoshone Descendants of Big Smoky, and Bureau of Indian Affairs-Eastern Nevada Agency.
June 27, 2012	The BLM sent a letter to the Shoshone-Paiute Tribal Council responding to some issues discussed during the May 9, 2012, government-to-government consultation on the Hollister Underground Mine Project EIS.
June 29 to July 3, 2012	The BLM talked with the Shoshone-Paiute Tribal Council in Owyhee to schedule a date for a public meeting on the Hollister Underground Mine Project Draft EIS. Meeting was scheduled for July 11, 2012.
July 2, 2012	The BLM received a request to conduct government-to-government consultation on the Hollister PA and Hollister Underground Mine Project EIS from the Duckwater Shoshone Tribe.
July 5, 2012	The BLM received a request to conduct government-to-government consultation on the Hollister PA and Hollister Underground Mine Project EIS from the Goshute Business Council.
July 11, 2012	The BLM held a public meeting on the Hollister Underground Mine Project Draft EIS in Owyhee. Comments were due July 16, 2012 on the Draft EIS.
August 12, 2012	The Western Shoshone Committee contacted the BLM to schedule a field tour to the Tosawihi Quarries. Field tour was scheduled for September 22, 2012.
August 22, 2012	The BLM sent a letter to the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation Tribal Council Chairman regarding scheduling a meeting to conduct government-to-government consultation as requested by the Tribal Council Chairman at the July 11, 2012, Draft EIS public meeting. The BLM suggested some meeting dates in the letter.
August 23, 2012	The BLM sent a letter to the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation Tribal Council Chairman providing a copy of the July 11, 2012, Draft EIS public meeting notes. The BLM suggested the Tribal Council provide the attendees a copy of the notes. The BLM requested edits or additions to the notes by September 24, 2012.
September 12, 2012	The BLM sent a letter to the Duckwater Shoshone Tribe with suggested meeting dates which responded to the Duckwater Shoshone Tribe's request to conduct government-to-government consultation on the Hollister PA and Hollister Underground Mine Project EIS.
September 12, 2012	The BLM sent a letter to the Goshute Business Council with suggested meeting dates which responded to the Goshute Business Council's request to conduct government-to-government consultation on the Hollister PA and Hollister Underground Mine Project EIS.

Table 3-17b Native American Consultation and Information Sharing Timeline Summary Updates since March 2012

September 17, 2012	The Duckwater Shoshone Tribe sent a letter to the BLM that the Council was unavailable on the BLM suggested meeting dates. The letter stated the Duckwater Shoshone Tribe would defer these projects to the Western Shoshone people located in Owyhee, Elko, and Battle Mountain, Nevada.
September 22, 2012	The BLM escorted approximately 18 Western Shoshone people from the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation and Elko Band to the Tosawihi Quarries to discuss the Hollister Underground Mine Project EIS.
October 3, 2012	The BLM met with the Goshute Business Council and provided information on the Hollister Underground Mine Project and the associated PA. After discussing the Project, the Goshute Business Council requested that the BLM coordinate the Project with the Te-Moak Tribe, local bands and the Owyhee-based Shoshone-Paiute Tribes of the Duck Valley Indian Reservation who have traditional ties with the area. The Goshute Business Council declined to conduct government-to-government consultation on the Project, but appreciated the sharing of information on the Project
October 23, 2012	The BLM mailed a copy of the Draft (version dated October 10, 2012) PA for the Hollister Underground Mine Project Draft EIS to the following Tribal Councils, and Western Shoshone organizations, and BIA for review and comment: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, Yomba Shoshone Tribe, Ely Shoshone Tribe, Duckwater Shoshone Tribe, South Fork Band Council, Battle Mountain Band Council, Te-Moak Tribe of Western Shoshone, Wells Band Council, Elko Band Council, Confederate Tribes of the Goshute Indian Reservation, Western Shoshone Committee, Western Shoshone Defense Project, and Western Shoshone Descendants of Big Smoky.
February 27, 2013	The BLM sent a letter to the South Fork Band Council requesting attendance at the March 5, 2013, Tribal Council meeting in order to share information on several projects including the Hollister Underground Mine Project EIS and PA.
February 27, 2013	The BLM sent a letter to the Elko Band Council requesting attendance at the March 13, 2013, Tribal Council meeting in order to share information on several projects including the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.
February 27, 2013	The BLM sent a letter to the Wells Band Council requesting attendance at the March 11, 2013, Tribal Council meeting in order to share information on several projects including the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.
February 27, 2013	The BLM sent a letter to the Te-Moak Tribe of the Western Shoshone requesting attendance at the March 6, 2013, Tribal Council meeting in order to share information on several projects including the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.
February 28, 2013	The BLM sent a letter to the Yomba Shoshone Tribe requesting attendance at the March 8, 2013, Tribal Council meeting in order to share information on several projects including the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.

Table 3-17b Native American Consultation and Information Sharing Timeline Summary Updates since March 2012

February/March 2013	The BLM continued to make phone calls in an attempt to contact the Battle Mountain Band Tribal Council and the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation Tribal Council in order to request attendance at their Tribal Council meetings to provide information on the Hollister Underground Mine Project EIS and PA (2013 final draft version).
March 5, 2013	The BLM attended the South Fork Band Tribal Council meeting and provided information on the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment. South Fork Band Council requested to be listed as a consulting party on the PA.
March 6, 2013	The BLM attended the Te-Moak Tribal Council meeting and provided information on the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.
March 8, 2013	The BLM attended the Yomba Tribal Council meeting and provided information on the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.
March 11, 2013	The BLM attended the Wells Tribal Council meeting and provided information on the Hollister Underground Mine Project EIS and PA. A copy of the PA (2013 final draft version) was distributed for review and comment.
March 27, 2013	The BLM mailed a copy of the PA (2013 final draft version) to the Elko Band Council, Battle Mountain Band Council, Duckwater Shoshone Tribe, and the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation for review and comment. In the cover letter the BLM also requested attendance at their next Tribal Council meeting in order to provide information on the Hollister Underground Mine Project EIS and PA.
April 8, 2013	The BLM received a letter from the Duckwater Shoshone Tribe regarding the PA. The letter stated that the PA seems to have all the right elements in place.
April 17, 2013	The BLM attended the Elko Band Tribal Council meeting to provide information and discuss the Hollister Mine Project EIS and PA.
April 24, 2013	The BLM attended the Battle Mountain Band Tribal Council meeting to provide information and discuss the Hollister Mine Project EIS and PA.
Month of April 2013	The BLM contacted the Tribal Council for the South Fork Band, Wells Band, Elko Band, Battle Mountain Band, Te-Moak Tribe, Yomba Tribe, Duckwater Shoshone Tribe, Goshute Business Council, and the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation to discuss the PA for Hollister Underground Mine Project.
May 21, 2013	The BLM and Battle Mountain Band have scheduled a field trip to visit the Tosawihi Quarries area and Hollister Site to discuss the Hollister Underground Mine Project and PA.
May-June 2013	The BLM will contact the Tribal Councils and ask them if they would like to sign the PA as a consulting party.

Source: BLM 2013.

Table 3.19-4 Total Annual Emissions for Proposed Action

Emissions Source	Tons per Year (tpy)					
	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Stationary Sources	~~16.60~~ ***1.50***	~~1.60~~ ***0.36***	~~2.60~~ ***0.004***	~~2.00~~ ***1.86***	~~2.00~~ ***1.86***	~~1,342~~ ***800***
Non-Road Engines (Drill Rig Engines)	15.21	8.07	0.02	0.47	0.47	1,673
Ore Hauling Traffic – All Ore to Midas Mill	2.75	1.23	0.15	298.70	29.95	744
Ore Hauling Traffic – All Ore to Esmeralda Mill	31.90	14.33	1.62	687.77	69.63	~~10,515~~ ***7,635***
Total[1]	~~63.71~~ ***48.61***	~~24.00~~ ***22.76***	~~4.24~~ ***1.64***	~~690.24~~ ***690.10***	~~72.10~~ ***71.96***	~~13,530~~ ***10,108***

[1] For a conservatively high estimate of emissions total emissions are calculated assuming all ore is transported to Esmeralda Mill, and none of the ore is transported to Midas Mill. Therefore, the values in this table do not sum together to provide the total maximum emissions from the Proposed Action.

CO_2 = carbon dioxide.

NO_X = nitrogen oxide.

Table 3.19-6 Stationary Source Emissions for Proposed Action

Unit or Process Description	Tons per Year (tpy)					
	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$	CO_2
LNG Generator, Cummins Model ***QSK60*** ~~G6 2,647~~ ***1,945*** hp[1]; 500 hours/year	~~7.7~~ ***0.75***	~~0.8~~ ***0.18***	~~1.3~~ ***0.002***	~~0.1~~ ***0.03***	~~0.1~~ ***0.03***	~~671~~ ***400.18***
LNG Generator, Cummins Model ***QSK60*** ~~G6 2,647~~ ***1,945*** hp[1]; 500 hours/year	~~8.9~~ ***0.75***	~~0.8~~ ***0.18***	~~1.3~~ ***0.002***	~~0.1~~ ***0.03***	~~0.1~~ ***0.03***	~~671~~ ***400.18***
Shotcrete Batch Plant; 60 tons/hr Process Rate; 8,760 hours/year	0.0	0.0	0.0	1.8	1.8	0.0
Total	~~16.6~~ ***1.5***	~~1.6~~ ***0.36***	~~2.6~~ ***0.004***	~~2.0~~ ***1.86***	~~2.0~~ ***1.86***	~~1,342~~ ***800.36***

[1] ~~Model analyzed. Actual diesel~~ ***Diesel-fired generation equipment*** ~~may be replaced periodically in the ordinary course of operations~~ ***used for modeling analyses has been replaced by cleaner burning*** ~~liquid natural gas-fired~~ ***LNG generators, which result in lower emissions of all pollutants.***

Source: RCG ~~2009b~~ ***2012b***.

Table 3.19-9 Total Annual Emissions for Proposed Action when Ore is Transported to Midas Mill

	Tons per Year					
Emissions Source	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**	**CO_2**
Stationary Sources	~~16.60~~ ***1.50***	~~1.60~~ ***0.36***	~~2.60~~ ***0.004***	~~2.00~~ ***1.86***	~~2.00~~ ***1.86***	~~1,342~~ ***800***
Non-road Engines (Drill Rig Engines)	15.21	8.07	0.02	0.47	0.47	1,673
Ore Hauling Traffic	2.75	1.23	0.15	298.40	29.95	744
Total	~~34.56~~ ***19.45***	~~10.90~~ ***9.66***	~~2.77~~ ***0.17***	~~300.87~~ ***300.73***	~~32.42~~ ***32.28***	~~3,759~~ ***3,217***

Table 3.19-11 Total Annual Emissions for the Proposed Action and Other Sources in the CESA

	Tons per year			
Facility	**NO_X**	**CO**	**SO_2**	**PM_{10}**
Hollister Mine Proposed Action[1]	~~63.7~~ **48.6**	~~24~~ **22.8**	~~4.2~~ **1.6**	~~690.2~~ **690.1**
South Operations Area Project Amendment[2]	354	337	276	568
Leeville[2]	0	0	0	0.5
North Operations[2]	0	0	0	93.8
Betze/Post[2]	311	400	996	579
TS Power Plant[2]	1,170	744	1546	598
Total[1]	~~1,898.7~~ **1,882.6**	~~1,505~~ **1,503.8**	~~2,822.2~~ **2,819.6**	~~2,529.5~~ **2,529.4**
Hollister Mine Emissions Percent of Total (%)	~~3.4~~ **2.6**	~~1.6~~ **1.5**	0.1	27.3

[1] Total Emissions are calculated assuming all ore is transported to Esmeralda Mill.

[2] Source: BLM 2010d.

Table 3.25-1 Estimated Fuel and Electrical Power Consumption

Case	Diesel Consumption (gallons)	Diesel Consumption (m^3)	~~Propane~~ *LNG* Consumption (gallons)	~~Propane~~ *LNG* Consumption (m^3)	Power Consumption (kW-hour/year)	Direct GHG (tons/yr) CO_2	Indirect GHG (tons CO_{2e}/yr)[1,2]	Total GHG (tons CO_{2e}/yr)
Proposed Action[3] (Stationary Sources)[4]	~~135,135~~ ***0***	~~511.5~~ 0	~~0~~ ***162,416***	~~0~~ ***614.8***	25,000,000	~~1,342~~ ***800***	17,238	~~18,580~~ ***18,038***
Proposed Action[3] (mobile sources)[5]	687,804	~~2,610.8~~ ***2,603.6***	0	0	0	~~12,188~~ ***7,635***	0	~~12,188~~ ***7,635***
Proposed Action Total	~~822,939~~ ***687,804***	~~3,122.3~~ ***2,603.6***	~~0~~ ***162,416***	~~0~~ ***614.8***	25,000,000	~~13,530~~ ***8,435***	17,238	~~30,768~~ ***25,673***
No Action Alternative (stationary sources)	~~744,851~~ ***72,700***	~~2,819.6~~ ***275.2***	~~0~~ ***2,845,522***	~~0~~ ***10,771.6***	0	~~8,268~~ ***13,824***	0	~~8,268~~ ***13,824***
No Action Alternative (mobile sources)	295,878	1,120.0	0	0	0	~~1,327~~ ***3,284***	0	~~1,327~~ ***3,284***
No Action Alternative Total	~~1,040,729~~ ***368,578***	~~3,939.6~~ ***1,395.2***	~~0~~ ***2,845,522***	~~0~~ ***10,771.6***	0	~~9,595~~ ***17,108***	0	~~9,595~~ ***17,108***

[1] USEPA 2011. Greenhouse Gas Equivalences Calculator accessed May 24, 2011. http://www.epa.gov/cleanenergy/enrgy-resources/calculator.html.

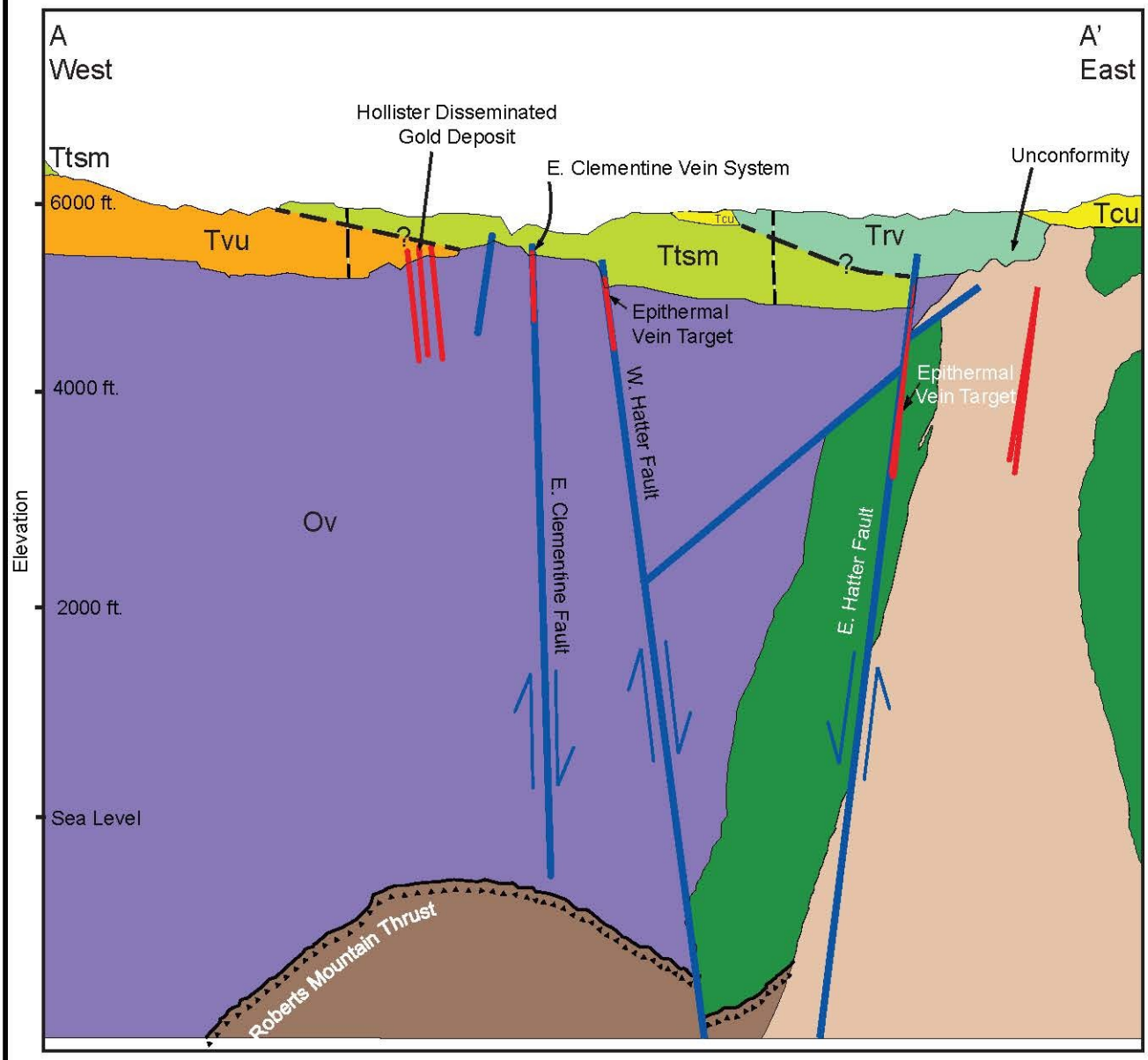
[2] NV Energy would provide electric power to the Hollister Site via the proposed electric power transmission line (transmission line).

[3] Fuel and power consumption and GHG emissions for the Mud Springs Road Transmission Line, Mud Springs Waste Rock Storage Facility, and Backfill alternatives would be similar to the Proposed Action.

[4] Calculations assume 500 hours per year for operation of the generators as backup emergency power.

[5] Calculations assume all ore is transported to the Esmeralda Mill.

Source: RCG ***2013b***, 2010f.



Legend

- Hatter Stock (Eocene)
- Tvu - Tertiary Volcanic Undivided
- Trv- Rhyolite Velvet Area (Miocene)
- Ttsm- Tuffs and tuffaceous sedimentary rocks
- Tcu- Carlin Formation, sedimentary and volcanic rocks, undivided
- Rodeo Creek Unit (Devonian)
- Hornfels Metamorphic Rocks
- Ov - Vinini Formation (Ordovician)
- Veins
- Fault (inferred)
- Fault

Note:The cross-section A-A' is shown on Figure 3.4-1 of the DEIS. Mining disturbance not shown.
Sources: RCG 2011b, Wallace 2003a.

Hollister Underground Mine Project EIS

Figure 3.4-4

Schematic Cross-section of the Hollister Area

05/17/13

Appendix A

Current Hollister Mine Permits and Authorizations

Permit Title and Number	Permit Name	Permitting Agency/Authority	Period Covered/ Renewal Date
N***VN***-77637	GBG Right-of-Way	BLM	December 31, 2019
NVN-76802	***Mine Plan of Operations***	***BLM***	***Submitted to BLM November 2012***[1]
NVN-090354	***MP-381 Right-of-Way***	***BLM***	***December 31, 2021***
Joint Resolution	Humboldt County Road and Landfill	***Humboldt County*** ~~NDOT/NDEP~~	Life of Project
AP1041-~~1298~~ ***3127***	~~Class I~~ ***Class II*** Air Quality Operating Permit (AQOP) [2]	NDEP/Bureau of Air Pollution Control (BAPC)	~~Sept 26, 2008 to Sept 26, 2013~~ ***October 29, 2017***
NEV2003107	Water Pollution Control Permit	NDEP/Bureau of Mining Regulation and Reclamation (BMRR)	~~June 2009 to June 2012~~ ***December 24, 2013***
NEV2003114	Water Pollution Control Permit – Infiltration	NDEP/BMRR	~~April 2009 to April 2014~~ ***April 22, 2014***
#0227	Reclamation Permit	NDEP/BMRR	Life of Project
EL-0349-12NTNC	Permit to Operate a Public Water System	NDEP/***Bureau of Safe Drinking Water (***BSDW***)***	~~May 2011 to June 2012~~ ***June 30, 2013***
EL-0349-TP03	***Permit to Operate a Treatment Plant***	***NDEP/BSDW***	***June 30, 2013***

Current Hollister Mine Permits and Authorizations

Permit Title and Number	Permit Name	Permitting Agency/Authority	Period Covered/ Renewal Date
NVR300000 MSW~~-271~~ ***389***	Storm Water General Permit	NDEP/Bureau of Water Pollution Control (BWPC)	~~June 2007 to June 2012~~ ***February 28, 2018***
GNEVPHT090005	***Wastewater Holding Tanks***	***NDEP/BWPC***	***May 8, 2014***
~~S 29241~~ ***S-35865***	Industrial Artificial Pond Permit	NDOW	~~September 2007 to August 2012~~ ***August 31, 2017***
~~52928-56875~~ ***25345***	Hazardous Materials Storage Permit	Nevada State Fire Marshal	~~February 2012~~ ***February 28, 2014***
Verification Letter	Jurisdictional Determination	USACE	April 27, 2009(3)
~~EL-0349-TP01-12NTC~~	~~Permit to Operate a Treatment Pond~~	~~NDEP/BSDW~~	~~June 2011 to June 2012~~
LOA05HT0001	Holding Tanks	NDEP	April 15, 2011 to May 8, 2014
NV0000349	Public Water System	NDEP/BSDW	June 30, 2009

[1] Modified based on the Hollister Underground Mine EIS.

[2] The Class II AQOP superceded the Class I AQOP (AP1041-1298).

[3] Update in progress (as of August 2012).

Source: ~~RCG 2011b, 2010b~~ ***RCG 2013a***.

Appendix G

Table 3-1 Current Operation of Hollister Site Existing Stationary Sources for the No Action Alternative

Source Number	Unit or Process Description	Engine Rating (hp)	Hours of Operation/Year
S2.001	~~Diesel Generator,~~ ***LNG Generator,*** Cummins Model ***QSK60***	~~2,647~~ ***1,945***	8,760
S2.002	~~Diesel Generator,~~ ***LNG Generator,*** Cummins Model ***QSK60***	~~2,647~~ ***1,945***	8,760
IA1.002	Generator; Night Safety Lighting	20	2,920
IA1.003	Generator 4	140	1,100
IA1.004	Water Pump Engine	140	1,100
IA1.015	Shotcrete Batch Plant	--	8,760

Source: RCG ***2012b,*** 2009.

Table 3-2 Stationary Source Model Input Physical Source Parameters

Source Number	Unit or Process Description	Height (m)	Temperature (°K)	Velocity (m/s)	Diameter (m)
S2.001	***LNG Generator, Cummins Model QSK60***	***5.49***	***755.4***	***87.96***	***0.30***
S2.002	***LNG Generator, Cummins Model QSK60***	***5.49***	***755.4***	***87.96***	***0.30***
IA1.002	Generator; Night Safety Lighting	1.52	840.37	57.73	0.10
~~IAl.003~~	~~Generator 4 -~~ ***REMOVED***	~~2.74~~	~~840.37~~	~~77.37~~	~~0.08~~
IA1.004	Water Pump Engine	2.74	840.37	77.37	0.08
IA1.015	Shotcrete Batch Plant	0.00	0.00	0.01	1.00

Source: RCG ***2012b,*** 2009.

Table 3-4 Hollister Site Stationary Sources for the Proposed Action

Source Number	Unit or Process Description	Engine Rating (hp)	Hours of Operation/Year
S2.001	~~Diesel Generator,~~ ***LNG Generator,*** Cummins Model ***QSK60-***~~LNG~~	~~2,647~~ ***1,945***	500
S2.002	~~Diesel Generator,~~ ***LNG Generator,*** Cummins Model ***QSK60-***~~LNG~~	~~2,647~~ ***1,945***	500
IA1.015	Shotcrete Batch Plant	--	8,760

Source: RCG 2012b.

Table 3-5 Annual Emissions of Hollister Site Stationary Sources for the Proposed Action

Source Number	Unit or Process Description	tpy					
		NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$	CO_2
S2.001	~~Diesel Generator,~~ ***LNG Generator,*** Cummins Model ***QSK60-***~~G6~~[1]	~~7.7~~ ***0.75***	~~0.8~~ ***0.18***	~~1.3~~ ***0.002***	~~0.1~~ ***0.03***	~~0.1~~ ***0.03***	~~671~~ ***400.18***
S2.002	~~Diesel Generator,~~ ***LNG Generator,*** Cummins Model ***QSK60-***~~G6~~[1]	~~8.9~~ ***0.75***	~~0.8~~ ***0.18***	~~1.3~~ ***0.002***	~~0.1~~ ***0.03***	~~0.1~~ ***0.03***	~~671~~ ***700.18***
IA1.015	Shotcrete Batch Plant[2]	0.0	0.0	0.0	1.8	1.8	0.0
Total		~~16.6~~ ***1.5***	~~1.6~~ ***0.36***	~~2.6~~ ***0.004***	~~2.0~~ ***1.86***	~~2.0~~ ***1.86***	~~1,342~~ ***800.36***

[1] Assuming 500 hours per year for the Cummins generators as backup emergency power.

[2] Assumes 8,760 hours for the shotcrete plant.

Table 3-6 Modeled Diesel Generator Emission Rates Compared with Proposed Action LNG Emission Rates

Source Number	Unit or Process Description	NO_X (g/s)
S2.001	Diesel Generator, Cummins Model QSK60-G6	3.87
S2.002	Diesel Generator, Cummins Model QSK60-G6	4.47
S2.001	***LNG Generator, Cummins Model QSK60***	***0.38***
S2.002	***LNG Generator, Cummins Model QSK60***	***0.38***

Source: RCG ***2012b,*** 2010.

Table 3-17 Total Annual Emissions (tpy) for the Proposed Action

Emissions Source	Annual Total (tpy)					
	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Stationary Sources	~~16.60~~ ***1.50***	~~1.60~~ ***0.36***	~~2.60~~ ***0.004***	~~2.00~~ ***1.86***	~~2.00~~ ***1.86***	~~1,342~~ ***800***
Non-Road Engines	15.21	8.07	0.02	0.47	0.47	1,673
Ore Hauling Traffic – All Ore to Midas Mill	2.75	1.23	0.15	298.70	29.95	744
Ore Hauling Traffic – All Ore to Esmeralda Mill	31.90	14.33	1.62	687.77	69.63	~~10,515~~ ***7,635***
Maximum Annual Emissions[1]	~~63.71~~ ***48.61***	~~24.00~~ ***22.76***	~~4.24~~ ***1.64***	~~690.24~~ ***690.10***	~~72.10~~ ***71.96***	~~13,530~~ ***10,108***

[1] For a conservatively high estimate of maximum Annual Emissions, the total emissions are calculated assuming all ore is transported to Esmeralda Mill and none of the ore is transported to Midas. Therefore the values presented in the table for emissions related to ore hauling to Midas Mill are not included in the total "Maximum Annual Emissions" values.

Table 5-6 Total Annual Emissions for Proposed Action when Ore is Transported to the Midas Mill

Emissions Source	tpy					
	NO_x	CO	SO_2	PM_{10}	$PM_{2.5}$	CO_2
Stationary Sources	~~16.60~~ ***1.50***	~~1.60~~ ***0.36***	~~2.60~~ ***0.004***	~~2.00~~ ***1.86***	~~2.00~~ ***1.86***	~~1,342~~ ***743***
Drill Rig Engines	15.21	8.07	0.02	0.47	0.47	1,673
Ore Hauling Traffic (Midas Mill)	2.75	1.23	0.15	298.70	29.95	744
Total	~~34.56~~ ***19.45***	~~10.91~~ ***9.66***	~~2.77~~ ***0.17***	~~301.17~~ ***300.73***	~~32.42~~ ***32.28***	~~3,759~~ ***3,160***