



# United States Department of the Interior

## NATIONAL PARK SERVICE

Death Valley National Park  
PO Box 579  
Death Valley, California 92328



IN REPLY REFER TO:

### **FINDING OF NO SIGNIFICANT IMPACT**

#### **Modification of Keystone Mine Plan of Operations Environmental Assessment**

Death Valley National Park, Inyo County, California

**March 2019**

#### ***INTRODUCTION***

This Finding of No Significant Impact (FONSI) has been prepared in accordance with the National Environmental Policy Act (NEPA) for the proposed project related to a modification of previously approved mining operations and related activities (the Project) as described in the Environmental Assessment for a Modification to Keystone Mine Plan of Operations CACA-33965 (EA). This document describes the selected action for that part of the Project that is within Death Valley National Park (Park) and provides an explanation of why it will have no significant effects on the human environment. The FONSI, errata, and EA, completed in November 2018, constitute a complete record of the environmental impact analysis for the proposal.

The EA was prepared by the Bureau of Land Management (BLM), the lead agency for NEPA compliance. The Project scope includes exploratory drilling and associated mining at the Keystone Mine in Goler Wash on lands administered by the BLM, and the diversion and conveyance of water from the Sourdough Spring (and associated access) within Death Valley National Park. The National Park Service was a cooperating agency on the BLM's EA.

The NPS elected to adopt BLM's EA and posted the EA concurrently on its Planning, Environment, and Public Comment (PEPC) website to solicit public input on the portions of the project affecting NPS resources. The BLM and NPS combined the comments received and issued a single response to comments document for both agencies. This FONSI applies solely to Project activities in Death Valley National Park.

Bush Management Company (BMC or the Mine Operator) is proposing to modify a previously approved Plan of Operations (PoO) to drill exploratory wells on mining claims administered by the BLM (the Keystone Mine) and, in part, to use water diverted from Sourdough Spring from within the Park. BMC owns California State Water License #4716 to divert up to 470 gallons per day (gpd) from Sourdough Spring with a priority date of 1941, which pre-dates the establishment and expansion of Death Valley National Park in 1994.

The EA examined and analyzed the proposed mining operations and reasonable alternatives pursuant to NEPA, and to ensure that it satisfied the requirements for 36 CFR 9.10. The NPS has determined that the portion of the Proposed Project within the Park (the diversion of water from Sourdough Spring, transport to the Keystone Mine, and any associated repair and access as set out in the proposed action in the EA, with mitigation measures to protect park resources), would not have a significant impact on the environment. The NPS has selected the proposed

action with mitigation measures and will issue an authorization to BMC for its use of water from Sourdough Spring, consistent with California State Water License #4716, subject to applicable laws and regulations.

#### ***PURPOSE AND NEED FOR FEDERAL ACTION***

BMC purchased the assets of the Keystone Mine, including the associated water rights at Sourdough Spring within Death Valley National Park, in 2015.<sup>1</sup> The Keystone Mine is on land administered by the BLM within the southern Panamint Mountains in the Goler Wash area, within Inyo County, California, down gradient of Death Valley National Park and Sourdough Spring. BMC submitted a PoO amendment to drill and sample 45 exploratory holes at the Keystone Mine. Part of the Proposed Project is to use water from Sourdough Spring in the new drilling operations. As set out in more detail below and in the EA, the National Park Service administers the area surrounding Sourdough Spring which is within Death Valley National Park. NPS accepted the proposed PoO amendment that BMC submitted to BLM as a plan of operations (as required by NPS regulations) for that portion of the Proposed Project subject to NPS jurisdiction. The NPS decision applies to activities that take place within the Park and does not apply to activities outside the boundaries of Death Valley National Park.

The statements and conclusions reached in this finding of no significant impact are based on documentation and analysis provided in the EA and associated decision files. To the extent necessary, relevant sections of the EA are incorporated by reference below.

#### ***BACKGROUND***

On September 2, 2016, BMC submitted a modification to the Keystone Mine Plan of Operations, the Keystone Mine (CACA-033965) Plan of Operations Amendment (Project) (SRK, 2016). The Plan of Operations (PoO) applied to the existing (at the time) underground mine and associated activities in 1981, and was amended in 1983 and 1988. The decision documents for the previous approval and amendments are listed below:

- 1981 Plan - Letter from Mark Lawrence (Bureau of Land Management (BLM) to Kirk DuShane (Keystone Mining Company [KMC]) approving the April 21, 1981 PoO application with stipulations. July 21, 1981.
- 1983 Plan Amendment - Letter from Gerald Hillier (BLM) to Kirk DuShane (KMC) approving the April 18, 1983 PoO amendment application with stipulations. June 9, 1983.
- 1988 Plan Amendment - Letter from Patricia McLean (BLM) to Kirk DuShane (KMC) approving the September 16, 1988 PoO amendment application with stipulations. October 14, 1988

Pursuant to the California Desert Protection Act of 1994 (CDPA), Congress expanded the boundary of Death Valley National Park to include the area surrounding and including Sourdough Spring (from where the Project Proponent plans to divert water) and directed the NPS

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<sup>1</sup> A millsite claim encompassing Sourdough Spring was located by Keystone Mining Company in 1989; that claim is now owned by BMC. However, this millsite claim was not considered in the analysis of the PoO amendment in the EA nor in this FONSI.

to administer these areas in accordance with the laws applicable to the National Park System, including the NPS Organic Act (54 USC § 100101(a)) and the Mining in the Parks Act of 1976 (54 USC §§ 100731-100737) and the regulations implementing the Mining in the Parks Act – 36 CFR Part 9, subpart A. Pursuant to NPS regulations, the NPS must approve that part of the PoO for the diversion and transport of water across the Park, the associated access, and any repair work.

The activities proposed that would occur within Death Valley National Park include the diversion and transport of water from Sourdough Spring, down canyon to the Keystone Mine, just outside of the park's boundary. The California State Water License currently owned by the Project Proponent was granted in 1957 with a priority date of 1941. This Water License allows the Project Proponent to withdraw up to 470 gpd of water from Sourdough Spring for mining or domestic use.

#### ***SELECTED ACTION***

Based on the analysis presented in the EA, the National Park Service is selecting the Proposed Action as the Selected Action. The EA describes the Proposed Action, approval of the proposed amendment to the PoO, and the No Action Alternative (denial of the proposed amendment), and evaluates the impacts to the affected environment associated with their implementation, respectively.

The primary elements of the Selected Action as it relates to the lands administered by the NPS within the Park include: diversion of up to 470 gpd from Sourdough Spring for domestic and mining use at the Keystone Mine (pursuant to California State Water License #4716); repair of the diversion and collection system at the end of the riparian zone within Sourdough Spring; installation and/or repair of above ground pipeline for transport of water outside of the Park (to the Keystone Mine); and associated access to diversion point and pipeline.

Mitigations in the EA address general construction practices across lands outside of Death Valley National Park. The following mitigation measures address activities that would occur within Death Valley National Park. The BLM included conditions related to Keystone Mine in its approval letters from 1981, 1983 and 1988. Conditions related to Sourdough Spring were included in its 1988 approval for the Keystone Mine. The following conditions are in addition to the conditions previously imposed by the BLM in its approval of the use of Sourdough Spring as a point of diversion of water for the Keystone Mine in 1988, which remain in effect except as superseded by the conditions set out below.

Number	Mitigation Measures	Responsible Party
<b>General Measures</b>		
GM-1	The current point of diversion and the location of the bathtub, at the lower end of the riparian zone, is the only location approved for use to withdraw water.	Mining Operator Project Manager to implement; NPS Monitor to verify compliance
GM-2	Waterline will be laid on the surface within the road corridor and painted to match the surrounding desert background to keep the waterline from distracting from the visitor experience.	NPS Monitor to approve
GM-3	All tools, equipment, barricades, signs, surplus materials, demolition debris and rubbish will be removed from the project work limits upon project completion.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
GM-4	All equipment and vehicles on the project shall be in good working order upon each entry into Death Valley National Park.	NPS Monitor to verify
GM-5	All trash shall be removed from the project site by the end of each work day.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
GM-6	Hazardous materials, if used, and wastes would be stored and disposed of in accordance with federal, state, and local regulations.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
GM-7	Project vehicles shall be restricted to existing roads. Off-road or cross-country travel is prohibited. Access to Sourdough Spring shall be by foot.	NPS Monitor to verify
GM-8	Waterline and associated equipment may not be installed in wilderness. The NPS will notify the operator where the water line may be placed, the location and the alignment, and how the line will be maintained throughout the project.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
GM-9	The NPS will conduct a new survey of the Sourdough Spring point of diversion and waterline to prepare an Assessment of Effects finding for the California State Historic Preservation Officer (SHPO) and affiliated tribes as required by Section 106 of the NHPA.	NPS staff
<b>Soil Erosion and Vegetation Loss</b>		

Soils-1	Work crews shall minimize vegetation clearing and soil disturbance to the extent possible to complete the project.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
Soils-2	All vehicular access to the point of diversion and waterline shall be contained within the road corridor. No new roads shall be constructed. The operator is responsible for repairing its access road to contain all construction equipment and project vehicles. No new disturbance shall be created during either the construction or monitoring and maintenance phases of the project.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
Soils-3	Following work activities, all work areas shall be brushed or groomed to remove tire tracks.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
Soils-4	All staging areas must be established outside of Death Valley National Park	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
<b>Vegetation</b>		
Veg-1	All vehicles and heavy equipment shall be cleaned of plant and soil debris outside of, and prior to each entry, into Death Valley National Park. Wash stations must be located outside of the Park. Operator must notify the NPS at least 48 hours in advance to schedule vehicle inspection before entering the park.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
<b>Visitor Experience</b>		
VE-1	Mechanized and motorized equipment shall be equipped to reduce noise to the extent possible (e.g., mufflers) and reduce intrusions to the soundscape.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
VE-2	Following work activities, all work areas shall be brushed or groomed to remove tire tracks. No vehicle access is allowed in wilderness.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance

VE-3	Park roads shall not be closed and visitor access to Death Valley National Park through Goler Wash must remain unimpeded.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
VE-4	All infrastructure (pipe, bathtub, etc.) will be removed by the operator when operations cease within 30 days. The mine operator will obtain a bond to cover all costs of removal.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance
WL-2	The operator will maintain the water diversion lines in the park using hand tools to protect riparian vegetation. Vegetation control measures, such as trimming, will not occur during the avian breeding season (February 1st through August 1st) unless survey by a qualified wildlife biologist is completed and no nests are found within 150 ft of the work site.	Mine Operator Project Manager to implement; NPS Monitor to verify compliance

#### ***DECISION RATIONALE***

Selecting the proposed action to approve the portion of the proposed plan of operations that would take place within Death Valley National Park would not constitute a nuisance in the vicinity of the operations or significantly affect federally owned lands. Adverse impacts to the natural and cultural resources within the Park would be short-term, lasting for the duration of the use of water for the exploration; water diversion would stop and the associated infrastructure would be removed at the end of the project. The NPS finds the selected action, within Death Valley National Park, will be implemented within the road corridor; construction of surface laid water pipe will be limited to previously disturbed areas adjacent to the road and will not create any new disturbance; will be colored to blend in with the surrounding landscape; and, the selected action is consistent with the California State Water License # 4716. The NPS will conduct an archaeological survey of the project area within the park and complete an analysis on cultural resources once the written description and map of the proposed water diversion is submitted. Additional mitigation measures may be required of the mine operator once cultural analysis and consultation has been completed.

*This section was intentionally left blank.*

### ***No ACTION***

The No Action Alternative (as described in the EA) provides a basis for comparison to the action alternative and is required pursuant to NEPA. In the No Action Alternative, the NPS and the BLM would not approve the proposed amendment to the PoO. In the No Action Alternative, BMC would not be approved to conduct its proposed drilling activities outside the Park and would not be authorized to divert water from Sourdough Spring and transport it to the Keystone Mine outside the Park for the drilling.<sup>2</sup> The NPS determined the No Action alternative would not meet the purpose and need for the Proposed Project.

### **ENVIRONMENTALLY PREFERRED ALTERNATIVE**

The Council on Environmental Quality (CEQ) Regulations implementing NEPA and the NPS NEPA guidelines require that “the alternative or alternatives which were considered to be environmentally preferable” be identified (CEQ Regulations, Section 1505.2). The environmentally preferred alternative results in the least damage to the biological and physical environment; it is also the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.

The CEQ defines the environmentally preferred alternative as “...the alternative that will promote the national environmental policy as expressed in the National Environmental Policy Act §101.” Section 101 of the National Environmental Policy Act states that “... it is the continuing responsibility of the Federal Government to ...

- 1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- 2) assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings;
- 3) attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences;
- 4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity, and variety of individual choice;
- 5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life’s amenities; and
- 6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”

The environmentally preferred alternative is the No Action. It requires no ground disturbance, no removal of water from the park, and best preserves the habitat, vegetation, and soils of Sourdough Spring and Goler Wash. It is, nonetheless, not selected due to BMC’s existing right to divert and use water from Sourdough Spring.

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<sup>2</sup> In the No Action scenario, BMC would still have an approved PoO for activities previously approved by the BLM for activities within its jurisdiction for but would need to get NPS approval for any activities within the Park (even those actions that were previously approved) because there has not been approval by the NPS after the area around Sourdough Spring was transferred to the administration of the NPS. Any such approval would be similar to approval of the Selected Action but would be connected to the previous mining activity and not the proposed drilling. As noted in the text, the No Action Alternative was determined to not meet the purpose and need for the Proposed Project.

## **PUBLIC INVOLVEMENT AND AGENCY AND TRIBAL CONSULTATION**

The majority of the project will occur on BLM land adjacent to Death Valley National Park. The BLM was the lead agency on the EA and the NPS was a cooperating agency. The EA was posted on the NPS Planning, Environment and Public Comment (PEPC) website from September 10 through October 12, 2018 for a 30-day review. The EA was published concurrently on the BLM Eplanning Site. The EA was entirely published on line with a press release from each agency directing people to PEPC and the BLM Eplanning site to review and comment. Comments were received online, via email, and written letters. A total of 15 unique pieces of correspondence were received between the two agencies. Analysis of the comments received identified 34 comments. The BLM and NPS combined comment response into a single document, which is attached as Appendix A, Part II of this FONSI.

### ***PUBLIC SCOPING***

The BLM did not hold a public scoping period for this project but posted a notice of the project on its Eplanning website. The NPS did not conduct separate public scoping. The majority of the project site lies on lands administered by the Bureau of Land Management. The NPS will complete a new archeological survey of the project area within Death Valley National Park and consult with the California State Historic Preservation Office and any affiliated tribes prior to project initiation. It is anticipated this survey and analysis would be completed within 120 days of receipt of a written description and a map of the project area.

### ***AGENCY COORDINATION***

The NPS agreed to serve as a cooperating agency on this project in late 2016. The NPS was notified by the BLM of the release of the EA for public review and worked closely with the BLM to concurrently release the EA on the NPS PEPC for review and comment. Both agencies worked closely on the preparation of the EA, shared public comments received, and produced a single response to comments for both agencies.

The NPS will complete a new archeological survey of the project area within Death Valley National Park and consult with the California State Historic Preservation Office and any affiliated tribes prior to project initiation. It is anticipated this survey and analysis would be completed within 120 days of receipt of a written description and a map of the project area.

The BLM Ridgecrest Field Office cited a biological opinion of the US Fish and Wildlife Service under Section 7 of the Endangered Species Act for Desert Tortoise. The biological opinion for the Keystone drilling proposal tiers from a programmatic consultation that the BLM and U.S. Fish and Wildlife Service (Service) completed in 2017 (Service 2017, Biological Opinion for Activities in the California Desert Conservation Area).

## **WHY THE SELECTED ALTERNATIVE WILL NOT SIGNIFICANTLY AFFECT THE QUALITY OF THE HUMAN ENVIRONMENT**

**Impacts that may have both beneficial and adverse aspects and which on balance may be beneficial, but that may still have significant adverse impacts that require analysis in an EIS.** Impacts to the natural resources of the Park were adequately analyzed in the EA. The project has no significant adverse impacts requiring further analysis.



**Degree of effect on Public Health or Safety.** Public health and safety is not directly affected by the Selected Alternative.

**Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.** Goler Wash is a challenging 4x4 route into a remote area of Death Valley National Park. The area has many mining sites and features while Sourdough Spring plays an important ecological role within the Park. The diversion of 470 gallons per day from the point of diversion at the end of the riparian corridor is not expected to have a significant impact on the flora and fauna. Additionally, coloring the waterline earth tones to match the surrounding landscape will not diminish the visitor experience. The operator will remove all of the equipment at the end of the operation. All of the infrastructure is to be placed in previously disturbed areas along the road.

**Degree to which effects on the quality of the human environment are likely to be highly controversial.** Recreational access, consumptive use of water, and mining were identified issues that could be controversial. The Goler Wash Road is a public access road and will remain open throughout operations. The mining operator shall not limit public access. Water use on this project is primarily hauled in by truck.

**Degree to which the possible effects on the quality of the human environment are highly uncertain or involve unique or unknown risks.** There is a very low likelihood of uncertainty, unique or unknown risks. The selected action has been described in enough detail to identify and mitigate most risks to the human environment.

**Degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.** The project is consistent with existing law and policy and approval of this action will not establish precedent for future actions.

**Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.** The selected action is not related to other actions and there are no reasonably foreseeable actions at this time.

**Degree to which the action may adversely affect districts, sites, highways, structures, or objects listed on National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.** The location of the project site is not adjacent to or within the vicinity of any properties listed or eligible for the National Register of Historic Places.

**Degree to which the action may adversely affect an endangered or threatened species or its critical habitat.** The park has no records of tortoises or other endangered or threatened species being observed within the vicinity of the project site.

**Whether the action threatens a violation of Federal, state, or local environmental protection law.** The selected action does not violate any Federal, state, or local environmental protection laws.

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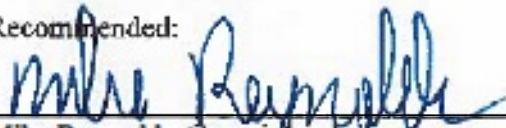
## CONCLUSION

The levels of adverse impacts to park resources anticipated from the selected alternative will not result in an impairment of park resources that fulfill specific purposes identified in the enabling legislation or that are key to the natural or cultural integrity of the park.

Implementation of the selected action will not have significant impacts on the human environment. The determination is sustained by the analysis in the EA, agency consultations, and the capability of mitigations to reduce or avoid impacts. No highly uncertain or controversial impacts, unique or unknown risks, significant cumulative effects, or elements of precedence were identified.

The selected alternative will not violate any federal, state, or local environmental law. Therefore, it has been determined that an environmental impact statement is not required for these actions, and the project may be implemented once the NPS approves the FONSI; SHPO concurrence is completed; and a letter authorizing the operations within in the Park (pursuant to 36 CFR Part 9, subpart A), is signed by the Regional Director. The NPS will conduct archeological survey and consultation with CA SHPO and affiliated tribes after the approval of the FONSI. NPS staff anticipate this step will not take more than 120 days after the mine operator has submitted specific design and layout for the water conveyance including a map.

Recommended:

  
Mike Reynolds, Superintendent

3-7-19  
Date

Death Valley National Park  
National Park Service

Approved:

  
Stan Austin, Regional Director

3/15/19  
Date

Pacific West Region  
National Park Service

## **APPENDIX A: ERRATA SHEET AND COMMENT RESPONSE**

### **PART 1:ERRATA SHEET**

#### **MODIFICATION OF KEYSTONE MINE PLAN OF OPERATIONS ENVIRONMENTAL ASSESSMENT**

Revisions to the environmental assessment are listed in this section. These revisions have not resulted in substantial modification of the selected action. It has been determined that the revisions do not require additional environmental analysis. The page numbers referenced are from the *Modification of Keystone Mine Plan of Operations / Environmental Assessment*.

1. Sentence added in Section 1.1 page 6: "It is the BLM's purpose to comply with this need while ensuring compliance with applicable land use management plans, protection of resources, and compliance with federal and state laws related to environmental protection (43 CFR § 3809.420)."
2. CMA LUPA-BIO-6 has been added to the EA on page 10.
3. Sentence added at top of Page 27: "All other resources were determined not to have the potential for significant impacts with the addition of mitigation measures and conservation management actions."

## PART II: RESPONSES TO COMMENTS

The following are NPS responses to concerns that were raised by commenters on the environmental assessment. Responses to all substantive comments are included here. In addition, some non-substantive comments, identified as being of high importance to the public or needing clarification, are also responded to here. The page numbers referenced are from the *Modification of Keystone Mine Plan of Operations / Environmental Assessment*.

**Water use/water right:** related to the use of the spring and haul water

**Comment 1:** Commenters had questions regarding water use from Sourdough Spring, with some in favor of the operation and others against. Most of the comments concerned the use of 470 gallons per day (gpd) from Sourdough Spring versus hauling in additional water.

*Representative quote: “I would like to suggest that BMC not be allowed to modify existing piping to divert water from Sourdough Spring to a water tank outside the park. Modifying water lines disturbs the ground and habitat, including the water source. There is really no reason for public lands to be disturbed for mining operations.”*

**Response:** Please refer to EA at Section 2.5.3 for specific language regarding the use of water from Sourdough Spring. The mine operator, Bush Management Company (BMC), has a water right (CA Water License #4716) to divert up to 470 gpd for domestic and mining use from Sourdough Spring. A flow meter and an additional device, such as a restriction valve or smaller intake, would be installed in the pipeline at Sourdough Spring to ensure that the 470 gpd limitation is not exceeded.

In accordance with CMA LUPA-SW-18, water used as part of the Proposed Action would be used solely for the Proposed Action. A minimum sized 5,000-gallon enclosed portable plastic water tank would be set up at the base of the Keystone Mine Maintenance Road on BLM land where it meets the Goler Wash Road. The tank would be filled using the water trucked in from Trona and the water piped in from Sourdough Spring. Water haulage and piping would continue for the duration of the Proposed Action.

The water trucks would have a capacity of about 5,000 gallons and a maximum of three trips per day may be made. The water trucks would not travel to Sourdough Spring or within Death Valley National Park.

**Comment 2:** Commenter asked to clarify the source of water coming from Trona and impacts related to that source area.

**Response:** The water from Trona, if needed, will be from a non-federal source and that operation is responsible for analysis of impacts related to its water source. See EA at Section 2.5.3.

**Comment 3:** How could the BLM approve water diversion when original Plan of Operations predated the establishment of millsite?

**Response:** There is no requirement to have a claim or millsite prior to providing BLM a plan of operations, or prior to the BLM's approval of any such plan of operations (see definition of "Operations" at 43 CFR 3809.5).

Prior to BLM's approval of the plan of operations in 1981 and as amended in 1988 and prior to the previous owner's claim for a millsite in 1989, the previous mine owner had a water right to divert 470 gpd from Sourdough Spring with a priority date of 1941. That water right did not and does not depend on the validity of the millsite. The project proponent – BMC – now owns that water right (CA Water License #4716). The area surrounding and including Sourdough Spring was transferred to NPS management in 1994 and the NPS is treating the Minor Plan Modification submitted to the BLM (and forwarded to the NPS by the BLM) as submittal to the NPS under 36 CFR Part 9, subpart A (referred to as the Part 9A regulations). NPS's review of the Minor Plan Modification for the use of the water pursuant to the water right does not depend on the millsite claim.

**Water Resources:** related to the use of the spring and the impacts on wildlife, riparian vegetation and the Tribes.

*Representative quote: "The project will extract 470 gallons per day from Sourdough Spring. This raises concerns for all of the wildlife that uses the spring. Will a reduced water supply take food and water away from bighorn sheep and other wildlife? Will a reduced water supply remove habitat for avian fauna and the Panamint alligator lizard? "*

**Comment 4:** Many commenters expressed concerns over the use of the water and the impacts to the ecology of the area. A few responses expressed concern that this process was an overreach and slowing down job opportunities in Inyo County.

**Response:** BMC has a water right (CA Water License # 4716) to divert up to 470 gpd from Sourdough Spring for domestic and mining use. The NPS conducted three measurements of the spring between 2003 and 2017. These opportunistic measurements of spring flow rates at the point of diversion range from approximately 4,300 gpd in late summer of 2016 to 43,000 gpd in early spring 2003. Based on these flow rates, the diversion rate allowed by the water right will range from 1.1% to 11% of the total spring flow.

When Sourdough Spring was still under BLM management, the Plan of Operations as amended in 1988 included mitigation to protect the riparian habitat in Goler Wash, including the riparian zone at Sourdough Spring. One of these measures required moving the point of diversion to the lower edge of the riparian zone (the downstream area of the spring) into a small earthen impoundment that feeds a bathtub collection system. This configuration, which is still in place, was designed to minimize impacts to ecological resources within the riparian zone.

The spring flow diversion features may actually increase water availability to larger mammals, because the earthen impoundment and the bathtub collection create open ponded water features that do not occur naturally. Also, maintenance of the point of diversion requires the removal of vegetation which increases the accessibility of the ponded water to larger mammals.

Maintenance of the diversion features requires trimming or removing vegetation. No vegetation impacts from spring flow diversion are expected above the point of diversion. Mitigation measures are included in the decision document to minimize any impacts to vegetation and wildlife from maintenance activities. The spring flow below the point of diversion flows onto Goler Wash Road, so wetland and riparian vegetation has not established due to repeated passing of vehicles.

The spring flow that infiltrates into Goler Wash below the point of diversion is likely to reemerge as spring flow in downgradient springs in the canyon. Therefore, the spring flow diversion may reduce the flow in downgradient springs which support wildlife, riparian zones, and aquatic ecosystems. However, this return recharge is believed to be a minor contribution to these springs, and the impacts of reducing this component by 470 gpd would be indiscernible.

**Comment 5:** Commenter requested that the EA include impacts of water diversion to Timbisha Shoshone Tribe.

**Response:** Both agencies must comply with section 106 of the National Historic Preservation Act (NHPA) of 1966 as implemented by 36 CFR part 800. As explained in Section 2.7.1 of the EA, the proposed activities under the BLM's jurisdiction were evaluated and it was determined that the operations were exempt as minor modifications to or minor variances from activities described in an approved underground or surface mining plan of operations that does not affect historic properties for which previous Section 106 consultation has been completed. The identification number for the Exempt Undertaking finding is CA-650-EX-2017-34. The NPS will conduct a new survey of the Sourdough Spring millsite and prepare an Assessment of Effects finding for the California State Historic Preservation Officer (SHPO) and affiliated tribes as required by Section 106 of the NHPA once the mine operator has submitted a proposed plan and map of the project area. Based on a preliminary site visit it is not anticipated that any cultural resources would be encountered, as this project would be conducted entirely on previously disturbed ground utilizing existing access roads.

**Noise/Soundscapes:** Related to the noise associated with the exploration operation

*Representative quote: "The entire project would be powered by loud diesel generators. How would the noise impact wilderness qualities in the adjacent Manly Peak Wilderness Area and Death Valley National Park? Emissions from generators also conflict with wilderness and conservation values. "*

**Comment 6:** Multiple commenters requested to know how noise will impact the quality of wilderness and Park lands.

**Response:** The EA at page 5 imposes LUPA-BIO-12, which requires standard noise controls to be used on drilling equipment. This is sufficient to reduce potential impacts to less than significant. Additional language has been added to the EA at page 27: "All other resources were determined not to have the potential for significant impacts with the addition of mitigation

measures and conservation management actions.” Impacts to the soundscape in Death Valley National Park and adjacent areas would be localized and temporary.

**Visual Impacts:** related to the visual impacts associated with mining activities at the Keystone Mine

*Representative quote: “It is reasonable to expect the proponent to cause visual disturbances. The EA does not analyze visual impacts, which may imply none are expected. But the experience from 2016 and complete lack of any visual impact analysis in the EA arouses suspicion. The EA must provide visual impact analysis.”*

**Comment 7:** Most commenters suggested that the water line and mining equipment would be an impact to the visual aesthetics of Goler Wash. A commenter also asked if lights would be shut off at after dark.

**Response:** Please see the EA at Appendix A, which states that impacts to Visual Resources are anticipated to be in accordance with previously authorized activities. Also See EA at LUPA-BIO-13: Nighttime lighting would be short-term and limited to only necessary use areas. Further, Section 4.5 includes a discussion of visual impacts on recreational use. As a result of minor visual impacts, LUPA-BIO-4 is being required to reduce visual barriers.

**Recreation and Access:** related to recreation and access to the area and Death Valley National Park

*Representative quote: “As a recreational user of the area my only concerns are vehicle access on Goler Wash Road and to what extent the local fauna will be affected by the changes to the Sourdough Spring.”*

**Comment 8:** Multiple commenters expressed concern that the proponent with equipment and water hauling trucks would have a direct impact to recreation and access.

**Response:** As outlined in the EA at Sections 3.4 and 4.5, the Goler Wash Road is an Inyo County road (Also known as Coyote Canyon Road) which would remain open and in place during and after all proposed activities.

**Comment 9:** Commenter believes the recreation impact is stated incorrectly and that Keystone route is often driven up.

**Response:** While the commenter is using the subjective term “often,” the Keystone Mine Maintenance Road is not a designated OHV route. As the EA explains, the Keystone Mine Maintenance Road would not provide public access to the Project Area until the completion of exploration or mining activities, but the Goler Wash Road would remain open. Refer to Sections 3.4 and 4.5 of the EA for a description of the proposed drilling activity in relationship to the more frequently used Goler Wash Road.



**Comment 10:** Commenter is concerned about Wingate Road being nearly impassable in wet weather, therefore trucks may go around and damage vegetation and this needs to be analyzed in EA.

**Response:** Wingate Road is a county maintained road. The BLM has added a condition to the Decision Record which states, “Unless otherwise approved, access to the area is via county roads and designated routes and cross country travel is prohibited.”

### **Air Quality:**

*Representative quote: “Increased traffic will cause regular dust issues that will impact the air quality and visual resources of the adjacent wilderness and national park unit.”*

**Comment 11:** Commenters were concerned about air quality from fugitive dust associated with operations and increased truck traffic hauling water to the site.

**Response:** See EA at Sections 3.2 and 4.3. A fugitive dust control plan will be prepared and implemented in accordance with LUPA-AIR-5. As the EA states in Section 4.3, an increase in fugitive dust during windstorms could occur due to the loosening of previously disturbed soil as a result of the Proposed Action. The Proposed Action would negligibly affect air quality because activities utilizing mechanized equipment would be geographically limited within the canyon and short-term, lasting for a maximum of 12 to 18 months. No measurable offsite impacts are anticipated. Because of its location in Panamint Valley, which is an unclassified area for PM10 and an attainment area for PM2.5, no further conformity analysis or determination is necessary.

### **Green House Gases (GHG):**

**Comment 12:** Commenter concerned that the EA does not include an analysis of GHG emissions.

**Response:** Please see Appendix A, which states that the Proposed Action would not impact or contribute substantially to increase GHG emissions and does not meet the requirements for greenhouse gas reporting (<https://www.epa.gov/ghgreporting>).

### **Special Status Species:**

*Representative quote: “Although Nelson’s bighorn sheep are known to occupy habitat throughout the southern Panamint Mountains, the EA simply states that “Special status animal species having the potential to occur in the area include ... Nelson’s bighorn sheep (Ovis canadensis nelsoni) ...”*

**Comment 13:** Multiple commenters suggested the operation would have impacts to a wide range of species that were either not considered in detail or not considered at all in the EA, including

several special status species such as Nelson's bighorn sheep, yellow billed cuckoo, Panamint alligator lizard, Inyo California towhee, and desert tortoise.

**Response:** The EA did not mention yellow billed cuckoo and Inyo California towhee because these species are not known to occur in the project vicinity. The EA at Section 4.6 analyzed impacts to special status species. Due to the disturbed nature of the project site and the temporary nature of the project, species descriptions and analysis, including Nelson's bighorn sheep and Panamint alligator lizard, were sufficient to analyze and reduce the potential impacts of the project to a less than significant level through conservation management actions such as LUPA-BIO-4 – seasonal restrictions would be implemented or visual barriers installed for activities which may impact Focus or BLM special status species, if present. See also Section 1.5 Conservation Management Actions of EA.

**Comment 14:** The commenter is concerned that the EA should include additional analysis of tortoise habitat in relation to the mine.

**Response:** The EA at Section 3.5 describes how the Project area is disturbed and does not contain all of the elements for desert tortoise occupancy. No tortoise or their sign was found in the Project area during the 2017 biological survey. Since desert tortoises do not occupy the Project area, there is no need for additional analysis.

**Comment 15:** Commenter suggested that the EA should include a list of mitigation measures including a requirement of a designated biologist to ensure compliance of the protection measures and CMAs. They also specifically recommended that the EA should include LUPA-BIO-6, which has subsidized predator standards.

**Response:** Please see EA page 4, Section 1.5 Conservation Management Actions for a list of the mitigation measures. CMA LUPA-BIO-6 has been added to the EA.

**Comment 16:** Commenter points out that the BLM provides three titles of biological opinions in the EA and inconsistent issuance dates. They were unsure under which biological opinion BLM is operating to obtain its authorization for incidental take for the Proposed Project.

**Response:** The biological opinion for the Keystone drilling proposal tiers from a programmatic consultation that the BLM and U.S. Fish and Wildlife Service (Service) completed in 2017 (Service 2017, Biological Opinion for Activities in the California Desert Conservation Area). During that consultation, the BLM proposed to re-initiate formal consultation if 15 large desert tortoises are killed in a calendar year as a result of its activities; the Service then used that number as the basis of its analysis to determine whether the programmatic consultation was in compliance with section 7(a)(2) of the Endangered Species Act. The Service concluded that the BLM's proposed action was not likely to jeopardize the continued existence of the desert tortoise; i.e., the proposed action was in compliance with section 7(a)(2). Because the Service reached a non-jeopardy conclusion, the incidental take of desert tortoises (up to 15 large individuals, the number analyzed in the biological opinion) is exempted from the prohibitions against take that are contained in section 9 of the Endangered Species Act. As agreed to during the consultation, the Bureau will monitor its activities and re-initiate consultation, if needed. In

summary, the incidental take statement in the 2017 biological opinion applies to the Keystone drilling proposal. The language that references the Biological Opinion (6840 CA-063.50) (1-8-97-F-17) was an error. The language in Appendix A was also incorrect, so thank you for alerting us to this error. The language has been corrected in both.

### **Mining in Parks Act:**

*Representative quote: “Please clarify how the NPS will comply with 36 CFR Part 9?”*

**Comment 17:** Commenters were concerned how the BLM and NPS were working together in light of two different sets of regulations governing mining activities. Some suggested the NPS should not be involved at all, while others asked how the NPS would comply with 36 CFR Part 9, subpart A (the Part 9A regulations) for the Keystone Mine and Sourdough Spring.

**Response:** Pursuant to the California Desert Protection Act of 1994 (CDPA), Congress expanded the boundary of Death Valley National Park to include the area surrounding and including Sourdough Spring (where water is planned to be diverted) and directed the NPS to administer these areas in accordance with the laws applicable to the National Park System, including the NPS Organic Act and the Mining in the Parks Act of 1976. Thus, any operations related to the Keystone Mine (which itself is not located within the Park) are subject to the regulations issued pursuant to the Mining in the Park Act of 1976 that are found at 36 CFR Part 9, subpart A (the Part 9A regulations). The Part 9A regulations apply to mining and related operations within a park boundary whether the operations are on patented or unpatented mining or millsite claims, are related to transport across park lands, or related to the diversion of water under a perfected water right issued by a state and not located on a millsite claim.

The activities proposed to be conducted by BMC—diversion and transport of water from Sourdough Spring within the Park in support of the mining activities at the Keystone Mine site—are subject to the Part 9A regulations. This is the case even though BMC has a water right to divert 470 gpd from Sourdough Spring (CA Water License #4716). The NPS is reviewing the Minor Modification submitted in 2016 for consistency under the Part 9A regulations but only the operations that will occur within the boundaries of Death Valley National Park.

Typically the NPS has requested that a mine operator submit a plan to the NPS for operations subject to Part 9A regulations even for those operations which have an approved Plan of Operations (PoO) from another federal agency such as the BLM. The NPS has no record that it reached out to the previous owner to submit a separate plan to the NPS when the Sourdough Spring area transferred to NPS administration in 1994. In fact, the NPS has no record of communication between it and the previous owner. NPS is treating the minor modification submitted to the BLM (and forwarded to the NPS by the BLM) as submittal to the NPS under the Part 9A regulations.

### **Mining- history of compliance, jurisdiction and plan of operations**

**Comment 18:** Commenter asked how the 1981 Mining plan is still legitimate after 25 years? They recommended the BLM require a new PoO for review.

**Response:** Under the BLM's regulations at 43 CFR 3809.423, a plan of operations remains in effect as long as it is properly maintained with the BLM. A plan of operations modification is required if new activities that were not part of the original authorization are proposed, as occurred in this situation.

**Comment 19:** Commenter requests we include a new section 1.2B in the EA entitled "Acknowledgement of Valid Existing Rights Held by Keystone Mine" and add the following verbiage:

1. "State of CA water permit License #1004716 with a priority date of 1941 ("Water Permit")"
2. "Valid Millsite Claim, described as "Sourdough Millsite" and registered under serial number CAMC#231701 (Lead Serial #231700) located and recorded November 1989"
3. "A PoO originally approved in April 1981, a mod with EA approved in June 1983, and a mod with EA approved in Oct. 1988. The Water Permit and Sourdough Millsite are both part of the valid existing rights obtained in the approved Plans of Operation. The PoO approvals include both the source and use of the water under the Water Permit, and the general location and use of a water transmission line from the Sourdough Millsite to the foot of the approved mine maintenance road."
4. BMC recognizes the valid creation of the NPS boundary in 1994, and that this new boundary places the location of the Sourdough millsite claim inside Death Valley National Park, subject to the valid existing rights described above.
5. Federal Law provides that each federal agency has jurisdiction only over that land area specifically granted to it by statute. Accordingly, the rights of NPS to administer, govern, or comment on activities taking place on any land inside of the Keystone PoO areas that is west of the western boundary of DVNP are prohibited. All future actions under the PoOs, or modifications thereto, will be singularly administered by BLM. NPS is precluded from acting as a NEPA Co-Lead Agency for all matters affecting Keystone Mine, other than actions taking place on the land under the Sourdough Millsite claim. Should Keystone Mine apply for any changes to the Sourdough Millsite claim affecting land within DVNP, NPS shall have jurisdiction for those matters affecting that land within DVNP.
6. In the event of a conflict between this Paragraph 1.2B and any other provisions of this EA, the interpretation under this Paragraph 1.2B shall prevail.

**Response:**

1. Please see EA, Figure 4 for reference to the water permit number and date.

2. Please see EA at Section 2.3: Water Use and Pipeline. The Sourdough Millsite is now under the jurisdiction of the NPS.

3. Please see EA at Section 1: Introduction and Section 2.1: Site History for reference to these documents. Pursuant to the California Desert Protection Act of 1994 (CDPA), Congress expanded the boundary of Death Valley National Park to include the area surrounding and including Sourdough Spring (where water is planned to be diverted) and directed the NPS to administer these areas in accordance with the laws applicable to the National Park System, including the NPS Organic Act and the Mining in the Parks Act of 1976. Thus, any operations related to the Keystone Mine (which itself is not located within the Park) are subject to the regulations issued pursuant to the Mining in the Park Act of 1976 that are found at 36 CFR Part 9, subpart A (the Part 9A regulations). The Part 9A regulations apply to mining and related operations within a park boundary whether the operations are on patented or unpatented mining or millsite claims, are related to transport across park lands, or related to the diversion of water under a perfected water right issued by a state and not located on a millsite claim.

The activities proposed to be conducted by BMC—diversion and transport of water from Sourdough Spring within the Park in support of the mining activities at the Keystone Mine site—are subject to the Part 9A regulations. This is the case even though BMC has a water right to divert 470 gpd from Sourdough Spring (CA Water License #4716). The NPS is reviewing Minor Modification submitted in 2016 for consistency under the Part 9A regulations but only the operations that will occur within the boundaries of Death Valley National Park.

Typically the NPS has requested that a mine operator submit a plan to the NPS for operations subject to Part 9A regulations even for those operations which have an approved PoO from another federal agency such as the BLM. The NPS has no record that it reached out to the previous owner to submit a separate plan to the NPS when the Sourdough Spring area transferred to NPS administration in 1994. In fact, the NPS has no record of communication between it and the previous owner. NPS treating the minor modification submitted to the BLM (and forwarded to the NPS by the BLM) as submittal to the NPS under the Part 9A Regs.

As noted, the NPS has reviewed the PoO only for the activities that take place within the Park. Validity examinations on unpatented millsites within park units are normally conducted prior to NPS approval of proposed plans of operation. In this case, given that BMC has not requested a validity determination and given the costs and time required for such a determination, a validity examination of the millsite was not necessary at this time because BMC has a water right (CA Water License #4716) to divert 470 gpd from Sourdough Spring for mining and domestic purposes. Even if the millsite claim was found to be invalid, the state water right would still exist.

4. Thank you for your comment.

5. Please see EA at Section 1.2 Decision to be Made, for an explanation about jurisdiction of BLM and NPS.

6. Thank you for your comment, but the agencies decline to make this change to the EA.

**Comment 20:** BMC recommends that these clarifications can be made without a re-publication of the EA as these clarifications are simply a recitation of current law rather than introducing any new issues which might conflict with existing law. If BLM and or DOI accepts these suggested changes, BMC will withdraw its two pending appeals filed with IBLA concurrently with the issuance of the ROD for this matter

**Response:** Thank you for your comment, but the suggested language is outside the scope of the EA.

**Alternative(s):**

**Comment 21:** Commenter suggests that the BLM evaluate an alternative that looks at different locations with less impacts.

**Response:** BLM cannot refuse claimants' reasonably incident activities on mining claims provided they meet the requirements of 43 CFR Subparts 3715 and 3809. "Different locations with less impact" is too vague to analyze, as mineral resources are not uniformly found across the area. The applicant determined that this is the best location for their purposes to determine if mineral resources are present in the area and no specific suggestions for alternative locations have been made by any stakeholder or member of the public.

**Comment 22:** Commenter believes the EA should consider underground drilling in the same detail as it considers the proposed drilling operation.

**Response:** As explained in the EA at Section 2.8, underground drilling as an alternative was considered but eliminated. The workings would need to be rehabilitated to current Mine Safety and Health Administration standards prior to underground drilling and that work would have been cost prohibitive for drilling.

**Comment 23:** Commenter recommends that a third alternative be added that only has water from Trona and none taken from Sourdough Spring.

**Response:** Please see EA at Section 2.5.3: Water Haulage and Storage. A separate alternative that only has water being hauled from Trona was not included because it is already within the scope of the analyzed alternatives. Without the Sourdough Spring water there would be enough water to fill the tanks with three truck trips a day.

**Comment 24:** Commenter suggests that the BLM should select the No Action Alternative and consider that this project could lead to an even bigger mining project.

**Response:** NEPA requires BLM to analyze reasonably foreseeable developments (40 CFR 1508.7), but not to speculate. A future action (such as a commercial mining operation) becomes reasonably foreseeable once it is proposed, but until then is merely speculative and need not be

considered in a cumulative impacts analysis. A reasonably foreseeable analysis considers actions that are likely and can be meaningfully evaluated, rather than merely possible.

### **Purpose and Need:**

**Comment 25:** Commenter believes that the EA should evaluate the need to protect the values preserved by the adjacent wilderness area and Death Valley National Park. These values would include sensitive species such as bighorn sheep, rare plants, avian fauna, as well as cultural resources, cultural landscapes, hydrologic resources, and visual resources.

**Response:** Please see EA at Section 1.1 Need For Action. It is the BLM's purpose to comply with this need while ensuring compliance with applicable land use management plans, protection of resources, and compliance with federal and state laws related to environmental protection. Additional language was added to the EA at Section 1.1 for further clarification.

### **Compliance with other Regulations:**

**Comment 26:** Commenter mentions that in the EA's section on "Relationship to Statutes, Regulations, or Other Plans," there was no mention of compliance with the Clean Air Act, the Migratory Bird Treaty Act, and relevant executive orders and secretarial orders. They suggest that BLM revise this section of the Final EA to include this missing relevant information.

**Response:** Please see EA at Sections 2.7.5 and 3.5 for a discussion on compliance with Migratory Bird Treaty Act. The EA at Section 3.2 includes a discussion about Air Resources and the Clean Air Act. Section 4.3 provides a complete analysis of the direct, indirect, and cumulative effects.

**Comment 27:** Commenter points out that the EA does not mention compliance with the California Endangered Species Act.

**Response:** Comment noted. The EA was sent to California Department of Fish and Wildlife (CDFW) for review. No comments were received from CDFW.

### **Reclamation Plan:**

**Comment 28:** Commenters recommend that the Reclamation Plan should include disturbance due to water diversion, must include Inyo County if more than 1 acre, and provide a third party with a performance bond.

**Response:** Please see 2.5.7 Reclamation. A reclamation plan will be developed after a decision is made and an alternative is selected. The operation remains liable for implementing BLM-required mitigation measures until released by BLM (43 CFR 3809.420(a) (4) and

3809.116(a)). A performance bond will be provided to the BLM or the State that meets the requirements before starting operations. (see 43 CFR 3809.551)

### **Land Status and Designations:**

**Comment 29:** Commenter believes the Land Status Map is too grainy.

**Response:** See EA at Figure 2, the map is at a scale and resolution that is acceptable

**Comment 30:** Commenter states that in comparing Figure 4 of the Appendices, entitled “Sourdough Millsite Claim”, with a prior official version dated 2013, commenter notes significant differences in land use designations, the proper designation of the boundary of the Sourdough Millsite claim, and other matters. Figure 4 cannot be, or function as, an official document because Figure 4 contains changes to official land use designations which have been done without proper notice to affected parties, and other stakeholders in the affected areas.

**Response:** Figure 4 of the EA reflects the correct, current land use designations from the Desert Renewable Energy Conservation Plan, as approved in 2016.

### **General Questions and Clarifications:**

**Comment 31:** Commenter suggests the EA should include a Fire Management Plan

**Response:** Please see EA page 20, section 2.7.7: Fire Protection. The operator is also required to meet fire performance standard, at 43 CFR 3809.420(b)(10).

**Comment 32:** Commenter asks for Applicant Address Clarification and also if this is the Bush Management that has around 50 other claims.

**Response:** The project proponent’s address is: Bush Management Company, P.O. Box 11179, Newport Beach, CA 92658. The applicant may have other claims, but this is outside the scope of this analysis.

**Comment 33:** Commenter believes the disturbance area is miscalculated and the acreage is under-reported.

**Response:** See EA at Section 2.5.2: Drilling. A larger area is already disturbed and not included in the table, the calculation in the table is for the drill hole sites within this already disturbed area.

**Comment 34:** Commenter points out that the BLM Press Release had incorrect location information.



***Response:*** The commenter is correct that the press release contained the wrong project location information. However, all other documents, including the EA, had the correct location, and the EA was available on ePlanning. The BLM has determined that the comment period was sufficient.

## **Appendix B: Conditions to Authorization of Mining Activities within Death Valley National Park on Bush Management Company**

All future plan of operation supplements, revisions, modifications and/or amendments shall be submitted, in writing, to the Superintendent for analysis and determination of appropriate action.

The operator shall notify the Superintendent prior to operations start up and end of season shut down, to enable park staff to meet with the operator and conduct the required monitoring and compliance investigations.

The operator shall work with park staff in (1) documenting specific sites affected within the NPS, (2) conducting field measurements to determine and verify (a) water usage, (b) document any actions within the national park, and (3) maintain water infrastructure in good working condition or remove when no longer in use.

An annual report shall be submitted to the Superintendent by the operator. The report shall be submitted by November 30 of the year in which operations were conducted. Authorization to continue mining operations the following year is subject to the operator's submitting an annual report. The annual report shall include, at a minimum, the following information:

- a) Water usage, including total volume removed;
- b) Waterline facilities maintenance/construction conducted;
- c) Date of and any activities on NPS administered land;
- d) Operational changes to the approved plan of operations which occurred and may need to be considered as alterations to the plan of operations.
- e) Future mining and exploration plans.

Mitigation measures that BMC must follow for the protection of park resources include the following:

- The current point of diversion and bathtub are the only location approved for use. Any diversion upgradient will have direct impacts to the riparian zone and is therefore not permitted.
- Waterline will be laid on the surface within the road corridor and painted to match the surrounding desert background to keep the waterline from distracting from the visitor experience.
- All tools, equipment, barricades, signs, surplus materials, demolition debris and rubbish will be removed from the project work limits upon project completion.
- All equipment and vehicles on the project shall be in good working order upon each entry into Death Valley National Park.
- All trash shall be removed from the project site by the end of each work day.
- Hazardous materials, if used, and wastes would be stored and disposed of in accordance with federal, state, and local regulations.
- Project vehicles shall be restricted to existing roads. Off-road or cross-country travel is prohibited. Access to Sourdough Spring shall be by foot.

- Waterline and associated equipment may not be installed in wilderness. The NPS will notify the operator where the water line may be placed, the location and the alignment, and how the line will be maintained throughout the project.
- The NPS will complete a new archeological survey of the project area within Death Valley National Park and consult with the California State Historic Preservation Office and any affiliated tribes prior to project initiation. It is anticipated this survey and analysis would be completed within 120 days of receipt of a written description and a map of the project area.
- Work crews shall minimize vegetation clearing and soil disturbance to the extent possible to complete the project.
- All vehicular access to the point of diversion and waterline shall be contained within the road corridor. No new roads shall be constructed. The operator is responsible for repairing its access road to contain all construction equipment and project vehicles. No new disturbance shall be created during either the construction or monitoring and maintenance phases of the project.
- All staging areas must be established outside of Death Valley National Park
- All vehicles and heavy equipment shall be cleaned of plant and soil debris outside of, and prior to each entry, into Death Valley National Park. Wash stations must be located outside of the Park. Operator must notify the NPS at least 48 hours in advance to schedule vehicle inspection before entering park lands.
- Mechanized and motorized equipment shall be equipped to reduce noise to the extent possible (e.g., mufflers) and reduce intrusions to the soundscape.
- Following work activities, all work areas shall be brushed or groomed to remove tire tracks. No vehicle access is allowed in wilderness.
- Park roads shall not be closed and visitor access to Death Valley National Park through Goler Wash must remain unimpeded.
- All infrastructure (pipe, bathtub, etc.) will be removed by the operator when operations have ceased within 30 days. The mine operator will obtain a bond to cover all costs of removal.
- A flow meter and an additional device such as a restrictive valve or smaller intake, will be installed in the pipeline at Sourdough Spring to ensure that the 470 gpd limitation is not exceeded. Regular site inspections during the project period will ensure that the infrastructure including the water meter is properly installed and functioning effectively. An annual water usage report is required.
- The operator will maintain the water diversion lines in the park using hand tools to protect riparian vegetation. Vegetation control measures, such as trimming, will not occur during the avian breeding season (February 1st through August 1st) unless survey by a qualified wildlife biologist is completed and no nests are found within 150 ft of the work site.
- A performance bond shall be posted and maintained with the National Park Service Pacific West Regional Office in the amount of \$7,500 prior to the implementation of the approved plan of operations. The performance bond shall be increased to reflect any changes in operation or adjustments for inflation.

## **APPENDIX C: 1988 BLM Plan of Operations Approval with Stipulations**

Appendix C  
1988 Plan of Operations Amendment  
Application with Stipulations

3809(8)  
CAMC30774-783  
(CA065.26K)

Ridgecrest Resource Area  
112 East Dolphin Avenue  
Ridgecrest, California 93555

OCT 14 1988

Mr. Kirk DuShane  
Keystone Mining Company  
P.O. Box 2399  
Ketchum, Idaho 83340

Dear Mr. DuShane:

Your mining plan of operations (CAMC-30774-783), submitted to this office on September 16, 1988, and outlined in the attached staff memo, has been approved subject to the following stipulations:

1. Within thirty (30) days from the date of this approval, move the water collection box at Sourdough Spring to the lower end of the riparian zone to enhance water flow through the riparian zone.
2. Within thirty (30) days from the date of this approval, install a screen partially inside the cement collection box structure in a manner sufficient to allow escape by small animals.
3. All burning of riparian vegetation is prohibited.
4. Any willows in the riparian zone destroyed by fire or other means shall be replaced by replanting of cuttings during the month of February.
5. The authorized officer will be notified at least 30 days in advance of any improvements, willow planting, rehabilitation or other activities at Sourdough Springs in order to allow for the recordation and evaluation of archaeological resources by the staff archaeologist.
6. All abandoned roads will be reclaimed by reshaping to match original contours, ripping and seeding with a mixture and in a manner approved by the Authorized Officer. This specifically includes, but is not limited to, any roads which will become unnecessary after construction of the haulage drift is complete.



7. No work or disturbance of any kind is permitted to extend into the adjacent wilderness study area (map enclosed).
8. Goler Canyon shall remain open to public access.

Your request for 5000 cubic yards of material is not included in this approval. this is a separate application and will be specifically addressed in separate correspondence. No action may be taken on the removal of the 5000 cubic yards of material for use as road base until you have received approval for that specific action.

At the September 16, 1988, field exam you indicated these operations are expected to be completed by January 1, 1989. Please notify us by December 1, 1988, if additional time is required.

These stipulations are in addition to, or to clarify those requirements listed under 43 CFR 3809. If you have any further questions on this matter, please feel free to contact our Area Geologist, Mr. Ken Downing, at the above address or telephone (619) 375-7125.

Sincerely,

/s/ PATRICIA E. MCLEAN

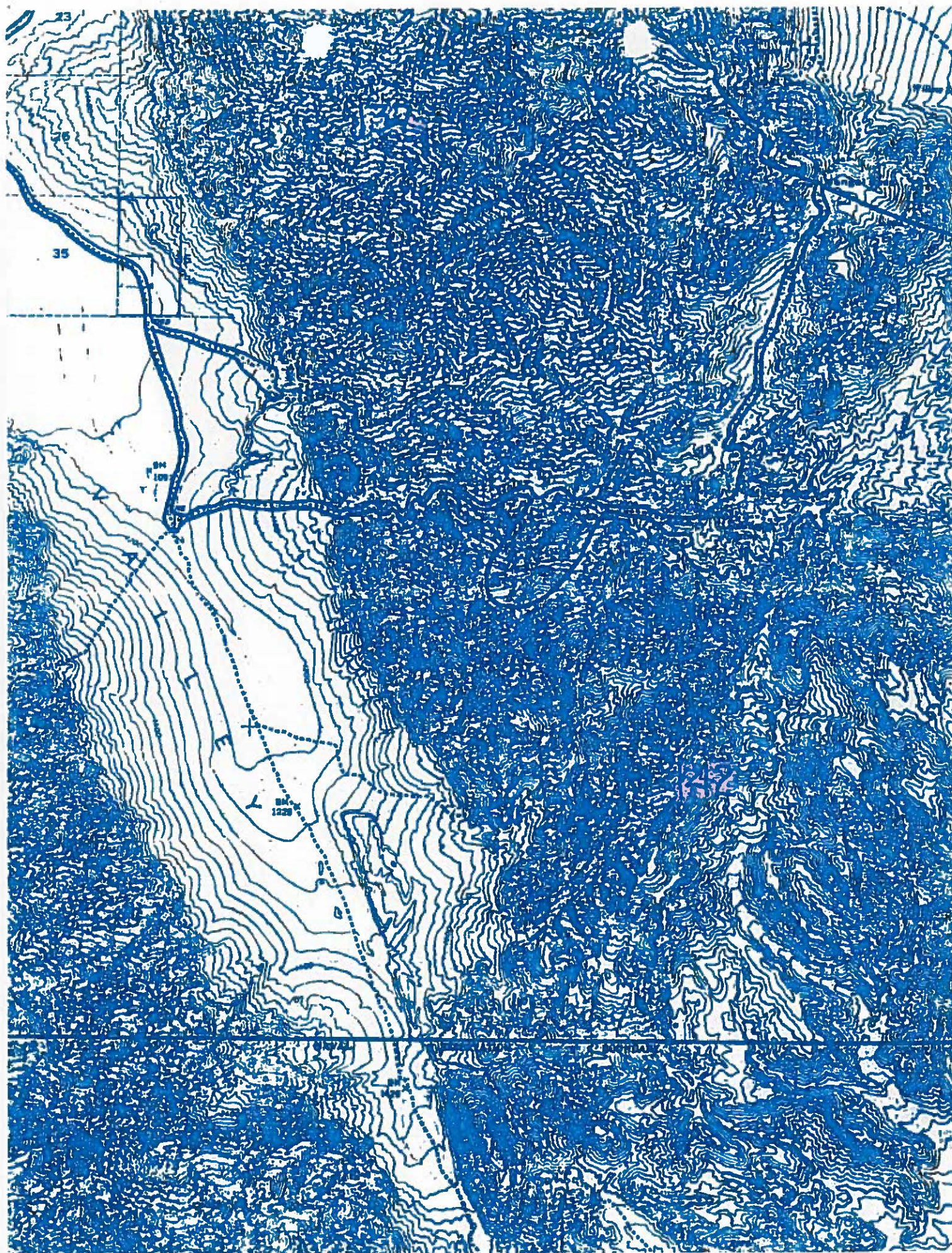
Patricia E. McLean  
Area Manager

Enclosures

1. WSA Boundary Map
2. Staff memo outlining operations

EWatkins:tg 10-14-88 WP5/DUSHANE







MEMORANDUM

TO: STAFF  
FROM: GEOLOGIST  
SUBJECT: ~~PALAN~~ AMENDMENT FOR KEYSTONE MINING

3809(8)  
CAMC 30774-783  
CA-065.26

On September 16, 1981 during a field examination, Keystone Mining (Kirk DuShane), completed a plan amendment for improvements related to the Keystone Mine in Goler Canyon, Panamint Mountains, Inyo County, California. Mr. DuShane proposes or has constructed the following improvements:

1. The upgrading of the access road from the Wingate Wash road to the mouth of Goler Canyon. Improvements would include widening and resurfacing of the road to allow for the passage of semi tractor trailer trucks. The existing road is cherry stemmed from the WSA. 90% of the road has been widened and deepened without authorization and operator requires a suitable roadbase to complete the job. Keystone proposes the removal of approximately 5000 cu yds of material for a road base under a separate application. See figure 1 for location of this work.
2. The construction of 2500 feet of new road to access a haulage drift currently under construction. The road would be 14 feet wide and constructed at an 18% grade. See figure 2 and photo 1 for proposed road location.
3. The construction of 750 feet of haul road at a grade of 2% and 14 feet wide from the existing road to access the entrance to the haulage adit. This road was constructed at the time of my field exam. See photos 1 and 3, figure 2.
4. The construction of a haulage drift 1898 feet long at 1 to 1.5% grade to access the Keystone and Monte Carlo underground workings. The haulage drift will eliminate the need for the existing road accessing the Keystone Mine area. The present road has grades approaching 38% and is unsafe. Construction of the haulage drift will generate approximately 6,100 cu yds of waste rock. The operator proposed disposing the waste rock at the mouth of the portal. Approximately 200 feet of tunnel was constructed at the time of my visit. See figure 2 and photos 2 and 3.
5. The construction of a 100' X 100' turnaround area at the end of the road described in 3. See figure 2, photos 3 and 4.
6. Construction of a 1 1/2 inch pipeline from tanks above the mine portal for drilling and dust control. Estimated usage will be 350 gallons per day. Water will be pumped uphill from the pond in the canyon. Original water source is Sourdough spring. This improvement was in place at the time of my field exam.



### SUPPORTING EQUIPMENT

- o 35kW generator (see photo 5)
- o Air compressor, diesel power (see photo 2)
- o Lowboy .5 cu yd mucker (see photo 2)
- o 2 5-10 ton All Mack haul trucks for in tunnel hauling.
- o 10 wheel, 20 ton haaul trucks for road hauling.

### WATER

Operator proposes utilizing 350 gallons/day for mining and approximately 200 gallons/ day for domestic use. Sourdough Spring will be water source.

### MILLING

Milling destination is uncertain, but may be one or more of following choices.

- a. Mill in Keeler
- b. Pruitt Mill at Manley Falls
- c. Ship to Virginia City, NV
- d. Mill on-site

A plan amendment will cover the milling aspect of the plan of operation at a future date.

### RESIDENCY

Operator requests 4 15 to 20 foot travel trailers. 4 miners will use 2 trailers, the caretaker will use 1 trailer, 1 trailer will be used for office. There is also an existing structure on site to be used for cook house, showers. The 4 trailers and house were present at the time of my field examination.

### OPERATION SCOPE AND DURATION

Operator proposes employing 2 shifts of 2 miners each for construction of haulage drift and initial mining. Mining will occur for 16 hours per day. The mining is expected to progress at 20 to 30 feet/ day. This portion of the operation is expected to produce 25 to 50 tons per day and last until January 1, 1989.

*Pete Miller*

9-26-88