

**U.S. Department of the Interior
Bureau of Land Management**

**Environmental Assessment
DOI-BLM-CA-D050-2013-042-EA
For the
Modification of a previously-approved
Plan of Operations (POO) - CACA-45475
Bronco Resources, Inc.**

Location within:

Township 23 South, Range 44 East, Sections 23, 24 & 36

And

Township 24 South, Range 45 East, Sections 6 & 7,

Mount Diablo Meridian

Inyo County, California

Office of Record:

**Bureau of Land Management
Ridgecrest Field Office
300 South Richmond Road
Ridgecrest, CA 93555
(760) 384-5400
Fax: (760) 384-5499**



CHAPTER 1

INTRODUCTION

1.0 Introduction

On March 12, 2004 the Bureau of Land Management authorized Bronco Resources, Inc. (Bronco) to drill 18 exploration holes near Coyote Canyon on the eastern floor of Panamint Valley. The Bronco drilling program was serialized as exploration plan CACA-45475 and is located south of the present Briggs mining operation (CACA-33490). The 2004 Bronco authorization included modifications to two of the 18 drilling locations located near the mouth of Goler Canyon. The previous authorization has not been revoked and has no expiration date. See Figure 1 for the general location(s) of the 2004 drilling authorization.

Bronco did not implement its authorization, and exploration has not commenced. The BLM has received and is processing an application to modify the Plan of Operations (POO) for the Bronco lode claims. It retains eleven (11) of the previously approved drilling locations, removes seven (7) of the 2004 locations, and adds twelve (12) additional locations not previously analyzed. These additional sites are shown on Figure 2b. Should BLM approve this modification, Bronco would be authorized to drill a total of 23 sites on public lands. See Figures 2a & 2b for the generalized locale of the Proposed Action.

This Environmental Assessment analyzes the impacts of authorizing the proposed modification in compliance with the National Environmental Policy Act.

1.1 Purpose and Need for the Proposed Action

The BLM's purpose is to respond to an application to modify an authorization to access and gather samples from the Bronco lode claims, allowing the claimant to gather evidence of the subsurface geology of these claims. The BLM's response is established by the Federal Land Policy and Management Act of 1976 (FLPMA) and by the Surface Management regulations promulgated under the authority of FLPMA, 43 CFR 3809. It is the BLM's purpose to comply with this need while ensuring compliance with applicable land management plans, protection of resources, and compliance with Federal and State laws related to environmental protection ([43 CFR 3809.420](#)).

In FLPMA Congress mandates the Department of Interior to respect the rights of ingress and egress associated with the Mining Law of 1872 while taking any action necessary to prevent unnecessary or undue degradation of public lands ([43 USC 1732\(b\)](#)). FLPMA states it is the policy of Congress to manage the public lands in a manner that recognizes the Nation's need for domestic sources of minerals ([43 USC 1701\(a\)\(12\)](#)), including implementation of the Mining and Mineral Policy Act of 1970 ([30 USC 21a](#)).

Surface Management regulations 43 CFR 3809 implement the goals of FLPMA by establishing

procedures and standards for operations on public land authorized by the mining laws. These regulations establish when activities under the Mining Law must have an authorized plan of operations, and establish that BLM's authorization of such plans and plan modifications is subject to the National Environmental Policy Act (NEPA).

1.2 Decision to be made:

The Bureau of Land Management will decide whether to approve, approve with modification, or deny the modification desired by Bronco Resources, Inc.

1.3 Conformance with BLM Land Use Plans

This proposal is in conformance with the California Desert Conservation Area Management Plan of 1980, as amended and the Northern and Eastern Mojave Management Plan, Record of Decision approved December 20, 2002. These and other plans are publicly available at <http://www.blm.gov/ca/st/en/fo/cdd/landuseplanning.html>. Table 1 of the California Desert Plan provides that mineral-related operations are allowed on public lands classified for Limited Use subject to the authorization process for Plans of Operation detailed in Surface Management regulations 43 CFR 3809. The affected lands are classified for Limited Use under these land management plans.

1.4 Relationship to Statutes, Regulations or other Plans

The Proposed Action is consistent and complies with the following Federal laws and regulations:

- The Mining Law of 1872, [30 USC 22](#), provides for the right to explore and purchase valuable mineral deposits on lands belonging to the United States, so far as is not inconsistent with the laws of the United States.
- The Federal Land Policy and Management Act of 1976 states it is the policy of the United States to manage the public lands in a manner that recognizes the nation's need for domestic sources of minerals, provides rights of ingress and egress to locators under the Mining Law of 1872, and mandates the Secretary of Interior to prevent unnecessary or undue degradation of public lands ([43 USC 1701\(a\)\(12\)](#)) and [43 USC 1732\(b\)](#)).
- The Mining and Minerals Policy Act of 1970, [30 USC 21a](#), declares it is the policy of the United States to foster and encourage the orderly and economic development of domestic mineral resources.
- Surface Management regulations [43 CFR 3809](#) establish procedures and standards to prevent unnecessary or undue degradation of public lands by operations authorized by the mining laws.

- The National Historic Preservation Act, [16 USC 470](#), requires Federal agencies to consider the effect of Federal undertakings (including Federal authorizations) on sites that may be eligible for inclusion in the National Register of Historic Places.
- The Endangered Species Act, [16 USC 1536](#), requires Federal agencies to ensure that Federally-authorized actions are not likely to jeopardize the continued existence of any threatened or endangered species.
- The Wilderness Act of 1964 and the California Desert Protection Act of 1994 which designated the [Manly Peak Wilderness](#), stipulate that wilderness areas are withdrawn from new mineral entry at the time of designation. The BLM will not approve a plan of operations in wilderness until a mineral examination report is prepared to determine whether the a mining claim is valid before the withdrawal, and whether it remains valid (wilderness regulations [43 CFR 6304](#) and Surface Management regulation [43 CFR 3809.100](#)).
- Federal Regulation [43 CFR 3809.11](#) specifies that an operator must submit a Plan Of Operations for any operations causing surface disturbance greater than casual use in certain special status areas, including lands within the California Desert Conservation Area designated for Limited Use. Surface Management regulations [43 CFR 3809.31](#) otherwise allow that operators disturbing less than five acres, and not within a special status area, are simply required to submit a complete Notice of Operations. The authorization of a Plan of Operations is a federal decision subject to the National Environmental Policy Act. A complete Notice is not required to have formal authorization, and is therefore not subject to NEPA.

1.5 Scoping and public comment

Internal scoping of public land resource issues occurred among the Ridgecrest Field Office staff (refer Team Checklist, **Appendix 1**). This included internal discussion of air quality, biological, cultural and historical resources, wilderness, and soil resource issues. A contractor performed surveys for threatened, endangered and sensitive fauna and flora at the affected lands (**Appendix 2**), while another contractor performed cultural surveys in compliance with Section 106 of the National Historic Preservation Act. Consultation with tribal groups has been ongoing since March 2012. Geologist Randall Porter contacted and discussed the claimant's proposal with K. Fuhrmann, Resources Management at Death Valley National Park on January 16, 2013.

An environmental assessment was published and posted on the internet on April 12, 2013 with comments required by May 17, 2013. Public comments were received from the Center for Biological Diversity, Tom Budlong, C. R. Briggs, and Death Valley National Park (see **Appendix 3**).

All resource areas considered during the preparation of this document are listed in **Appendix 1**.

Those resources potentially impacted by the Proposed Action were carried forward into this EA and are identified in Chapter 3. The resources not impacted by the Proposed Action are listed in **Appendix 1** and are accompanied by a rationale for why the resource was not impacted. Resources not impacted were not carried forward into this document.

CHAPTER 2 DESCRIPTION OF ALTERNATIVES

2.0 Introduction

This Environmental Assessment focuses on the applicant's proposal to modify a previously-approved Plan of Operations (POO). The Proposed Action is a modification of the 2004 approval, adding and adjusting the location of several drill holes. The No Action alternative provides the baseline for comparison of impacts associated with the Proposed Action. The selection of the No Action alternative may result in the activities previously approved in the 2004 authorization.

All mineral-related operations above the level of casual use on the public lands are subject to the Surface Management regulations and performance standards found in Title 43, Subpart 3809 of the Code of Federal Regulations. The performance standards of [43 CFR 3809.420](#) apply to all Plans of Operation, are common to both alternatives and are attached for reference at Appendix 4 of this environmental assessment.

2.1 Proposed Action

Project Description

The Proposed Action consists of 23 drilling locations of which 10 were approved in the 2004 drilling authorization. The 2004 authorization provided for the modification of 2 of the drill sites, G-2B and G-3. The Proposed Action has been revised to 23 drilling locations shown in Figures 2a & 2b. The Proposed Action removes several locations from the 2004 authorization, adds 12 additional sites, and clarifies the modification of 3 sites near the mouth of Goler Canyon which changes the total number of drill holes from 18 holes in the 2004 authorization (the No Action Alternative) to 23 holes (the present proposed action).

Shown in Figure 2a is the relocation of three drill sites previously approved in the 2004 authorization. Sites G-2A, G-2, G-2B and G-3 are shown on the map as being relocated. Site G-2A has been moved south from the 2004 location into the intersection of the jeep trail and Goler Canyon road to reduce potential impacts to historic properties. Site G-2 has been clarified so that its location is clearly in an existing two track trail. Site G-2B has been moved to the south side of Goler Canyon Road. And site G-3 is being shown 90 feet north of the previous location from 2004 to locate the site outside of a historically sensitive area.

Drill holes will be approximately six inches in diameter. Drilling will be performed using a buggy-mounted drill rig. Support vehicles may include a pipe truck, a pickup truck and possibly a water truck. Each drill hole is anticipated to take one day, but could take two days to complete.

Dry (air) drilling will be performed for as long as possible. If water or unstable down-hole conditions are encountered, then wet drilling with mud will be utilized. If wet drilling is needed, a mud sump approximately 10 feet by 10 feet, 6 feet deep will be dug with a rubber-tired backhoe/excavator to collect drill cuttings and confine drill mud. Sumps will be fenced for safety reasons during periods prior to and following the actual drilling of the hole. The affected unpatented mining claims include:

Claim Name	BLM Serial No.	Township	Range	Section
Bronco #2	CAMC 279423	24 South	45 East	7
Bronco # 5	CAMC279426	24 South	45 East	7
Bronco #6	CAMC279427	24 South	45 East	7
Bronco #7	CAMC279428	24 South	45 East	7
Bronco #12	CAMC279615	24 South	45 East	7
Bronco #13	CAMC279616	24 South	45 East	7
Bronco #14	CAMC279617	24 South	45 East	6, 7
Bronco #15	CAMC279618	24 South	45 East	6
Bronco #28	CAMC279631	24 South	45 East	6
Bronco #29	CAMC279632	24 South	45 East	6, 7
Bronco #30	CAMC279633	24 South	45 East	7
Bronco #32	CAMC279635	24 South	45 East	6, 7
Bronco #33	CAMC279636	24 South	45 East	6
Bronco #47	CAMC279650	24 South	45 East	6
Bronco #100	CAMC281650	23 South	44 East	23, 24
Bronco #101	CAMC281651	23 South	44 East	23, 24
Bronco #102	CAMC281652	23 South	44 East	23, 24
Bronco #103	CAMC281653	23 South	44 East	24
Bronco #122	CAMC281672	23 South	44 East	23
Bronco #123	CAMC281673	23 South	44 East	23

Table 1. List of unpatented placer claims associated with this action. Further information On these claims is publicly available online at <http://www.blm.gov/lr2000>.

Access

Access to the general project area is by Wingate Road, a public county road leading south from Ballarat, California to the southern end of Panamint Valley. The Goler Canyon road, another county road, provides access to the southernmost Bronco drilling locations. An undesignated, historic route stretches north from Goler Canyon to P-24151, a BLM-designated route providing access to Coyote Canyon.

Bronco sites G-2C, G-2B and the relocated G-2A lie adjacent to the County road leading to Goler Canyon. Site G-1 lies approximately 200 yards south of this road and across Goler Wash. Sites G-2, G-3, G-4, G-5, G-7 and G-8 lie adjacent to an existing jeep route not recognized for general public access. Site G-6 requires cross-country travel over undisturbed lands. See Figure 2a for the modified locations.

Bronco intends to access sites G-14 thru G-25 (Figure 2b) partly by routes affiliated with the authorized Briggs air monitoring station, with overland travel branching from that route to the drill sites. See Figure 3 for the proposed routes and for the relationship to the Briggs mine and routes.

The disturbance and impact is characterized as:

- Parking and occupation on the sites, if presumed as 50 feet by 50 feet each: 1.2 acre total
- 30 possible sumps or pits, with associated stockpiles, probably around 0.2 acre total.
- Site G-1, perhaps 200 yards of overland travel.
- Sites G-2B through G-7, perhaps 1500 yards of travel along unrecognized jeep trail.
- Site G-6, perhaps 500+ yards of overland travel away from unrecognized jeep trail.
- Sites G-14 through G-17, perhaps 900 yards of overland travel in addition to existing route.
- Sites G-18 & G-19, perhaps 400 yards of overland travel in addition to existing route.
- Sites G-20 through G-25, perhaps 1000 yards of overland travel in addition to existing route.
- Presuming a route width of 8 feet, the above 3000 yards of overland travel becomes a temporary disturbance of roughly 1.6 acres.
- Presuming a width of 8 feet, 1500 yards of travel along the undesignated Coyote Canyon/Goler Canyon jeep trail temporarily affects 0.8 acres.
- Cumulative total of approximately ± 4 acres, including all the above drillsite(s), overland routes and usage of undesignated jeep trail(s).

Best Management Practices

Bronco will minimize resource damage by using the following “best management practices”:

- Since cryptobiotic soils are present, soil disturbance will be kept to a minimum. The drill rig will travel to the drill site once, remain on site until the holes are drilled, and then come back out.
- The number of vehicles and the number of trips to the drilling sites will be as few as possible. Whenever possible, only one off-road pick-up truck will carry workers back and forth to the drill sites. This method will reduce soil compaction.
- Equipment with fat, rubber tires will be used. Fat tires reduce soil compaction and will facilitate seed germination.
- Undesignated routes will not be bladed. The road leading to Coyote Canyon will not be widened or bladed (BLM Route P-24151).
- Creosote bushes will be avoided as much as possible, particularly those over 1 foot tall. The twist and turns of any undesignated routes will be followed to prevent additional ground disturbance. Any new routes created will follow a winding path around creosote bushes
- Vehicles will avoid washes and drainages to the maximum extent possible.

- No straight routes will be created since they are most visible to the public and could be used illegally.
- Drill holes will be filled in, and drill pads will be re-textured with rock or whatever the natural cover is to reduce visibility and scarring of the landscape.
- The size of drill pads will be as small as possible. This will be determined by the proponent and the BLM.
- Routes will be closed and camouflaged at intersections with the Goler Canyon Road and/or Coyote Canyon Route P-24151. The purpose is to discourage the public from using these un-designated routes. Un-designated routes that have been used will be textured by scattering rocks over the new disturbance to make it look similar to the pre-project condition. If heavy equipment is used on alluvial fans, this equipment will also be used to replace substrate and re-contour the land to approximate the original topography. On sandy ground, all vehicle tracks at intersections will be blown out or swept so they are no longer visible from public access routes.
- Waste rock will be replaced in the exploration holes, and the holes will be capped. Any waste rock that does not fit into the hole will be scattered around to create a thin layer that will allow seeds to germinate through it. As this material weathers, it will visually blend with the surrounding environment.
- Where appropriate, bury excess mud and drill cuttings in previously-excavated sump or pit.
- The restoration plan will be completed within 3 months of completing the project.
- The operator will consult and cooperate with the Briggs Mine regarding use and maintenance of common pre-existing access routes per 43 CFR 3809.420(b)(1).

Routes used that are not designated in the BLM route system are considered disturbed areas attributable to the mining exploration since BLM would be signing them as “closed” and restoring them. Authorizing these undesignated routes for the use in the exploration project delays their natural reclamation. However, these routes are narrow features and will not need to be reseeded since seeds from adjacent plants will readily blow in and colonize the area with native plants. Routes will be restored to match as closely as possible their pre-project condition as exists now (July, 2013).

Reclamation

All reclamation will be completed to the standards of [43 CFR 3809.420](#). All reasonable measures will be taken to prevent unnecessary or undue degradation of public lands and resources during operations. Concurrent reclamation will be performed as conditions allow.

Each dry-drilled hole will be abandoned and reclaimed by shoveling the excess drill cuttings down into the hole. A five-foot cement plug will be installed at the hole's surface. If it is not possible to return all of the cuttings back down the hole (for example, because of hole collapse below the surface), then remaining cuttings will be thinly spread across the ground and contoured to match the surrounding topography. Each wet-drilled hole will be abandoned by filling the hole with bentonite slurry and/or bentonite pellets. The surface hole plugging procedure will be identical to that for holes drilled dry. Drill cuttings will remain in the backhoe-constructed mud sump. The sumps will be allowed to dry partially over a period of weeks to prevent overflow of drill mud/cuttings and subsidence of backfill material. For safety, all sumps will be fenced with strand smooth wire for the drying period. Final reclamation will consist of recontouring using a backhoe and removal of the fence.

At completion of drilling, all materials associated with drilling will be removed from the drill sites. In addition to the mud sump reclamation described above, any areas containing excess drill cuttings or rutting will be hand-raked to final contour. Any areas of compaction will be scarified using a backhoe.

Along overland travel routes, any areas of rutting will be recontoured by hand-raking or backhoe. Areas of excess soil compaction will be scarified, seeded (if required) and hand-raked. Where possible, displaced boulders will be replaced, especially at the entrance to overland travel routes from existing roads and jeep trails to prevent unapproved future public use.

Bonding Requirements

Federal regulations require reclamation of areas disturbed in the course of operations. Federal regulation 43 CFR 3809 requires a financial guarantee for that reclamation and specifies the operator must provide that guarantee prior to beginning approved operations ([43 CFR 3809.412](#)). Financial guarantees are estimated per [43 CFR 3809.554](#) and are released when reclamation is satisfied at the end of operations. Financial guarantees with the State of California and the County of Inyo are accepted to BLM under the provisions of [43 CFR 3809.551](#) provided that BLM is named as a co-beneficiary of such guarantees. The BLM has agreements with State and County agencies regarding the application of the California Surface Mining and Reclamation Act on Federal lands, and further requires compliance with State law as a provision of [43 CFR 3809.420\(a\)\(6\)](#).

2.2 No Action Alternative

Selection of the No Action Alternative would result in the BLM previously authorized drilling plan for Bronco in 2004 (Figure 1).

The previous authorized POO includes drilling 18 locations, each approximately 6 inches in diameter at sites previously indicated on Figure 1. Such drilling would be conducted using a

buggy-mount drill equipped with wide, low-pressure tires. Access to nine locations would be on existing trails or linear disturbances and seven locations accessible cross-county without need to construct any road/access route. Two locations would need limited route access constructed with a small bulldozer, approximately 1000 feet for site G-11 and 300 feet for site G-1. The BLM surveyed the proposal for wildlife & heritage resources in 2004. The proposal was approved, subject to adjusting the location of drill sites G-2B and G-3 to avoid conflict with cultural resources. The entire acreage of disturbance, including the area of un-designated routes that is estimated to be 6 acres, assuming routes would be a maximum width of 8 ft.

All materials associated with drilling would be removed from the drill sites. Excess drill cuttings would be shoveled into the hole and abandoned in compliance with BLM specifications. Any tracks made by the low-pressure tires would be raked across with neighboring natural material and replacing any large rocks displaced by passage of the buggy drill. Any dozer-made access route would be restored by contouring, scarifying and re-seeding with a BLM-approved seed mixture, or other measures as prescribed by BLM.

The No Action alternative, if selected, is subject to the performance standards according to Title 43 CFR3809.

2.3 Alternatives Eliminated From Analysis

2.3.1 No Drilling Alternative

This document does not consider a "no drilling" alternative for multiple reasons, any of which might disqualify No Drilling for consideration as an alternative under NEPA.

- Under NEPA "No Action" equates to no management action on the part of BLM, rather than no activity on the part of the applicant. In this case "No Action" would mean BLM refusing to approve the request received 2012, which is a request to drop certain drilling locations, add new drilling locations and modify a previously authorized plan of operations. Under NEPA "No Action" defaults to the management condition which would exist if BLM refuses to approve, or takes no action to approve a given proposal. The 2004 authorization is that management condition.

- Several years of inactivity have passed since BLM's original drilling authorization for these claims. While Surface Management regulations grant authority for BLM to revoke plan authorizations under certain circumstances ([43 CFR 3809.424](#)), the BLM did not do so prior to receiving the present request. The revocation of the 2004 authorization is a BLM management decision subject to appeal, not an automatic default requiring no BLM action. The BLM's 2004 authorization did not include a specific termination date.

- The Bronco lode claims are covered by a layer of alluvium. A lode consists of rock in place, not alluvium or unconsolidated materials. Drilling is the only practical way to gather samples of bedrock from below an unknown thickness of alluvium. Remote sensing techniques would only gather indirect data.

2.3.2 *No Mining Analysis*

This document does not assess any development within these claims beyond drilling because:

- The proposal concerns exploration drilling, not mining. The applicant has not requested BLM to authorize any mining activity.
- The National Environmental Policy Act requires analysis of reasonably foreseeable development. A mine might be reasonably foreseeable if the BLM knew, as a fact, if these mining claims contain a valuable discovery of economic minerals. However the BLM cannot foresee whether the proposed drilling will, or will not produce samples of an economically valuable mineral deposit.
- The purpose of a mine is to develop a mineral deposit. Without mineral samples, it is not possible to judge whether these specific mining claims contain a deposit capable of being mined.

CHAPTER 3

AFFECTED ENVIRONMENT

3.1 Introduction

This chapter presents a description of the existing environment of the area potentially to be affected by the Proposed Action. Discussion includes those physical, biological, social, and other values which are necessary to understand the effects or potential effects of the alternatives so as to summarize what is needed for assessment or analysis.

An Interdisciplinary Team Checklist (Appendix 1) indicates which resources of concern are either not present in the project area or would not be impacted to a degree requiring detailed analysis. Resources which could be impacted to a level required further analysis are described in this chapter, and impacts on these resources are analyzed in Chapter 4.

3.2 General Setting, Physiography, Soil and Climate

The proposed exploration area is found at the base of the Panamint Mountains on alluvial deposits or bajadas (a bajada is a broad slope of alluvial debris formed at the base of a mountain). The bajada community type is characterized by deep alluvium with extensive gravel, cobble, and larger-sized rock in the soil profile that is weakly cemented by imbricated sand. The soil surface is hard and largely barren with only a few scattered creosote bush (*Larrea tridentata*) and burrobush (*Ambrosia dumosa*) typically dominant. Ground cover by vegetation typically ranges between 10 and 15 percent. Dry washes of various sizes intersect these fans and provide a looser soil matrix with sand cobble bars and cut banks. The soil is rocky and weakly cemented as a result of very low precipitation (perhaps 3-4 inches/year), high air temperatures (120°+ in the summer) and resulting low biological activity.

3.3 Air Quality, Greenhouse Gas Emissions, Soil and Water (Hydrology)

Air Quality

The Great Basin Unified Air Pollution Control District (District) has state air quality jurisdiction over the area. The District regulates seven pollutants called “criteria pollutants”: Ozone (O₃), Carbon Monoxide (CO), Lead, two types of Particulate Matter (PM-10 and PM-2.5), Sulfur Oxides (SO_x) and Nitrogen Oxides (NO_x). The District also regulates Hydrogen Sulfide (H₂S) under a state standard. California has a toxics program that adopts regulations for particular sources of toxics, such as benzene from retail service stations, which the district is then required by state law to enforce. Title III of the Clean Air Act Amendments of 1990 also regulates toxics.

The primary criteria pollutant present in the District is particulate matter (PM). The vast majority of mitigation efforts go to controlling such dust emissions. As mentioned above, two types of PM are regulated, PM 10 and PM 2.5. The difference is in the size of the particles – PM-10 is particulate matter with an average maximum size of 10 microns and PM-2.5 is 2.5 microns or smaller. The District monitors PM-10 levels at 9 locations in Inyo County and 3 locations in

Mono County. Much of the PM-10 the District monitors comes from wood burning or dust from Owens and Mono lakes.

The Federal Clean Air Act as amended (42 U.S.C. 7401 et seq. Section 176(c) and USEPA regulations (40 CFR part 93 subpart W) state in part “no department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for license or permit, or approve any activity which does not conform to an applicable implementation plan”. They further state that a Federal agency must make a determination that Federal actions conform to the applicable implementation plan before the action is taken. The project area is within the air basin known as the Great Basin Valleys Air Basin.

The U.S. Environmental Protection Agency provides a [list](#) of nonattainment areas for PM-10 dust emissions within California, one being within Inyo County. That nonattainment area is *Owens Valley planning area Hydrologic Unit # 18090103*. This action is not within Owens Valley but in Panamint Valley. Panamint Valley is not within any nonattainment area. Conformity requirements thus do not apply to actions in this area. The GBUAPCD rules concerning fugitive dust emissions may apply to portions of this project. The project area lies entirely within an unclassified area for PM 10 and an attainment area for PM2.5.

Greenhouse Gas Emissions

Climate change refers to any significant change in measures of climate (temperature, precipitation, or wind) that lasts for an extended period (e.g., decades or longer). A number of factors may affect climate change, including: natural cycles (e.g., changes in the sun’s intensity or earth’s orbit around the sun); natural processes within the climate system (e.g., changes in ocean circulation); and human activities that lead to changes the atmosphere’s composition (e.g., burning fossil fuels), land surface (e.g., deforestation, reforestation, urbanization, and desertification), and water bodies (oceanic acidification, sea level rise, and formation of dry lakes).

California is a substantial contributor to global GHG emissions as it is the second largest contributor in the U.S. and the 16th largest in the world. GHGs include:

1. Carbon dioxide (CO₂)
2. Methane (CH₄)
3. Mono-nitrogen oxides (NO_x)
4. Hydrofluorocarbons (HFCs)
5. Perfluorocarbons (PFCs)
6. Sulfur hexafluoride (SF₆)

The proposed action would involve the use of motor vehicles and resulting emissions. The expected number of vehicles is a maximum of 4 rubber tired vehicles including a drill rig, backhoe and pickup trucks. These vehicles will be onsite for a limited duration and will likely be equipped with emissions control devices for on road vehicles.

According to the Intergovernmental Panel on Climate Change (IPCC) Third Assessment Report, increased atmospheric levels of CO₂ correlate with rising temperatures; concentrations of CO₂ have increased by 31 percent above pre-industrial levels since 1750. [Climate models](#) show that temperatures will probably increase by 1.4 degrees Celsius (°C) to 5.8 °C between 1990 and

2100. Much uncertainty in this increase results from not knowing future CO₂ emissions and inherent uncertainty in the assumptions that frame climate models.

GWP is a measure of how much a given mass of GHG is estimated to contribute to global warming and is devised to enable comparison of the warming effects of different gases. It is a relative scale that compares the gas in question to that of the same mass of CO₂. CO₂ equivalence (CO₂e) is a measure used to compare the emissions from various GHGs based on their GWP, when measured over a specified timescale (generally 100 years). CO₂e is commonly expressed as million metric tons (MMT) of carbon dioxide equivalents (MMTCO₂e). The CO₂e for a gas is obtained by multiplying the mass (in tons) by the GWP of the gas. For example, the GWP for CH₄ over 100 years is 25. This means that the emission of one MMT of CH₄ is equivalent to the emission of 25 MMT of CO₂, or 25 MMTCO₂e.

Soil

The project is located primarily on alluvial fans and rocky hillsides of the Panamint Range. The hillsides are composed of disburbed boulders and rock while the alluvial fan is covered with sparse vegetation and rock. Due to the limited scope of the proposed action, soil recovery from drilling activities would be limited.

Water (Hydrology)

Surface water from the surrounding hillsides is concentrated into several washes that bisect the claims. These washes may be crossed in order to access the drill sites and for the transportation of the equipment. The area has no active surface water flow, so all flows result from rain events.

Water quality issues may arise from the disbursement of drilling cuttings. These cuttings should be returned into the hole, however, if they cannot, they will be spread in a thin layer on the ground surface.

3.4 Biological Resources

The Project area is classified as Mojave Creosote Bush Scrub. The local vegetation is dominated by creosote bush, salt bush species, burro bush, and brittlebush. No mesquite bosques or riparian areas are found in or near the proposed project area. Plant surveys detected eight cylindrical cacti within 100 feet of proposed drill sites or overland route center lines, with some located between 40-90 feet of proposed sites and routes (report by Cedar Creek Associates, Inc.). A vegetation survey was conducted on May 6 & 7, 2012. Current drought conditions prevented most annual plants from germinating. The surveys were performed late in the season, but many annuals did not bloom even during the expected flowering period because of the drought. The BLM special status plant species are determined by the CNPS Rare Plant Rank of 1B. Several species ranked as 1B are found nearby: *Astragalus gilmanii* (1B.2), *Galium hilendiae* ssp. *Carneum* (1B.3), and *Penstemon fruiticiformes* var. *amargosae* (1B.3). However, the *Astragalus* and *Galium* species would not occur at these lower elevations where the project is proposed. They generally occur at elevations above 5400 feet, and have been documented only from upper elevations of Death Valley National Park. The *Penstemon* is a perennial that blooms from April through June.

If it occurs here, it is unlikely that it bloomed in 2012 because of the drought conditions. Since this plant is a perennial, the dried remnants of the plant from last year would have presumably been detected during the survey. If *Eriogonum hoffmanii* and *Cryptantha clokeyi* occur in the area, they would have already bloomed by May. The *Cryptantha* could have been missed since the flower is necessary to identify it. But the *Eriogonum*, which blooms in the fall, would have been identified by its vegetative state since it is distinctive even without seeing the flower. However, it was not a year with adequate rainfall, and virtually nothing was in bloom. BLM did not require the proponent to wait for a year with adequate rainfall to conduct the plant survey. Biological crusts are present on the site, but not abundant. BLM staff Shelley Ellis and Marty Dickes observed biological crust in several locations, mainly close to some creosote bushes.

Wildlife species generally associated with the Mojave Creosote Bush Scrub vegetation include coyotes, kit foxes, rodent species, and lagomorphs such as black-tailed jackrabbit and desert cottontail. Bighorn sheep may periodically move through the area where the exploration is proposed. Redland Spring to the northeast of the proposed project is especially important to the bighorns since it provides open water. Bird species expected to occur in the area include mourning dove, sage sparrow, horned lark, and black-throated sparrow, as well as a variety of bird species that migrate through the area in spring and fall. Ground squirrels, pack rats, and kangaroo rats are relatively common in this type of ecosystem. Snakes and lizards such as the side-blotched lizard, Great Basin fence lizard, and western collared lizard are also found in the area (Goldtooth South EA, 2011).

Special Status Species

Special Status species having the potential to occur in the region include: golden eagle (*Aquila chrysaetos*), pallid bat (*Antrozous pallidus*), Townsend's big-eared bat (*Corynorhinus townsendii*), western mastiff bat (*Eumops perotis californicus*), prairie falcon (*Falco mexicanus*), Nelson's bighorn sheep (*Ovis canadensis nelsoni*), Le Conte's thrasher (*Toxostoma lecontei*) and the desert tortoise (*Gopherus agassizi*). Although biologist did not find bighorn sheep scat during their surveys, bighorn sheep are known to move through the area periodically. Redland Spring is especially important to the bighorns since it provides water. Raptors use the area for foraging.

3.5 Heritage Resources

A Class III intensive cultural resources inventory encompassing 192.5 acres of the Area of Potential Effect (APE) for the Proposed Action was conducted in 2012 by ASM Affiliates (Winslow and McDaniel 2012, BLM Project CA-650-2011-34). This inventory included a 95-acre block inventory around twelve of the drill hole locations in the north end of the project area, thirteen one-acre survey blocks around the remaining thirteen drill locations, and a 200 ft. corridor along three and one half miles of access route. A similar APE was inventoried by the BLM in 2004, however it was determined that the current Proposed Action APE differed enough to warrant additional survey. As a result of the 2012 inventory, ASM updated and finalized the previously identified historic district CA-INY-8994, and sites CA-INY-8992 and CA-INY-8993. Six isolated occurrences of cultural material were newly identified.

The three cultural resource properties identified within the project area were previously noted in the 2004 inventory. Site CA-INY- 8994 was recorded by Baskerville (2003) as part of the Butte Valley historic mining district and by ASM as potentially part of the Ballarat Mining District. Baskerville recommended CA-INY-8994 as a district eligible for listing on the National Register of Historic Places based on Criterion A and C. ASM was unable to locate additional information regarding the mining site, but did not exhaust the research potential for this site. Formal evaluation of the site is not complete, and it remains potentially eligible for listing on the National Register of Historic Places. Sites CA-INY-8992 and CA-INY-8993 are associated with the district, and are therefore potentially eligible for listing on the National Register of Historic Places.

3.6 Native American Values

Pursuant to federal regulations and BLM policy as described in Chapter 5.5, BLM identified and invited the Lone Pine Paiute Shoshone Tribe and Timbisha Shoshone Tribe to consult on the proposed project on a government-to-government basis beginning in March of 2012 and have continued throughout the project. Consultation and discussions with tribal organizations and individuals have revealed strong concerns about the project and the impacts it may cause to cultural resources and landscapes near the project area. Efforts to consult and address tribal concerns are on-going and will continue throughout the process.

3.7 Geological Resources

The area covered by this assessment is just within the southwest boundary of the Basin & Range Province, a geologic/physiographic province of North America bounded in the east by the Wasatch Mountains of Utah and in the west by the Sierra Nevada of California. The Basin & Range province is characterized by a large number of north-south trending, narrow fault-block mountain ranges alternating with flat valleys or basins. The Basin & Range Province is a region where the continental crust is extending or being stretched generally toward the west, leading to an alternation of fault blocks dropping down (basins) and raising up (mountain ranges). It is thought this stretching or extension commenced roughly 15 million years ago, the most prominent action now occurring in the western portion of the province. Owens Valley is the last and westernmost portion of the Basin & Range Province.

The Panamint Range contains exposures of many rock formations ranging from roughly 1.8 billion years ago up to recent and Quaternary-aged sediments. The oldest include silica-rich, coarse gneisses, possibly remnants of sandstones deposited in the Proterozoic (early pre-Cambrian) and later intruded and extensively folded and metamorphosed. In the Paleozoic this general region was apparently part of a shallow continental shelf and accumulated thick deposits of limestone and other carbonate rocks. During the Mesozoic this portion of western North America was then subjected to compression, volcanism and igneous intrusions of granitic rocks. This action reversed in the mid- or later Tertiary, roughly 15+ million years ago, when the crust and upper mantle under this region of North America commenced extending and thinning. As it was gradually pulled apart, the continental plate adjusted to these tensions by faulting and tilting blocks of the earth's crust, some blocks being lifted up while other blocks (basins) being dropped

down and filled with sediments from the adjoining mountains. This process of faulting and crustal movement continues today.

The Panamint Range and Panamint Valley were first organized as a mining district in the 19th Century. By the 1873 Panamint City was organized and became the center of an active, but short-lived silver mining boom in Surprise Canyon. The World Beater and Radcliffe mines were located in Pleasant Canyon, producing gold at various times in the 1800's and the 20th Century. Goler, Coyote, Middle Park, Jail, Surprise and other canyons in the western Panamint Range have all had discoveries or produced precious metals at various times during the last century.

The current Briggs Mine is a large, open pit, cyanide heap-leach gold operation in the vicinity of Redlands Canyon. The mine is named after Mr. Harry Briggs, a prospector that lived and located claims in the Panamint Range. The Briggs gold mineralization is largely controlled and affected by the Goldtooth Fault Zone, traceable roughly from Middle Park Canyon to a point south of the Briggs Mine where it disappears beneath the surface. The GoldTooth Fault trends roughly north-northeast to south-southwest through the Briggs Mine, dips steeply to the west and forms the contact separating older, pre-Cambrian gneissic rocks from younger, granitic-textured rocks emplaced during the Mesozoic. Gold tends to be disseminated in the gneiss on the western side of this fault, rather than the granitic rocks east of the fault.

The Briggs Mine commenced production and mined 3414 ounces of gold in 1996, reaching a peak production of 91,141 ounces in 2001. Production declined to 0 ounces in 2007 and 2008. Mining recommenced and production increased until 32,200 ounces were produced in 2011. The owner of Briggs, Atna Resources Ltd., anticipates producing roughly 40,000 ounces per year until approximately 2016, the currently anticipated final year of active mining operations. Declining levels of gold production may continue from ore stockpiles for some time after 2016.

Figure 4 (below) shows the northern and southern Bronco drilling areas are near the base of the Panamint Range, where bedrock formations are at or immediately just under the Quaternary alluvium filling the basin of Panamint Valley. Bedrock at the drilling locations may lie anywhere from just under the surface, to possibly over a hundred feet below the surface at these locations.

3.8 Recreation

Panamint Valley lies between Ridgecrest, California and Death Valley National Park. Visitors are most likely to flock to Panamint Valley during cool season months (October through May). They come to get away from the cities and the stresses and pressures of urban life. The area is also frequented by local residents from the nearby communities of Trona and Homewood Canyon. It is estimated that the area may attract up to 2,500 visitors over a single holiday weekend and perhaps as many as 25,000 visitors each year.

The area supports a wide-range of recreational activities, including but not limited to: dispersed vehicle camping, motor vehicle touring, primarily by jeeps but also by dual sport bikes, horseback riding, backpacking, hiking, climbing, photography, and spiritual retreats. The area

hosts many large group events each year under special recreation permits, including, but not limited to: Panamint Valley Days (a 5-day jeep touring event), Death Valley Riders (an equestrian endurance event), two-three dual sport events, and a Torah Wilderness Passover Celebration.

The area is a destination of choice for local history buffs and experienced desert rats. It is harsh, dry, unforgiving country, starkly beautiful and remote. It lies beyond the reach of cell phones. Most locations are more than 50 miles from any support services. Visitors need to come prepared with extra gas, good maps, and plenty of water. A reliable, high clearance 4-wheel drive vehicle is required for nearly all vehicle routes in the area. Many people, particularly those intending to explore the backcountry via some of the more extreme jeep trails, choose to come here in large groups, caravanning and camping together, both for safety and companionship. Others seek isolated places to camp and explore on their own. Many of these visitors are more interested in a wilderness-type experience and will set off on foot off of the designated route system or from one of the wilderness trail heads found in the area. Fortunately, the area is large and undeveloped enough to absorb and accommodate both kinds of people.

Panamint Valley is one of the last places left that has not yet been thoroughly explored and written about. Here it is still possible to stumble upon something no one else or very few other people have found out about. There are many abandoned trails and old mine sites, impenetrable-seeming slot canyons, jagged peaks, and rarer, isolated springs and riparian areas. The area is vast and rich in topographical relief.

3.9 Visual Resources

The Federal Land Policy and Management Act of 1976 established that "... public lands would be managed in a manner which would protect the quality of the scenic (visual) values of these lands."

Visual Resource Management (VRM) Classes are typically established during the land use planning process following a visual resource inventory. In the absence of established VRM classes and when planning a project, interim VRM classes may be determined, using existing or updated VRM inventory data that conform to RMP land allocations (BLM Manual 8400.06(A)(3)). For this and the subsequent discussion below see Information Bulletin No. CA-2009-005.

In the past, much of the area was managed as Wilderness Study Areas (WSAs) with an automatic classification as VRM Class 1. Most of these were released as WSAs in 1994 and subsequently lost their presumptive VRM Class 1 status. Some or portions thereof were absorbed into the new, greatly expanded Death Valley National Park. Two others stayed with BLM and kept their VRM Class 1 status, one as the Manly Peak Wilderness and the other as the Surprise Canyon Wilderness.

A Visual Resource Inventory was completed by contractors in 2012 in anticipation of the Desert Renewable Energy Conservation Plan (DRECP) Amendment to the CDCA Plan. The Ridgecrest Field Office reviewed the results and forwarded its recommendations to the State Office to

classify all non-wilderness lands outside of the Briggs Permit Area in Panamint Valley as VRM Class II lands. Although the VRM Class II rating has not yet been formally adopted by the DRECP, it is consistent with the area's current interim VRM classification (Class II) for Limited Use Lands under the CDCA Plan.

A VRM Class II rating requires that the area be managed "to retain the existing character of the landscape." The level of acceptable change should be "low." Actions may be seen, but should not attract the attention of the casual observer. Changes should repeat "the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape."

3.10 Wilderness

The 12,889 acre Manly Peak Wilderness is located in Inyo County, approximately 30 miles northeast of Ridgecrest, CA. It shares its eastern boundary with Death Valley National Park and its southern boundary with Coyote Canyon (the southern boundary is 30 feet north of the centerline of the upper half of the Coyote Canyon jeep trail). The wilderness' northern and western boundaries are drawn along section lines. These section lines are unsurveyed and are described as "protracted" sections in the legal boundary description. The western wilderness boundary is approximately 1 ¼ miles east of the Briggs Mine Permit Area. One of the Bronco claim blocks south of Briggs is located immediately along the western wilderness boundary.

The Manly Peak Wilderness was withdrawn from new mineral entry on the date of designation, October 13, 1994 (the date of passage of the California Desert Protection Act). Bronco filed their claims in 2001. Some Bronco claims in T. 23S. , R. 44 & 43 E., Sections 19, 20, and 21 appear to be located inside rather than outside of the Manly Peak Wilderness. Other claims in the vicinity and elsewhere are too close to call with any certainty.

The wilderness is made up of a series of steep, jagged ridges, and deep canyons along the western escarpment of the Panamint Mountains. Elevations rise sharply from 1100 feet along its west slopes to more than 6000' to the east converging on Manly Peak. Vegetation changes with elevation, from creosote bush scrub at lower elevations to pinyon-juniper woodland near Manly Peak. Streams flow from isolated springs within the larger canyons (i.e., Redlands) to create riparian areas of interest and value for wildlife. Redlands Spring is located just outside of the western wilderness boundary. It is known to be a critical watering source for one of two known groups of bighorn ewes and lambs in the Panamints. This southern group of ewes and lambs are centered in upper Redlands Canyon within the Manly Peak Wilderness.

3.11 Lands with Wilderness Characteristics

BLM is required under Section 201 of the Federal Land Policy and Management Act (FLPMA) to maintain an updated inventory of public lands and their resources and values. This inventory requirement includes maintaining an updated inventory of lands with wilderness characteristics. The inventory information provided below is a finding, not a land use allocation. As such, it must be taken into consideration as would any other resource (biological, recreational, etc.) in

project level and land use planning decisions. A finding of lands with wilderness characteristics does not change or prevent change in management and use of public lands. BLM will however consider the protection of wilderness character on public lands as part of its multiple-use mandate. (BLM Manuals 6310 & 6320)

Two of the original 1979 wilderness inventory units have been recently updated in the area of the current proposed and 2004 drilling projects. Both units were found to have wilderness character after boundaries were adjusted to exclude the active Briggs Mine Permit Area. These units are 142-1 (Slate Range and Southern Panamint Valley) and 137-1 (Manly Peak).

Unit 142-1 (Slate Range and Southern Panamint Valley)

Approximately 81,500 acres of the original 102,802-acre inventory unit was found to have wilderness character. Of these 81,500 acres, 79,454 acres are publicly owned and administered by BLM, 2,100 acres are privately owned. Very little was determined to have changed within the core area since its release from WSA status in 1994. Only a few vehicle routes intrude into the area. One additional wilderness inventory road (the Escape Trail) has been added to the road network, which also includes the roads to the radio facilities. The Escape Trail bisects a portion of the area but does not subdivide it into smaller units smaller than 5,000 acres. Currently, there are no active mines in the area, and there has been no active mining in the area for over 40 years. The area is still the largest, contiguous expanse of undeveloped land outside of designated wilderness in the Ridgecrest Field Office Area. Opportunities for solitude and primitive and unconfined recreation are excellent. Visitation is low in the area and is confined mostly to a few, short, peripheral, primitive jeep trails. Virtually all travel deeper into the interior of the area is by foot or horse along historic stock trails or simply cross-country. The search for old trails to sites of historic interest (stone ruins, old mine adits) is a popular pastime among many visitors, including local history buffs from Trona.

The area also has tremendous biological value. It contains an important wildlife corridor for Nelson's bighorn sheep to move without human disruption between NAWS, the Panamints, the Slates and the Argus ranges. The floor of southern Panamint Valley is very pristine and comprises some of the best intact, low elevation saltbush-scrub and creosote-scrub habitat available in the Ridgecrest Field Office. It provides connectivity for lower elevation species such as Mohave ground squirrels and Desert tortoise between Panamint Valley and BLM lands to the south (via undeveloped NAWS lands). Panamint Lake contains unique desert wetland communities, including mesquite bosques and freshwater and saltwater marshes. This WIU also contains cultural resources potentially eligible for listing on the National Register of Historic Places, some of which may contribute to the furthering of our knowledge of regional prehistory and history.

Unit 137-1 (Manly Peak)

Approximately 10,551 acres of the original 32,026-acre inventory unit was found to have wilderness character. The reconfigured area now known as WIU #CDCA 137-1 excludes: (1) the part of the original inventory unit that was designated as the Manly Peak Wilderness in 1994, and (2) the active Briggs Mine Permit Area, which was also originally part of this unit. The unit

is bounded by three wilderness inventory roads and by the Manly Peak Wilderness. The three wilderness inventory roads are: South Park Canyon on the north, Wingate Wash on the west, and Goler Canyon on the south. Otherwise, the area remains essentially roadless. Three short spurs north of Briggs and the Coyote Canyon jeep trail to the Manly Peak Wilderness boundary are the only other open designated vehicle routes found in the area.

The Briggs Mine is the only active mine within the original WIU unit. This mine and its permit area have been excluded from the area now under consideration. Other than Briggs, there has been no active mining in this area for over 50 years. There is little evidence of past mining activity and what evidence exists would be considered historic at this point. All past mining activity was of the hardrock rather than open pit/cyanide leach type. This type of mining is relatively discrete and localized and a far cry from the massive amount of disturbance at Briggs.

The topography of the area is dramatic and severe. The Panamints rise steeply out of the valley floor. Huge, undulating and heavily-bisected alluvial fans spill out of narrow, deep, slot canyons. The front of the range is very irregular with many projecting fingers and intervening ridgelines. As a result, even a discordant development as large as Briggs is not visible from most places within the unit. In fact, the visibility of the Briggs Mine increases with distance rather than proximity. Briggs is more visible from the Trona-Wildrose highway than it is from most places along the Wingate Wash Road on the valley floor.

Outstanding opportunities for solitude and for primitive and unconfined recreation exist in the area. On foot, one can be miles away from any road or popular vehicle route, out of reach and sight of most people, rather easily. A person can be lost in the alluvial fans, hidden in the slot canyons, or far removed from the rest of the world high up on the ridges. The unit offers a full range of primitive, non-motorized opportunities, from dispersed cross-country hiking and backpacking, to technical rock climbing and canyoneering, to exploration of historic mine sites along old stock trails originally constructed for mining purposes.

Supplemental values include: A wide range of wildlife habitats keyed to rapid changes in elevation. Special Status Species include Golden Eagle, Panamint Alligator Lizard, Townsend's Big-eared bat and other bat species, Desert tortoise, and Nelson's bighorn sheep. Redlands Spring is an extremely important watering place for bighorn sheep, one of only three springs frequently in use by sheep in the Panamints and the only one at the southern end of the range.

The area contains two California State-listed rare and endangered plant species: Panamint Daisy and Knapp Brickell Bush. Three cultural resource properties have been recorded in the area. All are associated with an historic mining district and are considered eligible for listing on the National Register of Historic Places.

CHAPTER 4

ENVIRONMENTAL IMPACT ANALYSIS

4.1 Introduction

This section analyzes the impacts of the Proposed Action to those potentially impacted resources described in the affected environment Chapter 3, above.

4.2 Air Quality, Greenhouse Gas Emissions, Soil and Water (Hydrology)

Air Quality

Proposed Action

Direct & Indirect Impacts

The Proposed Action would not affect air quality because activities utilizing mechanized equipment would be short term. The Air Basin is unclassified for PM 10 and is attainment for PM 2.5. No permits or authorizations from the Great Basin Unified Air Pollution Control District (GBUAPCD) would be required.

The project area is within the Great Basins Valleys Air Basin. The project area is in Panamint Valley which is not in a Federal non-attainment area. Conformity requirements do not apply to actions in this area. The GBUAPCD rules concerning fugitive dust emissions may apply to portions of this project.

Emissions from the Proposed Action will be minimal. No significant offsite impacts are anticipated. An increase in fugitive dust during wind storms could occur due to the soil disturbance as a result of the Proposed Action. Vehicle use on the access road will generate PM10 emissions throughout the project. The drilling operations will generate PM10 emissions as the heavy equipment moves soil. All of these emission levels would be small. The project as proposed does not exceed the de minimis emission levels and conforms to the SIP and no further conformity analysis or determination is necessary.

No Action

The No Action alternative would have impacts very similar to the proposed action. With the relocation and modification of the drilling locations from the previously approved authorization, the impacts would be similar.

Cumulative Effects

The Proposed Action and No Action will have no cumulative effect on air quality.

Greenhouse Gas Emissions

Proposed Action

Direct & Indirect Impacts

The Proposed Action would not impact or contribute significantly to increase GHG emissions. The limited amount of pollutants resulting from the drilling exploration would not impede the BLM and the State of California from meeting the air quality objectives or reductions in GHG emissions.

No Action

The No Action alternative would be similar in impacts to the Proposed Action. The limited duration of mechanical equipment, as described in the Proposed Action would have similar impacts.

Cumulative Effects

The Proposed Action and No Action will have no cumulative effect on GHG emissions.

Soil & Water

Proposed Action

Direct/Indirect Effects

Both the Proposed Action and the No Action alternative will result in a temporary direct impact to a small acreage of public lands & sparse vegetation, subject to the reclamation measures described in Chapter 2 and required by 43 CFR 3809. The Proposed Action decreases the estimated linear distance of overland travel by 66%, from 25,473 feet to 8,725 feet. The Proposed Action and No Action alternatives have an unknown likelihood of encountering ground water at depth, with drilling subject to plugging and reclamation procedures. Drilling would potentially provide BLM with useful information on the depth and salinity of ground water, or lack of groundwater in this area.

Cumulative Effects

Given their small size and their proximity to an existing mine, both the No Action and Proposed Action alternatives are expected to have negligible cumulative impact to the appearance, biological resources and groundwater of Panamint Valley. The site(s) will be reclaimed and the disturbance is unlikely to be visible from a distance. This assessment cannot analyze the possibility of this exploration leading to further development, as the likelihood of further development cannot be reasonably foreseen until the results of this drilling are complete.

Mitigation

The Proposed Action as well as the No Action Alternative is subject to the reclamation and bonding requirements of 43 CFR 3809. *Reclamation* means taking any of several actions at the end of surface-disturbing operations in order to achieve conditions required by the BLM. Regulatory components of reclamation include, where applicable:

- (1) Isolation, control, or removal of acid-forming, toxic, or deleterious substances;
- (2) Regrading and reshaping to conform with adjacent landforms, facilitate revegetation, control drainage, and minimize erosion;
- (3) Rehabilitation of wildlife habitat;

- (4) Placement of growth medium and establishment of self-sustaining revegetation;
- (5) Removal of fencing and equipment; (6) Plugging of drill holes and closure of underground workings; and
- (7) Providing for post-mining monitoring, maintenance, or treatment.

In addition to the above performance standards and the measures described in Chapter Two, mitigation should include:

- If groundwater is encountered the operator will provide BLM with information including the depth to water, total dissolved solids, and other pertinent information.
- As per the reclamation measures described in the Proposed Action, any drillhole that encounters ground water shall be plugged with a bentonite slurry or with bentonite pellets, with a five-foot cement plug at the surface to impede any entrance of surface water.

The above measures are expected to prevent any negative direct, indirect or cumulative impacts to soil and water resources.

4.3 Biological Resources

Proposed Action

Direct/Indirect Effects

No mammals were observed during surveys, but scat and sign of antelope ground squirrel, kangaroo rat and feral burros were detected. No sign of desert tortoise or bighorn sheep were observed in or surrounding the project area. Panamint Valley is within the general range of birds such as the burrowing owl, golden eagle, and loggerhead shrike, but the only bird directly observed was the common raven. No sensitive species were observed during wildlife surveys, and no special status plant species were found.

Biological crusts will be disturbed during the access to some of the drilling sites. But the disturbance will be about 4.2 acres, some of which is already disturbed by the public's unauthorized travel on undesignated routes. This small disturbance of the crusts is not expected to alter hydrology, prevent seed germination, or increase PM10 to any measurable extent.

The impact on bighorn sheep that periodically pass through the area would be small since total disturbance from the project is calculated to be about 4.2 acres. No additional roads will be built, and the disturbed areas will be restored. The proponent will use vehicles with large tires and will travel around large creosote bushes to disturb vegetation as little as possible. Mitigation measures such as these will be followed to prevent habitat fragmentation. After drilling is completed, routes that were used for exploration will be barricaded with rocks to prevent illegal use by the public and to allow them to return to natural conditions. (See "Best Management Practice" in Section 2.1).

Impacts to raptor foraging habitat will be short-term and will not significantly reduce foraging habitat. The impacts will be temporary since disturbance to the habitat will be kept to a minimum and restoration techniques will be applied to all un-designated routes that are used.

Neither the Proposed Action nor the No Action Alternatives are expected to have measurable impacts to special status plant or animal species due to implementation of mitigation measures described in Section 2.1 “Best Management Practice” and biology-specific mitigation measures listed below.

No Action

The No Action alternative would have similar impacts to the Proposed Action and would be subject to similar mitigation requirements.

Cumulative Effects

The Proposed and No Action alternatives are would not have any measurable cumulative impact to any endangered species, special status species or their habitats.

Mitigation

- Activities shall not occur within 6 feet (2 meters) of cylindrical cacti species (cotton-top and corkseed cacti). These 8 cacti have been flagged, and the GPS locations are in Table 3 of the Biological Report submitted via the proponent. A biological monitor must be on-site when routes to the drill holes are flagged. The biologist will be sure that the selected routes avoid these cacti species by the proper distance.
- Concentrations of rodent burrows will be avoided when planning routes.
- If activities are conducted during the bird breeding season (February 1st through July 1st), the proponent will: 1) provide BLM with a shape file layer and GPS points of any nest locations detected in the project area prior to activities, and; 2) stay 400 meters away from any active nest unless the nest is that of a golden eagle, in which case all activities shall be 800 meters (½ a mile) away from the golden eagle nest.
- The proponent shall immediately notify the Ridgecrest BLM if sign is detected of desert tortoise, Nelson’s bighorn sheep, or other special status species. Upon such notice the BLM shall promptly investigate and determine appropriate mitigating measures.

The proponent will also minimize disturbance by following specified “best management practices” set forth under the proposed action (Section 2.1) to reduce impacts to vegetation and wildlife habitats.

The above measures are expected to prevent any negative direct, indirect or cumulative impacts to special status animal and plant species.

4.4 Heritage Resources

Proposed Action

Direct/Indirect Effects

Three cultural resource properties, CA-INY-8892, CA-INY-8993, and CA-INY-8994, have been recorded within the Area of Potential Effect. Proposed drill sites G-2, G-2A, and G-2B fall within the defined boundary of CA-INY-8994. These drill locations were relocated based on the potential for impact to the district that is potentially eligible for listing on the National Register of Historic Places. Site CA-INY-8994 will be avoided by the relocation of these drill locations. Sites CA-INY-8992 and CA-INY-8993 fall within the boundary of CA-INY-8994 and along the access routes for drill sites G-2 and G-1. These sites are likewise potentially eligible for listing on the National Register of Historic Places.

The drill location for G-2A should be relocated to the junction of Goler Road and the north-south trending access road. This area was inventoried in 2012 and is currently outside of the boundary of the historic district. There will be no impact to cultural resources at this location.

In the previous authorization it was determined that drill sites G-3 and G-2A be relocated. In addition, G-2 should be located within the disturbed limits of the existing two track and G-2B should be relocated to the south side of Goler Road.

In total, there are 4 drillings sites that are being relocated and reflected in this analysis; G-3, G-2A, G-2 (clarification of the location), and G-2B.

The Proposed Action will have no impact to cultural resources provided the operator follows the above avoidance stipulation. No additional cultural resource inventory is required for the Proposed Action. Additional cultural resource inventory will be required if additional drill locations and access routes are proposed.

Cumulative Effects

The No Action and Proposed Action will have no cumulative effect on cultural resources following the stipulations as described above.

Mitigation

- All ground disturbing activities must be confined to the areas surveyed as part of the Cultural Resource inventory projects listed above. If moved from the inventoried area, work shall cease until additional cultural resource inventory and review is completed.
- In the event that any cultural resources (historic or prehistoric) are encountered during ground disturbing activities, work shall cease, discoveries should be left intact, and the BLM Authorized Officer shall be notified immediately.
- In the event of discovery of human remains, pursuant to Federal law and regulations (Archaeological Resources Protection Act (ARPA) 16 USC 470 & 43 CFR 7; Native American Graves Protection & Repatriation Act (NAGPRA) 25 USC 3001 & 43 CFR 10;

and, Public Lands, Interior 43 CFR 8365.1-7), as well as California state law (California Health & Safety Code 7050.5, Dead Bodies and California Public Resources Code 5097.98, Notification of Discovery of Native American Human Remains), all work in the area will cease immediately, nothing will be disturbed, and the area will be secured. The County Coroner's Office will be notified, as well as the BLM project archaeologist. Work may resume only with written authorization from the BLM Field Office Manager.

- Cultural & paleontological performance standards of Federal Regulation 43 CFR 3809.420(b)(8).

No Action

Direct/Indirect Effects

Cultural resource inventory conducted by BLM in 2003 identified a historic mining district potentially eligible for listing on the National Register of Historic Places within the Area of Potential Effect for the project. To avoid an adverse effect to these resources, two of the drill holes from the 2004 proposal G-3 and G-2B, were moved outside of the recorded boundary of the district.

The intervening ten-year period since the initial inventory has created uncertainty as to the exact coordinates of the previously approved drill locations. Under the No Action alternative, an archaeological monitor will be required to ensure the locations are outside of the district boundary and within the previously inventoried locations and to ensure no impact to eligible resources.

Cumulative Effects

No cumulative effects are anticipated if the stipulations of the 2004 and current analyses are followed.

4.5 Native American Values

Direct/Indirect/Cumulative Effects

Impacts to Native American values will be addressed during on-going government-to-government consultation efforts.

4.6 Geological Resources

Proposed Action.

Direct and Indirect Impacts

The act of drilling and removing samples will have no measurable impact to the rock formations in this area. However, drilling and sampling these claims will add to knowledge of the mineral resources in this area. It is not possible for BLM to determine whether these claims do, or do not contain a discovery of valuable minerals if no samples are gathered at depth from these claims.

Drilling and sampling may indirectly lead to knowledge of other resources besides locatable minerals. The BLM disposes construction material (ordinary rock, sand and gravel) under the

Material Sales Act of 1947. Material disposals are allowed in lands classified for Limited Use, subject to the terms and policies of prevailing land use plans.

No Action.

Direct and Indirect Impacts

The No Action alternative would have similar impacts to the Proposed Action and would provide the same geological information.

Cumulative Effects

Both the above drilling alternatives will have no or negligible effect on the rock formations and mineral resources of these public lands. However, the data provided by the testing and exploration should provide additional information with regard to mineral resources.

4.7 Recreation

Proposed Action

Direct/Indirect Effects

The proposed drilling sites are concentrated in two, widely dispersed locations. One group of drill sites is located within and immediately south of the Briggs Mine Approved Exploration Area. The Exploration Area is not open to the general public and is not available for public use. The area immediately south of the Exploration Area is not readily accessible or available to the public for use either. The drill sites are more than a half mile away from Wingate Wash Road and many more miles away from any other open designated vehicle routes in the vicinity. There are no known established campsites or other recreational uses in the vicinity. The area may be in occasional use by hikers or equestrians exploring the more remote canyons and leading western edges of the Panamints. The presence and use of heavy equipment and vehicles outside of the Briggs Approved Exploration Area may be experienced by some users as a totally unexpected intrusion. However, this would be true only when vehicles were on-site and drilling was occurring.

The second group of drill sites is located near the mouth of Goler Canyon and extends north along an historic road trace (not an open designated vehicle route) nearly all the way to the mouth of Coyote Canyon. The Goler Canyon Road and Coyote Canyon jeep trail (both open designated vehicle routes) are two of the most popular jeep venues in the Panamints. They are in frequent and heavy use by the general motoring public, particularly during the cool season months of the year, from October through May. Both are featured events during Panamint Valley Days. Goler especially, acts as the principal, albeit primitive, gateway into upper elevations of the Panamints and to Death Valley National Park. Drilling operations here would have a higher profile and would be much more visible to the general public. They could also be much more disruptive to general public access and recreational use of the area.

It is most likely that vehicles and heavy equipment would be on-site and in-use at any one of these two general drilling locations for an extended period only once over the next 5 years. It is expected that drilling and reclamation could take anywhere from 3 days to up to 3 months to complete at each site. Best Management Practices encourages drilling at all sites along the same access routes within the same short time frame. This would avoid reopening routes to drill more sites once they have been used and reclaimed. However, Bronco may elect to do some drill sites now and reserve others for later.

Cumulative Effects

None, if Best Management Practices and Reclamation Requirements are met.

Mitigation

Drilling operations and use of the Coyote Canyon jeep trail and Goler Canyon road must not impede general public access and use of these open, designated vehicle routes and of the campsites located off of them. (NOTE: The historic road trace along which most of the remaining drill sites are located is not an open, designated vehicle route and should not be left open for public access and use.)

No Action

Direct/Indirect Effects

Much the same as in the Proposed Action with respect to drill sites located near the mouth of Goler Canyon and off of the historic road trace between Goler and Coyote canyons.

Under this alternative, original drill sites proposed north of Coyote Canon and immediately along the Manly Peak Wilderness boundary would be substituted for new drill sites within and south of the Briggs Approved Exploration Area. These original sites are even farther from Wingate Wash Road and farther from any open, designated vehicle routes in the area. They are, however, closer to the Manly Peak Wilderness boundary and to the mouths of many wilderness canyons and ridgelines of interest to wilderness hikers and climbers. The presence and use of heavy equipment and vehicles here would have impacts on non-motorized users similar to those described for the new sites proposed south of the Briggs Exploration Area.

Cumulative Effects

Old reclamation requirements are unlikely to be as effective in reclaiming drill sites and access routes as the new proposed Best Management Practices and reclamation requirements. It will be more difficult to stop public misappropriation and use of Bronco drilling access routes and to stop vehicle trespass off of the designated route system. This could diminish non-motorized recreational opportunities in the area.

4.8 Visual Resources

Proposed Action

Direct/Indirect Effects

Some direct effects due to the presence of drilling access routes, drill sites, presence and use of heavy equipment on-site in areas where no vehicle routes, drill sites, or heavy equipment have

appeared before. However, these effects would be temporary and would cease with completion of the drilling operation and successful rehabilitation of the drill sites and access routes.

Cumulative Effects

None, if reclamation efforts are successful in restoring disturbed areas to a natural condition and in blocking, rehabilitating, and preventing public misappropriation and use of drilling access routes as off-road vehicle routes.

Mitigation

Follow Best Management Practices and Reclamation Requirements as specified. These measures will minimize new disturbance to soils and vegetation, will follow contours of the land and avoid construction of new manmade linear features, and will concentrate on restoring physical substrate (rock cover) where loss of physical substrate would be most noticeable.

No Action

Direct/Indirect Effects

Some direct effects due to the presence of drilling access routes, drill sites, presence and use of heavy equipment on-site in areas where no vehicle routes, drill sites, or heavy equipment have appeared before. Some of these effects would be temporary, i.e., the presence of heavy equipment, and would cease with the completion of the drilling operation. Others, drill pads and drilling access routes, may persist depending upon the successful outcome of the rehabilitation efforts under the broad reclamation requirements adopted in the 2004 authorization.

Only very general, non-site-specific reclamation requirements were adopted in the 2004 authorization. These broad requirements are geared towards large-scale mining disturbances on the order of the Briggs Mine. They are more heavy-handed and intrusive, permitting greater surface disturbance and requiring more intensive manipulation of the environment than is warranted by small-scale exploration. Broad reclamation standards rely on topsoil removal and preservation, followed by broadcast seeding, rather than on adopting Best Management Practices from the onset requiring simple plant avoidance and minimal ground disturbance, and emphasizing replacement of disturbed physical substrate as the primary restoration strategy. Broad reclamation standards also do not address physical barriers to public adoption and use of drilling vehicle access routes.

Staff feels that these broad reclamation standards would not be successful in reclaiming drill sites and drilling access routes. Most of the drill sites are located on rocky alluvium where there is little soil to remove and stockpile. In such a rocky environment, there is very little chance that broadcast seeding would work. Minimizing loss of and restoring rock cover where rock has been removed for drilling would be beneficial, both with respect to preserving underlying top soil and the existing seed bank. Avoiding large shrubs, creosotes especially, will preserve the landscape's broad-scale vegetative cover and will protect seed sources for the future. Without a more realistic, practical approach, these drilling features and any additional disturbances caused by misguided rehabilitation efforts are likely to persist, slip into general use, and continue to detract from the overall visual landscape.

Cumulative Effects

None, if drill site and vehicle access route rehabilitation is successful. If rehabilitation efforts are not successful, visual scars and linear features would persist. Scars and features would be likely to attract vehicle use. Additional OHV impacts and off-route vehicle trespass could occur as a result.

4.9 Wilderness

Proposed Action

Direct/Indirect Effects

There would be no direct/indirect effects on wilderness under this alternative. The drill sites located north of Coyote Canyon jeep trail and within a half-mile of the Manly Peak Wilderness boundary have been dropped under this alternative. All of the remaining proposed drill sites are located well outside of wilderness. In addition, they are located along the base of steep terrain that is not susceptible to OHV trespass should the public start using drilling routes illegally

Cumulative Effects

None.

Mitigation

None.

No Action

Direct/Indirect Effects

Under the No Action Alternative, Bronco would drill in 7 locations immediately proximal (within ½ mile or less) of the Manly Peak Wilderness boundary. Drilling could not proceed until BLM completed a cadastral survey of the western boundary of the Manly Peak Wilderness to locate the boundary and to determine the validity of the claims. The Manly Peak Wilderness was withdrawn from new mineral entry on October 13, 1994.

Drilling operations located that close to the wilderness boundary would have some indirect effects on wilderness values. The presence and use of heavy, motorized equipment so close to the wilderness boundary would impact solitude, the quality of the opportunities for primitive and unconfined recreation found just inside wilderness, and the perception of the overall naturalness of the area. However, these effects would be temporary, lasting only for the duration of the drilling project, and would presumably disappear upon removal of the crews and equipment, and the successful rehabilitation/re-naturalization of the drill sites and access routes.

Only very general, non-site-specific reclamation requirements were adopted in the 2004 authorization. (See discussion in the Visual Resource Section.) Presumably, these requirements with their limitations (greater degree of allowable disturbance and probable lack of efficacy) would be in effect if this alternative were pursued today. Residual negative effects could occur if access routes were not successfully rehabilitated and closed to public vehicle use. New, illegal OHV routes could be extended from the drill sites into wilderness where no routes existed before.

Cumulative Effects

None if drill site and access route rehabilitation is successful. Additional OHV impacts and wilderness trespass problems could occur if rehabilitation efforts are not successful.

4.10 Lands with Wilderness Characteristics

Proposed Action

Direct/Indirect Effects

Under the Proposed Action, Wilderness Inventory Unit 142-1 would be very minimally impacted, with only one drill site located south of the Goler Canyon Road. Wilderness Inventory Unit 137-1 could be substantially impacted with 17 drill sites located within its boundaries. Drilling operations should have no persistent impacts on either unit if specified Best Management Practices are followed and reclamation strategies are successful.

WIU 142-1: One drill site is located within this unit, south of the Goler Canyon Road which forms the northern boundary of the unit. This location is peripheral to the unit. The resulting disturbance even if it were never successfully reclaimed would be negligible, amounting to an incalculably small amount within this vast 81,500 acre area.

WIU 137-1: Under the Proposed Action, drilling sites would be concentrated in two, widely dispersed locations. Nine sites would be located along an historic road trace (an unmaintained, non-designated vehicle route) between the Goler Canyon Road which forms the southern boundary of the unit and the Coyote Canyon jeep trail. The historic road trace must be followed as is, not straightened out and filled in, or improved in any fashion beyond what is absolutely necessary for the safe passage of vehicles during the course of the project. Similarly, the Coyote Canyon jeep trail must be kept as is, as an unmaintained, open designated vehicle route. As an unmaintained vehicle route, it does not comprise a wilderness inventory road. The distinction is significant, because in its current unmaintained state the jeep trail does not subdivide the unit and does not put the rather sizeable area south of it in jeopardy of still qualifying based upon its stand-alone size. It is critical that the Coyote Canyon jeep trail not be improved or in any significant way altered as a result of this drilling project if BLM wants to keep its options open. In truth, the jeep trail up to the intersection with the historic road trace is in good shape and should pose no significant obstacles for use as an access route to the drilling sites.

Eight additional sites are located immediately south of the Briggs Approved Exploration Area. The Briggs Approved Exploration Area has been excluded from the wilderness inventory unit in its entirety. These sites in their proximity to Briggs are rather peripheral to the unit at large. The loss of these sites would not be desirable, but would not be of much consequence to the unit as a whole.

From a wilderness inventory standpoint, it is at least as important that no new roads be constructed and that no existing vehicle routes whether they be historic road traces or open designated jeep trails, be improved or maintained as a result of this project. It is also important that all drill sites and cross-country access routes be fully and successfully reclaimed and closed to general public vehicle use at the conclusion of the project.

Cumulative Effects

None, if Best Management Practices are followed and new reclamation strategies succeed.

Mitigation

Follow Best Management Practices and Reclamation Requirements as specified. Follow specific prescriptions outlined above with respect to preserving the status quo and refraining from improving or otherwise altering the old historic road trace or the Coyote Canyon jeep trail.

No Action

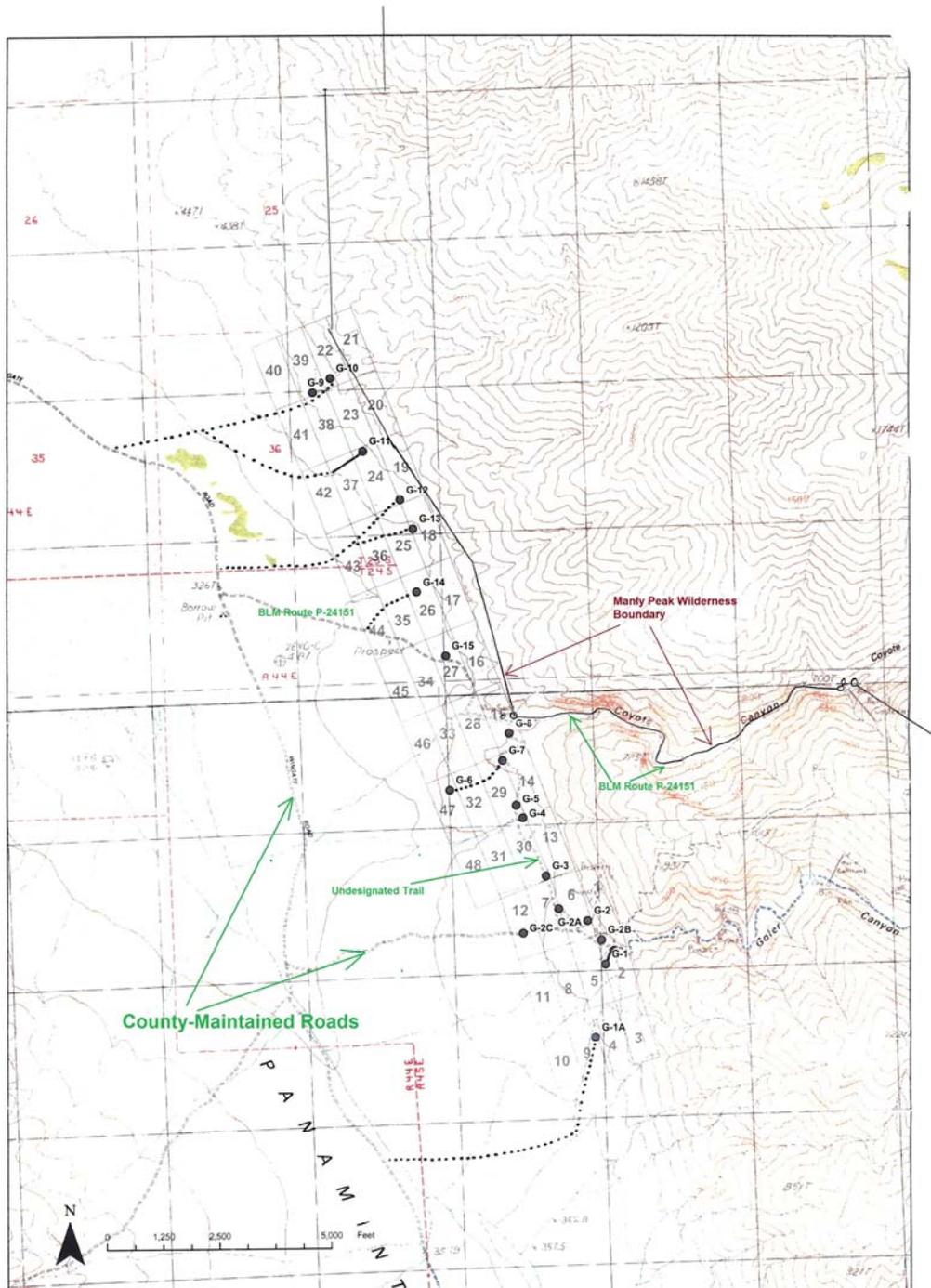
Direct/Indirect Effects

WIU 142-1: This alternative would have minimal impacts on WIU 142-1 where only two drill sites are identified within the unit: one immediately off of the Goler Canyon Road; the other further south, more than a mile from any open, designated vehicle route. Both sites are located on the northern periphery of the unit and are of insufficient size to affect the larger mass of the unit as a whole.

WIU 137-1: This alternative could substantially affect this wilderness inventory unit, disqualifying some rather large areas if reclamation efforts are not successful. Most notably, the No Action alternative would permit drilling at an additional 7 sites within a ½ mile of the Manly Peak Wilderness boundary, subject to a cadastral survey and validity exam. These sites are more centrally located within the unit as a whole and could isolate a substantial chunk of the lower midsection of the area from adjacent qualifying areas and the wilderness area. The alternative includes all drilling sites with the addition of a few more drilling sites off of the historic road trace between Goler and Coyote canyons. As mentioned earlier, this could become problematic with respect to maintaining the integrity of the southern end of the unit. Neither the historic road trace nor the Coyote Canyon jeep trail should be improved or altered in any way that might elevate them to the status of a wilderness inventory road. Doing so would subdivide this part of the unit into subunits that would be too small to qualify as wilderness inventory units on their own. The alternative does not include any drill sites south of the Briggs Approved Exploration Area. This portion of the unit would remain unaffected by drilling.

Cumulative Effects

Drilling operations could fragment and/or degrade a substantial portion of the lower third of the unit if drill sites and access routes are not adequately reclaimed and/or are left open for adoption into general public use. Any road work on the historic road trace between Goler and Coyote canyons and on the Coyote Canyon jeep trail itself could subdivide the unit into smaller units that would no longer be large enough to qualify on their own. The unit could lose up to one-third (approximately 3,500 acres) of its 10,551 acre total.



Submitted June 2003 by Bronco Resources, Inc.

Proposed Location of Exploration Drilling by Bronco Resources

- Location of proposed drill sites ● G-1A
- Proposed cross country route, no road construction
- Proposed drill road with surface disturbance _____

Figure 1. The 2003 Drilling proposal submitted by Bronco Resources, Inc.

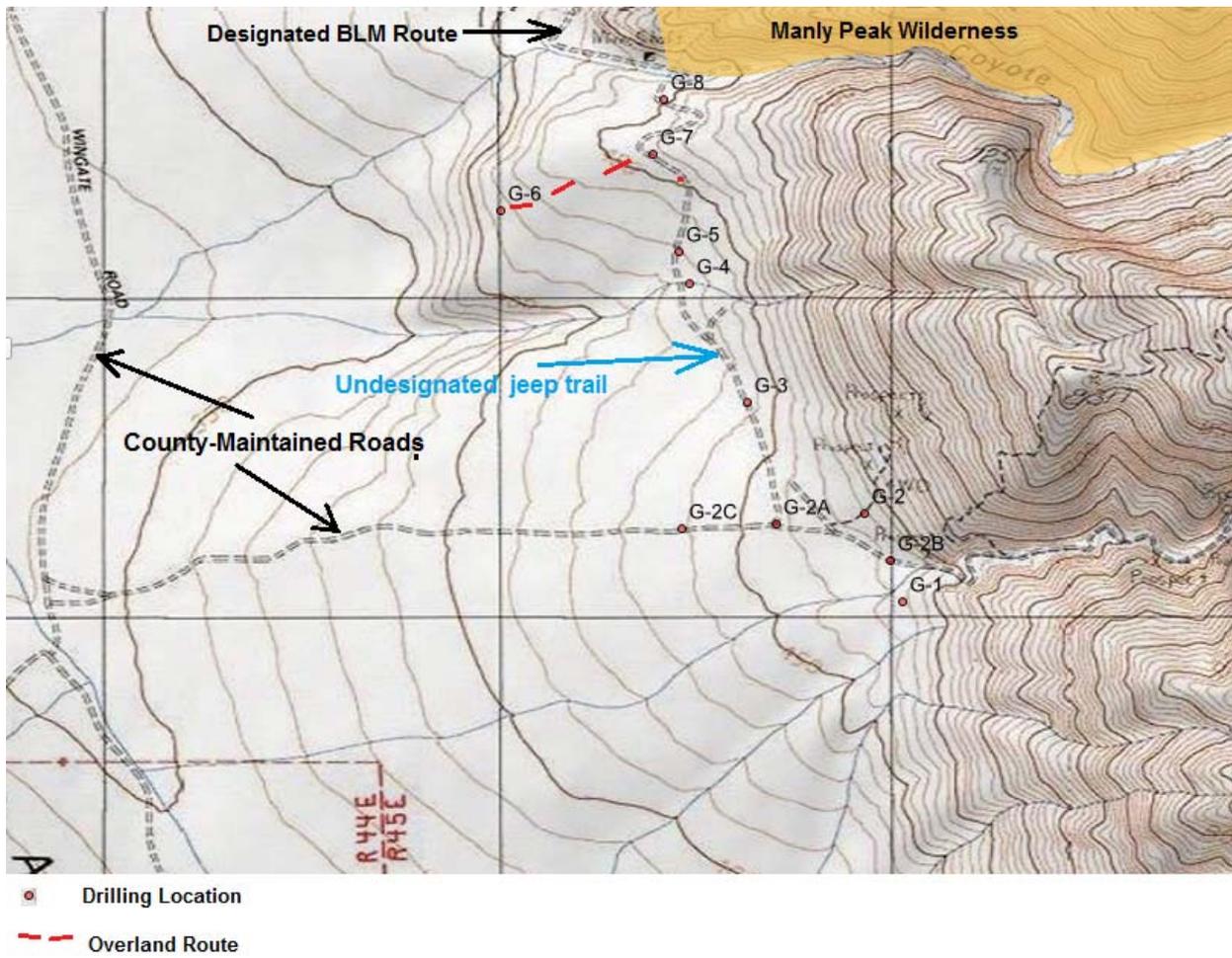


Figure 2a. Modified drilling locations G-1 through G-8.

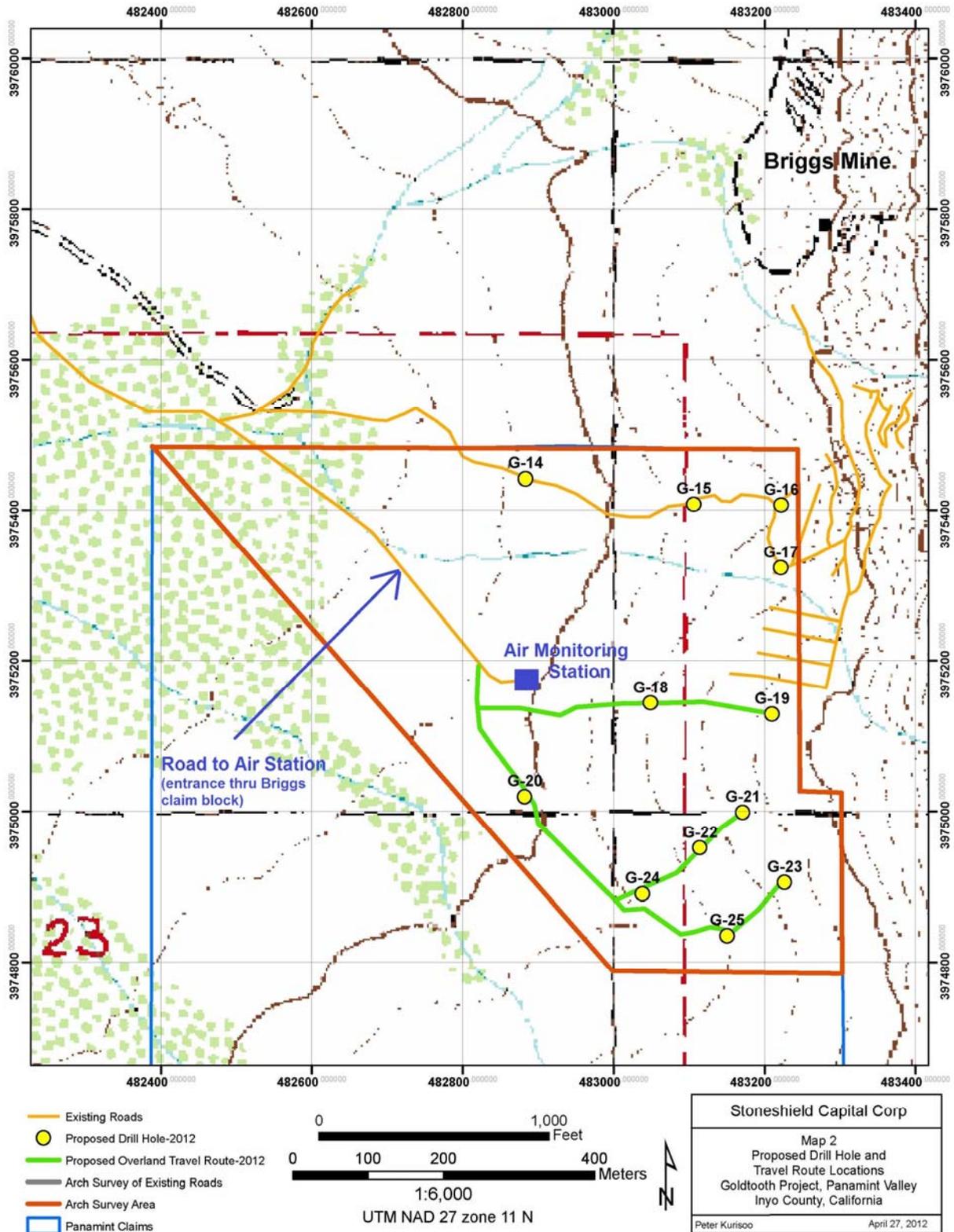


Figure 2b. Location of new drilling locations G-14 through G-25.



Figure 3. Relationship of sites G-14 through G-25 to the Briggs mining operation.

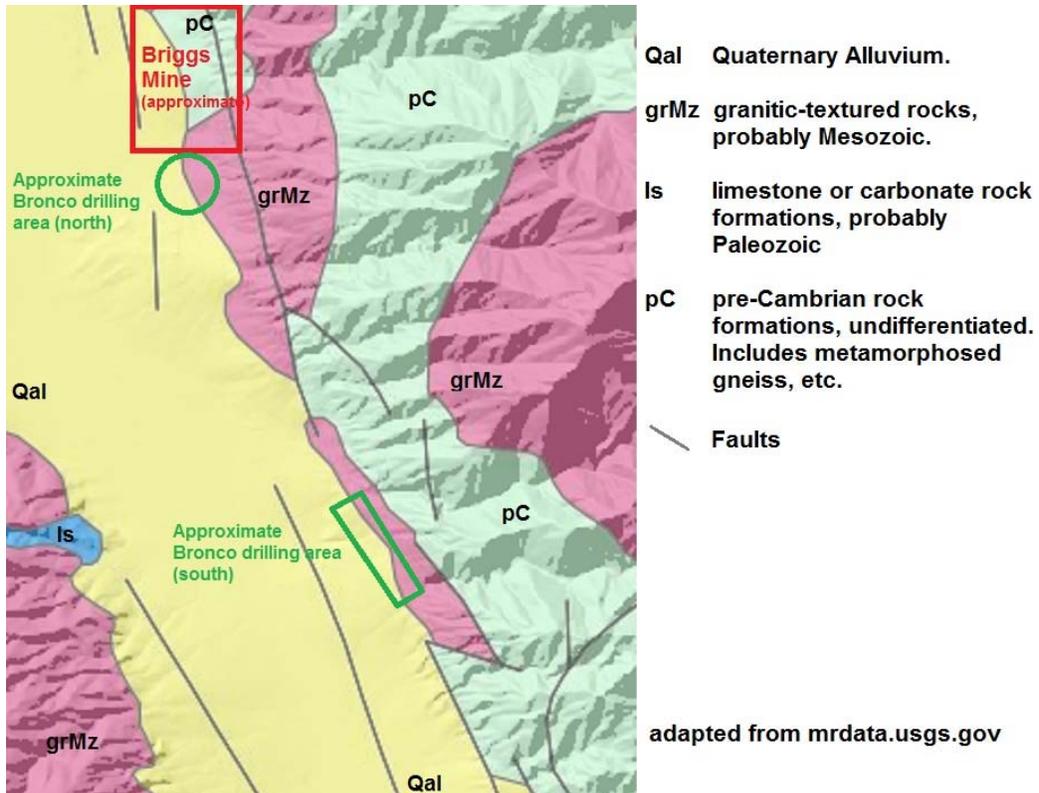


Figure 4. Simplified geology of the report area.

CHAPTER 5 PERSONS, GROUPS, AND AGENCIES CONSULTED

5.1. List of Preparers

BLM Preparers

Name	Title	Responsibility for the Following Sections of this Document
Randall Porter	Geologist- Project Lead	Geology, Soils, Water Quality
Martha Dickes	Recreation Specialist	Wilderness, Recreation, ACEC
Shelley Ellis	Wildlife Biologist	ACEC, Hydrology, Soils, Bio-Crusts, Vegetation, Wildlife
Caroline Woods	Wildlife Biologist	Wildlife
Ashley Blythe	Archaeologist	Cultural Resources
Paul Rodriquez	Realty Specialist	Lands and Access
Alex Neibergs	Wild Horse & Burro Specialist	Wild Horse & Burro, Invasive Species
Jeff Childers	NEPA Coordinator	Air Quality, Greenhouse Gases, Environmental Justice, Socio-economics, Hazardous Waste, Visual Resources

5.2 References

Cedar Creek Associate, Inc. “Stoneshield Capital Corporation Goldtooth Project: Threatened, Endangered, and Sensitive Fauna and Flora Surveys.” Cedar Creek Associates, Inc., Fort Collins, Colorado. Available at (BLM) Ridgecrest Field Office, Ridgecrest California.

Green Book Nonattainment Areas for Criteria Pollutants. U.S. Environmental Protection Agency, December 14, 2012, available online at <http://www.epa.gov/air/oaqps/greenbk/>.

Hydrologic Units. Available online through <http://www.nationalatlas.gov/mapmaker/>.

Mining Claim Data. Publicly available online through <http://www.blm.gov/lr2000>.

Norman, L. & Stewart, R., “Mines and Mineral Resources of Inyo County.” California Journal of Mines and Geology, Vol. 47, No.1, January 1951.

Proposed BLM Routes, North East Mojave Management Plan. Available at http://www.blm.gov/style/medialib/blm/ca/pdf/pdfs/barstow_pdfs/final_web_proposed_plan.Par.811aeb30.File.pdf/map2_1proposed_action.pdf

Secretarial Order 3310. Publicly available online at http://www.blm.gov/pgdata/etc/medialib/blm/wo/Communications_Directorate/public_affairs/news_release_attachments.Par.26564.File.dat/sec_order_3310.pdf

Surface Management Regulations. Publicly available online at http://www.blm.gov/wo/st/en/prog/planning/nepa/webguide/cfr/43_cfr_3809.html

Surface Management Manual. Publicly available online at http://www.blm.gov/style/medialib/blm/wo/Information_Resources_Management/policy/blm_manual.Par.32340.File.dat/3809%20Manual%20final%209%207%2012.pdf

United States Code. Publicly available online at <http://codes.lp.findlaw.com/uscode/>

Winslow, Diane L. and Sandy McDaniel 2012. "Class III Cultural Resource Inventory for Stoneshield's Goldtooth Project, Panamint Valley, Inyo County, California." Prepared for United States Department of the Interior, Bureau of Land Management, Ridgecrest Field Office. ASM Affiliates, Las Vegas, Nevada.

5.3 Summary of Public Comments

An Environmental Assessment was posted for public comment on April 12, 2013. Several public comments were received from these groups/individuals: Center for Biological Diversity, Tom Budlong, C. R. Briggs, and Death Valley National Park.

The following is a summary of the comments from each of the commenters.

The Center for Biological Diversity

The Center provided two comment letters one dated May 17, 2013 and the other dated May 23, 2013. The following is a summary of the topics included in both of those letters.

Segmentation – the comment refers to the future impacts of mining on the area and the need for further more extensive analysis.

Adequacy of the EA – the comment refers to the resources analyzed in the EA along with questions regarding the land use plan conformance, impacts to wildlife, soils, air quality, water resources, lands with wilderness characteristics, cultural resources, greenhouse gas emissions, existing conditions, mitigation, alternatives, and FONSI.

Resource survey – biological surveys, specifically rare plants.

Tiering – utilization of the 2004 analysis.

Tom Budlong

Alternatives – the action and no action alternatives.

State Mining and Reclamation Act – the comment refers notification of other agencies.

Proposed action – the commenter refers to discrepancies in the project description.

Appendix 1 – signatures for the ID team review.

Cultural resources – location of proposed drilling locations and conflicts with resources.

Lands with wilderness characteristics – lack of an inventory.

Re-vegetation – comments on the reclamation plan, vegetation and requirements.

C.R. Briggs Corporation

Air Quality – dust issues during drilling operations near the air quality monitoring station for the existing Briggs Mine.

National Park Service – Mike Cipra

Concerns over future mining operations and the impacts to Park resources, and requesting to be involved in future planning efforts that may result from this action.

5.4 Response to Comments

The Center for Biological Diversity

Segmentation: Please see the revised proposed action and the modifications to that action from the previous EA. The intent of the action is to provide information on the subsurface potential for resources and therefore requires the operator to investigate the claims for value. The actions of private companies on the validity of the claim and the value on the public market are not measures of the BLM's intent. There cannot be a future project on a site that does not contain potential resources and if the results of the activity are such that a resource is available, the operator will be required to provide a detailed plan for the proposed operation and that action will result in subsequent NEPA. To make a jump to an EIS for the reason that a mining operation is inevitable is speculative and inappropriate.

Adequacy of the EA: Further modifications of the proposed action have been included in the analysis and the analysis has been revised to reflect the alternatives as currently described. Please see Section 2.1.

LUP conformance: Please see Section 1.3 on Land Use Plan conformance and further discussion on designated routes and access as described in Section 2.1.

Wildlife and vegetation: Please see Section 4.3 for a description of the impacts to Biological Resources.

Air, Soils, and Water: Please see the revised proposed action in Section 2.1 and the analysis in Section 4.2 and 4.7.

Wilderness and Lands with Wilderness Characteristics: Please see the revised proposed action in Section 2.1 noting the change in drilling locations to reduce impacts to existing wilderness and see Section 3.9 and 4.6 that address wilderness characteristics.

Heritage resources: Please see Section 2.1 for the revised proposed action that eliminates, modifies and relocates proposed drilling locations to avoid impacts to cultural resources and see Section 4.4 for the analysis.

Greenhouse Gasses: Please see Section 4.7 for a description of the impacts to GHG.

Impact Analysis: All of the resource sections have been reviewed and updated as necessary with revisions based on the updated proposed action.

Baseline: The No Action alternative has been revised to explain the existing baseline condition. Please see Section 2.2.

Mitigation: Based on the revised proposed action, only minor mitigation will be included. The effects of those measures are included in the revised analysis.

Alternatives: Please see Section 2.1, 2.2 and 2.3 for a description of the alternatives considered and the revisions to those alternatives.

Tom Budlong

Alternatives: Please see Section 2.1, 2.2 and 2.3 for a description of the alternatives considered and the revisions to those alternatives. The No Action has been revised to fully explain the previous authorization and the proposed action has been clarified to explain the changes in the exploration from the 2004 authorization to the current proposal.

State Mining and Reclamation Act: The BLM works with all of our partner organizations to ensure that information is shared. We appreciate the efforts to broaden our outreach.

Proposed action: Please see Section 2.1 for the revised proposed action.

Appendix 1: Please see the revised Appendix 1.

Native American consultation: Please see the added consultation summary in Section 5.5.

Cultural resources – location of proposed drilling locations and conflicts with resources.

Lands with wilderness characteristics: Please see Section 3.11 and 4.10 for the revisions to the wilderness sections.

Re-vegetation: Please see Section 2.1 for the revised proposed action and best practices to reduce impacts to vegetation and reclamation.

No Action: The No Action alternative as described in Section 2.2 would result in the management of the area per all previous decisions. The authorization as issued via the 2004 DNA would be available to the claimant in the event of the selection of the No Action.

C.R. Briggs Corporation

Air Quality: Please see Section 4.3 for the discussion of impacts to Air Quality.

National Park Service – Mike Cipra

Any and all future activities that may impact Park resources will be coordinated with NPS. In the event that further NEPA is required based on the findings from this exploration, the NPS may be invited to participate as a cooperating agency.

5.5 Tribal Consultation Summary

Pursuant to Section 101(d)(6)(b) of the National Historic Preservation Act (NHPA), as specified in the implementing regulations for Section 106 of the NHPA at 36 C.F.R. 800.2(c)(2)(ii) and consistent with the principles of Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments, November 6, 2000), the Executive Memorandum of April 29, 1994 (Government to Government Relations with Native American Tribal Governments), American Indian Religious Freedom Act of 1978, and Executive Order 13007 (1996), the BLM identified and invited the Lone Pine Paiute Shoshone Tribe and the Timbisha Shoshone Tribe to consult on the Proposed Action on a government-to-government basis beginning in March of 2012. Letters from the BLM were sent dated March 23, 2012, informing the Tribes of the proposal for drilling along the base of the Panamint Mountains, explaining the BLM's role, and inviting them to consult in a government-to-government manner pursuant to the Executive Memorandum of April 29, 1994, and other relevant laws and regulations including Section 106. The letters also requested assistance identifying any issues or concerns about the proposed project, including the identification of sacred sites and places of traditional religious and cultural significance that might be affected by the project. The letter described the 2003 inventory efforts by the BLM and cited recent consultation efforts for the Desert Renewable Energy Conservation Plan, which had revealed tribal and cultural concerns for the Panamint Valley and Panamint Mountains. Efforts via telephone to schedule additional meetings and solicit additional comment, as well as discussions of the project at regularly scheduled BLM and Tribal coordination meetings did not result in further comment with either Tribe during the remainder of 2012.

A draft of the EA for the project was provided to and discussed with the Timbisha Shoshone Chairman George Gholson on April 9, 2013; discussed and provided to the Lone Pine Paiute Shoshone Chairperson Mary Wuester and Tribal Historic Preservation Officer, Kathy Bancroft on May 8 and May 10, 2013; and discussed and provided to the Timbisha Shoshone Tribal

Historic Preservation Officer Barbara Durham on May 13, 2013. Consultation and discussions since May 2013 have revealed strong concerns about the project and the impacts it may cause to cultural resources and landscapes near the project area, and the importance of the Panamint Valley and Mountains to the Tribes, particularly if mining activities result from this proposed action. The BLM will continue to seek information and address concerns raised by the Tribes; government-to-government consultation is on-going at this time.

APPENDIX 1

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: Bronco drilling exploration

NEPA Log Number: DOI-BLM-CA-D050-2012-015

File/Serial Number: CACA-45475

Project Lead: Randall Porter

DETERMINATION OF STAFF: (Choose one of the following abbreviated options for the left column)

NP = not present in the area impacted by the proposed or alternative actions

NI = present, but not affected to a degree that detailed analysis is required

PI = present with potential for significant impact analyzed in detail in the EA; or identified in a DNA as requiring further analysis

NC = (DNAs only) actions and impacts not changed from those disclosed in the existing NEPA documents cited in Section C of the DNA form.

Determination	Resource	Rationale for Determination*	Signature	Date
NI	Air Quality	The Alternatives would not affect air quality because activities would be short term. The project area is within the Great Basins Valleys Air Basin. The project area is in Panimint Valley which is not in a Federal non-attainment area. Conformity requirements do not apply to actions in this area. The GBUAPCD rules concerning fugitive dust emissions may apply to portions of this project. The operator will obtain the required permits or authorizations from the Great Basin Unified Air Pollution Control District (GBUAPCD).	Jeff Childers	7/15/13
NP	Areas of Critical Environmental Concern	No ACEC is within this project location based upon review of Ridgecrest Field Office planning documents, CDCA & NEMO.	R. Porter	8/12/13
NI	Cultural Resources	Following the stipulations provided in the EA, there will be no impact to cultural resources located within the project area.	A. Blythe	7/18/2013
NI	Greenhouse Gas Emissions	The Alternatives would contribute to GHG but would be negligible because activities would be short term. The project area is within the Great Basins Valleys Air Basin.	Jeff Childers	7/15/13
NI	Environmental Justice	According to the EPA Region 9, State of California, Environmental Justice Map, the region has been categorized a minority population area of 20-30% and a poverty population area of 0-10%. No minority or economically disadvantaged communities are present which could be affected by the Proposed Action or Alternatives. http://epamap14.epa.gov/ejmap/ejmap.aspx?wherestr=Ballarat%2C%20CA 3/25/13)	Jeff Childers	7/15/13
NP	Farmlands (Prime or Unique)	No farmlands are identified in this area based upon review of Ridgecrest Field Office planning documents, CDCA & NEMO.	R. Porter	8/12/13
NP	Floodplains	No floodplains identified on these lode claims based upon review of Ridgecrest Field Office planning documents, CDCA & NEMO.	R. Porter	8/12/13

Determination	Resource	Rationale for Determination*	Signature	Date
NI	Fuels / Fire Management	Very low fuel load based upon review of Ridgecrest Field Office Fire Management Plan.	Don Washington	4/8/2013
NI	Geology / Mineral Resources / Energy Production	Project allows quantitative sampling of mineralization. The project should have no measurable effect on whatever deposit may be present.	R. Porter	8/12/13
NP	Invasive Plants / Noxious Weeds	Invasive or Invasive plant species are not present along access to or at the drill sites.	A Neibergs	3/22/2013
NI	Lands / Access	Follow pre-established routes. Disturbance is subject to reclamation.	Paul Rodriquez	4/4/2013
NP	Livestock Grazing	Not within any grazing allotment based upon review of Ridgecrest Field Office planning documents, CDCA & NEMO.	Sam Fitton	4/8/2013
NI	Native American Religious Concerns	Identified during consultation efforts by the Ridgecrest Field Office. Consultation efforts are on-going	A. Blythe	7/18/13
NP	Paleontology	This project has negligible potential to disturb any paleontological resource. The site has very low potential for occurrence of paleontological resources.	R. Porter	8/12/13
NI	Rangeland Health Standards and Guidelines	The project area would undergo a temporary disturbance that would not diminish the Land Use Class objectives based upon review of Ridgecrest Field Office planning documents, CDCA & NEMO. Impacts to rangeland health would be negligible.	Sam Fitton	4/8/2013
NI	Recreation	The operator will use existing routes and will rehabilitate areas of cross country travel.	Craig Beck	4/8/2013
NI	Socio-economics	The local economy would be positively affected by the project. The degree would be negligible.	Jeff Childers	7/15/13
NI	Soils	This project is deemed to have no lasting impact to soil resources.	R. Porter	8/12/13
NI	Special Status Animal Species other than USFWS candidate or listed species e.g. Migratory birds.	Addressed in environmental assessment. No or negligible impact as long as stipulations are complied with.	S. Ellis	4/8/2013
NI	Special Status Plant Species other than USFWS candidate or listed species	The habitat for special status species is rated poor.	S. Ellis	4/8/2013
NI	Threatened, Endangered or Candidate Animal Species	No special status species have been observed in the project area. See environmental assessment.	S. Ellis	4/8/2013
NI	Threatened, Endangered or Candidate Plant Species	The habitat for special status plant species is rated poor.	S. Ellis	4/8/2013
NI	Vegetation	Follow Stipulations	S. Ellis	4/8/2013
NI	Visual Resources	The project area would undergo a temporary disturbance that would not diminish the Land Use Class objectives based upon review of Ridgecrest Field Office planning documents, CDCA & NEMO.	Jeff Childers	7/15/13
NI	Wastes (hazardous or solid)	No potentially harmful materials would be left on or in the vicinity of the project area. No chemicals subject to SARA Title III in amounts greater than 10,00 pounds would be used. No extremely hazardous substances as defined in 40 CFR 355 in	Jeff Childers	7/15/13

Determination	Resource	Rationale for Determination*	Signature	Date
		threshold planning quantities would be used. The operator will utilize BMPs. Solid waste generated from the project area will be properly disposed at an approved landfill or recycled when possible.		
NI	Water Quality (surface / ground)	Plugging procedures in the proposed action are deemed sufficient to prevent unnecessary or undue degradation of water resources.	R. Porter	8/12/13
NI	Waters of the U.S.	No effect to any recognized waters of the U.S.	R. Porter	8/12/13
NP	Wetlands / Riparian Zones	No wetlands are identified on these lode claims in any planning document. No plant community consistent with riparian zones exists on these lode claims. Refer to botanical survey report.	R. Porter	8/12/13
NP	Wild and Scenic Rivers	No wild & scenic rivers are identified in or adjacent to the lode mining claims listed in this action.	R. Porter	8/12/13
NI	Wild Horses and Burros	Holes will be filled with Bentonite immediately after drilling preventing any burros from potentially stepping into the drill site.	Alex Neibergs	3/22/13
NP	Wilderness	The project area lies outside of the Manly Peak Wilderness Area.	Martha Dickes	3/21/2013
NI	Lands with Wilderness Characteristics.	Not inventoried based upon review of Ridgecrest Field Office Resource Management Plans. No impacts anticipated.	Martha Dickes	3/21/2013

FINAL REVIEW:

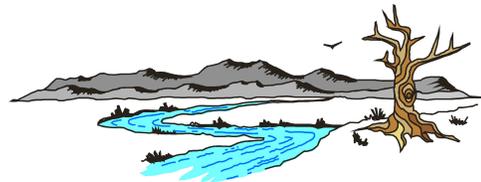
Reviewer Title	Signature	Date	Comments
NEPA / Environmental Coordinator	<i>Jeffrey R. Chubb</i>	8-13-13	to AD
Authorized Officer	<i>Carl P. [unclear]</i>	8/13/2013	

APPENDIX 2
BIOLOGICAL REPORT

StoneShield Capital Corporation
Goldtooth Project

THREATENED, ENDANGERED, AND SENSITIVE
FAUNA AND FLORA SURVEYS

MAY, 2012



CEDAR CREEK ASSOCIATES, INC.
5586 Overhill Dr. Fort Collins, Colorado 80526 (970) 223-0775

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Appendix A – Special Status Animals in the Ridgecrest Field Office - 2011

Appendix B – Special Status Plants in the Ridgecrest Field Office

StoneShield Capital Corporation's

Goldtooth Project

THREATENED, ENDANGERED AND SENSITIVE FAUNA AND FLORA SURVEYS

1.0 INTRODUCTION

Cedar Creek Associates, Inc. (Cedar Creek) was retained by Stoneshield Capital Corporation (Stoneshield) to perform threatened, endangered and sensitive fauna and flora surveys on Stoneshield's Goldtooth Project proposed exploration holes and overland travel routes in the Panamint Range of southern California. Cedar Creek has been performing annual biotic surveys for the nearby Briggs mine since 1992 and is therefore, uniquely qualified to perform these surveys for Stoneshield. All terrain within 100 feet of proposed disturbances was visually surveyed and all vascular plants, reptiles, and mammals encountered, as well as wildlife sign, were recorded to species level where possible. The survey efforts occurred on May 6th and 7th, 2012 and were conducted by Mr. Erik Mohr, Senior Ecologist for Cedar Creek. No flora or fauna taxa identified as having special status by the Ridgecrest field office of the Bureau of Land Management (BLM) was observed during these surveys. Furthermore, habitats potentially supporting special-status species was rated as poor to non-existent.

2.0 METHODOLOGY

2.1 Species Identification

A list of 16 mammals, 21 birds, 7 reptiles, 1 fish and 55 plants of special status (threatened, endangered, sensitive, candidate or species of interest) was obtained from the BLM office in Ridgecrest, California (Appendices A and B). Of these 100 rare species, a short list of taxa that have been known to occur, or could potentially occur, within the communities of the project area was developed. Information was gathered on status, distribution, known habitat preferences, and elevational range for each of the 100 potential species of concern, with emphasis on 16 priority species including:

Mammals

- | | |
|--------------------------|--------------------------------|
| - American badger | <i>Taxidea taxus</i> |
| - Mohave ground squirrel | <i>Spermophilus mohavensis</i> |
| - Desert bighorn sheep | <i>Ovis canadensis nelsoni</i> |

Birds

- Burrowing owl *Athene cunicularia*
- LeConte's thrasher *Toxostoma lecontei*
- Loggerhead shrike *Lanius ludovicianus*

Reptiles

- Desert tortoise *Gopherus agassizii*
- Mojave fringe-toed lizard *Uma scopari*
- Panamint alligator lizard *Elgaria panamintinus*

Plants

- Panamint dudleya *Dudleya saxosa ssp. saxosa*
- Panamint daisy *Enceliopsis covillei*
- Panamint Mts. lupine *Lupinus magnificus var. magnificus*
- Death Valley sandpaper plant *Petalonyx thurberi ssp. gilmanii*
- Death Valley round-leaved phacelia *Phacelia mustelina*
- Holly-leaved tetracoccus *Tetracoccus ilicifolius*
- Hoffmann's buckwheat *Eriogonum hoffmannii var. hoffmannii*

This more concentrated list was developed to alert field personnel to possible occurrences of sensitive species with at least a modest potential for existence and to provide focus for field surveys. Regardless of status, all flora and fauna (or their sign) were identified in the field regardless of potential for occurrence. The Jepson Desert Manual (Baldwin, 2002) was used for all plant identification and nomenclature. In addition, all cylindrical cacti within 100 feet of marked exploration holes or route centerlines were flagged in the field and located using a Garmin Global Positioning System (GPS) receiver.

2.2 Field Surveys

Pedestrian surveys were employed to search the 100-foot buffer zones around drill holes and overland route centerlines. A weaving, zigzag pattern was used (aided by the GPS receiver) to ensure 100% coverage of the buffer zones. Additional emphasis was placed on the search of more sandy (less skeletal) soil, washes and rock ridges given that these habitats have a higher potential for listed floral and faunal species as well as cylindrical cacti. All plant and animal species encountered during surveys of the study area were identified to species to document and validate lack of sensitive species.

3.0 RESULTS

A list of all species observed while conducting field surveys in the project area was compiled, along with an estimate of relative abundance, and is presented on Table 1. A total of 16 plant taxa, one avian species, and one insect were observed in the area in 2012. None of these 18 taxa is afforded special status by the BLM. Furthermore, there was no sign (burrows, scat, tracks, etc.) indicating use by special status taxa in the proposed disturbance area. A total of eight cylindrical cacti were found within 100 foot of proposed disturbances. These cacti were flagged and located with a GPS receiver to facilitate avoidance by geologic exploration crews. A brief soil surface description and key wildlife and floral notes from each of the proposed drill sites and overland routes are presented on Table 2. A visual expression (photo) of typical vegetation at various proposed drill sites and overland routes is presented on Plates 1 through 6, as well as a photograph of each of the two species of cylindrical cacti encountered (Plates 7 and 8). The following sections provide detailed observations regarding specific important taxa.

As indicated previously, lack of seasonal moisture diminished the opportunity for floral observations. Only perennials and a few of the more dominant annual plants were notable during surveys.

3.1 General

The proposed exploration area is found at the base of the Panamint Mountains on alluvial deposits or bajadas. The bajada community type is characterized by deep alluvium with extensive gravel, cobble, and larger-sized rock in the soil profile that is weakly cemented by imbricated sand. The soil surface is hard and largely barren with only a few scattered creosote bush (*Larrea tridentata*) and burro weed (*Ambrosia dumosa*) typically dominant. Ground cover by vegetation typically ranges between 10 and 15 percent. Dry washes of various sizes intersect these fans and provide a looser soil matrix with sand-cobble bars and cut banks. Due to lack of winter and spring precipitation this year, very few annuals were observed and most of those were likely standing litter from the previous spring. Due to minimal average precipitation, high evaporation rates, high air temperatures and a rocky, weakly cemented soil, this area can only support a very low density and diversity of both flora and fauna (typically termed a "biological desert").

3.2 Birds

The only avian observation was a pair of ravens (*Corvus corax*) on a flyover approximately 100 meters overhead. They were identified by their vocalization and through the use of binoculars. No other species nests, sign, or vocalizations were observed or heard. Ravens have been occasionally observed during other surveys by Cedar Creek biologists in the area.

3.3 Reptiles

No herpetofauna or sign were observed during the survey. Special consideration was given desert tortoise (*Gopherus agassizii*) or sign due to its federal listing as threatened. This species has not been previously found in this area (distribution limits are south of the project area), although vegetation associated with the tortoise's distribution range (creosote bush) is found throughout the area. No burrow entrances large enough to accommodate an adult desert tortoise were observed and a loose, sandy soil surface more conducive to burrowing was only found along approximately 800 feet of the overland route to G-10 and G-13 (Map 1 and Plate 5). The remaining areas exhibited soil matrices comprised of weakly cemented cobble to boulder sized rocks with interstices of sand ("desert pavement") which forms low-quality burrowing habitat. Excepting sand bars in some of the larger washes, the soil surface was often too rocky and crusted to facilitate burrowing by tortoises.

3.4 Mammals

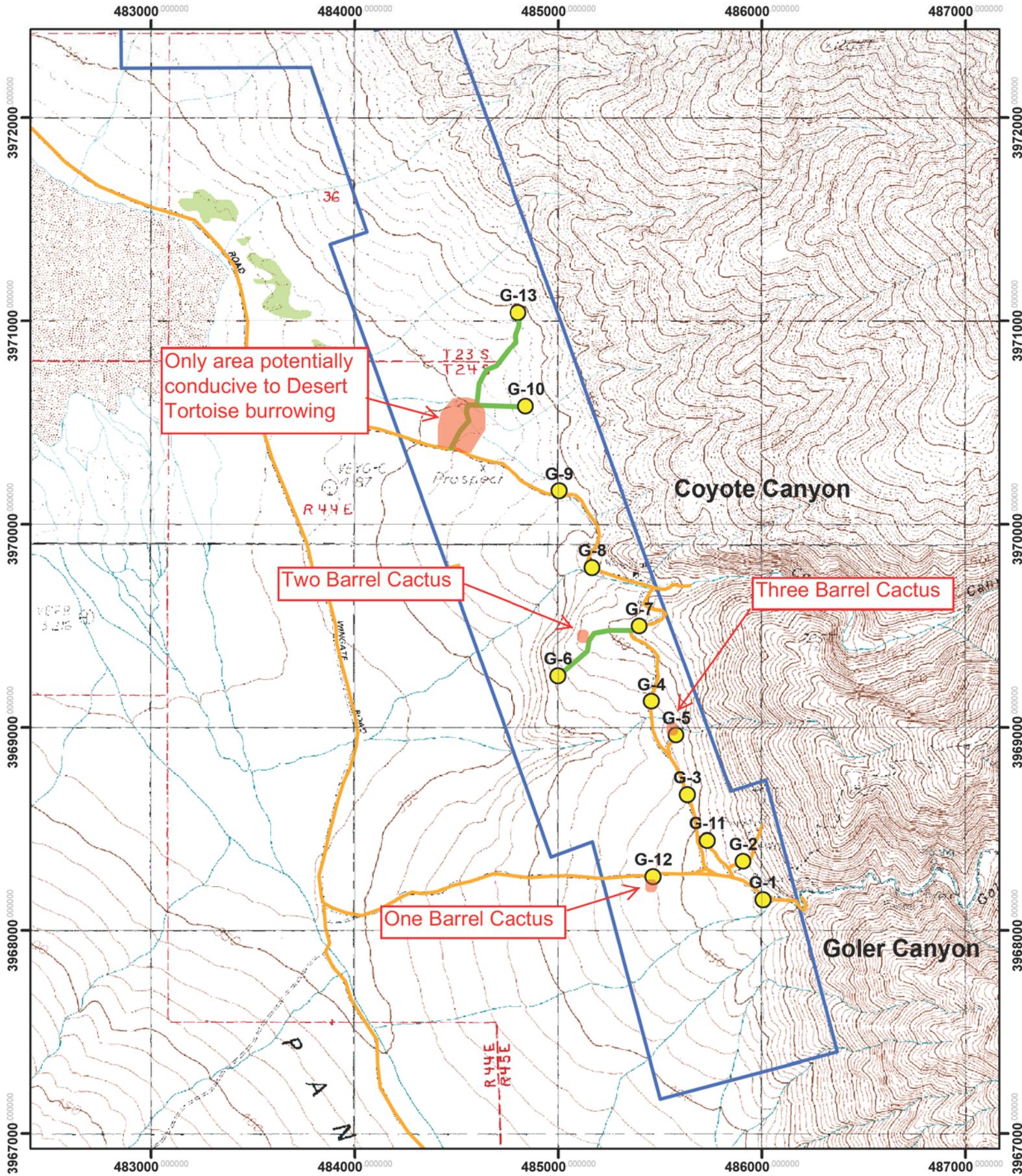
No mammalian species were observed during the survey. Small burrows (3" diameter or less) were found in the sandy interstices between boulders in a majority of the proposed drill sites and overland routes (Plate 6). There was no indication of use and fecal matter was not found in the vicinity to suggest occupancy. Those burrows that were observed in scattered locations were likely utilized by white-tailed antelope ground squirrels (*Ammospermophilus leucurus*). In one area, a large system of shallow burrows and associated entrances were observed in the sandy soil of approximately 800 feet of the overland route to G-10 and G-13 (Plate 5). The colonial nature of these burrows is typical of that associated with kangaroo rats (*Dipodomys* spp.). Feral burro (*Equus africanus asinus*) dung was observed throughout the exploration area, however animals were only observed outside of the study area near the Ballarat ghost town (10 miles to the north). Burro dung was reasonably fresh in a number of locations, but for the vast majority of observations, dung was multiple years old.

3.5 Vascular Plants - Cacti

Sixteen different plant species were observed during the survey and none of these were listed as special status by the BLM. The community type (Mojave Creosote Bush Scrub) was similar throughout the survey area with dominance by creosote bush and burro weed with brittlebush (*Encelia farinosa*) co-dominant in washes. As mentioned previously, a total of eight cylindrical cacti were found within 100 feet of proposed drill sites or overland route centerlines (Plates 7 and 8). These included seven cottontop barrel cacti (*Ferocactus cylindraceus*) and one corkseed cactus (*Mammillaria tetrancistra*). These cacti were marked with pink and blue flagging and GPS coordinates are provided on Table 3. These cacti were located between 40 and 90 feet from drill stakes and route flagging. In this regard, if the disturbance zone from drilling operations remain small enough, these cacti should remain out of harm's way and will not have to be moved. A brief consultation with the BLM on this matter is recommended.

4.0 REFERENCES CITED

Baldwin, Bruce G., et al. 2002. The Jepson desert manual: vascular plants of southeastern California. University of California Press, Berkeley, Calif. 624 pp.



Only area potentially conducive to Desert Tortoise burrowing

Two Barrel Cactus

Three Barrel Cactus

One Barrel Cactus

- Proposed Drill Hole-2012
- Proposed Overland Travel Route-2012
- Panamint Claims



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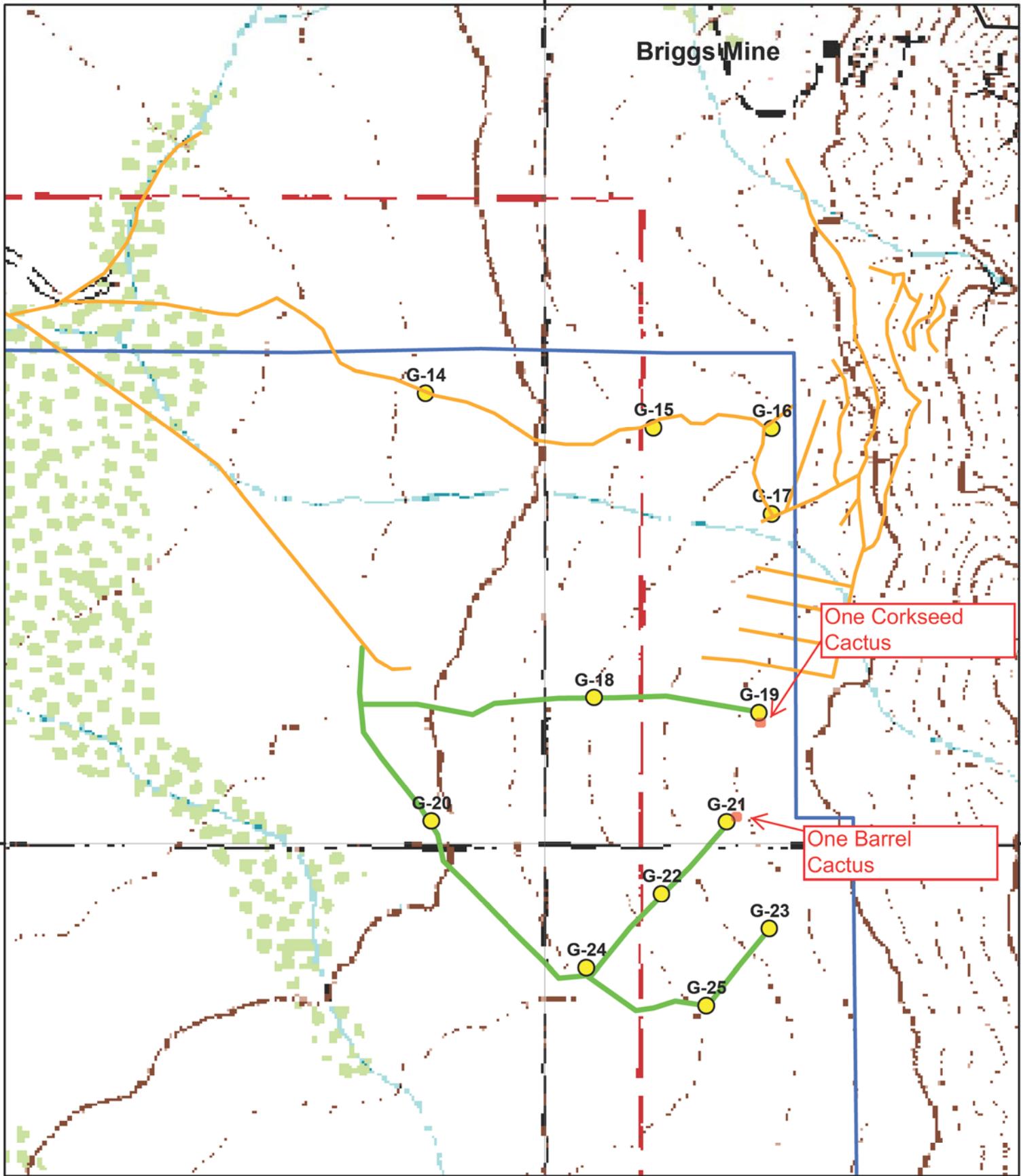
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Stoneshield Capital Corp	
Map 1 Proposed Drill Hole and Travel Route Locations Goldtooth Project, Panamint Valley Inyo County, California	
Peter Kurisoo	April 12, 2012

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Briggs Mine

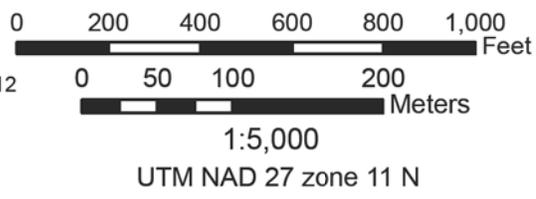


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-  Existing Roads
-  Proposed Drill Hole-2012
-  Proposed Overland Travel Route-2012
-  Panamint Claims
-  Pits



Stoneshield Capital Corp	
Map 2 Proposed Drill Hole and Travel Route Locations Goldtooth Project, Panamint Valley Inyo County, California	
Peter Kurisoo	April 12, 2012

Table 1 Stoneshield - Goldtooth Exploration Area - 2012		
Fauna and Flora Species Abundance		
<i>Scientific Name</i>	Common Name	Frequency
Birds		
<i>Corvus corax</i>	Raven	R
Reptiles		
None Observed		
Mammals		
None Observed		
Insects		
<i>Diptera</i> order	Fly	R
Vascular Plants		
Asteraceae		
Sh <i>Ambrosia dumosa</i>	Burro weed	VC
Sh <i>Bebbia juncea var. aspera</i>	Sweetbush	R
Sh <i>Encelia farinosa</i>	Brittlebush	VC
Sh <i>Peucephyllum schottii</i>	Pygmy cedar	R
Boraginaceae		
Af <i>Pectocarya recurvata</i>	Recurved combseed	R
Cactaceae		
Sh <i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	R
Sh <i>Mammillaria tetrancistra</i>	Corkseed cactus	R
Sh <i>Opuntia basilaris var. b.</i>	Beavertail cactus	C
Chenopodiaceae		
Sh <i>Atriplex hymenelytra</i>	Desert holly saltbush	UC
Sh <i>Atriplex polycarpa</i>	Cattle saltbrush	C
Cuscutaceae		
Af <i>Cuscuta</i> sp.	Dodder	C
Plataginaceae		
Af <i>Plantago ovata</i>	Indian wheat	VC
Poaceae		
Ag <i>Vulpia octoflora</i>	Six-weeks fescue	VC
Polygonaceae		
Af <i>Chorizanthe rigida</i>	Spiny herb	C
Af <i>Eriogonum inflatum var. i.</i>	Desert trumpet	UC
Zygophyllaceae		
Sh <i>Larrea tridentata</i>	Creasote bush	VC
Ag - Annual Grass Af - Annual Forb Pg - Perennial Grass Pf - Perennial Forb Ss - Sub Shrub Sh - Shrub		VC - Very Common C - Common UC - Uncommon R - Rare

Note: Due to lack of sufficient winter and spring precipitation, very few annual plant species were expressed

Table 2 Stoneshield - Goldtooth Exploration Area - 2012

Important Flora, Fauna & Geology Notes

	Soil Surface / Topography	Soil Surface Conductive to Desert Tortoise Burrowing	Small Burrows (3" dia. or less)	Wildlife Observed	Burro Dung	Cylindrical Cactus	Other Notes
Proposed Drill Holes							
G-1	Cobble - pavement - flat with cut bank	No	Occasional	None	Numerous & fresh	None	Next to large wash - flowing creek 500' away
G-2	Cobble - pavement - steep slope	No	None	Raven Flyover	Occasional	None	
G-3	Cobble - pavement - moderate slope	No	None	None	Occasional	None	
G-4	Cobble - pavement - moderate slope	No	Several	None	Occasional	None	
G-5	Cobble - pavement - gentle slope	No	Occasional	None	Occasional	3 in wash banks	
G-6	Cobble to boulder - pavement - granite - gentle slope	No	Several	None	Occasional	None	
G-7	Cobble to boulder - pavement - granite - gentle slope	No	Occasional in between boulders	None	Occasional	None	
G-8	Cobble - pavement - moderate slope	No	Occasional	None	Numerous & fresh	None	Dispersed camping site at stake
G-9	Cobble - pavement - gentle slope	No	Occasional	None	None	None	
G-10	Cobble to boulder - pavement - moderate slope	No	None	None	None	None	
G-11	Cobble - pavement - gentle slope	No	Occasional	None	Occasional	None	Dispersed camping site nearby
G-12	Cobble to boulder - pavement - gentle slope	No	Scattered	None	Occasional	1 on road berm	Small wash to north of drill hole
G-13	Cobble to boulder - pavement - gentle slope	No	Occasional in between boulders	None	Occasional	None	
G-14	Cobble to boulder - pavement - gentle slope	No	None	None	Occasional	None	
G-15	Cobble to boulder - pavement - gentle slope	No	None	None	Occasional	None	
G-16	Cobble to boulder - pavement - moderate slope	No	Occasional	None	Occasional	None	Mining roads nearby
G-17	Cobble to boulder - pavement - steep slope - very few fines	No	None	None	Occasional	None	Mining roads nearby
G-18	Cobble to boulder - pavement - gentle slope	No	Rare	None	Occasional	None	
G-19	Cobble to boulder - gentle slope	No	None	None	Occasional	1 in scree field to south	in wash - scree field on north and south sides
G-20	Cobble - pavement - some sand/cobble bars - gentle slope	No	Occasional in wash bars	None	Occasional	None	in small wash
G-21	Cobble to boulder - pavement - moderate slope	No	Occasional under rock	None	Occasional	1 in rock scree	in small wash
G-22	Cobble to boulder - pavement - moderate slope	No	Several	None	Occasional	None	
G-23	Cobble to boulder - pavement - moderate slope	No	Several	None	Occasional	None	
G-24	Cobble - pavement - gentle slope	No	Occasional	None	Occasional	None	Terrace next to wash
G-25	Cobble - pavement - gentle slope	No	Several	None	Occasional	None	
Proposed Overland Travel Routes							
to G-6	Cobble to boulder - pavement - granite - gentle slope	No	Several	None	Occasional	2 on granite boulder ridge	
to G-10 & G-13	south 1/3 - sandy north 2/3 - cobble - pavement	southern 1/3 - sandy soil	Numerous in southern 1/3	None	Occasional	None	Route starts in a dispersed camping site
to G-18 & G-19	Cobble to boulder - pavement - granite - gentle slope	No	Rare	None	Occasional	None	
to G-20 & G-24	Mostly in sandy to cobble wash - upland cobble pavement	No	Occasional	None	Occasional	None	
to G-21 & G-22	Cobble to boulder - pavement - gentle slope	No	Occasional	None	Occasional	None	
to G-23 & G-25	west part in wash - east part cobble pavement	No	Numerous especially in wash	None	Occasional	None	

Table 3 Stoneshield - Goldtooth Exploration Area - 2012**Cylindrical Cactus Location Information**

<i>Scientific Name</i>	Common Name	GPS - UTM NAD 27		Nearest Drill Hole - Route Centerline	Distance and Direction of cactus from Drill Hole - Route Centerline
		Easting	Northing		
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	485575	3968969	G-5	80' north
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	485568	3968954	G-5	40' west
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	485559	3968966	G-5	90' northwest
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	485135	3969380	Route to G-6	50' northwest
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	485118	3969383	Route to G-6	85' northwest
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	485475	3968266	G-12	70' south
<i>Mammillaria tetrancistra</i>	Corkseed cactus	483208	3975111	G-19	60' south
<i>Ferocactus cylindraceus</i>	Cottontop barrel cactus	483177	3975011	G-21	65' northeast



Plate 1 - Goldtooth Project - Typical Vegetation / Surface Conditions near Drill Hole G-10 - 2012



Plate 2 - Goldtooth Project - Typical Vegetation / Surface Conditions near Drill Hole G-7 - 2012



Plate 3 - Goldtooth Project - Typical Vegetation / Surface Conditions near Drill Hole G-4 - 2012



Plate 4 - Goldtooth Project - Typical Vegetation / Surface Conditions near Drill Hole G-24 - 2012



Plate 5 - Goldtooth Project - South End of Overland Route to G-10 & G-13 - 2012
Note: only area found more conducive to Desert Tortoise burrowing



Plate 6 - Goldtooth Project - Small Burrow (3" Dia.) in Sandy Soil - 2012



Plate 7 - Goldtooth Project - Cottontop Barrel Cactus (*Ferocactus cylindraceus*) - 2012



Plate 8 - Goldtooth Project - Corkseed Cactus (*Mammillaria tetrancistra*) - 2012

Appendix A

Special Status Animals in the BLM - Ridgecrest Field Office - 2011

Special Status Animals in the Ridgecrest Field Office - 2011

<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FEDERAL STATUS</u>	<u>STATE STATUS</u>	<u>BLM STATUS</u>	<u>OTHER</u>
Mammals					
American Badger	<i>Taxidea taxus</i>				SA
Mohave ground Squirrel	<i>Spermophilus mohavensis</i>		ST	BLMS	
Owens Valley vole	<i>Microtus californicus vallicola</i>			BLMS	
Sierra Nevada bighorn sheep	<i>Ovis canadensis sierrae</i>	FE	SE		SF
Desert bighorn sheep	<i>Ovis canadensis nelsoni</i>			BLMS	SF
Fringed myotis	<i>Myotis thysanodes</i>			BLMS	
Long-eared myotis	<i>Myotis evotis</i>			BLMS	
Small-footed myotis	<i>Myotis ciliolabrum</i>			BLMS	
Yuma myotis	<i>Myotis yumanensis</i>			BLMS	
Spotted bat	<i>Euderma maculatum</i>			BLMS	SSC
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>			BLMS	SSC
Western mastiff-bat	<i>Eumops perotis californicus</i>			BLMS	SSC
Pallid bat	<i>Antrozous pallidus</i>			BLMS	SSC
Tulare grasshopper mouse	<i>Onychomys torridus tularensis</i>			BLMS	
Yellow-eared pocket Mouse	<i>Perognathus xanthonotus</i>			BLMS	
Ring-tailed cat	<i>Bassariscus astutus</i>				SF
Birds (does not include all listed under the MBTA)					
American Peregrine Falcon	<i>Falco peregrinus anatum</i>				BCC,SF
Bank swallow	<i>Riparia riparia</i>		ST	BLMS	
Bendire's thrasher	<i>Toxostoma bendirei</i>			BLMS	SSC

Brewer's Sparrow	<i>Spizella breweri</i>				BCC
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<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FEDERAL STATUS</u>	<u>STATE STATUS</u>	<u>BLM STATUS</u>	<u>OTHER</u>
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Burrowing owl	<i>Athene cunicularia</i>			BLMS	SSC
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California spotted owl	<i>Strix occidentalis occidentalis</i>			BLMS	SSC
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Golden eagle	<i>Aquila chrysaetos</i>			BLMS	SF,EA
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Greater sage-grouse	<i>Centrocercus urophasianus</i>	FC		BLMS	SSC
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Inyo California towhee	<i>Pipilo crissalis eremophilus</i>	FT	SE		
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Least Bell's vireo	<i>Vireo bellii pusillus</i>	FE	SE		
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LeConte's Thrasher	<i>Toxostoma lecontei</i>				SSC,BCC
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Loggerhead Shrike	<i>Lanius ludovicianus</i>				SSC,BCC
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Long-eared Owl	<i>Asio otus</i>				SSC
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Lucy's warbler	<i>Vermivora luciae</i>			BLMS	SSC
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Northern goshawk	<i>Accipiter gentilis</i>			BLMS	SSC
------------------	---------------------------	--	--	------	-----

Nuttall's woodpecker	<i>Picoides nuttallii</i>				BCC
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Prairie Falcon	<i>Falco mexicanus</i>				BCC
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Southwestern willow flycatcher	<i>Empidonax traillii extimus</i>	FE	SE		
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Swainson's hawk	<i>Buteo swainsoni</i>		ST	BLMS	
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Tricolored blackbird	<i>Agelaius tricolor</i>			BLMS	SSC
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Western yellow-billed cuckoo	<i>Coccyzus americanus occidentalis</i>	FC	SE	BLMS	
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Herps

Black toad	<i>Anaxyrus exsul</i>		ST	BLMS	SF
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Desert tortoise	<i>Gopherus agassizii</i>	FT	ST		
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Mojave fringe-toed lizard	<i>Uma scoparia</i>			BLMS	SSC
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Northern sagebrush lizard	<i>Sceloporus graciosus graciosus</i>			BLMS	
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Panamint alligator lizard	<i>Elgaria panamintinus</i>			BLMS	
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<u>COMMON NAME</u>	<u>SCIENTIFIC NAME</u>	<u>FEDERAL STATUS</u>	<u>STATE STATUS</u>	<u>BLM STATUS</u>	<u>OTHER</u>
Tehachapi slender Salamander	<i>Batrachoseps stebbinsi</i>			BLMS	
Inyo Mountains slender salamander	<i>Batrachoseps campi</i>			BLMS	

Fish

Lahontan cutthroat trout *Oncorhynchus clarkii henshawi* FT

Federal Status: FE = Federally Endangered, FT = Federally Threatened, FC = Federal Candidate, FP = Proposed for Federal Listing, FD = Delisted from Federal ESA;

State Status: SE = State Endangered, ST = State Threatened, SC = State Candidate, SD = Delisted from State ESA;

BLM Status: BLMS = Sensitive

Other Status: EA = Bald and Golden Eagle Protection Act, SF = State Fully Protected, SSC = State Species of Special Concern, SA = State Special Animal, BCC = USFWS Bird of Conservation Concern

Appendix B

Special Status Plants in the Ridgecrest Field Office

Most species are upland except those marked w/ (r), which are in moist habitats around springs

Special Status Plants in the Ridgecrest Field Office

Common Name	SPECIES SUBSPECIES / VARIETY	Current Status					Location	Allotment	Time of Bloom
		Fe d	C A	CN PS	BL M	?			
Spanish Needle onion	<i>Allium shevockii</i>			1B	SS		S. Sierras	WP, Rudnick	
Darwin rock cress	<i>Arabis pulchra var munciensis</i>			2	SS		Darwin Mesa	LCM	
Darwin Mesa milkvetch	<i>Astragalus atratus var mensanus</i>			1B	SS		Darwin Mesa	LCM	
Geyer's milkvetch	<i>Astragalus geyeri var geyeri</i>			2	SS		Deep Springs Valley	Deep Springs	
curved-pod milkvetch	<i>*Astragalus mojavensis var. hemigyus</i>			1A	SS		Darwin Mesa	LCM	
Walker pass milkvetch	<i>Astragalus ertterae</i>			1B	SS		S. Sierras	WP	
alkali mariposa lily (r)	<i>Calochortus striatus</i>			1B	SS		L.A. Co Antelope Valley Red Rock State Park		
Muir's raillardella	<i>Carlquistia muirii</i>			1B	SS		Southern Sierras	WP	

Jaeger's caulostramina	<i>Caulostramina jaegeri</i>			1B	SS		Inyo Mts		
Clokey's cryptantha	<i>Cryptantha clokeyi</i>			1B		A	SE Red Mt	PK	
bristlecone crypantha	<i>Cryptantha roosiorum</i>			1B	SS		Inyo Mts		
desert cymopterus	<i>Cymopterus deserticola</i>			1B	SS		E. of Cuddeback Lake & N. Edwards	PK, Boron	
Ripley's cymopterus	<i>Cymopterus ripleyi</i>			1B	SS		NE Haiwee reservoir	LCM	
July gold	<i>Dedeckera eurekensis</i>		R	1B	SS		Inyo Mts. & Last Chance Mts	Last Chance	
Panamint dudleya	<i>Dudleya saxosa ssp. saxosa</i>			1B	SS		Panamint Mts		
Panamint daisy	<i>Enceliopsis covillei</i>			1B	SS		Panamint Mts		
Gilman's goldenbush	<i>Ericameria gilmanii</i>			1B	SS	A	Owens Pk		
Hall's daisy	<i>Erigeron aequifolius</i>			1B	SS		S. Sierras	WP	
Wild Rose Canyon buckwheat	<i>Eriogonum eremicola</i>			1B	SS		Panamint Mts.		
Reveal's buckwheat	<i>Eriogonum contiguum</i>			2	SS		Middle Knob		

Hoffman's buckwheat	<i>Eriogonum hoffmannii</i> var <i>hoffmannii</i>			1B	SS		Panamint Mts		
Kern buckwheat	<i>Eriogonum kennedyi</i> var. <i>pinicola</i>			1B	SS		S. Sierra	Hansen	
Panamint Mountains buckwheat	<i>Eriogonum microthecum</i> var. <i>panamintense</i>			1B	SS		Panamint Mts.		
Barstow Woolly sunflower	<i>Eriophyllum mohavense</i>			1B	SS		East of Cuddeback Lake	PK, Boron	
Red Rock poppy	<i>Eschscholtzia minutiflora</i> ssp <i>twesselmanii</i>			1B	SS		El Paso Mts.	Cantil	
Red Rock tarweed	<i>Deinandra(Hemizonia) arida</i> (Adjacent to BLM)			1B	SS	A	Red Rock State Park		
Mojave tarplant (r)	<i>Deinandra(Hemizonia) mohavensis</i>		E	1B	SS	A	Short & Jawbone Canyons		
Owens Peak lomatium	<i>Lomatium shevockii</i>			1B	SS		S. Sierras	WP	
Panamint mountains lupine	<i>Lupinus magnificus</i> var. <i>magnificus</i>			1B	SS		Panamint Mts.		
creamy blazing star	<i>Mentzelia tridentata</i>			1B	SS	A	East Cuddeback Lake		

Kelso Creek monkeyflower	<i>Mimulus shevockii</i>			1B	SS		Kelso Creek	Rudnick	
Flax-like monardella	<i>Monardella linoidea</i> <i>ssp. oblonga</i>			1B	SS	A	Middle Knob		
Sweet smelling monardella	<i>Monardella beneolens</i>			1B	SS		Southern Sierras		
short-joint beaver tail cactus	<i>Opuntia basilaris</i> <i>var brachyclada</i>			1B	SS		Southern Antelope Valley		
Inyo laphamia (rock daisy)	<i>Perityle inyoensis</i>			1B	SS		Inyo Mts.		
Hanaupah laphamia (rock daisy)	<i>Perityle villosa</i>			1B	SS		Inyo Mts.		
Death Valley sandpaper	<i>Petalonyx thurberi</i> <i>ssp. gilmanii</i>			1B	SS		Argus Range & Hunter Mts.		
Death Valley round leafed phacelia	<i>Phacelia mustelina</i>			1B	SS		Saline Valley		
Charlotte's phacelia	<i>Phacelia nashiana</i>			1B	SS		Southern Sierras	WP, Rud, Cantil, Tunawee	
Nine Mile Canyon phacelia	<i>Phacelia novemmillensis</i>			1B	SS		Southern Sierras	WP	
Latimer's woodland-gilia	<i>Saltugilia latimeri</i>			1B	SS	A	Southern Sierras	WP	

Piute Mt. jewel flower	<i>Streptanthus cordatus var piutensis</i>			1B	SS		Piute Mts	Hansen	
Dedeckers clover	<i>Trifolium macilentum var dedeckeriae</i>			1B	SS		S. Serras	Tunawee	
PLANTS OF INTEREST									
slender nemacladus	<i>NEMACLADUS GRACILIS</i>			4			Southern Sierras		
Death Valley sand mat	<i>CHAMAESYCE VALLIS-MORTAE</i>			4			Southern Sierras		
Kern Co Evening primrose	<i>CAMISSONIA KERNENSIS subsp. KERNENSIS</i>			4			Southern Sierras		
Pigmy Poppy	<i>CANBYA CANDIDA</i>			4			Southern Sierras		
desert bird's-beak	<i>CORDYLANTHUS EREMICUS subsp. EREMICUS</i>			4			Southern Sierras		
Inyo Onion	<i>ALLIUM ATRORUBENS var. CRISTATUM</i>			4			Southern Sierras		
Pine fritillary	<i>FRITILLARIA PINETORUM</i>			4			Southern Sierras		
crowned muilla	<i>MUILLA CORONATA</i>			4			Southern Sierras		

The Needles buckwheat	<i>*Eriogonum breedlovei var shovockii</i>			4		?	Southern Sierras		
Sand or Beautiful Cactus	<i>Opuntia puchella</i>			3			Deep Spr, Fish Lk Valley		
solitary blazing star	<i>Mentzelia eremophila</i>			4		?	Almond Mt.		
Saline Valley phacelia	<i>Phacelia amabilis</i>			3		?	Saline Valley		

APPENDIX 3
PUBLIC COMMENTS RECEIVED



VIA ELECTRONIC MAIL

May 17, 2013

Carl Symons, Field Manager
Bureau of Land Management, Ridgecrest
Field Office
300 South Richmond Road
Ridgecrest, CA 93555
csymons@blm.gov

Randall Porter, Geologist
Ridgecrest Field Office
300 South Richmond Road
Ridgecrest, CA 93555
rporter@blm.gov

**Re: Comments on BLM EA (CACA-45475; DOI-BLM-CA-D050-2013-042-EA)
for the Bronco Resources, LLC/Stoneshield Mine Exploration Proposal**

Dear Field Manager Symons:

I am writing to provide comments from the Center for Biological Diversity (“Center”) and the Sierra Club’s San Gorgonio Chapter on the proposal to allow Bronco Resources to conduct exploratory drilling for gold at 25 sites in the California Desert Conservation Area in the Panamint Valley.

The Center is a non-profit environmental organization dedicated to the protection of native species and their habitats through science, policy, and environmental law. The Center has over 40,000 members, many of whom reside and recreate in the California deserts. The Sierra Club is a national non-profit organization of approximately 760,000 members, roughly 195,000 of whom live in California. As part of the Sierra Club, the San Gorgonio Chapter is dedicated to exploring, enjoying, and protecting the wild places of the earth; to practicing and promoting responsible use of the earth’s ecosystems and resources; to educating and encouraging humanity to protect and restore the quality of the natural and human environment; and to using all lawful means to carry out these objectives. The Sierra Club has many members who use, enjoy and value the California desert lands that will be affected by the proposed project.

As you are aware, notice of the availability of the EA for review was not provided to the Center¹ or other interested parties at the time it was first issued. When the Center first belatedly learned of the EA, you stated that you knew there was a problem with the notice and would allow the public until May 17, to provide comments. On May 15, after reviewing the documents and asking for additional information (in particular a copy of the report(s) of “surveys for threatened, endangered and sensitive fauna and flora at the affected lands” (EA at 3), the Center requested another two weeks for review, until May 31, 2013; no additional documents have been provided and the request for additional time was denied by email dated May 16. The Center and

¹ The Center has asked to be listed as an interested party for mining and mineral notices from the Ridgecrest Field Office in the past and has commented on several mining EA’s from this office, most recently the La Pozz proposal EA (DOI-BLM-CA-D050-2012-083-EA) in January 2013.

Sierra Club are filing these initial comments by the May 17 deadline but reserve the right to provide additional comments after the requested information is provided.

These comments also adopt and incorporate by reference comments submitted by Tom Budlong and the Friends of the Panamints.

The Environmental Assessment (“EA”) (CACA-45475; DOI-BLM-CA-D050-2013-042-EA) fails to provide the public with much of the most basic information regarding the environmental resources of the project area and the likely affects of the exploratory drilling and provided no information at all about the proposed mining that would follow as a result of the exploratory drilling. Neither the Determination of Land Use Plan Conformance and NEPA Adequacy (DNA) adopted in 2004 for the initial proposal from Bronco nor the very general information provided in the Programmatic EA from 1996 (CA-650-EA-96-53), that the DNA relied on, provide adequate environmental review that can support the revised exploratory drilling proposal from Stoneshield/Bronco. The BLM should not approve the proposed revised exploratory drilling project unless and until adequate and new environmental review has been conducted. The EA fails to take the required “hard look” at the Project’s direct, indirect, and cumulative impacts, reasonable alternatives, mitigation measures (and their effectiveness), baseline conditions, among other inadequacies. The BLM should prepare a detailed Environmental Impact Statement for the project as a whole including both the exploratory drilling and the proposed mining that will follow. The EIS must clearly identify all likely impacts to the resources of our public lands from the proposed revised exploratory drilling project and the foreseeable mining in light of all currently available information and data and ensure that all impacts have been fully analyzed, avoided, minimized or mitigated before allowing any exploratory drilling to go forward.

I. BLM cannot segment the NEPA analysis; an EIS is needed for the Project as a Whole.

The proposed exploratory drilling reviewed in the EA includes only the revisions to an earlier authorization for exploratory drilling in the area from 2004 at 18 proposed drill sites—the current new proposal is for 25 drill sites and includes new overland travel routes in areas where there are no existing roads or routes. The old and the new EA both completely failed to identify or analyze the likely effects of mining in this area and any on-site processing or milling and/or transportation and impacts of off-site processing or milling.

BLM should not close its eyes to the true purpose of the exploratory drilling. It is clear that the so-called exploratory drilling is required as the first step towards a large-scale mining operation on public lands. Statements from the Stoneshield which acquired options on this proposed project from the Bronco company in 2012 note its proximity to the operating Briggs mine (“StoneShield Executes Option to Acquire Drill-Ready Panamint (Goldtooth) Gold Project”; Marketwire, Wednesday January 25, 2012; attached hereto and available at <http://web2.sys-con.com/node/2140621>.) The same press release and article discusses the high likelihood that mining will occur and notes that there is “potential for both open pit and underground mineable gold deposits” on the site. (*Id.*) The EA provides only the conclusory

assertion in a section entitled “cumulative effects”; “This assessment cannot analyze the possibility of this exploration leading to further development, as the likelihood of further development cannot be reasonably foreseen until the results of this drilling are completed.” (EA at 16.) While it is no doubt true that precisely what mining will be done in this area cannot now be foreseen, that does not mean that the likelihood of some mining cannot be foreseen and analyzed by BLM at this stage such as the open pit mining clearly contemplated by the company.

The impacts such a project will have to the environmental resources of this area should be examined now in a detailed Environmental Impact Statement (EIS), before any revised approval for exploratory drilling is allowed. BLM should not allow the project proponent to take another step along the path to developing an environmentally destructive mine on this site before evaluating the likely impacts of that mine.

II. The EA is inadequate even for the exploratory drilling and new disturbance.

Even if the BLM’s limited environmental review of the exploratory drilling and overland travel/new roads and mud pits alone were proper, which it is not, the EA is inadequate for even that narrower project. The EA fails to address likely impacts from all of the overland travel/new roads, mud pits, water use, and other aspects of the exploratory drilling. Among the impacts that are not adequately disclosed or addressed include:

- Impacts to wildlife;
- Impacts to native plants;
- Impacts to soils;
- Impacts to air and water quality and quantity;
- Impacts to lands with wilderness characteristics;
- Impacts to nearby wilderness areas and Death Valley National Park;
- Impacts to both surface and ground water resources and water quality; and
- Greenhouse gas emissions and impacts on global warming.
- Native American cultural, religious and historical resources and uses.

A. The EA Fails To Address Land Use Plan Consistency and Route Designation

The EA fails to address whether the proposed project is consistent with the CDCA plan as amended by the Northern and Eastern Mojave bioregional Plan (NEMO), stating only that the operations require a plan of development because the proposed project will be greater than casual use (EA at 14). (Notably, the DNA from 2004 does not even mention the NEMO plan amendment adopted in 2002.) This area has a Multiple Use Classification-Limited (MUC-L). EA at 14 (“the prevailing land use management plan classifies the floor of the Panamint Valley as ‘Limited Use’”). Pursuant to the California Desert Conservation Plan:

Multiple-Use Class L (Limited Use) protects sensitive, natural, scenic, ecological, and cultural resource values. Public lands designated as Class L are managed to

provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished.

CDCA Plan at 13. In addition, limited areas “will be managed to provide for the protection and enhancement of surface and groundwater resources” and “will be managed to protect air quality and visibility.” CDCA Plan at 15. These management requirements may preclude the use of this area for an open pit gold mine and may restrict overland travel and creation of new roads because such mining practices may adversely impact both ground and surface waters and cause significant impairment to air quality and reclamation of these dry desert landscapes is very difficult. It can take many decades or longer to reclaim or restore the surface features and soils and most groundwater resources are truly irreplaceable.

In addition, the EA fails to properly identify the routes or roads that will be used in the context of the route designation for this area adopted in 2004. Once the routes were designated in 2004, the use of new routes or roads requires a new approval based on adequate NEPA review and taking into account how any new route or road approvals would affect the network as a whole. The route designation decision does not use the term “existing” routes; routes are either open, limited or closed. (NEMO Route Decision Record at 3.) However, the EA’s distinction between “existing roads” and “proposed overland travel routes” does not explain that many of the so-called “existing roads” are not designated for travel in this planning area (and are therefore closed to motorized vehicle use). A detailed analysis of the use of undesignated roads or routes – which would create or open additional routes that were not designated for use in this area-- should also have been included in the EA along with restoration plans for all of those routes or overland areas. In the CDCA, the fact that some tracks or vehicle use is visible on the ground does not create a road or route, it must be designated under the Plan.

As a result of the inaccurate description of “existing” roads or routes, the analysis of surface disturbance is also inadequate and inaccurate because some or all of the use of undesignated roads or routes may need to also be included as new surface disturbance—for example if the “existing” route or road is only a track left by passage of vehicles and the drilling project will bring in heavy equipment the EA needs to analyze the impacts of that use and the full restoration of those areas. In addition, the discussion of the “mud sumps” is extremely vague and does not provide an estimate of the number of sumps that will likely be needed or any schematics for where they would be constructed for each exploratory well—indeed, it appears that the BLM would allow the company to decide on the placement of these sumps which will also be fenced without any input from BLM or any public review. Far more information is needed in order for the public to review and comment on this proposal and before decision makers can make an informed decision.

B. The EA fails to adequately assess impacts to native wildlife and plants

The California Desert Conservation Act (CDCA) Plan requires that BLM consider the impacts on the habitats of sensitive species “so that impacts are avoided, mitigated, or compensated.” The EA states that it relied on contractor’s survey report for threatened,

endangered and sensitive fauna and flora but that document is not provided on the website; the Center requested a copy of the report but it has not yet been provided. As the BLM is well aware, surveys for many sensitive species and rare plants must be done during appropriate times of year and follow established protocols—without access to the report or other survey information it is impossible for the public to know whether the surveys were adequate to ensure that this project—even if limited to the exploratory drilling—will not impact rare and sensitive plants and wildlife in the project area. While the EA provides a list of some sensitive wildlife that may be found in the project area, it does not list any plants. Recent experience has shown, many rare plants have been newly discovered in additional locations and even new plant species have also been found in the California desert with appropriate surveys.

The presentation given by James M. Andre, PhD, “The California Deserts: Floristic Frontier or a Hotbed of Sacrifice?” at the 2013 Desert Tortoise Symposium explained:

The California desert flora, treated here as the region represented by the Jepson Desert Manual (2002), includes the Great Basin Province east of the Sierra Nevada and Mojave and Sonoran Deserts. The desert flora is species-rich, encompassing 38% (2,430 taxa) of California’s native taxa. In the past 9 decades, 280 taxa have been added to the flora, and the rate of new species discovery has increased in the past 3 decades. *By the end of this century, 150-230 native taxa are expected to be added to the flora, with the majority being newly described species that are also rare. In addition to numerous taxonomic discoveries, botanists continue to document significant range extensions and rare plant occurrences.* Anthropogenic change is looming as the California deserts are being targeted for widespread renewable energy development (> than 2,000 sq. mi.) in the next five years. *With approximately 10% of the flora undescribed and the documentation of rare species distributions incomplete, rapid and large-scale habitat destruction will profoundly increase the potential for extinctions.* This presentation provides 1) an overview of recent plant discoveries and an assessment of our floristic knowledge, 2) the status of rare plants in the California deserts, and 3) a perspective of what we stand to lose with the impending industrialization of California’s deserts. (Abstract (emphasis added); available at http://www.deserttortoise.org/symposium/2013_abstracts.pdf).

While Dr. Andre’s talk focused on the high level of expected industrial development of renewable energy, the information is also just as applicable to any other industrial development in the desert region, including this drilling exploration and mining proposal. The best scientific information shows that rare plant surveys conducted at the appropriate times may well find rare plant occurrences or even new taxa in this area. The BLM must ensure that adequate surveys are done at appropriate times before approving the proposed modified project.

The EA mentions bighorn sheep presence in the area but does not describe potential use of this area as a movement corridor between mountain ranges or the use of low elevation habitat

for foraging. The EA should have done more to describe and analyze the potential use not only of bighorn but also of this habitat by desert tortoise. The recent USGS model shows that there is no current data on desert tortoise in this area (*see* Modeling Habitat of the Desert Tortoise (*Gopherus agassizii*) in the Mojave and Parts of the Sonoran Deserts of California, Nevada, Utah, and Arizona, Nussear *et al.*; available at <http://pubs.usgs.gov/of/2009/1102/>), and that fact means that BLM should have required adequate and timely surveys—which it did not. On this basis as well, the EA is inadequate.

C. The EA fails to adequately assess impacts to Soils, Air, and Water

The EA does not adequately address soil disturbance and the calculations for the amount of area disturbed are unsupported. As discussed above, overland travel on any undesignated roads or routes should also be included in the disturbance calculations. There is also no clear explanation of the amount of disturbance ascribed for each mud sump or how many are contemplated. Just the exploratory drilling alone will bring heavy equipment into the site and other vehicle traffic that will impact soils along the new (and undesignated) routes and roads that is not analyzed and for the unknown number of mud sumps. *It appears that the disturbance may be far greater than the .97 acre estimate in the EA*—more information must be provided to explain the estimated disturbance.

While there is some brief discussion of air quality, the EA provides no analysis but only a conclusory statement that emissions will be “minimal”. This is contradicted by the admission (without detailed information or analysis) that vehicle use, drilling operations and soil movement by heavy equipment will generate PM10 emissions, and none of the potential impacts to air quality from foreseeable mining in the future are analyzed. (EA at 19.) This is wholly inadequate and does not provide the public with sufficient information to show that there is any rational basis for the conclusions provided.

Rather than disclose what is currently known about ground and surface waters or providing any analysis of the impacts to ground water the EA simply says there is an “unknown likelihood of encountering ground water at depth” (without stating what “depth” is meant), and provides no information about the potential impacts to ground and surface water. The EA does not even mention the recent water issues at the adjacent Briggs mine (where water is flowing into one of the pits), which may provide some basis for assessing some of the groundwater impacts that may occur from this proposed drilling.

The EA fails to assess impacts to both surface and ground water resources and water quality. Even the exploratory drilling alone may have a direct effect on water quality by increasing dust and silt that will be carried down-grade during rainfall events and impacts to soils may also increase the runoff in this area. There is no analysis of how the mud sumps would fare during infrequent but heavy rains that occur in the area either or of what minerals may be transported down gradient at such time. In addition, drilling may directly affect groundwater resources in this area and this issue was never discussed at all. Moreover, the foreseeable gold

mining in the future would have significant impacts on water resources and water quality in an extremely arid area. Because the EA failed to identify or analyze these issues it is inadequate.

D. The EA fails to address impacts to Wilderness, Lands With Wilderness Characteristics, Parks Service Units, and Visual Resources.

The proposed mine would be sited in the California Desert just only a few miles from Death Valley National Park and far less than one mile from the Manly Peak Wilderness in the scenic Panamint Valley of Inyo County. While no inventory of lands with wilderness characteristics was provided in the EA one should have been performed and circulated to the public as part of the EA comment period and to inform the decision making for this proposed action. All of the available evidence indicates that this area remains largely untouched, and therefore is still worthy of consideration for inclusion as wilderness in the future. The EA does not address the impacts of the use of heavy equipment on undesignated roads and routes (so called “existing roads”) at all and does not address the full impact of new overland travel routes or roads and exploratory drilling – including mud sumps-- on the wilderness values of this area or its effects on the adjacent wilderness areas.

In addition, because the mine site is quite near the western border of Death Valley National Park and would be visible from the Park, access roads, and nearby wilderness areas, the project is likely to impair the visual resources of the National Park. Even more critically, the proposed exploratory drilling and the foreseeable mine could cause air quality degradation in this world renowned Park.

E. The EA fails to adequately assess impacts to cultural resources.

The EA provides only conclusory statements regarding impacts to cultural and archeological resources. This includes a failure to fully review impacts and mitigation to Native American religious uses and resources protected by federal laws and policies, including but not limited to RFRA, NAGPRA, AIFRA, ARPA, E.O. 13007, NHPA, etc. Proper consultation with the Timbisha and other tribes has also not occurred under the NHPA. This is wholly inadequate, based on the rich cultural heritage of the general area.

F. The EA fails to address the greenhouse gas emissions from the project and its impacts on global warming.

The EA also completely failed to discuss the greenhouse gas emissions that will be generated by the exploratory drilling and the use of the designated, undesignated and newly constructed overland routes or the project as a whole. Given the increasing impacts of global warming on the climate system this oversight is indefensible. Any greenhouse gas emissions from the project should be calculated and then avoided, minimized or fully mitigated through verifiable offsets.

G. The EA fails to fully analyze all direct, indirect and cumulative impacts.

NEPA requires that BLM fully consider all “direct,” “indirect,” and “cumulative” environmental impacts of the proposed action. 40 CFR §§ 1502.16; 1508.8; 1508.25(c). Direct effects are caused by the action and occur at the same time and place as the proposed project. 40 CFR § 1508.8(a). Indirect effects are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. 40 CFR § 1508.8(b). Impacts that must be analyzed include “effects on natural resources and on the components, structures, and functioning of affected ecosystems,” as well as “aesthetic, historic, cultural, economic, social or health [effects].” *Id.* Cumulative impacts are:

[T]he impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

40 CFR § 1508.7. As the Ninth Circuit held in rejecting a BLM EA for a mining project:

In a cumulative impact analysis, an agency must take a “hard look” at all actions. ... An EA’s analysis of cumulative impacts must give a sufficiently detailed catalogue of past, present, and future projects, and provide adequate analysis about how these projects, and differences between the projects, are thought to have impacted the environment. General statements about “possible effects” and “some risk” do not constitute a “hard look” absent justification regarding why definitive information could not be provided.” ... Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide.

Te-Moak Tribe v. U.S. Dep’t of Interior, 608 F.3d 592, 603 (9th Cir. 2010) (EA failed to include detailed analysis of impacts from nearby proposed activities). “[A]dequate consideration of cumulative effects requires that EAs address them fully.” *Id.* (emphasis in original).

The EA’s discussion of cumulative impacts is very minimal. No detailed analysis is given regarding the impacts from these other actions/projects. A valid cumulative effects analysis must include an analysis of the “incremental impact[s] of the [proposed] action when added to other past, present, and reasonably foreseeable future actions” on National Forest lands and nearby or adjacent lands. 40 C.F.R. § 1508.7. This analysis should address combined or synergistic effects in addition to isolated effects. *See Klamath-Siskiyou Wildlands Ctr. v. BLM*, 387 F.3d 989, 994 (9th Cir. 2004) (“[T]he total impact from a set of actions may be greater than the sum of the parts [T]he addition of a small amount here, a small amount there, and still more at another point could add up to something with a much greater impact ...”); Great Basin Mine Watch v. Hankins, 456 F.3d 955, 971-974 (9th Cir. 2006) (requiring “mine-specific ... cumulative data,” a “quantified assessment of their [other projects] combined environmental impacts,” and “objective quantification of the impacts” from other existing and proposed mining operations in the region).

Discussions in the EA cannot be limited to the effects of just one type of action. The EA's cumulative effects analysis fails to address the synergistic effects of Project activities when combined with other conditions and activities. "An analysis falls short if it only considers the impacts of the proposed action or the beneficial impacts of cumulative actions." League Wilderness Defenders, 883 F.Supp.2d at 1008.). Thus, the EA's failure to provide this quantified analysis of the cumulative impacts to all resources from all of the other "past, present, and reasonably foreseeable future activities" in the region, including activities such as other mineral operations, grazing, energy exploration and production/generation, recreation, travel, and others, violates NEPA.

H. The EA fails to fully analyze baseline conditions.

The EA fails to look at the proposed project in the context of the actual conditions on the ground—a true "no action" alternative—but instead looks at the impacts as compared to an earlier proposal that was never undertaken. The BLM must "describe the environment of the areas to be affected or created by the alternatives under consideration." 40 C.F.R. § 1502.15. "Without establishing the baseline conditions . . . there is simply no way to determine what effect the [action] will have on the environment, and consequently, no way to comply with NEPA." Half Moon Bay Fisherman's Mktg. Ass'n v. Carlucci, 857 F.2d 505, 510 (9th Cir. 1988). The lack of an adequate baseline analysis fatally flaws an agency's NEPA review. "[O]nce a project begins, the pre-project environment becomes a thing of the past and evaluation of the project's effect becomes simply impossible." Northern Plains, 668 F.3d at 1083. "[W]ithout [baseline] data, an agency cannot carefully consider information about significant environment impacts. Thus, the agency fail[s] to consider an important aspect of the problem, resulting in an arbitrary and capricious decision." Id. at 1085.

In Idaho Conservation League v. U.S. Forest Service, 2012 WL 3758161, *17 (D. Idaho 2012), the court concluded that the Forest Service violated NEPA by authorizing exploratory hardrock mineral drilling without adequately analyzing the baseline groundwater and hydrology. The court explained that the USFS cannot rely on assumptions or mitigation measures, such as a closed drilling system, to satisfy NEPA's obligations. Id. Instead, the EA must include "a baseline hydrogeologic study to examine the existing density and extent of bedrock fractures, the hydraulic conductivity of the local geologic formations, and [measures of] the local groundwater levels to estimate groundwater flow directions." Id. at *16.

The court in Shoshone-Bannock Tribes of Fort Hall Reservation v. U.S. Dept. of Interior, 2011 WL 1743656, at *10 (D. Idaho 2011), reached a similar conclusion. There, the impact of a new mine waste dump was "highly uncertain" because BLM permitted it without studying groundwater "flows and potential contamination." Id.

Here, the EA does not include the required detailed analysis of the baseline conditions in the area. These include ground and surface waters, air quality, wildlife, soils, wilderness characteristics, vegetation, etc. "NEPA requires that the agency provide the data on which it

bases its environmental analysis. Such analyses must occur *before the proposed action is approved*, not afterward.” Northern Plains, 668 F.3d at 1083 (emphasis added) (“plans to conduct surveys and studies as part of its post-approval mitigation measures,” in the absence of baseline data, fails to take the requisite “hard look” at environmental impacts). Further, reliance on future mitigation measures included in the EA, cannot substitute for the required pre-approval NEPA review.

[M]itigation measures, while necessary, are not alone sufficient to meet the [agency’s] NEPA obligations to determine the projected extent of the environmental harm to enumerated resources *before* a project is approved. Mitigation measures may help alleviate impact *after* construction, but do not help to evaluate and understand the impact before construction. In a way, reliance on mitigation measures presupposes approval. It assumes that—regardless of what effects construction may have on resources—there are mitigation measures that might counteract the effect without first understanding the extent of the problem. This is inconsistent with what NEPA requires.

Northern Plains, 668 F.3d at 1084-85 (emphasis in original).

I. The EA fails to fully analyze all mitigation measures, and their effectiveness.

The EA relies on future mitigation measures to comply with federal environmental protection requirements. Yet there is no discussion of the effectiveness of these measures. NEPA documents must: (1) “include appropriate mitigation measures not already included in the proposed action or alternatives,” and (2) “include discussion of . . . Means to mitigate adverse environmental impacts (if not already covered under 1502.14(f)).” 40 C.F.R. § 1502.14(f); 40 C.F.R. § 1502.16(h). “Mitigation” is defined as a way to avoid, minimize, rectify, or compensate for the impact of a potentially harmful action. 40 C.F.R. §§ 1508.20 (a)-(e). NEPA requires that mitigation measures be discussed with “sufficient detail to ensure that environmental consequences have been fairly evaluated.” Methow Valley Citizens Council, 490 U.S. at 352. “[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the ‘action-forcing’ function of NEPA. Without such a discussion neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects.” Id. at 353. The discussion of mitigation measures must also assess their effectiveness:

An essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective. . . . The Supreme Court has required a mitigation discussion precisely for the purpose of evaluating whether anticipated environmental impacts can be avoided. Methow Valley, 490 U.S. at 351-52, 109 S. Ct. 1835 (citing 42 U.S.C. § 4332(C)(ii)). A mitigation discussion without at least *some* evaluation of effectiveness is useless in making that determination.

South Fork Band Council v. U.S. Dep't of Interior, 588 F.3d 718, 726 (9th Cir. 2009)(emphasis in original). Because the EA merely discusses mitigation measures without any detailed analysis of the measures and the effectiveness of each measure, it violates NEPA.

J. Failure to consider all reasonable alternatives.

The EA failed to review all reasonable alternatives, as required by NEPA. NEPA requires the agency to “study, develop, and describe appropriate alternatives to recommended courses of action in any proposal that involves unresolved conflicts concerning alternative uses of available resources.” 42 U.S.C. § 4332(E); 40 C.F.R. § 1508.9(b). It must “rigorously explore and objectively evaluate all reasonable alternatives” to the proposed action. City of Tenakee Springs v. Clough, 915 F.2d 1308, 1310 (9th Cir. 1990). An EA must give alternatives full and meaningful consideration. Center for Biological Diversity v. Nat'l Hwy Traffic Safety Admin., 538 F.3d 1172, 1217 (9th Cir. 2008).

The EA failed to review the proposed action and against a true “no action” alternative and the actual baseline conditions on the ground, rather, compared the proposal to the earlier drilling proposal that was never undertaken. In addition, the EA failed to include reasonable alternatives such as reduced drilling, alternative locations that would only utilize designated roads or routes, seasonal and timing restrictions, additional protections to meet CDCA and other requirements, specific conditions and sites for mud sumps if needed at any of the dilling locations. Further, reliance on the outdated 2004 approval for the so-called no-action alternative is not adequate.

K. Failure to support FONSI.

The BLM cannot issue a FONSI and fail to prepare an EIS without the herein-noted full NEPA analysis, including critical information regarding baseline conditions, direct/indirect and cumulative impacts, and mitigation effectiveness as detailed above. As the Ninth Circuit has repeatedly held, such refusal to prepare an EIS must be based on the required “hard look” at potential adverse impacts, baseline conditions, etc. The FONSI must be “accompanied by a convincing statement of reasons to explain why a project’s impacts are insignificant.” Nat'l Parks & Conservation Ass'n v. Babbitt, 241 F.3d 722, 730 (9 th Cir. 2001).

“If an agency decides not to prepare an EIS, it must supply a convincing statement of reasons to explain why a project’s impacts are insignificant. The statement of reasons is crucial to determining whether the agency took a hard look at the potential environmental impact of a project.” Native Ecosystems Council v. Tidwell, 599 F.3d 926, 937 (9th Cir. 2010) (Forest Service violated NEPA in issuing FONSI based on inadequate analysis). “An agency cannot ... avoid its statutory responsibilities under NEPA merely by asserting that an activity it wishes to pursue will have an insignificant effect on the environment. Instead, an agency must provide a reasoned explanation of its decision.” Jones v. Gordon, 792 F.2d 821, 827, 829 (9th Cir. 1986). *See also*, Blue Mountains Biodiversity Project v. Blackwood, 161 F.3d 1208, 1213–14 (9th Cir. 1998) (EIS required where the Forest Service lacked information about how project may affect

sediment input into streams); Anderson v. Evans, 314 F.3d 1006, 1018–21 (9th Cir. 2002) (“uncertain” impacts required EIS).

Without the required information, any potential FONSI would fail to satisfy these requirements because the EA lacks the critical analysis and information detailed above – i.e., it failed to provide the “convincing statement of reasons.” “An agency is required to prepare an EIS when there are substantial questions about whether a project *may* cause significant degradation of the human environment.” Native Ecosystems Council v. U.S. Forest Service, 428 F.3d 1233, 1239 (9th Cir. 2005) (emphasis in original). “[T]his is a low standard.” California Wilderness Coalition v. U.S., 631 F.3d 1072, 1097 (9th Cir. 2011). In addition, due to the proximity of Death Valley National Park, which is a “significance factor” in determining whether an EIS should be prepared, a FONSI would be improper.

Overall, to the extent that a FONSI’s conclusions rely on the deficient EA, any FONSI would violate NEPA. When an EA fails to comply with NEPA requirements, it “do[es] not constitute a ‘hard look’ at the environmental consequences of the action as required by NEPA. Thus, the FONSI is arbitrary and capricious.” Center for Biological Diversity v. NHTS, 538 F.3d 1172, 1223-24 (9th Cir. 2008). “Standing together, the FONSI and EA must be ‘sufficient to establish the reasonableness of the decision not to prepare an EIS.’” Center for Biological Diversity v. BLM, --- F.Supp.2d ---, 2013 WL 1405938, at *9 (N.D.Cal. 2013) quoting NHTS, 538 F.3d at 1215.

Conclusion

Thank you for your consideration of these comments. Please do not hesitate to contact me if you have any questions about the issues raised in these comments. The Center and Sierra Club hope and expect that BLM will prepare a detailed EIS for the project as a whole before considering the approval of this project and, at minimum, that BLM will revise the EA and re-circulate it for public comment before approving the proposed revised exploratory drilling project.

Sincerely,



Lisa T. Belenky, Senior Attorney
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
(415) 436-9682 x307
lbelenky@biologicaldiversity.org

CC: Ken Trott, Acting Assistant Dir., California Department of Conservation,
Office of Mine Reclamation, ken.trott@conservation.ca.gov

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StoneShield Executes Option to Acquire Drill-Ready Panamint (Goldtooth) Gold Project

VANCOUVER, BRITISH COLUMBIA -- (Marketwire) -- 01/25/12 -- StoneShield Capital Corp.

(TSX VENTURE:STS)(FRANKFURT:5XS) ("StoneShield" or the "Company") is pleased to

announce that it has entered into a definitive Option Agreement with Bronco Resources

Corporation ("Bronco") under the same terms and conditions as the Letter of Intent ("LOI"),

previously announced by the Company on October 3, 2011, to acquire the Panamint Gold Project adjacent to the Briggs Gold

Mine, Inyo County, CA. The Company has since changed the name of the Panamint to that of the Goldtooth Project

("Goldtooth").



Goldtooth consists of two main claim blocks totaling 162 lode mining claims and 10 associated placer mining claims which cover a combined 2003 hectares of land. These claims lie in the same mineral belt as the Briggs Gold Mine ("Briggs") owned and operated by Atna Resources Ltd. Current known gold at Briggs totals some 1.13 million ounces of gold (NI 43-101 Technical Report, Briggs Project). Prior production at Briggs is 550,000 ounces of gold.

"StoneShield is pleased with the very reasonable terms of the Goldtooth option agreement and is eager to explore and drill the Goldtooth Project. It is the most advanced-stage project the Company has yet acquired and lies next to a profitable, operating mine." commented StoneShield President/CEO Kris Kottmeier. "The Company has retained the services of a top, new consulting geologist familiar with Briggs-style geology and mineralization to assist with the Goldtooth exploration. StoneShield's Chief Geologist has direct experience in this prolific mining region and, along with the Company's three geologist board members, agrees the potential for the discovery of significant, new gold deposits at Goldtooth is excellent."

The southern Goldtooth claim block is located approximately 600 metres from the Goldtooth pit, which is the southernmost production pit at Briggs. Drilling across the Goldtooth Fault feeder structures adjacent and beneath the Goldtooth pit on the Briggs mine property has intercepted potentially underground mineable mineralization such as 87 metres of 12.88 grams per tonne ("g/t") gold and 38m of 12.75 g/t gold. Canyon Resources was the discoverer of the Briggs deposit and former owner/operator of the Briggs mine. (<http://www.canyonresources.com/projects/goldtooth.php>).

Similar potential for both open pit and underground mineable gold deposits exists on the Goldtooth property. The Goldtooth Fault is believed to

run the entire length of the southern Goldtooth claim block along the range front beneath thin alluvial cover. High-grade surface grab rock samples collected by Bronco on the Goldtooth claims near the range front include 18 g/t gold, 30 g/t gold, 37 g/t gold, and 61 g/t gold. East-west cross faults control formation of gold deposits at Briggs, are inferred to intersect the Goldtooth Fault in numerous locations of the southern Goldtooth claim block and represent attractive, permitted drill targets. Despite excellent surface indications, the southern Goldtooth claim block has never been drill tested.

The northern Goldtooth claim block is located just to the west of the Goldtooth Fault and contains several areas of widespread gold mineralization. Surface grab rock samples assay up to 27.0 g/t, 3.3 g/t and 1.7 g/t gold. A total of nine shallow drill holes have been completed during the 1990s by previous companies on the northern Goldtooth claim block. All holes contain gold mineralization, including 20 metres of 2.33g/t gold, 15 metres of 1.6 g/t gold and 24 metres of 1.16 g/t gold. StoneShield is evaluating options for a geophysical survey in the area and will begin the process of permitting a drill program for the 2012-13 field season.

The western slope of the Panamint Mountain range is composed of rocks ranging in age from Precambrian to Quaternary. Prior exploration in the area has focused on both Precambrian-age rocks and rocks thought to represent Tertiary-age volcanic units. Both rock types have undergone significant amounts of deformation. Mineralization in both rock types is thought to be epithermal, and consists of a simple assemblage of gold, pyrite, Fe-rich dolomite and quartz. Although the gold mineralization is a replacement phenomenon, the distribution of mineralization is structurally controlled. The mineralization is controlled by both high- and low-angle faults. The Goldtooth exploration model is based on favorable district wide geology and gold mineralization already discovered immediately adjacent to the property. StoneShield believes that the Goldtooth claims have potential for both large, open pittable, heap-leachable gold deposits as well as for structurally-controlled, high-grade gold deposits mineable by underground mining methods.

StoneShield is pleased with the very reasonable terms of the Option Agreement. Under the terms of the Option Agreement, StoneShield will acquire a 100% interest in Goldtooth by making cash payments totalling US\$900,000 over the next eight years and incur a minimum of US\$2.1M in exploration expenditures over the next five years commencing on the first anniversary of the execution of the Option Agreement as follows:

Date of Payment	Advance Minimum Royalty Cash Payments	Work Commitments Prior to Anniversary Date
Upon signing of Option Agreement	\$15,000	-
1st Anniversary	\$30,000	\$200,000
2nd Anniversary	\$40,000	\$300,000

3rd Anniversary	\$50,000	\$500,000
4th Anniversary	\$75,000	\$500,000
5th Anniversary	\$100,000	\$600,000
6th Anniversary	\$150,000	\$0
7th Anniversary	\$200,000	\$0
8th Anniversary	\$235,000	\$0
100% Earn In -Total:	\$900,000	\$2,100,000

As previously announced, US\$5,000 was paid to Bronco upon execution of the LOI. Within 10 business days of the execution of the agreement StoneShield will make a further payment of US\$15,000 and thereafter agreed to amounts on the anniversary of the execution of the definitive agreement. Bronco shall retain a 2.5% net smelter returns royalty that can be acquired by StoneShield for US\$500,000 cash for each 0.5%.

StoneShield is a publicly traded exploration company focused on the discovery of high-value precious metals deposits in North America. The Company's experienced management team boasts multiple discoveries, and brings over 145 years of combined experience in the mining and exploration sector. Please visit the Company's web site address at www.stoneshieldcapital.com.

ON BEHALF OF THE BOARD OF DIRECTORS OF STONESHIELD CAPITAL CORP.

Kris Kottmeier, President/CEO

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Contacts:

StoneShield Capital Corp.

Benjamin Curry

Investor Relations

(604) 689-2881 or toll free at 1-877-689-2881

www.stoneshieldcapital.com

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VIA ELECTRONIC MAIL

May 23, 2013

Carl Symons, Field Manager
Bureau of Land Management, Ridgecrest
Field Office
300 South Richmond Road
Ridgecrest, CA 93555
csymons@blm.gov

Randall Porter, Geologist
Ridgecrest Field Office
300 South Richmond Road
Ridgecrest, CA 93555
rporter@blm.gov

Re: Additional Comments on BLM EA (CACA-45475; DOI-BLM-CA-D050-2013-042-EA) for the Bronco Resources, LLC/Stoneshield Mine Exploration Proposal

Dear Field Manager Symons:

I am writing to provide additional comments from the Center for Biological Diversity (“Center”) and the Sierra Club’s San Geronio Chapter on the proposal to allow Bronco Resources to conduct exploratory drilling for gold at 25 sites in the California Desert Conservation Area in the Panamint Valley. We filed comments on May 17, 2013 to meet the very short deadline provided after inadequate notice of the availability of the EA and reserved the right to provide additional comments after additional requested information was provided and we had additional time for review.

These additional comments also adopt and incorporate by reference our earlier comments and address the following:

- the reports of “surveys for threatened, endangered and sensitive fauna and flora at the affected lands” relied on in the EA (at 3) and provided to us on Friday afternoon May 17 by email; and
- the response provided by BLM staff Randy Porter to inquiries regarding the calculation of the disturbance area and lack of inventory for lands with wilderness characteristics.

Biological Resources

The Environmental Assessment (“EA”) (CACA-45475; DOI-BLM-CA-D050-2013-042-EA) relies on the report entitled “StoneShield Capital Corporation, Goldtooth Project, Threatened, Endangered, and Sensitive Fauna and Flora Surveys, May, 2012” from Cedar Creek Associates, Inc. Our review of this document shows that it fails to provide much of the information needed for an adequate NEPA review of the proposal for the following reasons. In particular, our review of the TES fauna and flora surveys shows that the report of the biological surveys appears inadequate for the following reasons:

- Only 2 days of surveys were done for twenty-five distinct sites and the access roads and failed to identify the number of acres (hectares) surveyed or the time spent at each site.
- Surveys were done late in the season (May 6 and 7, 2012) and appears to not have followed published agency-recommended survey protocols¹. Failing to use these survey protocols makes the results of the project surveys inadequate at best.
- The sensitive species lists (at Appendices A and B) fails to capture all of the sensitive species that have potential to occur in the proposed project area including based on recorded observation in the general project area²:

ScientificName	CommonName	RarePlantRank
<i>Aliciella ripleyi</i>	Ripley's aliciella	2.3
<i>Astragalus gilmanii</i>	Gilman's milk-vetch	1B.2
<i>Cuniculotinus gramineus</i>	Panamint rock-goldenrod Panamint Mountains	2.3
<i>Galium hilendiae ssp. carneum</i>	bedstraw	1B.3
<i>Myrmosula pacifica</i>	Antioch multilid wasp	
<i>Penstemon fruticiformis var. amargosae</i>	Amargosa beardtongue	1B.3
<i>Phacelia barnebyana</i>	Barneby's phacelia	2.3
<i>Stipa arida</i>	Mormon needle grass	2.3

- As the document acknowledges, 2012 was a very poor rain year, therefore annual plant species, some of them sensitive would not be encountered, although they would still be impacted by the proposed project due to impacts to the seed bank. For example, *Cryptantha clokeyi*, which is a list 1B.2, is an annual and blooms generally in April. Also, *Eriogonum hoffmannii var. hoffmannii*, which is a list 1B.3, is also an annual and blooms generally in July through September. Even if adequate rainfall occurred in 2012, the survey period would have been inadequate to detect these species. Appropriately timed surveys for rare plant species are key to their identification and if present, impact analysis. Dismissing their presence because of poorly timed surveys is not in compliance with NEPA.
- Sensitive plant communities are also known from the general project area and have potential to be impacted by the proposed project, especially if impact to the existing hydrological regime occurs. For example, mesquite bosques and Mojave riparian forests are important unique plant communities that are tracked by state and federal wildlife agencies and are exceedingly rare wildlife habitat, yet they are not mentioned in the biological survey report. Concerns about the impact of road building and exploratory

¹ http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/dt/DT%20Pre-project%20Survey%20Protocol_2010%20Field%20Season.pdf
http://www.fws.gov/ventura/species_information/protocols_guidelines/docs/botanicalinventories.pdf
http://www.fws.gov/southwest/es/oklahoma/documents/te_species/wind%20power/usfws_interim_goea_monitoring_protocol_10march2010.pdf
<http://www.dfg.ca.gov/wildlife/nongame/docs/boconsortium.pdf>
http://www.dfg.ca.gov/biogeodata/cnddb/pdfs/Protocols_for_Surveying_and_Evaluating_Impacts.pdf
<http://www.dfg.ca.gov/wildlife/nongame/MGS/docs/MGSSurveyGuidelines2010.pdf>

² CNDDDB 2013

drilling which could result in changes to hydrology and impacts to these essential wildlife resources are not addressed in the biological report or in the EA.

- While desert bighorn are mentioned as a species that was surveyed for, it is unclear how they were surveyed for and no discussion of this important species was provided. The proposed project lies between three occupied ranges of desert bighorn³ and the valley floor provides for inter-range movement. Regardless that no bighorn sign was identified in the two days of surveys on an unidentified number of acres, bighorn could still episodically use the proposed project area as a movement corridor. Building additional roads and excavations will increase fragmentation and disturbance of the landscape, which is detrimental to bighorn movement⁴.
- Because of additional development within the habitat for rare raptors, the surveys for species including golden eagles, prairie falcons, burrowing owls and other raptors is inadequate. Clear impacts will occur to the foraging habitat (and perhaps nesting habitat in the case of burrowing owls) for these species which are noted to occur in the general area of the proposed project⁵, yet this important issue is not identified.
- While we agree that the project area is located in an arid region of the Mojave desert, one key biological component that is completely overlooked and unsurveyed for in the biological report are biological soil crusts. These important members of the desert biotic community provide a plethora of essential ecosystem services⁶ are easily disturbed and slow to regenerate⁷. Impacts to these critical cryptobiotic soil crusts can set off a chain of events that alter hydrology, prevent seed germination, increase PM₁₀ emissions and lower carrying capacity of the landscape. Surveys for biological soil crusts must be included as a basis for analysis of the impacts from the proposed project.

For the reasons stated above and others, the EA's identification and analysis of impacts to biological resources is inadequate and must be revised in a supplemental environmental review document circulated for public review and comment.

Reliance on Programmatic EA for Small-Scale Hardrock Mining and Exploration

The EA attempts to utilize the 2004 authorization for a different proposal as the no action alternative and improperly fails to analyze the impacts of that earlier proposal. The 2004 approval did not provide any environmental review but merely included a DNA which in turn relies on the 1996 Programmatic EA for Small-Scale Hardrock Mining and Exploration (CA-650-EA-96-53). (DNA at 1.) The 1996 Programmatic EA however, is quite clear that the analysis there did not include mud pits: "What is Covered by this Analysis (Operational

³ <http://www.dfg.ca.gov/wildlife/Bighorn/Desert/images/DesertSheepMap.jpg>

⁴ Papouchis et al. 2001.

⁵ CNDDDB 2013

⁶ <http://www.sciencedirect.com/science/article/pii/S0140196398903883>;

<http://www.springerlink.com/index/XQ138408R5652398.pdf>

<http://www.sciencedirect.com/science/article/pii/S0140196300907134>

⁷ <http://www.springerlink.com/index/G382Q47150342J78.pdf>

Parameters of the Proposed Action and Assumption) . . . 8. *No construction of excavated mud pits in exploration drilling.*” (1996 Programmatic EA at 12-13 [emphasis added]). On this basis as well, the BLM was required to fully identify and analyze all of the potential site-specific environmental impacts of the mud pits that are proposed as part of this exploratory drilling proposal and could not rely on any earlier environmental documents.

Accounting for Disturbance Footprint

The 1996 Programmatic EA provides specific definitions for disturbance and access/drill roads that does not appear to have been followed by BLM in calculating the likely disturbance from the proposed project. “Disturbance Area” is defined as “Area where natural vegetation and soil compaction have been affected by human activity” and for “Cut & Fill access/drill roads” “Disturbance is measured from the toe of the outside edge to the top of the inside bank. i.e. toe length+driving surface+bank height.” (1996 Programmatic EA at 13.)

In response to an inquiry seeking clarification on how the disturbance footprint was calculated Mr. Porter stated:

- “• The proposed action does not say 8,725 feet of new road. It says 8,725 of overland travel, using either a buggy-mounted, track-mounted or truck-mounted drill rig, occasionally clearing boulders and/or smoothing a narrow wash.”

It is clear that utilizing the definition of disturbance from the 1996 Programmatic EA, all of the 8,725 feet of overland travel must be counted as disturbance because it will all be areas “where natural vegetation and soil compaction have been affected by human activity.” The vehicles utilized will be heavy equipment (including bull dozers and drill rigs). The calculation of disturbance for “Overland Access Routes: 0.80 acres” in the EA (EA at 9) appears to be a significant underestimation. The EA lists the following equipment that may be used as part of the proposed project (and does not rule out the use of other equipment):

- “Drilling will be performed using either a buggy-mounted, track-mounted or truck-mounted drill rig. Support vehicles would include a water truck, a pipe truck and a pickup truck” (EA at 5);
- “backhoe/excavator” (EA at 5), “backhoe or excavator” (EA at 6), “backhoe” (EA at 9); and
- “small bulldozer” (EA at 12).

As Mr. Budlong pointed out in his comments filed on May 17, 2013, the calculation provided in the EA would mean that the disturbance for all of the linear overland was limited to 3.99 feet wide⁸—it is impossible to see how the disturbance footprint from the heavy equipment used in exploratory drilling (including “toe length+driving surface+bank height” as defined in the 1996 Programmatic EA) could be so narrow and would actually be less than 4 feet wide for the entire 8,725 feet length of the disturbance footprint. The calculation also does not appear to have accounted for any areas needed for equipment to turn out, park, or pass each other along these

⁸ 43,560 square feet per acre x 0.8 acres= 34,848 square feet / 8,725 feet length = 3.99 feet wide.

access routes or for the disturbance wherever boulders might be put after “clearing a minor amount of boulders” anticipated in some areas (EA at 6).

Inventory of Lands with Wilderness Characteristics

In response to an regarding the lack of the needed inventory of lands with wilderness characteristics, Mr. Porter stated “these sections of land were not inventoried for wilderness characteristics at the time of writing for this EA. Marty Dickes is the specialist who deals with lands having wilderness characteristics. She has recently been to the area.” We hope and expect that the needed inventory of lands with wilderness characteristics will be completed soon, certainly before any decision is made, and included in a revised and recirculated EA.

Conclusion

Thank you for your consideration of these additional comments on the documents provided on the same day the comment period ended last week. Please do not hesitate to contact me if you have any questions about the issues raised in these additional comments or our first set of comments dated May 17, 2013. The Center and Sierra Club hope and expect that BLM will prepare a detailed EIS for the project as a whole before considering the approval of this project and, at minimum, that BLM will revise the EA and re-circulate it for public comment before approving the proposed revised exploratory drilling project.

Sincerely,



Lisa T. Belenky, Senior Attorney
Center for Biological Diversity
351 California St., Suite 600
San Francisco, CA 94104
(415) 436-9682 x307
lbelenky@biologicaldiversity.org

CC: Ken Trott, Acting Assistant Dir., California Department of Conservation,
Office of Mine Reclamation, ken.trott@conservation.ca.gov

TOM BUDLONG
3216 MANDEVILLE CANYON ROAD
LOS ANGELES, CA 90049-1016

BLM RIDGECREST FO
20 MAY '13 PM 12:18

Friday, May 17, 2013

REC'D

To:
Bureau of Land Management
Field Manager Carl Symons
Ridgecrest Field Office
300 S Richmond Road
Ridgecrest, CA 93555
By US Post and email to csymons@blm.gov

Copies to:

Leah Gardner
Revegetation Specialist
Office of Mine Reclamation
801 K Street, MS 09-09
Sacramento, CA 95814

Stephen Testa, Executive Officer
State Mining and Geology Board
801 K Street, Suite 2015
Sacramento, CA 95814

Adena Fansler
Inyo County Planning Department
SMARA Coordinator
PO Box L
Independence, CA 93526

Mike Cipra
Environmental Coordinator
Death Valley National Park
PO Box 109
Death Valley, CA 92328

Dear Mr. Symons

Please accept these comments on the Bronco EA that proposes exploration drilling just south of the current Briggs Mine in Panamint Valley. The document number identification on the first page of the EA is: Environmental Assessment DOI-BLM-CA-D050-2013-042-EA for Bronco Resources, LLC CACA-45475.

Because of the extremely comment period I reserve the right to send additional comments to supplement the comments in this letter. Since I have been involved in two actions relating the Briggs Mine, immediately adjacent to this proposed action in the Panamint Mountains, BLM Ridgecrest is aware of my interest. Instead of notification, I learned of the action almost by happenstance at the Ridgecrest Roundtable meeting on Thursday, April 25, 2013, where you made a short statement that approval of a drilling project in the Panamints was imminent. You subsequently set the comment deadline to Friday, May 17, an unusually short comment period for an Environmental Assessment, in effect giving a comment period of one day over three weeks. You declined the request to notify other interested parties and extend the comment period to a more reasonable date.

Budlong comments, Environmental Assessment DOI-BLM-CA-D050-2013-042-EA for Bronco Resources, LLC CACA-45475

Friday, May 17, 2013

Page 1 of 7

The EA omits much necessary information for intelligent and considerate comment. Investigations to be able to comment included getting the EA, then finding several documents referenced in the EA, then finding documents referenced in the references. Due to other scheduled commitments, and my distance from Ridgecrest (I live in Los Angeles), I have been unable to visit the site since learning of the proposed action.

Because of this short comment period, please consider these as initial comments that may be later supplemented.

Proposed Action Alternative vs. No Action Alternative

NEPA is clear that a No Action Alternative means no project. The EA does not have such an alternative. Reference the BLM web page:

http://www.blm.gov/wo/st/en/prog/planning/nepa/webguide/40_most_asked_questions/questions_1-10.html

Question 3 of the CEQ 40 questions discusses this. Question 3 considers two situations. The first situation is inapplicable here. It relates to changing management plan intensity or direction.

The second situation relates to proposed projects. This answer states:

"No action" in such cases would mean the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

Instead, the EA defines the No Action alternative as a 2004 DNA, which also authorizes exploration drilling. Bottom of page 4:

The No Action alternative is BLM's 2004 authorization to explore the Bronco lode mining claims.

And, under 2.2 on page 10:

The No Action Alternative under NEPA is therefore the 2004 drilling authorization.

The EA does not include an alternative that compares '...taking no action...' with '...the effects of permitting the proposed activity or an alternative activity...'

In effect, the EA's 'No-Action' alternative represents what would happen if the BLM does not make a decision—essentially a 'No-decision' alternative. More properly this action should be titled '2004 DNA Alternative', or equivalent. The EA does not present an alternative that has no impact on the land, which is clearly a violation of the NEPA.

State Mining and Reclamation Act

During our conversations concerning public notice, Randy Porter related the four agencies had been notified – Inyo County, Death Valley National Park, the Briggs Mine, and Native American representatives. Missing was the state Office of Mine Reclamation (OMR), who must determine if the action falls under SMARA regulations. Please ensure that OMR is officially notified of this proposed action. I will send a copy of this comment letter to Leah Gardner, the Revegetation Specialist at OMR.

Proposed Action:

The proposed action alternative has numerous deficiencies.

1. The statement of the amount of disturbed area is unsupported and probably wrong.

Road area:

- Page 9 says the surface disturbance for overland access routes is 0.8 acres. Page 6 states overland travel routes will be 8,725 feet. (My own calculation, based on transferring the drill locations to USGS topos and measuring the routes is 9,873 feet.) Route area of 0.8 acres in 8,725 feet works out to a four foot wide road. (43,560 square feet per acre, x 0.8 acres / 8,725 feet = 3.99 feet wide. This is unreasonably narrow, considering some material will be cast off the side of the route, the route will be used by a backhoe/excavator, pickup truck, water truck,

and a pipe truck, (p.5) besides the drill rig. Supporting arithmetic and a reasonable route width estimate for such equipment must be included in the EA so a reviewer can judge the conclusion.

- Area of disturbance of existing non-NEMO designated tracks must be included in the disturbed area calculation. Use of these is described as 'present roads, jeep trails and 2-track linear disturbances' (p.6). Certainly the project will impact these roads more than if the project did not use them. This impact must be included.

Drill pad area:

- No assumptions or calculations support the statement on page 9 that drill sites will disturb 0.17 acres. The reader is asked to accept the number without analysis. Nineteen holes in 0.17 x 43,560 square feet is 300 square feet per hole, which must be allocated to the 10x10 sump, the dump for the material excavated from the sump (the material heap will be more than the 100 sq ft of the sump), possibly a laydown area for pipe and other equipment, work area surrounding the activity, ... Supporting estimates and calculations must be included so a reviewer can judge the conclusion.

2. Appendix 3:

- The check list for the inter-discipline team analysis does not have signatures for the team members. These signatures are necessary for a reviewer to have confidence that the team members agree with the EA's statements concerning their disciplines.
- The appendix does have the signature of the NEPA coordinator (Lori Ford), accompanied by her comment: "Ready for review". The EA does not disclose the review, how it was done, or the results of the review. There is no evidence the review was done. Lori Ford has not signed the EA post-review.
- Invasive plants and weeds. Alex Neibergs is listed as the signer. This signer must be a biologist. Is Alex a biologist?
- Paleontology: The signer must be a paleontologist. Randy Porter is the signer. Is Randy a paleontologist?
- Native American consultation: The rationale for determination that concerns are not present is that they were 'not identified'. It does not state that concerns are not present. Nor does the EA describe the consultation efforts as required by BLM policy. Reference the BLM site:

http://www.blm.gov/wo/st/en/prog/more/CRM/tribal_consultation.html

This site specifies:

Tribal consultation regarding public-land activities has 4 essential elements:

- a) Identifying appropriate tribal governing bodies and individuals from whom to seek input.*
- b) Conferring with appropriate tribal officials and/or individuals and asking for their views regarding land use proposals or other pending BLM actions that might affect traditional tribal activities, practices, or beliefs relating to particular locations on public lands.*
- c) Treating tribal information as a necessary factor in defining the range of acceptable public-land management options.*
- d) Creating and maintaining a permanent record to show how tribal information was obtained and used in the BLM's decision making process.*

These activities are not described in the EA. If they have been done, the EA should describe. If they have not been done, they must be before a decision on the EA can be made.

Please provide me with a copy of the permanent record required in item d).

3. Lands with Wilderness Character (LWC lands)

On December 22, 2010 Secretary Salazar signed Secretarial Order 3310 concerning Protecting Wilderness Characteristics on Lands Managed by the Bureau of Land Management.

In light of this Order, the area of interest must be evaluated for wilderness quality before disturbance is permitted. The resulting information is required as part of evaluation of the project prior to

making a permitting decision. Evaluated should be the area framed between the Manly Peak Wilderness, the county-maintained Wingate Road, Goler Canyon Road and the Briggs open-pit mine. All intended disturbance, according to the EA, will be in this area.

The exploration proposed by the EA must not cause disqualification of the area as Lands with Wilderness Character. The exploration might not result in an economic discovery, and if it does the discovery might not lead to further ground impacting activities. Therefore, if the wilderness quality evaluation determines the area has wilderness quality, the exploration activity must not poison or prematurely disqualify this determination. The EA must clearly and completely define impacts, and must also define and require restoration sufficient to return the area to wilderness quality.

The exploration routes and activity could serve as a magnet for motorized recreational explorers who would be attracted to the exploration activity using the EA's exploration routes and perhaps driving off-road, which would also jeopardize LWC status. To reduce this possibility, the EA must specify an absolute minimum calendar time for exploration and return to wilderness character, and must specify that barriers, fences and signage must be installed. The applicant must also be responsible for restoring impacts from any such recreational activity that does occur, to wilderness quality.

Proposed Action, Additional Comments:

4. Maps – figures 2, 3 and 4 on pages 6, 7, and 8, do not show, or show with insufficient detail, nearby land management status for adequate review.
 - The scale of the map on figure 2 is too large to judge proximity of the proposed drill holes to the Briggs permit area.
 - Not shown are boundaries of Lands with Wilderness Characteristics in the vicinity of the proposed action.
 - Not shown is the boundary of the nearby Manly Peak Wilderness in the vicinity of the proposed action.
5. Contractors were hired to evaluate T&E species and heritage surveys. These surveys are not included in the EA. Since a BLM biologist didn't sign the EA, the EA has no evidence that a BLM biologist has evaluated and accepts the relevant statements. The surveys are essential to reviewing the EA's environmental impacts. I do understand that heritage surveys can contain sensitive information that cannot be publicized. Still, the document should contain as much of the heritage survey as can be disclosed, with an explanation concerning the undisclosed information. A reviewer must have these data to have confidence that the survey information was properly considered.

6. Cultural Sites:

The top of page 18 states that drill sites G1, G2 and G11 are in CA-INY-8994 and 'should' be excluded from the Proposed Action. They are not excluded. They are shown as drill holes on the proposed action drilling map, Figure 3 on page 7. They contribute to the total count of drill holes. The second paragraph on page 18 states the stipulation will avoid cultural resource impact. But the only 'stipulation' is not to drill G1, G2 and G11. The area to be avoided is not stipulated. The operator may decide to access nearby G12 from the G3 drill site, instead of along the EW route from Wingate Road, thus passing by the prohibited drill sites. To ensure avoidance, the EA must specify the boundary of the area to be avoided, not just the holes that are not to be drilled.

7. Lands with Wilderness Quality (LWC):

- Para 3.6 on page 14 briefly reviews Secretary Order 3310, and states that the project area has not been surveyed for LWC. It then describes project locations. No conclusion to these statements appears. Please include a conclusion.
- Para 4.6 on p. 19: After stating that the proposed sites have not been inventoried for LWC under 3310 (note the typo – '3011'), the paragraph concludes that the cumulative effects of the Proposed Action alternative are the same as the No Action alternative. The equivalency of

cumulative impacts is irrelevant with respect to LWC. The conclusion does not follow from the statement. This must be corrected.

8. Topsoil and revegetation:

Appendix 1 cites 3809.420. Saving topsoil for reclamation is specified in (b)(3)(ii)(A). The regulation requires topsoil be part of reclamation. Although the EA, p. 16, mentions revegetation as part of reclamation, numerous other places in the EA talk about seeding or re-seeding without mentioning saving and using topsoil as part of reclamation, implying that reseeded alone is the goal:

- *Final reclamation will consist of recontouring using a backhoe and broadcast seeding (p.9)*
- *In additions to the mud sump reclamation...broadcast seeding and raking the seed into the soil. (p.9)*
- *Mud Sump Reclamation: Backfilling, contouring and seeding (p.10, the reclamation bond section.)*
- *Any dozer-made access route would be restored by contouring, scarifying and re-seeding (p.12)*
- *Any areas of compaction will be scarified using a backhoe, seeded and hand-raked. (p.9)*

In these places it appears the emphasis of reclamation is reseeded, not revegetation. The EA must make clear that **the goal of reclamation is regrowth/revegetation**, and that reseeded, as one of the necessary actions in the process of revegetation, is not sufficient by itself. The EA must include performance standards concerning plant density, species diversity, and other measurements of reclamation.

These texts should be revised to emphasize that regrowth / revegetation is the reclamation requirement, not merely reseeded. The reclamation bond must be revised to ensure it includes the reclamation requirement. This will probably increase the reclamation bond amount, since revegetation involves more management and monitoring than the much simpler reseeded after recontouring.

9. Wet drill holes

The EA describes capping wet holes, apparently a different process than for dry holes. Apparently capping wet hole has a greater impact than capping dry holes. The EA makes no assessment concerning the probability of encountering water. The nearby Briggs Mine open pit recently hit water, which formed a pool in the bottom. Given that this new information reveals more about underground water in the area, the EA should be able to estimate the probability of wet holes, and to integrate the impact of plugging wet holes into impact analysis.

No Action (or, 'No Decision') Alternative of the 2004 DNA

The EA defines this alternative as the action described in the 2004 DNA. The action described in the 2004 DNA also has numerous deficiencies. Its approval is no longer valid and should be withdrawn.

1. The 2004 DNA is out of date:

It is based on the 1996 Programmatic EA (CA-650-EA-96-53). This Programmatic EA does not consider the NEMO amendment to the CDCA, 3809 regulations that have been revised since the EA's approval, the recent Secretarial Order 3310 concerning Lands with Wilderness Quality, or other applicable laws, regulations and policies implemented since the EA's approval.

2. The Programmatic EA applies to disturbances less than one acre (p.2, bottom). The 2004 DNA does not state the disturbance will be less than one acre. It appears the 2004 DNA action will disturb more than one acre.

The Programmatic EA states that it is intended for small-scale exploration:

- *It is the intent of this document ... analyze impacts ... of small scale mining and exploration ... (p.3)*
- *In this EA, small-scale is defined as one acre or less of surface disturbance. (p.3)*

The 2013 EA, p.6, states overland travel for the 2004 authorization is 25,473 feet. One acre of a linear disturbance 25,473 feet long is a half foot wide – barely a footpath. ($43,560/25,473=.058$ feet.)

Surface disturbance analysis for the 2004 DNA:

- The 2004 DNA does not have a disturbed area calculation. The 2004 DNA contains only the statement that 'two sites will need to have boulders removed or bladed along an access route

(1000 feet for the route to one site, and 300 feet for the other.” The DNA does not identify these sites.

- The 2004 DNA map shows access to G9 and G10, G11 via a forked route from the Wingate Road; access to G12 and G13 from another forked route from the Wingate Road; access to G14 from a spur off the Coyote Canyon road; access to G6 from a spur off the track between the Goler Canyon Road and the south edge of Coyote Canyon, and no access routes to G1 and G1a south of the Goler Canyon Road.
 - Google Earth imagery dated 5/20/2011 does not show tracks to these locations. Google earth images in this area have very good detail and resolution. If tracks on the ground in these locations are too faint to be seen by the high resolution Google Earth, they cannot be classed as existing tracks. Note that the track from just west of the mouth of Goler Canyon, going north to the south bank of Coyote Canyon shows clearly on Google Earth. (Several drill sites are along this track.) Also note that Google Earth does very clearly show the Coyote Canyon Road.
 - The above data indicate overland travel is required to access G9, G10, G11, G12, G13 and G14, G6, plus G1 and G1A. I estimate these tracks total 3.5 miles. To stay within the stated 1 acre disturbance, these tracks would have to be 0.42 feet wide ($3.5 \times 5,280 / 43,560$). This width is of course inadequate for the action.
3. Differences in drill hole characteristics and data quality between the 2004 DNA and the 2013 EA are not explained. This opens some unanswered questions.
- Unexplained is why the drilling program in the 2013 EA needs the vehicles described and sumps to hold cuttings, while the drilling program for the 2004 DNA needs only a portable rig and ‘no blading of drill pads’. The 2004 DNA does mention that the action will be a ‘shallow well-drilling program’ and will include a drill rig with low pressure tires. It does not discuss other equipment that will be used, the difference between the characteristics of shallow well drilling and the drilling of the 2013 EA proposed action, and the impact of a drill rig with low pressure tires.
4. Many of the questions in D, NEPA Adequacy Analysis, are unanswered:
- Item 1, that the current proposed action substantially the same action as previously analyzed, does not state what is the previous action, or why it’s the same.
 - Item 3, concerning new information, does not recognize the changes listed in 1) above.
 - Item 4, is confusing and undefined since it talks about ‘the existing NEPA documents’ without explicitly identifying them, or their date. It then states ‘environmental standards and methodologies’ that were in force on the undefined ‘then’ date are still in force. It is impossible to conclude the validity of this undefined statement. Independent of this, the DNA and the Programmatic EA it is based on, necessarily ignore later requirements mentioned in 1) above.
 - Items 5 and 6 say the proposed action impacts are substantially the same as the impacts identified in ‘the existing NEPA document(s)’. This is untrue if the existing NEPA document(s) are the two listed under C on the first page, since those documents do not describe impacts of the proposed action. If the ‘existing NEPA document(s)’ are other documents, they are not identified, and the affirmative answer cannot be judged.
 - Item 7 states that public involvement is adequate. Since there was no public involvement for the 2004 DNA, this statement is equivalent to saying that no public involvement is adequate. The 2004 DNA should explicitly state there was no public involvement, and why this is adequate, instead of the implicit statement.
5. E: Interdisciplinary Analysis.
- Missing are disciplines such as Recreation, T&E species, and many others. The 2013 EA, Appendix 3, appears to be a comprehensive list.
 - No NEPA coordinator is included.

- Signatures of the team members for the three disciplines that are listed, are missing.
6. Application Screening and Processing Checklist.
Requirements start on page 16 of the Programmatic EA, the basis for the DNA, are not met in the DNA. The DNA is silent with respect to:
- Vegetation: assessed for special status plants
 - Air Quality: conformance with the state and national standards
 - Wildlife; wildlife resource evaluation
 - Cultural and Paleontological: evaluation to be completed prior as part of the environmental review
 - Solid Leasable Minerals: screening for conflict.
- The DNA must discuss these.

Regards,



Tom Budlong
310-963-1731
TomBudlong@RoadRunner.com



Porter, Randall <rporter@blm.gov>

EA for Bronco Resources exploratory drilling

1 message

Cipra, Michael <mike_cipra@nps.gov>

Wed, May 1, 2013 at 3:15 PM

To: Randall Porter <rporter@blm.gov>

Cc: Kathleen Billings <kathy_billings@nps.gov>, Kelby Kelly Fuhrmann <kelly_fuhrmann@nps.gov>, Carl Symons <csymons@blm.gov>

Randy,

Thank you for sharing the Environmental Assessment for Bronco Resources, LLC's proposed exploratory test drilling in the Panamint Valley. As the scope of this proposed project is limited to less than one acre of mined lands, and limited in duration to a single event for each of the 25 sites, the National Park Service (NPS) does not believe that the proposed action as described in the Environmental Assessment would adversely impact resources within the immediately adjacent lands of Death Valley National Park.

Because of the proximity of these mining claims to Death Valley National Park and the resources the NPS stewards within the park, if the results of Bronco Resources LLC's exploratory mining were to result in a future proposal for a larger and more extensive mining operation, the NPS would be interested in being a cooperating agency under the National Environmental Policy Act for the resulting Environmental Assessment or Environmental Impact Statement. In addition, Park Superintendent Kathy Billings would want to be actively involved in conversations with Ridgecrest Field Manager Carl Symons about avoiding or mitigating impacts to natural and cultural resources in Death Valley National Park early in the planning process.

Thank you again for sharing this document and for following up via phone conversation to address our questions. We appreciate the dialogue with the BLM's Ridgecrest Field Office, and we wish to continue this dialogue so that both of our agencies can continue to meet the mandates of our respective missions.

Sincerely,

Mike Cipra
Environmental Protection Specialist
Death Valley National Park
760.786.3227



Porter, Randall <rporter@blm.gov>

Drilling Comments for Environmental Assessment for Bronco Resources LLC

1 message

Kindra Geis <kgeis@crbriggs.com>
To: "rporter@blm.gov" <rporter@blm.gov>

Wed, May 1, 2013 at 11:21 AM

Morning Randy,

The only concern I have with the drilling activities outlined in the Environmental Assessment DOI-BLM-CA-D050-2013-042-EA is dust.

I want to ensure that all drilling activities and transportation activities will not interfere with our fence line TEOM samplers that are situated on our North and South property boundary. Based on the review of the mapping the main air station of concern will be the south air station. In the event their activities are resulting in dust CR Briggs wants to be assured that none of the dust impedes upon the air station. In the event their activities impact our air station we have to provide reports, weather data, and any other proof required from the Great Basin Unified Air Pollution Control District that the dust was not a result of our activities. Even after such reporting the Air District can still decide to cite us a Notice of Violation. It's imperative that all dust stays within their project boundary.

Thank you,

Kindra Geis
Environmental Coordinator | ATNA Resources | CR Briggs Corporation | Ph 760-372-4233 ext 112 | Email kgeis@crbriggs.com <mailto:kgeis@crbriggs.com> | Fax 760-372-4250 | Web www.atna.com <http://www.atna.com/> |

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APPENDIX 4

The performance standards of Title 43, Subpart 3809 of the Code of Federal Regulations are common to all alternatives. These regulations state:

§ 3809.420 What performance standards apply to my notice or plan of operations?

The following performance standards apply to your notice or plan of operations:

(a) General performance standards —

- (1) *Technology and practices.* You must use equipment, devices, and practices that will meet the performance standards of this subpart.
- (2) *Sequence of operations.* You must avoid unnecessary impacts and facilitate reclamation by following a reasonable and customary mineral exploration, development, mining and reclamation sequence.
- (3) *Land-use plans.* Consistent with the mining laws, your operations and post-mining land use must comply with the applicable BLM land-use plans and activity plans, and with coastal zone management plans under 16 U.S.C. 1451, as appropriate.
- (4) *Mitigation.* You must take mitigation measures specified by BLM to protect public lands.
- (5) *Concurrent reclamation.* You must initiate and complete reclamation at the earliest economically and technically feasible time on those portions of the disturbed area that you will not disturb further.
- (6) *Compliance with other laws.* You must conduct all operations in a manner that complies with all pertinent Federal and state laws.

(b) Specific standards —

- (1) *Access routes.* Access routes shall be planned for only the minimum width needed for operations and shall follow natural contours, where practicable to minimize cut and fill. When the construction of access routes involves slopes that require cuts on the inside edge in excess of 3 feet, the operator may be required to consult with the authorized officer concerning the most appropriate location of the access route prior to commencing operations. An operator is entitled to access to his operations consistent with provisions of the mining laws. Where a notice or a plan of operations is required, it shall specify the location of access routes for operations and other conditions necessary to prevent unnecessary or undue degradation. The authorized officer may require the operator to use existing roads to minimize the number of access routes, and, if practicable, to construct

access roads within a designated transportation or utility corridor. When commercial hauling is involved and the use of an existing road is required, the authorized officer may require the operator to make appropriate arrangements for use and maintenance.

(2) *Mining wastes.* All tailings, dumps, deleterious materials or substances, and other waste produced by the operations shall be disposed of so as to prevent unnecessary or undue degradation and in accordance with applicable Federal and state Laws.

(3) *Reclamation.* (i) At the earliest feasible time, the operator shall reclaim the area disturbed, except to the extent necessary to preserve evidence of mineralization, by taking reasonable measures to prevent or control on-site and off-site damage of the Federal lands.

(ii) Reclamation shall include, but shall not be limited to:

(A) Saving of topsoil for final application after reshaping of disturbed areas have been completed;

(B) Measures to control erosion, landslides, and water runoff;

(C) Measures to isolate, remove, or control toxic materials;

(D) Reshaping the area disturbed, application of the topsoil, and revegetation of disturbed areas, where reasonably practicable; and

(E) Rehabilitation of fisheries and wildlife habitat.

(iii) When reclamation of the disturbed area has been completed, except to the extent necessary to preserve evidence of mineralization, the authorized officer shall be notified so that an inspection of the area can be made.

(4) *Air quality.* All operators shall comply with applicable Federal and state air quality standards, including the Clean Air Act (42 U.S.C. 1857 *et seq.*).

(5) *Water quality.* All operators shall comply with applicable Federal and state water quality standards, including the Federal Water Pollution Control Act, as amended (30 U.S.C. 1151 *et seq.*).

(6) *Solid wastes.* All operators shall comply with applicable Federal and state standards for the disposal and treatment of solid wastes, including regulations issued pursuant to the Solid Waste Disposal Act as amended by the Resource Conservation and Recovery Act (42 U.S.C. 6901 *et seq.*). All garbage, refuse or waste shall either be removed from the affected lands or disposed of or treated to minimize, so far as is practicable, its impact on the lands.

(7) *Fisheries, wildlife and plant habitat.* The operator shall take such action as may be needed to prevent adverse impacts to threatened or endangered species, and their habitat which may be affected by operations.

(8) *Cultural and paleontological resources.* (i) Operators shall not knowingly disturb, alter, injure, or destroy any scientifically important paleontological remains or any historical or archaeological site, structure, building or object on Federal lands.

(ii) Operators shall immediately bring to the attention of the authorized officer any cultural and/or paleontological resources that might be altered or destroyed on Federal lands by his/her operations, and shall leave such discovery intact until told to proceed by the authorized officer. The authorized officer shall evaluate the discoveries brought to his/her attention, take action to protect or remove the resource, and allow operations to proceed within 10 working days after notification to the authorized officer of such discovery.

(iii) The Federal Government shall have the responsibility and bear the cost of investigations and salvage of cultural and paleontology values discovered after a plan of operations has been approved, or where a plan is not involved.

(9) *Protection of survey monuments.* To the extent practicable, all operators shall protect all survey monuments, witness corners, reference monuments, bearing trees and line trees against unnecessary or undue destruction, obliteration or damage. If, in the course of operations, any monuments, corners, or accessories are destroyed, obliterated, or damaged by such operations, the operator shall immediately report the matter to the authorized officer. The authorized officer shall prescribe, in writing, the requirements for the restoration or reestablishment of monuments, corners, bearing and line trees.

(10) *Fire.* The operator shall comply with all applicable Federal and state fire laws and regulations, and shall take all reasonable measures to prevent and suppress fires in the area of operations.

(11) *Acid-forming, toxic, or other deleterious materials.* You must incorporate identification, handling, and placement of potentially acid-forming, toxic or other deleterious materials into your operations, facility design, reclamation, and environmental monitoring programs to minimize the formation and impacts of acidic, alkaline, metal-bearing, or other deleterious leachate, including the following:

(i) You must handle, place, or treat potentially acid-forming, toxic, or other deleterious materials in a manner that minimizes the likelihood of acid formation and toxic and other deleterious leachate generation (source control);

(ii) If you cannot prevent the formation of acid, toxic, or other deleterious drainage, you must minimize uncontrolled migration of leachate; and

(iii) You must capture and treat acid drainage, or other undesirable effluent, to the applicable standard if source controls and migration controls do not prove effective. You are responsible for any costs associated with water treatment or facility maintenance after project closure. Long-term, or post-mining, effluent capture and treatment are not acceptable substitutes for source and migration control, and you may rely on them only after all reasonable source and migration control methods have been employed.

(12) *Leaching operations and impoundments.* (i) You must design, construct, and operate all leach pads, tailings impoundments, ponds, and solution-holding facilities according to standard engineering practices to achieve and maintain stability and facilitate reclamation.

(ii) You must construct a low-permeability liner or containment system that will minimize the release of leaching solutions to the environment. You must monitor to detect potential releases of contaminants from heaps, process ponds, tailings impoundments, and other structures and remediate environmental impacts if leakage occurs.

(iii) You must design, construct, and operate cyanide or other leaching facilities and impoundments to contain precipitation from the local 100-year, 24-hour storm event in addition to the maximum process solution inventory. Your design must also include allowances for snowmelt events and draindown from heaps during power outages in the design.

(iv) You must construct a secondary containment system around vats, tanks, or recovery circuits adequate to prevent the release of toxic solutions to the environment in the event of primary containment failure.

(v) You must exclude access by the public, wildlife, or livestock to solution containment and transfer structures that contain lethal levels of cyanide or other solutions.

(vi) During closure and at final reclamation, you must detoxify leaching solutions and heaps and manage tailings or other process waste to minimize impacts to the environment from contact with toxic materials or leachate. Acceptable practices to detoxify solutions and materials include natural degradation, rinsing, chemical treatment, or equally successful alternative methods. Upon completion of reclamation, all materials and discharges must meet applicable standards.

(vii) In cases of temporary or seasonal closure, you must provide adequate maintenance, monitoring, security, and financial guarantee, and BLM may require you to detoxify process solutions.

(13) *Maintenance and public safety.* During all operations, the operator shall maintain his or her structures, equipment, and other facilities in a safe and orderly manner. Hazardous

sites or conditions resulting from operations shall be marked by signs, fenced, or otherwise identified to alert the public in accordance with applicable Federal and state laws and regulations.