

INTERDISCIPLINARY TEAM ANALYSIS RECORD CHECKLIST

Project Title: Perdito Exploration Project

NEPA Log Number: DOI-BLM-CA-D050-2017-0037-EA

File/Serial Number:

Project Lead: Randall Porter

DETERMINATION OF STAFF: (Choose one 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	<p>The project area is within the Great Basin Valleys Air Basin. The Great Basin Valleys Air Basin is either unclassified or in attainment for federal air quality standards with the exception of PM₁₀ in the Owen's Valley. A small portion of proposed road is located on a saddle between the Owen's Valley and Saline Valley to the east. The Great Basin Valleys is in non-attainment for state air quality standards for ozone and PM₁₀ with the largest source being the Owen's Valley lakebed. (http://www.arb.ca.gov/desig/adm/adm.htm accessed July 31, 2016). Owen's Lake is the largest single source of PM₁₀ in the U.S. Contributions of PM₁₀ resulting from the alternatives would be negligible.</p> <p>The operator would obtain and adhere to the required permits or authorizations from the Great Basin Unified Air Pollution Control District (GBUAPCD). The operator would also adhere to the required GBUAPCD prohibitions including fugitive dust precautions such as road watering or chemical applications for dust control, particulate matter standards, and nitrous oxide emission standards.</p> <p>A fugitive dust control plan would be prepared in accordance with CMA LUPA-AIR-5. CMAs LUPA-AIR-1 through -5 would be adhered to (See Chapter 1.5 and 2.7 of the EA). A draft dust control plan is included as Appendix F of the EA.</p> <p>The alternatives, including the implementation of environmental protection measures, would have minor, short-term impacts to air quality. Air quality would not be impacted to a degree requiring detailed analysis.</p>	Alexander Neibergs	

PI	Area of Critical Environmental Concern	Portions of proposed drill roads and drill holes number 1 and 2 are located within the Cerro Gordo ACEC. Impacts to this resource have been carried forward for analysis.	Randall Porter	
PI	Cultural Resources	A Class III cultural survey has been completed for all alternatives. As described under the applicant committed environmental protection measures, cultural resources, if present, would be avoided. Because the impacts to cultural resources would be minimal, detailed analysis is not required.	Donald Storm	
NP	Development Focus Areas (DFAs)	No Development Focus Areas are located near the alternatives.	Martha Dickes	
PI	Greenhouse Gas (GHG) Emissions	The Proposed Action would not impact or contribute significantly to increase GHG emissions and does not meet the requirements for greenhouse gas reporting (https://www.epa.gov/ghgreporting). 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.	Miriam Morrill	
NP	Environmental Justice	According to the EPA EJScreen mapping tool, the region has been categorized as having a minority population of 27 percent (50 percentile) and as a low-income population (less than two times the poverty level) of 24% (38 th percentile). No minority or economically disadvantaged communities are present which could be affected by the Proposed Action or Alternatives. (https://ejscreen.epa.gov/mapper/index.html?wherestr=california accessed June 15, 2016)	Bob Pawelek	
NP	Farmlands (Prime or Unique)	No farmlands are identified in this area based upon review of Ridgecrest Field Office planning documents, CDCA, and NEMO.	Randall Porter	
NP	Floodplains	No floodplains are identified as being present with the project area based upon review of Ridgecrest Field Office planning documents, CDCA, and NEMO.	Randall Porter	
NI	Fuels / Fire Management	The alternatives are located within the Saline Marsh Fire Management Unit, categorized as a Fire Regime and Condition Class (FRCC) 2. FRCC 2 are defined by a moderate departure from the natural (historical) regime of vegetation characteristics; fuel composition; fire frequency, severity and pattern; and other associated disturbances. The risk and consequences of fires in the area do not necessitate detailed analysis.	Alexander Neibergs	
NI	Geology / Mineral Resources / Energy Production	The alternatives would allow for quantitative sampling and mapping of mineralization. The removal of drilling samples would have no measurable effect on whatever mineral deposit may be present.	Randall Porter	

PI	Invasive Plants / Noxious Weeds	Noxious weeds have been identified as being present within the alternatives' disturbance areas. Impacts to this resource have been carried forward for analysis.	Alexander Neibergs	
NI	Lands / Access	Access to the area would be along existing BLM roads covered under travel management plans. No conflicts with other land uses in the area have been identified for the alternatives.	Craig Beck	
NI	Livestock Grazing	The project area would be located within the 23,252-acre Hunter Mt. Lee Flat grazing allotment (allotment number 05013). Due to the small size of the proposed disturbance and the existing vegetation types, the number of available AUMs (10) would not be affected by the alternatives (https://reports.blm.gov/reports.cfm?application=RAS accessed August 3, 2016).	Alexander Neibergs	
PI	National Conservation Lands (NCL)	Project is located on National Conservation Lands. Impacts to this resource have been carried forward for detailed analysis.	Martha Dickes	
PI	Native American Religious Concerns	Consultation efforts are on-going through the Ridgecrest Field Office. This topic is analyzed in the environmental assessment.	Donald Storm	
NI	Paleontology	This project is located primarily in Permian formations overlain by tertiary deposits. The site has very low potential for occurrence of paleontological resources and a negligible potential to disturb paleontological resources. A detailed analysis of impacts is not necessary.	Randall Porter	
NI	Rangeland Health Standards and Guidelines	The project area would undergo a temporary disturbance that would not diminish the rangeland health objectives based upon review of Ridgecrest Field Office planning documents, CDCA, and NEMO. Impacts to rangeland health would be negligible, and do not necessitate detailed analysis.	Alexander Neibergs	
PI	Recreation (SRMAs & ERMAs)	Recreation in the area consists primarily of hiking and other back country experiences. The alternatives could impact the recreational experience. Impacts to this resource have been carried forward for detailed analysis. No SRMAs or ERMAs are present in the area.	Craig Beck & Martha Dickes	
NI	Socio-economics	The local economy would be positively affected by the project. The degree would be negligible and does not necessitate additional analysis.	Bob Pawelek	
PI	Soils	Soils in the area are shallow and rocky, consisting of colluvium with Permian sedimentary formation parent material. The presence of O and A soil layers is minimal to non-existent. Impacts to soils resulting from blading and overland travel have already occurred on the existing road scar areas and additional impacts are anticipated from the alternatives. Impacts to this resource have been carried forward for detailed analysis.	Miriam Morrill	

PI	Special Status Animal Species other than USFWS candidate or listed species e.g. Migratory birds.	Special Status Species are located in and around the project area. The alternatives may affect their presence, habitat, or use of the area. Impacts to this resource have been carried forward for analysis.	Caroline Woods	
PI	Special Status Plant Species other than USFWS candidate or listed species	Special Status Species are located in and around the project area. The alternatives may affect their presence and habitats. Impacts to this resource have been carried forward for analysis.	Caroline Woods	
NP	Threatened, Endangered or Candidate Animal Species	No threatened, endangered, or proposed for listing animal species have been identified within or near the project area. Impacts to these species are unlikely.	Caroline Woods	
NP	Threatened, Endangered or Candidate Plant Species	No threatened, endangered, or proposed for listing plant species have been identified within or near the project area. Impacts to these species are unlikely.	Caroline Woods	
PI	Vegetation	The alternatives would involve vegetation disturbance and removal. Impacts to this resource have been carried forward for analysis.	Caroline Woods	
PI	Visual Resources	The project area would undergo temporary disturbance under the alternatives which may diminish the VRM Class II objectives. Impacts to this resource have been carried forward for analysis.	Tim Fisher	
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 10,000 pounds would be used. No extremely hazardous substances as defined in 40 CFR § 355 in threshold planning quantities would be used. Solid waste generated from the project area would be properly disposed at an approved landfill or recycled when possible. Water left in water tanks or trucks at the cessation of exploration would be either trucked out or left to evaporate in the sumps. Given the applicant committed environmental protection measures, potential impacts related to solid and hazardous wastes are considered minor and not to a degree necessitating additional analysis.	Randy Porter	
NP	Unallocated Lands	Unallocated Lands are not present near the alternatives.	Martha Dickes	

NP	Variance Lands	Variance Lands are not present near the alternatives.	Martha Dickes	
NI	Water Quality (surface / ground)	<p>Drilling proposed under the project is not anticipated to encounter groundwater. Water used for drilling will be obtained offsite and transported to the location. Drill hole plugging procedures described as applicant committed environmental protection measures are deemed sufficient to prevent unnecessary or undue degradation of water resources. If water is encountered, drill hole plugging will be carried out in accordance with state and federal requirements. Potential impacts to groundwater are not anticipated to be to a degree necessitating detailed analysis.</p> <p>Erosion and sedimentation may occur resulting from precipitation events on disturbed lands. Surface flows may carry exposed sediments downgradient of their origin. No surface water bodies are located in the vicinity of the project area; impacts to surface water bodies are not anticipated. Flows resulting from precipitation events would be short in duration and likely intense. Increased sedimentation resulting from disturbance areas would be negligible in relation to the erosive nature of the surroundings and environmental protection measures related to sediment control and reclamation would minimize impacts. Potential impacts to surface waters are not anticipated to be to a degree necessitating detailed analysis.</p>	Lynnette Elser	
NP	Waters of the U.S.	The alternatives are located primarily within HUC 18090204, the Panamint Valley hydrographic basin. The drainages on the east side of the Inyo Range flow into Panamint Valley which contains no Traditionally Navigable Waters or Relatively Permanent Waters. Panamint Valley is also an internally drained, closed basin. A portion of the drill roads are located in the Owen's Lake hydrographic basin, on the western slopes of the Inyo Range (HUC 18090103) This hydrographic basin includes Waters of the U.S. However, since no work within drainages is proposed on the western slopes of the Inyo Range, no impacts to Waters of the U.S. are anticipated to occur (SRK memo from Kevin Roukey to Carrie Schultz, December 2016)	Lynnette Elser	
NP	Wetlands / Riparian Zones	No wetlands or riparian plant communities have been identified within or near the project area (https://www.fws.gov/wetlands/data/mapper.html accessed August 3, 2016).	Lynnette Elser	
NP	Wild and Scenic Rivers	No wild & scenic rivers are identified in or adjacent to the project area.	Dana Stephenson	

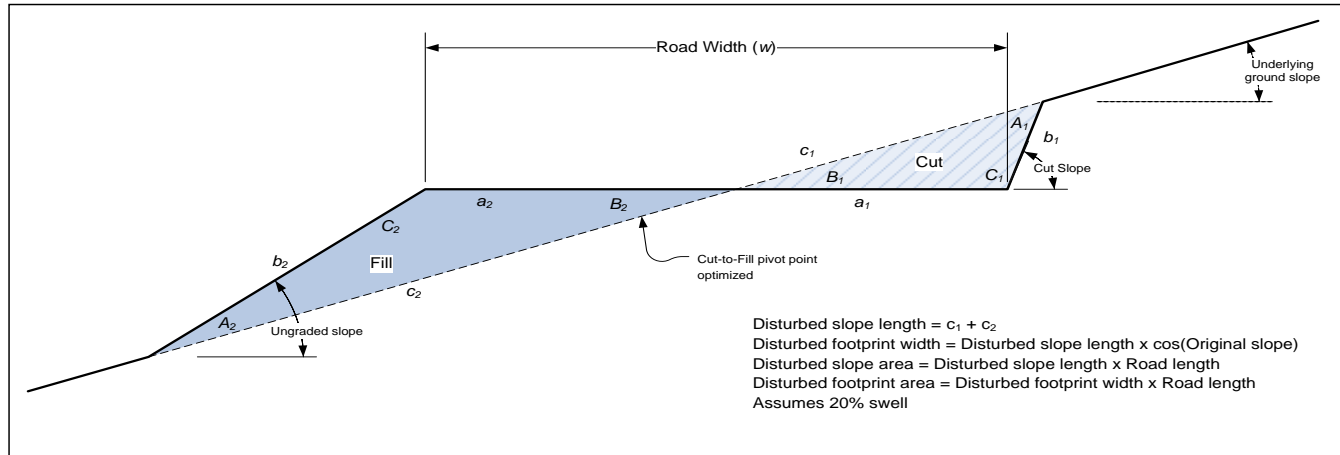
NI	Wild Horses and Burros	The project area is located in the Lee Flat Herd Management Area CA0652) consisting of 73,326 acres and the Lee Flat Herd Area (CA0652) consisting of 135,653 acres. The animal populations were estimated at zero horses and 15 burros in 2011 (http://www.blm.gov/wo/st/en/prog/wild_horse_and_burro/wh_b_information_center/statistics_and_maps/ha_and_hma_data.html accessed August 3, 2016). Because of the small size of the proposed disturbance and the applicant committed environmental protection measures for vegetation and wildlife, wild horses and burros would not be affected to a degree necessitating additional analysis.	Alexander Neibergs	
NP	Wilderness/W SA (Congressionally Designated)	The project is not located within a wilderness area. The closest wilderness area is the Malpais Mesa Wilderness Area located approximately 0.5 miles to the south.	Martha Dickes	
NP	Areas Managed for Wilderness Character (LUPA Decision)	Areas managed for wilderness characteristics, as designated under the NRDCP LUPA, are not located near the alternatives.	Martha Dickes	
PI	Lands with Wilderness Characteristics	Lands with Wilderness Characteristics (WIU #124-1) are present within the project area and may be affected by the alternatives. Impacts to this resource have been carried forward for analysis.	Martha Dickes	
NP	Woodland/ Forestry	Woodland and/or Forestry resources are not present near the alternatives.	Martha Dickes	

Final Review:

Reviewer Title	Signature	Date	Comments
NEPA / Environmental Coordinator			
Authorized Officer			

Perdito Exploration Project Sloped Disturbance Calculations

Sloped disturbance acreage calculations were done using the Standard Reclamation Cost Estimator Version 1.4.1 model. The calculation used to obtain sloped acres within the model is described in the following schematic.



Proposed Action Disturbance Calculations

Description	Underlying Ground Slope (percent grade)	Ungraded Slope (H:1V)	Cut Slope (degrees)	Length (feet)	Width (feet)	Slope Replacement (percent)	Sloped Disturbance (acres)
Not in ACEC / Located on Reclaimed BHP Road							
PA - Overland	0	0	0	4390	11	0	1.11
PA - Road 10%	10	1.5	53	720	11	100	0.21
PA - Road 20%	20	1.5	53	1242	11	100	0.42
PA - Road 30%	30	1.5	53	3119	11	100	1.27
PA - Road 40%	40	1.5	53	3682	11	100	1.92
PA - Road 50%	50	1.5	53	1104	11	100	0.81
PA - Growth Media	0	0	0	9866	1	0	0.23
Drill Hole 3 - 11%	11	1.5	53	60	12	100	0.02
Drill Hole 4 - 27%	27	1.5	53	60	12	100	0.03
Drill Hole 5 - 21%	21	1.5	53	60	12	100	0.02
Drill Hole 6 - 23%	23	1.5	53	60	12	100	0.02
Drill Hole 7 - 20%	20	1.5	53	60	12	100	0.02
Subtotal							6.08
Within ACEC / Located on Reclaimed BHP Road							
PA - ACEC - Overland	0	0	0	1551	11	0	0.39
PA - ACEC - Road 10%	10	1.5	53	682	11	100	0.18
PA - ACEC - Road 20%	20	1.5	53	893	11	100	0.3
PA - ACEC - Road 30%	30	1.5	53	1272	11	100	0.52
PA - ACEC - Road 40%	40	1.5	53	327	11	100	0.17
PA - ACEC - Road 50%	50	1.5	53	0	11	100	0
PA - ACEC - Growth Media	0	0	0	3121	1	0	0.07
Drill Hole 1 - ACEC - 18%	18	1.5	53	60	12	100	0.02
Drill Hole 2 - ACEC - 5%	5	1.5	53	60	12	100	0.02
Subtotal							1.67
Total				19402			7.75

Minimum Construction Alternative Disturbance Calculations

Description	Underlying Ground Slope (percent grade)	Ungraded Slope (H:1V)	Cut Slope (degrees)	Length (feet)	Width (feet)	Slope Replacement (percent)	Sloped Disturbance (acres)
Not in ACEC / Located on Reclaimed BHP Road							
MC - Overland	0	0	0	4390	12	0	1.21
MC - Road 10%	10	1.5	53	720	12	100	0.23
MC - Road 20%	20	1.5	53	486	12	100	0.18
MC - Road 30%	30	1.5	53	1373	12	100	0.61
MC - Road 40%	40	1.5	53	782	12	100	0.44
MC - Road 50%	50	1.5	53	551	12	100	0.44
MC - Growth Media	0	0	0	3911	1	0	0.09
Drill Hole 3 - 11%	11	1.5	53	60	12	100	0.02
Drill Hole 4 - 27%	27	1.5	53	60	12	100	0.03
Drill Hole 5 - 21%	21	1.5	53	60	12	100	0.02
Drill Hole 6 - 23%	23	1.5	53	60	12	100	0.02
Drill Hole 7 - 20%	20	1.5	53	60	12	100	0.02
Subtotal							3.31
Not in ACEC / Located on Undisturbed Land							
MC - Overland - Undist	0	0	0	5566	11	0	1.41
MC - Road 10% - Undist	10	1.5	53	485	11	100	0.14
MC - Road 20% - Undist	20	1.5	53	1320	11	100	0.44
MC - Road 30% - Undist	30	1.5	53	415	11	100	0.17
MC - Road 40% - Undist	40	1.5	53	87	11	100	0.05
MC - Road 50% - Undist	50	1.5	53	52	11	100	0.04
MC - Growth Media - Undist	0	0	0	2395	1	0	0.05
Subtotal							2.3
Within ACEC / Located on Reclaimed BHP Road							
MC - ACEC - Overland	0	0	0	1551	11	0	0.39
MC - ACEC - Road 10%	10	1.5	53	628	11	100	0.18
MC - ACEC - Road 20%	20	1.5	53	893	11	100	0.3
MC - ACEC - Road 30%	30	1.5	53	1272	11	100	0.52
MC - ACEC - Road 40%	40	1.5	53	327	11	100	0.17
MC - ACEC - Road 50%	50	1.5	53	0	11	100	0
MC - ACEC - Growth Media	0	0	0	3121	1	0	0.07
Drill Hole 1 - ACEC - 18%	18	1.5	53	60	12	100	0.02
Drill Hole 2 - ACEC - 5%	5	1.5	53	60	12	100	0.02
Subtotal							1.67
Total							7.28

Helicopter Access Alternative Disturbance Calculation

Description	Underlying Ground Slope (percent grade)	Ungraded Slope (H:1V)	Cut Slope (degrees)	Length (feet)	Width (feet)	Slope Replacement (percent)	Sloped Disturbance (acres)
Not in ACEC / Located on Reclaimed BHP Road							
Heli Hole 1 - 18%	18	1.5	53	50	20	100	0.03
Heli Hole 2 - 5%	5	1.5	53	50	20	100	0.02
Heli Hole 3 - 11%	11	1.5	53	50	20	100	0.03
Heli Hole 4 - 27%	27	1.5	53	50	20	100	0.03
Heli Hole 5 - 21%	21	1.5	53	50	20	100	0.03
Subtotal							0.14
Within ACEC / Located on Reclaimed BHP Road							
Heli Hole 6 - ACEC - 23%	23	1.5	53	50	20	100	0.03
Heli Hole 7 - ACEC - 20%	20	1.5	53	50	20	100	0.03
Subtotal							0.06
Total							0.2

Descriptions of Animal Species of Concern with the Potential to Reside in the Area

Golden Eagle (*Aquila chrysaetos*)

Habitat: Open mountains, foothills, plains, open country. Requires open terrain. In the north and west, found over tundra, prairie, rangeland, or desert; very wide-ranging in winter, more restricted to areas with good nest sites in summer. In forested eastern North America, often hunts over marshes or along rivers.

This Golden eagle is widespread in the wilder country of North America, Europe, and Asia. About the same size as the Bald Eagle, the Golden is less of a scavenger and more of a predator, regularly taking prey up to the size of foxes and cranes.

Sharp-shinned hawk (*Accipiter striatus*)

Habitat: Mixed or coniferous forests, open deciduous woodlands, thickets, edges. Usually nests in groves of coniferous trees in mixed woods, sometimes in dense deciduous trees or in pure coniferous forest with brush or clearings nearby. In winter found in any kind of forest or brushy area, but tends to avoid open country.

The smallest of the area's bird-hunting Accipiter hawks, this one is also the most migratory, breeding north to treeline in Alaska and Canada and wintering south to Panama. It is during migration that the Sharp-shin is most likely to be seen in numbers, with dozens or even hundreds passing at some favored points on coastlines, lake shores, and mountain ridges. At other seasons the hawks lurk in the woods, ambushing songbirds and generally staying out of sight.

Cooper's Hawk (*Accipiter cooperii*)

Habitat: Mature forest, open woodlands, wood edges, and river groves. Nests in coniferous, deciduous, and mixed woods, typically those with tall trees and with openings or edge habitat nearby. Also found along trees along rivers through open country, and increasingly in suburbs and cities where some tall trees exist for nest sites. In winter may be in fairly open country, especially in west.

A medium-sized hawk of the woodlands. Feeding mostly on birds and small mammals, it hunts by stealth, approaching its prey through dense cover and then pouncing with a rapid, powerful flight. Of the three bird-eating Accipiter hawks, Cooper's is the mid-sized species and the most widespread as a nesting bird south of Canada.

Red-tailed hawk (*Buteo jamaicensis*)

Habitat: Open country, woodlands, prairie groves, mountains, plains, roadsides. Found in any kind of terrain that provides both some open ground for hunting and some high perches. Habitats may include everything from woodland with scattered clearings to open grassland or desert with a few trees or utility poles.

This is the most widespread and familiar large hawk in North America, bulky and broad-winged, designed for effortless soaring. An inhabitant of open country, it is commonly seen perched on roadside poles or sailing over fields and woods. Although adults usually can be recognized by the trademark reddish-brown tail, the rest of their plumage can be quite variable, especially west of the Mississippi: Western Red-tails can range from blackish to rufous-brown to nearly white.

Prairie falcon (*Falco mexicanus*)

Habitat: Open hills, plains, prairies, deserts. Typically found in fairly dry open country, including

grassland and desert. Also in open country above treeline in high mountains. In winter, often found in farmland and around lakes and reservoirs, and may regularly winter in some western cities. Avoids forested country, and usually scarce on the immediate coast.

A large falcon of the arid west. The Prairie Falcon is nearly the size of the Peregrine, but differs in its hunting behavior, often pursuing small prey with rapid, maneuverable flight close to the ground. Although it is characteristic of desolate plains and desert wilderness, this falcon has also adapted to altered landscapes: in winter, it is often seen flying over southwestern cities, or hunting Horned Larks in farm country.

Loggerhead shrike (*Lanius ludovicianus*)

Habitat: Semi-open country with lookout posts; wires, trees, scrub. Breeds in any kind of semi-open terrain, from large clearings in wooded regions to open grassland or desert with a few scattered trees or large shrubs. In winter, may be in totally treeless country if fences or wires provide hunting perches.

In open terrain, this predatory songbird watches from a wire or other high perch, then pounces on its prey: often a large insect, sometimes a small bird or a rodent. The Loggerhead is gradually disappearing from many areas, for reasons that are poorly understood.

Black swift (*Chaetura pelagica*)

Habitat: Open sky over mountains, coastal cliffs. Forages widely over any kind of terrain but is still very local in its occurrence, probably limited to regions with suitable nesting sites. Nests on ledges or in crevices in steep cliffs, either along coast or near streams or waterfalls in mountains.

The largest swift normally found in North America, uncommon and local in the far west. Where it occurs, it may be seen flying very high, gliding and wheeling gracefully in pursuit of flying insects. The Black Swift seems to be limited in range by its very particular choice of nesting sites: it requires shady, sheltered spots on vertical cliffs totally inaccessible to predators, and often nests on the damp rock behind waterfalls.

American Robin (*Turdus migratorius*)

Habitat: Cities, towns, lawns, farmland, forests; in winter, berry-bearing trees. Over most of continent, summers wherever there are trees for nest sites and mud for nest material. In arid southwest, summers mainly in coniferous forest in mountains, rarely in well-watered lowland suburbs. In winter, flocks gather in wooded areas where trees or shrubs have good crops of berries.

A very familiar bird over most of North America, running and hopping on lawns with upright stance, often nesting on porches and windowsills. The Robin's rich caroling is among the earliest bird songs heard at dawn in spring and summer, often beginning just before first light. In fall and winter, robins may gather by the hundreds in roaming flocks, concentrating at sources of food.

Cassin's vireo (*Vireo cassinii*)

Habitat: Coniferous, deciduous, and mixed woods. Breeds in rather open woods. Often found in oaks near the coast, in ponderosa pines and Douglas-firs in the interior, but may be in mixed coniferous-deciduous woods anywhere. Migrants occur in any kind of woodland.

In the Pacific states and parts of the northern Rockies, this vireo is common in summer. When feeding, it works rather deliberately along branches, searching for insects. Its nest, suspended

in the fork of a twig, is often easy to find. This bird was formerly lumped with the Blue-headed and Plumbeous vireos under the name Solitary Vireo.

Broad-tailed hummingbird (*Selasphorus platycercus*)

Habitat: Mountain meadows and forests. Breeds mostly in mountains, up to over 10,000 feet elevation. Mostly in rather open forest, especially near streams, including pine-oak and pinyon-juniper woods, and associations of spruce, Douglas-fir, and aspen. Migrants occur in all semi-open habitats of mountains and also make stopovers in lowlands.

The metallic wing-trill of the male Broad-tailed Hummingbird is a characteristic sound of summer in the mountain west. This sound is often heard as a flying bird zings past unseen. The birds are seen easily enough, however, at masses of flowers in the high meadows, where they hover and dart around the blossoms, often fighting and chasing each other away from choice patches.

Pallid Bat (*Antrozous pallidus*)

Habitat: Arid deserts and grasslands, often near rocky outcrops and water. Less abundant in evergreen and mixed conifer woodland. Usually roosts in rock crevice or building, less often in cave, tree hollow, mine, etc. Prefers narrow crevices in caves as hibernation sites.

Reproduction: Copulation usually occurs in October-December. Delayed fertilization in spring. In the U.S., young are born in late May-early June in California, mostly late June in Kansas, probably early May to mid-June in Texas. Maternity colonies usually are small, but may include up to 200+ adults, may include adult males.

Ecology: This is a gregarious species. Usually it forms clusters in diurnal roosts. It may gather in night roosts that are frequently near, but separate from, day roosts.

Spotted bat (*Euderma maculatum*)

Habitat: Found in various habitats from desert to montane coniferous stands, including open ponderosa pine, pinyon-juniper woodland, canyon bottoms, open pasture, and hayfields. Roosts in caves and in cracks and crevices in cliffs and canyons. Winter habits poorly known.

Reproduction: Copulation likely occurs in late summer or fall. Births apparently occur in late May or early June in the south, mid-June to early July in the north. Females are not known to form maternity colonies.

Ecology: Apparently relatively solitary but may hibernate in small clusters. Seasonal changes in distribution are poorly known. In some areas, the bats may occupy higher elevation coniferous stands in summer and migrate to lower elevations in late summer/early fall.

Townsend's big-eared bat (*Corynorhinus townsendii*)

Habitat: Maternity and hibernation colonies typically are in caves and mine tunnels. Prefers relatively cold places for hibernation, often near entrances and in well ventilated areas. Uses caves, buildings, and tree cavities for night roosts. Throughout much of the known range, commonly occurs in mesic habitats characterized by coniferous and deciduous forests, but occupies a broad range of habitats.

Reproduction: Mating begins in autumn, continues into winter. Ovulation and fertilization are delayed until late winter/early spring. Gestation lasts 2-3.5 months. A litter of one is born in late spring/early summer (beginning mainly in late May in California, the second week of July in Washington, and June in southwestern Texas). Throughout the U.S. range, the earliest births occur in mid-April, the latest in late July. Young can fly at 2.5-4 weeks and are weaned by 6-8 weeks. Females are sexually mature their first summer. Males are not sexually active until their

second year (California). Nearly all adult females breed every year. Maximum longevity exceeds 21 years. Females commonly form nursery colonies generally of up to about 200 (west) or 1,000 (east) individuals, but solitary pregnant females are frequently encountered; males roost separately (apparently solitarily) during this time.

Ecology: These bats hibernate singly, or in clusters in some areas. They tend not to associate with other species of bats in daytime or in hibernation roosts, though scattered individuals of other normally colonial species occasionally may be present. Pre-weaning post-natal mortality generally is low. Adult survivorship is relatively high (about 70-80% in females in California). Estimates of annual survival of wintering Townsend's big-eared bats in 3 locations in Washington ranged from 54 to 76.0 percent and varied by location, time or trends, and sex.

Western mastiff bat (*Eumops perotis*)

Habitat: Arid and semiarid, rocky canyon country habitats in the Chihuahuan Desert; roosts in crevices and shallow caves on the sides of cliffs and rock walls, and occasionally buildings. Roosts usually high above ground with unobstructed approach. Most roosts are not used throughout the year. May alternate between different day roosts.

Reproduction: Breeds probably in early spring. Parturition dates vary extensively throughout range; young have been found as early as June and as late as August; probably most births occur in June and July. In Arizona, young a week old or younger have been found from mid-June through early August. Litter size: usually 1. Adults males and females cohabit in the same roosts throughout the year, even during period of parturition and lactation (unusual among bats).

Ecology: Roosts in small colonies of generally less than 100 individuals.

Nelson's bighorn sheep (*Ovis canadensis nelson*)

Habitat: Occur in mesic to xeric, alpine to desert grasslands or shrub-steppe in mountains, foothills, or river canyons. Many of these grasslands are fire-maintained. Suitable escape terrain (cliffs, talus slopes, etc.) is an important feature of the habitat.

Reproduction: The timing of the mating season varies throughout the range. Bighorns in southwestern deserts have an extended season encompassing several months, but the season is relatively later and shorter elsewhere, generally November in the northern part of the range, November-December in some southern California mountains. Gestation lasts about 175 days. Lambing generally peaks in March in desert populations, May (occasionally April or June) in the remainder of range. Litter size is 1, rarely 2. Young are weaned in 4-6 months. Females first breed usually in second year in south, third year in north; occasionally in first year in some areas; fecundity generally declines only slightly after eight years of age.

Ecology: Gregarious, but for most of the year adult males live apart from females. Among mature males, older males (up to an age of not more than 10 years) generally dominate younger males during the breeding season; males older than 10 years decline rapidly in condition. In western Arizona, January-June home range of adult females was 19-27 sq km. Male annual home range up to 37 sq km in Nevada.

Panamint alligator lizard (*Elgaria panamintina*)

Habitat: This lizard occurs in regions dominated by scrub desert, Joshua-tree woodland, and the lower edge of the pinyon-juniper belt. Most known locations are in canyon riparian zones below permanent springs; but individuals may range into talus slopes some distance from the

immediate riparian zone. Individuals have been found under willow thickets along watercourses, under shrubs in drier areas, and in rock slides. When inactive, the lizards hide underground, under stones or wood, or in crevices. Habitats in order of decreasing favorability: (1) along creeks with riparian vegetation, (2) along small springs with riparian vegetation, (3) near small springs in pinyon-juniper or Joshua tree woodland, (4) pinyon juniper and Joshua tree woodland in canyons or washes. Occupied riparian zones are typically only a few meters wide and less than 3 km long.

Reproduction: Mates in the spring. One female contained 4 oviductal eggs in September.

Descriptions of Plant Species of Concern Observed in the Area

Crested onion (*Allium atrorubens* var. *cristatum*)

Flowering Time: April to June

Habitat: 1240-2750m, Sandy, rocky, or clay soils on desert slopes and mountains; Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland.

Characteristics: Tepals pale pink with darker pink midveins, lance-ovate to ovate, apex margins flat, not becoming involute.

Shockley's rock cress (*Boechera shockleyi*)

Flowering Time: May

Habitat: 875-2600m, Bare rock/talus/scree, tends to occur on calcareous substrates, such as limestone or dolomitic outcrops, gravels, and sediments; also occurs on quartzite rock and sands. Many sites are on rocky ridges and slopes. Often in pinyon-juniper woodlands; also occurs in sagebrush scrub, mountain mahogany, shadscale-galleta, and ephedra-matchweed communities.

Characteristics: Characterized by (1) a multi-layered basal rosette, (2) hoary-gray pubescence of leaves, stems, and inflorescences, and (3) arching glabrous siliques that are large compared to other species in the genus.

New York mountain cryptantha (*Cryptantha tumulosa*)

Flowering Time: April - June

Habitat: 1240-2510m, Limestone, occasionally granitic gravel or clay soils, generally pinyon/juniper woodland; gravelly or clay, granitic or carbonate. Mojavean desert scrub, Pinyon and juniper woodland.

Hairy erioneuron (*Erioneuron pilosum*)

Flowering Time: May to June

Habitat: 1220-1810m, Rocky slopes, ridges, pinyon/juniper woodland; Pinyon and juniper woodland (rocky, sometimes carbonate)

Characteristics: Plant caespitose. Stem: erect, 1-3(4) dm. Leaf: sheath margin long-soft-hairy at collar; blade 3-6 cm, 1-1.5 mm wide, flat or folded, margin white. Inflorescence: raceme- or panicle-like, 1.5-4 cm, 1--2 cm wide, stalked and elevated above terminal leaf cluster. Spikelet: 1-1.5 cm; glumes 3-7 mm, tan or +- purple, awn 0; lemma 4-7 mm, tip minutely 2-toothed, awn 0.5-2.5 mm.

Shockley's prickleleaf (*Hecastocleis shockleyi*)

Flowering Time: May to July

Habitat: 1130-1880m, Dry, rocky slopes

Characteristics: Stiff, much branched shrub (4-7dm); glandular puberulent or becoming glabrous except for tufts of soft hair in axils of persistent leaf bases. Leaves simple and alternate. Primary leaves 1-3 cm long, linear to linear-lanceolate, sessile, spine-tipped, sparsely spiny-dentate. Flower heads 1-flowered, sessile, in dense, head-like clusters, surrounded by involucre of persistent, ovate, spiny-toothed, net veined bracts. True involucre narrowly cylindric. Corolla pink to reddish purple in bud, greenish white in flower; anthers purple. Pappus a crown of fringed scales.

Cespitose evening-primrose (*Oenothera caespitosa* ssp. *crinite*)

Flowering Time: July to September (Calflora), June to September (Jepson)

Habitat: 1400 to 3340m, Calcium soils in bristlecone-pine forest, pinyon/juniper woodland, desert scrub.

Inyo rockdaisy (*Perityle inyoensis*)

Flowering Time: June to August (Calflora, CNPS), June to September (Jepson)

Habitat: 1800-2800m, Dry, rocky slopes rocky, carbonate. Great Basin scrub, Pinyon and juniper woodland

Characteristics: Perennials or subshrubs, 12–25 cm; pilose-villous indument intermixed with short glandular hairs. Leaves (opposite or alternate): petioles 5–20(–50) mm; blades orbiculate, ovate, or ovate-deltate, 8–18(–21) × 6–12(–15) mm, margins serrate to serrate-lobed. Heads borne singly or (2–3) in corymbiform arrays, 7–8.5(–9) × 5–7(–8) mm. Peduncles 8–40 mm. Involucre campanulate. Phyllaries 14–21, linear-lanceolate to sub-lanceolate, 5.5–6.5 × 1.1–1.5 mm. Ray florets 0. Disc florets 35–60; corollas yellow, tubes 1.4–1.6 mm, throats subtubular to subfunneliform, 2–2.4 mm, lobes 0.6–0.7 mm. Cypselae narrowly oblanceolate to suboblanceolate, (2.5–)3–3.5 mm, margins thin-calloused, short-hairy; pappi usually inconspicuous, callous crowns, rarely of minute scales.

Mexican cliffrose (*Purshia mexicana* var. *dubia*)

Flowering Time: Apr to May (-Oct)

Habitat: 920-2660m, Pinyon-juniper, Joshua tree, yellow pine woodlands, arid desert scrub, desert chaparral.

Characteristics: Taxonomy is very inconsistent across databases. Due to lack of entries of specific variety, status of this taxa is unclear.

Mojave fish hook cactus (*Sclerocactus polyancistrus*)

Flowering Time: April to July

Habitat: 500-2500m, Limestone areas, hills and canyons, alluvial slopes; creosote-bush scrub, Joshua-tree woodland; Rocky alluvial, often alkaline soils, Mojave desert scrub.

Characteristics: Stems unbranched or in clusters, cylindric or elongate cylindric, 10-40(-45) × 5-9 cm; ribs 13-17, well developed, tubercles not evident on ribs. Spines dense, obscuring stems; radial spines 10-15(-18) per areole, white, straight, flat, 20-50 mm, glabrous; central spines 9-12 per areole, 5-8 hooked, others straight, terete to angled; abaxial and lateral central spines 6-8 per areole, red or reddish brown (rarely yellow), some hooked, (30-)56-100 × 0.7-1.2 mm; adaxial central spines usually 3 per areole, white, usually curved or twisted, flat, usually 37-86(-130) × 1.7-3.4 mm. Flowers with spicy, pungent odor, funneliform, 5-10 × 5-9 cm; outer tepals with greenish purple midstripes and rose-purple or magenta margins, cuneate-spatulate, usually 15-30 × 6-9 mm; inner tepals rose-purple to magenta (rarely white), largest tepals ovate-lanceolate, 24-45 × 9-12 mm; filaments greenish yellow; anthers cream; style grooved, not papillate. Fruits irregularly dehiscent at base, green, tan, or red, barrel-shaped, 22-50 × 12-25 mm, dry at maturity; scales few, white fringed. Seeds black, 2.7-3.7 × 2-2.5 mm, shiny; testa with fine, rounded papillae.

References

Audubon Guide to Birds of North America. Accessed online September 2017.

<http://www.audubon.org/bird-guide>

Cedar Creek Associates, Inc. 2016. *Silver Standard Resources, Inc. Perdito Exploration Project Biological Evaluation – 2016 for Sensitive Flora and Fauna.*

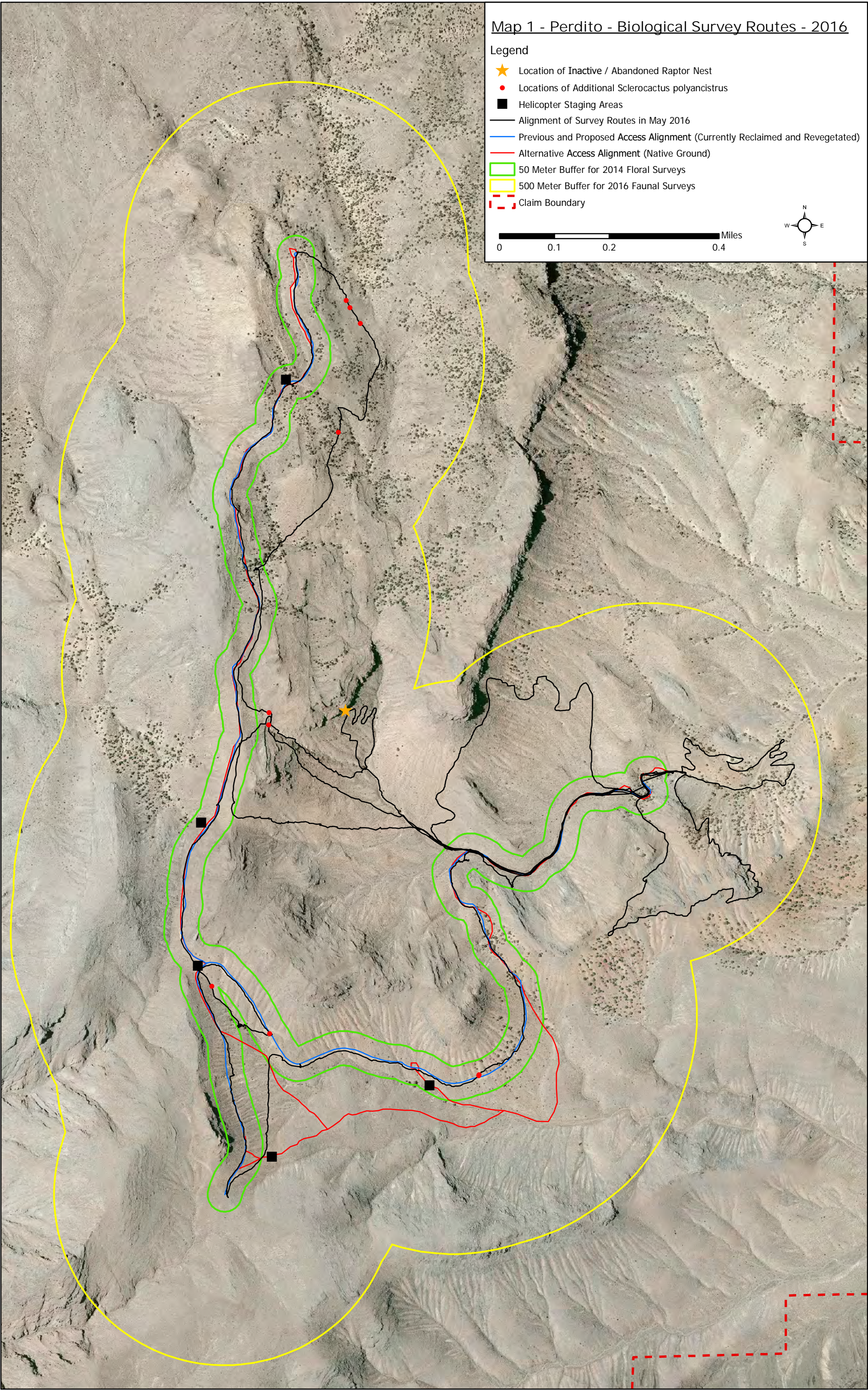
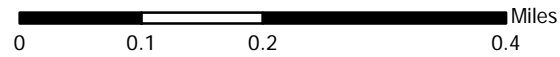
Natureserve Online Encyclopedia of Life. Accessed online September 2017.

<http://explorer.natureserve.org/servlet/NatureServe?init=Species>

Bradley et al. 2006.

Map 1 - Perdito - Biological Survey Routes - 2016

- Legend
- ★ Location of Inactive / Abandoned Raptor Nest
 - Locations of Additional *Sclerocactus polyancistrus*
 - Helicopter Staging Areas
 - Alignment of Survey Routes in May 2016
 - Previous and Proposed Access Alignment (Currently Reclaimed and Revegetated)
 - Alternative Access Alignment (Native Ground)
 - 50 Meter Buffer for 2014 Floral Surveys
 - 500 Meter Buffer for 2016 Faunal Surveys
 - Claim Boundary



Comparable Equipment and Published Emissions

Equipment Type	Comparable Equipment Type	CO2e Emissions/Hour (pounds) ¹
Airbus Helicopter Astar AS350B2	Airbus Helicopter Astar AS350B	970.83
Schramm T450 track-mounted drill	Boring/Drill Rig	166.061
Compressor, 900 cubic feet per minute 351 psi	Pump (250 HP)	203.116
Track-mounted pipe carrier	Truck (Off-highway)	263.09
2,000-gallon water truck	Water Truck	134.88
Backhoe	Backhoe	67.193
D6 or equivalent dozer with 10-foot or less blade	Dozer (Rubber Tired)	243.383
Light-duty trucks	Pick-up truck - onroad	1.11
Parts trailer	Truck (Off-highway)	263.09
LF 70 or 90 surface Coring Fly Drill	Boring/Drill rig	166.061
Portable gas generator	Generator	62.104
Hydraulic sump pump	Generator	62.104
Diesel triplex pump	Generator	62.104
Helicopter-portable excavator	Excavator - small	75.211

¹Helicopter emission numbers are from Conklin & de Decker (<https://www.conklindd.com/CDALibrary/CO2Calc.aspx>) and the rest of the emission data is from the Medford GHG Calculator

Proposed Action GHG Calculation

Equipment	CO2e Emissions/Hour (pounds)	Description of Hours	Calculated Hours of Operation	CO2e Emissions (pounds)
Schramm T450 track-mounted drill	166.061	88 days of 24-hour shifts	2,112	350720.83
Compressor, 900 cubic feet per minute 351 psi	203.116	88 days of 24-hour shifts	2,112	428980.99
Track-mounted pipe carrier	263.09	1 round-trip to Lone Pine (90 miles) at an average of 45 miles per hour plus an additional 16 hours to move from pad to pad	18	4735.62
2,000-gallon water truck	134.88	1 round-trip to Keeler (80 miles) for 88 days at 40 miles per hour	176	23738.88
Backhoe	67.193	3 weeks of 12-hour shifts (2 weeks at start up and 1 week for reclamation)	252	16932.64
D6 or equivalent dozer with 10-foot or less blade	243.383	3 weeks of 12-hour shifts (2 weeks at start up and 1 week for reclamation)	252	61332.52
Light-duty trucks	1.11	One trip per day during construction and reclamation (3 weeks) plus 2 round-trip per day trips during 88 days of drilling to Lone Pine (90 miles) at 45 miles per hour	394	437.34
Parts trailer	263.09	1 round-trip to Lone Pine (90 miles) at an average of 45 miles per hour plus an additional 16 hours to move from pad to pad	18	4735.62
Sum (pounds)				891614.44
Sum (metric tons)				404.43

Drilling is planned for 26,250 feet. This results in 88 days of drilling based on 300 feet per 24 hr day.

Minimum Construction Alternative GHG Calculation

Equipment	CO2-e Emissions/Hour (pounds)	Description of Hours	Calculated hours of Operation	CO2 -e Emissions (pounds)
Schramm T450 track-mounted drill	166.061	88 days of 24-hour shifts	2,112	350720.83
Compressor, 900 cubic feet per minute 351 psi	203.116	88 days of 24-hour shifts	2,112	428980.99
Track-mounted pipe carrier	263.09	1 round-trip to Lone Pine (90 miles) at an average of 45 miles per hour plus an additional 16 hours to move from pad to pad	18	4735.62
2,000-gallon water truck	134.88	1 round-trip to Keeler (80 miles) for 88 days at 40 miles per hour	176	23738.88
Backhoe	67.193	3 weeks of 12-hour shifts (2 weeks at start up and 1 week for reclamation)	252	16932.64
D6 or equivalent dozer with 10-foot or less blade	243.383	3 weeks of 12-hour shifts (2 weeks at start up and 1 week for reclamation)	252	61332.52
Light-duty trucks	1.11	One trip per day during construction and reclamation (3 weeks) plus 2 round-trip per day trips during 88 days of drilling to Lone Pine (90 miles) at 45 miles per hour	394	437.34
Parts trailer	263.09	1 round-trip to Lone Pine (90 miles) at an average of 45 miles per hour plus an additional 16 hours to move from pad to pad	18	4735.62
Sum (pounds)				891614.44
Sum (metric tons)				404.43

Drilling is planned for 26,250 feet. This results in 88 days of drilling based on 300 feet per 24 hr day.

Helicopter Access Alternative GHG Calculation

Equipment	CO2-e Emissions/Hour (pounds)	Description of Hours	Calculated hours of Operation	CO2 -e Emissions (pounds)
Airbus Helicopter Astar AS350B2	970.83	2.2 round trips from Lone Pine (30 minute round trip flight) for 88 days plus 1 round trip per day for 21 days of construction and reclamation	108	104849.64
LF 70 or 90 surface Coring Fly Drill	166.061	24-hours per day for 88 days	2,112	350720.83
Portable gas generator	62.104	24-hours per day for 88 days	2,112	131163.65
Hydraulic sump pump	62.104	24-hours per day for 88 days	2,112	131163.65
Diesel triplex pump	62.104	24-hours per day for 88 days	2,112	131163.65
Helicopter-portable excavator	75.211	12-hour shifts for 21 days	252	18953.17
Sum (pounds)				868014.59
Sum (metric tons)				393.72

Figure 1
KOP 1: No Action Alternative



Figure 2

KOP 1: Silver Standard's Proposed Action Alternative and Minimum Road Construction Alternative



Figure 3
KOP 2 Looking East: No Action Alternative



Figure 4
KOP 2 Looking East: Silver Standard's Proposed Action Alternative and Helicopter
Alternative



Figure 5
KOP 2 Looking East: Minimum Road Construction Alternative



Figure 6
KOP 2 Looking North: No Action Alternative



Figure 7

KOP 2 Looking North: Silver Standard's Proposed Action Alternative



Figure 8
KOP 2 Looking North: Minimum Road Construction Alternative



Figure 9

KOP 2 Looking North: BLM Preferred Helicopter Access Alternative



Figure 10
KOP 2 Looking West: No Action Alternative



Figure 11

KOP 2 Looking West: Silver Standard's Proposed Action Alternative



Figure 12
KOP 2 Looking West: Minimum Road Construction Alternative



Overland Travel on lower
slopes

Figure 13

KOP 2 Looking West: BLM Preferred Helicopter Access Alternative



Figure 14
KOP 3: No Action Alternative



Figure 15

KOP 3: Silver Standard's Proposed Action Alternative and Minimum Road Construction Alternative



Figure 16
KOP 3: BLM Preferred Helicopter Access Alternative



Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 1 – *Silver Standard's Proposed Action Alternative and Minimum Road Construction Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 1 and 2

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Prominent and steep to flat with angular sub-elements	Solid and vertical with some complexity to small and convex	NA
Line	Transitional and complex curving edges with angular sub-elements and a curving, rugged silhouette	Bold complex silhouette edges to weak digitate edges	NA
Color	Light yellowish browns to whites, low chroma with some glare	Dark greens to olive greens and pale yellows	NA
Texture	Medium to coarse, uneven and discontinuous	Random and non-directional to stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Flat to rounded with angular sub-elements	No change to solid and vertical features, creation of band between smaller vegetation features	NA
Line	Curving butt edge	No change to old complex silhouette edges. Creation of a curving butt edge band	NA

Element	1. Land/Water	2. Vegetation	3. Structures
Color	Light yellowish browns to whites with some glare	Removal of some vegetation	NA
Texture	Medium to coarse	Removal of some vegetation texture	NA

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form	x					x						x
Line	x					x						x
Color		x				x						x
Texture		x				x						x

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The road near to and visible from KOP 1 does begin to attract the attention of the observer. However, the presence of the existing reclaimed road results in the changes to primarily form and line having a stronger contrast with the existing elements. Moderate changes would occur for the elements of color and texture to the land and moderate changes to the form, line, color and texture of vegetation would occur. In accordance with BLM Manual 8431, the viewing length of time and the relative size of the change in comparison to the landscape must also be taken into consideration. Viewers of this scene would most likely be persons either accessing the canyon for pedestrian or horse-back recreation or campers utilizing the camp area below. The viewing time of pedestrian recreationists would be brief while campers could view the scene for a day to a few days. Overall contrasts for the individual viewers would be strong to moderate. However, within the context of the greater landscape, the contrasts would be low.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking East – *Silver Standard's Proposed Action Alternative and BLM Preferred Helicopter Access Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 3 and 4

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Rolling convex masses grading from steep to gentle with jagged sub-elements	Amorphous and undulating to smooth with a few near-vertical components	NA
Line	Silhouette lines are mostly smooth to undulating, converging in the drainage with some sub-angular sections	Mostly soft and digitate, some silhouette and near-vertical	NA
Color	Light yellowish brown, medium to high chroma on high slopes	Low chroma olive greens and greys with some dark or bright greens	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Medium grained with stippled medium density grading to sparse and random	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	No change	No change	Small geometric solids
Line	No change	No change	Vertical silhouette

Element	1. Land/Water	2. Vegetation	3. Structures
Color	No change	No change	High chroma reds, some glare
Texture	No change	No change	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form				x				x			x	
Line				x				x			x	
Color				x				x			x	
Texture				x				x			x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. Changes to the visual elements only involve changes to structures. They would be visible but are subtle and would not attract the attention of the pedestrian viewer within the context of the greater landscape.

8. Additional mitigating measures recommended (Yes or No and explain).

None which would affect this particular view.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking East – *Minimum Road Construction Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 3 and 5

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Rolling convex masses grading from steep to gentle with jagged sub-elements	Amorphous and undulating to smooth with a few near-vertical components	NA
Line	Silhouette lines are mostly smooth to undulating, converging in the drainage with some sub-angular sections	Mostly soft and digitate, some silhouette and near-vertical	NA
Color	Light yellowish brown, medium to high chroma on high slopes	Low chroma olive greens and greys with some dark or bright greens	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Medium grained with stippled medium density grading to sparse and random	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Undulating	Crushing of some features, creation of a subtle band	Small geometric solids

Element	1. Land/Water	2. Vegetation	3. Structures
Line	Slightly curving and subtle	Crushing of some features, creation of a subtle butt edge	Vertical silhouette
Color	Light brownish yellow	No change to vegetation color but crushing of some	High chroma reds and whites, some glare
Texture	Fine	No change to vegetation texture but crushing of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form			x				x				x	
Line			x				x				x	
Color			x				x				x	
Texture			x				x				x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The drilling equipment and the Minimum Road Construction Alternative overland travel route would be visible from KOP2 looking east but would not dominate the characteristic landscape. Viewers of this scene would most likely be persons accessing the canyon for pedestrian recreation or on horseback. Their viewing time would be brief. While the contrast to viewers in the area may be moderate, the contrasts would be low within the context of the greater landscape.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking North – *Silver Standard's Proposed Action Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 6 and 7

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Rounded to sub-angular and repeated diagonal features	Low and convex with some minor vertical solids	NA
Line	Smooth to rugged silhouette with descending parallel, diagonal patterns, moderate sub-horizontals	Sub-horizontal distinct butt edge with some soft and convex silhouettes	NA
Color	Light yellowish browns to whites and olive greens, low chroma with some glare	Dark greens to olive greens and pale yellows	NA
Texture	Medium to coarse, mostly even	Even, directional, stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Horizontal and flat	Removal of some low convex features	Small geometric solids
Line	Straight silhouette edge to undulating butt edge	Creation of an undulating butt edge band	Vertical and angular silhouettes

Element	1. Land/Water	2. Vegetation	3. Structures
Color	Light yellowish browns to whites with some glare	No change in existing vegetation colors, removal of some	High chroma reds and whites, some glare
Texture	Medium to coarse	No change to existing vegetation textures, removal of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form		x				x					x	
Line		x				x					x	
Color		x				x					x	
Texture			x				x				x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The road constructed upslope from KOP 2 looking north does begin to attract the attention of the observer but its similarity to the existing reclaimed road making the change to form, line, and color moderate for the land/water feature and the change to vegetation form, line, and color also moderate. In accordance with BLM Manual 8431, the viewing length of time and the relative size of the change in comparison to the landscape must be taken into consideration. Viewers of this scene would most likely be persons accessing the canyon for pedestrian recreation or on horseback. They would generally be moving through the area. While to them, the contrasts may be moderate during their viewing time, their viewing time would be brief. Within the context of the greater landscape, the contrasts would be low.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking North – *Minimum Road Construction Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 6 and 8

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Rounded to sub-angular and repeated diagonal features	Low and convex with some minor vertical solids	NA
Line	Smooth to rugged silhouette with descending parallel, diagonal patterns, moderate sub-horizontals	Sub-horizontal distinct butt edge with some soft and convex silhouettes	NA
Color	Light yellowish browns to whites and olive greens, low chroma with some glare	Dark greens to olive greens and pale yellows	NA
Texture	Medium to coarse, mostly even	Even, directional, stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Sub-vertical to diagonal	Removal of some low convex features and crushing of others	Small geometric solids
Line	Flat silhouetted edge, straight to undulating edge	Creation of an undulating butt edge band	Vertical and angular silhouettes

Element	1. Land/Water	2. Vegetation	3. Structures
Color	Light yellowish browns to whites	No change in existing vegetation colors, removal or crushing of some	High chroma reds and whites, some glare
Texture	Medium to coarse	No change to existing vegetation textures, removal or crushing of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form		x					x				x	
Line		x				x					x	
Color		x				x					x	
Texture			x				x				x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The overland travel and constructed road sections begin to attract the attention of the observer but its similarity to the existing reclaimed road making the change to form, line, and color moderate for the land/water feature and the change to vegetation line and color also moderate. The newly constructed road and overland travel areas do not match the horizontal to sub-horizontal existing reclaimed road but they are similar. Viewers of this scene would most likely be persons accessing the canyon for pedestrian recreation or on horseback. They would generally be moving through the area. While to them, the contrasts may be moderate during the viewing time, their viewing time would be brief. Within the context of the greater landscape, the contrasts would be low.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking North – *BLM Preferred Helicopter Access Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 6 and 9

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Rounded to sub-angular and repeated diagonal features	Low and convex with some minor vertical solids	NA
Line	Smooth to rugged silhouette with descending parallel, diagonal patterns, moderate sub-horizontals	Sub-horizontal distinct butt edge with some soft and convex silhouettes	NA
Color	Light yellowish browns to whites and olive greens, low chroma with some glare	Dark greens to olive greens and pale yellows	NA
Texture	Medium to coarse, mostly even	Even, directional, stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Flat and subtle	Removal of some low convex features	Small geometric solids
Line	straight to undulating edge	Creation of a subtle butt edge	Vertical and angular silhouettes

Color	Light yellowish browns to whites with some glare	No change in existing vegetation colors, removal of some	High chroma reds and whites, some glare
Texture	Medium to coarse	No change to existing vegetation textures, removal of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form			x				x				x	
Line			x				x				x	
Color			x				x				x	
Texture			x				x				x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. Changes to the visual elements would be visible but are subtle and would not attract the attention of the pedestrian viewer or horseback recreationist within the context of the greater landscape.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking West – *Silver Standard's Proposed Action Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 11 and 12

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Flat to sloping masses grading from steep to gentle with jagged sub-elements	Low and convex	NA
Line	Silhouette lines are mostly smooth to undulating, with some sub-angular sections, diagonal sub-elements	Sub-horizontal butt edge with some convex silhouettes	NA
Color	Light yellowish brown, medium to high chroma on high slopes	Dark greens to olive greens and pale yellows	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Even, directional, stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Subtle, flat, and horizontal	Removal of some features, creation of a subtle band	Small geometric solids
Line	Slightly curving	Removal of some features, hardening of existing butt edge	Vertical silhouette

Element	1. Land/Water	2. Vegetation	3. Structures
Color	Light brownish yellow, some glare possible	No change to vegetation color but removal of some	High chroma reds and whites, some glare
Texture	Fine	No change to vegetation texture but removal of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form			x				x			x		
Line			x				x			x		
Color		x						x		x		
Texture			x					x			x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The drilling equipment and the Silver Standard's Proposed Action Alternative road visible from KOP2 looking west would be visible but would not dominate the characteristic landscape. Changes to the land form and line would be enhancing features which already existing due to the reclaimed road while changes to color would be moderate. The presence of structures would result in moderate changes to form, line, and color. Viewers of this scene would most likely be persons accessing the canyon for pedestrian recreation or on horseback. Their viewing time would be brief. Within the context of the greater landscape, the contrasts would be low.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking West – *Minimum Road Construction Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 10 and 12

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Flat to sloping masses grading from steep to gentle with jagged sub-elements	Low and convex	NA
Line	Silhouette lines are mostly smooth to undulating, with some sub-angular sections, diagonal sub-elements	Sub-horizontal butt edge with some convex silhouettes	NA
Color	Light yellowish brown, medium to high chroma on high slopes	Dark greens to olive greens and pale yellows	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Even, directional, stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Flat to sloped	Removal of some features, creation of a band	Small geometric solids
Line	Slightly curving, diagonal and contrasting	Removal of some features, hardening of existing butt edge and creating of new butt edges	Vertical silhouette
Color	Light brownish yellow, some glare possible	No change to vegetation color but removal/crushing of some	High chroma reds and whites, some glare

Element	1. Land/Water	2. Vegetation	3. Structures
Texture	Fine to medium	No change to vegetation texture but removal/crushing of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form	x				x					x		
Line	x				x					x		
Color	x					x				x		
Texture			x			x					x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

No. The drilling equipment and the Minimum Road Construction Alternative road visible from KOP2 looking west would be visible and may attract attention and begin to dominate the landscape. The greatest reason for this is the creation of a road bed in a location where a road was not present before, and at such an angle not repeating existing forms or the existing reclaimed road. The running bed of the road/and or overland travel areas would be visible to viewers at KOP 2 looking west which makes the contrasting changes to land form and line moderate. Viewers of this scene would most likely be persons accessing the canyon for pedestrian recreation. Their viewing time would be brief. However, because the road bed would be a continuous feature in front and behind the viewer, its context within the greater landscape does not minimize the effect.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 2 looking West – *BLM Preferred Helicopter Access Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 10 and 13

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Flat to sloping masses grading from steep to gentle with jagged sub-elements	Low and convex	NA
Line	Silhouette lines are mostly smooth to undulating, with some sub-angular sections, diagonal sub-elements	Sub-horizontal butt edge with some convex silhouettes	NA
Color	Light yellowish brown, medium to high chroma on high slopes	Dark greens to olive greens and pale yellows	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Even, directional, stippled and subtle	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Subtle, flat, and horizontal	Removal of some features, creation of a subtle band	Small geometric solids
Line	Subtle and flat	Removal of some features, hardening of small portion of existing butt edge	Vertical silhouette

Element	1. Land/Water	2. Vegetation	3. Structures
Color	Light brownish yellow, some glare possible	No change to vegetation color but removal of some	High chroma reds and whites, some glare
Texture	Fine	No change to vegetation texture but removal of some	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form			x				x				x	
Line			x				x				x	
Color			x					x			x	
Texture			x					x			x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The drilling equipment and drill pad visible from KOP2 looking west would be visible but would not dominate the characteristic landscape. Changes to the land form and line would be partially enhancing elements which already existing due to the reclaimed road. Viewers of this scene would most likely be persons accessing the canyon for pedestrian recreation or on horseback. Their viewing time would be brief. Within the context of the greater landscape, the contrasts would be low.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 3 – *Silver Standard's Proposed Action Alternative and Minimum Road Construction Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 14 and 15

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Sloping to sub-angular grading to flat	Prominent vertical and irregular to low and subtle	NA
Line	Silhouette lines are mostly smooth to undulating, with some sub-angular sections, diagonal sub-elements	Strong vertical irregular silhouettes to subtle diffuse patterns	NA
Color	Light yellowish brown	Dark greens to olive greens and pale yellows	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Random and coarse to smooth and fine	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	No change	No change	Small geometric solids
Line	Subtle increase in sloping line contrast	No change	Vertical silhouette
Color	No change	No change	High chroma reds and whites, some glare

Element	1. Land/Water	2. Vegetation	3. Structures
Texture	No change	No change	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form				x				x			x	
Line			x					x			x	
Color				x				x			x	
Texture				x				x			x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. The reconstructed road feature would appear as a subtle change in line from the existing reclaimed road. Structures would be visible but create only a weak change in form, line, color, and texture viewed from this distance. Changes to the visual elements would be visible but are subtle and would not attract the attention of the pedestrian viewer or person on horseback within the context of the greater landscape.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

Visual Contrast Rating Worksheet

December 5, 2016

District: California Desert Conservation Area

Resource Area: Ridgecrest Field Office

Activity (program): Mineral Exploration

Section A. Project Information

1. Project Name: Perdito Exploration Project
2. Key Observation Point: KOP 3 – *BLM Preferred Helicopter Access Alternative*
3. VRM Class: Class II
4. Location: Township 17 South, Range 39 East.
5. Location Sketch: See figures 14 and 16

Section B. Characteristic Landscape Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	Sloping to sub-angular grading to flat	Prominent vertical and irregular to low and subtle	NA
Line	Silhouette lines are mostly smooth to undulating, with some sub-angular sections, diagonal sub-elements	Strong vertical irregular silhouettes to subtle diffuse patterns	NA
Color	Light yellowish brown	Dark greens to olive greens and pale yellows	NA
Texture	Fine and continuous with some directionality, minor uneven rough sections	Random and coarse to smooth and fine	NA

Section C. Proposed Activity Description

Element	1. Land/Water	2. Vegetation	3. Structures
Form	No change	No change	Small geometric solids
Line	No change	No change	Vertical silhouette
Color	No change	No change	High chroma reds and whites, some glare
Texture	No change	No change	Smooth, some gloss

Section D. Contrast Rating

Short Term X, during active exploration, less than five years

Long Term ____

6. Degree of Contrast

Elements	1. Land/ Water				2. Vegetation				3. Structures			
	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None	Stronger	Moderate	Weak	None
Form				x				x			x	
Line				x				x			x	
Color				x				x			x	
Texture				x				x			x	

7. Does project design meet visual resource management objectives? (Yes or No and explain).

Yes. Structures would be visible but create only a weak change in form, line, color, and texture viewed from this distance. Changes to the visual elements would be visible but are subtle and would not attract the attention of the pedestrian viewer within the context of the greater landscape.

8. Additional mitigating measures recommended (Yes or No and explain).

See EA Text.

Evaluator's Name and Date

Carrie Schultz, SRK Consulting (U.S.), Inc.

December 5, 2016

DUST CONTROL PLAN

GRANTED TO:

PROJECT ADDRESS:

1. Dust control

- a. The Proponent shall be responsible for dust control from commencement of this project to final completion. The Proponent shall also be responsible for insuring their subcontractor(s), employees, and all other persons connected with the project abide by the conditions of this plan. (District Rules 101.U & 401).
- b. If wind conditions are such that the Proponent cannot control dust, the Proponent shall shut down all operations (except for equipment used for dust control). (Origin of Condition, District Rule 401).
- c. The Proponent shall not discharge into the atmosphere from any single source of emission whatsoever, any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark, or darker, in shade as that designated as No. 1 on the Ringelmann Chart (as published by the US Bureau of Mines) or of such opacity as to obscure an observer's view to a degree equal to or greater than 20%.
- d. The Proponent shall log and maintain a daily record of each water truck's hours of operations and water tank fills. These records shall be readily accessible either at the fill-up tank or in the Proponents central office.
- e. The Proponent shall apply water or chemical stabilizers to disturbed soils prior to wind events.

2. Haul road emissions

- a. 25 mph speed limit signs shall be posted along the unpaved road. During daily activity, all traffic, including the Proponent employees and contractor(s), shall observe this speed limit while traveling on all unpaved roads and surfaces throughout the project. The speed limit shall be strictly enforced.
- b. In order to prevent violations of District Rules 400 (Opacity), and 401 (Fugitive Dust Rule), at least **one or two** water trucks shall be available on a full-time basis to apply water to the open surface areas. In the event a water truck fails or suffers a breakdown condition beyond routine truck maintenance, reporting of this breakdown shall be forwarded to the District according to the terms specified in Condition 4.

3. Track-Out

Proponent shall remove track-out as necessary, but at least at the end of the workday. If track-out cleanup is accomplished with a rotary brush/broom, there shall be sufficient moisture to limit visible emission to less than 20% opacity.

4. Breakdown (or Emergency) reporting & operating under breakdown conditions

DUST CONTROL PLAN

The Proponent shall comply with the breakdown requirements of District Rules 403 (Breakdown), which shall include notifying the Air Pollution Control Officer of a breakdown condition within an hour of detection, unless it can be demonstrated that a longer reporting period is necessary. Notification shall identify the time, location, equipment involved, and to the extent possible the cause of the breakdown and steps taken to correct the breakdown condition. Within one week after the breakdown occurrence, Proponent shall submit a written report to the Air Pollution Control Officer which includes: date of correction of the breakdown, determination of the cause of the breakdown, corrective measures to prevent a recurrence, an estimate of the emissions caused by the breakdown condition, and pictures of the failed equipment, if available. Breakdown conditions shall not persist longer than 24 hours. [Origin of Condition: District Rule 403].

5. Project Area and abandonment

- a. The Proponent shall keep the active disturbance areas as small as possible.
- b. At the termination of project, and prior to the Proponent leaving the site, the Proponent shall apply reasonably available dust control measures to prevent wind blown fugitive dust from being emitted from the site, with attention paid to highway shoulders, former equipment parking areas and median of Highway. (Rules 401 & 402)

6. Nuisance

The Proponent shall not discharge from any source whatsoever, such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such persons or the public or which cause or have a natural tendency to cause injury or damage to business or property.

7. Recordkeeping

Required record keeping information shall be retained by the Proponent in a form suitable for inspection for a period of at least two (2) years from the end of the calendar year of the journal entry. [District Rule 206.B, and CH&SC §42705 – Records].

8. Idling Diesel Engines

A driver of a diesel-fueled motor vehicle with a gross vehicle weight rating (GVWR) greater than 10,000 pounds is prohibited from idling the vehicle's primary engine for more than 5 minutes at any location. [13 CCR 2485]

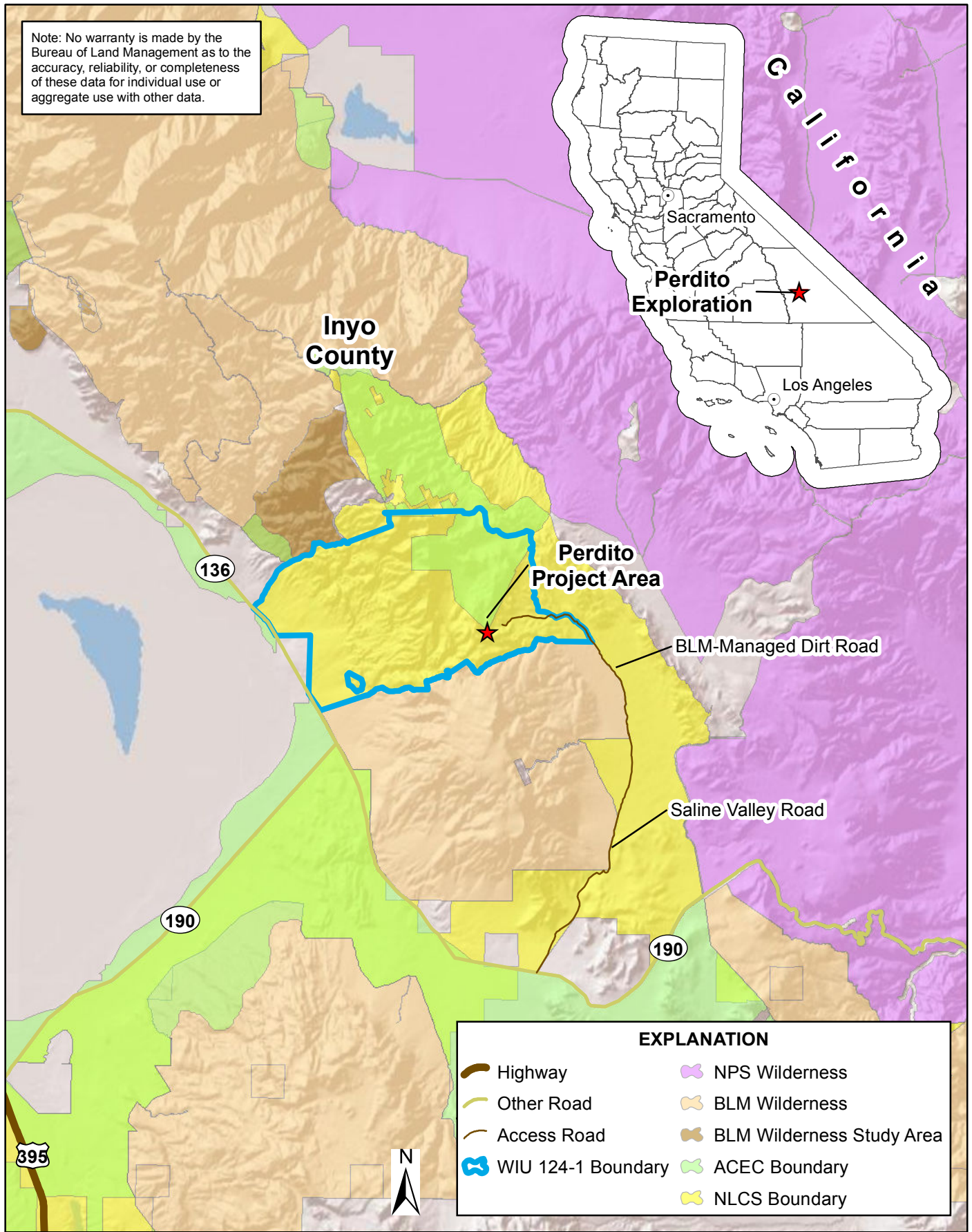
9. Right-of-entry

The "Right of Entry", as defined by California Health and Safety Code (CH&SC) § 41510 of Division 26, shall apply at all times with respect to the equipment and the Control System. Representatives of the Great Basin Unified Air Pollution Control District upon presentation of credentials, shall be permitted to enter the Proponent's facility to inspect and copy any record required to be kept under the terms of this permit. District staff shall also be permitted to inspect any equipment, work practices, air-emission-related activity or

DUST CONTROL PLAN

method dictated by this permit. If deemed necessary by the District to verify compliance with these conditions, the Proponent shall, within 7 days notice, be available to open any sample extraction port or exhaust outlet for the purpose of conducting source tests or to collect samples. In enforcing the terms of this permit, any cost incurred in collecting samples, source testing and laboratory analysis fees shall be the responsibility of the applicant. [Origin of Condition: District Rule 302 Analysis Fee]. [Origin of Condition: District Rule 210].

Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



California Desert
BLM District
Ridgecrest Field Office

NAD 1983 UTM Zone 11N

SCALE: 1 inch = 4 miles

PERDITO EXPLORATION PROJECT ENVIRONMENTAL ASSESSMENT

DRAWING TITLE:

PROJECT LOCATION

DRAWING NO.

FIGURE 1

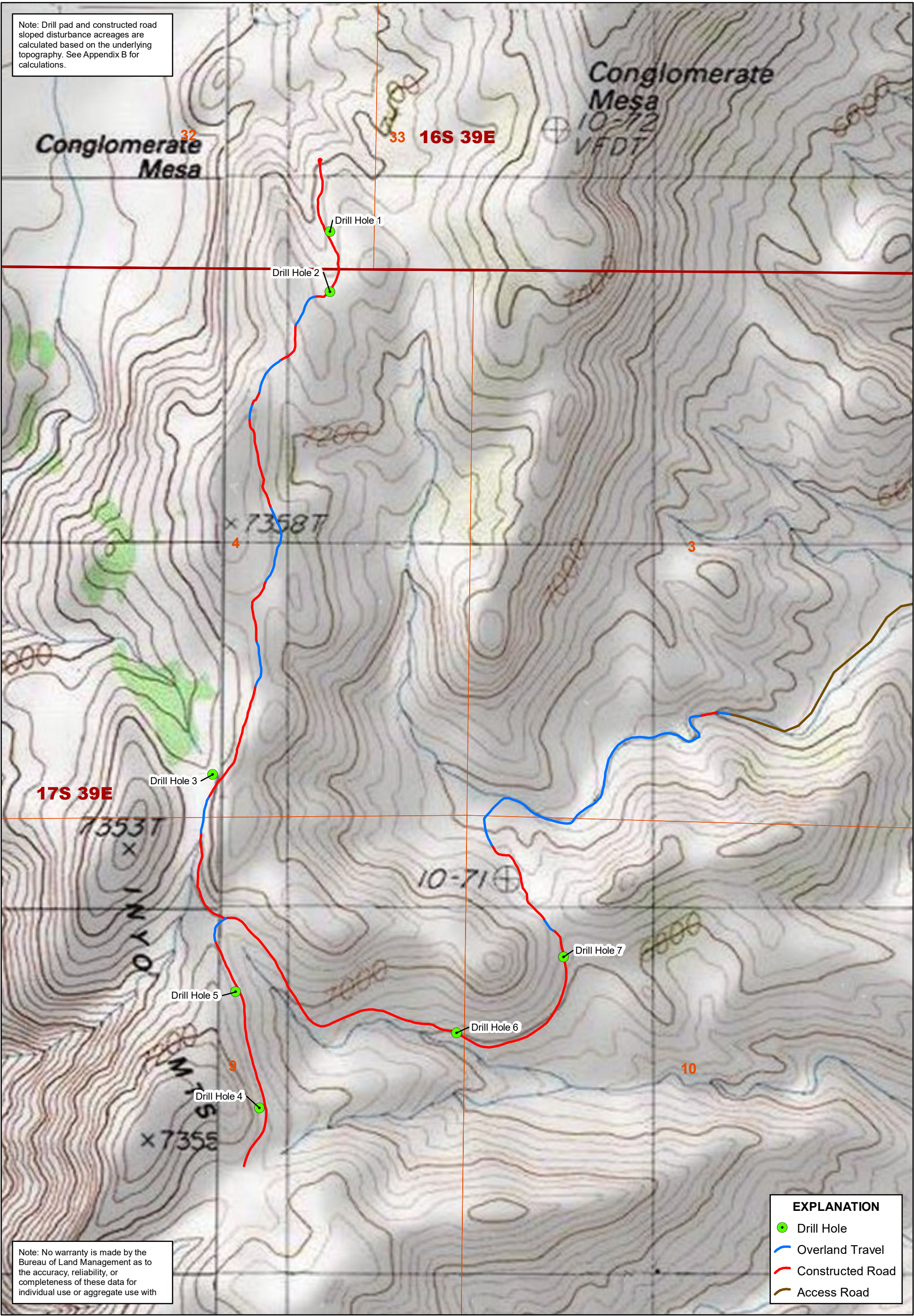
REVISION NO.

DATE:

3/7/2017

A

Note: Drill pad and constructed road sloped disturbance acreages are calculated based on the underlying topography. See Appendix B for calculations.



Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with



Feet
0 800



California Desert
BLM District
Ridgecrest Field Office

NAD 1983 UTM Zone 11N

SCALE: 1 inch = 800 feet

**PERDITO
EXPLORATION PROJECT
ENVIRONMENTAL
ASSESSMENT**

DRAWING TITLE:
**SILVER STANDARD'S
PROPOSED ACTION
ALTERNATIVE**

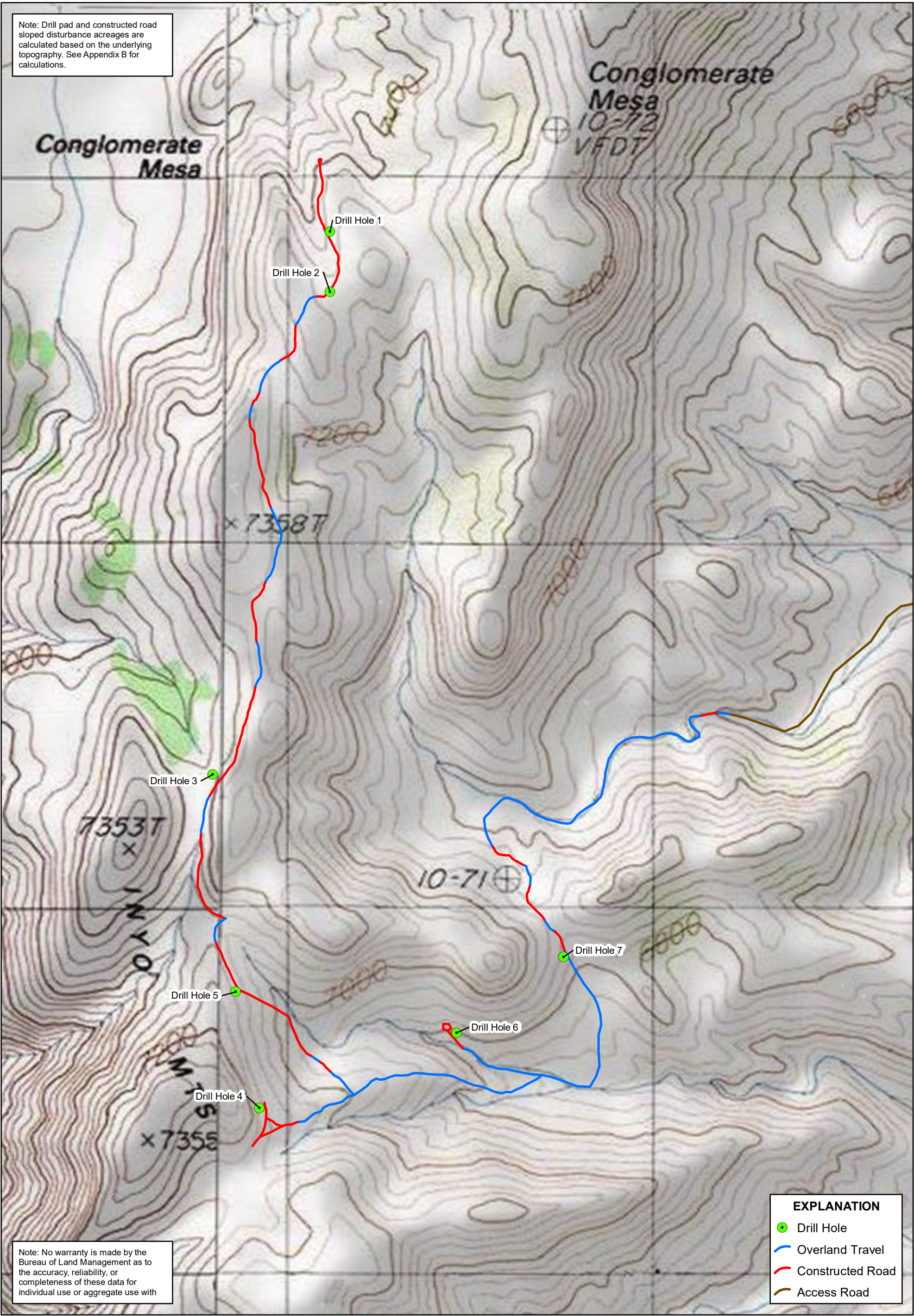
DRAWING NO. **FIGURE 2A**

DATE: **9/21/2017**

REVISION NO.

A

Note: Drill pad and constructed road sloped disturbance acreages are calculated based on the underlying topography. See Appendix B for calculations.



Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with



Feet
0 800



California Desert
BLM District
Ridgecrest Field Office

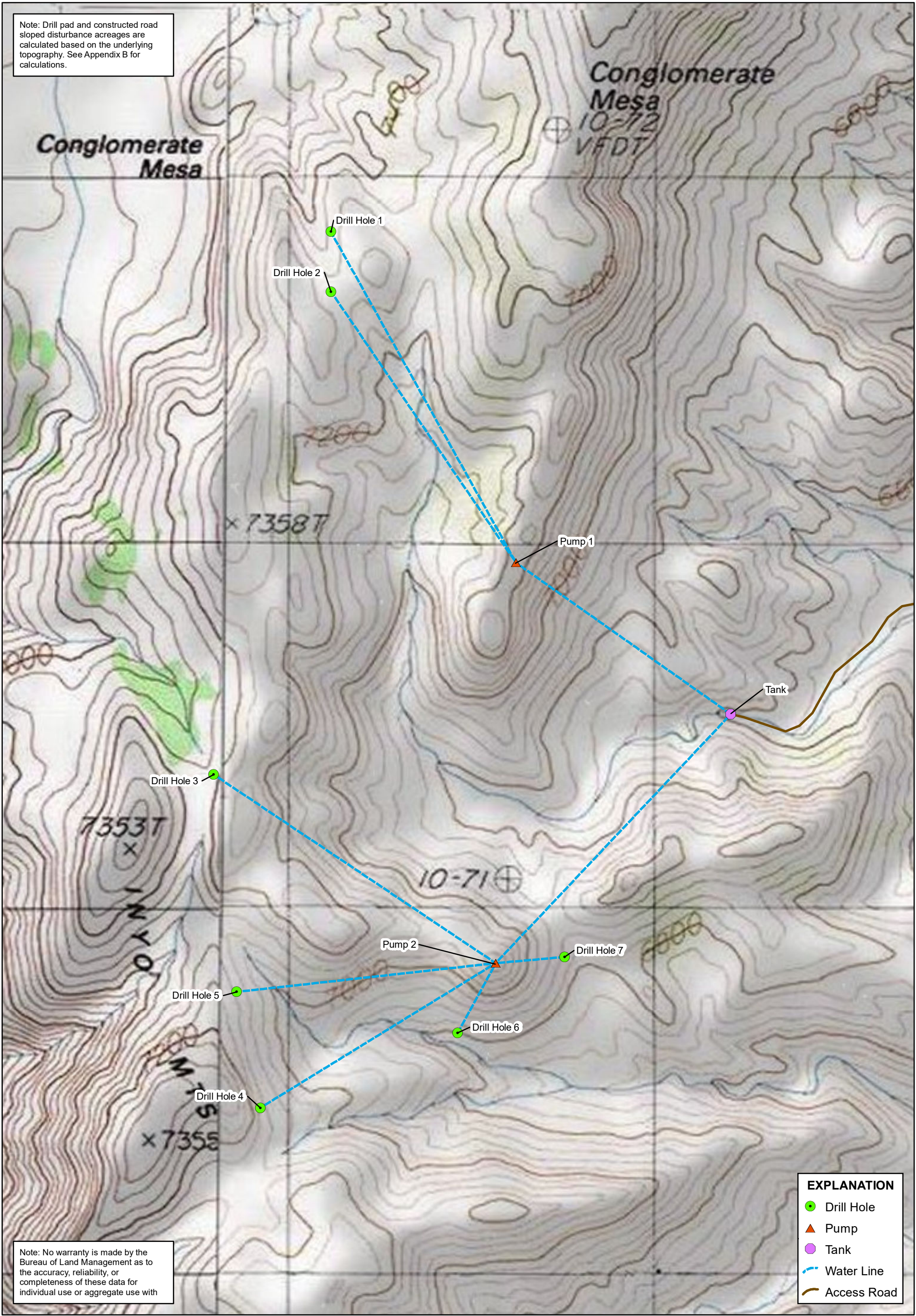
NAD 1983 UTM Zone 11N

SCALE: 1 inch = 800 feet

**PERDITO
EXPLORATION PROJECT
ENVIRONMENTAL
ASSESSMENT**

DRAWING TITLE: MINIMUM ROAD CONSTRUCTION ALTERNATIVE		
DRAWING NO.	FIGURE 2B	REVISION NO.
DATE:	9/22/2017	A

Note: Drill pad and constructed road sloped disturbance acreages are calculated based on the underlying topography. See Appendix B for calculations.



Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with

EXPLANATION	
	Drill Hole
	Pump
	Tank
	Water Line
	Access Road



Feet
0 800



California Desert
BLM District
Ridgecrest Field Office

NAD 1983 UTM Zone 11N

SCALE: 1 inch = 800 feet

**PERDITO
EXPLORATION PROJECT
ENVIRONMENTAL
ASSESSMENT**

DRAWING TITLE:
**BLM PREFERRED
HELICOPTER ACCESS
ALTERNATIVE**

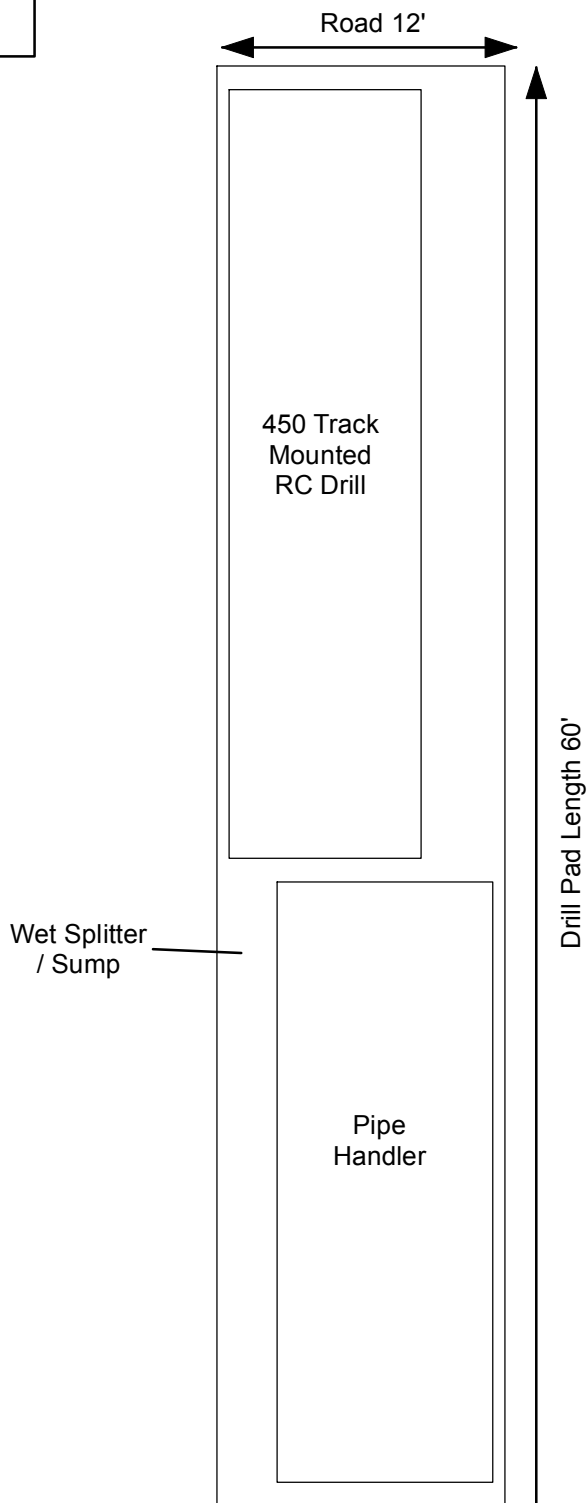
DRAWING NO. **FIGURE 2C**

DATE: **9/22/2017**

REVISION NO.

A

Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with other data.



California Desert
BLM District
Ridgecrest Field Office

NAD 1983 UTM Zone 11N

SCALE: 1 inch = 8 feet

PERDITO EXPLORATION PROJECT ENVIRONMENTAL ASSESSMENT

DRAWING TITLE:

**DRILL RIG
DRILL PAD SCHEMATIC**

DRAWING NO.

FIGURE 3

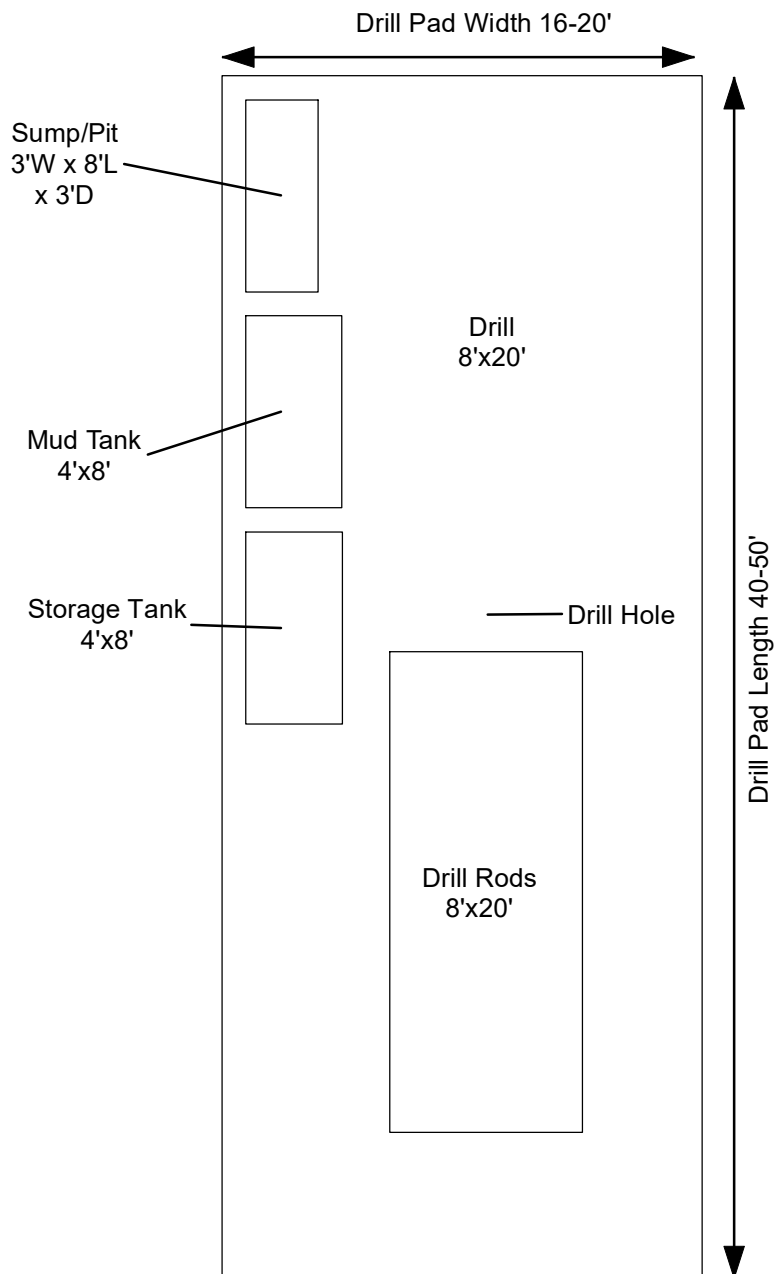
REVISION NO.

DATE:

1/5/2017

A

Note: No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual use or aggregate use with



California Desert
BLM District
Ridgecrest Field Office

NAD 1983 UTM Zone 11N

SCALE: 1 inch = 8 feet

PERDITO EXPLORATION PROJECT ENVIRONMENTAL ASSESSMENT

DRAWING TITLE:

**BLM PREFERRED HELICOPTER
ACCESS ALTERNATIVE
DRILL PAD SCHEMATIC**

DRAWING NO.

FIGURE 4

REVISION NO.

DATE:

9/21/2017

A

EXPLANATION

●

Drill Hole

▲

BLM Preferred Helicopter Access Alternative Pump

●

BLM Preferred Helicopter Access Alternative Tank

Silver Standard's Proposed Action Alternative (SSPAA) Road

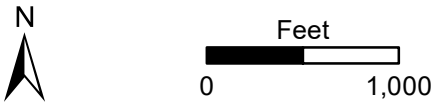
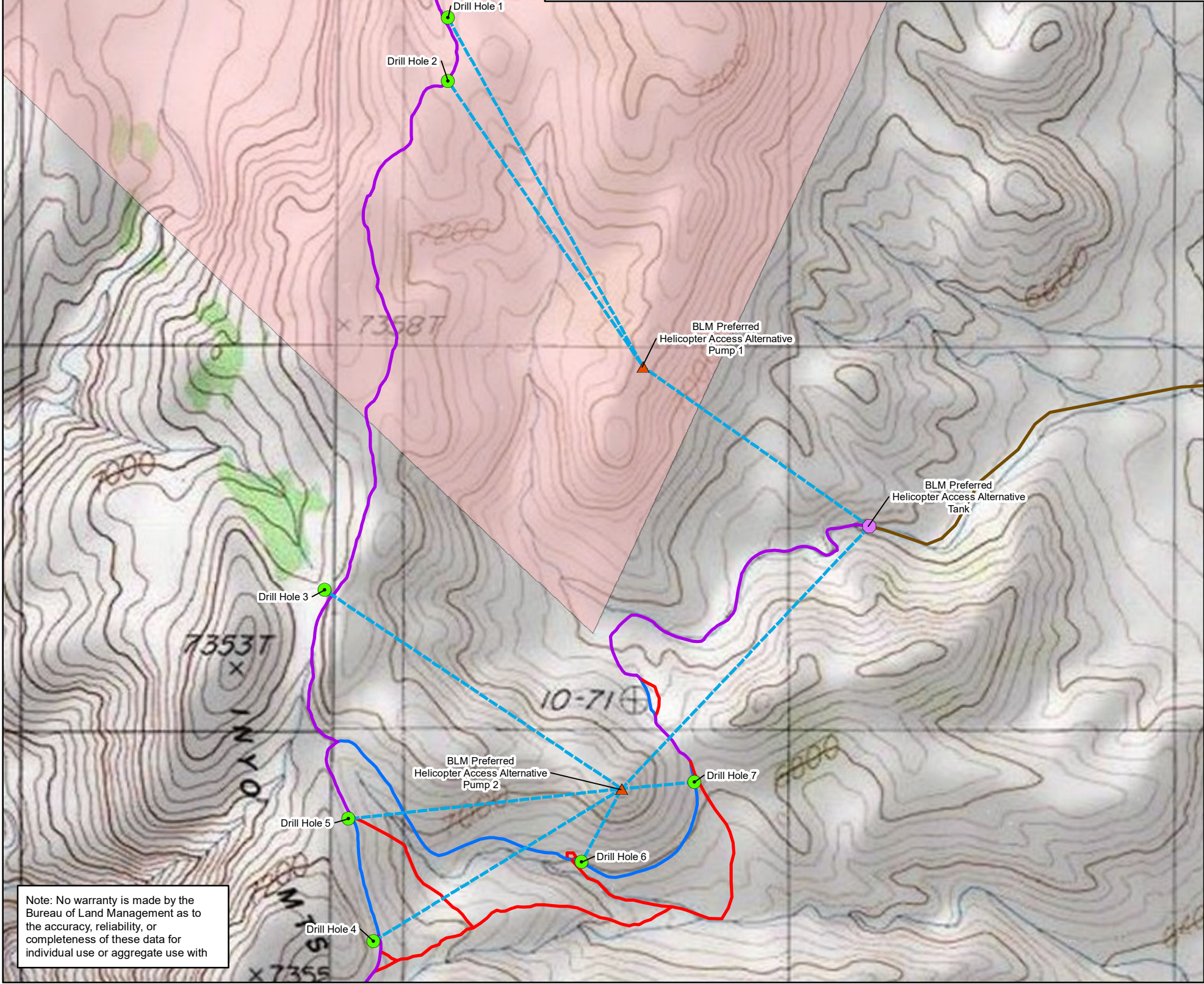
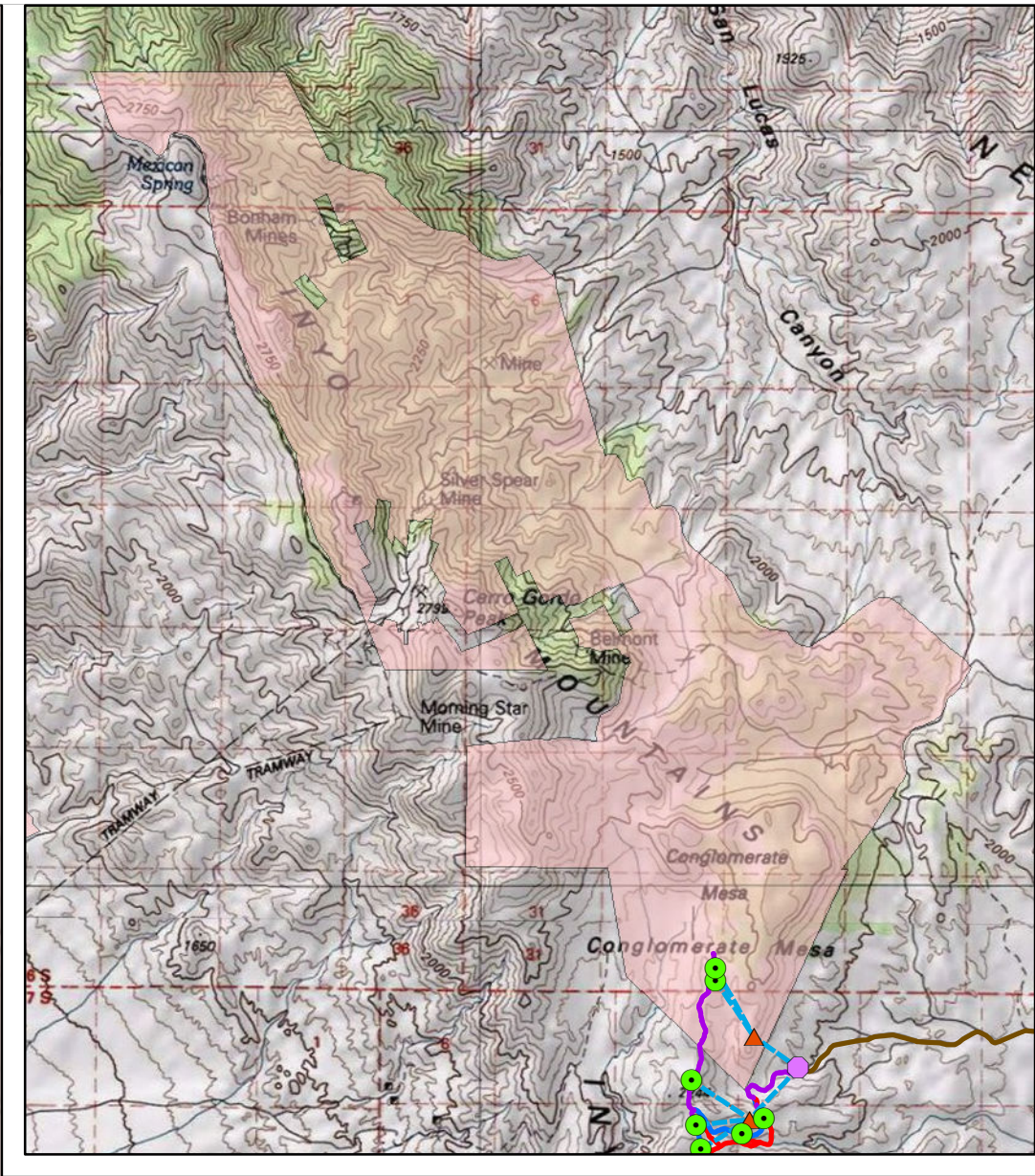
Minimum Road Construction Alternative (MRCA) Road

SSPAA & MRCA Road Overlap

BLM Preferred Helicopter Access Alternative Water Line

Access Road

Areas of Critical Environmental Concern



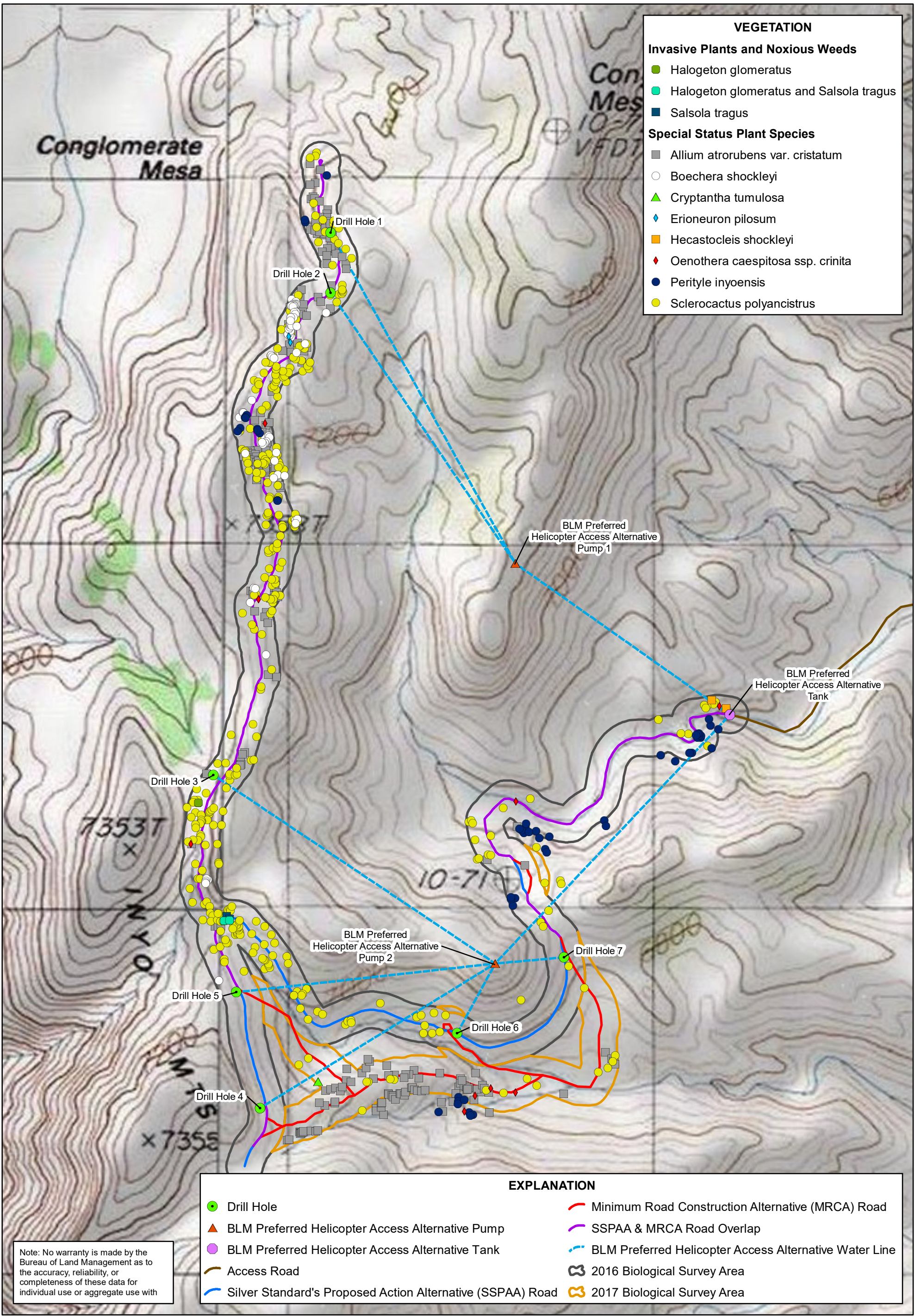
California Desert
BLM District
Ridgecrest Field Office

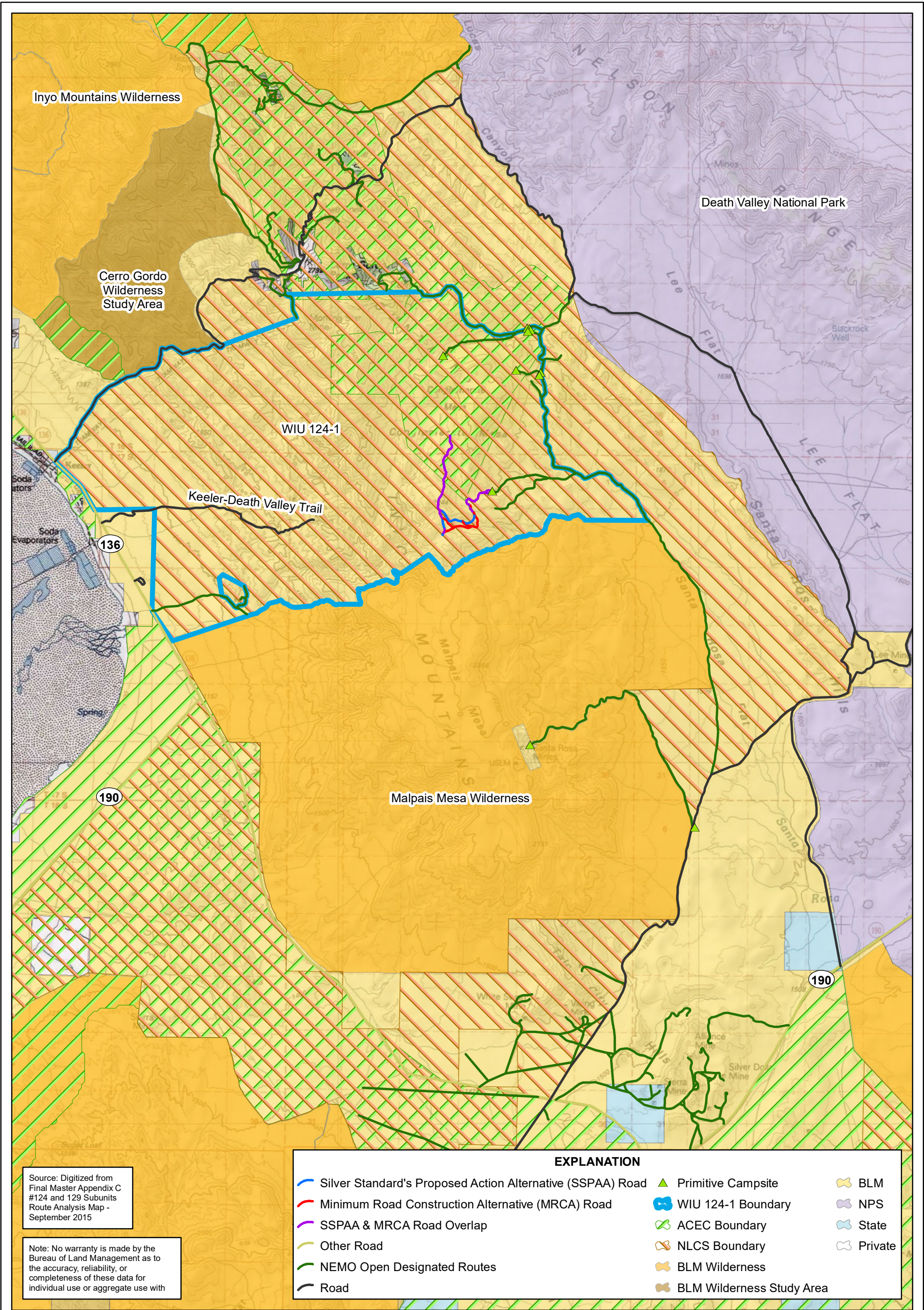
NAD 1983 UTM Zone 11N

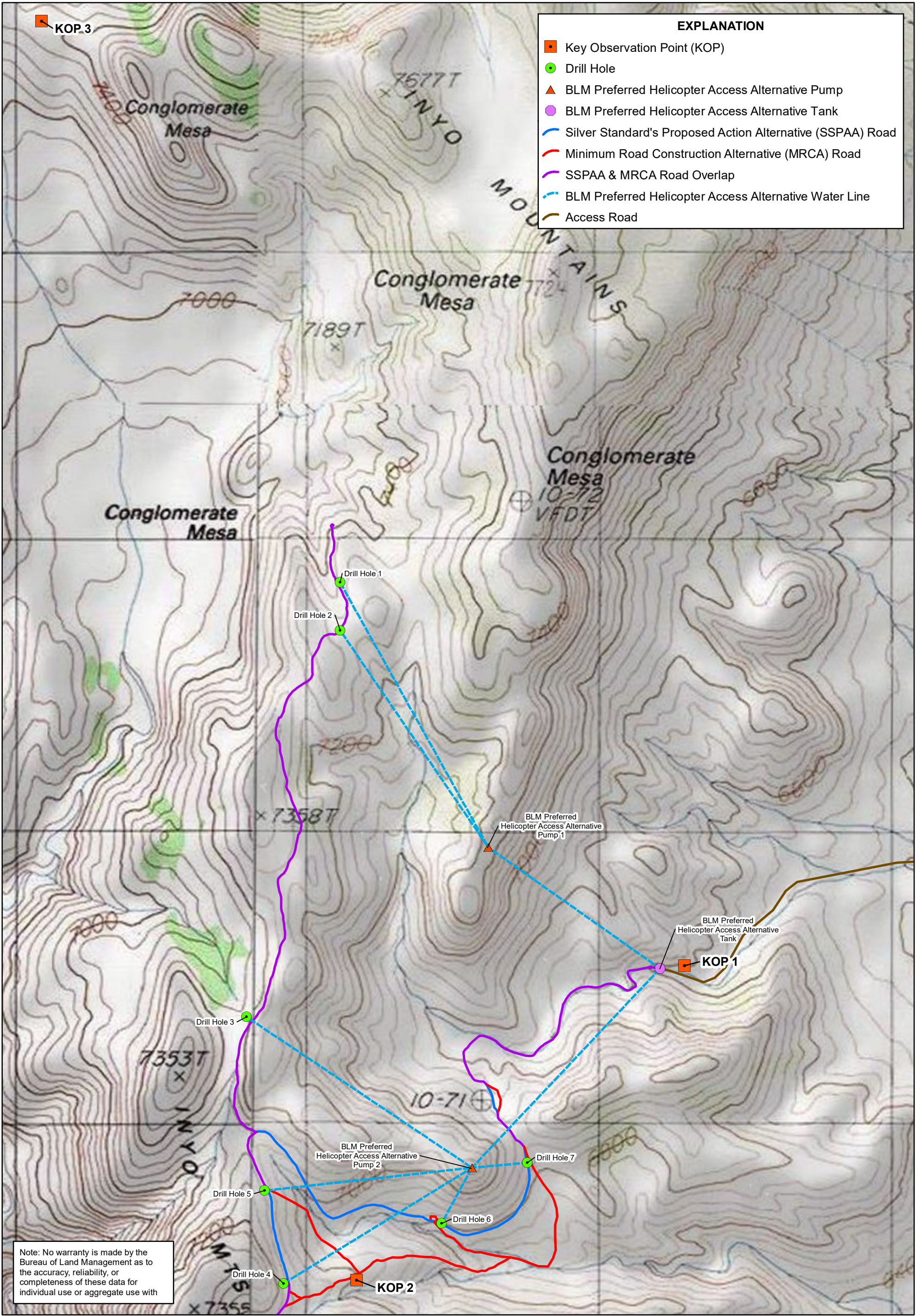
SCALE: 1 inch = 1,000 feet

PERDITO EXPLORATION PROJECT ENVIRONMENTAL ASSESSMENT

DRAWING TITLE: AREAS OF CRITICAL ENVIRONMENTAL CONCERN		
DRAWING NO.	FIGURE 5	REVISION NO.
DATE:	9/21/2017	A







California Desert
BLM District
Ridgecrest Field Office

NAD 1983 UTM Zone 11N

SCALE: 1 inch = 1,000 feet

**PERDITO
EXPLORATION PROJECT
ENVIRONMENTAL
ASSESSMENT**

DRAWING TITLE:
VISUAL RESOURCES

DRAWING NO. **FIGURE 8**
DATE: **9/21/2017**

REVISION NO.
A

