

**CALENDAR ITEM  
C84**

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J. Adams

**CONSIDER APPROVAL OF A STATE GEOTHERMAL  
RESOURCES PROSPECTING PERMIT,  
INYO COUNTY**

**APPLICANT:**

Deep Rose Development LLC  
Attn.: Mr. Charles E. Harris  
809 Broadway, Suite 3  
Sonoma, CA 95476

**AREA, LAND TYPE, AND LOCATION:**

Approximately 640 acres of State fee-owned school lands, Inyo County, as described in Exhibit A and depicted in Exhibit B (attached hereto).

**BACKGROUND:**

Sections 6904 and 6910 of the Public Resources Code (PRC) allow the California State Lands Commission (Commission) to issue permits for exploration of geothermal resources on lands belonging to the State, where such lands have not been selected by the Commission for lease by competitive public bid. Geothermal Resources Prospecting Permits are intended for lands where the existence and nature of the geothermal resource are not well known. The Commission issued more than 90 such permits from 1960 through 1984. Exploration for geothermal resources on State lands was relatively stagnant for the next two decades as cheaper sources of power reduced interest in geothermal energy projects; however, in recent years there has been a marked increase in exploring for geothermal in response to State mandates for increased generation from renewable sources, and the availability of development incentives.

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In 2006, the Commission issued a two-year prospecting permit for the subject parcel to Deep Rose, LLC (Deep Rose). Deep Rose attempted to secure funding for access road improvements and exploratory drilling, but was unsuccessful. In 2008, Deep Rose entered into a partnership with a company possessing financial resources to form Deep Rose Geothermal 16, LLC. The Commission approved assignment of the permit to the new entity and approved extension of the term by two years, as allowed by Public Resources Code section 6910(b). The partnership dissolved in 2009 before exploratory drilling could be undertaken, and the permit expired in 2010.

**APPLICATION FOR NEW PERMIT:**

Deep Rose has created a new limited liability company, Deep Rose Development, LLC (Applicant), and has submitted an application for a new geothermal resources prospecting permit. The Applicant is confident that exploratory drilling activities will be undertaken during the term of the permit.

**PROSPECTING PERMIT INSTEAD OF COMPETITIVE LEASING:**

In 1978, the California Legislature modified the Public Resources Code to create a flexible leasing program for geothermal resources to promote more rapid and extensive geothermal development on State lands. The Legislature recognized that different parcels of State lands have varying degrees of potential for successful development. Some parcels might display strong indications of geothermal resources and likelihood of commercially producible energy. Those parcels could be let through competitive leasing. Other parcels have some potential but need additional exploration. Still other parcels have never been explored.

The subject parcel is located within the Coso Hot Springs Known Geothermal Resource Area (KGRA), as defined by the Federal Geothermal Steam Act of 1970 (Title 30, Chapter 23, Section 1001 (e)), and is approximately five miles from the 260-megawatt Coso Geothermal Field. The Steam Act defines a KGRA as *“an area in which the geology, nearby discoveries, competitive interests, or other indicia would, in the opinion of the Secretary [of the U.S. Department of the Interior], engender a belief in men who are experienced in the subject matter that the prospects for extraction of geothermal steam or associated geothermal resources are good enough to warrant expenditures of money for that purpose.”*

However, inclusion of a parcel within a KGRA does not mean geothermal resources are present in commercial quantities. The geothermal potential of the subject parcel must be considered prospective because there are no surface manifestations evident, and the nearest productive geothermal well is more than five miles away. The California Division of Oil, Gas, and Geothermal Resources

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(DOGGR) considers any well drilled more than one mile from a producing well to be exploratory. The subject parcel is considered unsuitable for competitive leasing because of its small size. Therefore, a prospecting permit is considered to be the appropriate mechanism to provide for the exploration of the subject parcel.

**PROSPECTING PROGRAM AND SCHEDULE:**

The Applicant has submitted a prospecting program and time schedule consisting of the drilling and testing of one or more geothermal wells during the term of the permit. No other geological or geophysical exploration methods are planned, as the Applicant believes geothermal resources may exist at great depth beneath the State parcel based on knowledge about the subsurface geologic structure in the region as it relates to the Coso geothermal field to the southeast.

Geothermal exploration often includes methods such as measurement of gravity, near-surface resistivity, and near-surface heat flow. Heat flow is measured by drilling relatively-shallow holes, typically 500 to 2,000 feet deep. Such information would be useful for selecting a site for a deeper geothermal well. The Applicant has already selected a site based on regional geologic information. Commission staff agrees with the Applicant that other exploration techniques would not yield useful information and that a deep well is the best way to determine the presence of commercially valuable geothermal resources and measure the production potential.

**PERMIT PROVISIONS:**

1. Exclusive right to prospect for geothermal resources in permitted area for a term of two years, subject to an extension of two additional years at the discretion of the Commission.
2. Preferential right to a geothermal lease upon discovery of geothermal resources in commercial quantities. The permittee must inform the State, within 90 days of discovery, of its intent to exercise this right. Issuance of a geothermal lease is subject to approval by the Commission acting in its discretion under section 6371 of the Public Resources Code and upon review of environmental documentation on the impacts of a proposed plan of development and production operations.
3. Annual rent, payable in advance, of \$1 per acre for the first year, \$5 per acre for the second, and \$25 per acre for the third and fourth, if extended.

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4. A prospecting program consisting of the drilling and testing of one or more geothermal wells during the term of the permit.
5. Reimbursement of the State's costs for inspection to verify compliance with environmental and operational restrictions.
6. Performance bond or other security in the amount of \$50,000.
7. If a preferential geothermal lease is issued, the lessee shall pay an annual rent of \$10 per acre, and royalties of 12.5 percent (12.5%) for geothermal resources and 5 percent (5%) for minerals and chemicals recovered from the resources. The value of the geothermal resources for royalty purposes shall be determined from either a sales contract or a percentage of the value of electrical power generated from the resource, both of which are subject to prior approval by the Commission. The value of the minerals or chemicals shall be determined from their sale in first marketable form.

**STATUTORY AND OTHER REFERENCES:**

- A. Public Resources Code: Division 6, Parts 1 and 2; and Division 13.
- B. California Code of Regulations: Title 2, Division 3; and Title 14.

**OTHER PERTINENT INFORMATION:**

1. A Mitigated Negative Declaration SCH# 2005121125 was prepared by the Division of Oil, Gas, and Geothermal Resources (DOGGR) and adopted on March 28, 2006, for this project. The California State Lands Commission's staff has reviewed such document. A Mitigation Monitoring Program was adopted by DOGGR.
2. This activity involves lands identified as possessing significant environmental values pursuant to Public Resources Code section 6370, et seq., but such activity will not affect those significant lands. Based upon the Commission staff's consultation with the persons nominating such lands and through the CEQA review process, it is the staff's opinion that the project, as proposed, is consistent with its use classification.

**EXHIBITS:**

- A. Land Description
- B. Location Map
- C. Mitigation Monitoring Program (MMP)

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**RECOMMENDED ACTION:**

It is recommended the Commission:

**CEQA FINDINGS:**

1. Find that a Mitigated Negative Declaration SCH# 2005121125 and a Mitigation Monitoring Program were prepared by DOGGR and adopted on March 28, 2006, for this project and that the Commission has reviewed and considered the information contained therein.
2. Adopt the Mitigation Monitoring Program as contained in Exhibit C, attached hereto.

**SIGNIFICANT LANDS INVENTORY FINDING:**

1. Find that this activity is consistent with the use classification designated by the Commission for the land pursuant to Public Resources Code section 6370, et seq.

**OTHER FINDINGS:**

1. Find that conditions exist for the issuance of a geothermal resources prospecting permit pursuant to Public Resources Code sections 6904 and 6910, in that the lands do not display strong indications of geothermal resources, require additional exploration, and are therefore unsuitable for leasing.
2. Find that a geothermal resources prospecting permit pursuant to Public Resources Code section 6910 is in the best interests of the State.

**AUTHORIZATION:**

1. Authorize issuance of a geothermal resources prospecting permit on file in the Long Beach office of the Commission to Deep Rose Development, LLC, covering the lands described in Exhibit A, attached hereto.
2. Authorize the Executive Officer or his designee to execute any documents necessary to implement the Commission's actions.

## **EXHIBIT A**

W 40954

### **LAND DESCRIPTION**

A parcel of California State fee-owned school lands being all of Section 16, Township 21 South, Range 38 East, Mount Diablo Meridian, Inyo County, containing 640.00 acres, more or less.

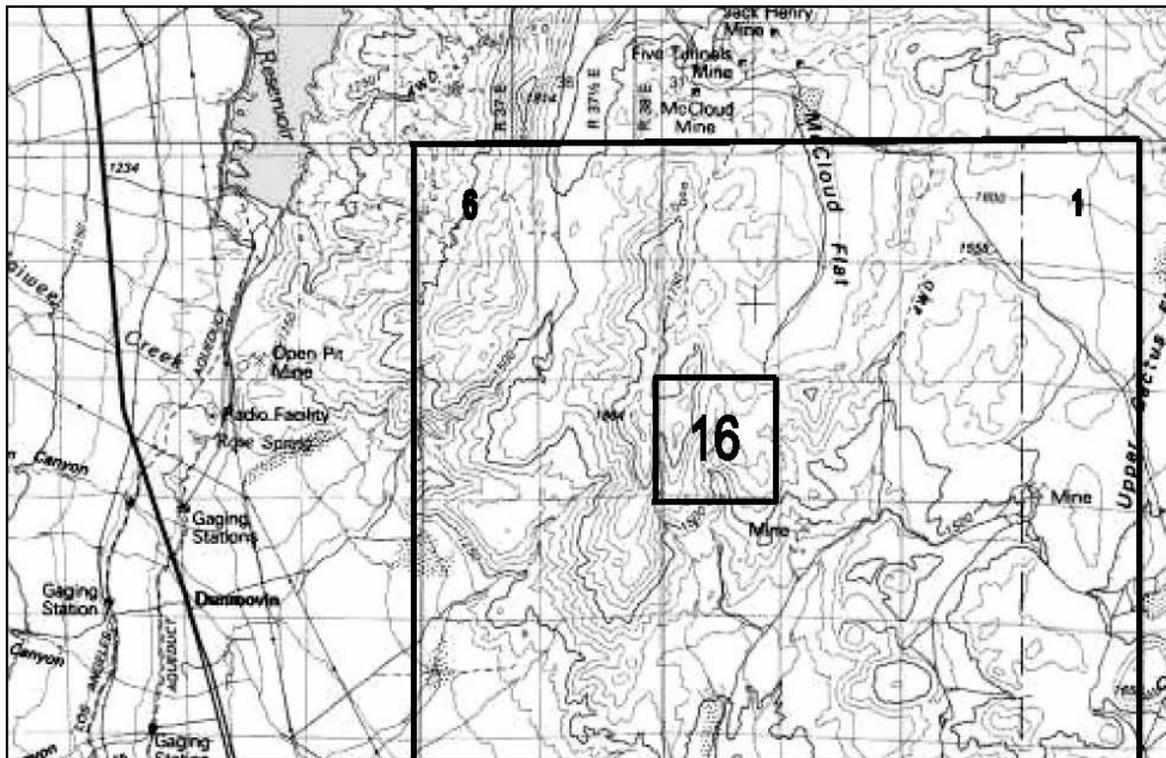
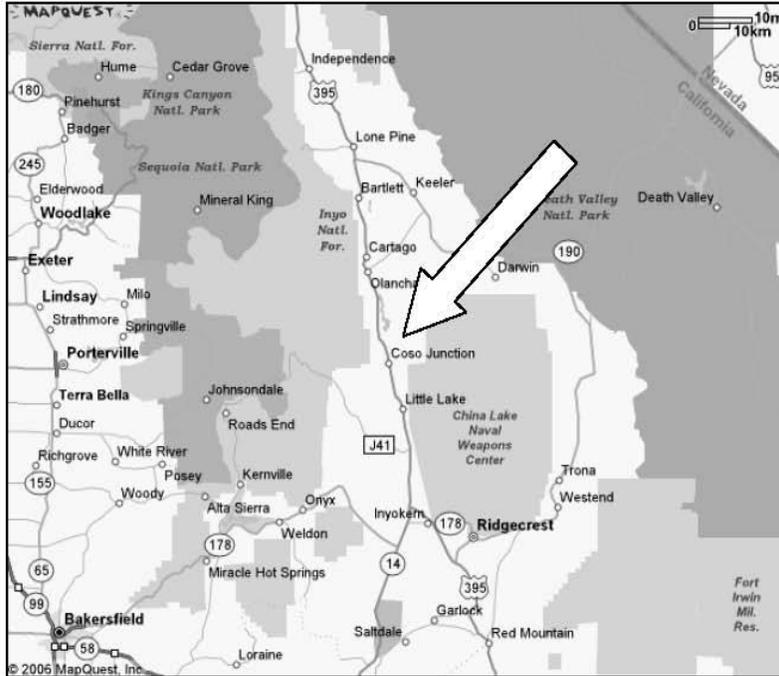
**END OF DESCRIPTION**

**EXHIBIT B**

**W 40954**

**LOCATION MAP**  
**Section 16, T21S, R38E**  
**INYO COUNTY**

DJD & JMA, 2006



This Exhibit is solely for purposes of generally defining the parcel premises and is not intended to be, nor shall it be construed as, a waiver or limitation of any State interest in the subject or any other property.

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## MITIGATION MONITORING, COMPLIANCE AND REPORTING PROGRAM

### 1.0 Introduction

Section 21081.6 of the Public Resource Code requires all state and local agencies to establish monitoring or reporting programs whenever approval of a project relies upon a mitigated negative declaration or an Environmental Impact Report (EIR). The monitoring or reporting program must ensure implementation of the measures to mitigate or avoid the potential for significant adverse environmental impacts identified in a mitigated negative declaration or EIR. (Tracking CEQA Mitigation Measures Under AB1380, Third Edition, March 1996.)

The following Mitigation Monitoring, Compliance and Reporting Program (MMCRP) has been prepared to meet the California Environmental Quality Act (CEQA) requirements for preparing a MMCRP for the *Draft EA/IS for the Deep Rose Geothermal Exploration Project*. The enforcement responsibilities for each mitigation measure would vary depending upon the agency and issues involved. Enforcement measures may include a written notice of violation, fines levied in exceedances of specified standards, or suspension of activities that may affect endangered species, significant cultural resources or human health and safety.

The Division of Oil Gas and Geothermal Resources (DOGGR) may delegate duties and responsibilities for monitoring to other environmental monitors or consultants as deemed necessary, and some monitoring responsibilities may be assumed by responsible agencies, such as affected jurisdictions and cities, and the California Department of Fish and Game (CDFG). The number of construction monitors assigned to the project will depend on the number of concurrent construction activities and their locations. The California State Lands Commission (SLC) or its designee(s), however, will ensure that each person delegated any duties or responsibilities are qualified to monitor compliance.

Mitigation measures and monitoring are only required for those resource areas for which the potential for significant environmental impacts have been identified within the Draft EA/IS. For the proposed project these resources include: geology/soils, hydrology, biological resources, cultural resources, air quality, noise, and hazardous materials and health & safety, and transportation. For all remaining resources, the proposed project would not result in any associated significant environmental impacts, and therefore do not have any mitigation monitoring requirements.

Table MMCRP-1 summarizes the impacts and mitigation for the Proposed Action. A more detailed discussion of impacts for each resource can be found in the Environmental Consequences section (Chapter 4) of the Deep Rose Geothermal Exploration Project Environmental Assessment/Initial Study/Mitigated Negative Declaration. For the purposes of this MMCRP, each mitigation measure will be referenced as identified in Table MMCRP-1.

### 1.1 Monitoring Authority

Primary monitoring activities for the proposed project will be the responsibility of Environmental Monitors (EMs) who will coordinate closely with personnel from the DOGGR program office and the BLM Ridgecrest Field Office. Both offices have managed similar projects, and have extensive experience in geothermal drilling and environmental management. The BLM would have the primary responsibility of oversight of the access road and waterline, and DOGGR would have primarily responsibility for the well pad site and all exploratory activities on State lands. All documentation generated under this MMCRP will be available for review at either the DOGGR state program office in Sacramento, California or at the BLM Field Office in Ridgecrest, California.

Several EMs will be on-site throughout project construction and drilling, and routine monitoring will be conducted by DOGGR and BLM personnel. This will constitute the fundamental standard of compliance criteria to ensure proper implementation of ALL proposed mitigation measures, as defined in the Draft EA/IS. Observance of noncompliance will be documented by the EM and forwarded to the construction/drilling contractor for immediate corrective action. The DOGGR or BLM will suspend activities if remedial activities do not comply with the mitigation measures.

The proposed project is also under the regulatory management of the Great Basin Air Pollution Control District (GBAPCD) for air quality issues such as hydrogen sulfide, oxides of nitrogen, and fugitive dust management, as well as the Lahontan Regional Water Quality Control Board (LRWQCB) for groundwater and waste discharge management. Regulatory personnel from these agencies are expected to monitor the project and will provide written reports of noncompliance to the DOGGR/BLM.

## **1.2 Enforcement Responsibility**

For those portions of the Proposed Project which occupy California State Lands, The DOGGR is responsible for enforcing the procedures adopted for monitoring through the environmental monitor assigned to each construction spread. Any assigned environmental monitor shall note problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the SLC or its designee.

## **1.3 Mitigation Compliance Responsibility**

The Applicant is responsible for successfully implementing all the mitigation measures in the MMCRP, and is responsible for assuring that these requirements are met by all of its construction contractors and field personnel. Standards for successful mitigation also are implicit in many mitigation measures that include such requirements as obtaining permits or avoiding a specific impact entirely. Other mitigation measures include detailed success criteria. Additional mitigation success thresholds will be established by applicable agencies with jurisdiction through the permit process and through the review and approval of specific plans for the implementation of mitigation measures.

## **1.4 General Monitoring Procedures**

The DOGGR (on California State Lands) and the environmental monitor(s) are responsible for integrating the mitigation monitoring procedures into the projects daily operations with Deep Rose LLC. In order to oversee the monitoring procedures and to ensure success, the environmental monitor assigned to each construction spread must be on site during that portion of construction that has the potential to create a significant environmental impact or other impact for which mitigation is required. The environmental monitor is responsible for ensuring that all procedures specified in the monitoring program are followed.

### **1.5 Summary of Environmental Impacts and Mitigation and Monitoring Measures**

Table MMCRP-1 summarizes the Deep Rose Geothermal Exploration Project's mitigation measures as required in accordance with the project's Mitigated Negative Declaration, as well as the responsible governing agency overseeing the specific mitigation measure.

TABLE MMCRP-1 Deep Rose Geothermal Exploration Project Mitigation, Monitoring, and Reporting Plan  
Summary of Environmental Impacts, Mitigation, and Monitoring Measures for the Proposed Action.

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
Geology and Soils	Impacts to soils from water erosion, wind erosion, and compaction.	<p><b>GEO-1:</b> Consistent with Best Management Practices (BMPs), adequate drainage control devices and measures will be incorporated into the road and well pad design (e.g., drainage ditches, cross drains, culverts, out-sloping, and energy dissipaters) at sufficient intervals and intensities to adequately control and direct surface runoff above, below, and within the road and well pad environments to avoid erosive concentrated flows. The amount of vegetation cleared will be kept to a minimum to accommodate all necessary project components.</p>	<p>A BLM Field Representative and Environmental Monitor (EM) would be on-site during construction activities to verify and ensure that mitigation measures to control and direct surface runoff are implemented.</p>	<p>BLM and Environmental Monitor</p>
		<p><b>GEO-2:</b> Water will be applied to disturbed areas and windrowed topsoil during construction to reduce the impacts to soil from wind erosion.</p>	<p>The EM would verify that mitigation is followed.</p>	<p>Environmental Monitor</p>
		<p><b>GEO-3:</b> Project vehicles would be restricted to designated roads and well pad area. No off-road travel would be permitted.</p>	<p>The EM would verify that mitigation is followed.</p>	<p>Environmental Monitor</p>
		<p><b>GEO-4:</b> Adequate freeboard in the reserve pit will be maintained to avoid the discharge of geothermal brine and/or drilling muds to surrounding soils caused by reserve pit overflows.</p>	<p>Random field inspections by DOGGR inspectors during drilling would verify that mitigation is followed.</p>	<p>DOGGR</p>
		<p><b>GEO-5:</b> Water pipelines would be inspected daily to eliminate the potential for</p>	<p>The EM would verify that mitigation is followed.</p>	<p>Environmental Monitor</p>

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
<p><b>Geology and Soils</b></p>		<p>soil erosion damage caused by leaking or broken pipes.</p> <p><b>GEO-6:</b> To reduce the risk of soil erosion due to blowouts, routine testing would be conducted on a BOPE in accordance with DOGGR requirements.</p> <p><b>GEO-7:</b> Up to 4 inches (10 cm) of topsoil would be selectively stripped and salvaged from all newly disturbed areas. Topsoil would be stockpiled in several areas at the Deep Rose project site and retained for replacement and revegetation at the time of final reclamation. To reduce erosion and sedimentation during the life of the project, soil stockpiles will be temporarily revegetated with noxious weed-free mixed cover vegetation with an emphasis on native species that possess the ability to root quickly.</p> <p><b>GEO-8:</b> If the resource is proved to be unsuccessful, topography will be restored to near pre-existing contours at the well pad and all upgraded access roads will be reclaimed to their original width of approximately six feet (1.8 m). These areas would be ripped to reduce compaction, covered with topsoil, and reseeded with BLM approved seed mixtures as described in <b>Appendix B - Reclamation Plan for the Deep Rose Geothermal</b></p>	<p>Random field inspections by DOGGR inspectors during drilling would verify that mitigation is followed.</p> <p>A BLM Field Representative and Environmental Monitor (EM) would be on-site during construction activities to verify and ensure that mitigation measures to ensure adequate salvage of topsoil are implemented.</p> <p>A BLM Field Representative and Environmental Monitor (EM) would be on-site during reclamation to ensure the success of initial reclamation activities.</p>	<p>DOGGR</p> <p>BLM and Environmental Monitor</p> <p>BLM and Environmental Monitor</p>
	<p>Increased potential for the occurrence of indirect effects to soils and difficulties with the success of reclamation.</p>			

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
Water Resources	Potential impacts water resources from reserve pit overflow or percolation.	<p><i>Exploration Project.</i></p> <p><b>HYD-1:</b> The reserve pit would be constructed so that a minimum of one-half of the total depth is below the original ground surface on the lowest point within the pit. To prevent seepage of fluids, the reserve pit will be constructed by mechanical compaction or lined with an impermeable polyethylene liner. If utilized, liners would be of sufficient strength and thickness to withstand normal installation and use.</p>	A field inspection by a DOGGR inspector during construction of the well pad and associated facilities would verify and insure proper construction of the reserve pit.	DOGGR
	Limited impacts to surface waters.	<p><b>HYD-2:</b> Deep Rose will develop and implement a Storm Water Pollution Control Plan (SWPCP) for project related storm water runoff as required by the LRWQCB storm water National Pollution Discharge Elimination System (NPDES) permit requirements for "Discharges to Land with a Low Threat to Water Quality" and State Water Resources Control Board Order No. 99-08 DWQ for storm water runoff associated with construction activity. All conditions and stipulations of the permits issued by LRWQCB will be incorporated as standard operating procedures for the proposed project.</p>	The LRWQCB will verify that Deep Rose has submitted a SWPCP to the Board prior to commencement of construction activities and has been issued a NPDES permit for "Discharges to Land with a Low Threat to Water Quality" and State Water Resources Control Board Order No. 99-08.	LRWQCB
	Hazard of potential release of liquid petroleum products to	<b>HYD-3:</b> Deep Rose will implement a Spill Prevention, Control, and Countermeasures (SPCC) Plan	The LRWQCB will verify that Deep Rose has prepared and submitted a	LRWQCB

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
	persons and the environment.	in accordance with 40 CFR Part 112, dated December 1973 with respect to petroleum hydrocarbon handling and spill prevention and will submit the plan to the LRWQCB prior to the commencement of construction.	SPCC plan prior to commencement of construction activities.	
<b>Biological Resources</b>	Impacts to natural vegetation communities.	<b>BIO-1:</b> All areas to be disturbed will have boundaries flagged prior to construction and all disturbances will be confined to the flagged areas. All employees will be instructed that their activities must be confined to locations within the flagged areas. Deep rose will have environmental monitors on-site during construction activities.	The EM would verify that mitigation is followed.	Environmental Monitor
	Increased potential for the limited invasion and establishment of noxious weed species.	<b>BIO-2:</b> All construction equipment will be power washed prior to its arrival at the project site to prevent the transportation and establishment of noxious weeds in the project area.	The EM would verify that mitigation is followed.	Environmental Monitor
	Impacts to natural vegetation communities.	<b>BIO-3:</b> During reclamation, all disturbed areas will be appropriately topsoiled and seeded with a BLM/DOGGR approved seed mix per the specifications outlined in <b>Appendix B - Reclamation Plan for the Deep Rose Geothermal Exploration Project.</b>	A BLM Field Representative and EM would be on-site during reclamation activities to verify and insure that all disturbed areas are appropriately topsoiled and seeded.	BLM and Environmental Monitor
	Increase in the potential for illegal kill and harassment of wildlife.	<b>BIO-4:</b> To avoid the potential for mortality and harassment of wildlife, all firearms and dogs will be prohibited from the project site and all workers	The EM would verify that mitigation is followed.	Environmental Monitor

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
<b>Biological Resources</b>	Potential to foster an un-natural increase in opportunistic predators in the project area.	<p>will be required to check under their vehicles prior to departing the project site.</p> <p><b>BIO-5:</b> Trash and food items will be disposed of promptly in predator-proof containers with resealable lids. Trash containers will be removed regularly (at least once per week). This effort will reduce the attractiveness of the area to opportunistic predators such as coyotes, kit foxes, and common ravens.</p>	The EM would verify that mitigation is followed.	Environmental Monitor
	Potential for direct mortality to wildlife.	<b>BIO-6:</b> A maximum speed limit of 25 miles per hour, unless otherwise posted, will be maintained while traveling on unpaved access roads on the project site. This effort will reduce the potential for vehicle-wildlife related collisions.	The EM would verify that mitigation is followed.	Environmental Monitor
	Potential for direct and indirect displacement of some wildlife species and wild horses in particular.	<b>BIO-7:</b> Prior to the onset of construction, Deep Rose and the BLM will examine the potential for the development of one or more guzzlers in the project area as a source of water for wildlife (and in particular, wild horses). Water for the implementation of this effort would come from either the water line or water storage trucks.	A BLM Field Representative would be on-site prior to the start of construction to locate potential areas that would be suitable for guzzler development.	BLM
	Direct and indirect impacts to the Mojave ground squirrel.	<b>BIO-8:</b> Under the proposed CDFG Section 2081 permit, the Project Applicant will acquire compensatory lands at a 3:1 ratio within twelve months of surface disturbance at the proposed	Prior to any ground disturbing activities, CDFG will issue an Incidental Take Permit for the project and coordinate	CDFG

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
<b>Biological Resources</b>	Overall impacts to biological resources.	<p>Project site. The Project Applicant will acquire a maximum 40 acres (16 ha) of offsite lands suitable for Mohave ground squirrel, and will provide funding to CDFG for implementation and enhancement activities for habitat acquired, and to perform long-term management of the acquired habitat in perpetuity for the Mohave ground squirrel. The location and conservation management of the identified compensatory lands shall be approved by the California Department of Fish and Game (CDFG) pursuant to Section 2081 of the California Fish and Game Code.</p> <p><b>BIO-9:</b> A brief Worker Environmental Awareness Program (WEAP) will be implemented for construction and drilling crews prior to the commencement of project activities. Training materials and briefings will include but not be limited to, discussion of the Federal and State ESAs, the consequences of noncompliance with these acts, identification and values of wildlife and natural plant communities, hazardous substance spill prevention and containment measures, and review of all required and recommended mitigation measures.</p>	with Deep Rose on the acquisition of an appropriate amount of off-site compensation lands for the Mojave ground squirrel.	Environmental Monitor
<b>Cultural Resources</b>	Impacts to potentially significant	<b>CUL-1:</b> If the evaluation program determines that one or more of the	BLM will verify Deep Rose's compliance with	BLM

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
<p><b>Cultural Resources</b></p>	<p>archaeological resources</p>	<p>sites are eligible for inclusion in the National Register, a treatment plan will be developed by Deep Rose and BLM and/or the California State Lands Commission (SLC) (depending on the site's location) in consultation with the State Historic Preservation Office (SHPO), and will be implemented prior to the start of construction.</p>	<p>development and implementation of an approved treatment plan for cultural resources.</p>	
	<p>Impacts to potentially significant archaeological resources</p>	<p><b>CUL-2:</b> If archaeological resources were discovered during construction of the well pad or road, all work in the immediate vicinity would be suspended pending site investigation by a DOGGR/BLM approved archaeologist to assess the materials and determine their significance. If the archaeologist determines that the resource is potentially significant, construction in the immediate area would not resume until the BLM Authorized Officer (AO) and SHPO have been consulted and the resources appropriately evaluated and treated in accordance with mitigation measure CUL-1.</p>	<p>BLM and DOGGR would verify that mitigation is followed.</p>	<p>Environmental Monitor, DOGGR, and BLM</p>
		<p><b>CUL-3:</b> In the unlikely event that personnel discover human remains, all work in the vicinity of the discovery would be stopped and the BLM AO notified immediately. The BLM AO would then notify the Inyo County Coroner, the SHPO and local Native American tribal representatives.</p>	<p>BLM would verify that mitigation is followed</p>	<p>BLM</p>

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
<p><b>Cultural Resources</b></p> <p>Impacts to potentially significant archaeological resources</p>		<p>Work at the site would not resume until consultations and appropriate disposition of the human remains has concluded.</p>		
		<p><b>CUL-4:</b> Avoidance of documented cultural resource sites in the project area will be ensured by the placement of a 60-foot buffer zone between the site boundary and the construction area, and monitoring of all construction activity by a qualified archaeologist. Prior to any surface-disturbing activities, site boundaries and buffer zones will be clearly marked and this information indicated on construction drawings, which will be reviewed for accuracy by an archaeologist familiar with the resources in the area.</p>	<p>The EM would verify that mitigation is followed.</p>	<p>Environmental Monitor</p>
		<p><b>CUL-5:</b> If previously unrecorded cultural resources are encountered during grading or other surface-disturbing activities, all ground disturbing activities at the location of the discovery would cease, and BLM and DOGGR notified. Grading or other surface-disturbance activities would not recommence at the location of the discovery until all the identified cultural resource(s) have been assessed, any necessary mitigation actions taken, and approved by the BLM, AO and DOGGR</p>	<p>BLM and DOGGR would verify that mitigation is followed.</p>	<p>Environmental Monitor, DOGGR, and BLM</p>
		<p><b>CUL-6:</b> All project employees, contractors</p>	<p>The EM would verify that</p>	<p>Environmental</p>

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
<p><b>Air Quality</b></p>		<p>and vendors would be required to sign an acknowledgement that they have been apprised of the regulations prohibiting the illegal collection of artifacts or disturbance of archaeological sites, and of the mitigation measures contained herein. Deep Rose will retain copies of these signed acknowledgments until completion of the project.</p>	<p>mitigation is followed.</p>	<p>Monitor</p>
	<p>Impacts from fugitive dust</p>	<p><b>AIR-1:</b> The amount of project related fugitive dust would be minimized by watering all unpaved roadway surfaces consistent with GBUAPCD Rule 401, and limiting vehicle speeds on unpaved roads to 25 mph.</p> <p><b>AIR-2:</b> Well pad and sump construction would be accomplished in as short a time as possible in order to reduce fugitive dust created by construction. If traffic-induced dust becomes a problem, road watering would be increased and/or workers would be required to further coordinate trips and carpools.</p>	<p>The EM would verify that mitigation is followed.</p>	<p>Environmental Monitor</p>
	<p>Impacts from NOx emissions</p>	<p><b>AIR-3:</b> If exhaust emissions of oxides of nitrogen from the drilling rig exceeds 250 lbs/day (GBUAPCD Rule 209A), the drilling contractor would be required to use BACT control measures, which may include one or more of the following options:</p> <ul style="list-style-type: none"> <li>Retard timing by 4 degrees of standard</li> </ul>	<p>The EM would verify that mitigation is followed.</p>	<p>Environmental Monitor</p>
			<p>Verify with the GBUAPCD that BACT control measures have been implemented to reduce exhaust emissions from the drill rig.</p>	<p>GBUAPCD</p>

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
Air Quality		<ul style="list-style-type: none"> <li>Meet applicable EPA/CARB <i>Off Road Compression Ignition Engine</i> Air Pollutant Emission Standards,</li> <li>BACT selective catalytic reduction devices, or</li> <li>Other BACT control measures as proposed by the drilling contractor and acceptable to GBUAPCD.</li> </ul>		
	Impacts from H <sub>2</sub> S	<p><b>AIR-4:</b> The contractor will be allowed to discharge into the atmosphere from any geothermal well, including well drilling, well reworking, and well testing, no more than 2.5 kg/hr of H<sub>2</sub>S. If the emission of H<sub>2</sub>S exceeds 2.5 kg/hr, or if the State's H<sub>2</sub>S ambient air quality standard for one hour is exceeded at a monitoring station located at a GBUAPCD-approved site, further venting of the well(s) containing H<sub>2</sub>S will be curtailed until an H<sub>2</sub>S abatement plan, approved by the GBUAPCD, is implemented to reduce H<sub>2</sub>S well emissions below 2.5 kg/hr and ambient concentrations below the State standard of 0.03 parts per million.</p> <p>No Additional Mitigation Measures are Recommended</p> <p><b>NOI-1:</b> Well flow testing would be through a well field silencer.</p>	The GBUAPCD will verify that Deep Rose and/or the drilling contractor has submitted an H <sub>2</sub> S abatement plan to the Board prior to the commencement of drilling activities.	GBUAPCD
Visual Resources	None			
Noise	Increases in noise associated with well drilling, testing, and			Inyo County

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	monitoring.		flow testing would verify the use of a well field silencer.	
<b>Noise</b>	Increases in noise associated with well drilling, testing, and monitoring.	<b>NOI-2:</b> Workers would be provided with proper ear protection and be required to use it during construction, drilling, and well testing activities.	Periodic field inspections by OSHA representatives would insure compliance with all project related safety measures.	CAL/OSHA
		<b>NOI-3:</b> All equipment will be equipped with manufacturer's standard noise control devices (i.e. mufflers, acoustical lagging, and/or engine enclosures), which will normally achieve compliance with the recommended noise limits in most areas.	A field inspection by an Inyo County representative would verify compliance with recommended noise limits.	Inyo County
		<b>NOI-4:</b> If blasting becomes necessary, efforts will be made to restrict the peak overpressures to less than 120 dB at the source to minimize effects to surrounding areas.	The EM would verify that mitigation is followed.	Environmental Monitor
		No Additional Mitigation Measures are Recommended		
<b>Recreation</b>	None	<b>HAZ-1:</b> The contractor would provide the required and necessary safety equipment and personal protective equipment to minimize worker exposure.	Periodic field inspections by OSHA representatives would insure compliance with all project related safety measures.	CAL/OSHA
<b>Hazardous Materials and Health &amp; Safety</b>	Potential hazard to persons from the improper handling and use of hazardous substances	<b>HAZ-2:</b> During construction and upon commencement of drilling operations, the contractor will have chemical or hazardous substance inventory for all such items that may be at the site. The contractor will institute a Hazard Communication	Periodic field inspections by OSHA representatives would insure compliance with all project related safety measures.	CAL/OSHA

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<p><b>Hazardous Materials and Health &amp; Safety</b></p>	<p>Potential hazard to persons from the improper handling and use of hazardous substances</p>	<p>Program (HCP) for their employees and will require subcontractor programs in accordance with OSHA 29 CFR 1910.1200. These programs are designed to educate and protect the employees and subcontractors with respect to any chemicals or hazardous substances that may be present in the work place. It will be required that as every chemical or hazardous material is brought on location, a Material Safety Data Sheet (MSDS) will accompany that material and will become part of the file kept at the field office as required by 29 CFR 1910.1200. All employees will receive the proper training in storage, handling, and disposal of hazardous substances.</p> <p><b>HAZ-3:</b> Deep Rose will develop and implement a Spill Prevention, Control, and Countermeasures (SPCC) plan in accordance with 40 CFR Part 112, dated December 1973 with respect to petroleum hydrocarbon handling and spill prevention and will submit the plan to the LRWQCB prior to the commencement of construction.</p> <p><b>HAZ-4:</b> Hydrogen sulfide (H<sub>2</sub>S) monitors and emergency escape equipment would be available at the drilling rig during drilling and well testing operations. Workers would be</p>	<p>The LRWQCB will verify that Deep Rose has submitted a SPCC plan prior to commencement of construction activities.</p> <p>Periodic field inspections by OSHA representatives would insure compliance with all project related safety measures.</p>	<p>LRWQCB</p> <p>CAL/OSHA</p>

RESOURCE	IMPACTS	MITIGATION MEASURES	MONITORING MEASURES	RESPONSIBLE ENTITY
		instructed in the correct usage of this equipment.		
		<b>HAZ-5:</b> All project activities would be conducted in accordance with all applicable CAL/OSHA regulations.	Inyo County would review OSHA logs and reports for project compliance with OSHA regulations.	Inyo County
	A potential impact on localized traffic slow-downs or congestion along U.S. 395 and Coso/Gill Station Road.	<b>TRA-1:</b> Coordinate project construction planning schedules to avoid other possible permitted uses or to reduce the potential for localized traffic slow-downs or congestion.	The Inyo County of Public Works Department and/or Caltrans would ensure that there are no project related conflicts to existing traffic levels.	Inyo County
<b>Transportation</b>	Increased potential for hazards to motorists due to a localized increase in traffic.	<b>TRA-2:</b> Proper road signs would be prominently placed near the intersection of U.S. 395 and Coso/Gill Station Road and the intersection of Coso/Gill Station and Pumice Mine roads or other locations to encourage motorists to exercise caution when approaching these areas. In the event that signing does not meet safety standards, appropriate modifications to intersections would be considered in order to improve site visibility.	The Inyo County of Public Works Department representative would meet with Deep Rose to determine locations for road sign(s).	Inyo County
<b>Land Use and Socioeconomics</b>	None	No Additional Mitigation Measures are Recommended		