



# ULCAN POWER COMPANY

February 24, 2009

Ms. Sheila Mallory  
Bureau of Land Management  
5100 E Winnemucca Blvd.  
Winnemucca, NV 89445

Ms. Sheila,

Please find enclosed a Notice Of Intent To Conduct Geothermal Resource Exploration Operations. This NOI is for conducting a two-dimensional seismic geophysical survey.

We have made the requested changes, but if you have additional changes for us to make, please notify me as soon as possible.

Unfortunately I am unable to hand deliver this document to you, but I am looking forward to visiting with you in the future.

Best Regards,



Kenneth Bonin, Sr.

Permitting & Regulatory Authorities Manager

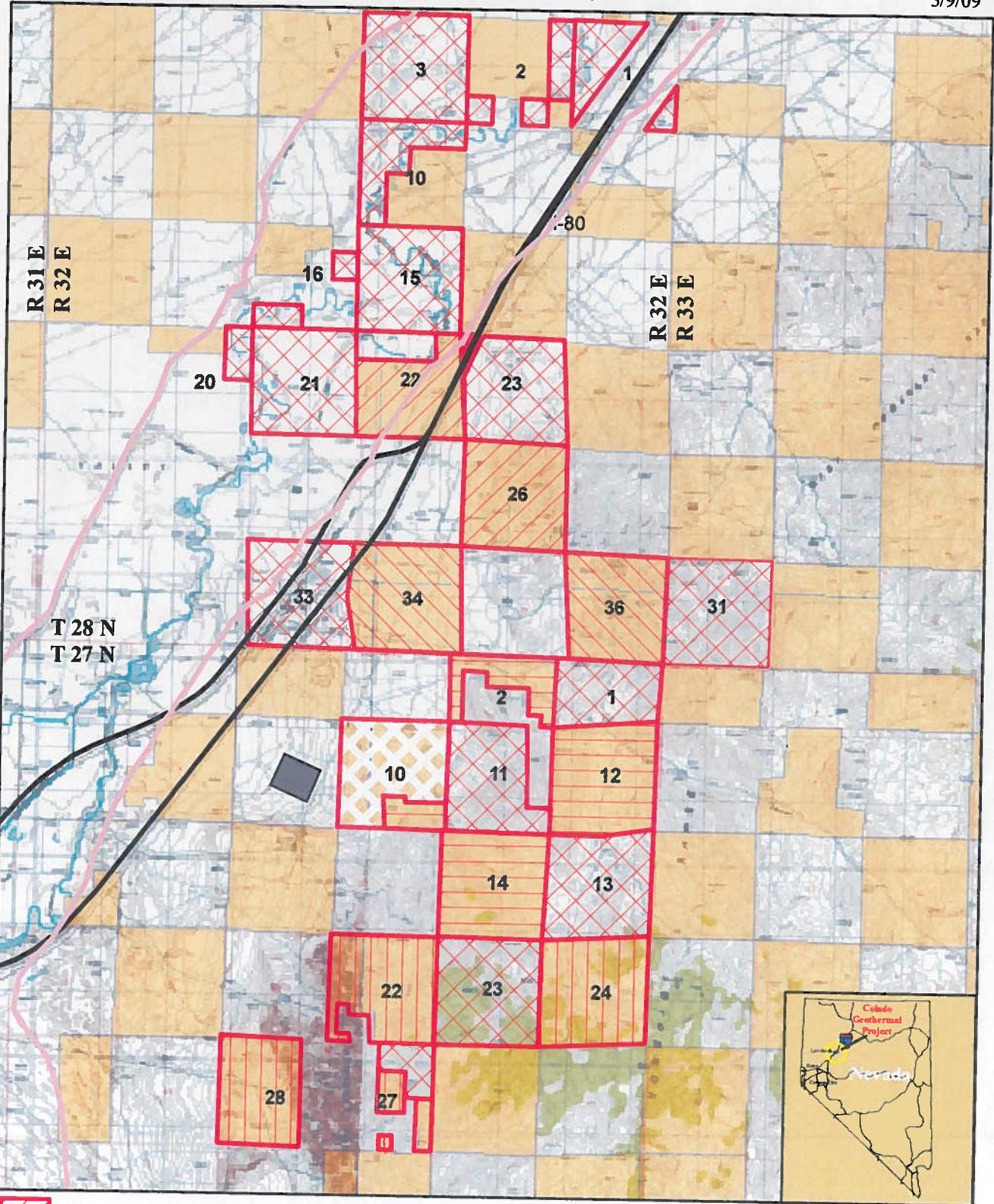
Bureau of Land Management  
Received  
FEB 26 2009  
Field Office  
Winnemucca Nevada



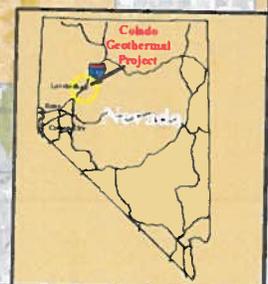
# Colado Geothermal Project

## General Location of Seismic Survey

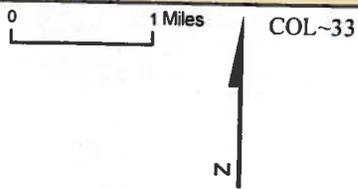
3/9/09



Monday, March 9, 2009, 8:49:17 AM  
C:\Vulcan\Nevada\Colado\Colado\_Standard\_maps\COL-33\_Colado\_General Loc of Seismic Survey for\_BLM\_v\_Instr\_3\_9\_09\_dr.mxd



- |  |                              |  |   |
|--|------------------------------|--|---|
|  | Vulcan USBLM Lease # N79352  |  | USBLM Administered Land                           |
|  | Vulcan USBLM Lease # N79307  |  | Private Land                                      |
|  | Vulcan USBLM Lease # N79306  |  | Split Estate Land                                 |
|  | Vulcan USBLM Lease # N79305  |  | California National Historic Trail                |
|  | Vulcan Private Issued Leases |  | Approximate Location Lovelock Correctional Center |



Section Boundaries from BLM, <http://www.geocommunicator.gov/GeoComm/index.shtml>  
Base Map from 2007 Nevada BLM Surface Management Status Lovelock 1:100,000 Scale Topographic Map  
The contents of this map are approximate and subject to change

# SIGNAL EXPLORATION, INC.



*"SPECIALIZING IN REMOTE AREA ACCESS"*

PO BOX 1017  
BELLA VISTA, CA 96008  
PH./FAX 530.549.3710  
MOBILE 530.941.4785

**February 24, 2008**

## **RE: Environmental Impact on Nevada Desert Projects**

From their first use in 1928 surface seismic survey data are acquired with both source and receiver, which is essentially done on the surface of the earth. In the past, common practice has been to produce a signal into the earth, which is generated by setting off a dynamite charge in small holes drilled into the surface or by using a hydraulic Vibroseis (large truck mounted vibrators that shake the earth or that physically strikes the ground). Sound energy generated by the source propagates in all directions, but the useful energy is that which travels down, reflects at layer interfaces, and comes back up to the receivers. The receiver records data as wiggles with amplitude that varies with time; and through processing these are turned into an image of the reflectors.

The earth is a fragile eco-system. To protect it from any adverse effects from our operations, SEI has developed and implemented an action plan to make sure our operations have as little negative impact on the environment as possible.

As a seismic data acquisition contractor, our entire operation has been redesigned from the ground up. We have pioneered and are the only contracting firm to specialize in low impact and environmentally friendly high-resolution seismic sources. We have done away with the need for the use of explosives and high impact large vehicles, making SEI the only seismic data acquisition contractor to specialize in remote area portability. Flat out, we do the work that the others can't or won't, because this is what we are designed to do and that is our mission.

GEI/SEI has extensive experience in applying *low impact* seismic techniques and environmental impact mitigation measures such as:

- Avoiding sensitive areas and times
- Using no highway type vehicles in any of our field operations and implementing the use of proprietary, environmentally friendly light weight field equipment and practices specifically designed by us and never before considered in the industry.

GEI/SEI implements the use of the following types of specific light weight, low impact equipment:

**Equipment:**

1. Energy source comprised of a source vehicle (Kubota RTV 900 light weight, approximately 1500 lbs, low impact) and a nitrogen accelerated weight drop. This unit leaves very little to no indent on the ground surface.
2. New technology, light weight seismic cables at 115 feet in length and manually deployed (neck rolled) and resting only on the surface of the ground.
3. Sensors or geophones consisting of only single light weight units and utilizing a three inch long by one quarter inch wide spike.

*Note: Most work involving deployment and retrieval is done by hand and on foot making every attempt at initializing a "one time through", low environmental impact operation.*

**Field Operations:**

Field operations start with a responsible plan of operation beginning with a ground survey and station layout of the line, which is done by personnel on foot. This involves careful consideration regarding terrain and environmentally sensitive areas such as wet area's and ground cover. The seismic line generally consists of 96 stations at 100 foot spacing and involves: one lightweight cable (1/4 inch diameter), recording geophones that sit on the surface of the ground (2 inch in diameter), a small lightweight recording unit every 6<sup>th</sup> station (6" inch square by 3 inch thick and radio transmitted). The deployment and retrieval of the "seismic line layout" is always done by hand. The transportation to the areas of layout is always by lightweight, low impact ATVs (*we never use highway vehicles such as truck*). The use of ATVs allow for great mobility between terrain and brush. The impact or "source" vehicle is a Kubota 900; it is low impact and small (about 4.6' x 8'), approximately 1500 lbs. The impact energy source consists of a nitrogen spring which propels a 200 pound weight onto a stationary "plate", with a throw of only 4 inches. The "plate" is lightweight aluminum (24"x12" x 1/2") and is carefully positioned at each station along the line (every 100 feet). When struck, this plate transfers high frequency signal into the earth with little to no surface disturbance. It takes only about 30 second per station and typically leaving only a quarter inch dimple in the soil.

The disturbance from our operation is minimal and usually consists of nothing more than two narrow, barely visible tracks about 36 inches apart. Generally speaking, every

attempt is made to accomplish data acquisition along the survey lines with one pass of the equipment. Again, most work involving deployment and retrieval is done by hand and on foot making every attempt at initializing a "one time through", low environmental impact operation. Within a short period of time, or after a rain or two, it can be very difficult to find evidence of our short visit to the area. Our larger transport vehicles are always stationary and stored at an environmentally safe staging area. Other than standard fuel and lubricants (which is dispensed at our staging area only), we use no environmentally destructive chemicals or explosives.

If there are any further questions or photo's needed please feel free to contact us.

Brett Jerome

Operations Manager

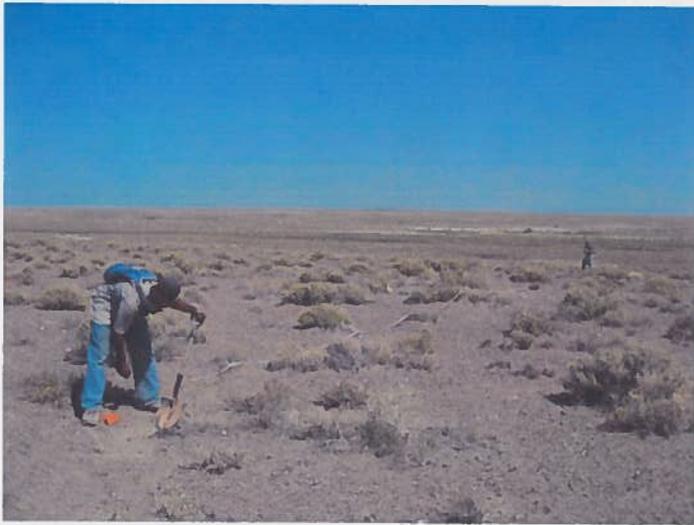
Signal Exploration, Inc.

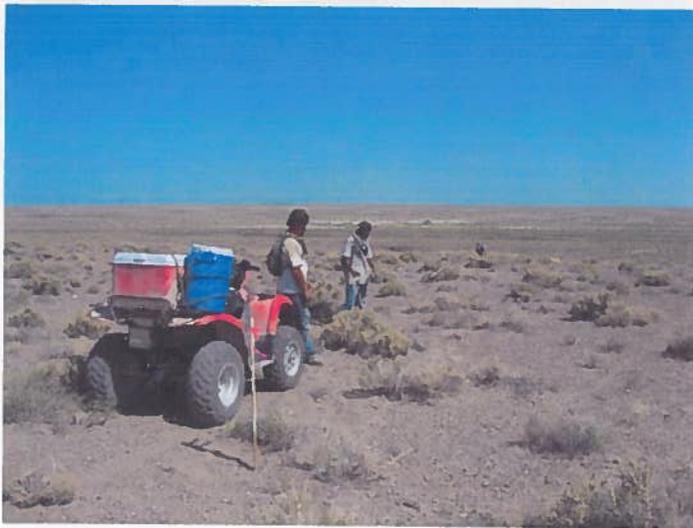
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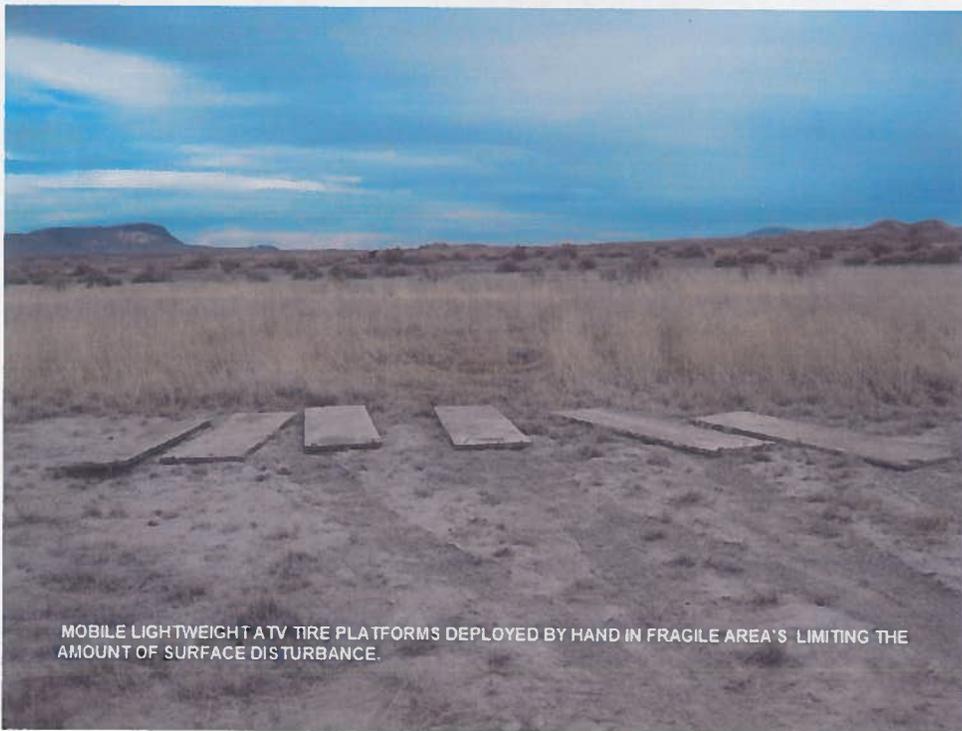












MOBILE LIGHTWEIGHT ATV TIRE PLATFORMS DEPLOYED BY HAND IN FRAGILE AREA'S LIMITING THE AMOUNT OF SURFACE DISTURBANCE.

**BELOW SHOWS AREA OF SEISMIC LINE,  
CABLE ON THE LEFT, LIGHTWEIGHT ATV'S  
ON THE RIGHT. MEN DEPLOYING CABLE BY  
HAND.**



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
**NOTICE OF INTENT TO CONDUCT GEOTHERMAL RESOURCE  
EXPLORATION OPERATIONS**

FORM APPROVED  
OMB No. 1004-0132  
Expires: July 31, 2010

Applicant(s) Colado Project, LLC	Address (include zip code) 345 SW Cyber Drive #103 Bend, OR 97702
Operator (name and telephone number) include area code Colado Project, LLC (541) 317-1984	Address (include zip code) 345 SW Cyber Drive #103 Bend, OR 97702
Contractor(s) Signal Exploration	Address (include zip code) P.O. Box 1017 Bella Vista, CA 96008

hereby apply for authorization to conduct exploration operations pursuant to the provisions of 43 CFR 3250 now or hereafter in force across and upon the following-described lands (give description of lands by township, attach map or maps showing lands to be entered or affected).

USBLM Administered lands: T28N, R32E, Section 26 (N79352), Sections 34 and 36 (N79307); T28N, R33E, Section 30 (non-lease); T27N, R32E, Sections 2, 10, 12, and 14 (N79306), Sections 22 and 24 (N79305), Section 26 (non-lease), Mount Diablo Meridian, Pershing County, NV. See attached map.

Type of operations to be conducted (give brief description).

Two-dimensional seismic geophysical survey. 9 lines oriented north-south and 8 lines oriented east-west, totaling approximately 225,883-feet (42.8-miles). See attached map. The geophysical contractor has prepared a detailed summary, including photographs, of their seismic operation; it is attached.

Exploration operations will be conducted during the period (date) from **03/01/2009** to **05/31/2009**

Attached  \$ 50,000.00      Surety bond     Rider to Nationwide bond     Rider to Statewide bond     Bond to be furnished

Upon completion of exploration operations, the undersigned agrees to notify the Bureau of Land Management (BLM) that authorized exploration operations have been completed in conformance with the general and special terms and stipulations of the notice.

The undersigned hereby agrees (1) that he will not enter upon the described land until he has been informed in writing whether there are special stipulations applicable to his Notice of Intent, as to either time or method of operation or otherwise, and if there are such stipulations, what those stipulations are, (2) that he will comply with those special stipulations, if any; and (3) that he will not enter upon the described lands until his entry has been approved by the BLM.

The undersigned agrees to be bound by the terms and conditions of this notice to conduct exploration operations when approved by the BLM.

The undersigned agrees that the filing of this Notice under the regulations (43 CFR Subpart 3250) does not vest or confer any preference right to a geothermal resources lease.

The undersigned agrees further that all exploration operations must be conducted pursuant to the following terms and conditions:

1. Exploration operations must be conducted in compliance with all Federal, State, and local laws, ordinances, or regulations which are applicable to the area of operations including, but not limited to, those pertaining to fire, sanitation, conservation, water pollution, fish, and game. All operations hereunder must be conducted in a prudent manner.
2. Due care must be exercised in protecting the described lands from damage. All necessary precautions must be taken to avoid any damage other than normal wear and tear to improvements on the land including, but not limited to, gates, bridges, roads, culverts, cattle guards, fences, dams, dikes, vegetative cover, improvements, stock watering, and other facilities.
3. All drill holes must be capped when not in use and appropriate procedures must be taken to protect against hazards in order to protect the lives, safety, or property of other persons or of wildlife and livestock.

4. All vehicles must be operated at a reasonable rate of speed and, in the operation of vehicles, due care must be taken to safeguard livestock and wildlife in the vicinity of operations. Existing roads and trails must be used wherever possible. If new roads and trails are to be constructed, the BLM must be consulted prior to construction as to location and specifications. Reclamation and/or seeding of new roads and trails must be made as requested by the BLM.
5. Upon expiration, conclusion, or abandonment of operations conducted pursuant to this Notice, all equipment must be removed from the land, and the land must be restored as nearly as practicable to its original condition by such measures as the BLM may specify. All geophysical holes shall be safely plugged. The BLM must be furnished a Notice of Completion of Geothermal Resource Exploration Operations (Form 3200-10) immediately upon cessation of all such operations and must be further informed of the completion of reclamation work as soon as possible.
6. Location and depth of water sands encountered must be disclosed to the BLM.

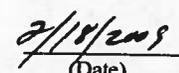
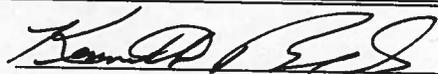
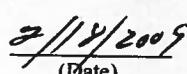
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Bureau of Land Management Received
FEB 19 2009
Field Office Winnemucca Nevada

7. Operator must contact the BLM prior to actual entry upon the land in order to be appraised of practices which must be followed or avoided in the conduct of exploration operations pursuant to the terms of this Notice and applicable regulations. Operator will conduct no operations on the land unless the attached bond is in good standing.
8. Due care must be exercised to avoid scarring or removal of ground vegetative cover.
9. All operations must be conducted in such a manner to avoid (a) blockage of any drainage systems; (b) changing the character, or causing the pollution or siltation of rivers, streams, lakes, ponds, waterholes, seeps and marshes; and (c) damaging fish and wildlife resources or habitat. Cuts or fills causing any of the above-mentioned problems will be repaired immediately in accordance with specification of the BLM.
10. Vegetation must not be disturbed within 300 feet of waters designated by the BLM, except at approved stream crossings.
11. Surface damage which induces soil movement and/or water pollution must be subject to corrective action as required by the BLM.
12. Trails and campsites must be kept clean. All garbage and foreign debris must be eliminated as required by the BLM.
13. Operator must protect all survey monuments, witness corners, reference monuments, and bearing trees against destruction, obliteration, or damage. He must, at his expense, reestablish damaged, destroyed, or obliterated monuments and corners, using a licensed surveyor, in accordance with Federal survey procedures. A record of the reestablishment must be submitted to the BLM.

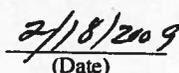
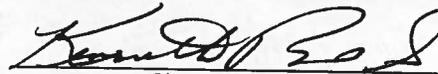
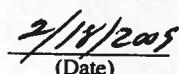
14. Operator must make every reasonable effort to prevent, control, or suppress any fires started by the operator, and to report, as soon as possible, to the BLM location and size of fires, and assistance needed to suppress such fires. Operator must inform the BLM as soon as possible of all fires, regardless of location, noted, or suppressed by independent action.
15. No work must be done within one-half mile of a developed recreation site without specific written authority from the BLM. Any travel within one-half mile of a recreation site must be over existing roads or trails.
16. Use of explosives within one-half mile of designated waters is prohibited unless approved, in writing, by the BLM.
17. If operations conducted under the provisions of this Notice causes any damage to the surface of the national resource lands, such as, but not limited to, soil erosion, pollution of water, injury or destruction of livestock or wildlife, or littering, operator must, within 48 hours, file with the BLM a map showing exact location of such damage and a written report containing operator's plans for correcting or minimizing damage, if possible.
18. Violation of, or failure to comply with any of these terms and conditions will result in immediate shutdown of field operations until deficiency is corrected. Failure to correct deficiency within the time period allowed by the BLM will result in forfeiture of bond.
19. The Bureau of Land Management reserves the right to close any area to operators in periods of fire danger or when irreparable damage to natural resources is imminent.
20. Contractor will be liable for assuring compliance with all terms and conditions of this Notice and all sections of his designated operator, agents, and employees.
21. Where continuation of the operation will result in irreparable damage to the land and other natural resources this Notice will be immediately canceled by the BLM.

22. Special Stipulations:

(Signature of Applicant) (Date) (Signature of Operator) (Date)

We hereby agree to the special stipulations added and made a part of this Notice to conduct exploration operations.

(Signature of Holder of Notice) (Date) (Signature of Operator) (Date)

I hereby approve this Notice to conduct exploration operations.

(Signature of BLM)

(Title)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction.

## NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this Notice of intent to Conduct Geothermal Resource Exploration Operations.

**AUTHORITY:** 30 U.S.C. 1001-1025.

**PRINCIPAL PURPOSE:** The information is to be used to process your request for authorization to conduct exploration operations.

**ROUTINE USES:** (1) The adjudication of the request for authorization to conduct exploration operations. (2) Documentation for public information. (3) Transfer to appropriate Federal agencies when concurrence is required prior to granting a right in National Resource lands or resources. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

**EFFECT OF NOT PROVIDING INFORMATION:** Disclosure of the information is voluntary. If all the information is not provided, your request for authorization may be denied.

The Paperwork Reduction Act of 1995 requires us to inform you that:

BLM collects this information in accordance with 43 CFR 3250.

This information will be used to identify and communicate with the parties involved.

Response to this request is required to obtain a benefit.

BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0074), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

# SIGNAL EXPLORATION, INC.



PO BOX 1017  
BELLA VISTA, CA 96008  
PH./FAX 530.549.3710  
MOBILE 530.941.4785

**February 18, 2008**

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Operations Manager

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