

California Regional Water Quality Control Board
North Coast Region

Notification, Monitoring, and Reporting Program
Order No. R1-2008-0031

WDID No. 1B07185RSON

for

Western GeoPower, Inc.
Assessor's Parcel Numbers
117-150-010, 117-150-016, and 141-010-014
The Geysers

Sonoma County

INTRODUCTION

This Notification, Monitoring and Reporting Program (NMRP) is issued pursuant to California Water Code section 13267(b) and requires notification prior to any activities associated with road construction, drill site preparation, well drilling, well re-working, and well abandonment; notification regarding to circulation loss; monitoring and reporting of drill cuttings volumes and test results; verification as to ultimate disposal of drill cuttings; information regarding water volume received from Geysers Power Company, LLC; and information regarding spill events. This Order requires regular monthly written reporting and both written reporting within two weeks of spill events and verbal reporting within 24 hours of spill events.

OBJECTIVES

The objectives of notification, monitoring, and reporting conducted under this monitoring program are to:

- Evaluate field construction activities and proposed methods to treat controllable sediment delivery.
- Assess and demonstrate adherence to the project description provided to the Regional Water Board in Request for Waiver of Waste Discharge Requirements for the Western GeoPower, Inc., dated November 29, 2007, and Negative Declaration (SCH# 2007082015) dated August 1, 2007.
- Provide the Discharger and the Regional Water Board with the necessary information and opportunity to evaluate spill events, and to provide the Discharger the opportunity to mitigate and implement measures to prevent future spills.

California Environmental Protection Agency

Recycled Paper

Under the authority of California Water Code section 13267(b), Western GeoPower, Inc. (Discharger) is required to comply with the following:

NOTIFICATION

A. Prior to Construction

The Discharger shall submit a written notice to the Regional Water Board at least fourteen days (14) prior to any construction activities associated with road construction, drill site preparation, well drilling, well re-working, or well abandonment. The notice shall include:

1. Proposed construction date(s),
2. Location(s) of the activity(s),
3. Description of the activity(s),
4. Method(s) of construction, and
5. Proposed location(s) of ultimate disposal of excess or waste earthen materials and drill cuttings.

B. Circulation Loss

The Discharger shall immediately notify the Regional Water Board of any circulation loss during the construction of a well at depths less than 300 feet. The notice shall include:

1. Location of the well,
2. Well depth at the circulation loss,
3. Amount of drilling mud lost,
4. Method of correction, and
5. Cleanup activities.

C. Accidental Spill Notification

For spills of liquid wastes and hazardous wastes, refer to Section H, Accidental Spill Notification and Reporting.

D. Use of Santa Rosa's Treated Wastewater

The Discharger shall submit a written report to the Regional Water Board prior to the use of Santa Rosa's treated wastewater. The notice shall include:

1. Use(s) of the treated wastewater,
2. Date(s) the treated wastewater was used,
3. Location(s) of the activity(s),
4. Volume of treated wastewater used,
5. Known or estimated composition of the treated wastewater,

6. Volume which entered or which may enter receiving waters, and
7. Measures taken or proposed to be taken to prevent or control discharge of pollutants to receiving waters associated with this use of treated wastewater.

MONITORING

E. Accidental Spill Monitoring

In the event of an accidental spill of any liquid waste to surface waters, the Discharger shall implement the following monitoring program:

<u>Constituents</u>	<u>Sampling Location</u>	<u>Units</u>	<u>Type of Sample</u>
pH (field)	001, 002, 003	pH units	grab
Specific Conductivity	001, 002, 003	µmhos/cm	grab
Temperature	001, 002, 003	C°	grab
Ammonia	001, 002, 003	mg/L	grab
Chlorides	001, 002, 003	mg/L	grab
Nitrate	001, 002, 003	mg/L	grab
Nitrite	001, 002, 003	mg/L	grab
Antimony	001, 002, 003	ug/L	grab
Arsenic	001, 002, 003	ug/L	grab
Beryllium	001, 002, 003	ug/L	grab
Boron	001, 002, 003	mg/L	grab
Cadmium	001, 002, 003	ug/L	grab
Cobalt	001, 002, 003	ug/L	grab
Copper	001, 002, 003	ug/L	grab
Chromium	001, 002, 003	ug/L	grab
Iron	001, 002, 003	ug/L	grab
Lead	001, 002, 003	ug/L	grab
Mercury	001, 002, 003	ug/L	grab
Molybdenum	001, 002, 003	ug/L	grab
Nickel	001, 002, 003	ug/L	grab
Selenium	001, 002, 003	ug/L	grab
Silver	001, 002, 003	ug/L	grab
Thallium	001, 002, 003	ug/L	grab
Vanadium	001, 002, 003	ug/L	grab
Turbidity	001, 002, 003	NTU	grab
Settleable Matter	001, 002, 003	mg/L	grab
Fish Bioassay*	001, 002, 003	96-hour percent survival	grab

- * Rainbow Trout, Oncorhynchus mykiss, shall be used as the test fish and the test temperature shall be maintained between 14° and 17°C.

Sampling Location 001 shall be at the source of the spill and shall be representative of the material spilled. It shall be sampled once as soon after the spill as possible.

Sampling Location 002 shall be in the affected stream at a point upstream from the area influenced by the spill and shall be sampled once as soon after the spill as possible.

Sampling Location 003 shall be in the affected stream within the zone influenced by the spill and shall be relocated as that influenced zone proceeds downstream. It shall be sampled once each six hours beginning as soon after the spill as possible and continuing for as long as the spill can be traced, but not to exceed four samples unless directed to continue sampling by the Regional Water Board's Executive Officer.

F. Drill Cuttings

The Discharger shall sample all drill cuttings to adequately characterize them for disposal. All samples will be analyzed by a State certified laboratory for metals using California Title 22 Hazardous Waste Regulatory Criteria/Maximum Contaminant Levels.

REPORTING

G. Monthly Reporting

The Discharger shall submit monthly reports to the Regional Water Board with the following monitoring results and reports related to field operations in The Geysers geothermal field. These reports will be submitted the first day of the following month:

1. Summary of spill events and measures taken to prevent future spill events.
2. Volume of drill cuttings, sampling results, ultimate disposal of drill cuttings.
3. Volume of Santa Rosa's treated wastewater used, location of use, and for what purpose.
4. Discussion of pertinent field activities, problems related to water quality, and mitigations.

H. Accidental Spill Notification and Reporting

The Discharger shall immediately notify the Regional Water Board of a spill of any liquid waste as soon as practical but no later than 24 hours after the initial spill discovery.

Reporting Thresholds:

All unauthorized discharges shall be reported by telephone within 24 hours, and followed up within two weeks by a written report describing the incident, regardless of volume, if any one of the following occurs:

1. Discharge enters into any water of the State,

2. Discharge enters into a conveyance (ditch or culvert) directly discharging to a Class I watercourse (perennially flowing stream or stream containing fish, or a watercourse containing a developed domestic water source),
3. The discharge creates any erosion or deposition of sediment that could enter into a watercourse,
4. The discharge results in additional infrastructure damage or failures or potential infrastructure damage or failures, or
5. Discharge contains or is suspected to contain any geothermal condensate.

I. Report Format

The monitoring reports shall be arranged in tabular form so that the date, location, constituents, and the concentrations are easy to read and interpret.

J. Failure to Comply With the Terms of This Order

Failure to comply with the terms of this Order can result in civil liabilities of up to \$5,000 per day under California Water Code section 13268(a)(b)&(d)(1), or misdemeanor prosecution under California Water Code section 13268(c)&(d)(2).

K. Ability to Petition This Action of the Board

Any person affected by this action of the Board may petition the State Water Resources Control Board (State Water Board) to review the action in accordance with section 13320 of the California Water Code and Title 23, California Code of Regulations, section 2050. The petition must be received by the State Water Board within 30 days of the date of this Order. Copies of the law and regulations applicable to filing petitions will be provided upon request. In addition to filing a petition with the State Water Board, any person affected by this Order may request the Regional Water Board to reconsider this Order. Such request must be made within 30 days of the date of this Order. If reconsideration by the Regional Water Board is sought, filing a petition with the State Water Board within the 30-day period is necessary to preserve the petitioner's legal rights. If you choose to appeal this Order, be advised that you must comply with this Order during the appeal process.

Ordered by: _____

Robert R. Klamt
Executive Officer

February 28, 2008