

California Regional Water Quality Control Board  
North Coast Region

Monitoring and Reporting Program No. R1-2010-0062  
[Rescinding and Replacing Monitoring and Reporting Program No. R1-2004-0052]  
WDID No. 1B04028RSON

For

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Former Golden Technology Site  
3017, 3019, and 3033 Santa Rosa Avenue  
Santa Rosa, California  
Sonoma County

### **GROUNDWATER MONITORING**

1. Groundwater elevations in each monitoring well shall be measured at each sampling event. The depth to groundwater shall be measured to the nearest 0.01-foot increment prior to purging each monitoring well. Groundwater elevations shall be reported in tabular form indicating the surveyed elevations of each well reference point, depth to groundwater from the reference point, and the actual groundwater elevation. The data generated from the elevation readings must be referenced to mean sea level.
2. Groundwater samples shall be collected from all monitoring wells installed at the Site semi-annually, during the first and third calendar quarters, and analyzed for volatile organic compounds.
3. All monitoring wells shall be purged of at least three casing volumes of water, or until dry, prior to sampling. Monitoring wells shall be allowed to recharge to at least 80 % of the initial casing volume prior to sampling. All purge water shall be impounded pending analysis for proper disposal. An alternative well-purging protocol may be used upon the written approval of the Executive Officer.
4. Chemical analyses shall be conducted by a laboratory certified by the California Department of Health Services for those analyses.
5. Groundwater monitoring wells MW-UA-01, MW-UA-02, PZ-UA-01, MW-2 and MW-5 shall also be monitored and tested semiannually, during the first and third calendar quarters, for the treatability study water quality parameters listed below:
  - a. Total organic carbon
  - b. Total dissolved iron
  - c. Dissolved manganese

- d. Dissolved arsenic
- e. Chloride
- f. Nitrate
- g. Sulfate
- h. Alkalinity
- i. Chemical oxygen demand
- j. Oxidation-reduction potential \*
- k. Methane, ethane, and ethene
- l. Dissolved oxygen \*
- m. pH \*

\*Field monitoring: The monitoring report must identify detection instruments used, and the pre and post-calibration protocol and QA/QC methodology must be reported.

### **GROUNDWATER MONITORING CONTINGENCY PLAN**

If the post-injection analytical results from any groundwater monitoring well show that levels of iron, manganese, or arsenic in monitoring wells MW-2 and MW-5 are elevated 50 % or greater in comparison to the baseline levels detected during pre-injection monitoring, groundwater samples from that monitoring well shall be sampled and analyzed for the following constituents and water quality parameters within two weeks of receipt of the laboratory data:

- a. Dissolved arsenic
- b. Dissolved copper
- c. Total dissolved iron
- d. Dissolved mercury
- e. Dissolved vanadium
- f. Oxidation-reduction potential
- g. Total organic carbon
- h. Dissolved oxygen \*
- i. pH \*

\*Detection instruments used, calibration protocol and QA/QC methodology must be reported.

### **REPORTING**

Groundwater Monitoring Reports shall be submitted semi-annually, and shall include the following elements:

1. A groundwater elevation map for each sampling event. The map shall include the following:
  - a. Groundwater elevation isograms, groundwater flow direction, and the groundwater elevation gradient;
  - b. The locations of monitoring wells;
  - c. The locations of former and current underground tanks;

- d. The locations of on-site structures and other significant features.
2. A contaminant isogram map for the most significant pollutant or pollutants detected during the monitoring events. The map(s) should be presented at the same scale and display the same Site features as the groundwater elevation map.
3. Analytical data tables, including both current and historical analytical results. The tables shall include the following:
  - a. Sample locations
  - b. Date of sample collection
  - c. Constituents and analytical results
  - d. Quantification limits employed for non-detect analytical results.
4. Copies of the well purging and sampling field logs; chain of custody documents showing the time and date of collection and person collecting; and signed laboratory reports including quality control data and explanations of analytical anomalies, if any. These supporting documents may be included as appendices in the report.
5. Groundwater monitoring data and reports shall be submitted electronically to the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as required by Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations).
6. Groundwater Monitoring Reports shall be submitted in paper format to the Regional Water Board according to the following schedule:

<u>Reporting Period</u>	<u>Due Date</u>
January, February, March	April 30
July, August, September	October 31

Ordered by \_\_\_\_\_  
Catherine Kuhlman  
Executive Officer  
June 28, 2010