

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
NORTH COAST REGION

MONITORING AND REPORTING PROGRAM NO R1-2005-0116

FOR
REMEDATION SYSTEM MONITORING
AT
ULTRAMAR #700
7898 OLD REDWOOD HIGHWAY, COTATI, CA
CASE NO. 1TSO001

GROUNDWATER MONITORING

1. Prior to purging each monitoring well for sampling, each well shall be checked for the presence or absence of free product. If free product is present, the thickness shall be measured to the nearest 0.01-foot.
2. Prior to purging, the depth to groundwater shall be measured to the nearest 0.01-foot. The groundwater elevations for each monitoring event shall be reported in tabular form indicating the top of casing elevation, the groundwater elevation referenced to mean sea level and the actual depth to groundwater.

GROUNDWATER SAMPLING

1. Groundwater samples shall be collected for chemical analysis from the following wells for ozone system monitoring:
 - A- Zone-MW-2, MW-4, MW-7, MW-8 and MW-10
 - B-Zone- MW-14, MW-18, MW-19 and MW-20
2. These ozone system monitoring wells will be sampled for baseline parameters within three months prior to initiating ozone sparging, weekly for the first month following the first ozone injections, and then quarterly thereafter.
3. Prior to sampling the following field measurements will be collected from each of the ozone monitoring wells:
 - Dissolved oxygen (DO)
 - Oxygen reduction potential (ORP)
 - Temperature and pH
4. During each sampling event groundwater samples from each ozone monitoring wells shall be analyzed for the following constituents:
 - Dissolved metals: hexavalent chromium, uranium, vanadium, selenium, lead and molybdenum;

- Inorganic Compounds: bromide and bromate.
5. Groundwater from site monitoring wells will also be sampled for:
- Total petroleum hydrocarbons (TPH) measured as gasoline;
 - Volatile organics compounds, including: benzene, toluene, ethylbenzene, xylenes (BTEX);
 - Fuel oxygenates including: methyl tertiary butyl ether (MTBE), tertiary-amyl methyl ether (TAME), diisopropyl ether (DIPE), tertiary-butyl alcohol (TBA), and ethanol.
6. Site wells will be sampled for the above constituents according to the following schedule:

Quarterly	Annually
MW-2	MW-3
MW-5	MW-4
MW-8	MW-6
MW-13	MW-7
MW-14	MW-16
MW-15	MW-20
MW-17	
MW-18	
MW-19	
MW-20	
RW-2	
RW-3A	

7. All chemical analyses must be performed by a laboratory certified by the State of California Department of Health Services.
8. Analytical methods for sample analyses shall achieve practical quantification reporting limits that are adequate for evaluating regulatory action levels for each constituent. A table of water quality objectives and common laboratory reporting limits for the constituents of concern is incorporated in this Monitoring and Reporting Program as Appendix A.

REPORTING

1. A groundwater elevation contour map shall be submitted for each monitoring event and include:
- Location of all applicable facilities and residences
 - Groundwater flow pattern including groundwater gradient contour lines
 - Location of the monitoring wells and domestic wells
 - Location of the former underground tanks

2. Current and previous analytical results shall be reported in tables which include the following:
 - Identification of well sampled
 - Date of sample collection.
 - Thickness of any floating product
 - Constituents and analytical results
 - Method detection limits
3. A remediation system operational summary shall be submitted for each monitoring event and it shall including:
 - A narrative of system operation, performance and estimate of contaminant removed by the systems.
 - Tables summarizing groundwater and soil vapor extraction systems (if operational) including all influent and effluent monitoring results.
4. Each report shall contain copies of chain of custody documents showing the time and date of collection and person collecting, signed laboratory sheets including quality control data, explanations of analytical anomalies and changes in the groundwater treatment system, if any. These supporting documents may be included as appendices to the report.
5. Monitoring reports, including gradient and sampling data, shall be submitted to this office in accordance with the following schedule:

Reporting Period

Due Date

1st Quarter (January, February, March)

April 15

2nd Quarter (April, May, June)

July 15

3rd Quarter (July, August, September)

October 15

4th Quarter (October, November, December)

January 15

6. Groundwater monitoring data and reports shall also 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).

Ordered by _____
Catherine E. Kuhlman
Executive Officer

November 23, 2005