

California Regional Water Quality Control Board
North Coast Region
Monitoring and Reporting Program No. R1-2014-0057

WDID No. 1B1SO134NUG

EQUILON ENTERPRISES, INC.
9033 Old Redwood Highway
Windsor, California

Case No. 1T50134

Sonoma County

This Monitoring and Reporting Program is issued pursuant to California Water Code Section 13267(b) and requires monitoring and reporting for activities associated with the implementation of remedial activities under General Waste Discharge Requirements Order No. R1-2004-0021. The objectives of monitoring conducted under this monitoring program are to provide the Discharger and Regional Water Board staff with information concerning contaminant trends in groundwater and to demonstrate compliance with the provisions of Order No. R1-2004-0021.

Under the authority of the California Water Code Section 13267, the Discharger named above is required to comply with the following:

GROUNDWATER MONITORING

General Requirements

1. The depth to groundwater shall be measured to the nearest 0.01-foot prior to monitoring well purging and sampling.
2. All monitoring wells shall be purged of 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.
3. Laboratory analyses shall be performed on the groundwater samples at a California certified laboratory.

Baseline Monitoring Requirements

4. Prior to sub-surface chemical injections, samples from groundwater monitoring wells MW-3, MW-10, MW-12, MW-13, MW-15, MW-16, and MW-22 shall be analyzed for sulfate, sulfide, ferric iron, total nitrogen, nitrate, nitrite, total phosphorus, total dissolved solids (TDS), chemical oxygen demand (COD), and dissolved carbon dioxide.

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5. Prior to sub-surface chemical injections, samples from groundwater monitoring wells MW-3, MW-10, MW-12, MW-13, MW-15, MW-16, and MW-22 shall be tested for the water quality parameters dissolved oxygen, oxidation-reduction potential, pH, and temperature.

Post-Injection Monitoring Requirements

6. Groundwater monitoring wells MW-3, MW-10, MW-12, MW-13, MW-15, MW-16, and MW-22 shall be sampled within one month following the initial injection of chemicals, then quarterly for two years and semi-annually thereafter.
7. Groundwater samples shall be analyzed for total petroleum hydrocarbons measured as gasoline and diesel; benzene, toluene, ethylbenzene, xylenes, methyl tertiary butyl ether, tert butyl alcohol; COD, dissolved carbon dioxide, ferric iron, ferrous iron, total nitrogen, nitrate, sulfate, sulfide, phosphorous, and TDS.
8. Groundwater from each well shall be field tested for dissolved oxygen, oxidation-reduction potential, pH, and temperature.

REPORTING

1. Project Update Reports shall be submitted quarterly for two years, according to the following schedule:

Sampling Period	Due Date
January – March	The following May 1
April – June	The following August 1
July – September	The following November 1
October – December	The following February 1

2. Project Update Reports shall provide a summary of the remedial activities for the reporting period and an assessment of the in-situ bioremediation progress and process control considerations.
3. Semi-annual Groundwater Monitoring reports shall be submitted to the Regional Water Board according to the following schedule:

Sampling Period	Due Date
October – March	The following May 1
April – September	The following November 1

4. Reports and monitoring data shall be submitted to the Regional Water Board via the State Water Resources Control Board's Geographic Environmental Information Management System database (GeoTracker) as specified in Title 23, Division 3, Chapter 30, Article 2, Sections 3890-3895 of the California Code of Regulations.

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5. Monitoring reports shall be prepared by or under the supervision of a California Professional Civil Engineer or Geologist.
6. The results of the depth to groundwater measurements shall be reported in tabular form indicating the surveyed elevations of each 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 the same elevation datum used for GeoTracker.
7. Each semi-annual monitoring report shall include the following elements:
 - a. Groundwater elevation maps for each monitored water-bearing zone showing groundwater elevations relative to the locations of monitoring wells former and current underground tanks, and other significant features.
 - b. Analytical data tables summarizing the current and historical analytical results for all permanent groundwater monitoring points.
 - c. Copies of the following: well purging and sampling field logs; chain of custody documentation 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. Monitoring reports shall identify the type of instruments that were used for field-measured data, and shall include copies of the pre and post-calibration records or provide other assurance for field data quality. These supporting documents may be included as appendices in the report.

Ordered By: _____

Matthias St. John
Executive Officer

October 31, 2014