

California Regional Water Quality Control Board
North Coast Region

Monitoring and Reporting Program No. R1-2009-0130

For

Normans Dry Cleaners and Laundry

2907 E Street
Eureka, California

Humboldt County

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code Section (CWC) 13267(b) and requires monitoring of groundwater and vapor matrices as well as submission of technical reports. Reports are required on a periodic basis detailed in this order. The objective of monitoring conducted under this monitoring program is to provide the Discharger and the California Regional Water Quality Control Board, North Coast Region (Regional Water Board) with information concerning groundwater and vapor quality, contaminant trends through time, production of potential byproducts, and control of the In-Situ Chemical Flushing (ISCF) pilot-scale testing for the solubilization and/or mobilization and removal of Dense Non-Aqueous Phase Liquids (DNAPLs) from the groundwater at the Site.

Under the authority of CWC section 13267(b), the Discharger named above is required to comply with the following:

MONITORING

1. Baseline monitoring parameter conditions shall be established for each monitoring point that includes groundwater monitoring wells (MW-9A and MW-9B), flushing well (FW-1), vapor phase wells (VP-1 and VP-2), and above ground structure as identified in the Revised Report of Waste Discharge Equivalent (Revised ROQWDe) prior to initiating pilot-scale testing.
2. The depth to groundwater in each monitoring well shall be determined to at least 0.01 foot increments quarterly. The results of each quarter's elevation shall be reported in tabular form indicating the surveyed elevations of each well reference point, depth to groundwater from reference point, and the actual groundwater elevation. The data generated from the elevation readings must be referenced to mean sea level.
3. All existing and future ground water and vapor phase monitoring wells shall be sampled for Constituents of Concern (COCs) known to be in the groundwater at the Site and/or may result from the pilot-scale testing. The COCs are listed on Attachment A to this MRP. Other regulated groundwater COCs identified on Attachment A include those specific to the pilot-scale testing which are included in revised Table 6-1 which is part of the Revised ROWDe. Revised Table 6-1

contains laboratory and field parameters specifically related to the pilot-scale testing. The COC analyses shall be performed at a California State-certified laboratory using analyses methods listed on revised Table 6-1. Due to the use of alcohols, the practical quantitation limits (PQLs) listed on Attachment A will likely not be met until baseline conditions are achieved. Field parameters are to be measured using calibrated equipment.

4. Revised Table 6-1 identifies existing vapor and groundwater monitoring wells, and includes a provision for the addition of monitoring wells as needed. In addition, above ground structure monitoring is required as identified within Section 6.3 of the revised ROWDe.
5. The COCs are associated with a co-mingled plume and some analytes co-elute during analysis, the Discharger in conjunction with the State-certified laboratory performing chemical analyses shall develop and implement an approach that differentiates COCs that co-elute in order to provide quantifiable concentrations for each COC. An example of this is the measurement of total petroleum hydrocarbons as gasoline (TPHG) using non-chemical-specific Method 8015B. Tetrachlorethene (PCE) is identified within the TPHG range. Therefore it is necessary to differentiate between COCs that are and are not TPH-related in order to accurately measure all COCs that co-elute. This approach shall be verifiable and repeatable.
6. Historic chemical test data indicate the potential presence of laboratory contaminants and trihalomethane compounds associated with the disinfection of water for potable uses. The Discharger in conjunction with the State-certified laboratory shall implement approaches that identify and quantify laboratory contaminants as well as compounds such as trihalomethane. This approach shall be verifiable and repeatable.
7. Periodic monitoring reports shall be prepared under the direct supervision of a California-Licensed Civil Engineer or Professional Geologist with demonstrated skills in preparing such reports. The reports shall be provided to the Regional Water Board within defined time periods identified in reporting schedule contained below.
8. All monitoring reports shall contain; A) All types of raw field data (such as well purge logs), B) Potentiometric surface maps for each water-bearing zone showing flow lines as well as equipotential lines, C) Determinations of vertical gradient magnitude(s) and direction(s), D) Chain-of-Custody documentation, E) Complete laboratory reports, F) Data validation summary, G) Trend analysis for all measured parameters, and H) Conclusions and recommendations regarding all measured parameters.
9. Monitoring activities including sampling will generate Investigation Derived Wastes (IDW). The Dischargers shall have an IDW management plan that analyzes,

reports and disposes of those types of IDW needing such documentation. The IDW management plan will provide for periodic IDW disposal and reporting of that disposal to the Regional Water Board.

10. Pilot-scale field testing may be conducted in phases. Subsequent phase(s) maybe necessary depending on test results from the prior phase. A 30-day time period is planned for actual field performances. A maximum of 90 days is permitted for actual field work connected with the pilot program testing. If additional field work is needed beyond the 90 day limit, additional regulatory evaluation and public noticing are required.
11. Notify the Regional Water Board Executive Officer and Assistant Executive Officer within 48 hours of any measurement identifying unusual observations or elevated measurements in any monitoring point that may indicate unanticipated consequences (such as excessive COC movement) or hazardous conditions (such as elevated vapor concentrations and/or flammable or combustible conditions) from the pilot-scale testing.
12. All project data and reports shall be submitted in hard copy format and also electronically submitted in the proper format to the State Water Resources Control Board's GeoTracker database. Geotracker submittals are required as stated in California Code of Regulations Title 23, Division 3, Chapter 30.

REPORTING SCHEDULE

Monitoring reports, including field data and laboratory data, shall be submitted to this agency in accordance with the following schedule:

Reporting Period(s)

Due Dates

Four Phases of Field Activities Project Baseline:

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| 1. Pre-flushing Tracer Test | Provide weekly status reports on field activities with all available data within one week after each phase of field work. |
| 2. Flushing Test | |
| 3. Post Flushing Tracer Test | |
| 4. Final Pilot-Scale Report | Due within 60 days following completion of field work. |

Reporting Period(s)

Due Dates

Monthly Monitoring Reports

Due within 30 days following monitoring period.

Quarterly Monitoring Reports

Due within 30 days following the monitoring period for first year or until data indicate water quality objectives or baseline conditions are achieved.

Yearly Monitoring Report

After first year, frequency is yearly until baseline conditions are achieved.

Ordered by _____

Catherine Kuhlman
Executive Officer

December 08, 2009