

California Regional Water Quality Control Board  
North Coast Region

MONITORING AND REPORTING PROGRAM NO. R1-2008-0009

FOR

IN-SITU GROUNDWATER TREATMENT

WILLITS ENVIRONMENTAL REMEDIATION TRUST

Former Remco Hydraulics Facility

934 South Main Street

Willits, California

Mendocino County

MONITORING

The groundwater monitoring program consists of sampling 24 A-zone wells identified as performance wells IMW-1, IMW-2, IMW-3, IMW-4, IMW-5, IMW-6, IMW-7, MLW-10U, MLW-7-1, MLW4-1, W26A, W28A, W12A, W29A1, W50A, W51A, W27A, W22A, W38A; and contingency wells W19A, IMW-8, W18A, IMW-9, ad W17A.

Pre-Injection Groundwater Monitoring

1. The 24 A-zone groundwater monitoring wells shall be sampled prior to the injection of the food grade molasses for the constituents listed in the Table 1 below.
2. The depth to groundwater shall be determined to at least 0.01 foot increments in the 24 A-zone groundwater monitoring wells prior to injection.

Post-Injection Groundwater Monitoring

3. The depth to groundwater shall be determined to at least 0.01 foot increments in all A-zone wells during the injection, and monthly thereafter.
4. The 24 A-zone groundwater-monitoring wells shall be sampled monthly following the injection for the constituents in Table 1 below. After twelve monthly sampling events, the monitoring wells shall be sampled quarterly for the duration of the treatment process. The locations of A-zone monitoring wells are depicted on Figure 3.
5. All groundwater monitoring wells shall be sampled for the following constituents using the methods provided below:

TABLE 1	
Constituent	EPA Analytical Method
VOCs	Method 8260
1,4-Dioxane	Method 8270C low level
Dissolved Iron, Manganese, Arsenic and Antimony	Method 6010B
Chloride	Method 300.1
Alkalinity	Method 310.1
Nitrate	METHOD 300.0
Sulfate	Method 300.0
Chemical Oxygen Demand	Method 410.4
Dissolved Organic Carbon	Method 450.1
Redox Potential, pH, Dissolved Oxygen, Temperature, Conductivity	Field Measurements

6. All laboratory analyses must be performed by a laboratory certified for those analyses by the State of California Department of Health Services. . Analytical methods for sample analyses shall achieve practical quantification reporting limits that are adequate for evaluating regulatory action levels for each constituent.

7. Contingency Plan

The injection of molasses into the subsurface may mobilize iron, manganese, arsenic, and/or antimony. The injection of molasses will also create a temporary increase in the concentration of vinyl chloride in the area of the injection. If these effects remain confined to the property boundaries of the site, no contingency actions will be taken. However, if any of these effects are observed in the contingency groundwater monitoring wells, groundwater extraction wells will be drilled and added to the existing groundwater treatment system. Any new extraction wells shall be sampled for the constituents listed in Table 1 above.

**REPORTING**

8. The depth to groundwater shall be determined to at least 0.01 foot increments in all A-zone wells identified above prior to injection, during the injection, monthly for one year, and quarterly thereafter.
9. The results of the post injection monitoring, monthly sampling, and quarterly sampling shall be submitted within 30 days following the sampling event. The monitoring report shall summarize all monitoring data collected for the in-situ treatment, and

include signed laboratory reports, and field logs with instrument calibration records and measurements.

10. 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 \_\_\_\_\_

Robert R. Klamt  
Interim Executive Officer

March 6, 2008

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