



HIGHLIGHTS

**National Risk Management Research Laboratory
Ground Water and Ecosystems Restoration Division
Robert S. Kerr Environmental Research Center
Status Report for the week of March 30, 2015**

TECHNICAL ASSISTANCE

Technical Assistance Region IX: On March 9, 2015, Dr. Eva Davis (GWERD) provided technical review comments to RPM Yvonne Fong on the “Draft NAPL Treatment Pilot Study Work Plan Addendum for the Former Installation Restoration Site 03, Former Waste Oil Ponds, Parcel E, at Hunters Point Naval Shipyard in San Francisco, California.” The work plan (WP) states that effective implementation of the activities requires the flexibility to make dynamic decisions while performing field work and that meetings will be held after the collection of the Tier 1 and Tier 2 soil samples to determine how to proceed with the soil sampling. A flow chart may be very helpful to show how the data collected will affect future field work. The WP also states that density and viscosity measurements will be made on the NAPL. Because thermal treatment is being considered for at least part of the area, it is recommended that density and viscosity measurements be made as a function of temperature. The density of the NAPLs already measured are mostly close to the density of water. It is possible that NAPL could change from a DNAPL to an LNAPL or from an LNAPL to a DNAPL during thermal treatment, depending on its density response to temperature change relative to that of water. Knowledge of the density change in response to temperature would aid in designing an effective NAPL recovery and treatment system. It is recommended that clarification be provided for the area for which hydraulic conductivity profiles are required.

(15-R09-004)

(E. Davis (GWERD) 580-436-8548)

Technical Assistance Region IX: On March 9, 2015, Dr. Milovan Beljin (CSS-Dynamac Corporation), under the direction of Dr. Randall Ross and Mr. Steven Acree (GWERD), provided technical review comments to RPM David Seter to supplement responses to previous comments on the “Groundwater Flow Model Supplemental Materials, Yerington Mine Site, Yerington, Nevada.” The primary goal foreseen for the Yerington groundwater model is to provide a management tool that can be used to evaluate possible remediation options. As noted in the model calibration report, the groundwater flow model should continue to be modified as new data are collected. Because the reviewed model is only a groundwater *flow* model, the next step of developing a solute transport component that can simulate transport processes that will impact concentrations of chemicals in groundwater should proceed. It appears appropriate to move forward with the modeling process with the understanding that certain aspects of the flow model and its assumptions may need to be revisited during the development of the solute transport model and evaluation of the modeling results. While groundwater modeling may provide a useful tool for better understanding current conditions and potential remedial options, the performance of any selected remediation strategy should ultimately be determined by a properly designed performance monitoring network.

(15-R09-002)

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Technical Assistance Region I: On March 13, 2015, Dr. Daniel Pope (CSS-Dynamac Corporation), under the direction of Dr. David Burden (GWERD), provided technical review comments to RPM Juan Perez on the “Proposed In-Situ Enhancements for the Former Medallie Arts RCRA Facility, Danbury, CT.” Enhanced anaerobic bioremediation (EAB) is a remedial approach commonly used as part of site remedies for sites with tetrachlorethene (PCE-), trichloroethene (TCE-), dichloroethene (DCE-), and vinyl chloride (VC-) contaminated groundwater. It seems likely that EAB could be useful for part of the Site remedial activities. However, it is not clear from the EAB Memo which groundwater parameters are planned to be monitored to evaluate EAB effectiveness. Also, it is not clear how the amount of reagent to be injected was determined. Calculations should be shown for this determination. The proposed EAB program is directed to only a small part of the Site. It is not clear that remediation of this small portion would be sufficient to meet Site remedial goals. Perhaps this initial effort is a pilot-scale test to determine the efficacy of EAB, and then EAB will be extended to the rest of the Site, but this is not stated in the EAB Memo. A discussion of the Site remedial goals in relation to the scope and extent of the proposed EAB program should be provided.

(15-RC01-001)

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