

Message #38: April 2000

Since March 1, TechDirect gained 240 new subscribers for a total of 8308. Welcome to everyone just joining the TechDirect community. As always, I welcome any feedback you have on this service. Here are the documents we found for you this month.

Mention of non-EPA documents does not constitute a U.S. EPA endorsement of their contents, only an acknowledgment that they exist and may be relevant to the TechDirect audience.

Documents

Hydraulic Optimization Demonstration for Groundwater Pump-and-Treat Systems, Volume I: Pre-Optimization Screening (Method and Demonstration) (EPA 542-R-99-011A)

This report was produced by the U.S. EPA Office of Research and Development in collaboration with the Technology Innovation Office. Volume I provides a spreadsheet screening approach for comparing costs of alternative pump-and-treat designs. The purpose is to quickly determine if significant cost savings might be achieved by modifying an existing or planned pump and treat system, and to prioritize subsequent design efforts [December 1999, 63 pages]. View or download at <http://clu-in.org/techpubs.htm> . For hard copy, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Hydraulic Optimization Demonstration for Groundwater Pump-and-Treat Systems, Volume II: Application of Hydraulic Optimization (EPA 542-R-99-011B). This report was produced by the U.S. EPA Office of Research and Development in collaboration with the Technology Innovation Office. This volume describes the application of hydraulic optimization for improving pump and treat designs. Hydraulic optimization combines groundwater flow simulation with linear and/or mixed integer programming to determine the best well locations and well rates subject to site-specific constraints [December 1999, 141 pages]. View or download at <http://clu-in.org/techpubs.htm> . For hard copy, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Natural Attenuation for Groundwater Remediation. This report was published by the National Research Council's Committee on Intrinsic Remediation. The stated purpose of the report was to examine the public concerns about natural attenuation, the scientific bases for natural attenuation, and the criteria for evaluating the

potential success or failure of natural attenuation [March 2000, 245 pages]. The entire report is posted by section on the web at <http://books.nap.edu/books/0309069327/html/index.html> . It will be available in hard copy from the National Academy Press at a later date. See <http://www.nap.edu> for updated information.

Strategies for Characterizing Subsurface Releases of Gasoline Containing MTBE. This report was published by the American Petroleum Institute. This technical bulletin uses the principles of risk-informed decision making to guide the evaluation of sites affected by MTBE or other oxygenates. It includes an introduction to the properties and uses of MTBE, provides guidance for conducting assessments at MTBE release sites, and reviews modern assessment tools and techniques for characterizing and monitoring MTBE in the subsurface. While the primary focus of this study is on MTBE, other fuel oxygenates are also addressed. The report describes how current expedited site assessment techniques can be applied to the collection and field analysis of soil, soil gas and groundwater samples. A comprehensive guide to direct push assessment and monitoring tools, with emphasis on their proper use at MTBE-affected sites is also provided. In addition to presenting state of the art strategies for MTBE site assessment, the report is an excellent reference on the chemical and physical properties of oxygenates, their use in gasoline and behavior in the subsurface environment. Analytical methods appropriate for MTBE detection are also discussed [February 2000, 116 pages]. Download at <http://www.api.org/mtbe>. Hard copies are available at cost from API, email ehs-api@api.org .

Assessment of Phytoremediation as an In-Situ Technique for Cleaning Oil-Contaminated Sites. This report was published by the University of Saskatchewan for the Petroleum Technology Alliance of Canada. The objective of this report is to evaluate the effectiveness of phytoremediation as a tool for cleaning up soils and groundwater contaminated with petroleum hydrocarbons - particularly those associated with well site spills, pipeline ruptures and flare pits. Although the report focuses on petroleum hydrocarbons, due consideration has been given to metals, pesticides, and salts, which can also be found in combination with petroleum hydrocarbons at contaminated sites. Changes over time in the interactions among contaminants, plants and microorganisms also are considered [December 1999, 88 pages]. View or download at <http://www.rtdf.org/public/phyto/phyvassess.pdf> . **(Updated URL)**

The National Contingency Plan Product Schedule. The U.S. Environmental Protection Agency (EPA) Oil Program Center has

compiled the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) Product Schedule, as required by the Clean Water Act, the Oil Pollution Act of 1990 (OPA90), and the National Contingency Plan (NCP). The Product Schedule contains five product categories: Dispersants; Surface washing agents; Surface collecting agents; Bioremediation agents; and Miscellaneous oil spill control agents. This report contains the August 1999 edition of the NCP Product Schedule, including a list of products removed from the schedule [December 1999, 12 pages]. View at <http://www.epa.gov/oilspill/ncp.htm> .

The National Contingency Plan Product Schedule Notebook.

This report was published by the U.S. EPA Oil Program Center. The NCP Product Schedule Notebook contains a compilation of Product Bulletins summarizing technical information and test results for products listed on EPA's NCP Product Schedule. Depending on the type of product, the summarized data may include: special handling and worker precautions; ventilation requirements; emergency procedures in the event of skin or eye contact; protective clothing requirements; minimum and maximum storage temperatures; temperatures of phase separations and chemical changes; shelf life; recommended application procedures; physical properties, including flash point, pour point, viscosity, specific gravity, and pH; analyses of heavy metals, chlorinated hydrocarbons and cyanide; toxicity; and effectiveness [December 1999, 133 pages]. View or download at

<http://www.epa.gov/oilspill/ncp.htm> .

Understanding Oil Spills and Oil Spill Response (EPA

540-K-99-007). This publication was developed by the U.S. EPA Office of Emergency and Remedial Response. It contains chapters that outline and explain oil spills, their potential effect on the environment, how they are cleaned up and how various agencies prepare for spills before they happen. It describe five major spills and the complexities and issues involved in responding to them. Samples of post-OPA response to freshwater spill incidents have been incorporated into this new edition as well as effects of oil spills on inland areas [December 1999, 48 pages]. For hard copy, contact (800) 490-9198 or (513) 489-8190 or fax to (513) 489-8695.

Environment Canada Bioremediation Archive. The Environment Canada website has archived message links from a Bioremediation Newsgroup. Messages are archived by date and thread on a monthly basis and are also available as unformatted text. The archive is updated daily. For more information, see <http://gw.cciw.ca/lists/bioremediation/>

Phase I Open Solicitation - EPA Small Business Innovation

Research Program. The EPA Office of Research and Development opened a Phase I solicitation on March 30, 2000 that will close on

May 25, 2000. Two of the research proposal categories being sought are: Section D: Waste Management and Site Remediation; and Section E: Monitoring and Measurement Technologies. For more information, see <http://es.epa.gov/ncerga/sbir/2001sbir.html> .

Symposia and Conferences

Phytoremediation: State of the Science Conference, Boston, MA, May 1-2. This conference is sponsored by the U.S. EPA Office of Research and Development. This conference will present the state of the science and engineering advances in phytoremediation. Site managers and regulators need to have comprehensive and reliable information available on how to evaluate proposals containing phytoremediation. This conference is designed to assist professionals in the regulatory community who oversee the design, implementation and monitoring of sites that involve phytoremediation. If you need further assistance, please contact ERG's Registration Office at 781-674-7374 or confmail@erg.com.

Fourth Advances in Innovative Groundwater Remediation, June 6, Boston, MA. This free event, sponsored by the Ground Water Remediation Technologies Analysis Center (GWRTAC), will be held at the Radisson Boston Hotel. The one day seminar will include presentations from practitioners involved in phytoremediation, treatment walls, in situ flushing, thermal stripping, in situ chemical oxidation, remediation of metals, and bioremediation. See agenda and registration information at <http://www.gwrtac.org> or <http://clu-in.org/thermal> or contact Karen Devlin at KDevlin@philipinc.com or (215) 643-5466.

In Situ Thermal Processes Seminar, June 7, Boston, MA. This free event is sponsored by the U.S. EPA Technology Innovation Office and will be collocated at the Hotel with the June 6 GWRTAC Groundwater seminar mentioned above. This one day seminar will focus on the fundamental principles, design considerations, limitations, and case studies for five in situ thermal processes. The technologies to be addressed include Dynamic Underground Stripping, Electrical Conductive Heating, Radio Frequency Heating, Six-Phase Electrical Heating, and In Situ Vitrification. Note, you may register for the June 6 and/or 7 event at <http://clu-in.org/thermal> or by contacting Karen Devlin at the address listed above.

Environmental Restoration End User Conference 2000, Augusta, GA, June 6-8. This conference is sponsored by DOE, DOD, and EPA. The purpose of the conference is to share DOE/DOD/EPA cleanup successes and technical innovations, promote deployment of innovative technologies, and facilitate integration and teamwork between DOE, DOD, EPA, and

State Regulatory Agencies.

Accelerated Bioremediation of Chlorinated Solvents, Atlantic City, NJ, June 6-7. This training course is being offered by the Interstate Technology Regulatory Cooperation (ITRC) Workgroup and the Remediation Technologies Development Forum (RTDF). The course will examine the roles of site characterization, modeling, design, monitoring and regulatory interaction in applying in-situ engineered bioremediation. Lecture, case studies, hands-on exercises and structured discussion sessions will be used to give students knowledge and information that can be put to use immediately. For agenda and registration information, see <http://clu-in.org/techpubs.htm> .

If you have any questions regarding TechDirect, contact Jeff Heimerman at (703) 603-7191 or heimerman.jeff@epa.gov. Remember, you may subscribe, unsubscribe or change your subscription address at <http://clu-in.org/techdrct> at any time night or day.