



# Maryland

## Department of the Environment

Larry Hogan, Governor  
Boyd K. Rutherford, Lt. Governor

Ben Grumbles, Secretary  
Horacio Tablada, Deputy Secretary

March 8, 2022

Mr. Sean Phillips  
Remediation Manager  
Motiva Enterprises, LLC  
P.O. Box 4540  
Houston TX 77210

**RE: WORK PLAN REVISION APPROVAL**  
**Case No. 2003-0695-MO**  
**Former Shell Station No. 137675**  
**15541 New Hampshire Avenue, Silver Spring**  
**Montgomery County, Maryland**  
**Facility I.D. No. 11245**

Dear Mr. Phillips:

The Maryland Department of the Environment's (MDE) Oil Control Program (OCP) completed a review of the case file for the above-referenced active groundwater investigation, including the *Work Plan for Well Redevelopment & System Operation*, dated November 10, 2021, and the *Quarterly Status Report - Fourth Quarter 2021*, dated February 10, 2022. Over the course of this investigation, methyl tertiary-butyl ether (MTBE) has been identified as the contaminant of concern. The time series groundwater sampling data continues to demonstrate a decreasing trend in the concentrations of dissolved phase petroleum contaminants in the monitoring well network. Since February 2021, the off-site remediation system has focused on the extraction of groundwater from recovery wells RW-20, RW-22, and RW-27. Removal of the air stripper from the treatment process has not affected the system effluent results which remain in compliance with the requirements of discharge permit MDG919048. Monthly sampling of the off-site treatment system (pre-, mid-, and post-filtration) has documented a general decrease in the influent concentrations of dissolve phase contaminants, particularly MTBE.

From February 2021 to September 2021, RW-22 experienced operational issues resulting in no groundwater removal periodically. The OCP was notified of the status of RW-22 as currently non-operational. In September 2021, a pump test conducted on RW-22 determined the average recharge rate of 0.25 gallons per minute (gpm) is below the designed treatment system pumping rate of 2.5 gpm.

Based on the evaluation of the groundwater data and the condition of RW-22, your environmental consultant is proposing to redevelop RW-22, temporarily modify the operation of the off-site groundwater treatment system, and collect additional groundwater data as outlined below:

1. Quarterly sampling of wells MW-06D, MW-08D, 750 BND and semi-annual sampling of well 750 BNR is currently implemented. The proposed change to the aforementioned wells is to conduct a one-time no-purge sampling event, using HydraSleeve™ technology, to collect groundwater samples from discrete zones within the referenced wells. The analytical results of the discrete-zone sampling will be used to evaluate the depth at which each recovery well pump intake should be installed to optimize MTBE recovery.
2. Your consultant considers the RW-22 well filter sand pack is potentially clogged with silt thereby reducing groundwater recharge. The goal of the proposed well redevelopment is to improve groundwater recharge in RW-22 to allow for continued operation as part of the off-site remediation system. The proposed plan for redevelopment of RW-22 is to remove the pump; inspect the pump and any piping for damage, sediment buildup, and/or wear, which will be repaired and/or cleaned before reinstallation in the well; the well will then be injected with approximately 100 gallons of water with a multi-nozzle jetting-device; removal of the water and sediments would be completed using an air pump; if recharge is determined to be improved to the required rate, the recovery pump equipment will be returned to RW-22 for operation. Water generated during well redevelopment will be treated through the off-site remediation system. Generated silt/sediment will transported off-site for proper disposal.
3. While redevelopment of RW-22 is being completed/evaluated, reactivation of recovery well RW-19A is proposed to provide temporary hydraulic control. If redevelopment of RW-22 is successful/returned to operation, operation of RW-19A would then be suspended; otherwise, RW-19A is proposed to remain operational.
4. Monitoring well 12 (MW-12) is located in close proximity to RW-22 and has a screened interval that is similar to the screened interval of RW-22. In the event that redevelopment of RW-22 is unsuccessful, MW-12 is proposed to be evaluated as a potential recovery well for the off-site remediation system. A pumping test would be conducted on MW-12 to determine if MW-12 has a viable groundwater recharge rate for the remediation system to operate. If MW-12 is deemed an acceptable alternate pumping location and redevelopment of RW-22 is unsuccessful then modifications to convert MW-12 to a recovery well would be proposed under a separate work plan.

Based on our review of the information provided, MDE hereby approves the *Work Plan for Well Redevelopment & System Operation* contingent upon the following modifications:

**Item 1:**

The discrete no-purge groundwater sampling event for wells MW-06D, MW-08D, 750 BND, and 750 BNR is to occur as a separate sampling event from the current groundwater sampling schedule. The OCP requires MW-12 to be included in the discrete interval sampling event.

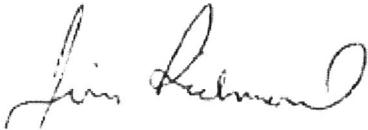
**Item 2:**

The MDE requires redevelopment of RW-22 to be completed utilizing a surge-block/solid packer assembly to re-establish a hydraulic connection with the surrounding aquifer. After the surging process, remove any debris from the well by pumping. Continue alternate cycles of surging and pumping until well-development criteria are met. A well brush or similar device may be used to remove adhered mineral and biological build-up on the screen.

No later than 45 days following the completion of the approved Work Plan activities, submit a comprehensive *Report* documenting the results/conclusions of the approved *Work Plan* activities, including the groundwater analytical results, the well redevelopment activities; and a discussion of how the resulting data influences the on-going groundwater investigation/remedial activities.

Notify the OCP at least five working days prior to conducting any work at this site so we have an opportunity to observe field activities. If you have any questions, please contact Ms. Kathleen Usary at 410-537-3487, [kathleen.usary@maryland.gov](mailto:kathleen.usary@maryland.gov), or Mr. Jim Richmond at 410-537-3337, [jim.richmond@maryland.gov](mailto:jim.richmond@maryland.gov).

Sincerely,



Jim Richmond, Southern Region Supervisor,  
Remediation Division  
Oil Control Program

cc: Mr. James Draper, Resident Agent  
Ms. Natalie Percello, Project Manager, Sovereign Consulting, Inc.  
Mr. Steve Martin, Montgomery County Department of Environmental Protection  
Ms. Kathleen Usary, Case Manager, Remediation Division, Oil Control Program  
Mr. Andrew B. Miller, Chief, Remediation Division, Oil Control Program  
Mr. Christopher H. Ralston, Program Manager, Oil Control Program