



Maryland

Department of the Environment

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

Horacio Tablada, Secretary
Suzanne E. Dorsey, Deputy Secretary

December 20, 2022

Mr. Chris Brocato
Charlie's Service Station
11024 Liberty Road
Randallstown MD 21133

RE: REQUEST FOR CONTINUAL SUPPLY WELL MONITORING

Case No. 1995-1777-BA
Charlie's Service Station
11024 Liberty Road, Randallstown
Baltimore County, Maryland
Facility I.D. No. 15095

Dear Mr. Brocato:

The Maryland Department of the Environment's (MDE) Oil Control Program (OCP) completed a review of the case file for the above-referenced property, including the *Report of Domestic Supply Well and POET System Sampling and a Well Receptor Survey*, dated September 28, 2022, prepared by Advanced Environmental Concepts, Inc (AEC). The report was submitted in response to the MDE Required Additional Activities letter, dated June 7, 2022. In accordance with the MDE letter, OCP required an updated sensitive receptor survey to be performed, and monthly samples to be collected for a period of three months (June, July, and August) from the on-site supply well, the supply well at 4507 Wards Chapel Road, and from the supply well at 11023 Liberty Road (Wards Chapel Methodist Church).

According to the Report, a monitoring well sampling event was conducted on September 15, 2022. Results of the water samples collected from monitoring wells MW-1 and MW-2 were either non-detect (ND) or below HRGUA notification limits. The results of the monitoring well MW-3R sample reported the following concentrations exceeding the notification standard: benzene at a concentration of 22,480 parts per billion (ppb), toluene at a concentration of 92,400 ppb, ethylbenzene at a concentration of 106,000 ppb, and total xylenes at a concentration of 248,000 ppb.

Monthly supply well samples were collected from June through September 2022 from the on-site supply well, the supply well at 4507 Wards Chapel Road, and from the supply well at 11023 Liberty Road (Wards Chapel Methodist Church). The sample results from the on-site water supply well reported the detection of methyl tertiary-butyl ether (MTBE) at concentrations ranging from 5.2 ppb (June) to 562 ppb (August), tertiary butyl alcohol (TBA) at concentrations ranging from 10.4 ppb (July) to 88.1 ppb (August), and Diisopropyl Ether (DIPE) at concentrations ranging from 2.1 ppb (June) to 7.5 ppb (August). The sample results from 4507 Wards Chapel Road reported detections of MTBE at concentration ranging from 670 ppb (September) to 1,868 ppb (June), TBA at concentrations ranging from 44.8 ppb (August) to 201 ppb (June), DIPE at concentrations ranging from 7.3 ppb (August) to 9.2 ppb (June), tert-Amyl Methyl Ether (TAME) at concentrations ranging

from 9 ppb (August) to 14 ppb (June). OCP understands that the granulated active carbon (GAC) water treatment systems at 11024 Liberty Road and 4507 Wards Chapel Road were installed prior to the July 2022 sampling event and the July, August, and September effluent samples for both locations were non-detect for all petroleum constituents. The sample results from 11023 Liberty Road (Wards Chapel Methodist Church) were non-detect during each of the monthly sampling events.

AEC, on your behalf, requested to reduce the sampling frequency of the supply well located at 11023 Liberty Road from monthly to annually. Additionally, OCP has received communication from Ms. Bridget Wetzel, (Director, Wards Chapel Preschool, 11023 Liberty Road), requesting the sampling frequency of the Wards Chapel Preschool supply well be reduced from monthly, to annually (via telephone).

The updated sensitive receptor survey included a radii map indicating the 1/8, 1/4, and 1/2 mile radii distances, a well summary data table, and field reconnaissance photographs of wells located within 1/8 mile of the site. The survey does not include a plotted map of the supply wells on a U.S. Geological Survey map or a scaled street map was not included, and the survey did not include an evaluation of potential impacts, as required in the MDE June 7, 2002 letter.

Based on aforementioned information, MDE requires the following:

1. Collect quarterly samples from the on-site supply well, and the supply well at 4507 Wards Chapel Road. Pre-, mid-, and post-treatment samples must be collected.
2. Collect annual samples from the supply well at 11023 Liberty Road (Wards Chapel Methodist Church). The next sample should be collected in September 2023.
3. The supply well samples must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 524.2.
4. Maintain, and conduct filter change-outs as necessary on the GAC water treatment systems onsite and at 4507 Wards Chapel Road. Include maintenance and filter change-out detail/schedules within quarterly reports.
5. Conduct quarterly (every three months) monitoring and sampling of the on-site groundwater monitoring well network. Sampling events must be conducted in December 2022, March 2023, June 2023, and September 2023. All samples collected must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates and naphthalene, using EPA Method 8260 and total petroleum hydrocarbons – diesel and gasoline range organics (TPH-DRO and GRO) using EPA Method 8015.

6. The domestic well sampling data results and the monitoring well network monitoring data may be combined and presented in one Updated Quarterly Status Report. The Updated Quarterly Status Reports must be submitted to the OCP on the dates specified below:
 - February 15 – Fourth Quarter (October – December work activities)
 - May 15 – First Quarter (January – (March work activities)
 - August 15 – Second Quarter (April – (June work activities)
 - November 15 – Third Quarter (July – (September work activities)

7. At a minimum, the Updated Quarterly Status Reports must include the following:
 - a. Summary of all field activities conducted during the quarter, planned field activities for the next quarter, and a **concise bulleted chronology of site activities since the case was opened**. This information must include dates of field activities, report submittals, MDE requirement letters, etc. This must be updated and provided with each report.
 - b. Supply well sampling data, including summary data tables, and all relevant correspondence provided to the off-site property owners.
 - c. Monitoring Well summary data tables showing all gauging data (depth to water, corrected groundwater elevations, depth to LPH, and LPH thickness) with respect to time and well gauging data, to include all events, not just for the current reporting period. This data must also be presented graphically (time series trend graphs per well showing corrected groundwater elevations and product thickness with respect to time).
 - d. Groundwater concentration summary data tables for each well with respect to time. Any detected concentrations must be noted in addition to benzene, toluene, ethylbenzene, xylene, MTBE, naphthalene, and TPH DRO and GRO. Detection limits must be included next to ND notation (i.e., not detected [0.5 ppb]). Graphical representation must also be provided per well with respect to time.
 - e. To-scale site maps that denote corrected groundwater elevations at each monitoring well, groundwater contours, groundwater flow direction, groundwater concentrations (benzene, toluene, ethylbenzene, xylenes, naphthalene, MTBE, and detected analytes), and LPH thicknesses. Separate figures may be appropriate to depict the data required; and
 - f. All groundwater sampling forms and laboratory analytical datasheets must be included in the reports.

8. OCP must receive at least 5 days written (email) notification prior to all sampling events.

9. Quarterly monitoring (gauging and sampling) must continue until written approval from the OCP is received to suspend or reduce the sampling frequency.

10. For any off-site sampling events, the property owners must be provided a copy of the results within 14 days from when the sample was collected.

Submit a stand-alone, Amended Sensitive Receptor Survey Report that includes the following:

- a. A map of the supply well locations on a U.S. Geological Survey map or Scaled Street map.
- b. Review well completion reports and provide an evaluation on whether on-site conditions could potentially impact any additional off-site drinking water supply wells in the area.
- c. Do not include any analytical sampling data in this report. Groundwater sampling data must be provided in the *Updated Quarterly Status Reports*.

When submitting documentation, provide two hard copies and one electronic copy via email. If you have any questions for the Compliance Division, please contact Ms. Marsha Mason at 410-537-3479 (marsha.mason@maryland.gov). If you have any questions for the Remediation Division, please contact Mr. Matt Mueller at 410-537-3574 (matthew.mueller@maryland.gov) or me at 410-537-3482 (ellen.jackson@maryland.gov).

Sincerely,



Ellen Jackson, Northern Region Supervisor
Remediation Division
Oil Control Program

cc: Mr. Greg Beal, President, Advanced Environmental Concepts, Inc.
Mr. Travis Johnson, property owner of 4507 Wards Chapel Road
Ms. Bridget Wetzel, Director, Wards Chapel Preschool (11023 Liberty Road)
Mr. Kevin Koepenick, Groundwater Management Section, Baltimore County DEPS
Mr. Robert Peoples, Division Chief, Source Protection and Administration Division
Mr. Andrew B. Miller, Chief, Remediation Division, Oil Control Program
Mr. Christopher H. Ralston, Program Manager, Oil Control Program