Maryland
Department of
the Environment

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

Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

October 14, 2020

Mr. Aijaz Shaikh
Fahmida, LLC
1897 Conowingo Road
Rising Sun MD 21911

RE: REQUEST FOR CONTINUED MONITORING
Case No. 2019-0724-CE
Pantry One Food Mart
1897 Conowingo Road, Rising Sun
Cecil County, Maryland
Facility I.D. No. 11347

Dear Mr. Shaikh:

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 *Groundwater Sampling Report and Request for Sampling Frequency Reduction Q2 2020*, dated July 23, 2020. This case was opened following the receipt of monitoring well data for the three on-site groundwater monitoring wells installed pursuant to Code of Maryland Regulations (COMAR) 26.10.02.03-2. Groundwater samples were collected on October 18, 2018 and the sampling results were received by MDE on June 5, 2019. Benzene was detected in all three monitoring wells exceeding MDE's groundwater standard of 5 parts per billion (ppb). Based on the results of the confirmatory samples collected on June 10, 2019, MDE required continued sampling of the monitoring wells and selected drinking water supply wells in the *Request for Enhanced Monitoring and Half-Mile Well Survey* letter dated July 30, 2019 (copy enclosed).

The most recent sampling event was conducted in June 2020. The analytical results for the monitoring well samples collected continued to exhibit concentrations of the following petroleum constituents above MDE's groundwater standards:

- Benzene in MW-2 and MW-3 ranged from 45.4 to 193 ppb, which exceed the 5 ppb standard;
- Naphthalene in MW-2 at 31.2 ppb, which exceeds the 1.4 ppb standard; and
- Total petroleum hydrocarbons - gasoline range organics (TPH-GRO) in MW-2 and MW-3 ranged from 520 to 2,210 ppb, which exceed the 47 ppb standard.
- Tertiary-butyl alcohol (TBA) in MW-2 at 538 ppb. Although there is no regulatory standard for TBA, it is a petroleum constituent reported at an elevated level.

The *Groundwater Sampling Report and Request for Sampling Frequency Reduction Q2 2020* requests the reduction of groundwater monitoring frequency to annual under high-risk groundwater use area (HRGUA) regulations. The *Report* also requests to terminate sampling of off-site domestic supply wells and point-of-entry treatment (POET) systems.

Based on the current commercial/residential land use, the location of this station in a high-risk groundwater use area, and the available information reviewed for this case, MDE has the following comments and requirements:

1. Continue sampling the on-site monitoring wells on a quarterly basis unless otherwise stated in writing. Samples must be analyzed in accordance with the requirements for monitoring well sampling in MDE's enclosed letter.

2. Based on the review of five quarters of non-detect data for the on-site supply well, MDE approves the reduction in sampling from a quarterly basis to an annual basis.

3. Based on the available information reviewed for the off-site properties in the vicinity of the site, MDE requires the following:

    a. Based on the review of five consecutive quarters of non-detect data, MDE no longer requires domestic well sampling of the following properties: 1912 Conowingo Road (Mullis property), 27 Dalmation Court (Rodriquez property), and 33 Dalmation Court (Chapman property).

    b. Based on the review of one quarter of non-detect data and four subsequent quarters of documented attempts to schedule sampling, with no response from the property owner, MDE no longer requires sampling of the 1874 Conowingo Road property (Schmoker).

    c. Continue sampling the granular activated carbon (GAC) system at 1894 Conowingo Road (Morris property) on a quarterly basis, including pre-, mid-, and post-filtration samples. MDE continues to investigate well impacts at this property and additional requirements may be forthcoming.

    d. MDE approves a reduction in the domestic well sampling frequency from quarterly to semi-annually for the following properties: 1884 Conowingo Road (Zane property) and 1898 Conowingo Road (Renzo property). Collect the domestic well samples for these properties during the 1st and 3rd quarter sampling events (March and September).

    e. All samples must be collected after running the water for approximately 15 to 20 minutes to purge the piping and from a sample location prior to any treatment system(s) that may be present, preferably at the pressure tank. The samples must be analyzed for full-suite VOCs, including fuel oxygenates and naphthalene, using EPA Method 524.2. Submit copies of all sampling results to the property owner, tenant (if applicable), the Cecil County Health Department, and OCP case manager.

f. All private drinking water sampling results must be provided to the residents no later than 30 days following sample collection. If there are any detections reported in results from wells with no GAC treatment or in any GAC post-treatment results, they must be reported via email to the case manager, Mrs. Lindley Campbell and/or Mrs. Susan Bull within 48 hours of receipt of the analytical data.

g. The MDE reserves the right to require sampling in the future as more information becomes available.

4. All groundwater and private drinking water data collected must be submitted in **quarterly reports** detailing the results of the gauging and sampling events no later than 45 days following sample collection.

When submitting documentation, provide three hard copies and one electronic copy on a labeled compact disc (CD) or via email. If you have any questions, please contact Ms. Lindley Campbell at 410-537-3387 (lindley.campbell1@maryland.gov) or me at 410-537-3499 (susan.bull@maryland.gov).

Sincerely,

Susan R. Bull, Eastern Region Supervisor
Remediation Division
Oil Control Program

Enclosure: *Request for Enhanced Monitoring and Half-Mile Well Survey*, dated July 30, 2019.

cc: Mr. and Mrs. Brian and Billie Joe Mullis, 1912 Conowingo Road
Mr. Jose R. Rodriquez, 27 Dalmation Court
Mr. and Mrs. Daniel and Sharon Chapman, 33 Dalmation Court
Mr. Stephen P. Schmoker, 1874 Conowingo Road
Mr. and Mrs. Ken and Kristine Morris, 1894 Conowingo Road
Ms. Donna M. Zane, 1884 Conowingo Road
Ms. Misty D. Renzo, 1898 Conowingo Road
Mr. Gregory Pelc, Advanced Environmental Concepts, Inc.
Mr. Ed Arellano, Acting Director, Environmental Health, Cecil County Health Department
Ms. Lindley Campbell, Case Manager, Remediation, Oil Control Program
Mr. Andrew B. Miller, Chief, Remediation Division, Oil Control Program
Mr. Christopher H. Ralston, Program Manager, Oil Control Program

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July 30, 2019

Mr. Aijaz Shaikh
Fahmida, LLC
1897 Conowingo Road
Rising Sun, Maryland 21911

RE: REQUEST FOR ENHANCED MONITORING AND HALF-MILE WELL SURVEY
Case No. 2019-0724-CE
Pantry One Food Mart
1897 Conowingo Road, Rising Sun
Cecil County, Maryland
Facility I.D. No. 11347

The Maryland Department of the Environment's (MDE) Oil Control Program (OCP) completed a review of the registration file for the underground storage tanks (USTs) at the above-referenced high-risk groundwater use area property. The following UST systems are registered at this active facility: a 12,000-gallon gasohol UST and a 12,000-gallon compartmentalized UST storing gasohol, diesel, and kerosene. The MDE understands the subject property recently decommissioned the Stage II vapor recovery system and that tank top upgrades were completed during the summers of 2018 and 2019. In 2005, 3 groundwater monitoring wells were installed in accordance with Code of Maryland Regulations (COMAR) 26.10.02.03-4.

On June 5, 2019, the OCP was provided the results of samples collected from the monitoring well network on Oct. 18, 2018. The presence of benzene was identified in all 3 monitoring well samples at concentrations ranging from 6.6 to 220 parts per billion (ppb). According to the OCP's records, the on-site drinking water supply well was last sampled in June 2016 and the sampling results were all below MDE's groundwater standards. On June 6, 2019, the OCP required the collection of confirmatory samples from monitoring wells MW-1, MW-2, MW-3, and the on-site drinking water supply well.

The samples collected from the drinking water supply well on June 10, 2019 did not report the presence of any petroleum constituents. The following analytical results for confirmatory samples collected from the monitoring well network on June 10, 2019 exhibited concentrations of petroleum constituents above MDE's groundwater standards:

- Benzene in all 3 monitoring wells at concentrations ranging from 9.21 to 2,3200 ppb, which exceed the 5 ppb standard;
- Toluene in MW-3 at a concentration of 16,100 ppb, which exceeds the 1,000 ppb standard;
- Ethylbenzene in MW-3 at a concentration of 2,440 ppb, which exceeds the 700 ppb standard;
- Xylene in MW-3 at a concentration of 12,020 ppb, which exceeds the 10,000 ppb standard;
- MTBE in MW-3 at a concentration of 34.9 ppb, which exceeds the 20 ppb state action level; and
- Ethanol in MW-3 at a concentration of 5,360 ppb. The presence of ethanol is indicative of a more recent release.

Since this property is located in a high-risk groundwater use area served by a drinking water supply well, MDE requires completion of the following:

1) **No later than October 30, 2019**, perform and submit for review a sensitive receptor survey to identify all drinking water supply wells (i.e., domestic, non-community/community water supply, agricultural) within a half-mile radius of the subject property and plot the locations on a U.S. Geological Survey map or scaled street map.

   a) Annotate the 660-ft. (1/8-mile), 1,320-ft. (1/4-mile), and 2,640-ft. (1/2-mile) radii.
   b) Provide a summary table of well data including, at a minimum, property address, owner name and address, well tag ID, total depth of well, casing depth, screen depth, and current status of well usage.
   c) Perform field reconnaissance to document the presence or absence of potable water supply wells within the specified area of concern.
   d) Provide documentation of field reconnaissance findings and the sources used to perform the survey.
   e) Review well completion reports and evaluate whether on-site conditions could potentially impact any off-site drinking water supply wells in the area.

2) **No later than Sept. 30, 2019,** begin quarterly (every 3 months) gauging and sampling of the monitoring well network and the tank field monitoring pipes. All samples collected must be analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates, ethanol, and naphthalene, using EPA Method 8260 and total petroleum hydrocarbons - diesel and gasoline range organics (TPH-DRO and TPH-GRO) using EPA Method 8015. All groundwater and private drinking water data collected must be submitted **in quarterly reports** detailing the results of the gauging and sampling events no later than 45 days following sample collection.

3) Begin quarterly sampling of the on-site drinking water supply well. All samples collected must be analyzed for full-suite VOCs, including fuel oxygenates, ethanol, and naphthalene, using EPA Method 524.2. If a granular activated carbon (GAC) filtration system is present, samples must be collected pre-, mid-, and post-filtration.

4) Begin quarterly sampling of the following adjacent private drinking water supply wells: 1874 Conowingo Road (Schmoker property); 1884 Conowingo Road (Zane property); 1898 Conowingo Road (Renzo property); 1912 Conowingo Road (Mullis property); 27 Dalmation Court (Rodriquez property); and 33 Dalmation Court (Chapman property). All samples must be collected after running the water for approximately 10 minutes to purge the piping and from a sample location prior to any treatment system(s) that may be present, preferably at the pressure tank. The samples must be analyzed for full-suite VOCs, including fuel oxygenates, ethanol, and naphthalene, using EPA Method 524.2. Provide the drinking water sampling results to the property owner and OCP case manager. The OCP will notify the selected property owner of this required sampling event.

5) Begin quarterly sampling of the granular activated carbon (GAC filtration system located at 1894 Conowingo Road. All samples must be collected after running the water for approximately 10 minutes to purge the piping and pre-, mid-, and post-filtration. The samples must be analyzed for full-suite VOCs, including fuel oxygenates, **ethanol**, and naphthalene, using EPA Method 524.2. Provide the drinking water sampling results to the property owner and the OCP case manager. The OCP will notify the selected property owners of this required sampling event.

Continue to work with the OCP's Compliance Division to ensure continued operational compliance at this facility. If you have compliance questions, please contact Mr. Michael Jester at 410-537-3024 (*michael.jester@maryland.gov*). If you have any questions regarding remediation, please contact Ms. Lindley Campbell at 410-537-3387 (*lindley.campbell1@maryland.gov*) or me at 410-537-3499 (*susan.bull@maryland.gov*).

Sincerely,

Susan R. Bull, Eastern Region Supervisor
Remediation and State-Lead Division
Oil Control Program

cc: Mr. Greg Pelc, Senior Project Manager, Advanced Environmental Concepts, Inc.
Mr. Fred VonStaden, Director, Environmental Health Services, Cecil County Health Department
Ms. Lindley Campbell, Case Manager, Remediation and State-Lead Division, Oil Control Program
Mr. Michael Jester, Eastern Region Supervisor, Compliance Division, Oil Control Program
Mr. Andrew B. Miller, Chief, Remediation and State-Lead Division, Oil Control Program
Mr. Christopher H. Ralston, Program Manager, Oil Control Program
Ms. Kaley Laleker, Director, Land and Materials Administration