



MARYLAND DEPARTMENT OF THE ENVIRONMENT

Oil Control Program, Suite 620, 1800 Washington Blvd., Baltimore MD 21230-1719

410-537-3442 410-537-3092 (fax)

1-800-633-6101, ext. 3442

Martin O'Malley
Governor

Robert M. Summers, Ph.D.
Acting Secretary

Anthony G. Brown
Lieutenant Governor

January 26, 2011

Ms. Dottie Mears
Royal Farms/Two Farms, Inc.
3611 Roland Avenue
Baltimore MD 21211

RE: CORRECTIVE ACTION PLAN APPROVAL

Case No. 2010-0339-BA

Royal Farm Store No. 64

7950 Pulaski Highway, Rosedale

Baltimore County, Maryland

Facility I.D. No. 3975

Dear Ms. Mears:

The Oil Control Program recently completed a review of the case file for the above-referenced property, including the *Corrective Action Plan - Draft - October 7, 2010* and the *St. Clements School Environmental Investigation - November 18, 2010* report. The *Corrective Action Plan (CAP)* proposes a long-term remedial strategy based on data collected to date. The *St. Clements School Environmental Investigation* report details the results of an investigation conducted after petroleum odors were reported in a school building, located down gradient of Royal Farm Store No. 64 in September 2010.

In order to investigate the potential source of petroleum odors in the St. Clements School, Royal Farms conducted a soil boring investigation. Temporary well points were advanced in the vicinity of the sanitary sewer line, which runs along the east side of Chesaco Avenue, from Pulaski Highway to Philadelphia Road. Soil and groundwater samples were collected from each temporary well point. Water samples were also collected from the sump inside the school building and from sanitary sewer access points along Chesaco Avenue and Old Philadelphia Road.

The results of sampling activities conducted during the school investigation detected concentrations of petroleum constituents in groundwater in the vicinity of the sanitary sewer line. Benzene and methyl tertiary-butyl ether (MTBE) were detected above regulatory levels in five of the eight temporary wells advanced. The maximum concentration of benzene detected was 197 parts per billion (ppb) in well B-34; the maximum concentration of MTBE was 74 ppb in well B-36. The analytical results from the soil samples collected at each temporary well location were below regulatory levels for petroleum constituents. Total petroleum hydrocarbons/diesel-range organics (TPH-DRO) were detected in water samples collected from seven of the eight temporary wells, all six sanitary sewer samples, and in the school's sump water sample; however, no liquid phase hydrocarbons (LPH) were detected in any of the well points.

Based on these analytical results, the Department does not require further investigation of the St. Clements School by Royal Farms at this time. However, if petroleum odors reoccur inside the school, Royal Farms may be required to submit a *Work Plan* for vapor mitigation.

The Department required the submittal of a *CAP* in the July 23, 2010 *Work Plan Approval* directive letter. The *CAP* details the results of an additional subsurface investigation and monitoring well installation conducted in July 2010. Also included were the results of a risk assessment conducted at the 1207 Chesaco Avenue residence in August 2010. Indoor air samples were collected from all three floors of the building, which is used as a residential rental property. Based on the data collected to date, the *CAP* proposes to install a dual phase enhanced fluid recovery system on-site. Six monitoring wells (MW-2, MW-4, MW-5, MW-7, MW-8, and MW-14) will be converted to recovery wells. Three additional recovery wells were proposed, for a total of nine dual phase recovery wells. The Department approves the installation of a dual phase remediation system contingent upon the following modifications:

- (1) The Department requires the installation of six (6) additional monitoring wells to monitor the effectiveness of the remediation system. The wells must be properly constructed 4-inch diameter wells. Please see the enclosed site map depicting additional well locations. Contact the case manager to schedule a date and time to field mark all well locations.
- (2) Any monitoring well improperly constructed (i.e., wells with 4.25-inch diameter boreholes instead of 8-inch) must be replaced. All wells must have adequate annular space to allow for a proper sand pack. Specifically wells MW-2, MW-4, MW-5, MW-7, and MW-8 must be re-drilled since they will be converted to recovery wells. All wells must be installed, constructed, and developed per the Oil Control Program's well specifications (see the Department's *Maryland Environmental Assessment Technology [MEAT]* guidance document: http://www.mde.state.md.us/assets/document/MEAT_Guidance.pdf).
- (3) The Department approves the locations of the three (3) additional recovery wells as proposed.
- (4) The Department understands that the soil vapor extraction (SVE) system venting the foundation and the sump at 1205 Chesaco Avenue residential property will remain operational, as part of the remedial plan.
- (5) All groundwater monitoring and recovery wells must be sampled on a quarterly basis and analyzed for full-suite volatile organic compounds (VOCs), including fuel oxygenates, using EPA Method 8260 and for total petroleum hydrocarbons/diesel and gasoline-range organics (TPH/DRO and TPH/GRO) using EPA Method 8015B. All monitoring and recovery wells must be gauged on a monthly basis and the results submitted to the Oil Control Program in *Quarterly Monitoring Reports*.
- (6) The Department no longer requires the submittal of weekly product recovery updates via email.
- (7) The Department approves the collection of indoor air samples from 1205 and 1207 Chesaco Avenue and the station building on a quarterly basis as proposed.

- (8) Royal Farms must ensure that all proper discharge permits are obtained. Air emissions from both the air stripper and SVE system must be controlled and monitored per Air and Radiation Management Administration (ARMA) permits and regulations.
- (9) A site meeting must be conducted at the time of system start up. Coordinate a date and time with the case manager prior to starting the system. Two sets of keys to the remediation shed must be provided at that time.
- (10) For future site maps, monitoring wells and recovery wells must be depicted on the same map. Different symbols must be used to differentiate between recovery and monitoring wells.

Notify the Oil Control Program at least five (5) working days prior to conducting field activities associated with this project. When submitting documentation to the Oil Control Program, provide three hard copies and a digital copy on a labeled compact disc (CD). If you have any questions, please contact the case manager, Ms. Jenny Herman, at 410-537-3413 (email: jherman@mde.state.md.us) or me at 410-537-3482 (ejackson@mde.state.md.us).

Sincerely,

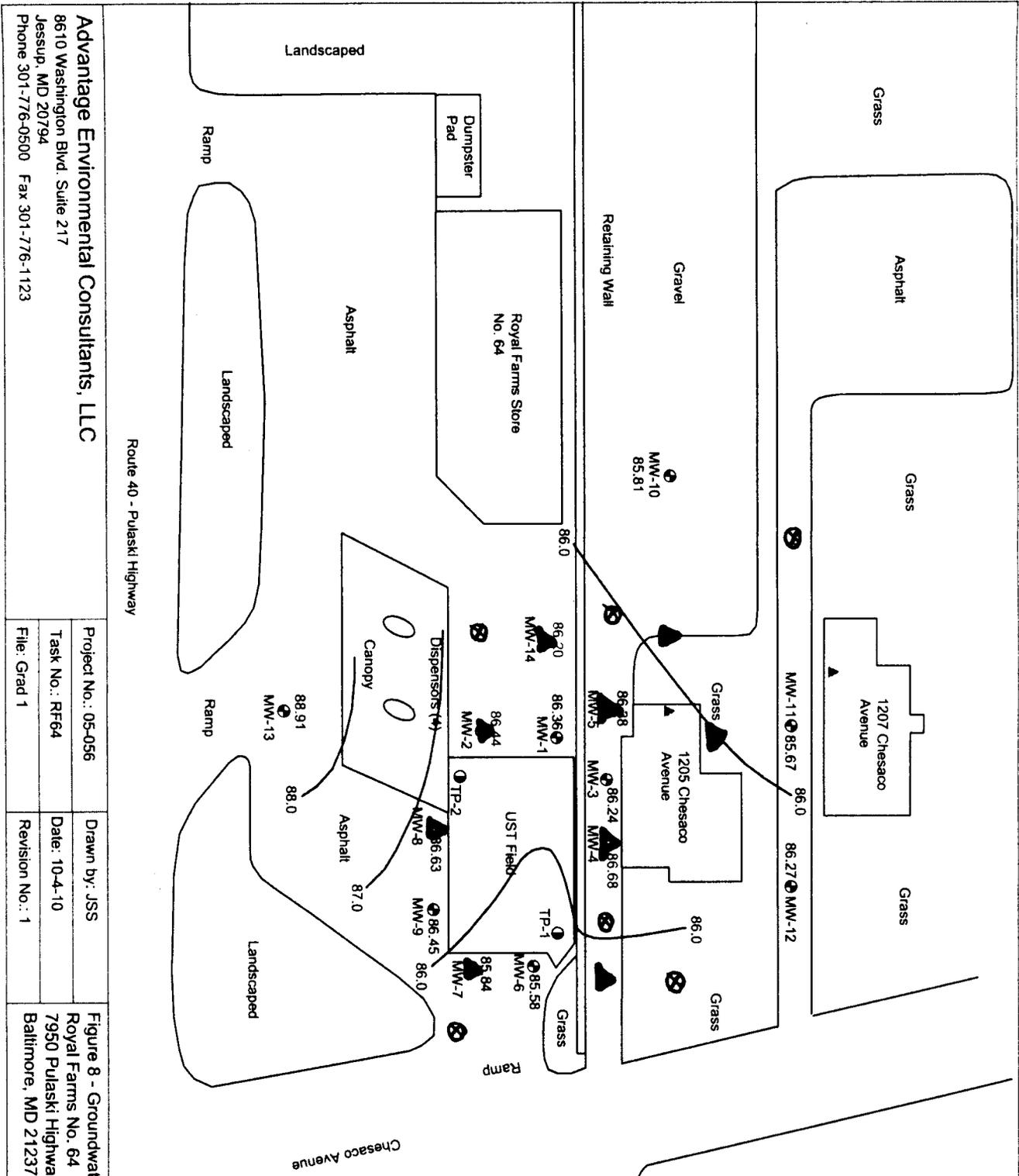


Ellen Jackson, Central Region Section Head
Remediation and State-Lead Division
Oil Control Program

JH/nln

Enclosure

cc: Mr. Jeffery Stein (Advantage Environmental Consultants, LLC)
Mr. Robert Rinehart (Royal Farms)
Mr. Philip E Cvach II (1207 Chesaco Avenue)
Mr. Anthony Ratajczak (1205 Chesaco Avenue)
Mr. Robert Weltchek (Weltchek Mallahan & Weltchek, LLC)
Mr. Robert Clancy (Archdiocese of Baltimore)
Mr. Kevin Koepenick (Baltimore County DEPRM)
Priscilla Carroll, Esq.
Mr. Christopher H. Ralston
Mr. Horacio Tablada



Legend

- Soil Boring/Piezometer
 - UST Observation Well
 - ⊙ Groundwater Monitoring Well
 - ▲ Sump Pit
- 86.08 - Groundwater elevation measured on 9/13/10.
 Values shown in red have been corrected using a Liquid Phase Hydrocarbon density of 0.7 grams per milliliter.
 All measurements in feet.
 NG - Not gauged.
- Groundwater Contour



▲ - Recovery Wells
 ● - monitoring wells,
 per MDE

Advantage Environmental Consultants, LLC 8610 Washington Blvd. Suite 217 Jessup, MD 20794 Phone 301-776-0500 Fax 301-776-1123		Project No.: 05-056 Task No.: RF64 File: Grad 1		Drawn by: JSS Date: 10-4-10 Revision No.: 1		Figure 8 - Groundwater Gradient Map Royal Farms No. 64 7950 Pulaski Highway Baltimore, MD 21237	
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Route 40 - Pulaski Highway