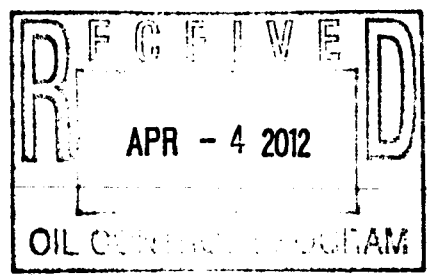
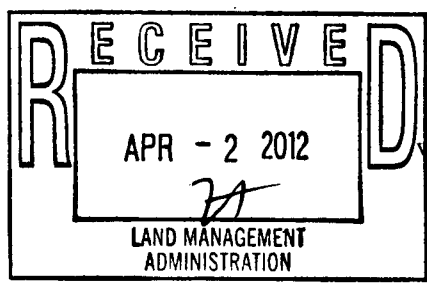


Chris R. File

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March 26, 2012

Mr. Horacio Tablada, Director
Land Management Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, MD 21230

Re: Chester River Hospital
Oil Remediation Effort

Dear Mr. Tablada:

This letter is in reference to the Chester River Hospital Center, oil remediation effort and our several discussions with Dr. Robert Summers, Mr. Mitch McCallum, and other representatives of the Maryland Land Management Administration.

This pump and treat operation was initiated upon findings of soil contamination on site and receipt of a "Notice of Violation" from the Maryland Department of the Environment (MDE) on June 15, 1990. The MDE further required the Chester River Hospital Center to install a recovery system, complete a hydro-geological study to define the extent of subsurface contamination, and submit a plan for long-term remediation of the contaminated groundwater. The source of the contamination was linked to a broken pipe which connected a 10,000 gallon oil tank installed in December 1988 to the Hospital. (The oil spill was detected in June of 1990.)

In May of 1991, a groundwater remediation and contamination system was installed and maintained by TPH Technology, Inc., consistent with the MDE compliance action requirements. Specifically, the recovery system was designed to recover liquid phase fuel oil from the subsurface and contain the dissolved product plume on site, so as to protect the Town of Chester's water supply well field. The history of product recovery has been quite remarkable over the years, as demonstrated by the following chronology:

1. By December 1991, 6,223 gallons of oil were removed.
2. By January 1996, 64,110 gallons of oil were removed.
3. By July 1999, a secondary recovery system installed on campus was shut down at which time a total of 66,287 gallons of oil had been recovered.
4. In December 2001, Earth Data, Inc., upgraded the recovery system to address the significant decrease in product recovered per month, despite evidence that significant quantities of liquid product were present a top the surficial aquifer/water table.
5. The upgraded remediation system, including additional recovery and monitoring wells, upgraded treatment units, and new product recovery pumps, came on line in January 2002 and increased product recovery to 1,000 gallons per month.

6. Between 2002 and 2004 another 13,683 gallons of fuel oil were recovered.
7. Since January 2004, the quantity of product recovery has steadily and drastically decreased to asymptotic levels, such that over the past twelve (12) months, only 5.62 gallons of petroleum product have been recovered.
8. The total recovery from those first reported in December 1992 to the present date is approximately 83,428 gallons of liquid fuel oil.
9. ~~Figure 1, attached, provides a summary of total product recovery from January 2002 through May 2011. This chart illustrates that steady decline of product recovery per year over the last nine (9) years.~~

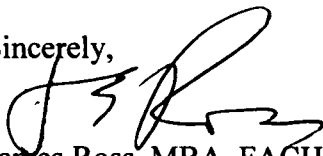
The Chester River Hospital Center's team of consultants and their findings conclude that the dissolved and liquid phase hydrocarbon plumes have been contained within the Hospital's property. They have also determined that no significant levels of dissolved or liquid hydrocarbons have been detected in down gradient monitoring wells.

As a further indication that the pump and treat operations have effectively and efficiently removed recoverable material from the site, for the period of July 1, 2010 through December 31, 2010, 126 million gallons of groundwater were pumped through the treatment system and only one gallon of fuel oil was recovered.

The Chester River Hospital Center has spent well over \$1.5 million in clean up costs just over the past nine years (2002 - 2011). Continuing the recovery process for the next several years could cost another \$300,000 to \$400,000 at no additional benefit. Therefore, the Hospital respectfully suggests that the cleanup operation has been successful as reflected above, and that the pump and treat operation should be terminated immediately. The Hospital would, of course, agree to continue quarterly monitoring of the monitoring wells for another year. If reporting of the well samples shows, as expected, no significant increase in petroleum hydrocarbon levels, the Hospital requests that this oil recovery compliance file be closed as having been fully satisfied. Attachments ~~No. 1 and No. 2 document the hospital's responses to the Seven Risk Factors included as part of the MDE-OCP Assessment Methodology.~~

The Chester River Hospital Center greatly appreciates your assistance and cooperation with this close out phase of the oil remediation and recovery process for this site. Should you require anything further in these regards, please do not hesitate to contact this office.

Sincerely,



James Ross, MBA, FACHE
Chief Executive Officer
Chester River Hospital Center

cc: Mr. Art Hilsenrad, UMMS
Dr. Robert Summers, Secretary, MD

Enclosure

DRAFT

POST CORRECTIVE ACTION MONITORING PLAN

Prior to shutting down the recovery/containment system at the Chester River Hospital Center (CRHC), each monitoring well will be gauged with an oil/water interface probe to determine the level of the water-table and the presence of liquid phase hydrocarbon. All wells not showing immiscible hydrocarbons will be sampled for laboratory analysis. Prior to sampling, each well will be purged of three volumes of standing water to ensure that the sample collected is representative of the water in the surrounding formation. Purge water will be treated through granular activated carbon before being discharged onsite. Samples will be collected using a clean disposable plastic bailer and placed in laboratory supplied sample containers. The sample containers will be placed on ice in a laboratory supplied cooler and sent to the EPA-approved laboratory via overnight courier for full-suite volatile organic compounds (VOCs) using EPA Method 8260 and total petroleum hydrocarbons – diesel range petroleum (TPH-DRO) using EPA Method 8015B.

After shutting down the recovery/containment system, all lines will be purged of water or product. All product and water pumps will be removed from the recovery wells, cleaned and stored. On a quarterly basis (every three months) after system shut down, the entire monitoring well network will be gauged and sampled as described above. In addition, all of the monitoring and recovery wells will be gauged with an oil/water interface probe on a monthly basis. In the event that liquid product is measured on the water-table in any well, the product will be removed by hand bailing and an oleophilic wicks will be placed in the well. Quarterly monitoring reports will be prepared and

submitted to MDE-OCP after each sampling event. The reports will include a scaled site map showing the location of the monitoring wells, contour maps of the water-table using gauging data collected during the site visits showing the groundwater flow direction, water quality maps showing the analytical results of the sampling, water quality data tabulated to show trends, a discussion of the results obtained and conclusions and recommendations.

If at anytime during the post corrective action monitoring period, dissolved or free phase hydrocarbons are detected in any of the downgradient monitoring wells located across Brown Street (MW-16, MW-19, MW-33, MW-34 or MW-35), the recovery/containment system will be reactivated immediately. In addition, recommendations to expedite the degradation of the on-site dissolved and adsorbed hydrocarbons through activation of the dissolved oxygen injection system will be discussed with MDE-OCP. After four quarters of sampling, recommendations will be made to implement one of the following: continue monitoring, reactivate the recovery/containment system or discontinue monitoring and request closure status.

~~Quality Assurance/Quality Control (QA/QC) procedures will be followed throughout the data collection tasks and will include, as a minimum, the following:~~

- All samples will be collected by experienced personnel in accordance with EPA established protocols.
- Chain-of-custody forms will accompany all samples between the site and the analytical laboratory.
- All samples collected on-site will be shipped to the analytical laboratory using an overnight carrier service.
- Only an EPA-approved laboratory with its own QA/QC program will be used to analyze samples collected on-site.

Earth Data personnel will adhere to the required site specific Health and Safety Plan during all on-site work. As a minimum, all personnel working on-site will:

- Have completed an OSHA approved 40-hour health and safety course for hazardous material workers (HAZWOPER), with annual updates.
 - Participate in a medical surveillance program.
 - Wear highly visible safety vests while on-site, as necessary.
 - Use safety cones in the work area, as necessary.
 - Use necessary explosimeters, PID devices and fire extinguishers.
-

ATTACHMENT NO. 1

Seven Risk Factors

MDE Risk Factor No. 1: Liquid Phase Hydrocarbons

Response: The Pump and Treat Technology was installed in May 1991 by TPH Technology, Inc., consistent with MDE compliance action requirements. The continued implementation of this system has removed liquid product to the maximum extent practicable. A Post Corrective Action Monitoring Plan is included as Attachment No. 2.

MDE Risk Factor No. 2: Current and Future Use of Impacted Groundwater

Response: The well fields for the Town of Chestertown are located down gradient of the spill contamination area. One (1) supply well has remained shut down. Sample results submitted to MDE's Water Program have indicated no further contamination from the spill per confirmation with Saied Kasrai, Program Manager on 3/26/12. The Drinking Water Program further indicated that they have no objection to pump and treat operation being abandoned provided that the hospital continue with ongoing groundwater monitoring.

MDE Risk Factor No. 3: Migration of Contamination

Response: The Monitoring Well Reports and report findings by Chester River Hospital consultants document that the dissolved and liquid phase hydrocarbon plumes have been contained within the Hospital's property. They have also determined that no significant levels of dissolved or liquid hydrocarbons have been detected in down gradient monitoring wells.

MDE Risk Factor No. 4: Human Exposure

Response: The distance between the water table and structures with basements coupled with the fuel type makes vapor intrusion highly unlikely for any inhalation, ingestion or dermal contacts. There have never been any reports of complaints by the public in these areas.

MDE Risk Factor No. 5: Environmental Ecological Exposure

Response: The excavation of contaminated soils and distance to the Chester River make the transport of contamination to the groundwater interface highly unlikely. Practicable levels have been achieved and are indicated by the continuing monitoring reports.

MDE Risk Factor No. 6: Impact to Utilities and Other Buried Services

Response: Depth and distance of other on-site utilities makes it highly unlikely that they may act as contamination pathways. There is no history of problems during

past maintenance operations for on-site utilities. If future excavations reveal contaminated soils, they will be disposed of in a permitted facility.

MDE Risk Factor No. 7: Other Sensitive Receptors

Response: No historic structures or subways exist in the immediate area. Depth and distance to downstream water bodies makes the transport of the very low remaining levels of contamination highly unlikely.

Figure 1. Free Product Recovery Graph, 2002-2011, Chester River Hospital Center, Chestertown, Maryland.

