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April 7, 2014

Sent via FedEx with Delivery Confirmation

Ms. Susan Bull
Maryland Department of the Environment
Oil Control Program
1800 Washington Boulevard, Suite 620
Baltimore, Maryland 21230-1719

Subject: Monitoring Well Installation Work Plan – Additional Information
MDE Case No. 2011-0112-HA and 2013-0007-HA
Bel Air Xtra Fuels Station
2476 East Churchville Road, Bel Air, Harford County, Maryland

Dear Ms. Bull:

Brown and Caldwell (BC), on behalf of Drake Petroleum Company, Inc. (Drake), provides the following response to the January 27, 2014 Maryland Department of the Environment (MDE) request for clarification of the November 26, 2013 Subsurface Investigation Work Plan (Work Plan) prepared and submitted by BC on behalf of Drake for the Bel Air Xtra Fuels site in Bel Air, Maryland (Site).

1. ***Please note that it is your responsibility to secure off-site access for remedial activities. If access cannot be secured, the Department must be notified within 30 days of Work Plan approval.***

Response - BC will notify the Department within the timeframe requested if access cannot be secured.

2. ***The Department understands the overburden monitoring well is to be installed approximately 30 feet below ground. The department requires that the monitoring well be appropriately installed. During installation, the diameter of the boring must exceed the diameter of the well by at least 4 inches and the screen must be installed to a depth of at least 10 feet below the groundwater table, in accordance with the Department's Maryland Environmental Assessment Technology (MEAT) for Leaking Underground Storage Tanks guidance document, which may be accessed at http://www.mde.state.md.us/assets/document/MEAT_Guidance.pdf.***

Response – BC will install the monitoring wells appropriately in accordance with MEAT.

3. ***Based on the results of subsurface investigations to date, the groundwater contaminant plume has not been completely delineated either horizontally or vertically. Furthermore, groundwater sampling data from all three zones have revealed constituents of concern, with defined impacts at a depth of 170 to 180 feet bgs. Therefore, the Department requires the installation of both an upper bedrock and lower bedrock monitoring well. The lower bedrock monitoring well must be installed to a depth of 200 feet as previously proposed in the Subsurface***

Investigation Work Plan – March 6, 2013 and approved in the Department’s June 14, 2013 directive letter.

Response – BC will install both shallow and deep bedrock monitoring wells as required above. The procedures will follow the same procedures that were used for installation of MW-16 I and MW 16-D. Once total depth is reached, a down-hole geophysical survey will be conducted in the uncased portion of the borehole to evaluate bedrock structure, orientation, and potential water bearing zones using a suite of geophysical analyses. Based on these results two (2) bedrock monitoring wells will be nested within the deep bedrock borehole.

If the geophysical survey indicates fractured zones that are potentially relatively transmissive water-bearing zones, these areas will be targeted for well screening as they have a higher potential for lateral transport of impacted groundwater.

In addition to the geophysical log evaluation, a packer/pump system will be used to isolate and collect groundwater samples from individual water-bearing zones identified by the geophysical logs. The groundwater samples would be submitted for laboratory analysis on a rapid turn-around basis and the laboratory analytical results will be used to support the selection of the monitoring well screen position.

4. ***The Work Plan indicates that screened intervals will be determined during drilling for the bedrock monitoring well(s). Please note that the upper and lower bedrock monitoring wells may be installed within the same borehole, as with MW-16I and MW-16D, or two separate boreholes may be advanced.***

Response: BC acknowledges that either of these two (2) options for construction is acceptable to the MDE and will install the monitoring wells within the same borehole properly sealing the borehole between monitoring well screen locations as was done with MW 16-I and D.

5. ***The Department understands that, rather than conducting geophysics on the bedrock monitoring well(s), your consultant recommends packer testing to include groundwater sampling with rapid laboratory turnaround every 10 feet during the drilling process. Submit documentation regarding the methodology and equipment to be used to complete these activities.***

Response – Due to the requirement to drill to a depth of 200, feet BC will drill the well exactly the same as MW 16 I and will be using a geophysical survey to determine the screened intervals, and only using packer testing for confirmation, similar to the installation process for the monitoring well MW-16 couplet.

6. ***Within 60 days of completion of the overburden/bedrock monitoring well installation, submit a Supplemental Investigation Report detailing the results of the overburden/bedrock well installations, borehole geophysical survey, packer testing, and groundwater sampling activities.***

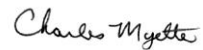
Response – BC will complete the Supplemental Investigation Report within 60 days of completion of the monitoring well installation.

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If you have any questions regarding the contents of this submittal please do not hesitate to contact me.

Very truly yours,

Brown and Caldwell



Charles F. Myette,
Vice President

cc: Scott Nelson, Brown and Caldwell, via email
Eric Harvey, Drake Petroleum Company, Inc. via electronic submittal
Michele Alabiso, Drake Petroleum Company, Inc. via electronic submittal
Jeff Walker, Warren Equities, Inc., via electronic submittal