Groundwater
& Environmental Services, Inc.

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April 30, 2012

Ms. Susan Bull
Maryland Department of the Environment
Oil Control Program
1800 Washington Blvd, Suite 620
Baltimore, MD 21230

Re: ***SUBSURFACE INVESTIGATION REPORT***
Bel Air Xtra Fuels
2476 Churchville Rd, Bel Air, Maryland
MDE Case #2011-0112-HA

Dear Ms. Bull:

On behalf of Drake Petroleum Company (Drake), Groundwater & Environmental Services, Inc. (GES) respectfully submits the attached *Subsurface Investigation Report* for the above-referenced site. The purpose of this investigation was to further explore the extent of subsurface petroleum hydrocarbon impact on the western off-site property. This Work Plan was approved by the Maryland Department of the Environment (MDE) in a letter dated July 20, 2011.

GES appreciates the continued guidance of the MDE on this project. If you have any questions or require additional information please contact the undersigned at (800) 220-3606, extension 3703.

Sincerely,
Groundwater & Environmental Services, Inc.

Andrea Taylorson-Collins
Environmental Scientist/Project Manager

Enclosure
c: Eric Harvey, Drake Petroleum Company via electronic submittal
Christopher H. Ralston, Maryland Department of Environment - via FedEx
Jeannette DeBartolomeo, Maryland Department of the Environment – via FedEx
Peter Smith, Harford County Health Department - via FedEx
GES Internal PSID#362896

Subsurface Investigation Report

Bel Air Xtra Fuels
Maryland Department of the Environment ID #2011-0112-HA
2476 Churchville Road
Bel Air, Maryland

Prepared for:

Drake Petroleum Company
1 South Water Street
Newburgh, NY, 12550

Prepared by:

GROUNDWATER & ENVIRONMENTAL SERVICES, INC.
2142 Priest Bridge Court, Suite 1
Crofton, Maryland

April 30, 2012

SUBSURFACE INVESTIGATION REPORT

Bel Air Xtra Fuels
2476 Churchville Road
Bel Air, Maryland 21015
PC# 2011-0112-HA

Prepared for:

Drake Petroleum Company
1 South Water Street
Newburgh, NY, 12550

April 30, 2012

Prepared by:

Nicholas Kurtz
Associate Environmental Scientist

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1.0 INTRODUCTION

Groundwater & Environmental Services, Inc. (GES) was contracted by Drake Petroleum Company (Drake) to complete a subsurface investigation at the Bel Air Xtra Fuels located at 2476 Churchville Road in Bel Air, Harford County, Maryland (Site) (**Figure 1**). The investigative activities were performed in accordance with written approvals from the Maryland Department of the Environment (MDE), dated July 20, 2011 and August 26, 2011. The scope of work includes the completion of the following tasks:

- Advancement of two soil borings and the subsequent conversion of the borings to monitoring wells;
- Collection of soil samples for petroleum hydrocarbon laboratory analysis;
- Collection of groundwater samples for petroleum hydrocarbon laboratory analysis; and
- Preparation of a Subsurface Investigation Report.

2.0 SITE DESCRIPTION

2.1 Background Information

Currently, the property is owned and operated by Drake as a retail gasoline station. A brief history of the site is described below:

1988 The Maryland Department of the Environment (MDE) opens case number 1989-0972-HA in response to a compliance inspection indicating damaged fill caps on the UST system owned and operated by Easton Petroleum Company, Inc. (Easton Petroleum).

1989 First generation underground storage tanks (USTs) were removed and five (5) single-walled composite steel/fiberglass USTs installed on behalf of Easton Petroleum: one (1) 10,000-gallon gasoline, two (2) 8,000-gallon gasoline, one (1) 8,000-gallon diesel, and one (1) 8,000-gallon kerosene.

04/91 Four (4) groundwater monitoring wells were installed on behalf of Easton Petroleum as part of a Phase I and Phase II Environmental Site Assessment (ESA). Liquid non-aqueous phase liquids (LNAPL) were observed during this investigation and the MDE responded by issuing Notice of Violation NOV-91-182 to Easton Petroleum Company, Inc. The MDE required installation of additional groundwater monitoring wells and a remediation system.

03/92 A groundwater remediation system was installed using ten (10) groundwater monitoring wells, two (2) groundwater recovery wells (R-1 and R-2), an oil/water separator tank, a pre-aerator, and two (2) liquid granular activated carbon (GAC) treatment units.

12/92 Harford County Health Department (HCHD) requested potable well sampling in the vicinity of the site. Sampling was conducted and Volatile Organic Compounds (VOCs) related to gasoline were not detected. The results were reported to MDE and follow-up was requested.

07/93 The remediation system was upgraded to include two (2) aeration units, as approved by the MDE.

09/93 Notice of Violation (NV) NV-91-182B issued due to free-phase petroleum product present in groundwater monitoring wells MW-1 and MW-2 and monthly reports not being submitted as required.

10/93	Proposal submitted to MDE for installation of a groundwater recovery well adjacent to groundwater monitoring well MW-1 and installation of a passive bailer in groundwater monitoring well MW-2.
01/94	Installation of the new groundwater recovery well RW-3.
04/94	Groundwater recovery well RW-3 connected to established remediation system. Passive bailer installed in groundwater monitoring well MW-2 for LNAPL removal.
06/95	Soil Vapor Extraction (SVE) pilot test conducted and groundwater monitoring well MW-9 was installed.
11/95	A SVE test was conducted with groundwater depression.
12/96	MDE requests remediation system discharge location to be moved to a down-gradient storm drain.
01/97	Groundwater monitoring well MW-2 is paved over with asphalt and is no longer accessible.
05/97	Request from the MDE to install Oxygen Release Compound (ORC) filter socks in two (2) groundwater monitoring wells, MW-7 and MW-9.
10/97	Pumps removed from groundwater recovery wells RW-1 and RW-3 and the system was reconfigured to include groundwater extraction from groundwater monitoring wells MW-1, MW-9, and groundwater recovery well RW-3; replaced the former 55-gallon aerator units with a shallow tray aerator unit to enhance treatment of the recovered groundwater.
06/00	Site is documented by the MDE to be temporarily out of service.
10/00	The MDE approves a request for the implementation of cleaning groundwater recovery wells RW-1 and RW-2, and initiating Enhanced Fluid Recovery (EFR) events on groundwater recovery wells RW-1 and RW-3 and groundwater monitoring wells MW-1, MW-2, and MW-7.
11/00	Well, pump, and remediation system cleaning conducted along with EFR event.
03/01	MDE received notification that Keyon Oil leases Site and returned out-of-service USTs to active status.
05/01	MDE approves an Envirojet event and groundwater and vapor extraction from groundwater monitoring well MW-7, and the accumulation of LNAPL in groundwater recovery well RW-3 and former groundwater recovery well RW-1.
02/02	Easton Petroleum request to shut the recovery system down due to drought conditions.
03/02	MDE grants system shut down until the water levels have recovered, at which time it will return to operation as per Notice of Violation NV-91-182C.
07/02	A notice was sent to Easton Petroleum from the MDE, requesting all monitoring data from the time of system shut-down to the present.
10/04	MDE was notified that Easton Petroleum forfeited status to operate a business in the state of Maryland.
01/05	As the current UST owner, Drake Petroleum Company (Drake), began sampling the network of 12 groundwater monitoring wells and four groundwater recovery wells in accordance with Code of Maryland Regulations (COMAR) 26.10.02.03-.03-6.
05/05	Groundwater sampling data submitted on behalf of Drake per MDE request.
05/05	Receptor survey and UST system testing was conducted on behalf of Drake.
07/05	Report of receptor survey and UST system testing data submitted to MDE as part of emergency regulations.
04/07	GES on behalf of Drake requests the MDE remove Drake from Responsible Party status.
05/09	GES on behalf of Drake submitted proof that the Site is connected to public water.

10/09 Groundwater monitoring well system abandoned with the exception of groundwater monitoring wells MW-7 and MW-9, so these wells could be used for High Risk Groundwater Use Area (HRGUA) sampling.

11/09 New groundwater monitoring wells MW-10 and MW-11 installed for HRGUA sampling.

02/10 Site Characterization Report submitted to MDE documenting results of the installation of groundwater monitoring wells MW-10 and MW-11.

07/10 Warren Equities submits letter to MDE stating that Drake is not the responsible party for MDE case #89-0972HA.

10/10 MDE sends a Non-Compliance letter to Warren Equities.

11/10 Warren Equities submits letter to MDE stating that Drake is not the responsible party for MDE case #89-0972HA.

12/10 Site Characterization Report submitted to MDE.

01/11 MDE requests a Site Characterization Report Addendum including results of down gradient characterization activities, sampling of the potable wells at 2317 and 2319 Churchville Rd. and two (2) quarterly post site characterization monitoring events.

06/11 GES on behalf of Drake submits Work Plan for vertical delineation of apparent source to MDE.

07/11 MDE approved the GES and Drake potable well sampling letter for 2317 and 2319 Churchville Road.

07/11 MDE issued Conditional Workplan Approval.

08/11 Drake submitted UST testing results to MDE.

08/11 GES submitted additional information regarding the installation of the nested groundwater monitoring wells, per MDE's request. MDE approved the installation on August 26, 2011.

08/11 Access agreement was signed between Drake and the Campus Hills Shopping Center property owner to install groundwater monitoring wells off-site in Campus Hill Shopping Center.

08/11 GES installed four (4) new groundwater monitoring wells (MW-12, MW-13, MW-14 and MW-16) on August 24 through 29, 2011.

08/11 GES submitted a request to reduce the size of proposed groundwater monitoring well PMW-13 from four-inches to one-inch diameter based on space and safety constraints at this location and the recovery of groundwater monitoring well MW-8 on this date.

08/11 Potable well at 2319 Churchville Road was sampled.

08/11 SHA issued a right-of-way permit for the proposed nested well in the shoulder of Churchville Road on August 31, 2011.

09/11 Potable well at 2317 Churchville Road was sampled.

09/11 Feasibility Testing was conducted on September 8 and 9, 2011.

09/11 Potable well sampling results letter was submitted to the property owner at 2319 Churchville Road.

09/11 Potable well sampling results were submitted to the property owner of 2317 Churchville Road.

09/11 GES, on behalf of Drake, requested a Corrective Action Plan (CAP) extension due to driller cancellation of the proposed nested wells in the Churchville Road right of way.

10/11 GES, on behalf of Drake, submits CAP to MDE.

12/11 New groundwater monitoring wells MW-15S and MW-15D are installed on the property of 2319 E. Churchville Rd.

2.2 Site Location and Topography

The Site is located at 2476 Churchville Road in Harford, Carroll County, Maryland. The Site is currently an Xtra Fuels gasoline station and convenience store. The area surrounding the site consists of a mix of commercial and residential properties. Site topography slopes to the northeast.

2.3 Regional Geology

The Site lies in the eastern portion of Maryland's Piedmont Physiographic Province. According to the Maryland Geologic Survey, the Site is underlain by the Port Deposit Gneiss a moderately to strongly deformed intrusive complex composed of gneissic biotite quartz diorite, hornblende-biotite quartz diorite, and biotite granodiorite; all rocks foliated and some strongly sheared; age 550 +/- 50 million years by radiogenic dating.

Depth to groundwater across the site varies from approximately 8.44 (MW-9) to 18.80 (former MW-3) feet below grade (fbg). Historical liquid level gauging data is summarized in **Table 1**. Based on groundwater elevation data recorded on March 26, 2012, groundwater flows to the west/ southwest at a hydraulic gradient of 0.017 feet per foot. A groundwater monitoring map illustrating inferred groundwater contours is included as **Figure 5**.

Regional topography is relatively flat; however, the Site gently slopes to the northeast away from Churchville Road. The closest surface water body is an unnamed stream located approximately 750 feet to the northwest of the Site, that feeds into a pond located approximately one-half mile north of the Site.

2.4 Surrounding Properties

The Site is immediately surrounded by a mixture of commercial and residential properties. Campus Hills Shopping Center containing a Food Lion grocery store and various other businesses is located north of the Site. A parking lot for the Food Lion grocery store is located east of the Site, followed by an open field. A parking lot containing the La Tolteca restaurant is located west of the Site, followed by other restaurant properties. There are residential homes with basements located south of the Site. Local Area Map: 300 Meter Radius is attached as **Figure 3**.

2.5 Utilities/Well Search

A well search of the area using the MDE well database revealed the existence of 59 potable wells located within one (1) mile of the Site, including a municipal supply well. Residential potable wells are located cross gradient of the Site across Churchville Road. A visual area well head search was conducted by GES on February 29, 2012 and revealed an additional 22 potable wells not identified in the MDE well database. Additional potable wells are suspected but could not be visually confirmed. Those that could be visually verified and those included in the MDE database are illustrated on **Figure 3**. The Site itself is supplied by municipal water.

The Site and the surrounding area are served by a mixture of aboveground and underground utilities. Along Churchville Road there are overhead electrical lines and underground communication lines. Underground electrical lines are located on the west, south and east sides of the property. The underground electric lines run from the kerosene dispenser island on the west side of the property south to

the station sign then east to eastern edge of the property where they turn north to an area light. Storm drains were located along the northern boundary of the Site between the Campus Hills shopping center parking lot and the station building. The Site is served by Campus Hills Water Works which obtains water from five (5) municipal water wells located in the Port Deposit, Gneiss and Wissachickon aquifers. Water and sewer connections were noted to enter the station building from the north but were unable to be traced during a private utility mark out conducted on August 11, 2009. Natural gas lines were noted on the adjacent property, 2319 Churchville Road, during a utility mark out. The original nested groundwater monitoring well locations had to be relocated due to the gas line located in the shoulder of Churchville Road and parallel, on the east side, of the driveway to the 2319 Churchville Road property. Locations of on-site and off-site Site utilities are illustrated on the Site Map, **Figure 4**.

2.6 Surface Water Bodies

The closest surface water body is an unnamed stream located approximately 750 feet to the northwest of the Site, that feeds into a pond located approximately one-half mile north of the Site. The surface water bodies are illustrated in the Local Area Map: 300 Meter Radius, **Figure 2**.

2.7 Underground Storage Tanks

In May, 1989, Easton Petroleum removed six (6) steel USTs: four (4) 2,000 gallon gasoline USTs a 1,000 gallon used oil UST and a 1,000 gallon heating oil UST. In 1989, Easton Petroleum installed five (5) USTs adjacent to the former tankfield. The current UST system is single walled, composite steel/fiberglass reinforced plastic tanks with single walled fiberglass piping. There is one (1) 10,000 gallon gasoline UST, two (2) 8,000 gallon gasoline USTs an 8,000 gallon diesel UST and an 8,000 gallon kerosene UST. The UST system was tested in February 2008 and June 2011 and passed. The tank field is located at the western side of the property building.

3.0 INVESTIGATIVE METHODS

The following sections detail the current investigation conducted in accordance with the MDE directive dated July 20, 2011 approving the GES work plan dated June 30, 2011.

3.1 Monitoring Well Installation

On December 7, 2011 through December 9, 2011, B.L. Myers Brothers (B L Myers), a Maryland-licensed drilling company, installed two (2) additional groundwater monitoring wells (MW-15S and MW-15D) off Site, as illustrated on **Figure 4**. B.L. Myers began by hand clearing each location to a depth of eight (8) fbg using air-knife technology to provide utility clearance. The two (2) locations were then converted to groundwater monitoring wells using an air rotary drilling rig. Groundwater monitoring well MW-15S was installed to a total depth of 30 fbg and constructed with 20 feet of 2-inch diameter PVC 0.020-slot screened casing, 10 feet of 2-inch diameter PVC solid casing and a flush-mounted bolting well cover. Groundwater monitoring well MW-15D was installed to a total depth of 90 fbg and constructed with 20 feet of 2-inch diameter PVC 0.020-slot screened casing, 70 feet of 2-inch diameter PVC solid casing and a flush-mounted bolting well cover.

Sampling depths, lithological descriptions, Photoionization Detector (PID) readings, well construction details, and any other conditions noted during drilling activities were approved by on-site MDE personnel

in a Report of Observations (**Appendix B**). Monitoring well details are presented in the boring logs attached as **Appendix C**.

3.2 Soil Sampling

For both locations, MW-15S and MW-15D, each soil sample collected was screened with a PID to determine the presence and general degree of Volatile Organic Compounds (VOCs). A portion of each sample collected was containerized and allowed to equilibrate to ambient air temperature. Headspace PID readings were then collected for each containerized sample. The second split soil sample was put immediately on ice for lab analysis. Soil samples were collected for laboratory analysis from interval depths exhibiting the highest PID readings above the water table.

The soil samples were couriered to Accutest Laboratories in Dayton, New Jersey to be analyzed for full VOCs, including fuel oxygenates in accordance with United States Environmental Protection Agency (USEPA) Method 8260 and Total Petroleum Hydrocarbon-Diesel Range Organics (TPH-DRO), Total Petroleum Hydrocarbon-Gasoline Range Organics (TPH-GRO) via USEPA method 8015. The soil sample analytical results are summarized in **Table 4**. Complete laboratory analytical results and chain of custody documentation are attached as **Appendix D**.

3.3 Well Development and Well Survey

On December 7, 2011 through December 9, 2011, B L Myers developed the off-site groundwater monitoring wells MW-15S and MW-15D. The wells were purged until a turbid-free discharge was observed after removing a minimum of five (5) well volumes. The purged groundwater was containerized in approved 55-gallon drums and Drake coordinated pick up for proper disposal at an approved facility.

GES personnel surveyed the two (2) groundwater monitoring wells to the nearest 0.01-foot vertical elevation. Elevations were recorded to the top of casing (TOC) of each groundwater monitoring well. The TOC elevations are used to determine adjusted groundwater elevations, which are included in **Table 1**.

3.4 Groundwater Sampling

GES personnel collected groundwater samples from groundwater monitoring wells MW-15S and MW-15D on December 23, 2011. Static liquid level measurements were obtained from the wells prior to groundwater sampling. Gauging data was acquired using an optical interface probe designed to distinguish between water and LNAPL to the nearest 0.01 foot. Depth to groundwater in groundwater monitoring wells MW-15S through MW-15D ranged from approximately 12.60 to 12.70 fbg. Liquid level data is included in **Table 1**.

The groundwater samples were couriered to Accutest Laboratories in Dayton, New Jersey to be analyzed for full VOCs, including fuel oxygenates in accordance with USEPA Method 8260 and TPH-DRO, TPH-GRO via USEPA method 8015. The groundwater analytical results are summarized in **Table 2**. Laboratory analytical reports and chain of custody documentation are attached as **Appendix B**.

3.5 Soil and Groundwater Waste

Soil cuttings and purge water, from drilling activities December 7 through December 9, 2011, were drummed and disposed of in proper Department of Transportation (DOT) 55 gallon drums. Drums were only filled to three-quarters (3/4) of the way full in order for proper lifting and movement. Drake was contacted to remove, transport and properly dispose of thirteen (13) drums (11 soil and 2 purge water). Waste Manifest for this activity is included in **Appendix E**.

4.0 DISCUSSION OF RESULTS

4.1 Site Geology

Site lithology was observed to consist of reddish brown to brown clayey and sandy silts. Both groundwater monitoring wells MW-15S and MW-15D consisted of reddish brown to brown clayey silts with sand intermingled throughout. The regolith was well structured with gravel inclusions. From the surface to a depth of approximately 8 fbg, the samples appeared to be more fill material in nature rather than native materials, showing less structure and a higher clay percentage than soils found in the proceeding depths. Soils encountered below 8 fbg were classified as clayey silts with varying low percentages of sand and gravel inclusions. These deeper soils were found to be more moist then preceding soils and were progressively more structured with depth.

Groundwater monitoring well MW-15D encountered a large water producing zone at 50 fbg preventing sampling at that depth. Groundwater monitoring well MW-15D consisted of same predominant lithology as groundwater monitoring well MW-15S. Clayey silt with varying degrees of sand interspersed throughout. Just as in groundwater monitoring well MW-15S, the top 8 feet of groundwater monitoring well MW-15D consisted of materials appearing to be more fill like in nature rather than native materials. The boring logs for groundwater monitoring wells MW-15S and MW-15D are attached as **Appendix C**.

4.2 Soil Quality

A review of the soil data collected on December 7, 2011 and December 9, 2011 indicates adsorbed-phase petroleum hydrocarbons are present in very low concentrations in subsurface soils topographically down-gradient of the tankfield. The highest PID reading was 1.6 parts per million (ppm) detected in groundwater monitoring well MW-15D at 40-45 fbg. A soil sample was collected from this depth and submitted for laboratory analysis. Benzene, toluene and ethylbenzene were not detected in either groundwater monitoring well MW-15S or MW-15D. Total xylene concentrations ranged from an estimated value of 0.38 micrograms per kilogram (µg/kg) in MW-15S to non-detect (ND<0.21µg/kg) in groundwater monitoring well MW-15D. Methyl-tertiary-butyl-ether (MTBE), TPH-DRO and TPH-GRO were not detected in either groundwater monitoring well MW-15S or MW-15D. Soil analytical results for the groundwater monitoring wells are summarized in **Table 4**. Soil analytical data is attached in **Appendix D**.

4.3 Groundwater Quality

4.3.1 Analytical Results

Groundwater analytical results for groundwater monitoring wells MW-15S and MW-15D, sampled on December 23, 2011, are summarized in **Table 2**. Complete laboratory analytical results and chain of custody documentation are attached in **Appendix D**. Benzene, toluene, ethylbenzene and total xylene were not detected from either groundwater monitoring well MW-15S or MW-15D. MTBE concentrations in the groundwater ranged non-detect (ND<0.18) µg/L in MW-15S to 31.7 µg/L in monitoring well MW-15D. TPH-DRO concentrations in the groundwater ranged from non-detect (ND<3.5) µg/L in monitoring well MW-15S to 130µg/L in monitoring well MW-15D. LNAPL was not detected in the groundwater monitoring wells. A Groundwater Monitoring Map is attached as **Figure 5**.

Two (2) area potable water supply wells were sampled per the June 2011 MDE directive. The results for all constituents were below the MDE drinking water standards for both wells sampled at 2317 and 2319 Churchville Road. Potable well results are summarized in **Table 3**.

4.3.2 Groundwater Flow

Based on groundwater elevation data collected on December 23, 2011, site-specific groundwater was determined to have a hydraulic gradient of 0.021 feet/foot (**Figure 5**).

4.3.3 Groundwater Analysis

With the installation of a deep and a shallow groundwater monitoring well, laboratory analytical results show that off-site impacted groundwater is at depth (about 90 fbg). Groundwater samples collected from groundwater monitoring well MW-15D shows impacts of MTBE and TPH-DRO while groundwater monitoring well MW-15S shows no groundwater impacts of any constituents of concern. The potable wells, 2317 and 2319 Churchville Road, shows concentrations of MTBE but they are below MDE drinking water standards. Therefore, there is a concern that the deep aquifer could contain impacted groundwater since there is MTBE in the closest residence potable wells.

5.0 RISK DETERMINATION

The MDE Oil Control Program requires that potential risks of harm or loss be measured at every site that has a reported release. Identification and determination of these potential risks will aid in establishing the necessity of remediation and, in turn, cleanup goals. The MDE focuses on “seven risk factors” which include the presence of LNAPL, current and future use of impacted groundwater, migration of contamination, human exposure, environmental ecological exposure, impact to utilities or buried services, and other sensitive receptors. Consideration and discussion of each of these factors is addressed below.

5.1 The Presence of LNAPL

LNAPL has been historically detected in former groundwater monitoring wells MW-1 and MW-2, former recovery wells RW-1 and RW-3 and groundwater monitoring well MW-7. The maximum LNAPL was detected in former groundwater monitoring well MW-2 on March 3, 1992 with a thickness of 1.35 feet. LNAPL has not been detected since June 8, 2006, when a sheen was observed in groundwater monitoring well MW-7.

5.2 Current and Future Use of Impacted Groundwater

Based on a review of local records and public information, it appears that the station building and businesses within the Campus Hills Shopping Center obtain water from five (5) municipal water wells located in the Port Deposit, Gneiss and Wissachickon aquifers. The municipal water supply is tested frequently and according to the latest Campus Hills water works report petroleum constituents have not been detected in the water supply.

A Maryland well search revealed 59 private domestic supply wells are located within one-half mile of the Site, the closest of which is located approximately 150 feet south of the Site. A well head search was conducted by GES on February 29, 2012 and revealed an additional 22 potable wells not identified in the MDE well database. Additional potable wells are suspected but could not be visually confirmed. The area domestic supply wells range in depths from 125 feet fbg to 400 feet fbg. The closest city municipal supply well is located approximately 2,200-feet southeast of the Site. The current and future use of impacted groundwater is considered a possible concern as the current investigation indicates that shallow groundwater is not confined from deeper area aquifers used for the supply wells. A copy of the Maryland Well Database search results is attached as **Appendix A**.

5.3 Migration of Contamination

Two (2) down-gradient groundwater monitoring wells, MW-10 and MW-12, were installed west of the Site to delineate off-site groundwater impacts. Two (2) cross-gradient wells, MW-15S and MW-15D, were installed to delineate to the South between the source area and closest potable well. Dissolved groundwater concentrations in these groundwater monitoring wells indicate that the on-site impact has the potential to migrate off-site, as the off-site groundwater monitoring wells MW-14 and MW-15D have detectable concentrations of petroleum constituents.

5.4 Human Exposure

The risk of human exposure to soil impacts is not a concern due to the depth of impacts being greater than five (5) fbg. The risk of human exposure to impacted groundwater is a possible concern, as there are potable wells in the area and MTBE has been detected in the aquifer revealed by the sampling of potable wells. The installation of a deep (90 fbg) groundwater monitoring well has characterized deep groundwater impacts to 90 fbg. Potable wells in the area have solid riser to an average depth of 70 feet below grade and are typically installed in the same aquifer as groundwater monitoring well MW-15D.

The two (2) closest potable wells located at 2317 and 2319 Churchville Road were sampled on August 29, 2011 and September 8, 2011. The results returned with detections under the MDE Clean-up standards for Type I and II Aquifers (**Table 3**).

5.5 Environmental Ecological Exposure

The area is a mixture of commercial and residential use, with environmental and ecological receptors in the area. The closest surface water body is an unnamed stream located approximately 750 feet to the northwest (cross-gradient) of the Site. The stream appears to emerge from below ground and flow north until feeding into a pond located approximately one-half (1/2) mile north (up-gradient) of the Site.

Groundwater flow has been determined to be to the west, moving cross-gradient to the stream. Due to the distance from the site to the stream, impacts to surface water are unlikely.

5.6 Impact to Utilities or Buried Services

Underground utilities are located along the western, southern and eastern property boundary as confirmed by utility markouts. Storm drains were located along the northern boundary of the Site between Campus Hills shopping center parking lot and the station building. Due to soil and groundwater impacts at depths greater than five (5) fbg and depths of typical utility construction of less than five (5) fbg, communication between impacted soil and groundwater and these utilities is unlikely.

5.7 Other Sensitive Receptors

Other sensitive receptors in the area include several worship centers and schools. The Oak Grove Baptist Church is located approximately 0.80 miles west of the Site. The Prospect Elementary School is located approximately 1.00 mile west of the Site. The John Archer School is located approximately 0.75 mile northwest of the Site. The Harford Technical High School is located approximately 0.80 mile northwest of the Site. The Harford Community College is located approximately 0.75 mile northwest of the Site. The College of Notre Dame is located approximately 0.70 mile northwest of the Site. Due to their distances, impacts to the schools and religious centers are not anticipated. The closest resident is located 0.02 mile from south of the site. A stream to the west of the site is approximately 0.14 mile. The Hillsway Terrace shopping center is located 0.04 mile north of the site. A restaurant called “la tolteca” is located 0.07 mile west of the site. The area water tower is located 0.25 mile north west of the site.

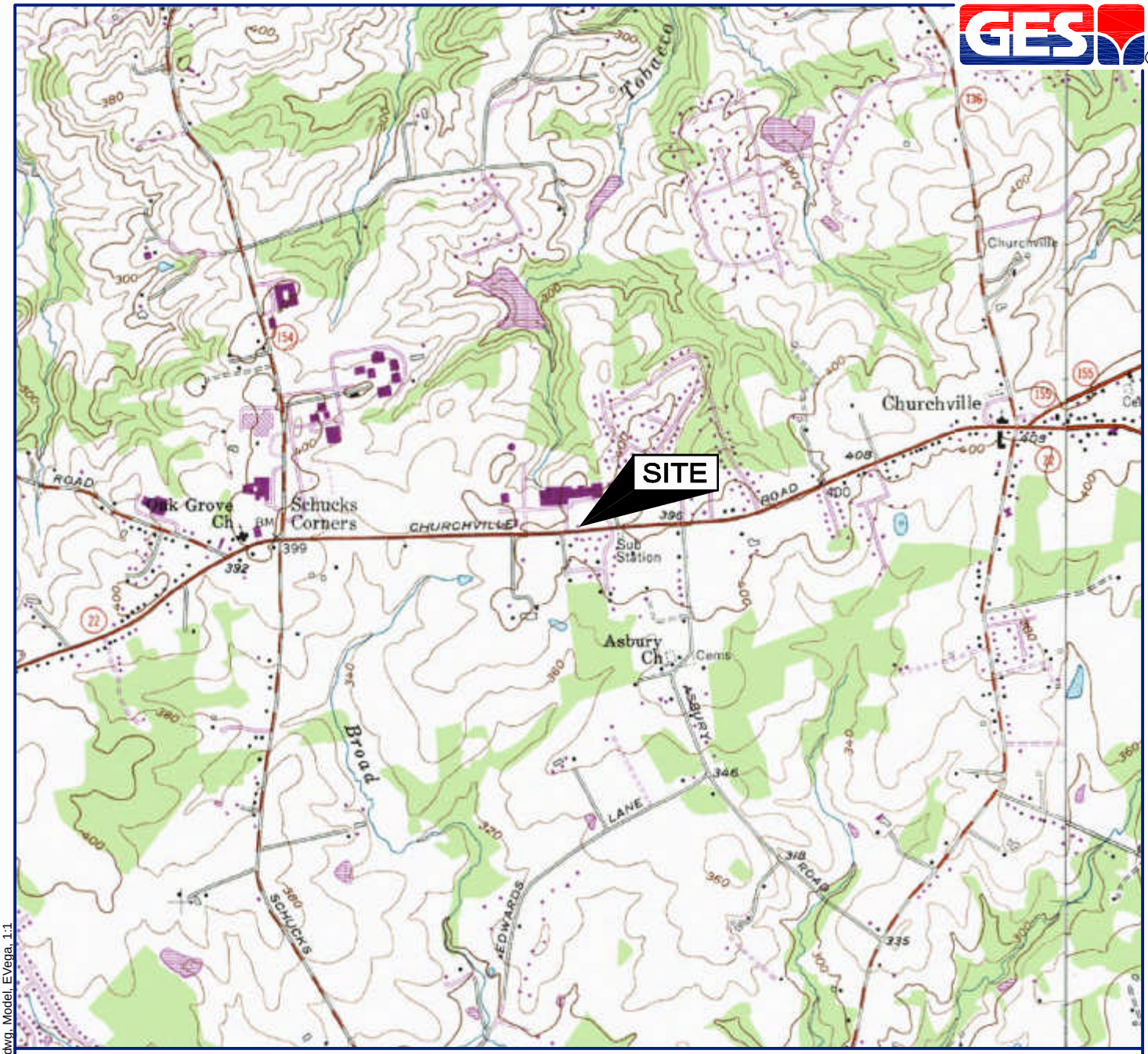
6.0 CONCLUSIONS

On December 7, 2011 through December 9, 2011, GES was contracted by Drake to complete a subsurface investigation, upon the completion of installing two (2) nested groundwater monitoring wells (MW-15S and MW-15D), west of Bel Air Xtra Fuels, across Churchville Road (**Figure 1**). The results of the soil sampling activities indicate limited hydrocarbon-impacted soil in the subsurface with BTEX and TPH-GRO impacts below MDE soil standards. Groundwater samples were collected from groundwater monitoring wells MW-15S and MW-15D on December 23, 2011. Groundwater monitoring well MW-15D laboratory analytical results revealed that MTBE and TPH-DRO impacts are above MDE standards in the deep aquifer. Groundwater monitoring well MW-15S laboratory analytical results revealed non-detect readings for all constituents of concern.

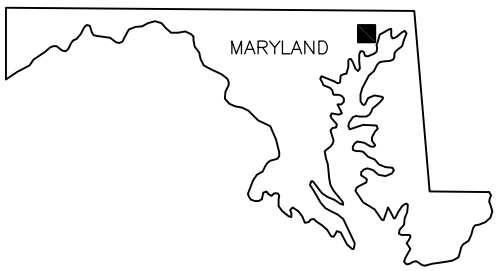
Of the seven (7) risk factors, only the migration of contamination and human risk through ingestion of groundwater are considered possible risks at this time. The remediation at this Site will be specifically designed to address these two (2) risk factors.

Per the MDE directive dated January 18, 2012, Corrective Action Plan activities will be implemented to remediate impacts and address migration to limit risk to receptors.

FIGURES



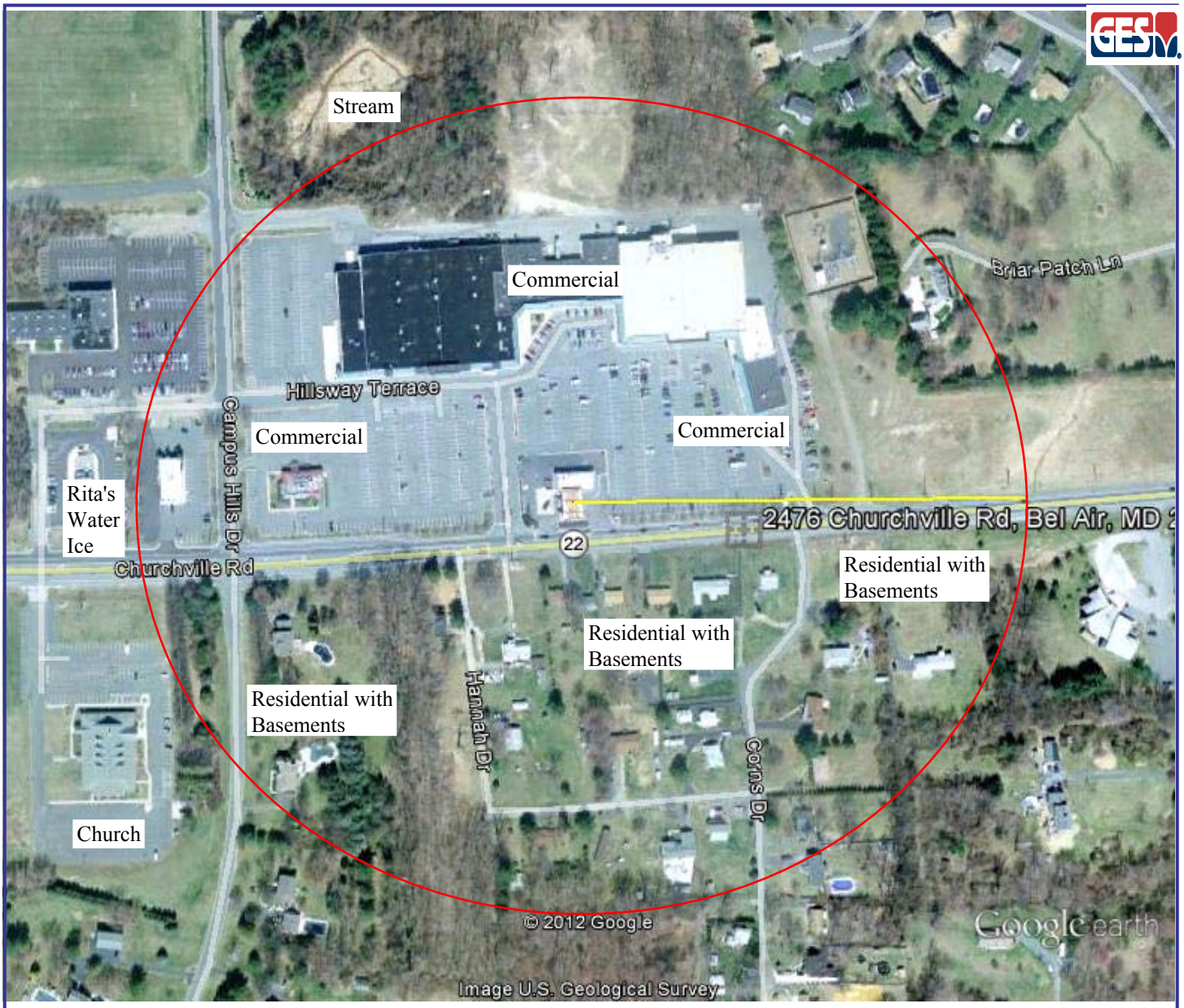
SOURCE: USGS 7.5 MINUTE SERIES
TOPOGRAPHIC QUADRANGLE 1986
BEL AIR, MARYLAND
CONTOUR INTERVAL = 20'



QUADRANGLE LOCATION

DRAFTED BY: E.V. (N.J.)	SITE LOCATION MAP
CHECKED BY: JM	BEL AIR XTRA FUELS 2476 CHURCHVILLE ROAD BEL AIR, MARYLAND
REVIEWED BY: ATC	Groundwater & Environmental Services, Inc. 2142 PRIEST BRIDGE COURT, SUITE 1, CROFTON, MD 21114
NORTH	SCALE IN FEET: 0 — 2000 / DATE: 4-12-12 / FIGURE: 1

M:\Graphics\0400-Crofton\Drake Petroleum\Bel Air\Bel Air SLM.dwg, Model, EVega, 1:1



DRAFTED BY: JM	**LOCAL AREA MAP: 300 METERS** **March 20, 2012**		
CHECKED BY: NK	**BEL AIR XTRA FUELS** **2476 CHURCHVILLE ROAD** **BEL AIR, MARYLAND**		
REVIEWED BY: ATC	**Groundwater & Environmental Services, Inc.** 2142 Priest Bridge Ct. Suite 1, Crofton, Maryland 21114		
NORTH	SCALE IN FEET	DATE **03-20-12**	FIGURE **2**

THE BOARD OF TRUSTEES OF
HARFORD COMMUNITY COLLEGE
608/371
203.00A
P. 45

HARFORD COMMUNITY
COLLEGE

P.113

1/2 MILE RADIUS

SITE
P.162

ARENA CLUB
P.329

WATER TOWER

Stream

P.327

P.387

P.458

P.456

P.432

P.466

P.464

P.465

P.401

P.383

P.368

P.370

P.377

P.498

P.454

P.516

P.426

POND

MEADOW SPRINGS Δ1,2,3

P.427

P.273

SYLVIA B. BLEVINS
1191/460
P.331

P.291

P.395

P.334

P.290

P.298

P.317

MONARCH
MONTESSORI
SCHOOL

CHURCHVILLE ROAD

ASBURY ROAD

HANNAH RD

CAMPUS LAKES

LAKE VIEW CT

CAMPUS HILLS DR

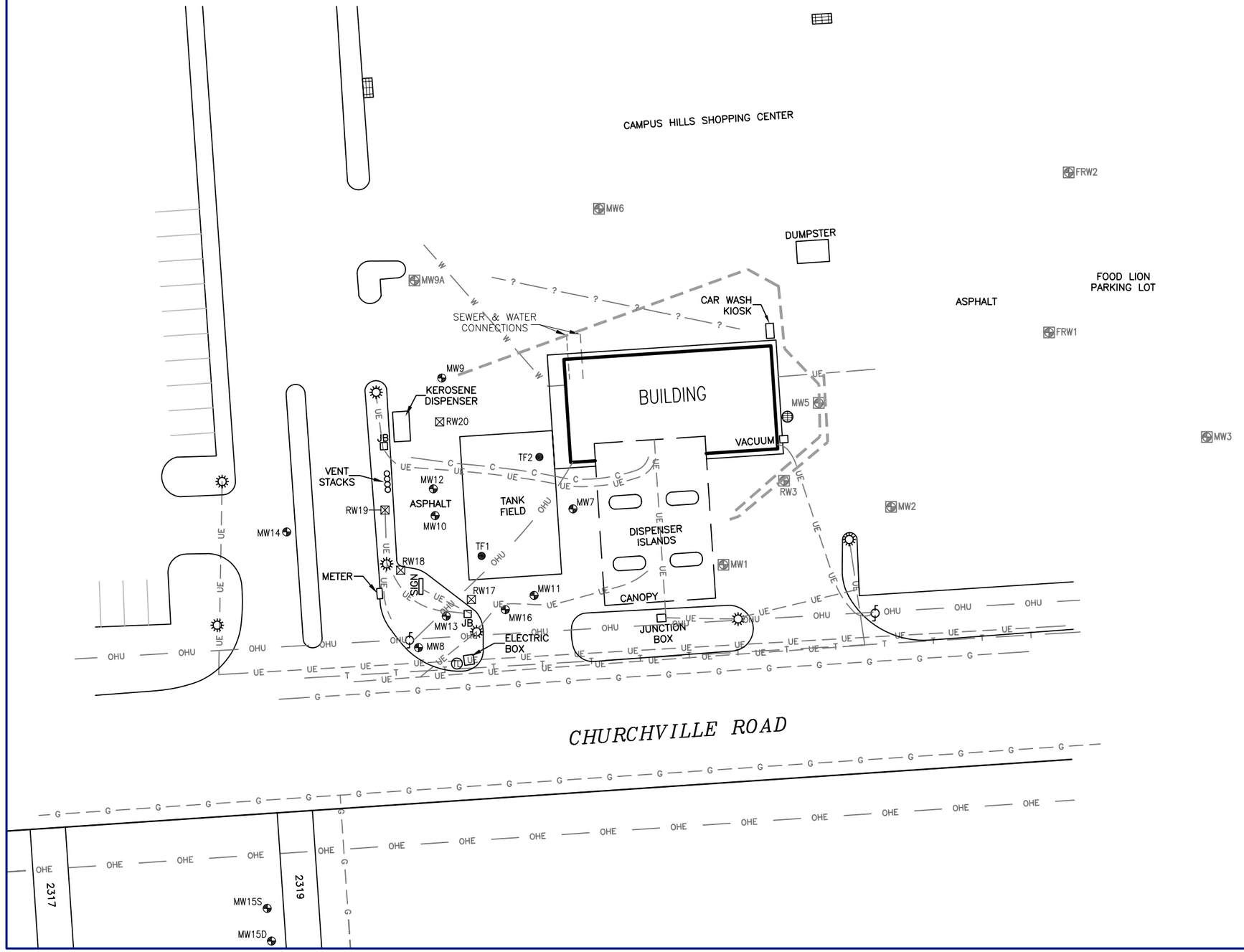
LEGEND

PROPERTY WITH VISUALLY VERIFIED POTABLE WELL

FIRE HYDRANT

DRAFTED BY: B.C.S. (N.J.)	ONE HALF-MILE RADIUS MAP
CHECKED BY: NK	BEL AIR XTRA FUELS 2476 CHURCHVILLE ROAD BEL AIR, MARYLAND
REVIEWED BY: ATC	Groundwater & Environmental Services, Inc. 2142 PRIEST BRIDGE COURT, SUITE 1, CROFTON, MD 21114
NORTH	SCALE IN FEET (APPROXIMATE) 0 600 / DATE 3-9-12 / FIGURE 3

M:\Graphics\0400-Crofton\Drake Petroleum\Bel Air\Bel Air LAM.dwg, BSilvestri

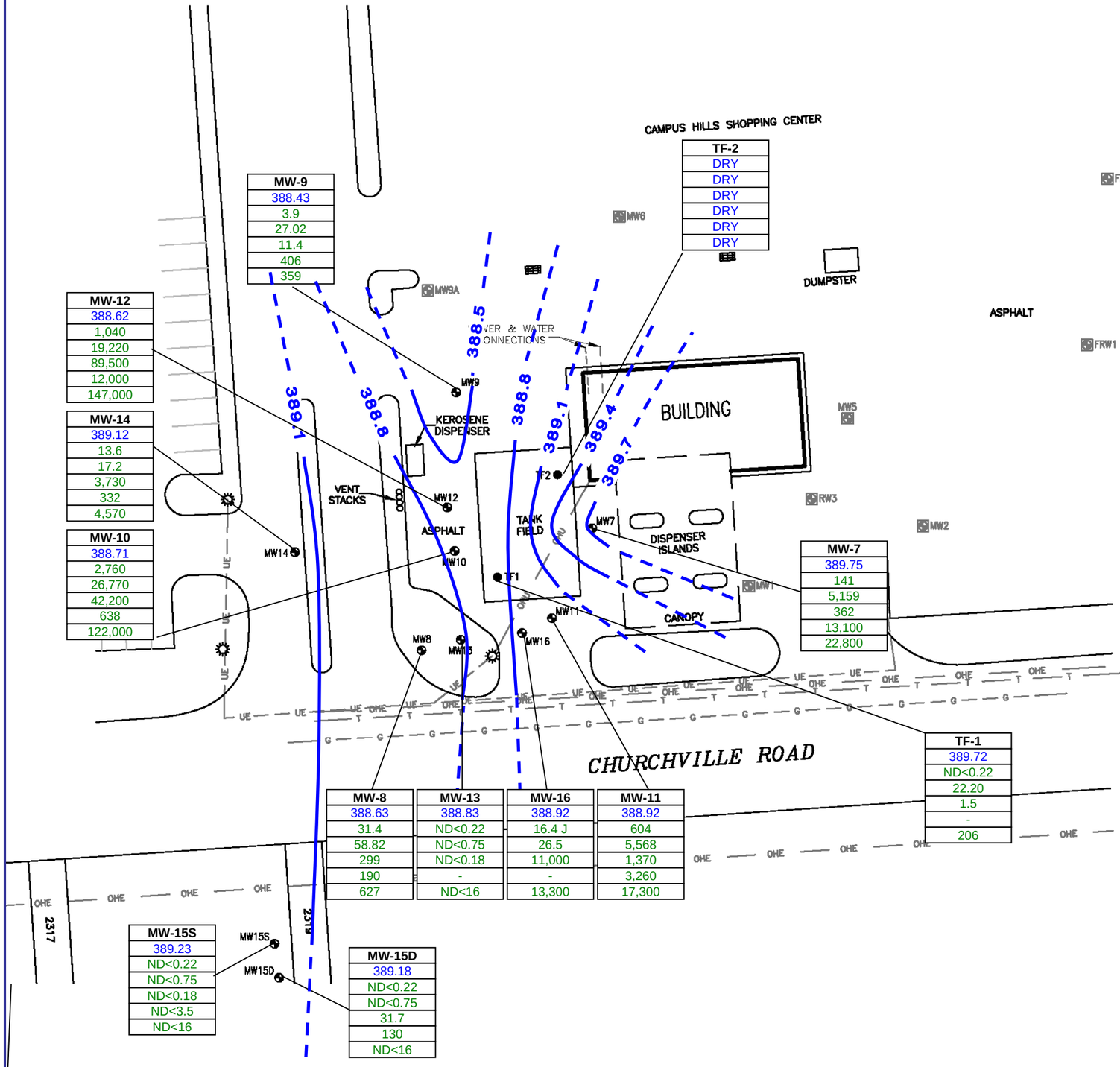


LEGEND

- STORM SEWER
- CATCH BASIN
- UTILITY POLE
- LIGHT POLE
- TRAFFIC LIGHT
- MONITORING WELL
- ABANDONED MONITORING WELL
- RECOVERY WELL
- TANK FIELD WELL
- C — UNDERGROUND COMMUNICATIONS LINE
- SS — UNDERGROUND SANITARY SEWER LINE
- T — UNDERGROUND TELEPHONE LINE
- UE — UNDERGROUND ELECTRIC LINE
- W — UNDERGROUND WATER LINE
- G — UNDERGROUND GAS LINE
- OHU — OVERHEAD UTILITY LINE
- ? — UNKNOWN UTILITY LINE
- FORMER SYSTEM TRENCH

DRAFTED BY: B.C.S. (N.J.)	**SITE MAP**
CHECKED BY: NK	**BEL AIR XTRA FUELS** **2476 CHURCHVILLE ROAD** **BEL AIR, MARYLAND**
REVIEWED BY: ATC	Groundwater & Environmental Services, Inc. 2142 PRIEST BRIDGE COURT, SUITE 1, CROFTON, MD 21114
NORTH	SCALE IN FEET: 0 APPROXIMATE 40 / DATE: 3-27-12 / FIGURE: 4

M:\Graphics\0400-Crofton\Drake Petroleum\Bel Air\Bel Air SM.dwg, BSilvestri



LEGEND

- CATCH BASIN
- LIGHT POLE
- MONITORING WELL
- ABANDONED MONITORING WELL
- TANK FIELD WELL
- SS — UNDERGROUND SANITARY SEWER
- W — UNDERGROUND WATER LINE
- G — UNDERGROUND GAS LINE
- T — UNDERGROUND TELEPHONE
- UE — UNDERGROUND ELECTRIC
- OHU — OVERHEAD UTILITIES

Well ID	WELL IDENTIFICATION
GW Elevation	GROUNDWATER ELEVATION (Feet)
Benzene	BENZENE CONCENTRATION (µg/L)
BTEX	TOTAL BTEX CONCENTRATION (µg/L)
MTBE	MTBE CONCENTRATION (µg/L)
TPH-DRO	TPH-DRO CONCENTRATION (µg/L)
TPH-GRO	TPH-GRO CONCENTRAITON (µg/L)

µg/L	MICROGRAMS PER LITER
BTEX	BENZENE, TOLUENE, ETHYLBENZENE, XYLENES
MTBE	METHY tert-BUTYL ETHER
TPH	TOTAL PETROLEUM HYDROCARBONS
DRO	DIESEL RANGE ORGANICS
GRO	GASOLINE RANGE ORGANICS
ND< #	WHERE AN ANALYTE IS NOT DETECTED, THE REPORTING LIMIT IS GIVEN
J	AN ESITMATED VALUE BETWEEN REPORTING LIMIT AND METHOD DETECTION LIMIT
NS	NOT SAMPLED
-	DATA NOT AVAILABLE

GROUNDWATER CONTOUR INTERVAL (feet)

INFERRED GW CONTOUR INTERVAL (feet)

Note: TF-1 was not used in contouring as they did not agree with regional groundwater flow.

DRAFTED BY: JM

CHECKED BY: NK

REVIEWED BY: ATC

NORTH

GROUNDWATER MONITORING MAP
MARCH 21, 2012

BEL AIR XTRA FUELS
2476 CHURCHVILLE ROAD
BEL AIR, MARYLAND

Groundwater & Environmental Services, Inc.
2142 Priest Bridge Ct. Suite 1, Crofton, Maryland 21114

SCALE IN FEET: 0 — 40

DATE: **04-02-12**

FIGURE: **5**

TABLES

Table 1

HISTORIC LIQUID LEVEL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Well ID	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
FRW-1	401.19	01/15/2001	NR	-	-	-
	401.19	04/25/2005	9.10	-	-	392.09
	401.19	05/04/2005	9.27	-	-	391.92
	401.19	12/14/2005	13.61	-	-	387.58
	401.19	03/07/2006	10.90	-	-	390.29
	401.19	06/08/2006	12.72	-	-	388.47
	401.19	12/05/2006	11.12	-	-	390.07
	401.19	03/07/2007	10.44	-	-	390.75
	401.19	07/06/2007	11.54	-	-	389.65
	401.19	09/13/2007	14.74	-	-	386.45
	401.19	12/20/2007	15.10	-	-	386.09
	401.19	03/17/2008	13.40	-	-	387.79
	401.19	06/10/2008	12.65	-	-	388.54
	401.19	11/19/2009	10.50	-	-	390.69
	401.19	12/28/2009	10.50	-	-	390.69
			Well Abandoned			
FRW-2	400.36	01/15/2001	NR	-	-	-
	400.36	04/25/2005	8.94	-	-	391.42
	400.36	05/04/2005	8.74	-	-	391.62
	400.36	12/14/2005	12.88	-	-	387.48
	400.36	03/07/2006	10.53	-	-	389.83
	400.36	06/08/2006	12.88	-	-	387.48
	400.36	12/05/2006	10.55	-	-	389.81
	400.36	03/07/2007	10.05	-	-	390.31
	400.36	07/06/2007	11.19	-	-	389.17
	400.36	09/13/2007	13.53	-	-	386.83
	400.36	12/20/2007	15.30	-	-	385.06
	400.36	03/17/2008	13.12	-	-	387.24
	400.36	06/10/2008	11.88	-	-	388.48
	400.36	11/19/2009	11.60	-	-	388.76
	400.36	12/28/2009	11.60	-	-	388.76
			Well Abandoned			
MW-1	403.01	01/15/2001	NR	-	-	-
	403.01	04/25/2005	10.94	-	-	392.07
	403.01	05/04/2005	11.06	-	-	391.95
	403.01	12/14/2005	15.41	-	-	387.60
	403.01	03/07/2006	12.98	-	-	390.03
	403.01	06/08/2006	15.51	-	-	387.50
	403.01	09/12/2006	14.40	-	-	388.61
	403.01	12/05/2006	13.07	-	-	389.94
	403.01	03/07/2007	12.80	-	-	390.21
	403.01	07/06/2007	13.75	-	-	389.26
	403.01	09/13/2007	16.20	-	-	386.81
	403.01	12/20/2007	18.10	-	-	384.91
	403.01	03/17/2008	15.51	-	-	387.50
	403.01	06/10/2008	14.55	-	-	388.46
	403.01	11/19/2009	14.80	-	-	388.21
	403.01	12/28/2009	14.80	-	-	388.21
			Well Abandoned			

HISTORIC LIQUID LEVEL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Well ID	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-2	403.40	01/15/2001	NR	-	-	-
	403.40	04/25/2005	10.67	-	-	392.73
	403.40	05/04/2005	11.50	-	-	391.90
	403.40	12/14/2005	15.66	-	-	387.74
	403.40	03/07/2006	8.71	-	-	394.69
	403.40	06/08/2006	14.78	-	-	388.62
	403.40	12/05/2006	13.11	-	-	390.29
	403.40	03/07/2007	12.28	-	-	391.12
	403.40	07/06/2007	9.61	-	-	393.79
	403.40	09/13/2007	15.11	-	-	388.29
	403.40	12/20/2007	18.63	-	-	384.77
	403.40	03/17/2008	12.75	-	-	390.65
	403.40	06/10/2008	14.05	-	-	389.35
	403.40	11/19/2009	14.10	-	-	389.30
	403.40	12/28/2009	14.10	-	-	389.30
			Well Abandoned			
MW-3	403.71	01/15/2001	NR	-	-	-
	403.71	04/25/2005	11.46	-	-	392.25
	403.71	05/04/2005	11.73	-	-	391.98
	403.71	12/14/2005	16.11	-	-	387.60
	403.71	03/07/2006	13.47	-	-	390.24
	403.71	06/08/2006	15.13	-	-	388.58
	403.71	12/05/2006	13.47	-	-	390.24
	403.71	03/07/2007	13.23	-	-	390.48
	403.71	07/06/2007	14.46	-	-	389.25
	403.71	09/13/2007	16.98	-	-	386.73
	403.71	12/20/2007	18.80	-	-	384.91
	403.71	03/17/2008	16.31	-	-	387.40
	403.71	06/10/2008	15.10	-	-	388.61
	403.71	11/19/2009	14.74	-	-	388.97
	403.71	12/28/2009	14.74	-	-	388.97
	403.71	04/23/2010	10.10	-	-	393.61
			Well Abandoned			
MW-4	402.12	01/15/2001	NR	-	-	-
	402.12	04/25/2005	10.07	-	-	392.05
	402.12	05/04/2005	10.31	-	-	391.81
	402.12	03/07/2006	NR	-	-	-
			Well Abandoned			
MW-5	403.10	01/15/2001	NR	-	-	-
	403.10	04/25/2005	11.32	-	-	391.78
	403.10	05/04/2005	11.51	-	-	391.59
	403.10	12/14/2005	15.75	-	-	387.35
	403.10	03/07/2006	13.27	-	-	389.83
	403.10	06/08/2006	14.70	-	-	388.40
	403.10	12/05/2006	13.31	-	-	389.79
	403.10	03/07/2007	13.00	-	-	390.10
	403.10	07/06/2007	14.00	-	-	389.10
	403.10	09/13/2007	16.41	-	-	386.69
	403.10	12/20/2007	18.20	-	-	384.90

HISTORIC LIQUID LEVEL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Well ID	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-5	403.10	03/17/2008	15.97	-	-	387.13
(cont.)	403.10	06/10/2008	14.72	-	-	388.38
	403.10	11/19/2009	14.50	-	-	388.60
	403.10	12/28/2009	14.50	-	-	388.60
Well Abandoned						
MW-6	400.13	04/25/2005	8.68	-	-	391.45
	400.13	05/04/2005	8.77	-	-	391.36
	400.13	03/07/2006	NR	-	-	-
	400.13	06/08/2006	11.85	-	-	388.28
	400.13	09/12/2006	11.00	-	-	389.13
	400.13	12/05/2006	10.60	-	-	389.53
	400.13	03/07/2007	10.16	-	-	389.97
	400.13	07/06/2007	10.97	-	-	389.16
	400.13	09/13/2007	13.10	-	-	387.03
	400.13	12/20/2007	14.90	-	-	385.23
	400.13	03/17/2008	12.95	-	-	387.18
	400.13	06/10/2008	11.69	-	-	388.44
	400.13	11/19/2009	11.55	-	-	388.58
	400.13	12/28/2009	11.55	-	-	388.58
Well Abandoned						
MW-7	402.73	01/15/2001	NR	-	-	-
	402.73	04/25/2005	10.88	-	-	391.85
	402.73	05/04/2005	10.91	-	-	391.82
	402.73	12/14/2005	15.21	-	-	387.52
	402.73	03/07/2006	12.80	-	-	389.93
	402.73	06/08/2006	14.15	-	-	388.58
	402.73	09/12/2006	13.92	-	-	388.81
	402.73	12/05/2006	12.88	-	-	389.85
	402.73	03/07/2007	12.55	-	-	390.18
	402.73	07/06/2007	13.46	-	-	389.27
	402.73	09/13/2007	15.80	-	-	386.93
	402.73	12/20/2007	17.18	-	-	385.55
	402.73	03/17/2008	15.52	-	-	387.21
	402.73	06/10/2008	14.25	-	-	388.48
	402.73	11/19/2009	14.52	-	-	388.21
	402.73	12/28/2009	11.91	-	-	390.82
	402.73	02/15/2010	11.72	-	-	391.01
	402.73	04/23/2010	10.10	-	-	392.63
	402.73	04/11/2011	13.08	-	-	389.65
	402.73	09/12/2011	14.25	-	-	388.48
	402.73	12/23/2011	12.98	-	-	389.75
	402.73	03/26/2012	13.16	-	-	389.57
MW-8	401.13	09/12/2011	13.83	-	-	387.30
	401.13	12/23/2011	12.50	-	-	388.63
	401.13	03/26/2012	12.68	-	-	388.45
MW-9A	400.00	04/25/2005	8.61	-	-	391.39
	400.00	05/04/2005	8.65	-	-	391.35
	400.00	03/07/2006	10.25	-	-	389.75
	400.00	06/08/2006	DRY	-	-	-
	400.00	12/05/2006	10.37	-	-	389.63
	400.00	03/07/2007	9.99	-	-	390.01
	400.00	07/06/2007	10.72	-	-	389.28
	400.00	09/13/2007	DRY	-	-	-

HISTORIC LIQUID LEVEL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Well ID	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-9A	400.00	12/20/2007	DRY	-	-	-
(cont.)	400.00	03/17/2008	12.66	-	-	387.34
	400.00	06/10/2008	11.44	-	-	388.56
	400.00	11/19/2009	DRY	-	-	-
Well Abandoned						
MW-9	399.97	01/15/2001	NR	-	-	-
	399.97	04/25/2005	8.53	-	-	391.44
	399.97	05/04/2005	8.44	-	-	391.53
	399.97	03/07/2006	NR	-	-	-
	399.97	06/08/2006	12.41	-	-	387.56
	399.97	09/12/2006	11.15	-	-	388.82
	399.97	12/05/2006	11.37	-	-	388.60
	399.97	03/07/2007	10.93	-	-	389.04
	399.97	07/06/2007	11.70	-	-	388.27
	399.97	09/13/2007	13.92	-	-	386.05
	399.97	12/20/2007	15.70	-	-	384.27
	399.97	03/17/2008	13.70	-	-	386.27
	399.97	06/10/2008	12.48	-	-	387.49
	399.97	12/28/2009	11.92	-	-	388.05
	399.97	02/15/2010	10.31	-	-	389.66
	399.97	04/23/2010	8.78	-	-	391.19
	399.97	04/11/2011	11.52	-	-	388.45
	399.97	09/12/2011	12.75	-	-	387.22
	399.97	12/23/2011	11.54	-	-	388.43
	399.97	03/26/2012	11.62	-	-	388.35
MW-10	400.36	11/19/2009	12.61	-	-	387.75
	400.36	12/28/2009	11.84	-	-	388.52
	400.36	02/15/2010	10.40	-	-	389.96
	400.36	04/23/2010	8.78	-	-	391.58
	400.36	04/11/2011	11.75	-	-	388.61
	400.36	09/12/2011	12.98	-	-	387.38
	400.36	12/23/2011	11.65	-	-	388.71
	400.36	03/26/2012	11.75	-	-	388.61
MW-11	401.07	12/28/2009	11.85	-	-	389.22
	401.07	02/15/2010	10.93	-	-	390.14
	401.07	04/23/2010	9.45	-	-	391.62
	401.07	04/11/2011	12.28	-	-	388.79
	401.07	09/12/2011	13.47	-	-	387.60
	401.07	12/23/2011	12.15	-	-	388.92
	401.07	03/26/2012	12.36	-	-	388.71
MW-12	400.12	09/12/2011	12.85	-	-	387.27
	400.12	12/23/2011	11.50	-	-	388.62
	400.12	03/26/2012	11.62	-	-	388.5
MW-13	401.90	09/12/2011	14.35	-	-	387.55
	401.90	12/23/2011	13.07	-	-	388.83
	401.90	03/26/2012	13.25	-	-	388.65
MW-14	400.45	09/12/2011	12.67	-	-	387.78
	400.45	12/23/2011	11.33	-	-	389.12
	400.45	03/26/2012	11.35	-	-	389.1

HISTORIC LIQUID LEVEL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Well ID	Top of Casing Elevation (feet)	Date	Depth to Water (feet)	Depth to LNAPL (feet)	LNAPL Thickness (feet)	Groundwater Elevation (feet)
MW-15D	401.88	12/23/2011	12.70	-	-	389.18
	401.88	03/26/2012	13.00	-	-	388.88
MW-15S	401.83	12/23/2011	12.60	-	-	389.23
	401.83	03/26/2012	12.87	-	-	388.96
MW-16	401.03	09/12/2011	13.47	-	-	387.56
	401.03	12/23/2011	12.11	-	-	388.92
	401.03	03/26/2012	12.35	-	-	388.68
RW-3	403.14	01/15/2001	NR	-	-	-
	403.14	04/25/2005	11.06	-	-	392.08
	403.14	05/04/2005	11.24	-	-	391.90
	403.14	12/14/2005	15.57	-	-	387.57
	403.14	03/07/2006	13.05	-	-	390.09
	403.14	06/08/2006	14.58	-	-	388.56
	403.14	09/12/2006	14.23	-	-	388.91
	403.14	12/05/2006	13.05	-	-	390.09
	403.14	03/07/2007	12.71	-	-	390.43
	403.14	07/06/2007	13.91	-	-	389.23
	403.14	09/13/2007	16.40	-	-	386.74
	403.14	12/20/2007	18.15	-	-	384.99
	403.14	03/17/2008	13.87	-	-	389.27
	403.14	06/10/2008	14.58	-	-	388.56
	403.14	11/19/2009	13.00	-	-	390.14
	403.14	12/28/2009	13.00	-	-	390.14
Well Abandoned						
RW-17	-	03/26/2012	12.02	-	-	-
RW-18	-	03/26/2012	12.10	-	-	-
RW-19	-	03/26/2012	11.28	-	-	-
RW-20	-	03/26/2012	11.42	-	-	-
TF-1	400.62	03/07/2006	DRY	-	-	-
	400.62	06/08/2006	DRY	-	-	-
	400.62	12/05/2006	DRY	-	-	-
	400.62	03/07/2007	DRY	-	-	-
	400.62	07/06/2007	DRY	-	-	-
	400.62	09/13/2007	DRY	-	-	-
	400.62	12/20/2007	DRY	-	-	-
	400.62	03/17/2008	DRY	-	-	-
	400.62	06/10/2008	11.48	-	-	389.14
	400.62	02/15/2010	10.42	-	-	390.20
	400.62	06/17/2010	10.51	-	-	390.11
	400.62	09/12/2011	10.98	-	-	389.64
	400.62	12/23/2011	10.90	-	-	389.72
TF-2	401.64	03/07/2006	NR	-	-	-
	401.64	06/08/2006	DRY	-	-	-
	401.64	12/05/2006	12.63	-	-	389.01
	401.64	07/06/2007	DRY	-	-	-
	401.64	09/13/2007	DRY	-	-	-
	401.64	12/20/2007	DRY	-	-	-
	401.64	03/17/2008	DRY	-	-	-
	401.64	06/10/2008	DRY	-	-	-
	401.64	02/15/2010	11.41	-	-	390.23
	401.64	06/17/2010	11.51	-	-	390.13
	401.64	09/12/2011	DRY	-	-	-
	401.64	12/23/2011	DRY	-	-	-

LNAPL = Light Non-Aqueous Phase Liquids
NR = Not Recorded

Table 2

GROUNDWATER ANALYTICAL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Product (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)
GW Clean-up Standards for Type I and II Aquifers						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MEAT Groundwater Guidance Values						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MW-1	01/15/01	403.01	-	-	-	**13,000**	**11,000**	**1,300**	9,700	35,000	**8,400**	**11,000**	**89,000**
	04/25/05	403.01	10.94	392.07	-	**3,700**	**8,000**	**1,700**	**13,000**	26,400	**650**	-	-
	05/04/05	403.01	11.06	391.95	-	-	-	-	-	-	-	-	-
	12/14/05	403.01	15.41	387.60	-	0.7	1.4	0.57	24	26.67	0.78	**3,760**	**841**
	03/07/06	403.01	12.98	390.03	-	**130**	266	57.6	230	683.6	**104**	-	-
	06/08/06	403.01	15.51	387.50	-	-	-	-	-	-	-	-	-
	09/12/06	403.01	14.40	388.61	-	4.6	ND<1.0	ND<1.0	ND<1.0	4.6	**246**	-	-
	12/05/06	403.01	13.07	389.94	-	**11.8**	4.9	3.9	8.3	28.9	**25.1**	**526**	**240**
	03/07/07	403.01	12.80	390.21	-	0.82 J	0.68 J	0.20 J	1.1	2.80	ND<1.0	-	-
	07/06/07	403.01	13.75	389.26	-	1.2	1.7	1.9	4.9	9.7	1.2	**1,540**	ND<200
	09/13/07	403.01	16.20	386.81	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	0.77 J	-	-
	12/20/07	403.01	18.10	384.91	-	-	-	-	-	-	-	-	-
	03/17/08	403.01	15.51	387.50	-	0.44 J	1.9	1.1	13.0	16.44	5.1	-	-
	06/10/08	403.01	14.55	388.46	-	**5.2**	2.0	0.89 J	2.0	10.09	4.3	**833**	ND<200
	11/19/09	403.01	14.80	388.21	-	-	-	-	-	-	-	-	-
	12/28/09	403.01	14.80	388.21	-	-	-	-	-	-	-	-	-
Abandoned													
MW-2	01/15/01	403.40	-	-	-	<2.0	<2.0	<2.0	<2.0	<8.0	13	<600	<200
	04/25/05	403.40	10.67	392.73	-	4.0	5.0	8.0	21	38.0	2.0	-	-
	05/04/05	403.40	11.50	391.90	-	-	-	-	-	-	-	-	-
	12/14/05	403.40	15.66	387.74	-	2.2	5.0	6.5	11.4	25.1	3.4	**8,400**	<200
	03/07/06	403.40	8.71	394.69	-	-	-	-	-	-	-	-	-
	06/08/06	403.40	14.78	388.62	-	-	-	-	-	-	-	-	-
	12/05/06	403.40	13.11	390.29	-	3.5	17.2	4.6	5.6	30.9	0.44	**620**	ND(200)
	03/07/07	403.40	12.28	391.12	-	-	-	-	-	-	-	-	-
	07/06/07	403.40	9.61	393.79	-	ND<1.0	2.7	ND<1.0	ND<1.0	2.7	ND<1.0	**1,660**	ND<200
	09/13/07	403.40	15.11	388.29	-	-	-	-	-	-	-	-	-
	12/20/07	403.40	18.63	384.77	-	-	-	-	-	-	-	-	-
	03/17/08	403.40	12.75	390.65	-	-	-	-	-	-	-	-	-
	06/10/08	403.40	14.05	389.35	-	ND<1.0	1.1	ND<1.0	ND<1.0	1.1	ND<1.0	**2,080**	ND<200
	11/19/09	403.40	14.10	389.30	-	-	-	-	-	-	-	-	-
	12/28/09	403.40	14.10	389.30	-	-	-	-	-	-	-	-	-
Abandoned													
MW-3	01/15/01	403.71	-	-	-	<1.0	<1.0	<1.0	<1.0	<4.0	3.0	<500	<100
	04/25/05	403.71	11.46	392.25	-	<0.5	<0.7	<0.8	<0.8	<2.8	2.0	-	-
	05/04/05	403.71	11.73	391.98	-	-	-	-	-	-	-	-	-
	12/14/05	403.71	16.11	387.60	-	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<100	<200
	03/07/06	403.71	13.47	390.24	-	-	-	-	-	-	-	-	-
	06/08/06	403.71	15.13	388.58	-	-	-	-	-	-	-	-	-
	12/05/06	403.71	13.47	390.24	-	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(4.0)	2.1	ND(110)	ND(200)
	03/07/07	403.71	13.23	390.48	-	-	-	-	-	-	-	-	-
	07/06/07	403.71	14.46	389.25	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	0.35 J	ND<100	ND<200
	09/13/07	403.71	16.98	386.73	-	-	-	-	-	-	-	-	-
	12/20/07	403.71	18.80	384.91	-	-	-	-	-	-	-	-	-
	03/17/08	403.71	16.31	387.40	-	-	-	-	-	-	-	-	-
	06/10/08	403.71	15.10	388.61	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	0.36 J	**212**	ND<200
	11/19/09	403.71	14.74	388.97	-	-	-	-	-	-	-	-	-
	12/28/09	403.71	14.74	388.97	-	-	-	-	-	-	-	-	-
	04/23/10	403.71	10.10	393.61	-	-	-	-	-	-	-	-	-
Abandoned													
MW-4	01/15/01	402.12	-	-	-	<1.0	<1.0	<1.0	<1.0	<4.0	<1.0	<500	<100
	04/25/05	402.12	10.07	392.05	-	-	-	-	-	-	-	-	-
	05/04/05	402.12	10.31	391.81	-	-	-	-	-	-	-	-	-
	03/07/06	402.12	NR	-	-	-	-	-	-	-	-	-	-
Abandoned													

Table 2

GROUNDWATER ANALYTICAL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Product (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)
GW Clean-up Standards for Type I and II Aquifers						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MEAT Groundwater Guidance Values						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MW-5	01/15/01	403.10	-	-	-	**150**	25	11	150	336	**1,500**	**2,700**	**5,400**
	04/25/05	403.10	11.32	391.78	-	-	-	-	-	-	-	-	-
	05/04/05	403.10	11.51	391.59	-	**11**	<0.7	<0.8	<0.8	11	**300**	-	-
	12/14/05	403.10	15.75	387.35	-	**7.5**	0.39	0.92	1.6	10.41	**186**	**597**	**543**
	03/07/06	403.10	13.27	389.83	-	-	-	-	-	-	-	-	-
	06/08/06	403.10	14.70	388.40	-	-	-	-	-	-	-	-	-
	12/05/06	403.10	13.31	389.79	-	**18.2**	ND(2.5)	3.9	5.1	27.2	**280**	**194**	**478**
	03/07/07	403.10	13.00	390.10	-	-	-	-	-	-	-	-	-
	07/06/07	403.10	14.00	389.10	-	**18.1**	ND<2.0	ND<2.0	1.3 J	19.4	**729**	**314**	**846**
	09/13/07	403.10	16.41	386.69	-	-	-	-	-	-	-	-	-
	12/20/07	403.10	18.20	384.90	-	-	-	-	-	-	-	-	-
	03/17/08	403.10	15.97	387.13	-	-	-	-	-	-	-	-	-
	06/10/08	403.10	14.72	388.38	-	**6.6**	ND<1.0	ND<1.0	ND<1.0	6.6	**78.9**	**291**	**213**
	11/19/09	403.10	14.50	388.60	-	-	-	-	-	-	-	-	-
	12/28/09	403.10	14.50	388.60	-	-	-	-	-	-	-	-	-
Abandoned													
MW-6	04/25/05	400.13	8.68	391.45	-	-	-	-	-	-	-	-	-
	05/04/05	400.13	8.77	391.36	-	<3.0	<4.0	<4.0	<5.0	<16.0	**6,400**	-	-
	03/07/06	400.13	NR	-	-	-	-	-	-	-	-	-	-
	06/08/06	400.13	11.85	388.28	-	-	-	-	-	-	-	-	-
	09/12/06	400.13	11.00	389.13	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	**380**	-	-
	12/05/06	400.13	10.60	389.53	-	ND(10)	ND(10)	ND(10)	ND(10)	ND(40)	**1,130**	ND(110)	**102**
	03/07/07	400.13	10.16	389.97	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	ND<1.0	-	-
	07/06/07	400.13	10.97	389.16	-	**10.7**	ND<10	ND<10	ND<10	10.7	**3,050**	ND<100	**2,530**
	09/13/07	400.13	13.10	387.03	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	**30.0**	-	-
	12/20/07	400.13	14.90	385.23	-	-	-	-	-	-	-	-	-
	03/17/08	400.13	12.95	387.18	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	**26.3**	-	-
	06/10/08	400.13	11.69	388.44	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	**151**	ND<100	**273**
	11/19/09	400.13	11.55	388.58	-	-	-	-	-	-	-	-	-
	12/28/09	400.13	11.55	388.58	-	-	-	-	-	-	-	-	-
Abandoned													
MW-7	01/15/01	402.73	-	-	-	**1,600**	**4,600**	450	9,700	16,350	**220,000**	**30,000**	**190,000**
	04/25/05	402.73	10.88	391.85	-	**2,000**	**9,600**	**2,000**	**18,000**	31,600	**84,000**	-	-
	05/04/05	402.73	10.91	391.82	-	-	-	-	-	-	-	-	-
	12/14/05	402.73	15.21	387.52	-	-	-	-	-	-	-	-	-
	03/07/06	402.73	12.80	389.93	-	**2,600**	**12,800**	**2,690**	**23,300**	41,390	**31,400**	-	-
	06/08/06	402.73	14.15	388.58	-	-	-	-	-	-	-	-	-
	09/12/06	402.73	13.92	388.81	-	**1,180**	**7,530**	**1,820**	**17,500**	28,030	**40,200**	-	-
	12/05/06	402.73	12.88	389.85	-	**1,640**	**7,150**	**1,820**	**15,400**	26,010	**26,100**	13.2	**100**
	03/07/07	402.73	12.55	390.18	-	**654**	**4,700**	**1,060**	9,910	16,324	**21,400**	-	-
	07/06/07	402.73	13.46	389.27	-	**874**	**3,900**	**1,250**	**10,100**	16,124	**24,400**	**13,700**	**65,600**
	09/13/07	402.73	15.80	386.93	-	**1,170**	**9,360**	**1,480**	**12,200**	24,210	**26,100**	-	-
	12/20/07	402.73	17.18	385.55	-	-	-	-	-	-	-	-	-
	03/17/08	402.73	15.52	387.21	-	**637**	**2,420**	**933**	**11,400**	15,390	**16,600**	-	-
	06/10/08	402.73	14.25	388.48	-	**1,500**	**6,400**	**843**	**12,200**	20,943	**31,000**	**23,300**	**77,800**
	11/19/09	402.73	14.52	388.21	-	-	-	-	-	-	-	-	-
	12/28/09	402.73	11.91	390.82	-	**398**	**1,970**	**995**	5,600	8,963	**4,950A**	-	**36,200**
	02/15/10	402.73	11.72	391.01	-	**1,000**	**3,410**	**1,550**	9,340	15,300	**5,000**	**8,350**	**48,700**
	04/23/10	402.73	10.10	392.63	-	**863**	**2,720**	**1,660**	**10,400**	15,643	**4,390**	43.2	15.5
	04/11/11	402.73	13.08	389.65	-	**867**	**2,560**	**1,750**	7,460	12,637	**1,590**	**17,400**	**50,800**
	09/12/11	402.73	14.25	388.48	-	**336**	**1,360**	**1,210**	4,540	7,446	**771**	**24,800**	**28,300**
	12/23/11	402.73	12.98	389.75	-	**141**	346	**942**	3,730	5,159	**362**	**13,100**	**22,800**
	03/26/12	402.73	13.16	389.57	-	**246**	442	**1,310**	4,430	6,428	**340**	**15,900**	**33,200**

Table 2

GROUNDWATER ANALYTICAL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Product (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)
GW Clean-up Standards for Type I and II Aquifers						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MEAT Groundwater Guidance Values						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MW-8	09/12/11	401.13	13.83	387.30	-	0.56 J	ND<0.15	ND<0.21	ND<0.17	0.56	**54.9**	ND<3.5	ND<16
	12/23/11	401.13	12.50	388.63	-	**31.4**	0.42 J	3.8	23.2	58.82	**299**	**190**	**627**
	03/26/12	401.13	12.68	388.45	-	**14.9**	ND<0.15	ND<0.21	5.4	20.3	**245**	**714**	**620**
MW-9A	04/25/05	400.00	8.61	391.39	-	-	-	-	-	-	-	-	-
	05/04/05	400.00	8.65	391.35	-	**5.0**	12	<8.0	<8.0	17.0	**16,000**	-	-
	03/07/06	400.00	10.25	389.75	-	-	-	-	-	-	-	-	-
	06/08/06	400.00	DRY	-	-	-	-	-	-	-	-	-	-
	12/05/06	400.00	10.37	389.63	-	ND(1.0)	ND(1.0)	ND(1.0)	ND(1.0)	ND(4.0)	**602**	**307**	**917**
	03/07/07	400.00	9.99	390.01	-	-	-	-	-	-	-	-	-
	07/06/07	400.00	10.72	389.28	-	ND<100	ND<100	ND<100	ND<100	ND<400	**24,100**	**193**	**19,800**
	09/13/07	400.00	DRY	-	-	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
	12/20/07	400.00	DRY	-	-	-	-	-	-	-	-	-	-
	03/17/08	400.00	12.66	387.34	-	-	-	-	-	-	-	-	-
	06/10/08	400.00	11.44	388.56	-	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<4.0	0.83 J	ND<100	ND<200
	11/19/09	400.00	DRY	-	-	-	-	-	-	-	-	-	-
Abandoned													
MW-9	01/15/01	399.97	-	-	-	3.0	<1.0	<1.0	<1.0	3.0	**2,300**	<500	**1,400**
	04/25/05	399.97	8.53	391.44	-	-	-	-	-	-	-	-	-
	05/04/05	399.97	8.44	391.53	-	**180**	120	120	280	700	**56,000**	-	-
	03/07/06	399.97	NR	-	-	-	-	-	-	-	-	-	-
	06/08/06	399.97	12.41	387.56	-	-	-	-	-	-	-	-	-
	09/12/06	399.97	11.15	388.82	-	0.25 J	ND<1.0	ND<1.0	ND<1.0	0.25	**205**	-	-
	12/05/06	399.97	11.37	388.60	-	**67.3**	16.1	80.0	115	278.4	**50,900**	**151**	**52.9**
	03/07/07	399.97	10.93	389.04	-	**5.9**	0.80 J	0.92 J	5.0	12.62	**3,210**	-	-
	07/06/07	399.97	11.70	388.27	-	**118**	20.3 J	222	631	991.3	**7,150**	**1,590**	**10,600**
	09/13/07	399.97	13.92	386.05	-	9.4	0.76 J	12.8	27.9	50.86	**473**	-	-
	12/20/07	399.97	15.70	384.27	-	-	-	-	-	-	-	-	-
	03/17/08	399.97	13.70	386.27	-	0.36 J	ND<1.0	ND<1.0	ND<1.0	0.36	**243**	-	-
	06/10/08	399.97	12.48	387.49	-	0.48 J	ND<1.0	ND<1.0	ND<1.0	0.48	**175**	**182**	**1,130**
	12/28/09	399.97	11.92	388.05	-	<1.0	<1.0	<1.0	0.34	0.34	0.68	-	<32
	02/15/10	399.97	10.31	389.66	-	**22.9**	4.2	80.3	19.5	126.9	**79.8**	**858**	**1,380**
	04/23/10	399.97	8.78	391.19	-	**19.5**	5.4	22.3	60.6	107.8	**187**	**367**	**848**
	04/11/11	399.97	11.52	388.45	-	ND<0.23	ND<0.30	ND<0.27	ND<0.25	ND<1.05	15.5	ND<39	ND<11
	09/12/11	399.97	12.75	387.22	-	0.57 J	ND<0.15	1.7	ND<0.17	2.27	10.8	**439**	ND<16
	12/23/11	399.97	11.54	388.43	-	3.9	0.32 J	21.7	1.1	27.02	11.4	**406**	**359**
	03/26/12	399.97	11.62	388.35	-	39.4	5.5	194	269	507.9	76.6	**1,910**	**3,060**
MW-10	11/19/09	100.00	12.61	87.39	-	-	-	-	-	-	-	-	-
	12/28/09	400.36	11.84	388.52	-	**1,200**	**13,800**	**2,590**	**17,000**	34,590	**163,000A**	-	**245,000**
	02/15/10	400.36	10.40	389.96	-	**2,310**	**11,800**	**2,650**	**15,500**	32,260	**139,000**	**12,800**	**246,000**
	04/23/10	400.36	8.78	391.58	-	**1,780**	**14,700**	**3,010**	**19,200**	38,690	**162,000**	15.2	**192**
	04/11/11	400.36	11.75	388.61	-	**2,570**	**6,450**	**3,040**	**14,300**	26,360	**75,800**	**15,300**	**149,000**
	09/12/11	400.36	12.98	387.38	-	**2,680**	**7,910**	**2,970**	**14,800**	28,360	**65,900**	**20,100**	**148,000**
	12/23/11	400.36	11.65	388.71	-	**2,760**	**6,680**	**3,030**	**14,300**	26,770	**42,200**	**638**	**122,000**
	03/26/12	400.36	11.75	388.61	-	**1,790**	**5,500**	**2,190**	**9,800**	19,280	**22,000**	**17,000**	**109,000**
MW-11	12/28/09	401.07	11.85	389.22	-	**513**	317	278	726	1,834	**1,590**	-	**9,430**
	02/15/10	401.07	10.93	390.14	-	**1,010**	**1,550**	**759**	2,510	5,829	**2,690**	**4,430**	**24,300**
	04/23/10	401.07	9.45	391.62	-	**936**	772	**724**	1,990	4,422	**1,920**	5.53	12.1
	04/11/11	401.07	12.28	388.79	-	**175**	125	140	245	685	**1,480**	**2,210**	**5,440**
	09/12/11	401.07	13.47	387.60	-	**16.4**	2.3	10.4	21.6	50.7	**596**	**1,660**	**1,230**
	12/23/11	401.07	12.15	388.92	-	**604**	**1,880**	594	2,490	5,568	**1,370**	**3,260**	**17,300**
	03/26/12	401.07	12.36	388.71	-	**940**	**3,480**	**859**	3,720	8,999	**1,400**	**5,320**	**36,500**
MW-12	09/12/11	400.12	12.85	387.27	-	**1,150**	**4,460**	**2,140**	**10,700**	18,450	**95,900**	**16,800**	**161,000**
	12/23/11	400.12	11.50	388.62	-	**1,040**	**4,950**	**2,130**	**11,100**	19,220	**89,500**	**12,000**	**147,000**
	03/26/12	400.12	11.62	388.5	-	**1,170**	**3,080**	**1,930**	**8,650**	14,830	**82,800**	**19,500**	**191,000**

Table 2

GROUNDWATER ANALYTICAL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Product (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)
GW Clean-up Standards for Type I and II Aquifers						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MEAT Groundwater Guidance Values						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MW-13	09/12/11	401.90	14.35	387.55	-	-	-	-	-	-	-	-	-
	12/23/11	401.90	13.07	388.83	-	ND<0.22	ND<0.15	ND<0.21	ND<0.17	ND<0.75	ND<0.18	*	ND<16
	03/26/12	401.9	13.25	388.65	-	ND<0.22	ND<0.15	ND<0.21	ND<0.17	ND<0.75	0.49 J	ND<3.5	ND<16
MW-14	09/12/11	400.45	12.67	387.78	-	**8.8**	ND<0.73	ND<1.1	ND<0.87	8.8	**5,360**	**537**	**6,150**
	12/23/11	400.45	11.33	389.12	-	**13.6**	ND<1.5	ND<2.1	3.6 J	17.2	**3,730**	**332**	**4,570**
	03/26/12	400.45	11.35	389.1	-	**11.4**	ND<1.5	ND<2.1	ND<1.7	11.4	**1,900**	**826**	**3,720**
MW-15D	12/23/11	401.88	12.70	389.18	-	ND<0.22	ND<0.15	ND<0.21	ND<0.17	ND<0.75	**31.7**	**130**	ND<16
	03/26/12	401.88	13.00	388.88	-	ND<0.22	ND<0.15	ND<0.21	ND<0.17	ND<0.75	1.9	ND<3.5	ND<16
MW-15S	12/23/11	401.83	12.60	389.23	-	ND<0.22	ND<0.15	ND<0.21	ND<0.17	ND<0.75	ND<0.18	ND<3.5	ND<16
	03/26/12	401.83	12.87	388.96	-	ND<0.22	ND<0.15	ND<0.21	ND<0.17	ND<0.75	ND<0.18	ND<3.5	ND<16
MW-16	09/12/11	401.03	13.47	387.56	-	-	-	-	-	-	-	-	-
	12/23/11	401.03	12.11	388.92	-	**16.4 J**	ND<2.9	4.9 J	5.2 J	26.5	**11,000**	*	**13,300**
	03/26/12	401.03	12.35	388.68	-	**30.1**	10.5 J	ND<4.2	225	265.6	**7,660**	**2,210**	**12,800**
RW-3	01/15/01	403.14	-	-	-	**700**	190	<2.0	780	1,670	**5,700**	**5,500**	**11,000**
	04/25/05	403.14	11.06	392.08	-	**52**	59	120	800	1,031	**490**	-	-
	05/04/05	403.14	11.24	391.90	-	-	-	-	-	-	-	-	-
	12/14/05	403.14	15.57	387.57	-	**160**	57.7	46.1	389	652.8	**134**	**1,770**	**3,630**
	03/07/06	403.14	13.05	390.09	-	**55**	21.9	55.3	255	387.2	**419**	-	-
	06/08/06	403.14	14.58	388.56	-	-	-	-	-	-	-	-	-
	09/12/06	403.14	14.23	388.91	-	**10.5**	7.4	27.7	145	190.6	**54.0**	-	-
	12/05/06	403.14	13.05	390.09	-	**48.1**	49.4	62.6	188	348.1	**271**	**890**	**271**
	03/07/07	403.14	12.71	390.43	-	0.50 J	0.29 J	1.4	5.9	8.09	**6.6**	-	-
	07/06/07	403.14	13.91	389.23	-	**477**	150	258	715	1,600	**299**	**1,990**	**6,190**
	09/13/07	403.14	16.40	386.74	-	**236**	35.2	68.5	196	535.7	**172**	-	-
	12/20/07	403.14	18.15	384.99	-	-	-	-	-	-	-	-	-
	03/17/08	403.14	13.87	389.27	-	**70.1**	24.7	121	358	573.8	**75.5**	-	-
	06/10/08	403.14	14.58	388.56	-	**63.6**	14.3	59.7	202	339.6	**243**	**3,690**	**5,160**
	11/19/09	403.14	13.00	390.14	-	-	-	-	-	-	-	-	-
	12/28/09	403.14	13.00	390.14	-	-	-	-	-	-	-	-	-
Abandoned													
RW-17	03/26/12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-18	03/26/12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-19	03/26/12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
RW-20	03/26/12	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
TF-1	03/07/06	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	06/08/06	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	12/05/06	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	03/07/07	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	07/06/07	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	09/13/07	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	12/20/07	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	03/17/08	400.62	DRY	-	-	-	-	-	-	-	-	-	-
	06/10/08	400.62	11.48	389.14	-	-	-	-	-	-	-	-	-
	02/15/10	400.62	10.42	390.20	-	0.23 J	4.3	1.8	87.7	94.03	0.83 J	**4,750**	**1,140**
	06/17/10	400.62	10.51	390.11	-	-	-	-	-	-	-	-	-
	09/12/11	400.62	10.98	389.64	-	3.4	127	28.2	1,270	1,428.6	3.6	*	**4,410**
	12/23/11	400.62	10.90	389.72	-	ND<0.22	1.7	0.80 J	19.7	22.20	1.5	*	**206**

Table 2

GROUNDWATER ANALYTICAL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Monitoring Well	Date	Top of Casing (ft)	Depth to Water (ft)	GW Elevation (ft)	Depth to Product (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)
GW Clean-up Standards for Type I and II Aquifers						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
MEAT Groundwater Guidance Values						**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**47**	**47**
TF-2	03/07/06	401.64	NR	-	-	-	-	-	-	-	-	-	-
	06/08/06	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	12/05/06	401.64	12.63	389.01	-	-	-	-	-	-	-	-	-
	07/06/07	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	09/13/07	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	12/20/07	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	03/17/08	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	06/10/08	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	02/15/10	401.64	11.41	390.23	-	ND<0.23	0.55 J	0.96 J	5.3	6.81	7.7	**2,160**	ND<32
	06/17/10	401.64	11.51	390.13	-	-	-	-	-	-	-	-	-
	09/12/11	401.64	DRY	-	-	-	-	-	-	-	-	-	-
	12/23/11	401.64	DRY	-	-	-	-	-	-	-	-	-	-

All samples were placed on ice in a cooler and transported under a Chain of Custody to Accutest Laboratories of Dayton, NJ. All samples were analyzed within the applicable holding time with a dilution of 10% Hydrochloric Acid (HCL) as a preservative. All samples were sampled using a disposable bailer & were purged three volumes, prior to sampling. Regulatory Standards are based on the Maryland Department of the Environment Maryland Environmental Assessment Technology Generic Number Standards (February 2003).

Bolded values indicate concentrations above MDE standards.
<# or ND(#) = Less than the method detection limit of #
µg/L = Micrograms/liter
BTEX = Benzene, toluene, ethylbenzene, xylenes
J = Estimated Concentration
MTBE = Methyl-tertiary Butyl-ether
NA = Not Available or not analyzed for that specific compound
ND = Not detected above laboratory method detection limits
NR = Not reported
TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics
TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics
* or DRY = Insufficent water to collect a groundwater sample for analysis

Table 3

POTABLE WELL SAMPLING RESULTS SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Monitoring Well	Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	Total BTEX (µg/L)	MTBE (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)
MDE Clean-up Standards for Type I and II Aquifers		**5**	**1,000**	**700**	**10,000**	**NA**	**20**	**NA**	**NA**	**NA**	**NA**
2319 CHURCHVILLE RD	08/29/2011	ND<0.034	ND<0.067	ND<0.20	ND<0.044	ND<0.345	0.45 J	ND<0.16	ND<0.10	ND<0.076	ND<0.14
2317 CHURCHVILLE RD	09/08/2011	ND<0.034	ND<0.067	ND<0.20	ND<0.044	ND<0.345	0.98	ND<1.2	ND<0.10	ND<0.076	ND<0.14

Notes:

ND = Not detected above laboratory method detection limits
<# = Less than the method detection limit of #
µg/l = micrograms per liter
BTEX = Benzene, toluene, ethylbenzene, xylenes
MTBE = Methyl tert-Butyl Ether
DIPE = Diisopropyl Ether
ETBE = Ethyl tert-Butyl Ether
TAME = tert-Amyl Methyl Ether
TBA = tert-Butyl Alcohol
J = Estimated Concentration
MDE = Maryland Department of the Environment

Table 4

SOIL ANALYTICAL DATA SUMMARY

Bel Air Xtra Fuels
2476 Churchville Rd
Bel Air, Maryland

Soil Sample ID	Date	Depth (ft)	Benzene (µg/kg)	Toluene (µg/kg)	Ethylbenzene (µg/kg)	Total Xylenes (µg/kg)	Total BTEX (µg/kg)	MTBE (µg/kg)	TPH-DRO (µg/kg)	TPH-GRO (µg/kg)
MDE Protection of Groundwater Standards			**1.9**	**27,000**	**15,000**	**3,000**	**-**	**12**	**230,000**	**230,000**
MW-10	11/19/09	18-20	**44.9**	612	106	726	1,492	**54,400**	50.9	ND<2.8
MW-11	12/14/2009	23-25	<0.46	<0.39	<0.50	0.7	0.7	**52.8**	ND<1.5	ND<3.5
MW-12 16.0-18.0	08/24/2011	16-18	ND<0.18	ND<0.52	ND<0.20	ND<0.25	ND<1.15	**2,420**	ND<380	ND<2,500
MW-13 17.5-19.0	08/29/2011	17.5-19	ND<0.18	ND<0.53	ND<0.21	ND<0.26	ND<1.18	ND<0.25	161,000	ND<2,400
MW-14 17.0-19.0	08/24/2011	17-19	ND<0.18	ND<0.51	ND<0.20	ND<0.25	ND<1.14	**104.0**	ND<350	ND<2,400
MW-15S 15.0-20.0	12/08/2011	15-20	ND<0.18	ND<0.51	ND<0.20	ND<0.25	ND<1.14	ND<0.24	ND<390	ND<2,600
MW-15D 40.0-45.0	12/09/2011	40-45	ND<0.15	ND<0.43	ND<0.17	ND<0.21	ND<0.96	ND<0.20	ND<340	ND<2,100
MW-16 17.0-18.0	08/29/2011	17-18	ND<0.17	ND<0.48	ND<0.19	ND<0.24	ND<1.08	**365**	27,200	ND<2,400

Bolded values indicate concentrations above MDE standards.
ND< = Analyte was not detected, the method detection limit is given.
J = Indicates an estimated value, between the detection limit and the reporting limit
Total BTEX = Sum of Benzene, Toluene, Ethylbenzene and Total Xylenes
MTBE = Methyl-tertiary Butyl Ether
MDE Protection of Groundwater Standards are from the revised MEAT document date June 2008

ft = Feet
MW = Monitoring Well
µg/kg= micrograms per kilogram
TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics
TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics

APPENDIX A

Maryland Well Database Search Results

PERMIT	OWNER_NAME	ADDRESS1	CITY	STATE	ZIP	DRILLER_NAME	DRILLER_ID	FOR_V	DRILL_METHOD	ISSUE_DATE	COMPLETION_DATE	TOTAL_DEPTH	CLOSED
HA734852	YURMAN, THOMAS	P O BX 633	EDGEWOOD	MD		BARBER, SHERMAN	MWD0216	D	AIR-PER	28-Apr-78	13-May-78	120	
HA734158	WILSON, THOMAS		CHURCHVILLE	MD		JONES, EARL D JR	MWD0009	D	AIR-PER	28-Jul-77	01-Aug-77	98	
HA733242	WEBER, WILLIAM C	201 WHITEFIELD CT	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	26-Aug-76	18-Sep-76	110	
HA944443	WAWA INC	260 W BALTIMORE PIKE	WAWA	PA	19063	GREGG P MYERS	MWD 523	T	AIR-ROT	17-Aug-01	21-Aug-01	35	
HA944442	WAWA INC	260 W BALTIMORE PIKE	WAWA	PA	19063	GREGG P MYERS	MWD 523	T	AIR-ROT	17-Aug-01	21-Aug-01	35	
HA944444	WAWA INC	260 W BALTIMORE PIKE	WAWA	PA	19063	GREGG P MYERS	MWD 523	T	AIR-ROT	17-Aug-01	21-Aug-01	25	
HA944244	UNITED METHODIST CHU	2503 CHURCHVILLE RD	BEL AIR	MD	21015	RICKY C BARBER	MWD 368	D	AIR-PER	17-May-01	18-Jul-01	200	A
HA920729	UNITARIAN UNIVERSALI	210 LEE WAY	BEL AIR	MD	21014	RICKY BARBER	MWD 368	I	AIR-PER	19-Jan-93	22-Jan-93	125	
HA940541	UNCLE MARVINS OASIS	2476 CHURCHVILLE RD	BEL AIR	MD	21013	WALTER T CONNELLY	MGD 035	T	BORED	16-Jun-95	30-Jun-95	25	
HA734566	TRI ARC	9 LEXINGTON RD	BEL AIR	MD		JONES, EARL D JR	MWD0009	D	AIR-PER	05-Dec-77	07-Jan-78	175	
HA733502	STEARNS, DAVID	519 COURTLAND PL	BEL AIR	MD		JONES, GURVIS	MWD0047	D	AIR-PER	04-Jan-77	19-Jan-77	98	
HA736515	STEARNS DAVID	1204 BALDWIN MILL RD	JARRETTSVILLE	MD	21084	JONES, GURVIS	MWD0047	D	AIR-PER	09-Apr-81	01-May-81	300	
HA880622	SMITH LEWIS	28 ASBURY RD.	CHURCHVILLE	MD	21028	GURVIS JONES	MWD0047	D	AIR-PER	01-Sep-89	26-Sep-89	74	
HA811490	SMITH C	300 N UNION AVE	HAVRE DE GRAC	MD	21078	HAMILTON, CHARLES JR	MWD0112	D	AIR-PER	20-Aug-84	29-Aug-84	120	
HA731022	SLIGH, RICHARD		BALTIMORE	MD		JONES, GURVIS	MWD0047	D	AIR-PER	25-Jul-73	29-Aug-73	98	
HA731023	SLIGH, RICHARD		BALTIMORE	MD		JONES, GURVIS	MWD0047	D	AIR-PER	25-Jul-73	31-Aug-73	192	
HA734822	RUDOLPH, ROBERT	503 WINTER VIEW DR	BEL AIR	MD		LEONARD WELL DRLG	MWD0032	D	AIR-PER	18-Apr-78	28-Apr-78	150	
HA733636	ROYSE, DOUGLAS J	1725 DETHS FORD RD	GRACE	MD		PRESTON & HAMILTON	MWD0112	D	ROTARY	04-May-77		104	
HA734696	REMSNYDER, STEPHEN		JOPPA	MD		JONES, GURVIS	MWD0047	D	AIR-PER	17-Mar-78	23-Mar-78	86	
HA880514	PAUL GUSSIN COMPANY	7200 WISONSIN AVE	BETHESDA	MD	20814	PAUL M. FABISZAK	MWD0399	T	AIR-PER	18-Jul-89	28-Jul-89	300	
HA880511	PAUL GUSSIN COMPANY	7200 WISCONSIN AVE	BETHESDA	MD	20814	PAUL M. FABISZAK	MWD399	T	AIR-PER	18-Jul-89	28-Jul-89	300	U
HA880513	PAUL GUSSIN COMPANY	7200 WISCONSIN AVE	BETHESDA	MD	20814	PAUL M. FABISZAK	MWD0399	T	AIR-PER	18-Jul-89	26-Jul-89	300	
HA880512	PAUL GUSSIN COMPANY	7200 WISCONSIN AVE	BETHESDA	MD	20814	PAUL M. FABISZAK	MWD0399	T	AIR-PER	18-Jul-89	24-Jul-89	300	
HA735959	OSTERIA, VINCENT M	GOUCHER WAY	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	28-Jan-80	06-Feb-80	260	
HA881201	ORANGE LAWRENCE	10 CORNS DR.	BEL AIR	MD	21014	GURVIS JONES	MWD0047	D	AIR-PER	11-Jul-90	12-Jul-90	98	
HA920173	ORANGE LAWRENCE	19 CORNS DR	CHURCHVILLE	MD	21028	GURVIS JONES	MWD 47	D	AIR-PER	21-Apr-92	02-May-92	270	
HA731913	MONK, BILL	16 SOUTH PARK ST	ABERDEEN	MD		BARBER, SHERMAN E	MWD0216	D	AIR-PER	25-Oct-74			C
HA733621	MONAHAN, JUNE	1725 DETHS FORD RD	GRACE	MD		PRESTON & HAMILTON	MWD0112	D	ROTARY	02-Mar-77	29-Mar-77	127	
HA882018	MEINTZER & SONS J E	404 S AURORA ST PO 6	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	02-Oct-91	27-Aug-91	22	
HA882017	MEINTZER & SONS J E	404 S AURORA ST PO 6	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	02-Oct-91	27-Aug-91	21	
HA882019	MEINTZER & SONS J E	404 S AURORA ST PO 6	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	02-Oct-91	27-Aug-91	17	
HA882016	MEINTZER & SONS J E	404 S AURORA ST PO 6	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	02-Oct-91	27-Aug-91	23	
HA930596	MCCORMACK ROBERT	9 BRAMBLE LN	CHURCHVILLE	MD	21028	CHARLES H HAMILTON J	MWD 112	D	AIR-PER	20-May-94	07-Jun-94	300	
HA881188	MANN ARCHIE	839 ERIE ST	HAVRE DE GRAC	MD	21078	GURVIS JONES	MWD0047	D	AIR-PER	02-Jul-90	12-Jul-90	120	
HA811021	LIBERATI ROSS	1514 WHISTLES RD	BEL AIR	MD	21014	BARBER, SHERMAN	MWD0216	D	AIR-PER	08-Nov-83	24-Mar-84	150	
HA733637	KOOKER, DOUGLAS	601 EVERGREEN DR	BEL AIR	MD		PRESTON & HAMILTON	MWD0112	D	ROTARY	04-Mar-77	08-Apr-77	100	
HA881605	J E MEINTZER & SONS	404 S AURORA ST PO B	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	13-Mar-91	07-Mar-91	18	
HA881607	J E MEINTZER & SONS	404 S AURORA ST PO B	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	13-Mar-91	07-Mar-91	21	
HA881608	J E MEINTZER & SONS	404 S AURORA ST PO B	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	13-Mar-91	07-Mar-91	13	
HA881606	J E MEINTZER & SONS	404 S AURORA ST PO B	EASTON	MD	21601	RICHARD L SHOCKLEY	MWD 486	T	BORED	13-Mar-91	07-Mar-91	22	
HA944951	ISGOOD LLC	2700 PHILADELPHIA RD	EDGEWOOD	MD	21040	RICHARD KIMES	MGD 63	T	BORED	29-Mar-02	01-Apr-02	47	
HA944950	ISGOOD LLC	2700 PHILADELPHIA RD	EDGEWOOD	MD	21040	RICHARD KIMES	MGD 63	T	BORED	29-Mar-02	29-Apr-02	33	
HA944949	ISGOOD LLC	2700 PHILADELPHIA RD	EDGEWOOD	MD	21040	RICHARD KIMES	MGD 63	T	BORED	29-Mar-02	01-Apr-02	33	
HA814242	INGRAM RITA	2417 CONOWINGO RD	BEL AIR	MD	21014	JONES, GURVIS	MWD0047	D	AIR-PER	24-Nov-87	12-Dec-87	175	
HA731229	HENDERSON, THOMAS		BEL AIR	MD		JONES, GURVIS	MWD0047	D	AIR-PER	25-Oct-73	04-Feb-74	190	
HA881075	HARFORD HOMES INC	12110 PULASKI HIGHWA	JOPPA	MD	21085	DAVE KELLY	MWD0304	D	AIR-PER	20-Apr-90	27-Apr-90	175	
HA881147	HARFORD HOMES INC	2800 PULASKI HIGHWAY	EDGEWOOD	MD	21040	DAVE KELLY	MWD0304	D	AIR-PER	03-Jun-90	12-Jun-90	200	
HA881314	HARFORD HOMES INC	2800 PULASKI HIGHWAY	EDGEWOOD	MD	21040	DAVE KELLY	MWD0304	D	AIR-PER	13-Sep-90	19-Sep-90	200	
HA881315	HARFORD HOMES INC	2800 PULASKI HIGHWAY	EDGEWOOD	MD	21040	DAVE KELLY	MWD0304	D	AIR-PER	13-Sep-90	19-Sep-90	200	
HA881316	HARFORD HOMES INC	2800 PULASKI HIGHWAY	EDGEWOOD	MD	21040	DAVE KELLY	MWD0304	D	AIR-PER	13-Sep-90	19-Sep-90	150	
HA881433	HARFORD HOMES INC	2800 PULASKI HIGHWAY	EDGEWOOD	MD	21040	DAVE KELLY	MWD0304	D	AIR-PER	07-Dec-90	14-Dec-90	250	
HA881434	HARFORD HOMES INC	2800 PULASKI HIGHWAY	EDGEWOOD	MD	21040	DAVE KELLY	MWD0304	D	AIR-PER	07-Dec-90	14-Dec-90	200	
HA881077	HARFORD HOMES	12110 PULASKI HIGHWA	JOPPA	MD	21085	DAVE KELLY	MWD0304	D	AIR-PER	20-Apr-90	27-Apr-90	250	
HA943354	HARFORD COMM COLLEGE	401 THOMAS RUN RD	BEL AIR	MD	21015	MICHAEL BARLOW	MWD 355	T	AIR-ROT	22-Sep-99	29-Oct-99	33	
HA943353	HARFORD COMM COLLEGE	401 THOMAS RUN RD	BEL AIR	MD	21015	MICHAEL BARLOW	MWD 355	T	AIR-ROT	22-Sep-99	29-Oct-99	33	

HA943355	HARFORD COMM COLLEGE	401 THOMAS RUN RD	BEL AIR	MD	21015	MICHAEL BARLOW	MWD 355	T	AIR-ROT	22-Sep-99	29-Oct-99	28	
HA881222	GULLION STONEY	18 CORNS DR	BEL AIR	MD	21014	RICK C. BARBER	MWD0368	D	AIR-PER	25-Jul-90	04-Aug-90	150	
HA881908	GULLION STONEY	17A CARNS DR	CHURCHVILLE	MD	21015	SHERMAN BARBER JR	MWD 367	D	AIR-PER	07-Aug-91	26-Aug-91	300	
HA940597	GRACE ASSEMBLY OF GO	PO BOX 356	ABINGDON	MD	21009	GURVIS JONES	MWD 47	I	AIR-PER	12-Jul-95	20-Jul-95	125	
HA950426	GILBERT WILLIAM	2613 CHURCHVILLE RD	CHURCHVILLE	MD	21028	GURVIS JONES	MWD 047	F	AIR-PER	14-Aug-06	16-Aug-06	425	
HA810881	GILBERT WILLIAM	BX 332 03618 CH RD	CHURCHVILLE	MD	21028	HAMILTON, CHARLES JR	MWD0112	F	AIR-PER	08-Sep-83	10-Dec-83	150	
HA811261	GERETY CHRIS	110 IDLEWILD ST 3A	BEL AIR	MD	21014	HAMILTON, CHARLES JR	MWD0112	D	AIR-PER	09-Apr-84	13-Apr-84	150	
HA730424	GENTRY, THOMAS	ROLLING GREEN DR	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	30-Nov-72	14-Feb-73	80	
HA734697	GENTRY DEVELOP CORP	520 PRIEST FORD RD	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0087	D	AIR-ROT	17-Mar-78	01-Apr-78	140	
HA734394	FRAZER, ROBERT	1000 GLENVILLE RD	CHURCHVILLE	MD		JONES, GURVIS	MWD0047	D	AIR-PER	07-Oct-77	17-Nov-77	100	
HA736802	FRAZER CONSTRUCTION	2707 WESLEYAN DR	CHURCHVILLE	MD	21028	JONES, GURVIS	MWD0047	D	AIR-PER	26-Oct-81	16-Nov-81	200	
HA734716	FRAZER CONSTR CO	1000 GLENVILLE RD	CHURCHVILLE	MD		JONES, GURVIS	MWD0047	D	AIR-PER	20-Mar-78	24-Mar-78	98	
HA930248	EASTON PETROLEUM COM	2476 CHURCHVILLE RD	BEL AIR	MD	21015	DAVE KELLY	MWD 304	T	BORED	13-Dec-93	24-Jan-94	33	
HA882151	EASTON PETRO CO INC	PO BOX 666	EASTON	MD	21606	PAT MIRFIELD	MWD 379	T	BORED	03-Dec-91	13-Nov-91	22	
HA882149	EASTON PETRO CO INC	PO BOX 666	EASTON	MD	21606	PAT MIRFIELD	MWD 379	T	BORED	03-Dec-91	13-Nov-91	22	
HA882150	EASTON PETRO CO INC	PO BOX 666	EASTON	MD	20695	PAT MIRFIELD	MWD 379	T	BORED	03-Dec-91	13-Nov-91	22	
HA731158	DIXON, GARY		BEL AIR	MD		JONES, GURVIS	MWD0047	D	AIR-PER	10-Sep-73	24-Sep-73	150	
HA734717	DIXON CONST CO		BEL AIR	MD		0047	MWD0048	D	AIR-PER	21-Mar-78	27-Apr-78	175	
HA943264	COOK R RUBY	2305 CALVARY RD	BELAIR	MD	21015	RICKY C BARBER	MWD 368	D	AIR-PER	13-Aug-99	01-Sep-99	100	A
HA811303	COMES ROBERT	7 BRAMBLE LA	CHURCHVILLE	MD		JONES, EARL D JR.	MWD0009	D	AIR-PER	27-Apr-84	21-Jun-84	175	
HA734112	CHURCHVILLE CONSTR	520 PRIEST FORD RD	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	15-Jul-77	10-Aug-77	100	
HA734072	CHURCHVILLE CONSTR	520 PRIESTFORD RD	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	08-Jul-77	08-Aug-77	120	
HA812304	CHURCHVILLE CONST CO	142 GOUCHER WAY	CHURCHVILLE	MD	21028	JONES, GURVIS	MWD0047	D	AIR-PER	23-Sep-85	30-Sep-85	300	
HA733540	CHURCHVILLE CONST CO	2828 COLLEGE VIEW DR	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	25-Jan-77	26-Feb-77	80	
HA732714	CHURCHVILLE CONST CO	520 PRIEST FORD RD	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	02-Mar-76	18-Mar-76	95	
HA733503	CHURCHVILLE CONST CO	520 PRIEST FORD RD	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	05-Jan-77	25-Feb-77	165	
HA732785	CHURCHVILLE CONST CO	520 PRIEST FORD RD	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	24-Mar-76	03-May-76	83	
HA732719	CHURCHVILLE CONST CO	2828 COLLEGE VIEW DR	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	03-Mar-76	17-Mar-76	90	
HA732183	CHURCHVILLE CONST	2828 COLLEGE VIEW DR	CHURCHVILLE	MD		REIDER, A C & SONS	MWD0088	D	AIR-ROT	14-May-75	06-Jun-75	90	
HA690622	CAMPUS WATER CO		TOWSON	MD		WM LEONARD	MWD0000	P	ROTARY		12-Sep-69	95	
HA940938	CAMPUS HILLS WATER W	3907 GREENWAY	BALTIMORE	MD	21218	DAVID KELLY	MWD 304	T	AIR-PER	12-Mar-96	02-Apr-96	400	
HA941154	CAMPUS HILLS WATER W	3907 GREENWAY	BALTIMORE	MD	21218	DAVID KELLY	MWD 304	T	AIR-PER	11-Jul-96	11-Nov-98	300	R
HA930410	CAMPUS HILLS WATER	3907 GREENWAY	BALTO	MD	21218	DAVID KELLY	MWD 304	P	AIR-PER	21-Mar-94	14-Apr-94	200	A
HA943704	CAMPUS HILLS WATCH C	1755 ROSALIND DRIVE	ATLANTA	GA	30329	DAVID KELLY	MWD 304	T	AIR-PER	12-May-00	16-Oct-00	375	
HA943186	CAMPUS HILLS MD	333 JERICHO TURNPIKE	JERICHO	NY	11753	DAVID KELLY	MWD 304	T	AIR-PER	23-Jun-99	20-Jul-99	28	
HA943187	CAMPUS HILLS MD	333 JERICHO TURNPIKE	JERICHO	NY	11753	DAVID KELLY	MWD 304	T	AIR-PER	23-Jun-99	20-Jul-99	43	
HA943185	CAMPUS HILLS MD	333 JERICHO TURNPIKE	JERICHO	NY	11753	DAVID KELLY	MWD 304	T	AIR-PER	23-Jun-99	20-Jul-99	33	
HA881462	BURKE MICHAEL	412 TROUT DALE CT	BEL AIR	MD	21014	DAVE KELLY	MWD0304	D	AIR-PER	12-Dec-90	07-Dec-90	175	
HA941603	BREECE PHILLIP	2319 CHURCHVILLE RD	BEL AIR	MD	21015	DAVID KELLY	MWD 304	D	AIR-PER	15-May-97	30-May-97	300	
HA944506	BRAZZON ROBERT	8 RHINEFORTE DR	CHURCHVILLE	MD	21028	GURVIS JONES	MWD 47	D	AIR-PER	03-Oct-01	08-Oct-01	130	
HA733108	BLIND ROBINS CRAB HS	CHURCHVILLE RD	CHURCHVILLE	MD		HARR, G EDGAR & SONS	MWD0120	I	AIR-PER	29-Jun-76	14-Jul-76	125	
HA736227	BLACKBURN CHAS E	2503 PALMYRA CT	CHURCHVILLE	MD		BAKER, QUAY W.	MWD0088	D	AIR-ROT	24-Sep-80	09-Oct-80	160	
HA811485	BENDING BRUCE	417 CAMPUS HILLS DR	BEL AIR	MD	21014	JONES, GURVIS	MWD0047	D	AIR-PER	17-Aug-84	28-Aug-84	110	
HA946202	BURNHAM CONTRACTOR	400 PROSPECT MILL RD	BEL AIR	MD	21015	CRIAG A NEMEC	MWD 513	D	AIR-PER	22-Jan-04	18-Feb-04	125	
												86	

APPENDIX B

MDE Report of Observations

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard • **Suite 620** • Baltimore, Maryland 21230-1719
(410) 537-3442 • 1-800-633-6101 • http://www.mde.state.md.us

LAND MANAGEMENT ADMINISTRATION
Oil Control Program
Report of Observations

Case # 2011-0112-HA

Type of Inspection/Observations: B3 Date: Dec 9 2011

Site/Facility Name: XTRA Mart Facility ID #

Location: Churchville Rd, Churchville. Page # 1 of 1

Remarks:

On this date this writer stopped at the above location to witness the final process of the off-site monitoring well installations.

Two wells were completed as a nested pair. The shallow well was drilled to a total depth of 30 feet (20 feet of screen & 10 feet of riser). No elevated PID readings were noted. The deep well was completed approx 5' feet away on this date. The well was drilled to a depth of 90 feet, with a major water bearing fracture encountered around 85-90'. (Screened from 90-70' w/ solid riser above) The well will be sealed w/ a bentonite plug at depth w/ solid grout above to surface.

Observer: Person Interviewed: Adam M. Lewis (GES)

APPENDIX C

Soil Boring Logs (MW-15D and MW-15S)

WELL LOG

ID NO. **MW-15D**

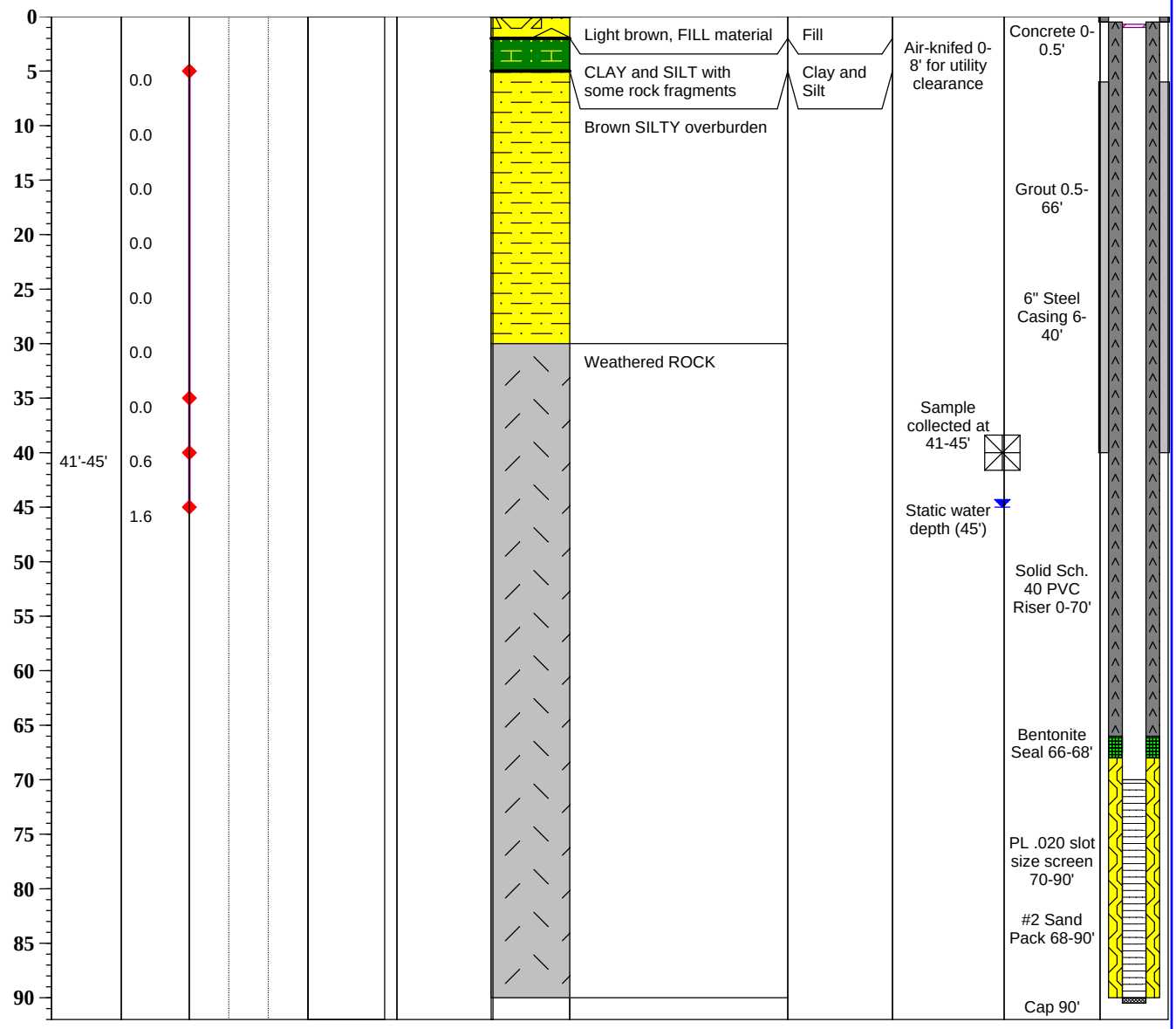
Groundwater and Environmental Services, Inc.

PROJECT: **Drake Bel Air** | WATER DEPTH: **45'** | TOTAL DEPTH: **90'**

ADDRESS: **2476 Churchville Road, Bel Air, Maryland** | CASING EL.: **N/A**

JOB NO. **0402652** | BOREHOLE DIA.: **2"** | WELL DIA.: **1"**

Logged By:	**Adam Dennis**	Drilling Method:	**Air Rotary Drilling Rig**
Dates Drilled:	**12/07/2011**	Sampling Method:	**Direct Push 4' Macrocore**
Drilling Company:	**B.L. Myers**	Soil Class. System:	**Unified Soil Classification System**
Well Permit #:	**HA-95-2117**	Field Screening:	**PID, 10.2 eV Lamp (results in ppm)**



LEGEND

Proportion Descriptions:

Trace = <10% Some = <50%

Little = <25% And = 50%

Symbol Key:

Water Level

Sample Location

fbg = feet below grade
NA = not available
ppm = parts per million
in. = inches

Groundwater & Environmental Services, Inc.
2142 Priest Bridge Court, Crofton, Maryland 800.220.3606 Fax 410.721.3733

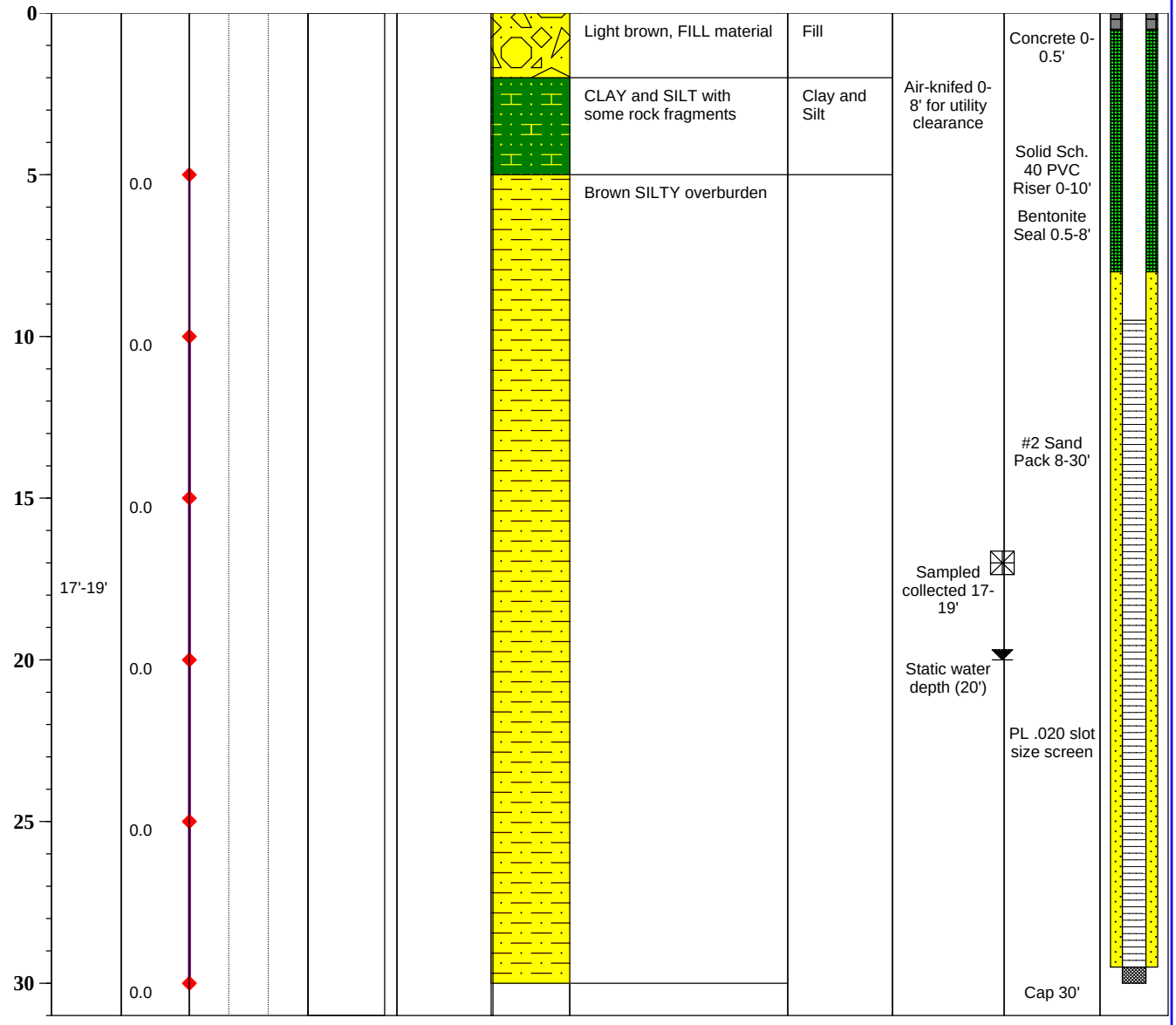
WELL LOG

ID NO. **MW-15S**

Groundwater and Environmental Services, Inc.

PROJECT:	**Drake Bel Air**	WATER DEPTH:	**20**	TOTAL DEPTH:	**30'**
ADDRESS:	**2476 Churchville Road, Bel Air, Maryland**			CASING EL.:	**N/A**
JOB NO.	**0402652**	BOREHOLE DIA.:	**2"**	WELL DIA.:	**1"**

Logged By:	**Adam Dennis**	Drilling Method:	**Air Rotary Drilling Rig**
Dates Drilled:	**12/07/2011**	Sampling Method:	**Direct Push 4' Macrocore**
Drilling Company:	**B.L. Myers**	Soil Class. System:	**Unified Soil Classification System**
Well Permit #:	**HA-95-2118**	Field Screening:	**PID, 10.2 eV Lamp (results in ppm)**



LEGEND

Proportion Descriptions:

Trace = <10% Some = <50%

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Water Level

Sample Location

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NA = not available
ppm = parts per million
in. = inches

Well ID: MW-15S

Groundwater & Environmental Services, Inc.
2142 Priest Bridge Court, Crofton, Maryland 800.220.3606 Fax 410.721.3733

APPENDIX D

Laboratory Analytical Report and Chain of Custody Documentation

New Jersey
ACCUTEST LABORATORIES

01/13/12

Technical Report for

Drake Petroleum Company, Inc.

GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD 0402652

Accutest Job Number: JA94529

Sampling Dates: 12/08/11 - 12/09/11

Report to:

Groundwater & Environmental Services

djulian@gesonline.com

ATTN: Donna Julian

Total number of pages in report: **17**

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

David N. Speis
VP, Laboratory Director

Client Service contact: Tony Esposito 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, DE, FL, IL, IN, KS, KY, LA, MA, MD, MI, MT, NC, PA, RI, SC, TN, VA, WV

Test results relate only to samples analyzed.

Sections: 1 2 3

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2.2: JA94529-2: MW-15D 40-45 10
Section 3: Misc. Forms **15**
3.1: Chain of Custody 16

Sample Summary

Drake Petroleum Company, Inc.

Job No: JA94529

GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD
Project No: 0402652

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JA94529-1	12/08/11	14:10	AD	12/13/11	SO	Soil	MW-15S 15-20
JA94529-2	12/09/11	09:12	AD	12/13/11	SO	Soil	MW-15D 40-45

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: MW-15S 15-20
Lab Sample ID: JA94529-1 **Date Sampled:** 12/08/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8260B **Percent Solids:** 82.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X121743.D	1	12/14/11	TYG	n/a	n/a	VX5184
Run #2							

	Initial Weight
Run #1	4.5 g
Run #2	

VOA Full List + Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	14	9.0	ug/kg	
71-43-2	Benzene	ND	1.4	0.18	ug/kg	
108-86-1	Bromobenzene	ND	6.8	0.26	ug/kg	
74-97-5	Bromochloromethane	ND	6.8	0.70	ug/kg	
75-27-4	Bromodichloromethane	ND	6.8	0.30	ug/kg	
75-25-2	Bromoform	ND	6.8	1.0	ug/kg	
74-83-9	Bromomethane	ND	6.8	0.53	ug/kg	
78-93-3	2-Butanone (MEK)	ND	14	5.9	ug/kg	
104-51-8	n-Butylbenzene	ND	6.8	0.32	ug/kg	
135-98-8	sec-Butylbenzene	ND	6.8	0.22	ug/kg	
98-06-6	tert-Butylbenzene	ND	6.8	0.19	ug/kg	
56-23-5	Carbon tetrachloride	ND	6.8	0.47	ug/kg	
108-90-7	Chlorobenzene	ND	6.8	0.44	ug/kg	
75-00-3	Chloroethane	ND	6.8	0.55	ug/kg	
67-66-3	Chloroform	ND	6.8	0.65	ug/kg	
74-87-3	Chloromethane	ND	6.8	0.84	ug/kg	
95-49-8	o-Chlorotoluene	ND	6.8	0.51	ug/kg	
106-43-4	p-Chlorotoluene	ND	6.8	0.28	ug/kg	
108-20-3	Di-Isopropyl ether	ND	6.8	0.17	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	14	2.0	ug/kg	
124-48-1	Dibromochloromethane	ND	6.8	0.23	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.4	0.32	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	6.8	0.37	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	6.8	0.26	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	6.8	0.23	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	6.8	0.43	ug/kg	
75-34-3	1,1-Dichloroethane	ND	6.8	0.30	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.4	0.25	ug/kg	
75-35-4	1,1-Dichloroethene	ND	6.8	0.83	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	6.8	0.44	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	6.8	0.57	ug/kg	
78-87-5	1,2-Dichloropropane	ND	6.8	0.36	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-15S 15-20
Lab Sample ID: JA94529-1 **Date Sampled:** 12/08/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8260B **Percent Solids:** 82.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

VOA Full List + Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	6.8	0.50	ug/kg	
594-20-7	2,2-Dichloropropane	ND	6.8	0.23	ug/kg	
563-58-6	1,1-Dichloropropene	ND	6.8	0.28	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	6.8	0.21	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	6.8	0.45	ug/kg	
100-41-4	Ethylbenzene	ND	1.4	0.20	ug/kg	
87-68-3	Hexachlorobutadiene	ND	6.8	0.71	ug/kg	
98-82-8	Isopropylbenzene	ND	6.8	0.19	ug/kg	
99-87-6	p-Isopropyltoluene	ND	6.8	0.40	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.4	0.24	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	6.8	3.6	ug/kg	
74-95-3	Methylene bromide	ND	6.8	0.77	ug/kg	
75-09-2	Methylene chloride	ND	6.8	0.31	ug/kg	
91-20-3	Naphthalene	ND	6.8	1.4	ug/kg	
103-65-1	n-Propylbenzene	ND	6.8	0.47	ug/kg	
100-42-5	Styrene	ND	6.8	0.25	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	34	7.8	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	6.8	0.20	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	6.8	0.19	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	6.8	0.25	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	6.8	0.24	ug/kg	
127-18-4	Tetrachloroethene	ND	6.8	0.26	ug/kg	
108-88-3	Toluene	ND	1.4	0.51	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	6.8	0.59	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	6.8	0.46	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	6.8	0.33	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	6.8	0.59	ug/kg	
79-01-6	Trichloroethene	ND	6.8	0.33	ug/kg	
75-69-4	Trichlorofluoromethane	ND	6.8	0.65	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	6.8	1.4	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	6.8	1.5	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	6.8	0.17	ug/kg	
75-01-4	Vinyl chloride	ND	6.8	0.62	ug/kg	
	m,p-Xylene	ND	1.4	0.42	ug/kg	
95-47-6	o-Xylene	ND	1.4	0.25	ug/kg	
1330-20-7	Xylene (total)	0.38	1.4	0.25	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		67-131%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15S 15-20		
Lab Sample ID:	JA94529-1	**Date Sampled:**	12/08/11
Matrix:	SO - Soil	**Date Received:**	12/13/11
Method:	SW846 8260B	**Percent Solids:**	82.1
Project:	GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD		

VOA Full List + Oxygenates

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	97%		66-130%
2037-26-5	Toluene-D8	110%		76-125%
460-00-4	4-Bromofluorobenzene	99%		53-142%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@653076 15:22 13-Jan-2012

Report of Analysis

Client Sample ID: MW-15S 15-20
Lab Sample ID: JA94529-1 **Date Sampled:** 12/08/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8015C **Percent Solids:** 82.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PF94208.D	1	12/14/11	BW	n/a	n/a	GPF2605
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.1 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	14	2.6	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	80%		66-119%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@653076 15:22 13-Jan-2012

Report of Analysis

Client Sample ID: MW-15S 15-20
Lab Sample ID: JA94529-1 **Date Sampled:** 12/08/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8015C SW846 3545A **Percent Solids:** 82.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y41638.D	1	12/20/11	CS	12/14/11	OP53642	G2Y1740
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	12	0.39	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	75%		19-151%
16416-32-3	Tetracosane-d50	82%		18-146%
438-22-2	5a-Androstane	79%		14-147%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@653076 15:22 13-Jan-2012

Report of Analysis

Client Sample ID: MW-15D 40-45
Lab Sample ID: JA94529-2 **Date Sampled:** 12/09/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8260B **Percent Solids:** 93.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X121798.D	1	12/15/11	TYG	n/a	n/a	VX5187
Run #2							

	Initial Weight
Run #1	4.7 g
Run #2	

VOA Full List + Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	11	7.6	ug/kg	
71-43-2	Benzene	ND	1.1	0.15	ug/kg	
108-86-1	Bromobenzene	ND	5.7	0.22	ug/kg	
74-97-5	Bromochloromethane	ND	5.7	0.59	ug/kg	
75-27-4	Bromodichloromethane	ND	5.7	0.26	ug/kg	
75-25-2	Bromoform	ND	5.7	0.86	ug/kg	
74-83-9	Bromomethane	ND	5.7	0.45	ug/kg	
78-93-3	2-Butanone (MEK)	ND	11	4.9	ug/kg	
104-51-8	n-Butylbenzene	ND	5.7	0.27	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.7	0.18	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.7	0.16	ug/kg	
56-23-5	Carbon tetrachloride	ND	5.7	0.40	ug/kg	
108-90-7	Chlorobenzene	ND	5.7	0.37	ug/kg	
75-00-3	Chloroethane	ND	5.7	0.47	ug/kg	
67-66-3	Chloroform	ND	5.7	0.55	ug/kg	
74-87-3	Chloromethane	ND	5.7	0.71	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.7	0.43	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.7	0.24	ug/kg	
108-20-3	Di-Isopropyl ether	ND	5.7	0.15	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	11	1.7	ug/kg	
124-48-1	Dibromochloromethane	ND	5.7	0.19	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.1	0.27	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	5.7	0.32	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	5.7	0.22	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	5.7	0.19	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	5.7	0.37	ug/kg	
75-34-3	1,1-Dichloroethane	ND	5.7	0.25	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.1	0.21	ug/kg	
75-35-4	1,1-Dichloroethene	ND	5.7	0.70	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	5.7	0.37	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	5.7	0.48	ug/kg	
78-87-5	1,2-Dichloropropane	ND	5.7	0.30	ug/kg	

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-15D 40-45
Lab Sample ID: JA94529-2 **Date Sampled:** 12/09/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8260B **Percent Solids:** 93.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

VOA Full List + Oxygenates

CAS No.	Compound	Result	RL	MDL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.7	0.43	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.7	0.20	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.7	0.24	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	5.7	0.17	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	5.7	0.38	ug/kg	
100-41-4	Ethylbenzene	ND	1.1	0.17	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.7	0.60	ug/kg	
98-82-8	Isopropylbenzene	ND	5.7	0.16	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.7	0.34	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.1	0.20	ug/kg	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.7	3.0	ug/kg	
74-95-3	Methylene bromide	ND	5.7	0.65	ug/kg	
75-09-2	Methylene chloride	ND	5.7	0.26	ug/kg	
91-20-3	Naphthalene	ND	5.7	1.2	ug/kg	
103-65-1	n-Propylbenzene	ND	5.7	0.40	ug/kg	
100-42-5	Styrene	ND	5.7	0.21	ug/kg	
75-65-0	Tert Butyl Alcohol	ND	29	6.6	ug/kg	
994-05-8	tert-Amyl Methyl Ether	ND	5.7	0.17	ug/kg	
637-92-3	tert-Butyl Ethyl Ether	ND	5.7	0.16	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.7	0.21	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.7	0.20	ug/kg	
127-18-4	Tetrachloroethene	ND	5.7	0.22	ug/kg	
108-88-3	Toluene	ND	1.1	0.43	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.7	0.50	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.7	0.39	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	5.7	0.28	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	5.7	0.49	ug/kg	
79-01-6	Trichloroethene	ND	5.7	0.28	ug/kg	
75-69-4	Trichlorofluoromethane	ND	5.7	0.55	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.7	1.2	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.7	1.3	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.7	0.15	ug/kg	
75-01-4	Vinyl chloride	ND	5.7	0.53	ug/kg	
	m,p-Xylene	ND	1.1	0.36	ug/kg	
95-47-6	o-Xylene	ND	1.1	0.21	ug/kg	
1330-20-7	Xylene (total)	ND	1.1	0.21	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		67-131%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-15D 40-45		
Lab Sample ID:	JA94529-2	**Date Sampled:**	12/09/11
Matrix:	SO - Soil	**Date Received:**	12/13/11
Method:	SW846 8260B	**Percent Solids:**	93.1
Project:	GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD		

VOA Full List + Oxygenates

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
17060-07-0	1,2-Dichloroethane-D4	93%		66-130%
2037-26-5	Toluene-D8	110%		76-125%
460-00-4	4-Bromofluorobenzene	100%		53-142%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@653076 15:22 13-Jan-2012

Report of Analysis

Client Sample ID: MW-15D 40-45
Lab Sample ID: JA94529-2 **Date Sampled:** 12/09/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8015C **Percent Solids:** 93.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	PF94209.D	1	12/14/11	BW	n/a	n/a	GPF2605
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.0 g	10.0 ml	100 ul
Run #2			

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-GRO (C6-C10)	ND	11	2.1	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	80%		66-119%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest LabLink@653076 15:22 13-Jan-2012

Report of Analysis

Client Sample ID: MW-15D 40-45
Lab Sample ID: JA94529-2 **Date Sampled:** 12/09/11
Matrix: SO - Soil **Date Received:** 12/13/11
Method: SW846 8015C SW846 3545A **Percent Solids:** 93.1
Project: GESMD:PC# 007805 Bel Air Xtra Fuels, 2476 Churchville Road, Bel Air, MD

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2Y41639.D	1	12/20/11	CS	12/14/11	OP53642	G2Y1740
Run #2							

	Initial Weight	Final Volume
Run #1	10.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH-DRO (C10-C28)	ND	11	0.34	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	89%		19-151%
16416-32-3	Tetracosane-d50	100%		18-146%
438-22-2	5a-Androstane	93%		14-147%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST

2235 Route 130, Dayton, NJ 08810
732-329-0200 FAX: 732-329-3499/3479

Accutest Job #: JA94529

Client Information

DRAKE

Consultants Name: Groundwater & Environmental Services, Inc.
Address: 2142 Priest Bridge Court Suite 1
City: Crofton, State: MD Zip: 21114
PM / CM: Andrea Taylorson-Collins
Phone #: (800) 220-3606, ext. 3703
Fax #: (410) 721-3733
ataylorsoncollins@gesonline.com
adennis@gesonline.com

Facility Information

Project Name: Drake- Bel Air Xtra Fuels
Street: 2476 Churchville Rd.
City: Bel Air State: MD
PO: Bill Drake Direct
Project Number: 0402652
AFE#

Analytical Information

Field ID / Point of Collection	Collection: Date	Time	Sampled By	Matrix	# of bottles	Preservation: HCL	NaOH	HNO3	H2SO4	None	Full Suite VOC's Plus 7 Oxygenates (8260)	TPH-GRO (8015B)	TPH-DRO (8015B)
-1 MW-15S 15-20	12/8/2011	14:10	AD	SO	3					X	x	x	x
-2 MW-15D 40-45	12/9/2011	9:12	AD	SO	3					X	x	x	x

Priority, #1672/181

Turnaround Information

- [ ] Std. 14 Day Turnaround — Approved By:
- [x] 7 Day Standard
- [ ] 4 Day EMERGENCY
- [ ] 3 Day EMERGENCY
- [ ] 2 Day EMERGENCY
- [ ] 1 Day EMERGENCY

Emergency T/A is for FAX or Lablink Data

Data Deliverable Information

- [x] Commercial "A"
- [ ] Commercial "B"
- [ ] Full Deliverables
- [ ] Other
- [ ] FULL CLP
- [ ] State Forms
- [ ] Disk Deliverable Format

Commercial "A" = Results Only

Accutest Log-in Information

UTC 20
19F3

PA unleaded = V8260PAUG*
Soil- PA unleaded + EDB +EDC = V8260PALG*
AQ- PA unleaded + EDB +EDC = V8260PALG* + V8011EDB
PA used Motor oil = V8260PAUMO*, B8270PAUMO
PA Diesel parameters = V8260PADF*, B8270PADF
PA Diesel parameters = V8260PADF*, B8270PADF
Lead = Dissolved for AQ , Total for Soil, All Method 6010
* Replace 8260 with method 524.2 for DW matrix

Sample Custody must be documented below each time samples change possesion, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	12/13/11 12:00	1 Fridge 12/12/11 16:30	2 Jenna Wooding 12/13	12/13/11 11:47 AM	2 MICHAEL GICHUNA 12/13/12 1145 AM
3 MICHAEL GICHUNA 12/13/12 1430		3	4		4
5		5	Seal # —	Preserve where applicable ☐	On Ice ☒ Temp. 2.5°C B

JA94529: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number JA94529 **Client:**

Date / Time Received: 12/13/2011 **Project:**

No. Coolers: 1 **Airbill #'s:** **Delivery Method:**

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	Bar Therm		
3. Cooler media:	Ice (Bag)		

Quality Control Preservatio	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☐	☑
2. Trip Blank listed on COC:	☐		☐	☑
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☐		☐	☑

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:732.329.0200

2235 US Highway 130
F: 732.329.3499

Dayton, New Jersey
www/accutest.com

JA94529: Chain of Custody
Page 2 of 2

APPENDIX E

Waste Manifest

Petroleum Management, Inc.

MD. Oil Operations Permit No: 2009-OPT-31821
EPA Identification No: MDR-000522794
Federal ID No: 52-2014536

18 Curtis Avenue ♦ Baltimore, Maryland 21226 ♦ Phone 410-354-0200 ♦ Fax 410-354-0201

Bill of Lading/Manifest **№ 5456**

erator/Shipper: Xtra mart			Billing Name: Xtra mart		
Address: 2476 Churchville Rd			Address:		
Belair	State MD	Zip:	City:	State:	Zip:
ne: ( )	Contact:		Phone: ( )	Contact:	

Purchase Order NO:

MATERIAL CHARACTERIZATION (CHECK ALL THAT APPLY):

cription:	Gallons
oline, 3, UN1203, PGII	
Fuel Oil, 3, NA1993, PGIII	
Fuel Oil, 3 NA1993, PGIII	
Fuel Oil, 3, NA1993, PGIII	
sel, 3, NA1993, PGIII	
nmable Liquids, NOS, 3, 1993, PGI	
rosive Liquids, NOS, 8, 1760, PGII	
of Drums	13
le Weights (Soil): Total: (Tons)	

Description:	Gallons
Hazardous Waste, Liquid, 9 NA3082, PGIII	
Hazardous Waste, Solid, 9 NA3077, PGIII	
Paint Thinners, 3, UN1263, PGI	
Ethylene Glycol, 9, UN3082, PGIII	
Lube Oil	
Waste Oil	
Kerosene	
No. of Tanks:	
Tare: (Tons)	

Description:	Gallons
JP#4	
JP#5	
Jet A	
Sludge	
Petroleum Contaminated Water	
Other:	
Other:	
Other:	
Net: (Tons)	

vice Description:

LACARDS TENDERED: ❑ YES ❑ NO

EMERGENCY CONTACT (410) 760-3703

nerator/Shipper Certification Statement

he generator or shipper, I hereby certify that this material is properly classified and does not contain Polychlorinated Biphenyls (PCB'S). To the best of my knowledge it has not n mixed, combined or blended in any amount with any other material defined as hazardous waste under applicable law. Generator/Shipper agrees to indemnify and hold oleum Management, Inc. harmless for any damages arising from or in any way relating to a breach of this Certification Statement.

Generator/Shipper Authorized Agent (Print)

Date of Service 12/27/11

Generator/Shipper Authorized Agent Signature Lisa Lee

HAULER/CARRIER INFORMATION

Name **Petroleum Management, Inc.**

et **5218 Curtis Avenue**

Baltimore State **MD** Zip **21226**

Driver Name (print) James Talbott

Driver Signature James Talbott

Phone

above mentioned materials e been received by this ity and will be handled in ordance with all applicable s and regulations. All ntities are subject to final fication by this facility and indicated in far right box.

RECEIVING FACILITY ACCEPTANCE

Facility Name

Acceptance Signature

Petroleum Management, Inc.
5218 Curtis Avenue
Baltimore, MD 21226

Phone

Total Quantity Received 13

White - Original Yellow - Transporter Pink - Facility Gold - Customer