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May 6, 2015

Project #: 152780/06

Massachusetts Department of Environmental Protection
Northeast Regional Office
205B Lowell Street
Wilmington, Massachusetts 01887

Subject: Phase V Remedy Operation Status - Inspection & Monitoring Report
October 1, 2014 through March 31, 2015
Former Varian Facility Site
Beverly, Massachusetts
MADEP # 3-0485

To Whom It May Concern:

On behalf of Varian Medical Systems, Inc., CB&I Environmental and Infrastructure, Inc. has prepared the enclosed Phase V Remedy Operation Status - Inspection & Monitoring Report summarizing the activities conducted from October 1, 2014 through March 31, 2015 for the former Varian Facility Site in Beverly, Massachusetts. A copy of this report has also been provided to the Varian Public Involvement Plan (PIP) repository at the Beverly City Library, the City of Beverly Board of Health, and the Beverly Conservation Commission. An e-copy of this report will shortly be posted on the web site maintained for the former Varian Facility Site (http://www.beverlycleanup.varian.com). A notice of availability for this document has also been issued to the PIP mailing list established for this Site.

If you have any questions regarding the report, please do not hesitate to contact me.

Sincerely,

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CB&I Environmental and Infrastructure, Inc.

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MASSACHUSETTS CONTINGENCY PLAN PHASE V REMEDY OPERATION STATUS INSPECTION & MONITORING REPORT October 1, 2014 through March 31, 2015

FORMER VARIAN FACILITY SITE 150 SOHIER ROAD BEVERLY, MASSACHUSETTS 01915

MADEP Site # 3-0485

April 30, 2015

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1.0 INTRODUCTION AND BACKGROUND

1.1 Introduction

On behalf of Varian Medical Systems, Inc. (Varian), CB&I Environmental and Infrastructure, Inc. (CB&I), has prepared this semi-annual Remedy Operation Status (ROS) Inspection and Monitoring Report for the former Varian facility located at 150 Sohier Road as well as other properties located in the vicinity (the Site) in Beverly, Massachusetts. This report is being submitted for Release Tracking Number (RTN) 3-0485 in accordance with the requirements of the Massachusetts Contingency Plan (MCP; 310 CMR 40.000). A Site Location Map illustrating the location of the former Varian facility is attached as **Figure 1,** and a Site Plan is attached as **Figure 2**.

This semi-annual report summarizes activities conducted during the period October 1, 2014 through March 31, 2015. Results of remedial activities and monitoring conducted during this reporting period are presented in this report. As required, the Massachusetts Department of Environmental Protection (MADEP) Comprehensive Response Action Transmittal Form (BWSC108) and Remedial Monitoring Reports (RMR) associated with this submittal were submitted electronically to MADEP. Copies of BWSC108 and the RMRs are included in **Appendix A**. This Inspection and Monitoring Report has been formatted to reference the requirements outlined in Section 310 CMR 40.0892(2) of the MCP.

1.2 Background Information

Based on the Phase II Comprehensive Site Assessment (CSA) completed in 2000 (IT, 2000), a condition of No Significant Risk existed at the Site with the exception of potential future significant risk associated with groundwater use in the area identified as a Potentially Productive Aquifer (PPA) north of Route 128. Groundwater concentrations in this PPA area were above applicable Massachusetts Drinking Water Standards. As a result, one of the stated remedial action goals in the December 2001 Phase IV Remedial Implementation Plan (Phase IV Plan) submitted to MADEP for the Site, was to achieve Drinking Water Standards in this area of the site (IT, 2001).

The Phase IV Plan proposed remedial actions for addressing volatile organic compounds (VOCs) in soil and groundwater at the subject Site. *In situ* oxidation of VOCs in soil and groundwater using permanganate solution was chosen as the best remedial alternative for the Site. The Phase IV Plan proposed treatment in the “source areas” to achieve these objectives. The Potential Source Location (PSL) areas at the former facility identified in the Phase IV Plan as potentially affecting the PPA area are listed below:

- PSL 5 – Potential former septic tank near Building 3
- PSL 6 –Potential former septic tank/leach field at Building 6
- PSL 9 – Inspection pit near Building 3
- PSL 11 –Chemical laboratory at Building 3
- PSL 12 – Potential former lime pit near Building 3

Other PSL areas that do not impact the PPA and certain other downgradient areas have been included in the *in situ* oxidation program to expedite groundwater cleanup. These areas include PSL 7--Building 5

Chem Lab, PSL 10--open field at south end of 150 Sohier Road, and downgradient treatment areas at 31 Tozer Road and in the Longview/Hill Street area.

Implementation of the Comprehensive Response Actions, including the injection of permanganate solution, began in July 2002 and a Phase IV As-Built and Final Inspection Report (Shaw, 2002a) detailing initial Phase IV activities including permitting, well installation, construction of the remedial treatment system, and initial implementation of remedial actions was submitted to MADEP in October 2002. The Phase IV As Built and Final Inspection Report also provided results of additional soil and groundwater analyses, identified minor modifications made to the Phase IV Plan, and documented the final inspection of the remedial system.

In December 2002, Varian submitted a Remedy Operation Status Opinion (Shaw, 2002b), which stated that the performance standards for ROS, as specified in 310 CMR 40.0893(2), have been achieved and will be maintained at the Site. A Response Action Outcome (RAO) has not yet been achieved at the Site, and the operation and maintenance of the remedial action will proceed under Remedy Operation Status.

The sodium permanganate treatment conducted at the Site since 2002 has produced significant reductions in chlorinated VOC levels at multiple depths in groundwater across the Site. These remedial activities are reported to MADEP in regular semi-annual ROS reports. As detailed in the October 2006 status report, bioremediation was proposed as a supplemental remedial approach to address two small VOC impacted areas in the northeast corner of the Site (Shaw, 2006). The first area includes shallow groundwater with residual trichloroethene (TCE) impacts located close to the Unnamed Stream to the northeast of Building 9 (**Figure 3**). Bioremediation was used to address the shallow groundwater near the Unnamed Stream in lieu of permanganate because permanganate treatment may affect the stream. The second bioremediation area is northeast of Building 3 where deep overburden groundwater is impacted with residual 1,1,1-trichloroethane (TCA), which is not effectively treated with permanganate.

Subsequent to the start of Comprehensive Response Actions, the PPA designation for the area to the north of Route 128 was removed by MADEP and, as a result, Drinking Water Standards no longer apply to this area. Therefore, the Remedial Action Goal specified in the Phase IV Plan to achieve drinking water standards in downgradient wells in the PPA area such as BR-1 is no longer applicable. As presented in the October 30, 2010 ROS report (Shaw, 2010b), the following updated remedial action goals will be used for ongoing response actions being conducted under Phase V ROS at the Site:

- Maintain compliance with Upper Concentration Limits (UCLs);
- Achieve a condition of No Significant Risk for site workers in site buildings by remediating, where necessary, elevated VOC concentrations in soil and groundwater beneath buildings;
- Limit rebound in VOC source areas such that potential impacts to indoor air in downgradient areas continue to pose No Significant Risk;
- Demonstrate that VOC concentrations in groundwater at the Site do not represent an uncontrolled source for impacts to surface water; and
- Demonstrate that VOC concentrations in soil and groundwater at the Site continue to pose No Significant Risk in accordance with current MADEP requirements.

To achieve these goals, the previously proposed remediation planning criteria will continue to be applied to focus remediation activities at the Site. These remediation planning criteria include the decrease of target VOC concentrations in certain source area wells to 50 percent or less of the UCL and the reduction of target VOC concentrations (including breakdown products) in treatment areas by at least 50 percent below pretreatment levels in order to mitigate potential post-remediation rebound effects. These remediation planning criteria are consistent with MADEP guidance (Policy #WSC-04-160) on the feasibility of achieving background concentrations which indicates that a reduction of risk to 50% of a level where No Significant Risk is achieved will be considered approaching background conditions and appropriate site closure criteria with Presumptive Certainty (MADEP, 2004b).

In December 2012, CB&I submitted a modification of the Phase III Remedial Action Plan (RAP) and Phase IV Plan for RTN 3-0485 (Shaw, 2012b). This modification addressed the Building 5 remedial area, located in the central portion of the former Varian facility (**Figure 2**). The Building 5 treatment area was not previously included in the original Phase III RAP and Phase IV Plan submitted to MADEP in 2001 (IT, 2001). The Phase III RAP was modified to identify, evaluate, and select remedial action alternatives to reduce potential risk associated with indoor air exposure in the Building 5 area. Soil vapor extraction (SVE) was selected as the preferred remedial alternative. The goal of the selected remedial action alternative in the Modified Phase III RAP was to control exposures and reduce VOC concentrations remaining in shallow soil that have the potential to migrate into the indoor air of Building 5. The Modified Phase IV Plan provided detail engineering designs, waste management plans, and initial operation and maintenance activities for the selected SVE remedial alternative (Shaw, 2012c). Details regarding the Building 5 SVE installation, including a Final Licensed Site Professional (LSP) Inspection and Phase IV Completion Statement, were included in the October 2013 status report (Shaw, 2013c).

Remediation in the Building 3 area, located in the northeast corner of the former Varian facility (**Figure 2**), has been conducted under ROS (to address groundwater impacts) and as an Immediate Response Action (IRA) under RTN 3-28531 (to address potential vapor intrusion). IRA activities included installation of a SVE system in December 2009. Phase II CSA and Phase III Remedial Action Plan reports were submitted for RTN 3-28531 in May 2012 (Shaw, 2012a and Shaw, 2012b). The Phase II and Method 3 Risk Assessment (Shaw, 2012a) concluded that a Condition of No Significant Risk had been achieved with the operation of the existing Building 3 SVE system which is effectively reducing VOC levels in indoor air in the Building 3 area. An Immediate Response Action Completion Report was submitted for RTN 3-28531 in February 2013 (Shaw, 2013a). The IRA Completion Report concluded that the primary objective of the IRA (to assess and mitigate the potential impacts to indoor air in the Building 3 area and thereby eliminate the potential for an Imminent Hazard) had been met by conducting IRA activities. Response actions for RTN 3-28531 had been effective in decreasing indoor air concentrations to below levels that would constitute an Imminent Hazard. However, continued operation of the SVE system is necessary to maintain a level of No Significant Risk in the Building 3 area. The IRA Completion Report linked RTN 3-28531 to RTN 3-0485 and also included a Phase IV Remedy Implementation Plan, Phase IV Completion Report, and Phase V Remedy Operation Status Opinion. The combined report for RTN 3-28531 closed this RTN and concluded that continued response actions (including the operation of the Building 3 SVE system) would be conducted in conjunction with Comprehensive Response Actions under Phase V ROS for RTN 3-0485. Building 3 remedial activities are therefore included as part of this ROS report.

2.0 DESCRIPTION OF OPERATION, MAINTENANCE, AND/OR MONITORING ACTIVITIES (310 CMR 40.0892 (2)(a))

The following sections summarize Phase V ROS activities that were conducted during the reporting period of October 1, 2014 through March 31, 2015.

2.1 Site-Wide Groundwater and Surface Water Sampling

2.1.1 Sample Collection and Analysis

Groundwater sampling to monitor groundwater conditions across the Site and the progress of both the permanganate and bioremediation programs was conducted in October 2014 and January 2015 during this reporting period. The October 2014 sampling was a limited event which monitored VOC trends and groundwater conditions at select wells across the Site. The January 2015 sampling event included quarterly bioremediation sampling focused on monitoring the reductive dechlorination progress following the November 2014 injection of emulsified vegetable oil (EVO) in the deep overburden near Building 3. A summary of samples collected during these monitoring events and sampling rationale is provided on **Tables 1A** and **1B**. The October 2014 sampling event also included select stream surface water locations previously requested by the Beverly Conservation Commission in various Orders of Condition (Beverly, 2002; 2003; 2004). Sampling locations are shown on **Figures 2** and **3**.

Groundwater and surface water samples were submitted to ALS Environmental Laboratory (ALS) for analysis of site specific VOCs (by EPA Method 8260B), dissolved iron and manganese, nitrate and sulfate, methane, ethane, ethene, total organic carbon, and chloride as outlined on **Tables 1A** and **1B**. Additionally, groundwater samples collected from select bioremediation wells were submitted for analysis of *Dehalococcoides sp.* bacteria (DHC) at CB&I's Technology Development Laboratory in Lawrenceville, New Jersey.

Groundwater VOC sampling of monitoring and application wells during this reporting period utilized passive diffusion bag (PDB) samplers, with the exception of stream monitoring points and certain wells where alternative sampling methods were used, as discussed below. For wells sampled utilizing the PDB method, the sampling apparatus was deployed in each groundwater monitoring well for a minimum two-week equilibration period, after which the samples were collected.

Monitoring well BR-6 is a bedrock well utilizing a packer system in order to provide discrete groundwater sampling from three separate fracture zones. This well uses a Waterloo™ system, which collects groundwater samples in each packer zone by using dedicated dual-valve pumps driven by compressed nitrogen. Surface water stream samples were collected directly from the sample locations with a bailer or laboratory-supplied containers.

At locations where analyses of dissolved metals (manganese and/or iron), nitrate, sulfate, and chloride were performed, samples were collected using a conventional bailer, since these constituents cannot be accurately assessed using PDB samplers. Dissolved manganese and iron samples were field-filtered using a 0.45-micron filter prior to laboratory analysis consistent with MADEP policy.

During the October 2014 sampling event, groundwater samples from select permanganate injection and monitoring wells were also collected for bench-top colorimetric permanganate concentration analysis. These groundwater samples were field filtered using a 0.45-micron filter prior to permanganate concentration analysis. Samples that were collected for colorimetric analysis of residual permanganate concentrations were analyzed by CB&I using a Hach DR/890 colorimeter. The colorimeter utilizes a spectrophotometric method to determine the permanganate concentration based on a permanganate color calibration standard.

Groundwater monitoring at select wells for depth-to-groundwater and total-well-depth measurements, as well as for the potential presence of dense non-aqueous phase liquid (DNAPL) was performed in October 2014 and January 2015 when the PDB samplers were deployed. The electronic interface probe used during these monitoring activities did not detect DNAPL at monitoring wells gauged during this reporting period. Water level monitoring data from the October 2014 and January 2015 sampling events are summarized in **Appendix B**.

VOC analytical results from the October 2014 and January 2015 sampling event are summarized on **Table 2**. Results of chloride, iron, and manganese samples collected during the October 2014 and January 2015 sampling events are summarized on **Table 3**. Results of bioremediation parameter analyses (i.e., nitrate, sulfate, methane, ethane, ethene, total organic carbon, and DHC bacteria) are summarized on **Table 4**. Results of bench-top colorimetric analysis of residual permanganate are included in **Table 5**. Complete laboratory analytical reports for samples collected in October 2014 and January 2015 are provided in **Appendix C**. Sampling results are discussed below.

2.1.2 VOC Monitoring Results

In general, the analytical results of groundwater samples collected during the October 2014 and January 2015 sampling events (**Table 2**) show decreasing or consistent concentrations of TCE and tetrachloroethene (PCE) at monitoring wells across the Site. Concentrations of cis-1,2-dichloroethene (DCE) continue to be variable. This variability may be due to the higher mobility of cis-1,2-DCE in groundwater compared to TCE and PCE and the generation of this daughter compound during natural attenuation and/or bioremediation processes.

Graphs illustrating concentration trends over time for the primary Site contaminants including TCE, PCE, cis-1,2-DCE, TCA, and vinyl chloride for numerous injection and monitoring wells are provided in **Appendix D**. Graphs for shallow overburden, deep overburden, and bedrock monitoring wells that are located in proximity to each other are grouped together for comparative purposes. These graphs indicate that data from many of the wells monitored continue to show decreasing concentration trends or sustained reductions in VOC concentrations as a result of Varian's remedial activities. These trends indicate that the remedial program is effectively treating groundwater and the Site is progressing toward a Permanent Solution as defined by the MCP.

A discussion of VOC trends and monitoring results for the various treatment areas at the Site is presented below. This discussion is supported by the VOC trend graphs provided in **Appendix D**.

Building 3/6 Treatment Area

Permanganate injections have been conducted at multiple wells from 2002 into 2015 with treatment at fewer wells over recent years. During the previous reporting period, permanganate injections were conducted at OB12-DO, located north of Building 3 near Route 128, and OB25-BR, located to the west of Building 1. During this reporting period, permanganate injections were conducted in AP-32-DO (north of Building 3), OB37-DO (inside Building 6), and BLDG3-SVE4 (beneath Building 3). Bioremediation has also occurred in the area in the shallow overburden near the Unnamed stream and deep overburden aquifer east of Building 3. During this reporting period, EVO injections were conducted in the deep overburden east of Building 3. The VOC trend graphs provided in **Appendix D** generally indicate three trends for wells in this treatment area; initial decreasing trends without rebound, initial decreasing trends with rebounding concentration trends, and continued elevated VOC trends, as discussed below.

The first VOC trend represents wells that have been successfully treated by permanganate injections or bioremediation and VOC concentrations remain below the remedial planning criteria. This includes well OB32-DO, located on the north side of Building 3 where the pretreatment TCE concentration was 710 milligrams per liter (mg/L) and PCE was 68 mg/L. Permanganate injection was conducted at OB32-DO in 2004 and VOC concentrations have remained well below the remedial planning criteria. In October 2014, the TCE concentration at OB32-DO was non-detectable, PCE was reported at 0.018 mg/L, and TCA was detected at 0.016 mg/L. In the shallow overburden near the Unnamed Stream, a similar VOC trend is noted at OB9-S, where bioremediation was conducted beginning in 2006. Pretreatment sampling indicated a TCE concentration of 53 mg/L and a PCE concentration of 30 mg/L at OB9-S. The January 2015 groundwater sample results indicated TCE, PCE, and vinyl chloride were non-detectable at OB9-S. Wells BW-8, AP12-S, AP25-DO, and MW-9 also show VOC trends indicating successful treatment.

At several wells in the Building 3/6 Treatment Area, the initial permanganate treatment resulted in significant VOC concentration reductions (e.g., 99 percent reduction in TCE). However, concentrations of VOC have rebounded to above the remedial planning criteria in these wells, resulting in the need to implement additional permanganate treatment events. This rebound effect is often observed due to the permanganate injections solubilizing VOC bound to soil particles. The soluble VOC are treated by the residual permanganate in the formation. However, once the residual permanganate in the area is consumed, VOC concentrations increase. April 2014 analytical data indicated a rebound in VOC concentration in two wells to concentrations above remedial planning criteria. Therefore, treatment was conducted in these wells during the previous reporting period. These included are deep overburden well OB12-DO, located north of Building 3 near Route 128 and bedrock well OB25-BR, located west of Building 1. In April 2014, groundwater sampling indicated the TCE concentration increased to 28 mg/L at OB12-DO. In response to permanganate treatment during the previous reporting period, a significant decrease in VOC concentrations was noted in October 2014; TCE decreased to non-detectable. The May 2015 analytical data from OB12-DO will be evaluated to see if further treatment is warranted in the area. A rebound in cis-1,2-DCE concentration to above the remedial planning criteria was observed at bedrock well OB25-BR, located west of Building 1 in April 2014. VOC concentrations at OB25-BR responded well to treatment and October 2014 analytical data indicated that VOC concentrations had decreased to non-detectable. The May 2015 analytical data from OB25-BR will be evaluated to determine if further treatment is warranted in the area.

Additional wells where VOC trends indicate periodic VOC rebound to above the remedial planning criteria warranting subsequent permanganate treatment include AP12-DO, AP12-BR, AP26-DO, MW-13, OB19-DO, OB27-BR and OB36-DO. The VOC rebound observed at these wells indicates potential migration of VOC from under the existing building. VOC concentration rebound was noted at two wells in the Building 3/6 area in October 2014, including AP32-DO, angled beneath the Building 3, and OB37-DO, located beneath Building 6. Analytical data indicated the concentration of TCE increased from 0.036 mg/L in April 2014 to 48 mg/L in October 2014 at deep overburden well AP32-DO. Analytical data indicated that the concentration of TCE increased from 0.35 mg/L in April 2014 to 74 mg/L in October 2014 at deep overburden well OB37-DO. The rebounding concentrations to above the remedial planning criteria warranted additional treatment. Treatment was conducted during this reporting period (Section 2.2). May 2015 analytical data will be evaluated to determine if further treatment is warranted.

At the deep overburden wells located at the northeast corner of Building 3, the graphs in **Appendix D** indicate a trend of continued elevated VOC concentrations above the remedial planning criteria. These wells include AP13-DO, AP23-DO and AP24-DO. Unlike other areas of the Site, groundwater sampling results also indicate elevated impacts of TCA and acetone in this area in addition to TCE and PCE. TCA and acetone are more effectively treated by bioremediation. Lactate injections began in this area in 2006 to address elevated VOC. Follow-up injections were conducted in 2007, 2008, 2010, 2011, and 2013. The August 2014 data had suggested that active reductive dechlorination was occurring in several deep wells. Favorable conditions for reductive dechlorination were maintained in the groundwater and a Dehalococcoides bacteria population was present; however, the results also indicated low levels of carbon were available to sustain bioremediation activity. Due to the low total organic carbon concentrations and the continued elevated concentrations of TCA and TCE in this area, application of EVO was conducted in November 2014 to continue reductive dechlorination (Section 2.3).

TCE and PCE concentrations continue to remain non-detectable in AP34-DO in January 2015 compared to baseline concentrations of 25 mg/L and 35 mg/L, respectively in September 2013. Analytical data from AP24-DO and AP35-DO indicated a decrease in VOC concentrations after the November 2014 treatment. At well AP24-DO the TCE concentration decreased from 560 mg/L in August 2014 to 10 mg/L in January 2015. The TCE concentration at AP35-DO decreased from 46 mg/L in August 2014 to non-detectable in January 2015. However, at AP13-DO and AP23-DO, target VOCs remain elevated at levels above the remedial planning criteria. For example, in January 2015, TCE, PCE and TCA were detected at concentrations of 340 mg/L, 93 mg/L and 23 mg/L, respectively in AP13-DO. Vinyl chloride and cis-1,2-DCE concentrations have increased at target well AP13-DO following the November 2014 treatment, indicating the TCE and PCE are being degraded. Furthermore, increased or continuing elevated ethene concentrations were observed in the treatment area in January 2015. For example, ethene concentrations of 510 micrograms per liter (ug/L) and 2,500 ug/L were detected at AP13-DO and AP33-DO, respectively in January 2015. Ethene is the non-toxic end product of complete dechlorination of VOCs, including vinyl chloride.

Overall the data provide a strong indication that reductive dechlorination is occurring at wells AP24-DO, AP34-DO, and AP35-DO and a moderate indication that reductive dechlorination is occurring at wells AP13-DO, AP23-DO, and AP33-DO.

Building 5 Treatment Area

Permanganate application to groundwater in the Building 5 treatment area was conducted at well AP27-DO, located east of Building 5, in 2004, 2005, and 2012, and at OB-35DO, located beneath Building 5, from 2005 to 2008, in 2011, 2012, and 2014.

The VOC trend graph for deep overburden well AP27-DO indicates a significant VOC decrease after the first treatment in 2004. In October 2011 and April 2012, the TCE concentration increased to 12 mg/L and 13 mg/L, respectively. To address the increased level of TCE noted at AP27-DO and nearby well OB35-DO, permanganate treatment was conducted at AP27-DO in 2012. VOC concentrations responded to treatment, with TCE at AP27-DO decreasing to non-detectable in November 2012. The TCE concentration at this well increased to 11 mg/L in April 2014 and remained relatively consistent at 15 mg/L in October 2014. These concentrations remain below the remedial planning criteria.

Permanganate treatment at deep overburden well OB35-DO, located inside Building 5, has had mixed results. Treatment reduced the concentration of TCE at OB35-DO from 440 mg/L in May 2005 to consistently below the remedial planning criteria (e.g., non-detectable in October 2015). This reflects approximately a 99 percent reduction in TCE concentrations. However, permanganate treatment has not consistently reduced the concentration of PCE at OB35-DO to below the remedial planning criteria. In April 2014 the PCE concentration at well OB35-DO was 33 mg/L compared to a pretreatment concentration of 11 mg/L. PCE tends to adhere to the soil matrix more than TCE, so the continued detection of PCE at this well may be the result of the permanganate desorbing PCE bound to soil particles, where it then is treated by the oxidizer. Additional treatment was conducted at well OB35-DO following the April 2014 sampling to address the elevated PCE level. A significant decrease in the PCE concentration was noted at OB35-DO as a result of this permanganate treatment: PCE decreased from 33 mg/L in April 2014 to 0.006 mg/L in October 2014. May 2015 analytical data will be evaluated to determine if further treatment is warranted in the area.

Shallow overburden wells OB44-S is located inside Building 5. This well was first sampled in January 2014, and indicated the presence of TCE (24 mg/L) and PCE (47 mg/L) with cis-1,2-DCE reported as non-detectable. In October 2014, TCE and PCE concentrations were 8.8 mg/L and 15 mg/L, respectively, while the cis-1,2-DCE concentration was reported at 31 mg/L. These results indicate VOC impacts remain in shallow groundwater below Building 5. Therefore, further treatment, as discussed in Section 2.2, is planned.

PSL 10 Treatment Area

This area is located to the south of the Building 5 area, adjacent to the 32 Tozer Road property. Permanganate injections were conducted in this area from 2002 to 2004, from 2006 through 2008, and 2011. Permanganate treatment was conducted in this area during the previous reporting period to help reduce increased VOC concentrations observed at wells AP-19 through AP-22 and to improve the decreasing VOC trend noted at well MW2-32Tozer located downgradient on the 32 Tozer Road property. The VOC concentrations at the application wells responded well to treatment. For example in AP-21, cis-1,2-DCE decreased from 4.9 mg/L in April 2014 to non-detectable in October 2014 after this treatment.

VOC concentrations at shallow overburden well CL10-S, located just downgradient of the PSL 10 treatment wells on the 32 Tozer Road property, continue to exhibit seasonal fluctuations. Higher concentrations of PCE are noted in the spring sampling, with lower levels observed in the fall. For example, the PCE concentration decreased from 1.8 mg/L in April 2014 to 0.018 mg/L in October 2014. Overall the PCE concentrations at CL10-S do not indicate a trend. TCE and PCE concentrations remained non-detectable in October 2014 at deep overburden well CL10-DO and bedrock well CL10-BR.

Deep overburden monitoring well MW2-32Tozer was installed west of the PSL10 injection wells on the 32 Tozer Road property in 2011. Overall, the PCE concentrations at this well indicate a slight decreasing trend, with concentrations of PCE decreasing from a high of 16 mg/L in November 2012 to 4.9 mg/L in October 2014.

May 2015 analytical data from this area will be evaluated to determine if further treatment is warranted in the PSL10 Area. Note that potential indoor air impacts at the 32 Tozer Road property are being monitored by sampling of indoor air as described in section 2.7.

Tozer Road Treatment Area South of 128

Initial permanganate injections were performed at 28 Tozer Road in 2006 and additional injections were conducted at CL3-DO in 2013 to address a TCE concentration rebound to 30 mg/L in April 2013, above the remedial planning criteria. Following the 2013 treatment, VOC concentrations decreased with TCE being non-detectable in October 2013 and remaining non-detectable in October 2014.

At deep overburden well OB5-DO, located at 27 Tozer Road, lower VOC concentrations were observed after treatment began in 2002. However, an increasing VOC trend began in 2009 and since April 2010, generally consistent, higher VOC concentrations had been noted. In April 2014, TCE, PCE and cis-1,2-DCE were detected at concentrations of 1.8 mg/L, 0.59 mg/L and 1.7 mg/L, respectively. In October 2014, a decrease in VOC concentrations was noted. For example, TCE decreased to 0.035 mg/L.

31 Tozer Road Treatment Area

Shallow groundwater treatment was conducted in 2002 and 2003 and deep overburden permanganate injection occurred in this area in 2004.

Monitoring wells in this area of the site are sampled to assess shallow overburden impacts. During this reporting period these wells include OB18-S (31 Tozer Road), OB41-S (39 Tozer Road), OB42-S (30 Tozer Road) and OB43-S (27 Tozer Road). The trend graphs for these wells in **Appendix D** indicate an overall decreasing VOC trend or generally consistent VOC concentrations. Wells OB18-S and OB43-S generally indicate the lowest VOC concentrations. For example PCE and TCE were detected at 0.0037 mg/L and 0.0031 mg/L, respectively in OB43-S in October 2014. Well OB42-S exhibits the highest VOC concentrations, with TCE and cis-1,2-DCE detected at 2.3 mg/L and 0.70 mg/L, respectively, in October 2014.

Longview/Hill Street Treatment Area

In the Longview/Hill Street area, permanganate injections were conducted at wells AP3-DO and AP4-DO during 2004, and at AP3-DO and AP3-BR in 2005.

At bedrock well BR6, located on Hill Street, TCE and PCE concentrations have been non-detectable in each zone over multiple years. Concentrations of vinyl chloride and cis-1,2-DCE at this well have fluctuated within each zone at relatively low levels. In October 2014, only Zone 3, the shallowest interval, was sampled and VOCs were non-detectable. .

In this downgradient area of the Site well P-9R on Hill Street was sampled during this reporting period to monitor shallow impacts. VOCs remained non-detectable at well P-9R in October 2014.

At deep overburden well OB20-DO, TCE and PCE concentrations are generally low or non-detectable with higher cis-1,2-DCE concentrations. In October 2014, TCE and cis-1,2-DCE were reported at concentrations of 0.0065 mg/L and 0.042 mg/L, respectively, and PCE was non-detectable at OB20-DO. At the adjacent bedrock well OB20-BR, TCE and cis-1,2-DCE concentrations remained consistent over the last three sampling events and were detected at 0.055 mg/L and 0.81 mg/L, respectively in October 2014.

2.2 Groundwater Permanganate Treatment Program

Permanganate injections in 2015 were conducted from January 26, 2015 through the end of this reporting period and included wells AP32-DO (angled well beneath Building 3 Chemistry Lab), OB37-DO,(deep overburden well located inside Building 6), and BLDG3-SVE4 (soil vapor extraction well beneath Building 3 Chemistry Lab). Monitoring data from the sub-slab SVE system at Building 3 indicates low VOC recovery from BLDG3-SVE 4 (see Section 2.4). This information, together with the soil data collected beneath in the Building 3 Chem Lab in 2013, suggests that VOC soil impacts may be more prevalent in the smear zone. Permanganate injection was conducted at BLDG3-SVE 4 in an effort to provide some treatment in the capillary fringe and shallow groundwater beneath the Building 3 Chem Lab.

Permanganate treatment was conducted at AP32-DO in an effort to address the VOC increase discussed above. This deep overburden groundwater injection also provides treatment directly beneath the shallow application at Bldg3-SVE4. Permanganate treatment was also conducted at deep overburden well OB37-DO, due to the increased VOC concentrations discussed above.

2.2.1 Permanganate Injection Activities

The 2014 treatment program extended into 2015 and is expected to be completed during the next reporting period. A total of 683 gallons of permanganate were injected during this reporting period. Volumes of sodium permanganate injected at each well during this reporting period are summarized on **Table 6**. Due to reduced VOC recovery at BLDG3-SVE1 and to help address soil impacts noted at BLDG3-SB100 (PCE detected at 15 milligrams per kilogram (mg/kg) in March 2012), permanganate will be injected in BLDG-SVE1 during the next reporting period along with OB37-DO and AP-32DO.

During this reporting period, 40 percent sodium permanganate solution was delivered to the Site in 250-gallon totes which were stored in an on-site storage shed with secondary containment. Prior to conducting treatment activities, the permanganate was diluted to an approximate 20 percent solution.

The diluted permanganate was transported in portable 5-gallon containers to a well location and then allowed to flow by gravity into the wells.

The permanganate totes, drums, hoses, portable containers, pumps, and associated equipment were periodically inspected during this reporting period to ensure no leaks occurred. Additionally, the spill containment features of the storage shed were inspected periodically during this monitoring period. No problems or releases were reported.

Personal protective equipment (PPE) generated during permanganate injections as well as absorbent pads used for cleanup during permanganate injection equipment were placed into 55-gallon polyethylene drums onsite. Materials were neutralized with a solution of hydrogen peroxide, vinegar and water prior to storing in the drum. This drum is stored on site within the storage shed equipped with spill containment pending appropriate off-site disposal. The drum is inspected periodically.

2.2.2 Permanganate Parameter Monitoring and Results

The Phase IV Plan (IT, 2001) detailed monitoring activities for the various permanganate treatment areas of the Site. As discussed in previous monitoring reports, monitoring activities have been adjusted, based upon changing site conditions. Groundwater physical parameters were monitored monthly during permanganate injection in select monitoring wells in active treatment areas; however, no monitoring was conducted in February and March 2015 due to significant snow cover. Monitoring activities typically completed during the permanganate treatment program include:

- visual observation of groundwater color for identification of residual permanganate;
- depth-to-groundwater measurements; and
- measurement of oxidation-reduction potential (ORP), and pH using a down-well water parameter probe (if no residual permanganate is observed, which could damage the probe).

Results of water quality parameter measurements collected from monitoring wells during this reporting period are presented in **Appendix B**.

Sampling for analytical parameters associated with permanganate treatment during this monitoring period was completed in October 2014. Groundwater samples were collected from select wells in October 2014 for bench-top colorimetric permanganate concentration analysis. The permanganate analysis results are provided in **Table 5**. As would be expected, samples from wells where permanganate injection was conducted in 2014 indicated residual permanganate was present in October 2014. For example, permanganate injections were conducted in OB25-BR in 2014 and the concentration of permanganate at this well was 150,000 mg/L in October 2014.

Typically, the dissolved iron concentrations (**Table 3**) are expected to decrease in treatment areas due to the oxidizing nature of permanganate and associated iron precipitation from the treated groundwater. Results of monitoring in areas where permanganate treatment has occurred generally demonstrate low or non-detectable dissolved iron concentrations. For example, in AP-21 located in PSL10, where permanganate injections were conducted in 2014, dissolved iron was non-detectable in October 2014.

Generally, elevated dissolved manganese concentrations (**Table 3**) are noted where unreacted permanganate was observed. For example, at well AP-21, located upgradient of 32 Tozer Road, permanganate was present at approximately 58,000 mg/L in October 2014 and dissolved manganese was detected at a concentration of 14,000 mg/L in October 2014. Outside of the permanganate treatment areas, dissolved manganese concentrations are generally low or non-detectable. For example, at deep overburden well CL10-DO, just downgradient of the permanganate treatment at AP-21, the dissolved manganese concentration was 84 mg/L in October 2014.

Baseline chloride concentrations at the site were highly variable. As a result of permanganate treatment, chloride levels in groundwater typically increase from the destruction of the chlorinated VOCs. An example of this is observed at OB12-DO, located to the north of Building 3 next to Route 128, where permanganate injections were conducted in 2014. In October 2014 the TCE concentration at OB12-DO decreased to non-detectable and chloride had increased to 1,440 mg/L from 39.4 mg/L during the prior sampling, in April 2014 **(Table 3**).

2.3 Bioremediation Program

The original bioremediation program proposed for a portion of the Site was detailed in the October 2006 ROS report and included treatment at shallow wells in the Building 9 area near the Unnamed Stream, as shown on **Figure 3**. As noted above, the bioremediation program has significantly reduced concentrations of TCE, PCE and TCA in the shallow overburden in this area. The bioremediation program appears to have successfully addressed the shallow overburden impact of TCE and PCE in the area of the Unnamed Stream. Based on an evaluation of groundwater data collected through January 2015, active reductive dechlorination is continuing to address residual VOC daughter products in the shallow overburden near the Unnamed Stream. The data suggest that additional active bioremediation in the shallow overburden in this area is not warranted at this time.

The bioremediation program in the deep overburden near Building 3 has had some success in sustaining reductive dechlorination of target VOC. The 2013 bioremediation injection program included the application of DHC cultures seeded into a sodium lactate solution. Data indicated that the deep overburden bioremediation injections conducted near the northeast corner of Building 3 in 2013 were successful in establishing culture activity in the deep aquifer and distributing lactate to the target wells to sustain biodegradation. Monitoring data from April 2014 indicated that some reductive dechlorination was occurring in this area. However, the groundwater monitoring results indicated lower levels of carbon were available to sustain bioremediation activity. Due to the lower total organic carbon concentrations and the continued elevated TCA and TCE levels in this area, Varian conducted injection of EVO during this reporting period to provide a carbon source for reductive dechlorination in the deep overburden adjacent to Building 3.

2.3.1 Bioremediation Injection Activities

The 2014 bioremediation injection program was initiated on November 5, 2014 and lasted until November 19, 2014. The program included the application of DHC cultures SDC-9 and TCA-20 seeded into an EVO solution. Based on Site data, an estimated 3,215 pounds of EVO would provide sufficient treatment. Two

batches of EVO solution were created by diluting EVO with groundwater from wells in the treatment area and potable water in a 3,000 gallon aboveground storage tank. The EVO mixture was seeded with DHC cultures, and provided one to three days for the culture to become active. Once an active culture was established, the EVO was applied into target wells using a pump. Application was performed at deep overburden wells AP23-DO, AP24-DO, AP33-DO, AP34-DO, and AP35-DO to facilitate complete reductive dechlorination of TCE, TCA and acetone in the area. The calculated 3,215 pounds of EVO (3,759 gallons of solution) were applied in the treatment area during this reporting period. A summary of the volumes of solution injected by well during this reporting period is provided in **Table 7**.

The tank, hoses, portable containers, pump, and associated equipment were periodically inspected during injection activities and rinsed with potable water prior to each injection event. The system was also kept air tight to facilitate an anaerobic environment for the cultures. No problems or releases were noted with the tanks and hoses during bioremediation activities.

2.3.2 Bioremediation Parameter Monitoring Results

During and following the bioremediation activities discussed above, field parameters such as ORP, pH and DO were monitored to assess if appropriate conditions for reductive dechlorination were present in the treatment area. VOCs and bioremediation parameters (methane, ethane, ethene and total organic carbon) in groundwater samples are analyzed quarterly to monitor reductive dechlorination processes. During this reporting period, sampling was conducted in the deep overburden east of Building 3 in October 2014 and January 2015. Bioremediation parameters are summarized on **Table 4**.

As discussed in Section 2.1.2, VOC concentrations remain elevated in the some of the deep overburden in the northeast corner of Building 3. However, significant reductions in the TCE concentrations were noted at wells AP24-DO and AP35-DO in January 2015. The detection of daughter products at several wells and the presence of elevated ethene in most of the deep overburden wells indicate that some complete degradation of VOCs is occurring as a result of the bioremediation injections in November 2014. In January 2015, ethene was detected at AP13-DO (510 ug/l), AP25-DO (290 ug/l), AP33-DO (2,500 ug/l), AP34-DO (630 ug/l), AP35-DO (380 ug/l) and RW-1 (1,000 ug/l).

As indicated in **Table 4,** the January 2015 analytical results showed a Dehalococcoides bacteria population is present in deep overburden groundwater of the treatment area. This further suggests that conditions favorable to reductive dechlorination have been established in the area. Additionally, sufficient levels of carbon to maintain reductive dechlorination were detected in each target well in January 2015.

The next sampling event to monitor the progress of the deep overburden bioremediation is scheduled for May 2015. Data collected at that time will be evaluated to assess the progress of groundwater treatment and to make recommendations on potential future treatment.

2.4 Building 3 SVE System

The Building 3 SVE system, including extraction wells BLDG3-SVE1 and BLDG3-SVE-2, was installed in December 2009 and system startup was completed in January 2010 (Shaw, 2010a). The SVE system was designed to reduce VOC concentrations in the vadose zone soil beneath Building 3 as well as to

control potential vapor intrusion into the building. Two new horizontal extraction wells BLDG3-SVE3 and BLDG3-SVE4 were installed during the previous reporting period and discussed in the October 2014 ROS report.

The SVE system consists of the following components:

- four horizontal soil vapor extraction wells (BLDG3-SVE1, BLDG3-SVE2, BLDG3-SVE3, and BLDG3-SVE4) installed beneath Building 3;
- one 5 horsepower blower;
- one moisture knock-out drum; and
- two 2,000-pound carbon vessels piped in series (with a spare third 2,000 pound carbon vessel)

The locations of the four SVE wells and the treatment system trailer are shown on **Figures 4** and **5** The March 2010 IRA status report included an Operation & Maintenance (O&M) Manual developed to ensure that the system is operated properly to meet the intended design criteria and achieve site remedial goals (Shaw, 2010a). The O&M Manual includes manufacturer's literature and specific procedures for individual components for proper operation and maintenance. As-built drawings for the SVE system, a site-specific data collection form, preventive maintenance charts for key equipment and appropriate system start-up and shutdown procedures were also included.

The Building 3 sub-slab SVE system is part of the Remedy Operation Status for the Site and meets the definition of an Active Exposure Pathway Mitigation Measure (AEPMM) established in the June 2014 revisions to the MCP. The MCP requires that an AEPMM Remedy Operation Status employ remote monitoring technology that will alert the owner and operator of the building protected by the AEPMM and MADEP immediately upon failure of the system. The Building 3 SVE sub-slab system includes a remote monitoring system to provide notice as required by the MCP. The Building 3 sub-slab SVE system was registered with MADEP on December 22, 2014.

The mud slurry and development water generated during installation and development of SVE wells BLDG3-SVE3 and BLDG3-SVE4 during the previous reporting period had been containerized in 250-gallon plastic totes while characterization was completed and off-site disposal arranged. On November 18, 2014, these totes were transported under a Hazardous Waste Manifest by Veolia Technical Solutions to their facility in Port Arthur, TX for incineration. A copy of the Uniform Hazardous Waste Manifest for the shipment of carbon is provided in **Appendix E**.

The following section presents data regarding the operation of the Building 3 SVE system during this reporting period, including a round soil vapor and indoor air sampling.

2.4.1 Building 3 SVE System Operation and Maintenance

During this monitoring period, regular twice-monthly O&M site visits were performed by CB&I personnel. Activities performed during regular O&M visits include checking and recording information from SVE system alarms, gauges and meters, and screening soil vapor recovered by the system with a photoionization detector (PID) to assess VOC recovery and off-gas treatment removal efficiency. The results of regular O&M system monitoring conducted from October 1, 2014 through March 31, 2015 are summarized in **Table 8**. During this monitoring period the average total flow rate for the SVE system was

approximately 171 cubic feet per minute (cfm), with an average pretreatment total VOC concentration of 8 parts per million (ppm). Screening of soil vapor from the SVE wells indicates the greatest VOC recovery is from well BLDG3-SVE3, with an average concentration of approximately 7.3 ppm during this reporting period.

Table 8 also includes calculated off-gas removal efficiency, which demonstrates greater than 95 percent removal of VOCs from the vapor discharge was maintained by the carbon vessels during this reporting period as required by MADEP (MADEP, 1994).

During O&M site visits, the applied vacuum on the SVE wells was adjusted to optimize VOC recovery from beneath Building 3. This included increasing or decreasing applied vacuum on the individual SVE wells or adjusting the ambient air dilution valve to increase or decrease the total applied vacuum. In addition, adjustments are made to the well packers installed in BLDG3-SVE1 and BLDG3-SVE 2 to vary the sections of well screen where vacuum is applied. Other activities performed during this reporting period included draining condensation from lines in the system and monitoring vacuum influence at the sub-slab soil vapor points inside Building 3.

In July 2014, during the previous reporting period, carbon had been removed from one of the carbon vessels and stored in drums onsite while off-site disposal was arranged. On October 23, 2014, approximately 2,000 pounds of spent carbon from July 2014 was transported off site for regeneration at Evoqua Water Technologies in Parker, Arizona (along with spent carbon from the Building 5 SVE system). A copy of the Uniform Hazardous Waste Manifest for the shipment of carbon is provided in **Appendix E**.

Alarms were received during this reporting period when the SVE system automatically shut down due to flow restriction from moisture and ice buildup in the system lines and carbon vessels. Alarms were received on January 18, January 30, February 5, February 16, March 3, March 7, March 10, March 14, and March 15, 2015. After each alarm, the Building 3 SVE system was inspected and the water and ice were removed from the system. The SVE system was restarted the same day or the following day, with the exception of March 7, 2015 when the system was down for two days before restarting. After each restart the system was observed to be operating normally.

On December 11, 2014, grab soil vapor samples were collected from the Building 3 SVE system to assess current VOC concentrations in the recovered vapor. Vapor samples were collected from BLDG3-SVE1, BLDG3-SVE2, BLDG3-SVE3, and BLDGSVE4. Each grab sample was collected using evacuated Summa® canisters. The soil vapor samples collected were submitted to ALS for laboratory analysis of the full VOC list referencing EPA Method TO-15 (MADEP Method WSC-CAM-IXB). Analytical results of the soil vapor samples are summarized on **Table 9**. A complete copy of the laboratory analytical report is provided in **Appendix C**.

Analytical results of the December 11, 2014, grab soil vapor samples from the Building 3 SVE wells indicated:

- TCE was detected at concentrations ranging from non-detectable in BLDG-SVE4 to 130 micrograms per cubic meter (ug/m^3) in BLDG3-SVE3; and
- PCE was detected at concentrations ranging from 11 ug/m^3 in BLDG3-SVE1 to 2,200 ug/m3 in BLDG3-SVE3

Other VOC reported above detection limits in soil vapor samples collected from the Building 3 SVE wells in December 2014 include 2-butanone (up to 9 ug/m^3), acetone (up to 170 ug/m^3), chloroform (at 1 ug/m3), cis-1,2-DCE (up to 11 ug/m3), dichloromethane (up to 32 ug/m3), and toluene (at 1 ug/m^3). December 2014 data indicate a decrease in VOC concentrations in all four SVE extraction wells since the previous sampling was conducted. For example, PCE was detected in extraction well BLDG3-SVE2 at 99,000 ug/m3 during the previous sampling event in July 2014, and 950 ug/m3 in December 2014. This sampling data indicates significant VOC mass removal from beneath Building 3 by the sub-slab SVE system.

2.4.2 Building 3 SVE Soil Vapor and Indoor Air Sampling

On January 29, 2015, sub-slab soil vapor samples were collected from four vapor points, one in the basement of Building 2 (BLDG2-SV1) and three beneath Building 3 (BLDG3-VP1, BLDG3-VP2, and BLDG3-VP3). The sub-slab soil vapor sampling points are illustrated on **Figure 4**. Each sample was collected using evacuated Summa® canisters over a four-hour sampling interval. The sub-slab soil vapor samples collected were submitted to ALS for laboratory analysis of select VOCs referencing EPA Method TO-15 (MADEP Method WSC-CAM-IXB). Analytical results of the soil vapor samples are summarized on **Table 11**. A complete copy of the laboratory analytical report is provided in **Appendix C**.

Analytical results of the January 29, 2015 sub-slab soil vapor samples collected beneath Building 2 and 3 indicated:

- TCE was detected at concentrations ranging from 2 ug/m3 at BLDG3-VP2 to 1,700 ug/m3 at BLDG2-SV1;
- PCE was detected at concentrations ranging from 4 ug/m3 at BLDG3-VP2 to 18,000 ug/m3 at BLDG2-SV1; and
- cis-1,2- DCE was detected at 4 ug/m3 at BLDG3-VP3 and 18 ug/m3 at BLDG2-SV1.

Additional VOCs detected in sub-slab soil vapor samples collected from beneath Building 2 and 3 in January 2015 included acetone (up to 900 ug/m3), dichloromethane (up to 18 ug/m3), trans-1,2-dichloroethene (up to 9 ug/m3), and chloroform (up to 2 ug/m3).

January 2015 analytical data indicated a decrease in VOC concentrations in all four sub-slab soil vapor locations since the last sampling round conducted during system operation (November 1, 2013). Concentrations are the greatest in BLDG2-SV1 indicating, that impacts remain beneath the Building 3 Chemical Laboratory.

In conjunction with the January 29, 2015 sub-slab soil vapor sampling, indoor air samples were collected from the Building 2 basement and in Building 3. These locations included BLDG2-6 (Building 2 Basement), BLDG3-1 (Main Chemical laboratory), BLDG3-3 (MID Stock Room), and BLDG3-4 (Building 3 Machine Shop). The indoor air samples were collected using evacuated Summa® canisters over an eight-hour sampling interval. The indoor air sampling locations are also illustrated on **Figure 4**. The

indoor air samples were submitted to ALS for laboratory analysis of select VOCs referencing EPA Method TO-15 (MADEP Method WSC-CAM-IXB). Analytical results of the indoor air samples are summarized on **Table 12**. A complete copy of the laboratory analytical report is provided in **Appendix C**.

Analytical results of the January 29, 2015 indoor air samples collected in the Building 2 basement and Building 3 indicate:

- TCE was detected at a concentration of 4 ug/m3 at BLDG2-6; and
- PCE was detected at concentrations ranging from non-detectable in BLDG3-1 to 4 ug/m3 at BLDG3-4.

Additional VOCs detected in indoor air samples collected from the Building 2 basement and Building 3 on January 29, 2014 include acetone (up to 2,400 ug/m3), chloromethane (up to 0.7 ug/m3), and dichloromethane (up to 6 ug/m3). Note that acetone is used in the manufacturing process throughout the building.

Indoor air sampling results from the Building 2 basement and Building 3 indicate results similar to sampling conducted prior to the April 2014 temporary shutdown, indicating that the SVE system is maintaining lower concentrations in indoor air during operation.

2.4.3 Building 3 SVE System Performance

Monitoring of applied vacuum beneath the Building 3 floor is conducted at the sub-slab vapor monitoring points installed inside Building 3. The results of this monitoring are provided on **Table 8** for the current reporting period and the locations of the sub-slab vapor monitoring are illustrated on **Figure 4**. Results of this monitoring indicate that vacuum influence from operation of the SVE system is present beneath Building 3, including point BLDG3-VP6, which is located approximately 22 feet to the south of BLDG3-SVE2. These data demonstrate soil vapor control is maintained by operation of the Building 3 SVE system beneath this portion of the Building 3 floor slab.

Measured VOC concentrations in soil vapor recovered by the Building 3 SVE system using a PID are evaluated to approximate the VOC mass removed by the treatment system. Both the VOC mass removal rate and total VOC mass removed by the Building 3 SVE system are presented in **Table 10** and illustrated in **Figure 6**. Since the SVE system was activated in December 2009, it has removed an estimated 1,655 pounds of VOCs from beneath Building 3. During this reporting period, a total of approximately 129 pounds of VOCs were removed by the Building 3 SVE system.

Initial monitoring and sampling of vapor extracted from horizontal wells BLDG3-SVE3 and BLDG3-SVE4 showed elevated concentrations of VOCs, indicating the wells were located in areas with residual VOC in vadose zone soil. However, monitoring data from this reporting period indicated significantly reduced VOC recovery from BLDG3-SVE 4. This also coincides with lower VOC concentrations in soil vapor analytical samples collected from this well as discussed above. Therefore, in February 2015, active extraction was suspended at BLDG3-SVE4 so that permanganate injections could be conducted in this extraction well (See Section 2.2). In BLDG3-SVE1, VOC recovery has also reduced during recent reporting periods. Since the VOC recovery at this well has reached an asymptotic level, permanganate

injections are planned for BLDG3-SVE1 in April 2015. Lower PID screening results and VOC analytical results from extraction wells BLDG3-SVE2 and BLDG3-SVE3 suggest that a controlled shut down of the SVE system may be conducted in the future to test VOC levels in indoor air without the system operating.

As required by the AEPMM provisions in the MCP, the Building 3 sub-slab system was designed to ensure a level of No Significant Risk is maintained for the receptor of concern under normal operating conditions. Monitoring and maintenance activities regularly conducted for the Building 3 sub-slab SVE system continue to demonstrate that the system is operating in accordance with the OMM Plan (Shaw, 2010a) and effectively mitigating the exposure pathway.

2.5 Building 5 SVE System

The Building 5 SVE system was installed in December 2012 and system startup was completed in March 2013. The SVE system was designed to reduce VOC concentrations in the vadose zone soil beneath Building 5 as well as to control potential vapor intrusion into the building.

The system was expanded to include horizontal extraction well BLDG5-SVE4 during the previous reporting period. Well BLDG5-SVE4 was installed to address shallow VOC impacts indicated at OB44-S, adjacent to the former utility trench sump. As discussed in the previous ROS status report, extraction well BLDG5-SVE4 was connected to SVE system on August 11, 2014. **Figure 7** illustrates the location of the new horizontal extraction well.

The SVE system consists of the following components:

- four horizontal soil vapor extraction wells (BLDG5-SVE1, BLDG5-SVE2, BLDG5-SVE3, and BLDG5-SVE4) installed beneath Building 5;
- one 5 horsepower regenerative blower;
- one moisture knock-out drum; and
- two 2,000-pound carbon vessels piped in series (with a spare third 2,000 pound carbon vessel).

The locations of the three SVE wells are shown on **Figure 7**. The October 2013 ROS report included an O&M Manual developed to ensure that the system is operated properly to meet the intended design criteria and achieve site remedial goals (Shaw, 2013c). The O&M Manual includes manufacturer's literature and specific procedures for individual components for proper operation and maintenance. As-built drawings for the SVE system, a site-specific data collection form, preventive maintenance charts for key equipment and appropriate system start-up and shutdown procedures were also included.

The Building 5 sub-slab SVE system is part of the Remedy Operation Status for the Site and meets the definition of an AEPMM established in the June 2014 revisions to the MCP. The MCP requires that an AEPMM implemented as part of a Temporary Solution or Remedy Operation Status employ remote monitoring technology that will alert the owner and operator of the building protected by the AEPMM and MADEP immediately upon failure of the system. The Building 5 sub-slab SVE system includes a remote monitoring system to provide notice as required by the MCP. The Building 5 sub-slab SVE system was registered with MADEP on December 22, 2014.

The following section presents data regarding the operation of the Building 5 SVE system during this reporting period.

2.5.1 Building 5 SVE System Operation and Maintenance

During this monitoring period, regular twice-monthly O&M site visits were performed by CB&I personnel. Activities performed during regular O&M visits include checking and recording information from SVE system alarms, gauges and meters, and screening soil vapor recovered by the system with a PID to assess VOC recovery and off-gas treatment removal efficiency. The results of regular O&M system monitoring conducted from October 1, 2014 through March 31, 2015 are summarized in **Table 13**. From October 1, 2014 through March 31, 2015 the average total flow rate for the SVE system was approximately 151 cfm, with an average pretreatment total VOC concentration of 1.1 ppm. VOC recovery continues to be higher at vapor extraction well BLDG5-SVE1, with an average concentration of approximately 6 ppm during this reporting period.

Table 13 also includes calculated off-gas treatment removal efficiency, which demonstrates greater than 95 percent removal of VOCs from the SVE system discharge was maintained during this reporting period by the carbon treatment vessels as required by MADEP (MADEP, 1994), with the exception of October 15, 2014. As discussed below, when this condition was identified, the stand-by carbon vessel was promptly brought on line and greater than 95 percent VOC removal was documented.

During O&M site visits, the applied vacuum on the SVE wells was adjusted to optimize VOC recovery from beneath Building 5. This included increasing or decreasing applied vacuum on the individual SVE wells or adjusting the ambient air dilution valve to increase or decrease the total applied vacuum. Other activities performed during this reporting period included draining condensation from lines in the system and monitoring vacuum influence at the sub-slab soil vapor points inside Building 5.

On October 15, 2014, PID screening of soil vapor from the carbon vessel effluents indicated potential breakthrough of the primary and secondary carbon (**Table 13**). During the previous O&M visit, PID readings between carbon vessels had indicated VOC concentrations were non-detectable. Based on the October 15, 2014 monitoring results, the primary carbon vessel was taken offline and the stand-by carbon vessel was brought into service as the new secondary treatment vessel and the secondary treatment vessel configured as the primary treatment vessel. The SVE system was then reactivated and monitoring of the secondary carbon effluent (discharge to atmosphere) on this date indicated greater than 95 percent VOC treatment.

On October 23, 2014, approximately 2,000 pounds of spent carbon were removed from the off-line vessel and new carbon was installed. The spent carbon was transported off site for regeneration at Evoqua Water Technologies in Parker, Arizona (along with drums of carbon onsite from the Building 3 SVE system change). A copy of the Uniform Hazardous Waste Manifest for the shipment of carbon is provided in **Appendix E.** The off-line vessel was filled with new carbon and remained on site as a stand-by in the event that future vapor screening indicates carbon breakthrough.

On January 30, 2014, an alarm notice was received indicating the SVE system had shut down due to high vacuum. Upon arrival later that day, the Building 5 SVE system was inspected. Water, which had

restricted the vacuum flow, was removed from the system hoses. The SVE system was restarted and observed to be operating normally.

On February 17, 2014, the Building 5 SVE system was shut down so that snow and ice could be cleared from hoses. During this task it was noted that one of the carbon vessels was frozen, restricting flow through the system. On February 17, 2015, an attempt was made to reconfigure the stand-by carbon in place of the frozen vessel; however, the hoses used to connect the carbon vessels were also frozen and could not be adjusted to bring the stand-by vessel on line. The hoses were moved in to a heated room to be defrosted overnight and the system remained deactivated. On February 19, 2014, the defrosted hoses were used to reconfigure the system to use the unfrozen, stand-by carbon vessel. In addition, a new thermal heating blanket was installed on the carbon vessel to prevent it from freezing again. Once reconfigured, the Building 5 SVE system was restarted and observed to be operating normally.

On December 11, 2014, grab soil vapor samples were collected from the SVE system at horizontal extraction wells BLDG5-SVE1, BLDG5-SVE2, BLDG5-SVE3, and BLDG5-SVE4. Each sample was collected using an evacuated Summa® canister and was submitted to ALS for laboratory analysis of select VOCs by EPA Method TO-15. Analytical results of the soil vapor samples are summarized on Table 15. A complete copy of the laboratory analytical report is provided in Appendix C.

Analytical results of the December 11, 2014, grab soil vapor samples from the Building 5 SVE system indicated:

- TCE was detected at concentrations ranging from 10 ug/m^3 in BLDG5-SVE4 to 4,400 ug/m^3 in BLDG5-SVE1;
- PCE was detected at concentrations ranging from 12 ug/m^3 in BLDG5-SVE4 to 240 ug/m^3 in BLDG5-SVE1; and
- cis-1,2-DCE was detected at concentrations ranging from 4 ug/m^3 in BLDG5-SVE3 to 120 ug/m^3 in BLDG5-SVE1.

Additional VOC reported above detection limits in soil vapor samples collected from the Building 5 SVE system in December 2014 include 1,1,-TCA (at 2 ug/m3), 1,1-dichlorethane (at 0.9 ug/m3), 1,4-dioxane (at 35 ug/m3), 2-butanone (up to 90 ug/m3), 4-methyl-2-pentanone (up to 13 ug/m3), acetone (up to 320 ug/m3), benzene (up to 0.9 ug/m3), chloroform (at 1 ug/m3), dichloromethane (up to 62 ug/m3), ethylbenzene (at 1 ug/m3), toluene (up to 4 ug/m3), vinyl chloride (at 2 ug/m3), MTBE (at 0.9 ug/m3), and xylenes (up to 7 ug/m3).

As indicated on **Table 15**, VOC concentrations in soil vapor from the Building 5 Area extraction wells have decreased overtime due to operation of the SVE system. For example, the TCE concentration detected at BLDG5-SVE1 has decreased from 240,000 ug/m3 during the pilot test in September 2012 to 4,400 ug/m3 in December 2014 (after 638 days of SVE system operation).

2.5.2 Building 5 SVE System Performance

Monitoring the vacuum beneath the Building 5 floor is conducted at six sub-slab vapor monitoring points (BLDG5-SV1, BLDG5-SV2, BLDG5-SV3, BLDG5-SV4, BLDG5-SV5 and BLDG5-SV6) installed inside the building (**Figure 7**). The monitoring data (Table 13) indicates that vacuum influence from operation of the

SVE system is observed at most of the monitoring vapor monitoring locations demonstrating vapor control beneath this portion of the Building 5 floor slab.

Measured VOC concentrations in soil vapor recovered by the SVE system using a PID are evaluated to approximate the VOC mass removed by the treatment system. Both the mass removal rate and total mass removed by the Building 5 SVE system are presented in **Table 14** and illustrated in **Figure 8**. Since the Building 5 SVE system was activated on March 11, 2013, through the end of this reporting period, it has removed an estimated 95.3 pounds of VOCs from beneath Building 5. During this reporting period a total of 12.8 pounds of VOCs were removed from beneath Building 5.

As required by the AEPMM provisions in the MCP, the Building 5 sub-slab SVE system was designed to ensure a level of No Significant Risk is maintained for the receptor of concern under normal operating conditions. Monitoring and maintenance activities regularly conducted for the Building 5 sub-slab SVE system continue to demonstrate that the system is operating in accordance with the OMM Plan (Shaw, 2013c) and effectively mitigating the exposure pathway.

2.6 Installation of Building 5 Groundwater Monitoring Wells

As discussed in the previous ROS report, data from the Building 5 area indicate that indoor air impacts may result directly from shallow groundwater, rather than from residual VOCs in vadose zone soil. Bioremediation was proposed to treat shallow groundwater impacts beneath Building 5. In an effort to better define horizontal extent of the shallow impacts beneath Building 5, shallow groundwater monitoring well OB46-S was installed adjacent to AP27-DO (**Figure 2**). Two downgradient shallow wells (OB47-S and OB48-S) were also installed to assess the downgradient extent of shallow groundwater VOC impacts. The downgradient shallow monitoring wells will be used to monitor post-treatment VOC concentrations in groundwater to confirm no adverse impacts from degradation products as required by the MADEP remedial additive provisions in the MCP.

Shallow groundwater monitoring wells OB46-S, OB47-S, and OB48-S were installed on April 13 and 14, 2015 by Drilex Environmental Inc. (Drilex) of West Boylston, Massachusetts using a hollow stem auger rig under the direct supervision of CB&I personnel. Digsafe notification was conducted before the start of field work and the first five feet of boring advancement was completed using a vacuum excavator to limit the potential of contacting subsurface utilities. During soil boring advancement, soil samples were collected for logging purposes and to conduct headspace VOC screening with a PID. Headspace screening results indicated VOC concentrations ranging from non-detectable to 0.4 ppm in the three monitoring wells. Soil descriptions and headspace screening results are summarized on the drilling logs provided in **Appendix F**. Soil encountered during drilling consisted of fine sand and gravel or a dense sandy silt till.

Shallow well OB46-S was advanced to a depth of 15 feet below grade and was constructed of 10 feet of slotted two-inch diameter PVC well screen and approximately five feet of solid PVC riser. Shallow well OB47-S was advanced to a depth of 25 feet below grade and was constructed of 15 feet of slotted two-inch diameter PVC well screen and approximately ten feet of solid PVC riser. Shallow well OB48-S was advanced to a depth of 20 feet below grade and was constructed of 15 feet of slotted two-inch diameter

PVC well screen and approximately five feet of solid PVC riser. At each location, the well screen was backfilled with a sand pack to a minimum of one foot above the screen. Above the sand pack a one foot bentonite seal was installed and the remaining annular space was backfilled with clean native fill. Wells OB46-S through OB48-S were finished at grade with a bolting road box set in concrete. Well completion diagrams are included in the drilling log included in **Appendix F**.

During drilling, soil cuttings from well installation were transferred into drums and stored onsite pending characterization. One soil sample was collected from the soil cuttings generated during drilling and submitted to ALS for analysis of VOCs by EPA Method 8260B. Analytical results indicated VOCs were non-detectable in the soil sample collected from the drummed cuttings. Disposal of soil cuttings will be conducted during the next reporting period.

Following well installation, wells OB46-S though OB48-DO were developed by Drilex using pumping and surging to remove silt from the sand pack and improve the hydraulic connection with the surrounding aquifer. Development water was drummed and stored onsite pending characterization. A sample of the containerized water was collected and submitted to ALS for analysis of VOCs by EPA Method 8260B. Analytical results indicated TCE (0.087 mg/L, PCE (0.710 mg/L), and cis-1,2-DCE (0.083 mg/L) were present in the development water sample. Disposal of development water will be conducted during the next reporting period.

On March 17, 2015, groundwater samples were collected from the three new monitoring wells as well as OB44-S using modified low-flow sampling procedures. These samples were collected to assess baseline conditions prior to the planned bioremediation in the Building 5 area. Four groundwater samples (OB44-S and OB46-S though OB48-S) were collected and submitted to ALS for analysis of site specific VOCs by EPA Method 8260B. Analytical results are included in **Table 2**. To evaluate potential influences on the reductive dechlorination of VOC, groundwater samples were also collected from OB44-S and OB46-S and submitted to ALS for analysis of dissolved iron and manganese, and total nitrate and sulfate. Dissolved iron and manganese results are included in **Table 3**. Total nitrate and sulfate results are included on **Table 4**. Complete laboratory analytical reports for samples collected in March 2015 are provided in **Appendix C**.

VOCs at shallow well OB44-S have been generally consistent since well installation in 2014, with TCE detected at 9.4 mg/l, PCE detected at 30 mg/l, and cis-1,2-DCE detected at 20 mg/L in March 2014 Groundwater sampling results from the three new shallow monitoring wells located in Building 5 area from March 17, 2015 indicated:

- TCE concentrations ranging from non-detectable in OB48-S to 0.16mg/L in OB46-S,
- PCE concentrations ranging from 0.011 mg/L in OB48-S to 0.76 mg/L in OB46-S, and
- cis-1,2-DCE concentrations ranging from non-detectable in OB48-S to 0.25mg/L in OB46-S

The VOC sampling data from the new wells indicate that impacts to shallow groundwater are limited to a relatively small area beneath Building 5.

Analytical results of the additional samples collected from wells OB44-S and OB46-S, both located in the proposed Building 5 bioremediation area, indicated:

- nitrate was non-detectable at OB44-S and at OB46-S,
- sulfate was present at 56.8 mg/L at OB44-S and at 49.6 mg/L at OB46-S,
- dissolved iron was detected at 390 ug/L at OB44-S and non-detectable at OB46-S, and
- dissolved manganese was present 542 ug/L at OB44-S and 13 ug/L at OB46-S

Review of these pre-treatment data did not indicate a potential significant impact from baseline compounds on reductive dechlorination in the Building 5 bioremediation area. For example, unlike other areas at the site, the concentrations of sulfate detected in the Building 5 area were not elevated enough to significantly inhibit reductive dechlorination of VOC by DCH bacteria.

2.7 32 Tozer Road Soil Vapor and Indoor Air Sampling

32 Tozer Road is located adjacent to and downgradient of the PSL10 treatment area where permanganate treatment was conducted most recently in 2014. Previously collected data, including indoor air sampling results, indicated a condition of No Significant Risk exists at the 32 Tozer Road building. Building renovations by the owner that resulted significant changes to the 32 Tozer Road building floor plan were completed in May 2013. To confirm that a condition of No Significant Risk still existed at this property following these renovations, CB&I completed soil vapor and indoor air sampling within the 32 Tozer Road building in May 2013, October 2013, February 2014 and April 2014, and in October 2014 during this reporting period.

On October 20, 2014, three sub-slab soil vapor samples (32Tozer-SV3, 32Tozer-SV4, and 32Tozer-SV5) were collected from beneath the building floor at 32 Tozer Road using evacuated Summa® canisters over a four-hour sampling interval. The locations of soil vapor sampling points are shown on **Figure 9.** These samples were submitted to ALS Environmental for analysis of select VOCs by EPA Method TO-15.

Analytical results of the sub-slab soil vapor samples collected beneath the 32 Tozer Road building on October 20, 2014 are summarized in **Table 16**. A complete copy of the laboratory analytical report is included in **Appendix C**. The October 20, 2014 soil vapor analytical results indicated the following:

- TCE was detected at concentrations ranging from non-detectable in 32 Tozer-SV5 to 61 ug/m^3 in 32 Tozer-SV3;
- PCE was detected at concentrations ranging from non-detectable in 32 Tozer-SV5 to 10 ug/m^3 in 32 Tozer-SV4;
- cis-1,2-DCE was reported at concentrations ranging from 1 ug/m^3 in 32 Tozer-SV5 to 640 ug/m^3 in 32 Tozer-SV3;
- 1,1-dichloroethane was detected at 2 ug/m^3 in 32 Tozer-SV3;
- trans-1,2-dichloroethane was detected at 3 ug/m^3 in 32 Tozer-SV3; and
- vinyl chloride was detected at 1 ug/m^3 in 32 Tozer-SV4.

Data from the October 2014 soil vapor samples indicate a significant decrease in VOC concentrations from previous sampling rounds. For example, the TCE concentration at 32Tozer-SV3 in October 2014 reflected a decrease in two orders of magnitude compared to the April 2014 sampling. October 2014 soil

vapor sampling results indicated concentrations below Commercial/Industrial Sub-Slab Soil Gas Screening Values, which are screening criteria recommended by the MADEP for initial evaluation of soil vapor data in a commercial or industrial setting.

In conjunction with the sub-slab soil vapor sampling, three indoor air samples (32Tozer-1, 32Tozer-2, and 32Tozer-3) were collected from 32 Tozer Road using evacuated Summa® canisters over an eight-hour sampling interval. The locations of indoor air sampling points are shown on **Figure 9**. These samples were submitted to ALS for analysis of select VOCs by EPA Method TO-15.

Analytical results of the indoor air samples collected in the 32 Tozer Road building on October 20, 2014 are summarized in **Table 16**. A complete copy of the laboratory analytical report is included in **Appendix C**. The October 20, 2014 indoor air analytical results indicated the following:

- PCE was detected at concentrations ranging from non-detectable in 32 Tozer-3 to 2 ug/m3 in 32 Tozer-1 and 32 Tozer-2; and
- cis-1,2-DCE was detected at a concentration of 1 ug/m3 in 32 Tozer-2;

October 2014 indoor air analytical data indicated a decrease in VOC concentrations at all three locations. No concentrations exceeded the Commercial/ Industrial Threshold Values. These threshold values are screening criterion recommended by the MADEP for initial evaluation of indoor air data in a commercial or industrial setting. Further evaluation of potential risk associated with indoor air at 32 Tozer Road was therefore conducted and is discussed in section 4.2.

The final planned round of soil vapor and indoor air sampling will be conducted at 32 Tozer Road in April 2015. That data will be presented and evaluated in the next ROS report.

2.8 Quality Assurance/Quality Control (QA/QC)

In general, the environmental data collected by CB&I during these remedial monitoring activities meets the “presumptive certainty” criteria described in MADEP guidance (MADEP, 2004a). To make this determination, the laboratory reports were reviewed by CB&I to confirm that each sample was analyzed within holding times and to ensure that surrogate recoveries and internal laboratory standards were within QA/QC limits. Based on a data usability assessment of the laboratory analytical reports, the data are appropriate for use in this ROS report. Copies of Data Usability Worksheets that document this review are included with each laboratory analytical report in **Appendix C**. If applicable, results from samples reported beyond the calibration range of the laboratory instrument are flagged with an “E” (exceeds calibration range) qualifier in the laboratory analytical report. However, these samples were reanalyzed by the laboratory as a secondary diluted sample. A “D” (diluted) qualifier in the laboratory analytical report and on the data tables indicates compounds that are reported from a secondary diluted sample. Potential QA/QC issues identified during this reporting period included percent recoveries outside of control limits for certain compounds in laboratory control samples (LCS)/laboratory control sample duplicates (LCSD) in ALS submission numbers R1408298, R2046142, and R205254. As a result of this, a “J” (estimated) qualifier was assigned to positive detects in applicable samples while non-detect results were not qualified.

In ALS submission number R1408298, certain batches of samples had continued calibration verification (CCV) outside the control range. As a result, a “UJ” (non-detect, estimated) qualifier was assigned to non-detectable results in applicable samples.

In ALS submission number R1408298, laboratory samples were received outside the temperature QC limits and both positive and non-detectable results were qualified with a “J” (estimated).

In ALS submission number R1500495 two samples were analyzed for nitrate outside the holding time. Results were non-detectable for this analyte and were qualified “UJ” (non-detect, estimated).

In ALS submission number 205254R, acetone exceeded the instrument calibration and therefore the data was flagged with an “E” qualifier in samples BLDG3-3 and BLDG3-4.

In summary, no data collected during this reporting period were rejected and the data generally meet the QA/QC requirements of the MCP.

3.0 SIGNIFICANT MODIFICATIONS TO THE OPERATION, MAINTENANCE, AND/OR MONITORING PROGRAM (310 CMR 40.0892 (2)(b))

No major modifications to the remediation or monitoring plans for the Site were made during this reporting period.

The original Phase IV Plan (IT, 2001) detailed groundwater remediation and monitoring activities for the various permanganate treatment areas of the Site. Plans for the bioremediation monitoring activities have been presented in previous ROS status reports. The operation, maintenance and monitoring plan for the Building 3 SVE system was submitted to the MADEP in a March 2010 IRA status report (Shaw 2010a). The operation, maintenance and monitoring plan for the Building 5 SVE system was presented in the modified Phase IV Plan (Shaw, 2012c). Minor adjustments to these remedial monitoring plans will continue to be made as site conditions warrant and will be reported in subsequent ROS reports.

4.0 EVALUATION OF THE PERFORMANCE OF REMEDIAL ACTIVITIES (310 CMR 40.0892 (2)(c))

As described in the preceding sections, remedial activities are progressing at the former Varian Facility Site in general accordance with the Phase IV Plan (IT, 2001) and the Modified Phase IV Plan (Shaw 2012d). Generally lower VOC levels and decreasing VOC concentration trends in groundwater have been observed at monitoring wells across the Site as a result of the permanganate injection program. May 2015 groundwater analytical results will be reviewed in an effort to determine if further treatment is required.

In addition, the bioremediation program which began at the Site in 2006 has resulted in significant decreases in VOC levels in shallow groundwater near the Unnamed Stream, where permanganate application is not appropriate. The 2013 deep overburden bioremediation injections conducted near the

northeast corner of Building 3 were successful in establishing culture activity in the deep aquifer and distributing lactate to the target wells particularly wells AP23-DO and AP24-DO to sustain biodegradation. Monitoring data from July 2014 indicated that some reductive dechlorination was occurring in this area. However, the groundwater monitoring results indicated lower levels of carbon are available to sustain bioremediation activity. Therefore, EVO and additional microbes were injected in the deep overburden in the Building 3 area during this reporting period to enhance the reductive dechlorination of VOCs. Data from January 2015 suggest complete degradation is occurring in the deep overburden as a result of the bioremediation. Significant reductions of TCE were noted in AP34-DO and AP-35-DO. Monitoring results from the May 2015 sampling event will be evaluated to determine future steps in the bioremediation program.

The Building 3 and Building 5 SVE systems are being operated in accordance with their respective Phase IV O&M plans (Shaw, 2012c and Shaw, 2013a). Monitoring of vacuum beneath the building floor in each area is conducted to demonstrate that soil vapor control is maintained beneath Buildings 3 and 5.

Permanganate injections were conducted beneath Building 3 in BLDG3-SVE4 during this reporting period to treat VOC impacts in shallow soil and groundwater. In addition, permanganate injections were conducted at OB37-DO and AP32-DO to address increased VOC concentrations in groundwater. Injections at OB37-DO and AP32-DO will continue into the next reporting period. Furthermore, permanganate treatment is planned for at BLDG3-SVE1 to provide further treatment of VOC impacts in shallow soil and groundwater beneath Building 3. After this additional treatment is conducted, further groundwater, soil vapor and indoor air sampling will be conducted in the Building 3 area to evaluate remedial progress.

Data from the Building 5 area suggest that indoor air impacts in the building may be more directly related to VOC in shallow groundwater than residual VOC in vadose zone soil. Because TCE concentrations in indoor air at Building 5 have periodically been detected above MADEP's long-term remediation target for workplace indoor air (8 ug/m^3) with operation of the SVE system, it appears that shallow groundwater treatment is also be warranted in the Building 5 area. In April 2015, bioremediation injections will be conducted in the Building 5 SVE extraction wells in an effort to reduce VOC concentrations beneath Building 5 and to further reduce potential impacts to indoor air. Bioremediation, which was shown to be effective in the shallow overburden groundwater near the Unnamed Stream, is recommended in the Building 5 area due to the presence of several abandoned and one active utility in the treatment area that could present a potential concern for permanganate treatment. Lactate is recommended rather than emulsified vegetable oil to limit the potential clogging of the gravel pack around the horizontal SVE wells and because it has higher mobility in the subsurface, which should provide better distribution of carbon in the shallow aquifer. Each of the four existing trench SVE wells (**Figure 7**) is proposed for lactate injection to provide treatment across the likely source area. Based on existing Site data and the baseline groundwater sampling results discussed in section 2.6, a calculated dose of 610 pounds of sodium lactate for each of the four injection wells was estimated to treat VOC in the target area. In addition, DHC microbes will be mixed with the sodium lactate prior to injection to establish culture population. Injection at the SVE trench wells will be staggered to allow for continued operation of portions of the SVE system. For example, injection will start at the two upgradient trenches Bldg5-SVE2 and Bldg5-SVE3 while vapor extraction continues at Bldg5-SVE1 and Bldg5-SVE4. Following a minimum of two weeks, injection will

be conducted at trenches Bldg5-SVE1 and Bldg5-SVE4 while vapor extraction is conducted at Bldg5-SVE2 and Bldg5-SVE3. The distance between the SVE trench wells should be sufficient to avoid adversely impacting reductive dechlorination in the shallow aquifer. However, if monitoring data suggests that the operation of the SVE may be impacting DO levels in groundwater (i.e. >1 mg/L), then temporary adjustment to the operation of the Building 5 system may be needed. This may include reducing the extraction flow rate at the operating SVE wells or a temporary shutdown of the system. If the Building 3 SVE system is temporarily shut down, then indoor air testing may be conducted to assess potential changes to indoor air impacts. Details of this treatment and results of treatment monitoring will be provided in the next ROS report.

The following sections present an updated evaluation, including new data collected during this monitoring period as it pertains to potential risk posed by oil or hazardous materials associated with the Site and potential receptors.

4.1 Building 3 Indoor Air Evaluation

The Phase II CSA for the Building 3 remedial area (Shaw, 2012a) included an evaluation of exposure to indoor air with the SVE system operating, considering four rounds of indoor air data collected from February 2011 to January 2012. The conclusion of the Phase II evaluation was that a Condition of No Significant Risk has been achieved with the operation of the SVE system. A subsequent round of indoor air samples in November 2013 confirmed that the SVE system is continuing to maintain a Condition of No Significant Risk. In addition, no conditions of Imminent Hazard have been identified. In particular, concentrations of TCE in indoor air with the system operating have been consistently below the Imminent Hazard value set by MADEP for occupational settings of 24 ug/m^3 (MADEP, 2014). It should be noted that, even during the temporary shutdown of the Building 3 system in April 2014, TCE concentrations in indoor air remained below MADEP's long-term remediation target of 8 ug/m^3 for workplace indoor. Indoor air analytical data collected during this reporting period indicated VOC concentrations similar to or below previous sampling data and therefore confirm that the SVE system is continuing to maintain a Condition of No Significant Risk.

4.2 Evaluation of Off-Site Properties

4.2.1 32 Tozer Road

In October 2014, CB&I conducted the fifth round of indoor air and soil vapor sampling at the 32 Tozer Road property since the completion of building renovations in April 2013. The results of the first four rounds of indoor air sampling (May 2013, October 2013, February 2014 and April 2014) were evaluated in accordance with the MCP to conservatively estimate potential risk from VOCs in indoor air due to vapor intrusion. Based on this evaluation, the data demonstrated a condition of No Significant Risk exists at the 32 Tozer Road property in accordance with MADEP criteria (CB&I, 2014). The October 2014 soil vapor and indoor air data indicated VOC concentrations lower than the levels assessed in this earlier evaluation. Therefore, a condition of No Significant Risk is still maintained.

4.2.2 30 Tozer Road

The April 2013 ROS report included an indoor air evaluation for 30 Tozer Road, which concluded that a condition of No Significant Risk associated with VOCs from the former Varian Site existed at the 30 Tozer Road property (Shaw, 2013b). The ROS report stated that additional indoor air sampling at 30 Tozer Road may be conducted if increased VOC concentrations are observed at shallow monitoring well OB42-S, located adjacent to the 30 Tozer Road Building (**Figure 2**). October 2014 groundwater analytical results indicate VOC concentrations similar to previous sampling rounds in OB42-S. Therefore, a condition of No Significant Risk would still be expected.

4.2.3 39 Tozer Road

The April 2013 ROS report included an indoor air evaluation for 39 Tozer Road, which concluded that a condition of No Significant Risk associated with VOCs from the former Varian Site existed at the 39 Tozer Road property (Shaw, 2013b). The ROS report stated that additional indoor air sampling at 39 Tozer Road may be conducted if increased VOC concentrations are observed at shallow monitoring well OB41-S, located adjacent to the 39 Tozer Road Building (**Figure 2**). October 2014 groundwater analytical results indicate VOC concentrations similar to previous sampling rounds in OB41-S. Therefore, a condition of No Significant Risk would still be expected.

5.0 MEASURES TAKEN TO ADDRESS PROBLEMS AFFECTING THE PERFORMANCE OF THE REMEDIAL ACTION (310 CMR 40.0892 (2)(d))

No significant problems affecting the performance of the selected remedial actions were identified during this reporting period. O&M activities that were conducted to address ice and moisture build up in the Building 3 and Building 5 SVE systems are detailed in this report. The O&M activates were implemented in a timely manner and once conducted site data indicated effective operation of both systems in accordance with the O&M plans. As demonstrated by the analytical data contained in this ROS report, significant remedial progress continues to be made with lower VOC concentrations measured across the Site. The performance of on-going remedial actions will continue to be documented in future ROS reports.

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7.0 LIMITATIONS ON WORK PRODUCT

The information contained in this report, including its conclusions, is based upon the information that was made available to CB&I Environmental and Infrastructure, Inc. (CB&I) during the investigation and obtained from the services described, which were performed within time and budgetary restraints.

CB&I makes no representation concerning the legal significance of its findings or of the value of the property investigated. CB&I has no contractual liability to any third parties for the information or opinions contained in this report.

Unless and until the parties agree otherwise in writing, the use of this report or any information contained therein by any third party shall be at such third party's sole risk. Such use shall constitute an agreement to release, defend and indemnify Varian Medical Systems, Inc. and CB&I from and against any and all liability in connection therewith.

TABLES

Table 1A
Water Quality Sample Summary
Oct-14
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Location	Location	Rationale for Sampling	Analysis Performed
Building 3/6 Treatment Areas			
AP12-S	East Building 6	Monitor injection & Site conditions	VOC
AP12-DO	East Building 6	Monitor injection & Site conditions	VOC
AP12-BR	East Building 6	Monitor injection & Site conditions	VOC
AP31-DO	North Building 3	Monitor remediation and VOC trends	VOC, Fe & Mn, chloride, permanganate
AP32-DO	North Building 3	Monitor remediation and VOC trends	VOC, Fe & Mn, chloride, permanganate
BW-5	By Unnamed Stream	Monitor shallow VOC trends	VOC
BW-8	By Unnamed Stream	Monitor shallow VOC trends	VOC
CL5-DOA	East Building 6	Monitor injection & Site conditions	VOC
MW-9A	By Unnamed Stream	Monitor shallow VOC trends	VOC
MW-13	North Building 3 by Rte 128	Monitor injection & Site conditions	VOC, permanganate
OB9-DO	By Unnamed Stream	Monitor VOC trends	VOC
OB9-BR	By Unnamed Stream	Monitor VOC trends	VOC
OB10-BR	East Building 4	Monitor injection & Site conditions	VOC
OB12-DO	North Building 3 by Rte 128	Monitor remediation	VOC, Fe & Mn, chloride, permanganate
OB19-DO	West Building 1 & 2	Monitor remediation	VOC, Fe & Mn, chloride, permanganate
OB25-DO	West Building 1 & 2	Monitor VOC trends and confirm no adverse downgradient impacts	VOC
OB25-BR	West Building 1 & 2	Monitor injection & Site conditions	VOC, Fe & Mn, chloride, permanganate
OB26-DO	West Building 1 & 2	Monitor injection & Site conditions	VOC
OB27-BR	West Building 7	Monitor injection & Site conditions	VOC, permanganate
OB32-DO	North Building 3	Monitor injection & Site conditions	VOC, permanganate
OB34-DO	North Building 3	Monitor injection & Site conditions	VOC
OB36-DO	Inside Building 6	Monitor VOC trends	VOC, permanganate
OB37-DO	Inside Building 6	Monitor VOC trends	VOC
STR-3	Unnamed Stream	Monitor VOC trends, also Con Comm request	VOC
UNNAMED STREAM	Unnamed Stream	Monitor VOC trends, also Con Comm request	VOC
MW-9	Near Bldg. 9 and Unnamed Stream	Monitor VOC trends in shallow bioremediation area	VOC, methane, ethane, ethene, TOC
OB9-S	Near Bldg. 9 and Unnamed Stream	Monitor VOC trends in shallow bioremediation area	VOC, methane, ethane, ethene, TOC
OB15-S	Near Bldg. 9 and Unnamed Stream	Monitor VOC trends in shallow bioremediation area	VOC, methane, ethane, ethene, TOC

Table 1A
Water Quality Sample Summary
Oct-14
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Location	Location	Rationale for Sampling	Analysis Performed
Building 5 Treatment Area			
OB35-DO	Inside Building 5	Monitor injection and VOC trends	VOC, Fe & Mn, chloride, permanganate
OB44-S	Inside Building 5	Monitor injection and VOC trends	VOC
OB45-S	East Building 5	Monitor VOC trends	VOC
OB45-DO	East Building 5	Monitor VOC trends	VOC
AP27-DO	East Building 5	Monitor residual permanganate and VOC trends	VOC, Fe & Mn, chloride, permanganate
OB38-DO	East Building 5	Monitor VOC trends	VOC
Tozer Road South Area			
OB4-DO	28 Tozer	Monitor Site conditions	VOC
OB5-DO	27 Tozer	Monitor Site conditions	VOC
OB42-S	30 Tozer Rd	Monitor shallow VOC trends	VOC
OB43-S	30 Tozer Rd	Monitor shallow VOC trends	VOC
CL3-DO	28 Tozer	Monitor VOC trends	VOC, Fe & Mn, chloride, permanganate
31 Tozer Rd Treatment Area			
OB18-S	31 Tozer Road	Monitor Site conditions	VOC
OB41-S	39 Tozer Road	Monitor shallow VOC trends	VOC
STRHA-7A	39 Tozer Road	Monitor VOC trends in surface water	VOC
STRHA-7B	39 Tozer Road	Monitor VOC trends in surface water	VOC
Longview/Hill Street Treatment Area			
BR-6 ZONE 3	Hill Street	Monitor VOC trends	VOC
P-9R	Hill Street	Monitor VOC trends	VOC
OB20-DO	SCDS field	Monitor VOC trends	VOC
OB20-BR	SCDS field	Monitor VOC trends	VOC
STRM-A-SCDS	SCDS field	Monitor VOC trends in surface water	VOC
PSL10 Treatment Area			
AP-19	PSL10	Monitor residual permanganate and VOC trends	VOC, Fe & Mn, chloride, permanganate
AP-20	PSL10	Monitor residual permanganate and VOC trends	VOC, Fe & Mn, chloride, permanganate
AP-21	PSL10	Monitor residual permanganate and VOC trends	VOC, Fe & Mn, chloride, permanganate
AP-22	PSL10	Monitor residual permanganate and VOC trends	VOC, Fe & Mn, chloride, permanganate
MW2-32 Tozer	32 Tozer Rd	Monitor VOC trends	VOC, Fe & Mn, chloride
CL10-S	32 Tozer Rd	Monitor VOC trends	VOC
CL10-DO	32 Tozer Rd	Monitor VOC trends	VOC, Fe & Mn, chloride, permanganate
CL10-BR	32 Tozer Rd	Monitor VOC trends	VOC

Notes:

TOC = Total Organic Carbon, analysis by EPA Method 5310C
VOCs = Volatile Organic Compounds, analysis by EPA Method 8260C
Methane, ethane, ethene analysis by RSK-175 Method
Dissolved Iron and Manganese, analysis by Method 6010C

Table 1B
Water Quality Sample Summary
January 2015
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Location	Location	Rationale for Sampling	Analysis Performed
AP13-DO	East Building 3	Monitor remediation and VOC trends in deep bioremediation area	VOC, methane, ethane, ethene, TOC, nitrate/sulfate, dissolved iron and manganese, Dehalococcoides sp.
AP23-DO	East Building 3	Monitor remediation and VOC trends in deep bioremediation area	VOC, methane, ethane, ethene, TOC, nitrate/sulfate, dissolved iron and manganese, Dehalococcoides sp.
AP24-DO	East Building 3	Monitor remediation and VOC trends in deep bioremediation area	VOC, methane, ethane, ethene, TOC, nitrate/sulfate, dissolved iron and manganese, Dehalococcoides sp.
AP33-DO	East Building 3	Monitor remediation and VOC trends in deep bioremediation area	VOC, methane, ethane, ethene, TOC, nitrate/sulfate, dissolved iron and manganese, Dehalococcoides sp.
AP34-DO	East Building 3	Monitor remediation and VOC trends in deep bioremediation area	VOC, methane, ethane, ethene, TOC, nitrate/sulfate, dissolved iron and manganese, Dehalococcoides sp.
AP35-DO	East Building 3	Monitor remediation and VOC trends in deep bioremediation area	VOC, methane, ethane, ethene, TOC, nitrate/sulfate, dissolved iron and manganese, Dehalococcoides sp.
AP25-DO	East Building 3	Monitor VOC trends and confirm no adverse downgradient impacts	VOC, methane, ethane, ethene, TOC
OB25-DO	West Building 1 & 2	Monitor VOC trends and confirm no adverse downgradient impacts	VOC
RW-1	East Building 3	Monitor VOC trends and confirm no adverse downgradient impacts	VOC, methane, ethane, ethene, TOC
AP30R-DO	Beneath Building 3	Monitor VOC trends and confirm no adverse downgradient impacts	VOC
MW-9	Near Bldg. 9 and Unnamed Stream	Monitor VOC trends in shallow bioremediation area	VOC, methane, ethane, ethene, TOC
OB9-S	Near Bldg. 9 and Unnamed Stream	Monitor VOC trends in shallow bioremediation area	VOC, methane, ethane, ethene, TOC
OB15-S	Near Bldg. 9 and Unnamed Stream	Monitor VOC trends in shallow bioremediation area	VOC, methane, ethane, ethene, TOC

Notes:
TOC = Total Organic Carbon, analysis by EPA Method 5310C
VOCs = Volatile Organic Compounds, analysis by EPA Method 8260C
Methane, ethane, ethene analysis by RSK-175 Method
nitrate/sulfate analysis via EPA Method 300
Dissolved Iron and Manganese, analysis by Method 6010C
Dehalococcoides sp. analysis by polymerase chain reaction (PCR)

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-02	4/3/2009	24	0.16	0.023	<0.0020	<0.0020	---	0.042	<0.0020	0.028	<0.0020	<0.0020	0.032	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
AP-06-BR	4/1/2009	93	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0022	<0.0010	0.024	0.059	<0.0010
AP-12-BR	4/3/2009	84	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	0.47	24	<0.20	<0.20	9.4	<0.20
	10/26/2009	65	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	0.59	17	<0.20	<0.20	4.6	<0.20
	10/26/2009	76	<0.13	<0.13	<0.13	<0.13	---	<0.13	<0.13	<0.13	<0.13	<0.13	0.48	12	<0.13	<0.13	3.6	<0.13
	4/20/2010	81	0.0011	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0091	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/14/2010	81	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	0.0046	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/14/2011	78	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	0.0021	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/28/2011	74	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	0.0031	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	80	0.0022J	<0.0020J	<0.0020J	<0.0020J	<0.010J	<0.0020J	<0.0020J	0.0036J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J
	11/27/2012	81	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/18/2013	81	<0.0020	<0.0020	<0.0020	<0.0020	0.018	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	81	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	73	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.016	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	73	<0.0020	<0.0020	0.0064	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.12	1.4D	<0.0020	0.006	2.1D	0.018
AP-12-DO	4/3/2009	50	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	0.033	<0.010	<0.010	0.94	<0.010	<0.010	<0.010	<0.010	<0.010
	10/26/2009	50	<0.0025	<0.0025	<0.0025	<0.0025	---	0.004	<0.0025	0.019	<0.0025	<0.0025	0.33	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	4/20/2010	57	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	7.1	0.53	<0.050	<0.050	<0.050	<0.050
	10/14/2010	37	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	7.7	0.57	<0.10	<0.10	<0.10	<0.10
	4/14/2011	48	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	8.8	4.6	<0.10	<0.10	0.16	<0.10
	10/28/2011	44	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	10D	27D	<0.10	<0.10	2.7	<0.10
	4/5/2012	56	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	14	39	<0.50	<0.50	4.2	<0.50
	11/27/2012	57	0.003	<0.0020	<0.0020	<0.0020	<0.010	0.013	<0.0020	0.083	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/18/2013	35	0.0046	<0.0020	<0.0020	<0.0020	0.023	0.042	<0.0020	0.12	<0.0020	<0.0020	0.002	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	57	0.0038	<0.0020	<0.0020	<0.0020	<0.010	0.017	<0.0020	0.093	<0.0020	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	48	0.0032	<0.0020	<0.0020	<0.0020	<0.010	0.0074	<0.0020	0.11	<0.0020	<0.0020	1.9D	0.012	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	48	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	0.1	<0.020	<0.020	4.8D	0.88	<0.020	<0.020	0.13	<0.020
AP-12-S	4/3/2009	26	0.011	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0032	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	29	0.0088	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0035	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	31	0.008	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0044	<0.0020	<0.0020	0.0027	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	26	0.0062	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0032	<0.0020	<0.0020	0.016	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	22	0.0049	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0034	<0.0020	<0.0020	0.26DJ	0.11	<0.0020	<0.0020	0.25D	0.0034
	4/10/2014	26	0.0043	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	1.9D	1.8D	<0.0040	<0.0040	0.38	0.0067
	10/15/2014	26	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	2.4	2.1	<0.040	<0.040	0.4	<0.040
AP-13-DO	1/14/2009	47	25	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	87	170	<2.0	<2.0	<2.0	<2.0
	4/2/2009	51	28	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	86	200	<2.0	<2.0	<2.0	<2.0
	10/26/2009	52	29	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	84	200	<2.0	<2.0	5.2	<2.0
	4/22/2010	60	27	<4.0	<4.0	<4.0	---	<4.0	<4.0	<4.0	<4.0	<4.0	72	290	<4.0	<4.0	<4.0	<4.0
	7/14/2010	60	28J	<2.0UJ	<2.0UJ	<2.0UJ	---	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	70J	290J	<2.0UJ	<2.0UJ	5.8J	<2.0UJ
	10/12/2010	51	28	<5.0	<5.0	<5.0	28	<5.0	<5.0	<5.0	<5.0	<5.0	75	350	<5.0	<5.0	<5.0	<5.0
	1/4/2011	61	13	<2.0	<2.0	<2.0	5.5J	<2.0	<2.0	<2.0	<2.0	<2.0	40	160	<2.0	<2.0	14	<2.0
	4/5/2011	51.2	18	<4.0	<4.0	<4.0	12J	<4.0	<4.0	<4.0	<4.0	<4.0	46	200	<4.0	<4.0	5.8	<4.0
	7/28/2011	51	13	<2.0	<2.0	<2.0	41	<2.0	<2.0	<2.0	<2.0	<2.0	23	150	<2.0	<2.0	3.8	<2.0
	10/25/2011	60	19	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	44	230D	<2.0	<2.0	7.2	<2.0
	1/17/2012	51	29	<2.0	<2.0	<2.0	10	<2.0	<2.0	<2.0	<2.0	<2.0	53	360D	<2.0	<2.0	3.7	<2.0
	4/3/2012	51	25	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	59	320	<4.0	<4.0	<4.0	<4.0

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-13-DO (Cont.)	5/2/2013	47.5	26	<4.0	<4.0	<4.0	62	<4.0	<4.0	<4.0	<4.0	<4.0	60	330	<4.0	<4.0	<4.0	<4.0
	1/20/2014	41	26	<4.0	<4.0	<4.0	20	<4.0	<4.0	<4.0	<4.0	<4.0	87	350	<4.0	<4.0	7.6	<4.0
	4/8/2014	51	25	<4.0	<4.0	<4.0	24	<4.0	<4.0	<4.0	<4.0	<4.0	85	340	<4.0	<4.0	5.4	<4.0
	8/6/2014	49	26	<4.0	<4.0	<4.0	28	<4.0	<4.0	<4.0	<4.0	<4.0	92	320	<4.0	<4.0	11	<4.0
	1/20/2015	50.7	23	<4.0	<4.0	<4.0	23	<4.0	<4.0	<4.0	<4.0	<4.0	93	340	<4.0	5.5	15	<4.0
AP-13-S	4/3/2009	16	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	0.0021	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	17	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0037	0.0034	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	16.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/26/2011	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0036	0.002	<0.0020	<0.0020	<0.0020	<0.0020
	1/17/2012	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/21/2014	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.015	0.026	<0.0020	<0.0020	0.0034	<0.0020
	4/10/2014	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0087	0.0059	<0.0020	<0.0020	0.0022	<0.0020
AP-14-S	4/3/2009	32	0.19	<0.0025	<0.0025	<0.0025	---	0.14	<0.0025	0.0091	<0.0025	<0.0025	0.28	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025
	4/21/2010	34	0.12	<0.010	<0.010	<0.010	---	0.1	<0.010	0.055	<0.010	<0.010	1.2	1.2	<0.010	<0.010	<0.010	<0.010
	4/6/2011	29.1	0.080J	<0.020UJ	<0.020UJ	<0.020UJ	<0.10UJ	0.047J	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	1.6J	0.58J	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ
	4/5/2012	29	0.0093	<0.0050	<0.0050	<0.0050	<0.025	0.0064	<0.0050	<0.0050	<0.0050	<0.0050	0.35	0.048	<0.0050	<0.0050	<0.0050	<0.0050
	5/2/2013	29	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.21	0.022	<0.0040	<0.0040	<0.0040	<0.0040
	4/21/2014	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.14	0.028	<0.0020	<0.0020	<0.0020	<0.0020
AP-15-S	4/2/2009	16	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	12	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.01	0.054	<0.0010	<0.0010	0.017	<0.0010
	4/20/2010	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.012	0.036	<0.0010	<0.0010	0.0089	<0.0010
	10/14/2010	12	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0036	0.025	<0.0020	<0.0020	0.0061	<0.0020
	4/5/2011	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/25/2011	12	<0.0020	<0.0020	<0.0020	<0.0020	0.023	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/12/2012	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	12.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	12.2	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/8/2014	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
AP-19	4/6/2009	27	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.4	0.06	<0.0050	<0.0050	<0.0050	<0.0050
	10/27/2009	27	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.32	0.054	<0.0025	<0.0025	<0.0025	<0.0025
	4/21/2010	29	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	1.1	0.13	<0.010	<0.010	<0.010	<0.010
	10/14/2010	28	<0.0040	<0.0040	<0.0040	<0.0040	---	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.22	0.024	<0.0040	<0.0040	<0.0040	<0.0040
	4/6/2011	27.5	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.71	0.071	<0.010	<0.010	<0.010	<0.010
	10/27/2011	29	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.26	0.036	<0.0040	<0.0040	<0.0040	<0.0040
	4/5/2012	27	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.94	0.085	<0.010	<0.010	<0.010	<0.010
	11/13/2012	19	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.28	0.03	<0.0040	<0.0040	<0.0040	<0.0040
	5/2/2013	27	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040UJ	<0.0040	1.3D	0.12	<0.0040	<0.0040	<0.0040	<0.0040
	10/24/2013	24.3	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.17D	0.026	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/11/2014	25	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.39	0.077	<0.0040	<0.0040	0.081	<0.0040
	10/16/2014	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
AP-20	4/6/2009	18	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	16	0.0021	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	19	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.45	0.012	<0.0050	<0.0050	<0.0050	<0.0050
	10/14/2010	15	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	1	0.14	<0.010	<0.010	<0.010	<0.010

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-20 (Cont.)	4/6/2011	15.1	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.25	0.017	<0.0040	<0.0040	0.01	<0.0040
	10/27/2011	19	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.007	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.96D	0.1	<0.0020	<0.0020	0.06	<0.0020
	11/13/2012	19	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	2.1D	0.41	<0.020	<0.020	0.038	<0.020
	5/2/2013	15	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.39	0.038	<0.0050	<0.0050	0.03	<0.0050
	10/24/2013	15	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	7.9D	0.37	<0.040UJ	<0.040	0.2	<0.040
	4/11/2014	16	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.55	0.069	<0.010	<0.010	0.097	<0.010
	10/16/2014	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0031	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
AP-21	4/6/2009	28	<0.0010	0.002	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0081	<0.0010	<0.0010	<0.0010	<0.0010	0.0029	<0.0010	<0.0010	<0.0010
	11/23/2009	28	<0.0010	0.075	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0043	<0.0010	<0.0010	<0.0010	<0.0010	0.058	<0.0010	<0.0010	<0.0010
	4/21/2010	29	<0.0010	0.13	<0.0010	<0.0010	---	<0.0010	0.0014	0.002	<0.0010	<0.0010	<0.0010	<0.0010	0.068	<0.0010	<0.0010	<0.0010
	10/14/2010	29	<0.0020	0.17	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/14/2011	24	<0.0040	0.19	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	10/27/2011	29	<0.0020	0.19	<0.0020	<0.0020	0.013	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	22.2	<0.0020	0.14	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/13/2012	29	<0.0020	0.15	<0.0020	<0.0020	0.01	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	5/2/2013	27	<0.0020	0.13	<0.0020	<0.0020	0.01	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	22	<0.0020	0.13	<0.0020	<0.0020	<0.010	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	0.19	0.048	<0.0020UJ	<0.0020	0.26D	<0.0020
	4/11/2014	23	<0.010	0.11	0.035	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.83	0.47	<0.010	<0.010	4.9D	<0.010
	10/16/2014	29	<0.0020	0.074	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0062	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
AP-22	4/6/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	0.001	0.0023	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010
	10/27/2009	17	<0.0010	0.015	<0.0010	<0.0010	---	<0.0010	0.0031	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	0.0099	<0.0010	<0.0010	<0.0010
	4/21/2010	19	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	0.0035	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0019	<0.0010	<0.0010	<0.0010
	10/14/2010	19	<0.0020	0.017	<0.0020	<0.0020	---	<0.0020	0.0055	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/14/2011	19	<0.0020	<0.0020	<0.0020	<0.0020	0.014	<0.0020	0.0063	<0.0020	<0.0020	<0.0020	1.4D	0.15	<0.0020	<0.0020	0.33D	<0.0020
	10/27/2011	19	<0.0020	<0.0020	<0.0020	<0.0020	0.015	<0.0020	<0.0020	0.0028	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	18	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	0.0036	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/13/2012	19	<0.0020	0.009	<0.0020	<0.0020	<0.010	<0.0020	0.0052	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/17/2013	20	<0.0020	<0.0020	<0.0020	<0.0020	0.012	<0.0020	0.0047	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	20.8	<0.0020	0.0062	<0.0020	<0.0020	<0.010	<0.0020	0.0053	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/11/2014	20	<0.0020	0.0024	<0.0020	<0.0020	<0.010	<0.0020	0.005	<0.0020	<0.0020	<0.0020	0.025	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
AP-23-DO	1/14/2009	51	<1.0	<1.0	<1.0	<1.0	---	<1.0	<1.0	<1.0	<1.0	<1.0	35	140	<1.0	<1.0	8.2	<1.0
	4/2/2009	47	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	34	210	<2.0	<2.0	7	<2.0
	10/26/2009	48	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	41	210	<2.0	4.2	29	<2.0
	1/28/2010	51	<1.0	<1.0	<1.0	<1.0	---	<1.0	<1.0	1	<1.0	<1.0	32	150	<1.0	4.8	30	<1.0
	4/22/2010	51	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	40	270	<2.0	<2.0	7.1	<2.0
	7/14/2010	14	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	---	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	50J	330J	<2.0UJ	<2.0UJ	12J	<2.0UJ
	10/12/2010	47	<4.0	<4.0	<4.0	<4.0	30	<4.0	<4.0	<4.0	<4.0	<4.0	46	270	<4.0	<4.0	17	<4.0
	1/4/2011	51	<1.0	<1.0	<1.0	<1.0	2.5J	<1.0	<1.0	<1.0	<1.0	<1.0	11	86	<1.0	5.2	20	<1.0
	4/5/2011	47.4	<4.0	<4.0	<4.0	<4.0	14J	<4.0	<4.0	<4.0	<4.0	<4.0	20	230	<4.0	<4.0	6.2	<4.0
	7/28/2011	47	<2.0	<2.0	<2.0	<2.0	2.9J	<2.0	<2.0	2	<2.0	<2.0	20	140	<2.0	2.7	7.4	<2.0
	10/25/2011	51	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	23	240D	<2.0	3.3	9.6	<2.0
	1/17/2012	47.5	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	41	490D	<2.0	<2.0	4.7	<2.0
	4/3/2012	47	<4.0	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	21	350	<4.0	<4.0	<4.0	<4.0
	5/2/2013	47.4	<4.0	<4.0	<4.0	<4.0	79	<4.0	<4.0	<4.0	<4.0UJ	<4.0	47	510D	<4.0	<4.0	<4.0	<4.0

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-23-DO (Cont.)	1/20/2014	47.6	<4.0	<4.0	<4.0	<4.0	23	<4.0	<4.0	<4.0	<4.0	<4.0	40	390	<4.0	4.7	41	<4.0
	4/8/2014	48	<4.0	<4.0	<4.0	<4.0	21	<4.0	<4.0	<4.0	<4.0	<4.0	41	360	<4.0	5.2	32	<4.0
	8/6/2014	46	<4.0	<4.0	<4.0	<4.0	76	<4.0	<4.0	<4.0	<4.0	<4.0	61	440D	<4.0	<4.0	<4.0	<4.0
	1/20/2015	47.8	<10	<10	<10	<10	<50	<10	<10	<10	<10	<10	32	400	<10	<10	<10	<10
AP-24-DO	1/14/2009	52	22	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	41	210	<2.0	<2.0	10	<2.0
	4/2/2009	47	36	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	54	270	<2.0	<2.0	19	<2.0
	10/26/2009	48	62	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	32	270	<2.0	4.2	44	<2.0
	1/28/2010	52	41	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	39	240	<2.0	6	14	<2.0
	4/22/2010	52	52	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	21	270	<2.0	3.7	14	<2.0
	7/14/2010	15.5	38J	<2.0UJ	<2.0UJ	<2.0UJ	---	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	<2.0UJ	26J	260J	<2.0UJ	15J	65J	<2.0UJ
	10/12/2010	47	27	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	13	190	<4.0	27	41	<4.0
	1/4/2011	52	9.5	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	19	9.8D	<1.0	30	75	<1.0
	4/5/2011	47.3	43	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	24	300	<4.0	10	28	<4.0
	7/28/2011	47	1.2	<0.20	<0.20	<0.20	0.10J	<0.20	<0.20	0.22	<0.20	<0.20	1.7	16	<0.20	0.94	1.7	<0.20
	10/25/2011	52	35D	<0.20	1.2	<0.20	<1.0	<0.20	<0.20	0.74	<0.20	<0.20	31D	350D	<0.20	6.9	12	<0.20
	4/3/2012	47	27	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	26	240	<4.0	26	80	<4.0
	1/20/2014	51.1	21	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	27	280	<4.0	4.2	45	<4.0
	4/8/2014	47	30	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	31	340	<4.0	7.9	64	<4.0
	8/6/2014	46	120	<4.0	<4.0	<4.0	<20	<4.0	<4.0	<4.0	<4.0	<4.0	39	560D	<4.0	<4.0	12	<4.0
	1/20/2015	47.8	10	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	10	<2.0	<2.0	81	<2.0
AP-25-DO	1/14/2009	51	0.021	0.006	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0059	<0.0050	0.56	0.62	<0.0050
	4/2/2009	47	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	0.24	1.6	<0.20	2.2	17	<0.20
	10/26/2009	48	0.029	0.025	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0056	<0.0050	<0.0050	0.48	0.74	0.0073
	1/28/2010	51	0.005	0.0054	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0025	0.01	<0.0010	0.047	0.13	<0.0010
	7/14/2010	51	0.14J	<0.10UJ	<0.10UJ	<0.10UJ	---	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	2.3J	12J	<0.10UJ
	10/12/2010	47	0.054	0.052	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.8	3.7	<0.040
	1/4/2011	51	0.029	0.065	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.8	0.66	<0.010
	4/5/2011	46.7	0.011	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.012	0.062	<0.010	0.13	0.45	<0.010
	7/28/2011	46	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	2.6	5.4	<0.10
	10/25/2011	51	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.6	2.7	<0.040
	1/17/2012	46	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.049	<0.040	0.73	2.1	<0.040
	4/3/2012	47	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.1	7.5D	<0.040
	10/22/2013	46.75	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	3.9	9.1	<0.10
	1/20/2014	46.8	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	1.5	6.1	<0.10
	4/8/2014	46	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.19	<0.040	0.12	2.4	<0.040
	8/6/2014	44	0.11	<0.040	0.05	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	3.4	11D	<0.040
	1/20/2015	46.8	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.13	<0.020	0.41	1.5	<0.020
AP-26-DO	4/3/2009	61	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	8.7	16	<0.20	<0.20	0.42	<0.20
	10/26/2009	62	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	4.4	7.2	<0.10	<0.10	<0.10	<0.10
	4/22/2010	64	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	13	25	<0.20	<0.20	<0.20	<0.20
	7/14/2010	64	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ	---	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ	9.2J	19J	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ
	10/13/2010	61	<0.40	<0.40	<0.40	<0.40	---	<0.40	<0.40	<0.40	<0.40	<0.40	8.7	21	<0.40	<0.40	<0.40	<0.40
	4/5/2011	61.1	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	13	27D	<0.20	<0.20	<0.20	<0.20
	10/26/2011	64	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	11	25D	<0.20	<0.20	<0.20	<0.20
	4/5/2012	61	<0.40	<0.40	<0.40	<0.40	<2.0	<0.40	<0.40	<0.40	<0.40	<0.40	11	27	<0.40	<0.40	<0.40	<0.40
	11/26/2012	64	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.35	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	4/15/2013	67	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	7.4J	17	<0.20	<0.20	<0.20	<0.20

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-26-DO (cont.)	10/23/2013	64	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.041	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2014	60	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.01	<0.0020	<0.0020	0.44D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	60	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	0.033	<0.0050	<0.0050	1.7D	2.5D	<0.0050	<0.0050	<0.0050	<0.0050
AP-27-DO	4/9/2009	60	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.003	0.019	<0.0010	<0.0010	0.0023	<0.0010
	10/28/2009	57	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	0.022	<0.0010	<0.0010	0.001	<0.0010
	4/21/2010	61	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0036	<0.0010	<0.0010	<0.0010	<0.0010
	10/14/2010	57.5	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.009	1.2D	<0.0020	<0.0020	0.01	0.0049
	4/7/2011	57.2	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.010UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.0027J	0.027J	<0.0020UJ	<0.0020UJ	0.010J	<0.0020UJ
	10/26/2011	61	<0.0020	<0.0020	0.0027	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.17	12D	<0.0020	0.0031	0.08	0.037
	4/6/2012	57	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	13	<0.20	<0.20	<0.20	<0.20
	11/27/2012	61	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	59	<0.0020	<0.0020	<0.0020	<0.0020	0.016	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.023	0.0039	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	59	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.33D	5.5D	<0.0020	<0.0020	0.014	<0.0020
	4/11/2014	56	<0.0020	<0.0020	0.003	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.24D	11D	<0.0020	0.0023	0.072	0.023
	10/15/2014	56	<0.0020	<0.0020	0.0049	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.16	15D	<0.0020	0.0042	0.12	0.04
AP-29-DO	4/2/2009	42	<0.010	<0.010	0.011	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.36	1.2	<0.010	<0.010	0.31	<0.010
AP-30-DO	2/12/2010	NA	<1.2	<1.6	<1.5	<1.1	<4.0	<0.90	<1.1	<0.45	<0.88	<2.4	82	330	---	<1.3	<1.2	<1.2
	5/24/2010	NA	<2.5	<2.5	<2.5	<2.5	---	<2.5	<2.5	<2.5	<2.5	<2.5	59	680D	<2.5	<2.5	<2.5	<2.5
AP-30R-DO	4/7/2011	67	2.4J	<0.050UJ	<0.050UJ	<0.050UJ	<0.25UJ	6.4DJ	<0.050UJ	5.5DJ	<0.050UJ	<0.050UJ	0.47J	0.082J	<0.050UJ	<0.050UJ	<0.050UJ	<0.050UJ
	11/7/2011	27	0.085	<0.0020	<0.0020	<0.0020	0.013	0.19D	<0.0020	0.18	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/17/2012	88	0.22	<0.010	<0.010	<0.010	<0.050	0.7	<0.010	0.27	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
	11/27/2012	28	0.95	0.017	<0.010	<0.010	<0.050	1.9D	<0.010	3.5D	<0.010	<0.010	0.073	<0.010	<0.010	<0.010	<0.010	<0.010
	4/18/2013	50	0.72	<0.040	<0.040	<0.040	<0.20	1.1	<0.040	2.3	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
	11/8/2013	35	0.7	<0.040	<0.040	<0.040	<0.20	1.1	<0.040	2.6	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
	1/21/2014	30	0.67	<0.040	<0.040	<0.040	<0.20	0.56	<0.040	2.1	<0.040	<0.040	3.9D	17D	<0.040	<0.040	0.52	<0.040
	4/8/2014	30	0.53	<0.10	<0.10	<0.10	<0.50	0.47	<0.10	1.4	<0.10	<0.10	3.1	4.8	<0.10	<0.10	0.25	<0.10
	8/6/2014	50	0.27	<0.10	<0.10	<0.10	<0.50	0.23	<0.10	1.2	<0.10	<0.10	1.1	8.3	<0.10	<0.10	0.71	<0.10
	2/19/2015	85	0.52	<0.10	<0.10	<0.10	<0.50	1.1	<0.10	5.1	<0.10	<0.10	0.11	<0.10	<0.10	<0.10	<0.10	<0.10
AP-31-DO	2/11/2010	NA	<1.2	<1.6	<1.5	<1.1	<4.0	<0.90	<1.1	<0.45	<0.88	<2.4	71	940D	---	<1.3	<1.2	<1.2
	10/18/2010	89	1.3D	0.011	<0.0040	<0.0040	---	0.97D	<0.0040	1.6D	<0.0040	0.0062	0.053	0.015	0.0049	<0.0040	<0.0040	<0.0040
	4/6/2011	30	1.6J	0.034J	<0.0020UJ	<0.0020UJ	0.062J	0.68DJ	0.0028J	2.1DJ	<0.0020UJ	0.0070J	0.082J	0.0099J	0.0090J	<0.0020UJ	<0.0020UJ	<0.0020UJ
	11/7/2011	38	1.8	0.041	<0.020	<0.020	<0.10	0.52	<0.020	1.9	<0.020	<0.020	0.043	<0.020	<0.020	<0.020	<0.020	<0.020
	4/17/2012	88	1.3	0.045	<0.040	<0.040	<0.20	0.27	<0.040	1.7	<0.040	<0.040	1.9	43D	<0.040	<0.040	<0.040	<0.040
	11/27/2012	28	1.4	<0.020	<0.020	<0.020	<0.10	0.49	<0.020	0.66	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
	4/18/2013	50	1.2	<0.020	0.022	<0.020	<0.10	0.28	<0.020	2	<0.020	<0.020	2.1D	4.4D	<0.020	<0.020	0.046	<0.020
	10/24/2013	35	0.98	<0.020	<0.020	<0.020	<0.10	0.25	<0.020	0.91	<0.020	<0.020	0.62	<0.020	<0.020	<0.020	<0.020	<0.020
	4/16/2014	30	0.6	<0.020	<0.020	<0.020	<0.10	0.15	<0.020	0.8	<0.020	<0.020	7.4D	4.6D	<0.020	<0.020	<0.020	<0.020
	10/16/2014	30	0.23	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	0.27	<0.10	<0.10	4.9	2.0	<0.10	<0.10	<0.10	<0.10
AP-32-DO	2/11/2010	NA	<1.2	<1.6	<1.5	<1.1	<4.0	<0.90	<1.1	<0.45	<0.88	<2.4	91	950D	---	<1.3	<1.2	<1.2
	10/18/2010	89	2.3	<0.10	<0.10	<0.10	---	1.2	<0.10	6.8	<0.10	<0.10	0.2	<0.10	<0.10	<0.10	<0.10	<0.10
	4/7/2011	60	2.1J	<0.10UJ	<0.10UJ	<0.10UJ	<0.50UJ	0.87J	<0.10UJ	5.7J	<0.10UJ	<0.10UJ	6.2J	0.15J	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ
	11/7/2011	34	1.8	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	3.3	<1.0	<1.0	41	81D	<1.0	<1.0	<1.0	<1.0
	4/17/2012	88	1.4	<0.10	<0.10	<0.10	<0.50	0.55	<0.10	2.4	<0.10	<0.10	62D	140D	<0.10	<0.10	<0.10	<0.10
	11/27/2012	25	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	3	<2.0	<2.0	31	170	<2.0	<2.0	<2.0	<2.0
	4/18/2013	50	2	<2.0	<2.0	<2.0	<10	<2.0	<2.0	3.5	<2.0	<2.0	56	370D	<2.0	<2.0	<2.0	<2.0
	10/24/2013	35	1.8	<0.040	<0.040	<0.040	<0.20	0.83	<0.040	2.6	<0.040	<0.040	0.27	0.049	<0.040	<0.040	<0.040	<0.040
	4/16/2014	30	1.2	<0.020	<0.020	<0.020	<0.10	0.45	<0.020	1.6	<0.020	<0.020	1.6	0.036	<0.020	<0.020	<0.020	<0.020
	10/16/2014	30	0.83	<0.020	0.036	<0.020	<0.10	0.29	<0.020	1.1	<0.020	<0.020	11D	48D	<0.020	<0.020	<0.020	<0.020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
AP-33-DO	9/11/2013	NA	19	<0.50	0.85	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	24	26	<0.50	0.74	4.6	<0.50
	1/20/2014	37.5	75D	6.2	0.71	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	99D	400D	<0.50	6	150D	<0.50
	4/8/2014	36	60	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	69	290	<5.0	10	290	<5.0
	8/6/2014	35	82	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	66	330	<5.0	5.6	170	<5.0
	1/20/2015	36	79	<5.0	<5.0	<5.0	<25	<5.0	<5.0	<5.0	<5.0	<5.0	62	340	<5.0	5.2	160	<5.0
AP-34-DO	9/11/2013	NA	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	35	25	<0.50	<0.50	0.73	<0.50
	1/20/2014	36	7	1.1	0.77	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.4	<0.50	1.1	46	<0.50
	4/8/2014	36	8.1	1	0.92	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.64	<0.50	2.1	55D	<0.50
	8/6/2014	33	1.1	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	77	<1.0
	1/20/2015	37.7	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	57	<1.0
AP-35-DO	9/12/2013	NA	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	77	98	<2.0	2.1	19	<2.0
	1/20/2014	35.8	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	6.3	<2.0	<2.0	82	<2.0
	4/8/2014	35	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	2.1	25	<2.0	<2.0	130	<2.0
	8/6/2014	33	0.81	<0.40	<0.40	<0.40	<2.0	<0.40	<0.40	0.59	<0.40	<0.40	1.8	46D	<0.40	0.53	230D	1.8
	1/20/2015	36	<2.0	<2.0	<2.0	<2.0	<10	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	91	<2.0
APBIO-01	4/6/2009	78	<0.0020	0.007	0.003	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.027	<0.0020	0.092	0.29	0.0022
	4/23/2010	78	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.045	<0.010	0.12	0.77	<0.010
	4/6/2011	77	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.023	<0.010	0.16	0.8	<0.010
	4/6/2012	77	<0.0050	0.0084	0.012	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.024	0.076	<0.0050	0.065	1.1D	<0.0050
	4/12/2013	77	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.021	<0.010	0.22	0.54	<0.010
	4/21/2014	77	<0.010	<0.010	0.015	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.14	<0.010	0.15	0.87	<0.010
B-2	4/9/2009	11	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.019	<0.0010	<0.0010	0.022	<0.0010
	10/26/2009	11	<0.0025	<0.0025	0.0026	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.091	<0.0025	<0.0025	0.32	0.0049
	4/21/2010	12	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.29	<0.0050	0.022	0.46	0.0056
	10/14/2010	12	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.011	<0.010	0.03	1.2D	0.016
	4/6/2011	15.7	<0.0040UJ	0.0044J	<0.0040UJ	<0.0040UJ	<0.020UJ	<0.0040UJ	<0.0040UJ	<0.0040UJ	<0.0040UJ	<0.0040UJ	<0.0040UJ	0.092J	<0.0040UJ	<0.0040UJ	0.23J	0.0070J
	10/27/2011	11.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.017	<0.0020	0.19	0.18	0.0053
	4/6/2012	11.5	<0.0020	<0.0020	0.0025	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0069	0.27D	<0.0020	<0.0020	0.26D	0.0038
	11/27/2012	12	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0055	0.22	<0.0040	<0.0040	0.32	<0.0040
	4/16/2013	12	<0.0040	<0.0040	0.0052	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.015	0.56D	<0.0040	<0.0040	0.53D	0.0081
	10/23/2013	12	<0.0020	0.0022	0.0042	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.011	0.40D	<0.0020	<0.0020	0.49D	0.0077
	4/11/2014	11	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.074	<0.0050	0.015	0.33	<0.0050
B-3	4/3/2009	12.5	0.09	0.0017	0.0023	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.02	0.015	<0.0010	<0.0010	0.0011	<0.0010
	10/26/2009	12.5	0.044	0.0016	0.0014	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.013	0.0095	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	14	0.056	0.001	0.0014	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0062	0.01	<0.0010	<0.0010	<0.0010	<0.0010
	10/12/2010	12.5	0.049	0.0021	0.0028	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.016	0.011	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2011	12.5	0.042	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.015	0.0068	<0.0020	<0.0020UJ	<0.0020	<0.0020
	10/26/2011	12	0.069	<0.0020	0.0028	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.016	0.013	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	12.5	0.065	<0.0020	0.004	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.023	0.011	<0.0020	<0.0020	<0.0020	<0.0020
	11/13/2012	14	0.043	<0.0020	0.0027	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.018	0.0088	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	12.5	0.036	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.014J	0.0043	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	12	0.034	<0.0020	0.0021	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.016	0.0061	<0.0020	<0.0020	<0.0020	<0.0020
BR-1_ZONE1	4/6/2009	205	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	0.0016	<0.0010
	10/29/2009	205	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.028	0.067	<0.0010	0.083	0.20D	0.009
	4/22/2010	205	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/18/2010	205	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	0.042	<0.0020	0.036	0.11	0.0033
	4/14/2011	205	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.056	<0.020	0.43	1.5	0.027
	10/24/2011	205	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.01	0.035	<0.0020	0.041	0.19	0.0031
	4/2/2012	205	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-1_ZONE1 (Cont.)	4/16/2013	205	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	205	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-1_ZONE2	4/6/2009	152	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/29/2009	152	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0024	0.042	<0.0010
	4/22/2010	152	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/18/2010	152	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.002	<0.0020	0.013	0.23D	0.0065
	4/14/2011	152	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0046	<0.0020	0.012	0.095	<0.0020
	10/24/2011	152	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005	<0.0020	0.016	0.2	0.0031
	4/2/2012	152	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	152	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	152	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-1_ZONE3	10/29/2009	105	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	105	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/18/2010	105	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/14/2011	105	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2011	105	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	105	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	105	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	105	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-3_ZONE1	4/6/2009	226	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	226	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	226	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	226	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	226	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	226	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-3_ZONE2	4/3/2009	200	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	200	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	200	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	200	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	200	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	200	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-3_ZONE3	4/3/2009	167	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	167	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	167	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	167	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	167	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	167	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-5_ZONE1	4/7/2009	209	<0.0025	<0.0025	0.0069	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.055	<0.0025	0.062	0.077	<0.0025
	4/28/2010	209	<0.0010	0.0012	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	<0.0010
	4/14/2011	209	<0.0020	<0.0020	0.0055	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.047	<0.0020	0.039	0.094	<0.0020
	4/4/2012	209	<0.0050	<0.0050	0.021	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.21	<0.0050	0.32	0.48D	<0.0050
	4/16/2013	209	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0029	0.006	<0.0020
	4/11/2014	209	<0.0020	<0.0020	0.0091	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.06	<0.0020	0.072	0.09	<0.0020
BR-5_ZONE2	4/7/2009	172	<0.0050	<0.0050	0.0095	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.17	<0.0050	0.18	0.43	<0.0050
	4/28/2010	172	<0.0010	0.0021	0.0045	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	0.078	<0.0010	0.089	0.064D	0.0013
	4/14/2011	172	<0.0020	0.0025	0.015	<0.0020	0.044	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0047	0.21D	<0.0020	0.21D	0.34D	0.002

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-5_ZONE2 (Cont.)	4/4/2012	172	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	0.0062	0.012	<0.0020
	4/16/2013	172	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0028	0.0052	<0.0020
	4/11/2014	172	<0.0020	<0.0020	0.018	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.17D	<0.0020	0.28D	0.63D	0.0035
BR-5_ZONE3	4/7/2009	133	<0.0025	0.0028	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0063	0.048	<0.0025	0.029	0.18	<0.0025
	4/14/2011	133	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.14	0.77	<0.010	0.17	5.0D	0.013
	4/4/2012	133	<0.0020	0.0061	0.0039	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.064	0.27D	<0.0020	0.093	0.83D	0.0036
	4/16/2013	133	<0.0020	0.0077	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0055	0.0052	<0.0020	0.0054	0.074	<0.0020
	4/11/2014	133	<0.0020	0.0057	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0027	0.014	<0.0020	0.048	0.23D	<0.0020
BR-6_ZONE1	4/7/2009	94	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.058	0.22	<0.0025
	11/2/2009	94	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.047	0.22	<0.0025
	4/28/2010	94	<0.0010	0.002	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0084	0.0075	0.0014
	10/18/2010	94	<0.0020	0.0021	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.015	0.17	<0.0020
	4/19/2011	94	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.024	0.26D	<0.0050
	10/27/2011	94	<0.0020	0.0023	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.024	0.20D	<0.0020
	4/2/2012	94	<0.0020	<0.0020	<0.0020	<0.0020	0.012	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0035	<0.0020
	4/16/2013	94	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0055	0.012	<0.0020
	10/24/2013	94	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/11/2014	94	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.004	0.012	<0.0020
BR-6_ZONE2	4/7/2009	62	<0.0025	0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0052	<0.0025	0.013	0.31	<0.0025
	11/2/2009	62	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.04	0.21	<0.0025
	4/28/2010	62	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.014	0.3	<0.0025
	10/18/2010	62	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.046	0.31	<0.0050
	4/19/2011	62	<0.013	<0.013	<0.013	<0.013	<0.050	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	<0.013	0.023	0.37	<0.013
	10/27/2011	62	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.021	0.4	<0.0050
	4/2/2012	62	<0.0020	0.0022	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.11	0.19D	<0.0020
	4/16/2013	62	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.024	0.34	<0.0040
	10/24/2013	62	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.019	0.14	<0.0020
	4/11/2014	62	<0.0020	0.0031	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.023	0.35D	<0.0020
BR-6_ZONE3	4/7/2009	42	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.06	0.15	0.0026
	11/2/2009	42	<0.0010	0.001	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0024	<0.0010
	4/28/2010	42	<0.0010	0.002	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.038	0.04	0.0012
	10/18/2010	42	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0035	0.0057	<0.0020
	4/19/2011	42	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0076	<0.0050
	10/27/2011	42	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.017	0.061	<0.0020
	4/2/2012	42	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	42	<0.0020	<0.0020	<0.0020	<0.0020	0.018	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	42	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/11/2014	42	<0.0020	0.0021	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.078	0.17	<0.0020
	10/16/2014	42	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BR-7_ZONE1	4/7/2009	152	<0.0010	0.0069	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.11	0.085	<0.0010
	4/28/2010	152	<0.0020	0.0072	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.18	0.13	<0.0020
	4/14/2011	152	<0.0020	0.0034	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.051	0.012	<0.0020
	4/4/2012	152	<0.0020	0.0069	<0.0020	<0.0020	0.018	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.12	0.0048	<0.0020
	4/16/2013	152	<0.0020	0.0027	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.007	0.0037	<0.0020
	4/21/2014	152	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BR-7_ZONE2	4/7/2009	112	<0.0050	0.0055	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.048	0.47	<0.0050
	4/28/2010	112	<0.0050	0.0054	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.039	0.5	<0.0050
	4/14/2011	112	<0.0040	0.0064	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.15	0.2	<0.0040
	4/4/2012	112	<0.0040	0.0069	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.2	0.0093	<0.0040
	4/16/2013	112	<0.0020	0.0085	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.16	0.0068	<0.0020
	4/21/2014	112	<0.0020	0.0038	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0097	0.0021	<0.0020
BR-7_ZONE3	4/7/2009	69	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.029	0.84	<0.010
	4/28/2010	69	<0.010	<0.010	0.012	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.021	1	<0.010
	4/14/2011	69	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.036	1.1	<0.020
	4/4/2012	69	<0.010	<0.010	0.01	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.069	0.74	<0.010
	4/16/2013	69	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.024	<0.020	<0.020
	4/21/2014	69	<0.0020	0.0065	0.0037	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.02	0.015D	0.0038
BW-01	1/13/2009	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/2/2009	12	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2009	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	12	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0036	0.002	<0.0010	<0.0010	<0.0010	<0.0010
	1/28/2010	12	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	14	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.013	0.0073	<0.0050	0.13	0.44	<0.0050
BW-02	1/13/2009	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/2/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2009	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0037	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	0.0014	<0.0010	<0.0010	<0.0010	<0.0010
	1/28/2010	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	14	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.12	0.4	<0.0050
BW-03	1/13/2009	15.5	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/2/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2009	15.5	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0026	<0.0010	<0.0010	<0.0010	0.0011	<0.0010
	10/27/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.003	0.0018	<0.0010	0.0037	0.0029	<0.0010
	1/28/2010	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	15.5	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	0.04	0.11	<0.0010
	8/21/2012	15.5	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	0.0087	0.0026	<0.0020	<0.0020	<0.0020	<0.0020	0.0064	0.0039	<0.0020
BW-04	1/13/2009	13	0.0011	0.0028	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.095	0.065	<0.0010
	4/2/2009	12	0.0054	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.54	0.48	<0.0050
	7/14/2009	13	0.0051	0.005	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.59	0.15	<0.0050
	10/27/2009	12	0.05	0.035	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.3	0.02	<0.0025
	1/28/2010	12	<0.0010	0.0019	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.012	0.016	<0.0010
	4/22/2010	13	0.022	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.74	0.51	<0.010
	7/14/2010	13	<0.0010UJ	0.0016J	<0.0010UJ	<0.0010UJ	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.0014J	<0.0010UJ	0.013J	0.0075J	<0.0010UJ
	10/12/2010	13	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0027	0.0044	<0.0020
	1/4/2011	13	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020	0.016	0.0081	<0.0020
	4/5/2011	12.5	<0.0020	0.002	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.16	0.069	<0.0020
	7/28/2011	13	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.21	0.066	<0.0040
	10/25/2011	12	0.095	0.032	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020	0.098	0.0031	<0.0020
	1/18/2012	12.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	8/21/2012	12.3	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.40D	0.16D	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BW-04 (Cont.)	11/28/2012	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.052	0.01	<0.0020
	2/6/2013	12.35	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0084	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2013	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BW-05	1/13/2009	15	0.16	0.099	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	5.3	2.8	<0.050
	4/2/2009	9	0.019	0.018	<0.0010	<0.0010	---	<0.0010	<0.0010	0.004	<0.0010	<0.0010	0.0013	<0.0010	0.0045	0.021	0.015	<0.0010
	7/14/2009	15	0.018	0.011	<0.0010	0.0011	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0064	0.002	0.002	0.0013	<0.0010	<0.0010
	10/27/2009	9	0.0043	0.17	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	0.0025	<0.0020	<0.0020
	1/28/2010	9	<0.0010	0.02	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0047	0.074	0.011	<0.0010
	4/22/2010	15	0.33	0.02	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.014	<0.010	<0.010	0.73	0.67	<0.010
	7/14/2010	15	<0.0010UJ	0.0059J	<0.0010UJ	0.0023J	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.0010J	0.0050J	<0.0010UJ	0.052J	0.066J	<0.0010UJ
	10/12/2010	10	<0.0020	0.0041	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/4/2011	15	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.0047	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2011	9.5	0.022	0.013	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.86	0.22	<0.010
	7/28/2011	9	<0.0020	0.0049	<0.0020	<0.0020	0.015	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/25/2011	9	1.5D	4.3D	0.02	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0047	<0.0020	0.003	<0.0020	<0.0020	0.97D	0.064	<0.0020
	1/18/2012	9.5	<0.0020	0.021	<0.0020	<0.0020	0.018	<0.0020	<0.0020	<0.0020	0.024	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	9	<0.0020	0.0021	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	8/21/2012	9.4	0.0022	<0.0020	<0.0020	<0.0020	0.014	<0.0020	<0.0020	0.019	<0.0020	<0.0020	0.0027	<0.0020	<0.0020	0.02	0.014	<0.0020
	11/28/2012	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.006	<0.0020
	2/6/2013	9.4	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020
	4/11/2013	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0044	<0.0020
	10/22/2013	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.04	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BW-06	7/28/2011	13	0.024	0.038	<0.0020	<0.0020	0.016	<0.0020	<0.0020	0.005	<0.0020	<0.0020	0.0028	<0.0020	<0.0020	0.0059	<0.0020	<0.0020
	10/25/2011	13	3.5D	1.1D	0.06	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.017	<0.0020	0.027	0.019	<0.0020	0.92D	0.1	<0.0020
	1/18/2012	13	0.0027	0.14	<0.0020	0.0028	<0.010	<0.0020	<0.0020	<0.0020	1.1D	<0.0020	<0.0020	<0.0020	<0.0020	0.002	<0.0020	<0.0020
	4/3/2012	13	<0.0050	0.012	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	0.38	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	8/21/2012	13.3	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	0.0065	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0045	0.0027	<0.0020
	11/28/2012	15	<0.0020	0.0023	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0033	<0.0020	<0.0020	<0.0020	<0.0020	0.011	0.007	<0.0020
	2/6/2013	13.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	0.002	<0.0020
	4/11/2013	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0044	0.0023	<0.0020
	10/22/2013	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0035	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020
	4/10/2014	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
BW-08	1/13/2009	15	0.39	0.42	<0.010	<0.010	---	<0.010	<0.010	<0.010	0.096	<0.010	<0.010	<0.010	<0.010	0.78	0.072	<0.010
	4/2/2009	13	<0.0020	0.02	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.25	<0.0020	<0.0020	<0.0020	0.005	<0.0020	<0.0020	<0.0020
	7/14/2009	15	0.023	0.031	<0.0010	0.0026	---	<0.0010	<0.0010	<0.0010	0.13J	<0.0010	<0.0010	<0.0010	0.0088	<0.0010	<0.0010	<0.0010
	10/27/2009	13	<0.010	0.046	<0.010	<0.010	---	<0.010	<0.010	<0.010	1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
	1/28/2010	13	0.0053	0.05	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	0.41	<0.0050	<0.0050	<0.0050	<0.0050	0.0058	<0.0050	<0.0050
	4/22/2010	15	2.4	0.12	0.13	<0.020	---	<0.020	<0.020	<0.020	0.047	<0.020	0.075	0.098	<0.020	1.8	2.2	<0.020
	7/14/2010	15	0.59J	0.56J	<0.0050UJ	<0.0050UJ	---	<0.0050UJ	<0.0050UJ	<0.0050UJ	0.090J	<0.0050UJ	<0.0050UJ	<0.0050UJ	<0.0050UJ	0.045J	0.024J	<0.0050UJ
	10/12/2010	14	<0.0020	0.013	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.045	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/5/2011	15	<0.0020	0.031	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.051	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2011	13.7	0.09	0.037	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	0.053	<0.010	<0.010	<0.010	<0.010	0.72	0.19	<0.010
	7/28/2011	13	<0.0020	0.13	<0.0020	0.0031	0.014	<0.0020	<0.0020	<0.0020	0.14	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023
	10/25/2011	13.5	0.12	0.73D	0.0031	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.24D	<0.0020	0.0096	0.017	<0.0020	0.30D	0.012	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
BW-08 (Cont.)	1/18/2012	13.5	<0.0020	3.5D	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.95D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	13	0.018	0.077	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	2.0D	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
	8/21/2012	14	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	0.0054	0.018	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/28/2012	15	<0.0020	<0.0020	<0.0020	<0.0020	0.016	<0.0020	<0.0020	<0.0020	0.044	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.003	<0.0020
	2/6/2013	13.6	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.021	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2013	17.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.015	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/22/2013	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0033	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0057	<0.0020
BW-09	1/13/2009	15	0.17	0.22	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	0.25	<0.0025	<0.0025	<0.0025	<0.0025	0.16	0.019	<0.0025
	4/2/2009	11	0.0022	0.015	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.19	<0.0020	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020
	7/14/2009	15	0.0051	0.017	<0.0010	0.0024	---	<0.0010	<0.0010	<0.0010	0.14J	<0.0010	<0.0010	<0.0010	0.0087	<0.0010	<0.0010	0.0013
	10/27/2009	11	<0.0050	0.017	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	0.62	<0.0050	<0.0050	<0.0050	0.0072	<0.0050	<0.0050	<0.0050
	1/28/2010	11	0.0062	0.07	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	0.46	<0.0050	<0.0050	<0.0050	<0.0050	0.018	<0.0050	<0.0050
	4/22/2010	15	0.33	0.16	0.026	<0.010	---	<0.010	<0.010	<0.010	0.059	<0.010	<0.010	0.022	<0.010	1.2	1	<0.010
	7/28/2011	12.5	<0.0040	0.13	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	0.22	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	10/25/2011	12	0.0094	0.062	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.092	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/18/2012	12	0.012	1.1D	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	3.6D	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	4/3/2012	12	0.0067	0.013	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	1.7D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	8/21/2012	12	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	0.0046	0.11	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/28/2012	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.057	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	2/6/2013	12.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.021	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2013	12.5	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	0.025	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/22/2013	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0075	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL02-BR	4/27/2009	42	<0.0020J	<0.0020J	<0.0020J	<0.0020J	---	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	0.011J	0.086J	<0.0020J	<0.0020J	0.16J	<0.0020J
	10/26/2009	75	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.039	0.2	<0.0020
	4/21/2010	42	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.084	0.15	<0.0020
	10/18/2010	42	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.0033	<0.0020
	5/2/2011	80	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.017	<0.0050	<0.0050	0.018	<0.0050
	10/24/2011	42	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0097	0.035	<0.0020
	4/3/2012	41.5	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.011	<0.0040	0.011	0.2	<0.0040
	11/12/2012	42	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.17	<0.0040	<0.0040	0.29	<0.0040
	5/2/2013	79.6	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.043	0.057	<0.0020
	10/24/2013	79	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	0.016	0.021	<0.0020
	4/29/2014	80	<0.0020	<0.0020	<0.0020	<0.0020	0.069	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.015	<0.0020	0.0044J	0.36D	0.0034
CL03-DO	4/2/2009	75	<0.0010	0.033	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	75	<0.010	0.057	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.43	0.23	<0.010	<0.010	0.072	<0.010
	4/20/2010	79	<0.0010	0.035	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.083	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/14/2010	76	<0.0020	0.036	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.028	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2011	75	<0.0020	0.03	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.069	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/27/2011	79	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0089	<0.0020	<0.0020	0.0034	<0.0020
	4/6/2012	76	<0.020	0.035	0.024	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	6.0D	15D	<0.020	0.29	6.9D	<0.020
	4/12/2013	76	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	10J	30D	<0.20	1.5J	13	<0.20
	10/23/2013	79	<0.0020	0.014	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0082	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/9/2014	71	<0.0020	0.016	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	79	<0.0020	0.018	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL03-S	4/20/2010	19	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0022	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	18	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	18	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0043	0.0075	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	18	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0075	0.012	<0.0020	<0.0020	<0.0020	<0.0020
	4/7/2014	18	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0097	0.017	<0.0020	<0.0020	<0.0020	<0.0020
CL04-BR	4/3/2009	54	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0045	<0.0010	<0.0010	0.017	<0.0010
	4/21/2010	54	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0048	<0.0010	0.0014	0.023	<0.0010
	4/6/2011	54	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.023	<0.0020
	4/4/2012	54.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.036	0.0021
	4/15/2013	54	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.05	<0.0020
	4/10/2014	54	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.065	<0.0020
CL04-DO	4/3/2009	27	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	0.019	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	28	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	0.0083	<0.0010	<0.0010	<0.0010	<0.0010
	4/6/2011	27	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.015	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2012	27.3	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0022	0.031	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	28	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.03	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	28	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.045	<0.0020	<0.0020	0.0036	<0.0020
CL05-DOA	4/3/2009	49	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	42	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/15/2014	49	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL06-BR	4/2/2009	69	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	69	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	68	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2012	68	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	61	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/7/2014	68	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL06-DO	4/2/2009	43	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	43	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	41	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2012	41	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	42	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/7/2014	41	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0045	<0.0020	<0.0020	<0.0020	<0.0020
CL08-BR_ZONE1	4/7/2009	159	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	159	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	0.0028	0.0038	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	159	<0.0020	<0.0020	<0.0020	<0.0020	0.35D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	159	<0.0020	<0.0020	<0.0020	<0.0020	0.12	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	159	<0.010	<0.010	<0.010	<0.010	0.08	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
	4/11/2014	159	<0.010	<0.010	<0.010	<0.010	0.095	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
CL08-BR_ZONE2	4/7/2009	102	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	102	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	102	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	102	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	102	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2014	102	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL08-BR_ZONE3	4/7/2009	70	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	70	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	<0.0010	<0.0010	<0.0010
	4/14/2011	70	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	70	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	70	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2014	70	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL08-DO	4/6/2009	51	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	<0.0010	0.0013	<0.0010
	4/22/2010	52	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.0011	<0.0010
	4/6/2011	51	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	51.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	51.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/9/2014	51	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL09-BR_ZONE1	4/6/2009	160	<0.025	<0.025	<0.025	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	1.3	2.2	<0.025	<0.025	0.4	<0.025
	11/2/2009	160	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.58	1.1	<0.010	0.069	1	<0.010
	4/21/2010	160	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.7	1.7	<0.050	<0.050	5.7	<0.050
	11/15/2010	160	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	0.62	1.1	<0.10	0.13	11D	<0.10
	4/14/2011	160	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.97	1.8	<0.020	0.086	1.8	<0.020
	10/24/2011	160	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.83	2.0D	<0.020	<0.020	1	<0.020
	4/2/2012	160	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.66	1.4	<0.040	0.11	6.4D	<0.040
	5/2/2013	160	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.56	1.8	<0.10	<0.10	4.8	<0.10
	4/11/2014	160	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.11	0.23	<0.10	<0.10	4.9	<0.10
CL09-BR_ZONE2	4/6/2009	119	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.81	1.5	<0.050	0.12	5.9	<0.050
	11/2/2009	119	<0.025	<0.025	<0.025	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	0.43	0.94	<0.025	0.078	2.9	<0.025
	4/21/2010	119	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.68	1.3	<0.050	0.084	5.2	<0.050
	11/15/2010	119	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	0.42	0.75	<0.10	0.12	7.7	<0.10
	4/14/2011	119	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.42	0.76	<0.10	0.14	9.8	<0.10
	10/24/2011	119	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.33	1	<0.050	0.067	2.7	<0.050
	4/2/2012	119	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.38	0.96	<0.050	0.09	4.5	<0.050
	5/2/2013	119	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.54	1.6	<0.050	0.075	2.4	<0.050
	4/11/2014	119	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.25	0.4	<0.050	0.085	6.7D	<0.050
CL09-BR_ZONE3	4/6/2009	81	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.56	0.84	<0.050	0.11	6.3	<0.050
	11/2/2009	81	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.21	0.29	<0.0050	0.75	0.62	<0.0050
	4/21/2010	81	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.24	0.36	<0.050	<0.050	5.9	<0.050
	11/15/2010	81	<0.040	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	0.22	0.33	<0.040	0.75	4.1D	<0.040
	4/14/2011	81	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.048	0.036	<0.010	0.063	0.98	0.016
	10/24/2011	81	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.05	0.09	<0.010	1.2D	1.2D	0.014
	4/2/2012	81	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.12	0.31	<0.020	0.3	2.6D	<0.020
	5/2/2013	81	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.24	0.64	<0.050	0.32	2.6	<0.050
	4/11/2014	81	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.066	0.071	<0.020	0.052	1	<0.020
CL09-DO	4/2/2009	35	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.015	0.037	<0.0010	<0.0010	0.0012	<0.0010
	4/21/2010	35	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.024	0.061	<0.0010	<0.0010	0.0024	<0.0010
	4/4/2011	32	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020
	4/2/2012	32.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.073	0.18	<0.0020	<0.0020	0.0061	<0.0020
	4/15/2013	32.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/7/2014	32	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0051	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL09-S	9/24/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL10-BR	4/6/2009	44	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	0.0023	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	44	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	46	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/14/2010	45	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2011	44	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/25/2011	46	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0036	<0.0020	<0.0020	0.0027	<0.0020
	4/5/2012	44.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/12/2012	46	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	45	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	46	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0031	<0.0020UJ	<0.0020	<0.0020	0.0033
	4/10/2014	44	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	46	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL10-DO	4/6/2009	30	0.0026	0.0022	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	30	0.0021	0.0019	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	36	0.0045	0.0041	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010
	10/14/2010	31	<0.0020	0.0021	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2011	30	<0.0020	0.0027	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/27/2011	36	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	30.5	<0.0020	0.0034	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/12/2012	36	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	30	0.0023	0.0033	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	36	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/10/2014	30	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	36	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
CL10-S	4/6/2009	13	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	1.4	0.12	<0.020	<0.020	0.048	<0.020
	10/27/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0064	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	15	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.64	0.041	<0.0050	<0.0050	0.024	<0.0050
	10/14/2010	13	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2011	13	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.87	0.032	<0.010	<0.010	0.017	<0.010
	10/25/2011	15	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.045	0.0027	<0.0020	<0.0020	0.0096	<0.0020
	4/5/2012	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.13	0.0035	<0.0020	<0.0020	0.0032	<0.0020
	11/12/2012	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	11	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	1.3D	0.15	<0.0020	<0.0020	0.033	0.0038
	10/23/2013	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/10/2014	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	1.8D	0.13	<0.0020	<0.0020	0.046	<0.0020
	10/15/2014	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.018	0.0098	<0.0020	<0.0020	0.004	<0.0020
CL11-DO	4/3/2009	49	0.019	0.034	0.021	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0096	0.07	<0.0010	<0.0010	0.0016	<0.0010
	4/20/2010	50	0.011	0.024	0.017	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0096	0.067	<0.0010	<0.0010	0.0013	<0.0010
	4/6/2011	49.5	0.0087J	0.021J	0.019J	<0.0020UJ	0.012J	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.0076J	0.067J	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ
	4/6/2012	49.5	0.0043	0.0095	0.012	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0059	0.044	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	49	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0056	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2014	48	0.0028	0.005	0.0063	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	0.025	<0.0020	<0.0020	<0.0020	<0.0020
CL11-S	4/3/2009	24	0.011	0.0029	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.011	0.005	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	24	0.01	0.0026	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.014	0.0061	<0.0010	<0.0010	<0.0010	<0.0010
	4/6/2011	23.4	0.0057J	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.011J	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.0086J	0.0037J	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ
	4/6/2012	23.5	0.0077	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.012	0.0063	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
CL11-S (Cont.)	4/15/2013	22	0.0032	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.011J	0.0079	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2014	24	0.0049	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.01	0.0052	<0.0020	<0.0020	<0.0020	<0.0020
CL12-S1	4/2/2009	22	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0031	<0.0010	<0.0010	<0.0010	<0.0010
CULVERT_OUTFALL	11/10/1999	NA	<0.0020	<0.0020	0.002	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0050	<0.0020	0.017	0.079	<0.0050	<0.0020	0.051	<0.0020
	6/5/2000	NA	<0.0020	<0.0020	<0.0010	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.010	<0.010	0.007	0.026	<0.0020	<0.0020	0.012	<0.0020
	12/11/2000	NA	<0.0020U	<0.0020U	<0.0010U	<0.0020U	---	<0.0020U	<0.0020U	<0.0020U	<0.010U	<0.010U	<0.0020U	0.003	<0.0020U	<0.0020U	0.004	<0.0020U
	6/4/2001	NA	<0.0020U	<0.0020U	<0.0010U	<0.0020U	---	<0.0020U	<0.0020U	<0.0020U	<0.010U	<0.010U	0.004	0.024	<0.0020U	<0.0020U	0.019	<0.0020U
	11/26/2001	NA	<0.0020U	0.002	0.002	<0.0020U	---	<0.0020U	<0.0020U	<0.0020U	<0.010U	<0.010U	0.012	0.079	<0.0020U	<0.0020U	0.055	<0.0020U
	5/15/2003	NA	<0.0020U	0.002	0.003	<0.0020U	---	<0.0020U	<0.0020U	<0.0020U	<0.010U	<0.010U	0.019	0.096	<0.0020U	<0.0020U	0.071	<0.0020U
	12/22/2003	NA	<0.0010U	0.0019	0.0019	<0.0010U	---	<0.0010U	<0.0020U	<0.0010U	<0.0020U	<0.0050U	0.02	0.091	<0.0010U	<0.0020U	0.063	<0.0010U
	1/4/2005	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0020	<0.0010	<0.0020	<0.0050	<0.0010	0.0013	<0.0010	<0.0020	0.0018	<0.0010
	1/4/2006	NA	<0.0010U	0.0013	<0.0010U	<0.0010U	---	<0.0010U	<0.0020U	<0.0010U	<0.0020U	<0.0050U	0.019	0.082	<0.0010U	<0.0020U	0.059	<0.0010U
	4/15/2007	NA	<0.0010U	<0.0010U	<0.0010U	<0.0010U	---	<0.0010U	<0.0020U	<0.0010U	<0.0020U	<0.0050U	0.0046	0.024	<0.0010U	<0.0020U	0.018	<0.0010U
	4/25/2008	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0020	<0.0010	<0.0020	<0.0050	0.0088	0.04	<0.0010	<0.0020	0.034	<0.0010
	4/3/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.016	0.077	<0.0010	<0.0010	0.064	<0.0010
	4/28/2010	NA	<0.0010	0.0011	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.016	0.075	<0.0010	<0.0010	0.074	<0.0010
	4/6/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	<0.0020	<0.0020	0.0032	<0.0020
	4/6/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	<0.0020	<0.0020	0.0029	<0.0020
	4/15/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0093	0.056	<0.0020	<0.0020	0.058	<0.0020
	4/9/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0085	0.043	<0.0020	<0.0020	0.043	<0.0020
GZ-1	4/3/2009	12	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	0.016	<0.0010	<0.0010	0.0024	<0.0010
	4/20/2010	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	0.022	<0.0010	<0.0010	0.0062	<0.0010
	4/5/2011	12	0.0031	0.0044	0.0074	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.17	1.6D	<0.0020	0.0029	0.62D	0.0036
	4/5/2012	12.3	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.18	0.76D	<0.010	<0.010	0.35	<0.010
	4/12/2013	12.4	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.19J	1.3	<0.020	<0.020	0.32	<0.020
	4/8/2014	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	0.047	<0.0020	<0.0020	0.0089	<0.0020
GZ-2R	4/3/2009	10	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0083	0.23	<0.0025	<0.0025	0.17	<0.0025
GZ-4	10/26/2009	14	<0.0010	0.003	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0039	0.029	<0.0010	0.0016	0.045	<0.0010
	4/20/2010	14	<0.0010	0.0015	0.0015	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	0.044	<0.0010	0.0037	0.069	<0.0010
	10/14/2010	14	<0.0020	0.0046	0.0045	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.047	0.24D	<0.0020	0.0028	0.43D	0.0028
	4/5/2011	14	<0.0050	0.0056	0.0072	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.097	0.78D	<0.0050	0.006	0.55D	<0.0050
	10/25/2011	14	<0.0020	0.0027	0.002	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	0.003	<0.0020	0.11	0.36D	0.0021
	4/5/2012	14	<0.010	<0.010	0.01	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.14	0.84	<0.010	<0.010	0.6	<0.010
	11/12/2012	14	<0.0020	0.0049	0.0036	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.2	0.54D	0.0034
	4/11/2013	12	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.11	0.71	<0.010	<0.010	0.7	<0.010
	10/23/2013	12	<0.0020	0.004	0.0068	<0.0020	0.014	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	0.042	0.75D	0.0044
	4/8/2014	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0045	0.0063	<0.0020	0.0044	0.055	<0.0020
MW-001	4/3/2009	17	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
MW-001DO	4/3/2009	55	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
MW-002R	4/27/2009	13	<0.0010J	<0.0010J	<0.0010J	<0.0010J	---	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	0.0020J	0.0070J	<0.0010J	<0.0010J	<0.0010J	<0.0010J
	4/21/2010	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/12/2010	10	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	5/2/2011	9	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	10/24/2011	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/2/2012	9.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	5/2/2013	9.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/29/2014	9	<0.0020	<0.0020	<0.0020	<0.0020	0.067	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-003R	4/1/2009	30	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0041	<0.0010
	10/26/2009	30	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0021	<0.0010	0.014	0.0078	<0.0010
	4/21/2010	33	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	30	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020
	4/2/2012	30.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0035	<0.0020	0.0037	0.015	<0.0020
	4/11/2013	30.3	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0051	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.006	0.007	<0.0020
	4/7/2014	30	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020
MW-004	4/10/2014	25	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
MW-004R	4/27/2009	38	<0.0010J	<0.0010J	<0.0010J	<0.0010J	---	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	0.019J	<0.0010J	<0.0010J	0.0025J	<0.0010J
	4/21/2010	38	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.021	<0.0010	<0.0010	0.0023	<0.0010
	10/12/2010	35.5	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.066	<0.0020	<0.0020	0.0087	<0.0020
	5/2/2011	36	<0.0050	<0.0050	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.026	<0.0050	<0.0050	<0.0050	<0.0050
	10/24/2011	35.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.048	<0.0020	<0.0020	0.0065	<0.0020
	4/2/2012	35.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.066	<0.0020	<0.0020	0.0081	<0.0020
	5/2/2013	35.4	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0061	<0.0020	<0.0020	<0.0020	<0.0020
MW-005	10/23/2013	23	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0064	0.0022	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	21	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.016	0.0057	<0.0020	<0.0020	<0.0020	<0.0020
MW-005R	4/1/2009	17	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0033	0.0086	<0.0010	<0.0010	0.0023	<0.0010
	10/26/2009	17	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.008	0.019	<0.0010	<0.0010	0.011	<0.0010
	4/21/2010	21	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0042	0.011	<0.0010	<0.0010	0.0037	<0.0010
	4/4/2011	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.006	0.02	<0.0020	<0.0020UJ	0.0071	<0.0020
	4/2/2012	17.25	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	0.0054	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2013	17.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0061	0.019	<0.0020	<0.0020	0.0064	<0.0020
	4/7/2014	17	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0084	0.022	<0.0020	<0.0020	0.0051	<0.0020
MW-007R	4/2/2009	24	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
MW-008	4/3/2009	17	1.3	1.3	0.066	<0.050	---	<0.050	<0.050	<0.050	0.18	<0.050	<0.050	<0.050	<0.050	5.1	1.5	<0.050
	4/20/2010	19	3	0.38	0.15	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	0.07	0.087	<0.025	2.1	2.5	<0.025
	4/6/2011	16.9	0.92J	0.21J	0.055J	<0.020UJ	<0.10UJ	<0.020UJ	<0.020UJ	<0.020UJ	0.023J	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	1.3J	0.50J	<0.020UJ
	4/4/2012	17	0.1	0.9	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	0.64	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
	8/21/2012	16.8	0.034	0.24	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	0.41	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	11/28/2012	19	<0.0040	0.084	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	0.21	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	2/6/2013	16.8	0.45	0.4	0.014	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	0.17	<0.0050	<0.0050	<0.0050	<0.0050	0.19	0.054	<0.0050
	4/11/2013	17.9	0.42	1.1D	0.029J	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	0.32	<0.0050	0.044	0.029	<0.0050	0.93D	0.19	<0.0050
	4/10/2014	17	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
MW-009	1/14/2009	19	<0.0010	0.0025	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	0.014	<0.0010	<0.0010	0.0015	<0.0010	0.007	0.0061	<0.0010
	4/2/2009	20	<0.0010	0.003	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	0.0099	<0.0010	<0.0010	0.0015	<0.0010	0.0036	0.0053	<0.0010
	7/14/2009	19	0.0018	0.011	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0065	0.047	0.0018	0.026	0.043	0.0018
	10/27/2009	20	<0.0010	0.0028	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	0.0056	<0.0010	<0.0010	<0.0010	<0.0010	0.005	0.0059	0.0014
	1/28/2010	20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	0.0023	<0.0010	<0.0010	<0.0010	<0.0010	0.0035	0.0058	<0.0010
	4/22/2010	19	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	0.0044	<0.0010	<0.0010	0.0013	<0.0010	0.0086	0.0036	<0.0010
	7/14/2010	19	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.0025J	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.0026J	0.0039J	<0.0010UJ
	10/12/2010	20	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.002	0.0024	<0.0020
	1/4/2011	19	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	0.013	0.011	<0.0020
	4/5/2011	19.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0028	<0.0020	<0.0020	<0.0020	<0.0020	0.003	0.0028	<0.0020
	7/28/2011	19	<0.0020	<0.0020	<0.0020	<0.0020	0.015	<0.0020	<0.0020	<0.0020	0.0056	<0.0020	<0.0020	<0.0020	<0.0020	0.03	0.023	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-009 (Cont.)	10/25/2011	20	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	0.0096	<0.0020	<0.0020	<0.0020	<0.0020	0.016	0.02	<0.0020
	1/17/2012	20	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.006	<0.0020	<0.0020	0.0034	<0.0020	0.0093	0.039	<0.0020
	4/3/2012	20	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0029	<0.0020	<0.0020	0.0061	<0.0020	0.012	0.027	<0.0020
	8/21/2012	19.7	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	0.003	<0.0020	<0.0020	<0.0020	0.0027	<0.0020	0.0058	0.016	<0.0020
	11/28/2012	19	<0.0020	0.003	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0048	<0.0020	0.0045	0.019	<0.0020	0.11	0.13D	0.0032
	2/6/2013	20	<0.0020	0.0083	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0052	<0.0020	0.0058	0.023	<0.0020	0.45D	0.60D	0.0029
	4/11/2013	19	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.022	<0.010	0.63	0.74	<0.010
	10/22/2013	20.21	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.46	1.2	<0.10
	1/20/2014	20.2	<0.010	0.015	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	1.7D	3.0D	<0.010
	4/8/2014	20	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	2.4	4.1D	<0.050
	8/6/2014	19	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	0.69	2.6	<0.040
	10/15/2014	19	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.2	1.7	<0.040
	1/20/2015	20	<0.0020	0.005	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0034	<0.0020	<0.0020	<0.0020	<0.0020	0.19	0.096	<0.0020
MW-009A	4/3/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/26/2009	13	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	9	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.01	0.0084	<0.0010	<0.0010	0.016	<0.0010
	10/12/2010	9	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2011	13.4	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0041	0.0049	<0.0020	0.0033	0.062	<0.0020
	10/26/2011	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0049	0.012	<0.0020	0.097	0.13	<0.0020
	4/3/2012	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0033	<0.0020
	11/13/2012	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	13.3	<0.0020	<0.0020	<0.0020	<0.0020	0.012	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	13.33	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.032J	0.028	<0.0020
	10/15/2014	12	<0.0020	0.0037	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	0.017	0.082	<0.0020
MW-013	4/3/2009	42	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	21	12	<0.20	<0.20	<0.20	<0.20
	4/21/2010	54	1.2	<0.020	<0.020	<0.020	---	2.2	<0.020	0.24	<0.020	<0.020	0.074	<0.020	<0.020	<0.020	<0.020	<0.020
	10/14/2010	54	0.77D	0.0072	<0.0020	<0.0020	---	2.7D	0.014	0.30D	<0.0020	0.0061	0.0037	<0.0020	0.003	<0.0020	<0.0020	<0.0020
	4/14/2011	44	0.25D	0.0041	<0.0020	<0.0020	0.024	0.73D	0.0076	0.17	<0.0020	0.0022	0.062	0.0075	<0.0020	<0.0020	<0.0020	<0.0020
	10/27/2011	41	0.25	<0.0050	<0.0050	<0.0050	<0.025	0.42	0.0053	0.24	<0.0050	<0.0050	0.0066	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	4/5/2012	53	0.27	<0.0050	<0.0050	<0.0050	<0.025	0.38	0.0051	0.31	<0.0050	<0.0050	0.011	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	11/26/2012	54	0.39	<0.0050	<0.0050	<0.0050	<0.025	0.55D	0.0054	0.55D	<0.0050	<0.0050	0.058	0.026	<0.0050	<0.0050	<0.0050	<0.0050
	4/17/2013	41.8	0.25	<0.0050	<0.0050	<0.0050	<0.025	0.28	<0.0050	0.41	<0.0050	<0.0050	0.017	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	10/24/2013	50	0.29D	0.0051	<0.0020	<0.0020	0.011	0.42D	0.0052	0.48D	<0.0020	<0.0020	0.022	0.0061	<0.0020	<0.0020	<0.0020	<0.0020
	4/9/2014	41	0.19	0.0051	<0.0050	<0.0050	<0.025	0.23	0.0052	0.36	<0.0050	<0.0050	0.014	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	10/16/2014	54	0.25	0.0065	<0.0050	<0.0050	<0.025	0.35	<0.0050	0.55D	<0.0050	<0.0050	0.035	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
MW-014A	4/3/2009	60	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.42	<0.0050	<0.0050	0.054	<0.0050
	4/20/2010	60	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.007	0.44	<0.0050	<0.0050	0.054	<0.0050
	4/4/2011	59	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005	0.38D	<0.0020	<0.0020UJ	0.065	<0.0020
	4/5/2012	59	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0027	0.16D	<0.0020	0.0023	0.06	<0.0020
	4/17/2013	58.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.41	<0.0050	<0.0050	0.087	<0.0050
	4/9/2014	58	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0031	0.057	<0.0020	<0.0020	0.19	<0.0020
MW-016	10/23/2013	35	<0.0020	0.007	<0.0020	<0.0020	<0.010	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	0.012	0.50D	<0.0020	<0.0020	0.12	<0.0020
	4/10/2014	35	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.058	1.7D	<0.010	<0.010	0.36	<0.010
MW-030	4/9/2009	20	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
MW-033B	4/9/2009	24	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	24	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/5/2011	24.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	24.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	19	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2014	25	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
MW-034	4/9/2009	0	<0.010	<0.010	0.014	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	0.21	<0.010	0.013	1.1	<0.010
	4/28/2010	64	<0.010	<0.010	0.013	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.11	<0.010	0.014	1.1	<0.010
	4/7/2011	64	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.10UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	0.14J	<0.020UJ	0.020J	1.2J	<0.020UJ
	4/4/2012	63	<0.020	<0.020	0.021	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.16	<0.020	0.022	1.3	<0.020
	4/16/2013	63	<0.020	<0.020	0.02	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.089	<0.020	0.026	1.6	<0.020
	4/9/2014	62	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.13	<0.020	<0.020	1.3	<0.020
MW-035	4/1/2009	24	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
MW-036	4/2/2009	51	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0039	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	55	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.25	0.59	<0.0050	<0.0050	0.22	<0.0050
	4/4/2011	51	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.54	1.2D	<0.010	0.017	0.42	<0.010
	4/6/2012	51.8	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.75	1.8	<0.020	0.061	0.8	<0.020
	4/12/2013	51.7	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	1.2J	2.3D	<0.020	0.14J	1.2	<0.020
	4/7/2014	52	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.95	2.4	<0.040	0.18	1.4	<0.040
MW-1_32-TOZER	2/24/2011	NA	<0.0050	<0.0050	<0.0050	<0.0050	<0.050	<0.0050	<0.0050	<0.0050	<0.010	<0.010	0.013	0.62D	<0.0050	<0.0050	0.046	<0.0050
	4/6/2012	18	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0067	0.41	<0.0050	<0.0050	0.098	<0.0050
	4/16/2013	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.11	<0.0020
MW-2_32-TOZER	2/24/2011	NA	<0.25	<0.25	<0.25	<0.25	<2.5	<0.25	<0.25	<0.25	<0.50	<0.50	11	1.8	<0.25	<0.25	3.4	<0.25
	11/8/2011	NA	<0.20	<0.20	<0.20	<0.20	<2.0	<0.20	<0.20	<0.20	<0.40	<0.40	10	1.5	<0.20	<0.20	3.7	<0.20
	4/6/2012	17.3	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	12	1.8	<0.20	<0.20	3.3	<0.20
	11/28/2012	19	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	16	4.3	<0.20	<0.20	4.6	<0.20
	4/16/2013	17	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10UJ	<0.10	<0.10	<0.10	<0.10	6.7	3.8	<0.10	<0.10	4.6	<0.10
	10/23/2013	17	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	8.1	1.2	<0.10UJ	<0.10	2.2	<0.10
	4/10/2014	17	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	4.9	0.97	<0.10	<0.10	2.2	<0.10
	10/15/2014	19	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	4.9	0.85	<0.10	<0.10	1.5	<0.10
MW-3_32-TOZER	2/24/2011	NA	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	0.039	0.012	<0.0010	<0.0010	0.013	<0.0010
	4/6/2012	18.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
MW-4_32-TOZER	11/8/2011	NA	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	0.0044	0.0025	<0.0010	<0.0010	0.066	<0.0010
	11/12/2012	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
MW-5_32-TOZER	11/8/2011	NA	<0.0010	0.0026	<0.0010	<0.0010	0.028	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	0.0051	0.019	<0.0010	<0.0010	0.0038	<0.0010
	11/12/2012	14	<0.0020	0.015	0.0052	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0053	0.041	<0.0020	<0.0020	0.12	<0.0020
	4/16/2013	14	<0.0020	0.0057	0.003	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	0.0043	0.029	<0.0020	<0.0020	0.043	<0.0020
OB-04-BR	4/1/2009	89	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	89	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	77	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	88	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	77.3	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-04-DO	4/1/2009	69	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.035	0.07	<0.0010	<0.0010	0.038	<0.0010
	4/20/2010	69	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.054	0.1	<0.0010	<0.0010	0.027	<0.0010
	4/4/2011	67	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.04	0.094	<0.0020	<0.0020	0.043	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-04-DO (cont.)	4/3/2012	67	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.059	0.14	<0.0020	0.011	0.091	<0.0020
	4/12/2013	67	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.075	0.16	<0.0020	0.013	0.086	<0.0020
	4/7/2014	68	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.079	0.19	<0.0020	0.021	0.12	<0.0020
	10/15/2014	69	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.15	0.33D	<0.0020	0.097	0.54D	<0.0020
OB-04-S	4/1/2009	23	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
	9/24/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0022	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	24	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	23	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	23.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	23.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-05-BR	4/1/2009	106	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.084	0.036	<0.0010
	10/26/2009	104	<0.0010	0.0013	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.067	0.026	<0.0010
	4/20/2010	109	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.24	1.2	<0.010
	10/12/2010	109	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.41	0.48	<0.0050
	4/4/2011	104	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.004	<0.0040	0.22	0.032	<0.0040
	10/24/2011	109	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0042	<0.0020	0.086	0.013	<0.0020
	4/3/2012	104	<0.0020	0.0022	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.11	0.0069	<0.0020
	4/12/2013	104	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.012	0.0085	<0.0020
	4/8/2014	100	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0042	<0.0020	0.0084	0.016	<0.0020
OB-05-DO	4/1/2009	81	<0.0050	0.014	0.014	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.13	0.47	<0.0050	<0.0050	0.11	<0.0050
	10/26/2009	81	<0.0050	0.011	0.0096	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.16	0.69	<0.0050	<0.0050	0.23	<0.0050
	4/20/2010	85	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.52	1.4	<0.010	<0.010	0.4	<0.010
	10/12/2010	81.5	<0.040	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	0.47	1.9	<0.040	<0.040	0.48	<0.040
	4/4/2011	81	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.87	3.0D	<0.020	<0.020UJ	0.76	<0.020
	10/24/2011	81	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.99	2.7D	<0.010	0.026	1.0D	<0.010
	4/3/2012	81.3	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.6	1.8	<0.020	<0.020	0.44	<0.020
	4/12/2013	81.5	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.85	3	<0.040	<0.040	0.72	<0.040
	4/8/2014	80	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.59	1.8	<0.020	0.078	1.7	<0.020
	10/15/2014	85	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.025	0.035	<0.020	<0.020	1.9D	<0.020
OB-05-S	4/1/2009	25	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	0.0068	<0.0010	<0.0010	<0.0010	<0.0010
	10/26/2009	25	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0043	0.014	<0.0010	<0.0010	0.0028	<0.0010
	10/12/2010	25	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0043	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2011	25	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0022	0.0036	<0.0020	<0.0020UJ	<0.0020	<0.0020
	10/24/2011	27	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0034	0.0053	<0.0020	<0.0020	<0.0020	<0.0020
	4/3/2012	25	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020
OB-06-BR	4/2/2009	99	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.22	0.46	<0.0050	<0.0050	0.15	<0.0050
	10/26/2009	99	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.12	0.22	<0.0025	<0.0025	0.07	<0.0025
	4/22/2010	101	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.12	0.22	<0.0025	<0.0025	0.04	<0.0025
	10/12/2010	101	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.061	0.19	<0.0020	<0.0020	0.023	<0.0020
	4/5/2011	99	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0028	0.0025	<0.0020	0.029	0.074	<0.0020
	10/24/2011	101	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.07	0.14	<0.0020	<0.0020	0.019	<0.0020
	4/3/2012	89	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.049	0.14	<0.0020	<0.0020	0.023	<0.0020
	4/12/2013	100	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.069	0.11	<0.0020	<0.0020	0.038	<0.0020
	4/9/2014	99	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.039	0.11	<0.0020	<0.0020	0.017	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-06-DO	4/2/2009	65	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0039	0.015	<0.0010	0.0099	0.076	<0.0010
	10/26/2009	65	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.044	0.1	<0.020	0.031	1.5	<0.020
	4/22/2010	75	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.18	0.35	<0.010	0.013	0.97	<0.010
	10/12/2010	65.5	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.045	0.096	<0.020	0.075	1.8	<0.020
	4/5/2011	65	<0.0020	<0.0020	0.0034	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.11D	0.31D	<0.0020	0.027	1.2D	0.0044
	10/24/2011	75	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.25	0.49	<0.010	0.014	0.77	<0.010
	4/3/2012	65.6	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	0.033	<0.010	0.15	0.59	<0.010
	4/12/2013	63.6	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.16	0.25	<0.010	0.012	0.57	<0.010
	4/9/2014	65	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.051	0.14	<0.0050	0.013	0.39	<0.0050
OB-07-DO	4/2/2009	36	<0.0050	0.0075	0.0092	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.16	0.54	<0.0050	<0.0050	0.2	<0.0050
OB-08-DO	4/3/2009	79	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.51	2.6	<0.020	<0.020	1.4	<0.020
	10/27/2009	78	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.46	2.2	<0.020	<0.020	1.5	<0.020
	4/28/2010	79	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.46	2.3	<0.020	<0.020	1.1	<0.020
	10/18/2010	78	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.42	2.5D	<0.020	<0.020	1.2	<0.020
	11/15/2010	77	<0.040	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	0.38	2.4	<0.040	<0.040	1.1	<0.040
	4/5/2011	77	<0.0020	0.013	0.02	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.26D	1.9D	<0.0020	0.0084	2.2D	0.0089
	10/25/2011	79	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.34	2.2	<0.040	<0.040	1.1	<0.040
	4/3/2012	77	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.37	2.5	<0.040	<0.040	1.2	<0.040
	4/11/2013	78	<0.0050	0.0061	0.015	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.43	3.3D	<0.0050	0.0052	1.5D	0.0062
	4/8/2014	78	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.35	2.6	<0.040	<0.040	1.2	<0.040
OB-08-S	4/3/2009	12	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.075	0.31	<0.0025	<0.0025	0.11	<0.0025
	10/27/2009	12	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.029	0.15	<0.0020	<0.0020	0.062	<0.0020
	4/28/2010	14	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.044	0.21	<0.0025	<0.0025	0.066	<0.0025
	10/18/2010	12	<0.0020	0.0028	0.0028	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.09	0.45D	<0.0020	<0.0020	0.23D	<0.0020
	11/15/2010	12	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.069	0.38	<0.0050	<0.0050	0.16	<0.0050
	4/5/2011	12	<0.0020	0.0022	0.0028	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.081	0.39D	<0.0020	<0.0020	0.12	<0.0020
	10/25/2011	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.038	0.15	<0.0020	<0.0020	0.042	<0.0020
	4/2/2012	12	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.056	0.28	<0.0050	<0.0050	0.1	<0.0050
	11/12/2012	14	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.058	0.27	<0.0050	<0.0050	0.12	<0.0050
	4/11/2013	12	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.074	0.36	<0.0050	<0.0050	0.082	<0.0050
OB-09-BR	1/14/2009	121	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.23	0.91	<0.010
	4/9/2009	118	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	0.016	<0.0020	<0.0020	0.23	0.01
	7/14/2009	121	<0.025	<0.025	<0.025	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	0.068	0.069	<0.025	0.24	3.6	<0.025
	10/28/2009	121	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.45	0.66	<0.050	0.1	5.3	<0.050
	1/28/2010	118	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.011	0.018	<0.0050	0.0081	0.4	0.015
	4/22/2010	121	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.35	0.66	<0.050	0.14	5.5	<0.050
	7/14/2010	121	<0.025UJ	<0.025UJ	0.031J	<0.025UJ	---	<0.025UJ	<0.025UJ	<0.025UJ	<0.025UJ	<0.025UJ	0.049J	0.054J	<0.025UJ	0.23J	4.9J	0.031J
	10/12/2010	117	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	0.18	0.27	<0.10	0.1	7.9	<0.10
	1/5/2011	121	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.22	6.5	<0.10
	4/6/2011	117.7	<0.010	<0.010	0.021	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.025	0.01	<0.010	0.28	5.5D	<0.010
	7/28/2011	117	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.55	1.2	<0.10	0.15	6.5	<0.10
	10/25/2011	121	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.6	1.1	<0.040
	1/18/2012	121	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.046	1.4	0.033
	4/3/2012	117	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	1.9	3.2	<0.040	<0.040	2.5	<0.040
	8/21/2012	100	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	1.6	2.1	<0.040	0.041	7.7D	<0.040
	11/28/2012	121	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	2.6	3.1	<0.050	<0.050	2.9	<0.050

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-09-BR (Cont.)	2/6/2013	101	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	2.1	3.1	<0.10	<0.10	4.7	<0.10
	4/11/2013	120	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	2.4	3.1	<0.050	<0.050	2.7	<0.050
	10/22/2013	121	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.21	5	<0.050
	4/10/2014	117	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.11	0.11	<0.050	0.74J	4.6	<0.050
	10/15/2014	119	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1.9	2.9	<0.050
OB-09-DO	1/13/2009	95	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.59	0.12	<0.0050
	4/9/2009	92	<0.0010	0.0016	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0025	0.014	<0.0010	<0.0010	0.007	<0.0010
	7/14/2009	95	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.97	0.11	<0.010
	10/28/2009	95	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.87	0.06	<0.010
	1/28/2010	92	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0022	0.0043	<0.0010
	4/22/2010	95	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.3	0.21	<0.0025
	7/14/2010	95	<0.0010UJ	0.0033J	<0.0010UJ	<0.0010UJ	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.033J	0.0059J	<0.0010UJ
	10/12/2010	93	<0.0050	0.0071	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.42	0.064	<0.0050
	1/5/2011	95	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.3	0.35	<0.020
	4/6/2011	92.3	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	1.4D	0.45	<0.010
	7/28/2011	92	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	2	0.57	<0.040
	10/25/2011	92	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.41	1	<0.040	0.15	5.1D	<0.040
	1/18/2012	92	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.9	1.6	<0.040
	4/3/2012	92	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.9	2	<0.040
	8/21/2012	92	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.8D	1.4	<0.020
	11/28/2012	95	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.1	0.27	<0.020
	2/6/2013	87.2	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.5	1.4	<0.020
	4/11/2013	94	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.5	1.8	<0.020
	10/22/2013	95	<0.020	<0.020	0.023	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.3J	2.2D	<0.020
	4/10/2014	92	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040	1.9J	2.3	<0.040
	10/15/2014	91	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	1.5	1.3	<0.020
OB-09-S	1/13/2009	29	0.039	0.38	<0.010	<0.010	---	<0.010	<0.010	<0.010	0.13	<0.010	0.012	0.062	<0.010	1.2	0.43	0.02
	4/9/2009	27.5	0.055	0.023	<0.020	<0.020	---	<0.020	<0.020	<0.020	0.024J	<0.020	<0.020	<0.020	<0.020	1.9	1.4	<0.020
	7/14/2009	29	0.002	0.049	<0.0010	0.0011	---	<0.0010	<0.0010	<0.0010	0.046J	<0.0010	0.0045	0.035	0.0049	0.073	0.025	0.0037
	10/28/2009	29	<0.0050	0.078	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	0.046	<0.0050	<0.0050	<0.0050	<0.0050	0.63	0.24	0.0056
	1/28/2010	27.5	<0.0050	0.097	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	0.042	<0.0050	<0.0050	0.009	<0.0050	0.49	0.15	0.0098
	4/22/2010	29	0.014	0.046	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0036	0.029	<0.0010	0.0019	0.029	<0.0010	0.14	0.048	0.0047
	7/14/2010	29	0.019J	0.25DJ	<0.0010UJ	0.0024J	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.087J	<0.0010UJ	0.0018J	0.0035J	<0.0010UJ	0.020J	0.020J	0.0024J
	10/12/2010	27	0.0045	0.053	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.12	<0.0020	<0.0020	<0.0020	<0.0020	0.023	0.061	0.0021
	1/5/2011	29	<0.0020	0.0089	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.04	<0.0020	<0.0020	0.0074	<0.0020	0.0054	0.0065	<0.0020
	4/5/2011	26.5	0.018	0.039	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.047	<0.0020	<0.0020	0.003	<0.0020	0.076	0.081	0.0028
	7/28/2011	26	<0.0020	<0.0020	<0.0020	0.0025	0.019	<0.0020	<0.0020	<0.0020	0.044	<0.0020	<0.0020	<0.0020	<0.0020	0.0031	0.0063	<0.0020
	10/25/2011	23	0.14	0.89D	0.0042	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.45D	<0.0020	<0.0020	<0.0020	<0.0020	0.095	0.018	<0.0020
	1/18/2012	23.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.56D	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	<0.0020
	4/3/2012	23	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	0.27	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	8/21/2012	23	<0.0020	<0.0020	<0.0020	<0.0020	0.014	<0.0020	<0.0020	<0.0020	0.0059	<0.0020	<0.0020	0.0048	<0.0020	<0.0020	0.0027	<0.0020
	11/28/2012	29	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	<0.0020	0.0082	<0.0020	0.0077	0.033	<0.0020	0.0037	0.017	<0.0020
	2/6/2013	23.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0056	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.019	<0.0020
	4/11/2013	23	<0.0020	0.0024	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	0.003	<0.0020	0.035	0.023	<0.0020
	10/22/2013	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.008	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0033	<0.0020
	1/21/2014	23.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-09-S (Cont.)	4/9/2014	23	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0023	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0029	<0.0020
	8/6/2014	18	<0.0020	0.0043	0.0023	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.11	<0.0020	<0.0020	<0.0020	<0.0020	0.14	0.37D	<0.0020
	10/15/2014	20	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.081	<0.0020	<0.0020	<0.0020	<0.0020	0.0045	0.0049	<0.0020
	1/20/2015	20	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.086	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0026	<0.0020
OB-10-BR	4/3/2009	74	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.31	1.7	<0.020	0.034	1.6	<0.020
	4/21/2010	75	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.079	0.51	<0.020	0.04	2.9	<0.020
	4/5/2011	73.4	<0.0020	0.0032	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0043	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	73	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.25	1.6	<0.020	<0.020	0.3	<0.020
	4/12/2013	71	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	2.0DJ	4.8D	<0.020	<0.020	0.51	<0.020
	4/10/2014	72	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.89	4.9	<0.10	<0.10	0.76	<0.10
	10/15/2014	72	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.9	4.4	<0.10	<0.10	0.82	<0.10
OB-10-DO	1/13/2009	49	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.017	0.39	<0.0050	<0.0050	0.4	<0.0050
	4/1/2009	46	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.034	1.1	<0.010	<0.010	0.66	<0.010
	7/14/2010	48.5	<0.010UJ	<0.010UJ	<0.010UJ	<0.010UJ	---	<0.010UJ	<0.010UJ	<0.010UJ	<0.010UJ	<0.010UJ	0.020J	1.2J	<0.010UJ	<0.010UJ	0.16J	0.014J
	10/13/2010	46	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	1.1D	0.014
	1/5/2011	48.5	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.37	<0.010	<0.010	0.69	0.014
	4/6/2011	46	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.17	<0.010	<0.010	0.76	0.013
	7/28/2011	46	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	0.87	<0.010	<0.010	0.4	0.017
	10/26/2011	48.5	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.25	<0.010	<0.010	0.81	0.019
	1/18/2012	46	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.013	0.92	<0.010	<0.010	0.38	0.023
	4/4/2012	46	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.3	<0.010	<0.010	0.74	0.021
OB-10-S	1/13/2009	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/1/2009	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2009	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	1/28/2010	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2010	29	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ
	10/13/2010	29	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/5/2011	29	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2011	31	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	7/28/2011	29	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/26/2011	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/18/2012	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2012	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0081	0.02	<0.0020	<0.0020	<0.0020	<0.0020
	8/21/2012	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	0.004	<0.0020
	11/28/2012	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.03	<0.0020	<0.0020	0.0092	<0.0020
	2/6/2013	29.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	0.024	<0.0020	<0.0020	0.0079	<0.0020
	5/2/2013	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0051	0.032	<0.0020	<0.0020	0.0093	<0.0020
	4/10/2014	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0029	<0.0020	<0.0020	<0.0020	<0.0020
OB-11-BR	4/3/2009	85	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0031	<0.0010	0.004	0.022	0.0021
	4/6/2011	86.1	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.010UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.0064J	<0.0020UJ	0.0027J	0.036J	0.0045J
	4/5/2012	86	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0032	<0.0020	<0.0020	0.045	0.0051
	4/17/2013	82	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	<0.0020	<0.0020	0.047	0.0058
	4/9/2014	86	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0055	<0.0020	<0.0020	0.035	0.0067

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-11-DO	4/3/2009	61	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.065	<0.0010	<0.0010	0.023	<0.0010
	4/6/2011	59.8	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.010UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.075J	<0.0020UJ	<0.0020UJ	0.021J	<0.0020UJ
	4/5/2012	59	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.083	<0.0020	<0.0020	0.021	<0.0020
	4/17/2013	60	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.084	<0.0020	<0.0020	0.027	<0.0020
	4/9/2014	60	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.091	<0.0020	<0.0020	0.02	<0.0020
OB-11-S	4/3/2009	29	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
OB-12-BR	1/13/2009	87	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	0.023	<0.0010	0.0013	0.037	<0.0010
	4/1/2009	84	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0021	0.051	<0.0010	0.002	0.084	<0.0010
OB-12-DO	1/13/2009	59	<0.40	<0.40	<0.40	<0.40	---	<0.40	<0.40	<0.40	<0.40	<0.40	2.3	39	<0.40	<0.40	18	<0.40
	4/1/2009	50	<0.50	<0.50	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	43	<0.50	<0.50	20	<0.50
	10/27/2009	50	<0.0010	0.0078	<0.0010	0.0027	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	5/7/2010	57	<0.0010	0.0075	<0.0010	0.0026	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.088	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2010	59	<0.0010UJ	0.0084J	<0.0010UJ	0.0034J	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.27DJ	0.0038J	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ
	10/13/2010	46	<0.0020	0.0076	0.024	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	1.4D	21D	<0.0020	<0.0020	8.7D	0.014
	1/5/2011	59	<0.0050	0.0075	0.053	<0.0050	0.015J	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	2.2D	45D	<0.0050	0.0066	24D	0.018
	4/6/2011	49.1	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	2.1	33	<0.50	<0.50	17	<0.50
	7/28/2011	59	<0.0020	0.0068	<0.0020	0.0022	0.02	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/26/2011	48	<0.0020	0.0069	<0.0020	0.0022	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0034	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/17/2012	48.5	<0.0020	0.008	0.018	0.0021	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	1.8D	15D	<0.0020	<0.0020	5.5D	0.013
	4/4/2012	48	<0.40	<0.40	<0.40	<0.40	<2.0	<0.40	<0.40	<0.40	<0.40	<0.40	2.5	37	<0.40	<0.40	19	<0.40
	11/26/2012	59	<0.0020	0.0068	<0.0020	0.0024	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/17/2013	56	<0.0020	0.0076	<0.0020	<0.0020	0.014	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.086	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	59	<0.0020	0.0057	0.025	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	1.8D	18D	<0.0020	<0.0020	7.5D	0.051
	4/9/2014	47	<0.0020	0.0059	0.059	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	2.0D	28D	<0.0020	0.0053	16D	0.11
	10/16/2014	59	<0.0020	0.0051	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-12-S	1/13/2009	29	0.0041	<0.0025	<0.0025	<0.0025	---	0.0051	<0.0025	<0.0025	<0.0025	<0.0025	0.25	0.18	<0.0025	<0.0025	<0.0025	<0.0025
	4/1/2009	26	0.0021	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.17	0.11	<0.0020	<0.0020	<0.0020	<0.0020
	7/14/2009	29	0.0048	<0.0025	<0.0025	<0.0025	---	0.0061	<0.0025	<0.0025	<0.0025	<0.0025	0.26	0.19	<0.0025	<0.0025	<0.0025	<0.0025
	10/27/2009	26	0.0012	<0.0010	<0.0010	<0.0010	---	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	0.088	0.022	<0.0010	<0.0010	<0.0010	<0.0010
	1/28/2010	26	0.0022	<0.0010	<0.0010	<0.0010	---	0.002	<0.0010	<0.0010	<0.0010	<0.0010	0.072	0.015	<0.0010	<0.0010	<0.0010	<0.0010
	4/22/2010	29	0.0023	<0.0010	<0.0010	<0.0010	---	0.0017	<0.0010	<0.0010	<0.0010	<0.0010	0.089	0.055	<0.0010	<0.0010	<0.0010	<0.0010
	7/14/2010	29	0.0043J	<0.0010UJ	<0.0010UJ	<0.0010UJ	---	0.0039J	<0.0010UJ	0.0025J	<0.0010UJ	<0.0010UJ	0.22DJ	0.14J	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ
	10/13/2010	26	0.005	<0.0040	<0.0040	<0.0040	0.0091J	0.0052	<0.0040	<0.0040	<0.0040	<0.0040	0.22	0.15	<0.0040	<0.0040	<0.0040	<0.0040
	1/5/2011	29	0.0038	<0.0020	<0.0020	<0.0020	0.012	0.0034	<0.0020	0.0026	<0.0020	<0.0020	0.17	0.098	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2011	27.7	<0.0020	<0.0020	<0.0020	<0.0020	0.0053J	0.002	<0.0020	<0.0020	<0.0020	<0.0020	0.15	0.071	<0.0020	<0.0020	<0.0020	<0.0020
	7/28/2011	26	0.0033	<0.0020	<0.0020	<0.0020	0.015	0.0025	<0.0020	0.0023	<0.0020	<0.0020	0.19	0.12	<0.0020	<0.0020	<0.0020	<0.0020
	10/26/2011	26	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.058	0.021	<0.0020	<0.0020	<0.0020	<0.0020
	1/17/2012	26.5	0.0041	<0.0020	<0.0020	<0.0020	<0.010	0.0037	<0.0020	0.0033	<0.0020	<0.0020	0.19	0.14	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2012	26	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.2	0.11	<0.0040	<0.0040	<0.0040	<0.0040
	8/21/2012	27.7	0.0042	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	0.0043	<0.0040	<0.0040	0.19	0.13	<0.0040	<0.0040	<0.0040	<0.0040
	11/28/2012	29	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	2/6/2013	27.4	0.0061	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	0.007	<0.0040	<0.0040	0.26	0.16	<0.0040	<0.0040	<0.0040	<0.0040
	4/12/2013	27	0.004	<0.0020	<0.0020	<0.0020	<0.010	0.0028	<0.0020	0.0038	<0.0020	<0.0020	0.18D	0.12	<0.0020	<0.0020	<0.0020	<0.0020
	4/9/2014	27	0.0022	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0029	<0.0020	<0.0020	0.16	0.096	<0.0020	<0.0020	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-14-DO	4/3/2009	55	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.086	0.84	<0.010	<0.010	0.21	<0.010
	4/6/2011	55.4	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.10UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	0.096J	1.0J	<0.020UJ	<0.020UJ	0.17J	<0.020UJ
	4/5/2012	55	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.095	1.2	<0.020	<0.020	0.13	<0.020
	4/18/2013	56	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.094	1.1	<0.020	<0.020	0.15	<0.020
	4/9/2014	55	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.11	1.3	<0.020	<0.020	0.17	<0.020
OB-15-S	1/13/2009	19	0.5	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	6.1	4.3	<0.050	<0.050	0.76	<0.050
	4/1/2009	18	0.25	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	4.4	4.4	<0.10	<0.10	7.6	<0.10
	7/14/2009	19	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.21	<0.10	0.78	9.5	<0.10
	10/27/2009	18	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.092	<0.050	1.3	4.4	<0.050
	1/28/2010	18	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	0.13	0.27	<0.050	1.4	5.6	<0.050
	4/22/2010	19	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	1.2	3.7	<0.050
	7/14/2010	19	0.0044J	0.0054J	<0.0010UJ	<0.0010UJ	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	0.0011J	<0.0010UJ	0.0060J	0.0044J	0.0021J
	10/12/2010	19	0.0026	0.0085	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	0.014	<0.0020
	1/4/2011	19	<0.0020	0.0022	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	0.0065	<0.0020	<0.0020	<0.0020	<0.0020	0.1	0.11	0.0022
	4/6/2011	18.7	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.05	<0.010	0.53	1.2D	<0.010
	7/28/2011	19	<0.0020	<0.0020	<0.0020	<0.0020	0.017	<0.0020	<0.0020	<0.0020	0.0028	<0.0020	<0.0020	0.012	<0.0020	0.04	0.026	<0.0020
	10/25/2011	18.5	<0.0020	0.0051	<0.0020	<0.0020	0.013	<0.0020	<0.0020	<0.0020	0.0054	<0.0020	<0.0020	<0.0020	<0.0020	0.18	0.15	<0.0020
	1/17/2012	18.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0043	<0.0020	<0.0020	<0.0020	<0.0020	0.0052	0.0045	<0.0020
	4/3/2012	18.75	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.64	1.4	<0.020
	8/21/2012	18.6	<0.0020	<0.0020	<0.0020	<0.0020	0.014	<0.0020	<0.0020	0.02	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0088	0.024	<0.0020
	11/28/2012	19	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	0.0056	0.0031	<0.0020	0.0074	0.01	<0.0020	0.067	0.055	<0.0020
	2/6/2013	18.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	<0.0020	0.004	<0.0020	0.032	0.035	<0.0020
	4/11/2013	19	<0.0020	<0.0020	<0.0020	<0.0020	0.014	<0.0020	<0.0020	<0.0020	0.0035	<0.0020	<0.0020	<0.0020	<0.0020	0.15	0.024	<0.0020
	10/22/2013	18.47	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0021	<0.0020	<0.0020	0.0023	<0.0020	0.057	0.017	<0.0020
	1/21/2014	19.7	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0036	<0.0020	0.095	0.0058	<0.0020
	4/8/2014	18	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.011	0.0029	<0.0020
	8/6/2014	17	<0.0020	0.0022	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0029	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.006	<0.0020
	10/15/2014	19	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0037	<0.0020	<0.0020	<0.0020	<0.0020	0.0048	0.0038	<0.0020
	1/20/2015	18	<0.0020	0.004	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	0.0067	<0.0020	<0.0020	<0.0020	<0.0020	0.089	0.12	<0.0020
OB-16-BR	4/3/2009	32	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0055	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	32	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/5/2011	32	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	32	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	34	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	20	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-16-S	4/3/2009	15	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	17	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0017	<0.0010	<0.0010	<0.0010	<0.0010
	4/6/2011	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	15.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/16/2013	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020UJ	<0.0020	0.048	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-17-BR	4/1/2009	95	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.018	0.37	<0.0025
	4/21/2010	97	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.17	0.11	<0.0025
	4/4/2011	96	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0029	<0.0020	0.13	0.039	<0.0020
	4/2/2012	98	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.13	<0.0020	<0.0020
	4/12/2013	97	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020J	<0.0020	<0.0020	0.097J	0.016	<0.0020
	4/7/2014	95	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	<0.0020	0.012	0.006	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-17-DO	4/1/2009	41	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.017	0.019	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	42	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.016	0.018	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	41	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.014	0.015	<0.0020	<0.0020UJ	<0.0020	<0.0020
	4/2/2012	41.24	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	0.015	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	41.4	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0094J	0.0096	<0.0020	<0.0020	<0.0020	<0.0020
	4/7/2014	41	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0066	0.0078	<0.0020	<0.0020	<0.0020	<0.0020
OB-18-DO	4/2/2009	23	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0051	0.088	<0.0010	0.0016	0.056	<0.0010
	10/26/2009	23	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	0.012	0.11	<0.0010	<0.0010	0.048	<0.0010
	4/20/2010	25	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.071	0.7	<0.010	0.013	0.47	<0.010
	10/14/2010	24	<0.0020	0.0023	0.0038	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.035	0.36D	<0.0020	0.016	0.46D	0.0032
	4/5/2011	23	<0.0020	0.0027	0.0048	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.076	0.63D	<0.0020	0.051	0.66D	<0.0020
	10/25/2011	23	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.027	0.16	<0.0020	0.007	0.099	<0.0020
	4/5/2012	23.8	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.018	0.23	<0.0050	0.024	0.37	<0.0050
	4/12/2013	23.8	<0.0050	<0.0050	0.0057	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.039J	0.37	<0.0050	0.063J	0.43	<0.0050
	4/8/2014	23	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.017	<0.0020	<0.0020	0.013	<0.0020
OB-18-S	4/2/2009	11	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/26/2009	11	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	14	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	<0.0010	0.0011	<0.0010
	10/14/2010	11	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0026	0.0082	<0.0020	0.019	0.07	0.0082
	4/5/2011	11	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/25/2011	11	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	11.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0049	<0.0020	<0.0020	0.0026	<0.0020
	11/12/2012	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	11.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	11	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	<0.0020UJ	0.0087	0.086	0.0031
	4/8/2014	10	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	<0.0020	<0.0020	0.0091	<0.0020
OB-19-BR	1/13/2009	91	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	0.85	9.4	<0.10	<0.10	4.7	<0.10
	4/9/2009	82	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	1	12	<0.10	<0.10	6	<0.10
	7/14/2010	91	<0.050UJ	<0.050UJ	<0.050UJ	<0.050UJ	---	<0.050UJ	<0.050UJ	<0.050UJ	<0.050UJ	<0.050UJ	0.39J	6.3J	<0.050UJ	0.13J	5.8J	0.053J
OB-19-DO	1/13/2009	64	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	8.7	17	<0.20	<0.20	2.3	<0.20
	4/9/2009	57	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	8.1	17	<0.20	<0.20	2.1	<0.20
	7/14/2010	64	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	---	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	<0.020UJ	0.52J	2.6J	<0.020UJ	0.10J	1.4J	0.075J
	10/13/2010	57	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.25	0.94	<0.020	0.085	1.9D	0.058
	1/5/2011	64	<0.040	<0.040	<0.040	<0.040	---	<0.040	<0.040	<0.040	<0.040	<0.040	0.87	3.2	<0.040	0.1	1.5	0.064
	4/4/2011	57	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.46	1.8	<0.020	0.066J	1.4	0.051
	7/28/2011	57	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.74	2.8	<0.040	0.11	1.7	0.061
	10/26/2011	64	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.72	3.2D	<0.020	0.079	1.3	0.053
	1/17/2012	56.5	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.82	3.1	<0.040	0.094	1.5	0.066
	4/4/2012	57	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.8	3.1	<0.040	0.1	1.5	0.066
	11/26/2012	64	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	12D	24D	<0.040	0.086	4.1	0.07
	4/15/2013	57	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.83J	3.8	<0.050	0.097	1.3	0.063
	10/23/2013	64	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.64	2.4	<0.040	0.044	0.8	0.051
	4/16/2014	56	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.41	2	<0.040	0.061J	0.83	0.057
	10/15/2014	100	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.055	<0.010	0.011	0.81	0.016

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-19-S	4/3/2009	34	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/20/2010	34	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/5/2011	32.7	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	32	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	32	<0.0020	<0.0020	<0.0020	<0.0020	0.012	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	32	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.014	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-20-BR	4/6/2009	95	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	95	<0.0010	0.0014	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/28/2010	100	<0.0010	0.0014	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/13/2010	96	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0027	<0.0020	<0.0020	0.014	<0.0020
	4/6/2011	95	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.056	<0.0020	<0.0020	0.29D	<0.0020
	10/26/2011	97	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0031	0.13	<0.0020	0.0024	0.47D	0.002
	4/6/2012	94.75	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.024	<0.0040	<0.0040	0.19	<0.0040
	4/15/2013	93.5	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.11	<0.0040	0.0058	0.89D	0.011
	4/21/2014	94	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.1	<0.020	<0.020	0.98	<0.020
	10/15/2014	100	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.055	<0.010	0.011	0.81	0.016
OB-20-DO	4/6/2009	75	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.031	<0.0050	0.0075	0.42	<0.0050
	10/27/2009	75	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0058	0.076	<0.0025	<0.0025	0.25	<0.0025
	4/23/2010	77	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.012	<0.0050	<0.0050	0.34	<0.0050
	10/13/2010	75	<0.0040	<0.0040	<0.0040	<0.0040	---	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.014	<0.0040	0.005	0.45D	<0.0040
	4/6/2011	75	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0036	0.023	<0.0020	<0.0020	0.19	<0.0020
	10/26/2011	75	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.012	<0.0050	0.027	0.47	<0.0050
	4/6/2012	74.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	73	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0079	<0.0020	0.013	0.30D	<0.0020
	4/21/2014	74	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.022	0.19	<0.0040
	10/15/2014	73	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0065	<0.0020	0.0055	0.042	<0.0020
OB-20-S	4/6/2009	11	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	11	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/23/2010	12	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/13/2010	11	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2011	11	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/26/2011	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	10.9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/12/2012	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	11	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	12	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.003	<0.0020UJ	<0.0020	0.0029	<0.0020
	4/21/2014	10	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-21-BR	4/6/2009	97	<0.0050	0.008	0.0087	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.037	0.16	<0.0050	0.012	0.74	<0.0050
	10/27/2009	97	<0.010	<0.010	0.012	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.043	0.12	<0.010	0.014	1	<0.010
	4/28/2010	97	<0.010	<0.010	0.013	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.063	0.45	<0.010	0.014	1.1	<0.010
	10/13/2010	97	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.13	<0.020	0.03	1.6	<0.020
	4/6/2011	98.2	<0.0040	0.0092	0.011	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.013	0.14	<0.0040	0.017	1.5D	0.0043
	10/26/2011	97	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.033	0.061	<0.020	0.022	1.5	<0.020
	4/6/2012	99.5	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.49	<0.010
	4/15/2013	96	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.024	<0.0050	<0.0050	<0.0050	0.31	<0.0050
	4/21/2014	98	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.073	<0.010	0.027	0.86	<0.010

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-21-DO	4/6/2009	79	<0.0050	0.0069	0.0074	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.21	0.71	<0.0050	<0.0050	0.27	<0.0050
	10/27/2009	79	<0.0050	0.0097	0.01	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.17	0.61	<0.0050	<0.0050	0.42	<0.0050
	4/28/2010	79	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.32	1.1	<0.010	<0.010	0.49	<0.010
	10/13/2010	79	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.32	1.4	<0.020	<0.020	0.47	<0.020
	4/6/2011	79	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.34	1.3	<0.020	<0.020	0.41	<0.020
	10/26/2011	79	<0.010	<0.010	0.011	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.28	1.4D	<0.010	<0.010	0.51	<0.010
	4/6/2012	78.5	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.22	1	<0.020	<0.020	0.39	<0.020
	4/15/2013	78.6	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.31	1.1	<0.020	<0.020	0.33	<0.020
	4/21/2014	78	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.26	0.97	<0.020	<0.020	0.32	<0.020
OB-22-DO	4/6/2009	56	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.38	0.58	<0.0050	<0.0050	0.15	<0.0050
	10/27/2009	57	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.066	0.25	<0.0025	0.0039	0.28	<0.0025
	10/12/2010	56	<0.0040	<0.0040	<0.0040	<0.0040	---	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.023	0.054	<0.0040	0.032	0.40D	<0.0040
	10/25/2011	55	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0069	<0.0020	<0.0020	0.031	<0.0020
OB-23-BR	4/1/2009	95	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.01
	4/21/2010	97	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010	0.071	0.065	<0.0010
	4/4/2011	83	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.062J	0.013	<0.0020
	4/5/2012	83.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.1	0.07	<0.0020
	4/12/2013	83	0.0069	<0.0020	<0.0020	<0.0020	<0.010	0.0047J	<0.0020	0.0064	<0.0020	<0.0020	0.26DJ	0.077	<0.0020	0.038J	0.0076	<0.0020
	4/7/2014	80	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-24-S	4/3/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0018	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/21/2010	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/5/2011	2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/18/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-25-BR	4/3/2009	95	<0.50	<0.50	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.5	<0.50	18	64	<0.50
	4/20/2010	99	<0.50	<0.50	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	<0.50	0.51	3.8	<0.50	21	56	<0.50
	7/14/2010	99.5	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	---	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	2.9J	<0.50UJ	20J	65J	<0.50UJ
	10/13/2010	97	<0.50	<0.50	<0.50	<0.50	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.7	<0.50	21	67D	<0.50
	4/14/2011	101	<0.0020	0.023	<0.0020	<0.0020	0.018	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/26/2011	99.5	<0.40	<0.40	<0.40	<0.40	<2.0	<0.40	<0.40	<0.40	<0.40	<0.40	1.9	8.8	<0.40	4	22	<0.40
	4/5/2012	90	<0.0020	0.037	0.11	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.69D	7.8D	<0.0020	6.8D	30D	0.14
	11/26/2012	99	<0.0020	0.0026	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.014	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	95	<0.0020	0.019	<0.0020	<0.0020	0.015	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	99	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.11	1.1	<0.050	0.3	4.4	<0.050
	4/16/2014	86	<0.050	<0.050	0.064	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.32	4.5	<0.050	5.6DJ	25D	0.056
	10/16/2014	99	<0.0020	0.0025	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-25-DO	7/14/2010	69	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	---	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	<0.10UJ	1.0J	13J	<0.10UJ	<0.10UJ	1.3J	<0.10UJ
	11/8/2013	69	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.46	8.4	<0.10	<0.10	0.21	<0.10
	1/21/2014	50.5	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	0.46	15D	<0.10	<0.10	0.59	<0.10
	4/9/2014	46	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	0.47	17	<0.20	<0.20	0.48	<0.20
	8/6/2014	65	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	0.56	16	<0.20	<0.20	0.45	<0.20
	10/16/2014	67	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	0.43	12	<0.20	<0.20	0.35	<0.20
	1/21/2015	70	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.37	1.2	<0.020	<0.020	<0.020	<0.020
OB-26-BR	4/3/2009	93	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.019	0.48	<0.0050	<0.0050	0.19	<0.0050
	4/20/2010	95	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	<0.0010	<0.0010	<0.0010	<0.0010
	4/4/2011	93.1	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-26-BR (Cont.)	4/17/2012	95	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0039	0.031	<0.0020	0.011	0.28D	<0.0020
	4/15/2013	90	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0082	<0.0020	<0.0020	0.021	<0.0020
	4/16/2014	90	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0077	0.24D	<0.0020	0.0068J	0.13	<0.0020
OB-26-DO	10/23/2013	65	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	1.3	5	<0.050	<0.050	0.27	<0.050
	4/16/2014	59	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	1.8	6.6D	<0.050	<0.050	0.74	<0.050
	10/16/2014	58	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.31	1.6	<0.020	<0.020	0.19	<0.020
OB-27-BR	4/3/2009	86	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	10	26	<0.20	<0.20	7.7	<0.20
	10/27/2009	78.5	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	10	24	<0.20	<0.20	7.6	<0.20
	4/22/2010	86	<0.0025	0.028	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.19	0.048	<0.0025	<0.0025	0.005	<0.0025
	10/14/2010	86	<0.0020	0.045	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/14/2011	81	<0.0020	0.017	<0.0020	<0.0020	0.01	<0.0020	<0.0020	0.0056	<0.0020	<0.0020	0.0026	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/28/2011	86	<0.0050	0.036	0.05	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	7.4D	22D	<0.0050	0.03	4.9D	0.012
	4/6/2012	85	<0.0020	0.033	0.054	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	3.2D	20D	<0.0020	0.026	4.7D	0.028
	11/26/2012	86	<0.0020	0.037	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	85	<0.0020	0.047	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.071J	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	86	<0.0020	0.036	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0061	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/11/2014	74	<0.0020	0.014	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.057	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	86	<0.0020	0.042	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.019	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-27-DO	4/3/2009	61	<0.0010	0.0013	0.0029	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0028	<0.0010	<0.0010	<0.0010	<0.0010
OB-28-BR	4/6/2009	93	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.024	<0.0010	<0.0010	0.0011	<0.0010
	4/20/2010	93	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	5/27/2011	122	<0.0020	<0.0020	<0.0020	<0.0020	0.022	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	89	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	84	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.082	<0.0020	<0.0020	0.0059	<0.0020
	4/16/2014	89	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0042	0.98D	<0.0020	<0.0020	0.17	0.0026
OB-30-DO	4/6/2009	68	<0.0020	0.18	0.18	0.0025	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	0.18	<0.0020	<0.0020	0.0089	<0.0020
OB-32-DO	4/3/2009	60	2.4	<0.020	<0.020	<0.020	---	2	<0.020	0.85	<0.020	<0.020	0.16	0.03	<0.020	<0.020	<0.020	<0.020
	10/27/2009	60	1.5	<0.010	<0.010	<0.010	---	1.4	<0.010	0.53	<0.010	<0.010	0.059	<0.010	<0.010	<0.010	<0.010	<0.010
	11/23/2009	60	2	<0.020	<0.020	<0.020	---	1.7	<0.020	0.51	<0.020	<0.020	0.3	<0.020	<0.020	<0.020	<0.020	<0.020
	4/20/2010	60	1.5	<0.010	<0.010	<0.010	---	1.3	<0.010	0.36	<0.010	<0.010	0.046	<0.010	<0.010	<0.010	<0.010	<0.010
	10/14/2010	60	1.4D	<0.0020	<0.0020	<0.0020	---	1.2D	<0.0020	0.28D	<0.0020	0.0025	0.0021	<0.0020	0.004	<0.0020	<0.0020	<0.0020
	4/14/2011	52	0.57D	<0.0040	<0.0040	<0.0040	<0.020	0.50D	<0.0040	0.1	<0.0040	<0.0040	0.079	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
	10/28/2011	60	0.43	<0.0050	<0.0050	<0.0050	<0.025	0.45	<0.0050	0.079	<0.0050	<0.0050	0.0068	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	4/5/2012	48	0.19	<0.0020	<0.0020	<0.0020	<0.010	0.19	<0.0020	0.041	<0.0020	<0.0020	0.042	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	12/18/2012	60	0.097	<0.00020	<0.00057	<0.00036	0.012	0.12	<0.00029	0.026	<0.00024	<0.00021	<0.00030	<0.00022	<0.00020	<0.00032	<0.00030	<0.00033
	4/18/2013	60	0.062	<0.0020	<0.0020	<0.0020	<0.010	0.067	<0.0020	0.019	<0.0020	<0.0020	0.014	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	60	0.043	<0.0020	<0.0020	<0.0020	<0.010	0.057	<0.0020	0.015	<0.0020	<0.0020	0.055	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	57	0.026	<0.0020	<0.0020	<0.0020	<0.010	0.037	<0.0020	0.014	<0.0020	<0.0020	0.063	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	60	0.016	<0.0020	<0.0020	<0.0020	<0.010	0.024	<0.0020	0.015	<0.0020	<0.0020	0.018	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-33-DO	4/6/2009	55	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
OB-34-DO	4/6/2009	63	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	0.0027	<0.0010	<0.0010	0.059	0.0022	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	62	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	1.6	8.6	<0.10	<0.10	0.65	<0.10
	4/20/2010	63	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	1.6	10	<0.10	<0.10	1.1	<0.10
	10/14/2010	63	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	0.0093	<0.0050	<0.0050	0.3	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	4/14/2011	61	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.9	0.37	<0.010	<0.010	0.011	<0.010
	10/28/2011	63	<0.0050	<0.0050	0.006	<0.0050	<0.025	<0.0050	<0.0050	0.0058	<0.0050	<0.0050	1.3D	11D	<0.0050	<0.0050	0.95D	<0.0050

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-34-DO (Cont.)	4/5/2012	62	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	1.2	8.5	<0.10	<0.10	0.77	<0.10
	11/27/2012	63	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	1.5	9.5D	<0.10	<0.10	0.83	<0.10
	4/17/2013	58.2	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	1.2	7.6	<0.10	<0.10	0.58	<0.10
	10/24/2013	63	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	1.3	10	<0.10	<0.10	0.78	<0.10
	10/16/2014	63	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.53	0.44	<0.010	<0.010	0.018	<0.010
OB-35-DO	4/9/2009	57	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	19	6.2	<0.20	<0.20	1.7	<0.20
	10/28/2009	57	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	22	6.9	<0.20	<0.20	1.6	<0.20
	4/22/2010	62	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	22	7.5	<0.20	<0.20	1.6	<0.20
	10/14/2010	49	<0.40	<0.40	<0.40	<0.40	---	<0.40	<0.40	<0.40	<0.40	<0.40	34	7.7	<0.40	<0.40	1.6	<0.40
	4/7/2011	48.7	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	<2.5UJ	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	<0.50UJ	32J	7.7J	<0.50UJ	<0.50UJ	1.6J	<0.50UJ
	10/27/2011	62	<0.40	<0.40	<0.40	<0.40	<2.0	<0.40	<0.40	<0.40	<0.40	<0.40	29	5	<0.40	<0.40	0.95	<0.40
	4/6/2012	48	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	19	5.4	<0.20	<0.20	0.79	<0.20
	11/27/2012	62	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	32D	4.8	<0.20	<0.20	0.78	<0.20
	4/15/2013	61	<0.40	<0.40	<0.40	<0.40	<2.0	<0.40	<0.40	<0.40	<0.40	<0.40	47D	8.6	<0.40	0.41	1.4	<0.40
	10/24/2013	56	<0.0020	0.009	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.007	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	47	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	33D	5.2	<0.20	<0.20	0.94	<0.20
	10/16/2014	61	<0.0020	0.011	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0061	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-36-DO	1/14/2009	62	<0.10	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	4	8.2	<0.10	<0.10	<0.10	<0.10
	4/9/2009	54	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	3.9	6.3	<0.050	<0.050	<0.050	<0.050
	10/26/2009	55	<0.25	<0.25	<0.25	<0.25	---	<0.25	<0.25	<0.25	<0.25	<0.25	7.9	29	<0.25	<0.25	<0.25	<0.25
	4/22/2010	61	<0.050	<0.050	<0.050	<0.050	---	<0.050	<0.050	<0.050	<0.050	<0.050	4.4	5.8	<0.050	<0.050	<0.050	<0.050
	10/13/2010	54	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	6.4	15	<0.20	<0.20	<0.20	<0.20
	4/7/2011	53.9	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ	<1.0UJ	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ	<0.20UJ	7.0J	9.8J	<0.20UJ	<0.20UJ	0.24J	<0.20UJ
	10/28/2011	61	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	6.6	5.2	<0.10	<0.10	<0.10	<0.10
	4/6/2012	41	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	12D	10	<0.10	<0.10	<0.10	<0.10
	11/27/2012	61	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	10	9.1	<0.20	<0.20	<0.20	<0.20
	4/15/2013	46	<0.20	<0.20	<0.20	<0.20	<1.0	<0.20	<0.20	<0.20	<0.20	<0.20	8.1D	48D	<0.20	<0.20	<0.20	<0.20
	10/24/2013	51.5	0.02	0.013	<0.0020	<0.0020	0.021	<0.0020	<0.0020	0.0034	<0.0020	<0.0020	<0.0020	0.012	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	51	0.003	<0.0020	<0.0020	<0.0020	0.024	<0.0020	<0.0020	0.0026	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	51	0.008	<0.0020	<0.0020	<0.0020	0.01	0.0029	<0.0020	0.017	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-37-DO	1/30/2009	61	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	0.79	17	<0.20	<0.20	<0.20	<0.20
	4/9/2009	61	<0.20	<0.20	<0.20	<0.20	---	<0.20	<0.20	<0.20	<0.20	<0.20	2.4	23	<0.20	<0.20	<0.20	<0.20
	10/26/2009	49	<0.40	<0.40	<0.40	<0.40	---	<0.40	<0.40	<0.40	<0.40	<0.40	2.3	43	<0.40	<0.40	<0.40	<0.40
	4/22/2010	61	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.36	0.98	<0.010	<0.010	<0.010	<0.010
	10/13/2010	61	<0.0050	<0.0050	<0.0050	<0.0050	---	0.007	<0.0050	0.019	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
	4/7/2011	35	0.0031J	<0.0020UJ	<0.0020UJ	<0.0020UJ	0.016J	<0.0020UJ	<0.0020UJ	0.0093J	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ	<0.0020UJ
	10/28/2011	61	0.0084	<0.0020	<0.0020	<0.0020	0.12	0.0033	<0.0020	0.007	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	46	<0.0020J	<0.0020J	<0.0020J	<0.0020J	0.014J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	0.0028J	<0.0020J	<0.0020J	<0.0020J	<0.0020J	<0.0020J
	11/27/2012	61	0.039	0.01	<0.0020	<0.0020	0.02	<0.0020	<0.0020	0.0045	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/15/2013	53.7	0.05	0.018	<0.0020	<0.0020	0.025	<0.0020	<0.0020	0.0048	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/24/2013	59	0.0069	<0.0020	<0.0020	<0.0020	0.018	<0.0020	<0.0020	0.0084	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	46	<0.0020	<0.0020	<0.0020	<0.0020	0.016	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.066	0.35D	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	46	0.042	0.016	0.087	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	11D	74D	<0.0050	0.015	0.083	<0.0050
OB-38-DO	4/9/2009	47	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.74	0.55	<0.010	<0.010	0.13	<0.010
	10/28/2009	47	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.25	0.36	<0.010	<0.010	1.1	<0.010
	4/21/2010	54	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.25	0.27	<0.0025	<0.0025	0.056	<0.0025

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
OB-38-DO (Cont.)	10/14/2010	45.5	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.43	0.32	<0.0050	0.0064	0.34	<0.0050
	4/5/2011	45	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.27	0.22	<0.0040	<0.0040	0.037	<0.0040
	10/26/2011	45	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.52D	0.39	<0.0050	0.0052	0.28	0.0057
	4/6/2012	44.5	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.47	0.46	<0.0050	<0.0050	0.15	0.0067
	11/27/2012	54	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.24	0.19	<0.0050	<0.0050	0.13	<0.0050
	4/15/2013	42	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.45	0.62D	<0.0050	0.0061	0.12	0.0075
	10/23/2013	46	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0094	0.014	<0.0050	<0.0050	0.54D	0.0074
	4/11/2014	44	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.057	0.099	<0.0020	<0.0020	0.045	0.0034
	10/15/2014	44	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.025	0.05	<0.0020	<0.0020	0.1	0.005
OB-39-DO	4/9/2009	53	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0076	<0.0010	<0.0010	<0.0010	<0.0010
OB-40-DO	4/9/2009	68	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
OB-41-S	4/5/2011	13	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.05	0.26	<0.0040	<0.0040	0.081	<0.0040
	10/25/2011	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.03	0.12	<0.0020	<0.0020	0.04	<0.0020
	4/5/2012	13.2	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.017	0.069	<0.0020	<0.0020	0.028	<0.0020
	11/12/2012	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.022	0.082	<0.0020	<0.0020	0.034	<0.0020
	4/12/2013	13.3	<0.0020	<0.0020	0.0024	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.071	0.29D	<0.0020	<0.0020	0.08	<0.0020
	10/23/2013	13.3	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.021	0.089	<0.0020UJ	<0.0020	0.035	<0.0020
	4/8/2014	13	<0.0020	<0.0020	0.0021	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.064	0.28D	<0.0020	<0.0020	0.082	<0.0020
	10/15/2014	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.029	0.11	<0.0020	<0.0020	0.039	<0.0020
OB-42-S	4/5/2011	13	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.1	2.7	<0.040	<0.040	1.2	<0.040
	10/24/2011	13	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.096	3	<0.050	<0.050	1	<0.050
	4/4/2012	13.5	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.078	2.4	<0.040	<0.040	0.94	<0.040
	11/12/2012	14	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.11	2.6	<0.040	<0.040	0.79	<0.040
	4/12/2013	13.6	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.13J	3.5	<0.040	<0.040	1.4	<0.040
	10/23/2013	12.2	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.081	2.2	<0.040UJ	<0.040	0.6	<0.040
	4/9/2014	14	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.082	2.4	<0.040	<0.040	0.96	<0.040
	10/15/2014	14	<0.0050	<0.0050	<0.0050	<0.0050	<0.025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.11	2.3D	<0.0050	<0.0050	0.70D	0.0089
OB-43-S	10/24/2011	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0052	0.007	<0.0020	<0.0020	<0.0020	<0.0020
	4/4/2012	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/12/2012	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	0.003	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0024	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/8/2014	15	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	0.004	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	16	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	0.0031	<0.0020	<0.0020	<0.0020	<0.0020
OB-44-S	1/7/2014	NA	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	47	24	<1.0	<1.0	<1.0	<1.0
	4/21/2014	17	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	7.2	1.5	<1.0	<1.0	59	<1.0
	10/16/2014	17	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	15	8.8	<0.50	<0.50	31	<0.50
	3/17/2015	NA	<0.50	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	<0.50	<0.50	30	9.4	<0.50	<0.50	20	<0.50
OB-45-DO	4/15/2014	45	<0.0050	<0.0050	<0.0050	<0.0050	0.035	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0059	0.27	<0.0050	<0.0050	0.37	<0.0050
	10/16/2014	38	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-45-S	4/15/2014	13	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	14	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
OB-46-S	3/17/2015	NA	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.76	0.16	<0.010	<0.010	0.25	<0.010
OB-47-S	3/17/2015	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.032	0.014	<0.0020	<0.0020	0.0026	<0.0020
OB-48-S	3/17/2015	NA	<0.0020	<0.0020	<0.0020	<0.0020	0.019	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.011	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
P-05R	4/27/2009	NA	<0.0010J	<0.0010J	<0.0010J	<0.0010J	---	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J
P-09R	4/6/2009	4.5	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.016	<0.0010
	10/27/2009	4.5	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/23/2010	4.5	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0036	<0.0010

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
P-09R (Cont.)	10/13/2010	4.5	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2011	3.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	<0.0020
	10/24/2011	4.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/12/2012	5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	5/2/2013	3.8	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/23/2013	4.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	<0.0020	<0.0020
	4/29/2014	4	<0.0020	<0.0020	<0.0020	<0.0020	0.074	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/16/2014	4	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
P-11R	4/27/2009	NA	<0.0010J	<0.0010J	<0.0010J	<0.0010J	---	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J	<0.0010J
	4/22/2010	9	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/5/2011	8	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	8.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/12/2013	8.75	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
P-19A	4/6/2009	10	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	0.025	<0.0020	<0.0020	0.28	<0.0020
	10/27/2009	10	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0067	0.031	<0.0020	<0.0020	0.28	<0.0020
	4/22/2010	10	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0019	<0.0010	<0.0010	0.033	<0.0010
	10/13/2010	10	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0065	0.037	<0.0020	<0.0020	0.47D	<0.0020
	4/6/2011	9	<0.0020	<0.0020	<0.0020	<0.0020	0.01	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0031	0.012	<0.0020	<0.0020	0.12	<0.0020
	10/24/2011	10	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0047	0.021	<0.0040	<0.0040	0.2	<0.0040
	4/6/2012	9.4	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0054	0.03	<0.0040	<0.0040	0.29	<0.0040
	11/12/2012	10	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0076	0.045	<0.0040	<0.0040	0.39	<0.0040
	4/12/2013	9.5	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.006	0.031	<0.0020	<0.0020	0.16	<0.0020
	10/23/2013	10	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	0.0063	<0.0020
	4/21/2014	10	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0048	0.027	<0.0040	<0.0040	0.2	<0.0040
P-20R	4/6/2009	10	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0024	0.014	<0.0010	<0.0010	0.0012	<0.0010
	4/22/2010	11	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	4/6/2011	10	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	10	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	5/2/2013	10	<0.0020	<0.0020	<0.0020	<0.0020	0.012	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/21/2014	10	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.009	<0.0020	<0.0020	<0.0020	<0.0020
RW-01_MW-18	4/9/2009	39	0.32	0.017	<0.0025	<0.0025	---	0.027	<0.0025	0.21	<0.0025	<0.0025	0.051	0.1	<0.0025	<0.0025	0.12	<0.0025
	1/20/2014	37.1	<0.0050	0.014	0.025	<0.0050	<0.025	<0.0050	<0.0050	0.011	<0.0050	<0.0050	0.53D	1.1D	<0.0050	0.80D	8.7D	0.11
	4/9/2014	37	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	0.48	4.3	<0.050
	8/6/2014	36	<0.050	<0.050	<0.050	<0.050	<0.25	<0.050	<0.050	<0.050	<0.050	<0.050	0.77	0.45	<0.050	0.49	7.7D	0.078
	1/20/2015	37.6	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	<0.10	<0.10	<0.10	<0.10	1	0.8	<0.10	0.48	9.7D	0.11
RW-03	7/14/2009	70	0.047	<0.025	<0.025	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	0.32	0.34	<0.025	2.6	2.4	<0.025
	7/14/2009	15	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.26	0.14	<0.010	0.56	0.85	<0.010
	10/26/2009	15	0.068	0.0071	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.052	0.025	<0.0050	0.67D	0.058	<0.0050
	10/26/2009	56	0.036	0.0069	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.055	0.093	<0.0050	0.62	0.14	<0.0050
	1/28/2010	55	0.014	0.0028	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.028	0.035	<0.0020	0.14	0.2	<0.0020
	1/28/2010	15	0.01	0.0026	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.02	0.016	<0.0020	0.14	0.19	<0.0020
	4/22/2010	55	0.022	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.46	0.6	<0.020	0.36	2.2	<0.020
	4/28/2010	15	<0.025	<0.025	<0.025	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	0.92	0.84	<0.025	0.56	3.5	<0.025
	7/14/2010	69	0.032J	<0.025UJ	<0.025UJ	<0.025UJ	---	<0.025UJ	<0.025UJ	<0.025UJ	<0.025UJ	<0.025UJ	0.62J	1.1J	<0.025UJ	3.2J	3.7J	<0.025UJ
	10/12/2010	55	0.78	<0.10	<0.10	<0.10	---	<0.10	<0.10	<0.10	<0.10	<0.10	0.59	1.1	<0.10	5.2	5.4	<0.10
	1/4/2011	55	0.29	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	0.098	0.2	<0.020	0.51	1.1	<0.020
	4/5/2011	54.7	0.01	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.079	0.15	<0.0020	0.0022	0.11	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
RW-22	4/3/2009	144	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0086	0.12	<0.0025	<0.0025	0.36	<0.0025
	4/20/2010	144	<0.0050	<0.0050	<0.0050	<0.0050	---	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0063	0.094	<0.0050	<0.0050	0.38	<0.0050
	4/4/2011	105	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.07	<0.0040	<0.0040UJ	0.36	<0.0040
	4/5/2012	62	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0061	0.047	<0.0040	<0.0040	0.34	<0.0040
	4/17/2013	106	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0062	0.04	<0.0040	<0.0040	0.26	<0.0040
	4/9/2014	104	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.035	<0.0040	0.011	0.52D	<0.0040
STR-03	1/13/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0012	<0.0010	0.0013	0.011	<0.0010
	4/9/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0083	0.0072	<0.0010	0.012	0.085	0.0024
	7/14/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0013	<0.0010	0.0079	0.015	<0.0010
	10/27/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	1/28/2010	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0067	0.0084	<0.0010	0.0053	0.047	<0.0010
	4/22/2010	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0014	0.003	<0.0010
	7/14/2010	NA	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	---	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ	<0.0010UJ
	10/12/2010	NA	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	1/5/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	7/28/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/25/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0067	0.027	<0.0020
	1/18/2012	NA	<0.0040	<0.0040	<0.0040	<0.0040	<0.020	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.011	0.02	<0.0040	0.041	0.21	<0.0040
	4/3/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	8/21/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	11/28/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	2/6/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.013	0.032	<0.0020	0.02	0.43D	<0.0020
	4/11/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.004	0.0083	<0.0020	0.0092	0.17	0.0037
	10/23/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	4/10/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0023	<0.0020
	10/15/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
STRHA-07A	4/7/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0015	<0.0010	<0.0010	0.0017	<0.0010
	10/27/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.013	0.058	<0.0010	<0.0010	0.051	<0.0010
	4/28/2010	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0035	0.02	<0.0010	<0.0010	0.02	<0.0010
	10/14/2010	NA	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0061	0.036	<0.0020	<0.0020	0.035	<0.0020
	4/6/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0026	0.013	<0.0020	<0.0020	0.012	<0.0020
	10/25/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0021	0.011	<0.0020	<0.0020	0.011	<0.0020
	4/6/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0054	0.03	<0.0020	<0.0020	0.036	<0.0020
	11/13/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0068	0.033	<0.0020	<0.0020	0.032	<0.0020
	4/15/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.01	0.046	<0.0020	<0.0020	0.013	<0.0020
	10/23/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.006	0.035	<0.0020UJ	<0.0020	0.037	<0.0020
	4/10/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0088	<0.0020	<0.0020	0.0097	<0.0020
	10/15/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0061	0.029	<0.0020	<0.0020	0.036	<0.0020
STRHA-07B	4/7/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
	10/27/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0044	0.025	<0.0010	<0.0010	0.0091	<0.0010
	4/28/2010	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0058	0.031	<0.0010	<0.0010	0.0098	<0.0010
	10/14/2010	NA	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.012	<0.0020	<0.0020	0.0052	<0.0020
	4/6/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0062	0.028	<0.0020	<0.0020	0.0089	<0.0020
	10/25/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0055	0.025	<0.0020	<0.0020	0.0076	<0.0020
	4/6/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0037	0.019	<0.0020	<0.0020	0.0071	<0.0020

Table 2
Water Quality Data - VOC Results
2009 to Present
Former Varian Facility Site
150 Sohier Road, Beverly, Massachusetts

SITE ID	DATE	DEPTH	1,1,1-TCA (mg/l)	1,1-DCA (mg/l)	1,1-DCE (mg/l)	1,2-DCA (mg/l)	Acetone (mg/l)	Carbon tetra chloride (mg/l)	Chloro benzene (mg/l)	Chloro form (mg/l)	Chloro ethane (mg/l)	Chloro methane (mg/l)	PCE (mg/l)	TCE (mg/l)	Trichloro fluoro methane (mg/l)	Vinyl chloride (mg/l)	cis-1,2-DCE (mg/l)	trans-1,2-DCE (mg/l)
STRHA-07B (Cont.)	11/13/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0068	0.034	<0.0020	<0.0020	0.031	<0.0020
	4/15/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0073	0.035	<0.0020	<0.0020	0.017	<0.0020
	10/23/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0082	<0.0020UJ	<0.0020	0.0025	<0.0020
	4/10/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0099	0.042	<0.0020	<0.0020	0.013	<0.0020
	10/15/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0032	0.01	<0.0020	<0.0020	0.0044	<0.0020
STRM-A-SCDS	4/6/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0035	<0.0010	<0.0010	0.0012	<0.0010
	10/27/2009	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.002	0.0079	<0.0010	<0.0010	0.0034	<0.0010
	4/22/2010	NA	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0016	0.0059	<0.0010	<0.0010	0.0044	<0.0010
	10/13/2010	NA	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0051	0.02	<0.0020	<0.0020	0.057	<0.0020
	4/6/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0033	<0.0020	<0.0020	0.0022	<0.0020
	10/26/2011	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0025	<0.0020	<0.0020	<0.0020	<0.0020
	4/6/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0048	0.017	<0.0020	<0.0020	0.013	<0.0020
	11/12/2012	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0038	0.012	<0.0020	<0.0020	0.0051	<0.0020
	4/15/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0055	<0.0020	<0.0020	0.0028	<0.0020
	10/23/2013	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0057	0.019	<0.0020UJ	<0.0020	0.0092	<0.0020
	4/21/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	0.0038	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
	10/15/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0049	0.017	<0.0020	<0.0020	0.0051	<0.0020
UNNAMED_STREAM	1/14/2009	NA	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.016	0.031	<0.010	0.18	1	<0.010
	4/9/2009	NA	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.9	0.43	<0.010	0.081	0.82	<0.010
	7/14/2009	NA	<0.025	<0.025	0.033	<0.025	---	<0.025	<0.025	<0.025	<0.025	<0.025	1.7	0.95	<0.025	0.48	3.4	<0.025
	10/27/2009	NA	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0027	0.015	<0.0025	0.1	0.31	<0.0025
	1/28/2010	NA	<0.020	<0.020	<0.020	<0.020	---	<0.020	<0.020	<0.020	<0.020	<0.020	1.4	1.2	<0.020	0.22	1.9	<0.020
	4/22/2010	NA	<0.010	<0.010	<0.010	<0.010	---	<0.010	<0.010	<0.010	<0.010	<0.010	0.29	0.17	<0.010	0.14	1	<0.010
	10/12/2010	NA	<0.0020	<0.0020	<0.0020	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.005	0.0053	<0.0020	<0.0020	0.016	<0.0020
	1/4/2011	NA	<0.0020	<0.0020	0.011	<0.0020	---	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.51D	0.24D	<0.0020	0.20D	1.4D	0.0094
	4/5/2011	NA	0.0022	<0.0020	0.015	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	1.1D	0.86D	<0.0020	0.083	2.3D	0.012
	10/25/2011	NA	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.91	0.59	<0.020	0.16	1.4	<0.020
	1/17/2012	NA	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.98	0.61	<0.010	0.037	0.48	<0.010
	4/3/2012	NA	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	1.2	0.73	<0.020	0.18	2	<0.020
	8/21/2012	NA	<0.010	<0.010	<0.010	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	0.043	0.071	<0.010	0.11	0.56	<0.010
	2/6/2013	NA	<0.010	<0.010	0.019	<0.010	<0.050	<0.010	<0.010	<0.010	<0.010	<0.010	1.7D	1.5D	<0.010	0.18	2.2D	0.012
	4/11/2013	NA	<0.040	<0.040	<0.040	<0.040	<0.20	<0.040	<0.040	<0.040	<0.040	<0.040	0.065	0.071	<0.040	0.14	2.9	<0.040
	4/10/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0026	0.003	<0.0020	<0.0020	0.012	<0.0020
	10/15/2014	NA	<0.0020	<0.0020	<0.0020	<0.0020	0.069	<0.0020	<0.0020	0.005	<0.0020	<0.0020	0.012	0.0046	<0.0020	<0.0020	0.0096	<0.0020
W-1	10/26/2009	9	<0.0025	<0.0025	<0.0025	<0.0025	---	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.013	0.21	<0.0025	<0.0025	0.048	<0.0025
	4/21/2010	9	<0.0010	<0.0010	<0.0010	<0.0010	---	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0065	0.11	<0.0010	<0.0010	0.055	<0.0010
	10/14/2010	9	<0.0040	<0.0040	<0.0040	<0.0040	---	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0066	0.23	<0.0040	<0.0040	0.028	<0.0040
	4/5/2011	11	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0072	0.095	<0.0020	<0.0020	0.056	<0.0020
	10/24/2011	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0066	<0.0020	<0.0020	<0.0020	<0.0020
	4/5/2012	11	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.039	1.0D	<0.0020	<0.0020	0.49D	0.0054
	11/12/2012	9	<0.0020	<0.0020	<0.0020	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0067	0.17	<0.0020	<0.0020	0.025	<0.0020
	5/2/2013	10.8	<0.0020	<0.0020	0.0021	<0.0020	<0.010	<0.0020	<0.0020	<0.0020	<0.0020UJ	<0.0020	0.055	1.3D	<0.0020	<0.0020	0.48D	0.007
	4/9/2014	10	<0.020	<0.020	<0.020	<0.020	<0.10	<0.020	<0.020	<0.020	<0.020	<0.020	0.033	0.98	<0.020	<0.020	0.42	<0.020

TABLE 3
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE_ID	DATE	Chloride Total (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-12-BR	4/20/2010	1200	25	26000
	10/14/2010	33100	ND(3.0)	24000
	4/14/2011	10400	8.7	12000
	10/28/2011	225	ND(5.0)	3900
	4/6/2012	890	ND(2.5)	9000
	11/27/2012	420	ND(1.0)	3300
	4/18/2013	192	ND(0.50)	1400
	10/23/2013	137	ND(0.50)	230
	4/10/2014	75.5	0.9	0.56
AP-12-DO	4/20/2010	34.4	0.47	5.4
	11/27/2012	538	9.2	3400
	4/18/2013	156	ND(0.50)	720
	10/23/2013	109	ND(0.10)	36
	4/10/2014	124	ND(0.10)	0.32
AP-13-DO	1/14/2009	150	0.26	9.3
	4/2/2009	273	0.2	13
	8/14/2014	---	ND(0.10)	25.3
	1/20/2015	---	0.16	22
AP-19	10/27/2009	4.1	ND(0.10)	ND(0.010)
	4/21/2010	18.7	ND(0.10)	0.095
	10/14/2010	17.2	ND(0.10)	0.029
	4/6/2011	24.8	ND(0.10)	0.061
	10/27/2011	ND(1.0)	ND(0.10)	0.012
	4/5/2012	29	ND(0.10)	0.12
	11/13/2012	20.4	ND(0.10)	ND(0.010)
	5/2/2013	28.2	ND(0.10)	0.021
	10/24/2013	26.3	0.12	1.0
	4/11/2014	25.4	ND(0.10)	1.1
	10/16/2014	2.6	ND(0.10)	ND(0.010)
AP-20	10/27/2009	11.1	ND(0.10)	6.9
	4/21/2010	31.3	ND(0.10)	0.011
	10/14/2010	29.4	ND(0.10)	0.012
	4/6/2011	15.4	ND(0.10)	ND(0.010)
	10/27/2011	2	ND(0.10)	0.028
	4/5/2012	86	ND(0.10)	23
	11/13/2012	68.2	0.39	8.5
	5/2/2013	45	ND(0.10)	2.1
	10/24/2013	109	ND(0.10)	0.17
	4/11/2014	14.1	ND(0.10)	4.0
	10/16/2014	4120	ND(100)	10000

TABLE 3
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE_ID	DATE	Chloride Total (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-21	11/23/2009	850	8.5	14000
	4/21/2010	900	10	15000
	10/14/2010	1690	ND(2.0)	9000
	4/14/2011	450	3.2	3400
	10/27/2011	190	ND(2.5)	1100
	4/5/2012	286	ND(1.0)	970
	11/13/2012	271	ND(0.10)	640
	5/2/2013	275	ND(0.10)	190
	10/24/2013	323	ND(0.10)	0.24
	4/11/2014	227	ND(0.10)	0.51
	10/16/2014	10100	ND(100)	14000
AP-22	10/27/2009	378	ND(0.50)	3800
	4/21/2010	489	ND(1.0)	73
	10/14/2010	491	ND(1.0)	240
	4/14/2011	208	ND(0.10)	0.37
	10/27/2011	225	ND(2.5)	1200
	4/5/2012	1360	ND(2.0)	2000
	11/13/2012	794	ND(1.0)	4100
	4/17/2013	425	ND(0.10)	150
	10/24/2013	892	ND(0.50)	440
	4/11/2014	919	0.26	51
	10/16/2014	10700	ND(100)	12000
AP-23-DO	1/14/2009	43.6	1.7	6.4
	4/2/2009	60.7	3.2	19
	8/6/2014	---	0.57	7.6
	1/20/2015	---	12	1.2
AP-24-DO	1/14/2009	117	0.48	7.5
	4/2/2009	283	0.25	11
	8/6/2014	---	1.7	1.2
	1/20/2015	---	38	20
AP-25-DO	1/14/2009	34.9	0.28	0.24
	4/2/2009	61.1	ND(0.10)	0.11
AP-26-DO	11/26/2012	33.5	ND(0.10)	8.5
	4/15/2013	39.4	ND(0.10)	0.01
	10/23/2013	91.2	ND(0.10)	3.9
	4/16/2014	43	ND(0.10)	0.81
AP-27-DO	4/9/2009	57.8	ND(0.10)	0.098
	10/28/2009	13.7	ND(0.10)	0.1
	4/21/2010	29.4	ND(0.10)	0.1
	10/14/2010	11.2	ND(0.10)	0.42
	4/7/2011	387J	ND(0.10)	0.046
	10/26/2011	140	ND(0.10)	2.8

TABLE 3
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE_ID	DATE	Chloride Total (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
AP-27-DO (Cont.)	4/6/2012	450	ND(0.10)	0.053
	11/27/2012	624	ND(0.10)	9.1
	4/16/2013	79.6	ND(0.10)	0.073
	10/23/2013	50	ND(0.10)	0.095
	4/11/2014	342	ND(0.10)	0.19
	10/15/2014	242	ND(0.10)	3.6
AP-30-DO	4/18/2013	3860	ND(0.50)	3500
AP-30R-DO	4/7/2011	1000J	6	7900
	11/7/2011	2730	ND(50)	20000
	4/17/2012	1070	ND(5.0)	6400
AP-31-DO	4/6/2011	3380J	2.5	2200
	11/7/2011	3240	ND(1.0)	780
	4/17/2012	2650	ND(0.10)	0.58
	4/18/2013	742	ND(0.10)	67
	10/24/2013	907	ND(0.10)	23
	4/16/2014	720	ND(0.10)	0.86
AP-32-DO	4/7/2011	1440J	ND(1.0)	75
	11/7/2011	979	ND(0.10)	0.055
	4/17/2012	631	ND(0.10)	0.072
	4/18/2013	565	ND(0.10)	0.012
	10/24/2013	624	ND(0.10)	99
	4/16/2014	608	ND(0.10)	110
AP-33-DO	8/6/2014	---	4.3	1.9
	1/20/2015	---	59	10
AP-34-DO	8/6/2014	---	0.89	9.1
	1/20/2015	---	200	38
AP-35-DO	8/6/2014	---	0.82	0.31
	1/20/2015	---	19	5.7
BR-5_ZONE3	4/11/2014	136	ND(0.10)	3.1
BW-01	1/13/2009	86.1	2.1	2.3
	4/2/2009	67.3	3.8	3.2
BW-02	1/13/2009	87.2	8.2	2.3
	4/2/2009	97.8	6.4	2.4
BW-03	1/13/2009	80.8	13	5.6
	4/2/2009	91.3	18	8
BW-04	1/13/2009	96.5	9.5	3.8
	4/2/2009	95.1	10	3.2
BW-05	1/13/2009	205	20	4.7
	4/2/2009	130	27	4.9
BW-08	1/13/2009	124	18	5.3
	4/2/2009	104	27	7.9
BW-09	1/13/2009	131	20	7.1
	4/2/2009	174	41	11

TABLE 3
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE_ID	DATE	Chloride Total (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
CL03-DO	10/23/2013	302	ND(0.50)	300
	4/9/2014	12.4	ND(0.10)	0.099
	10/15/2014	16.3	ND(0.10)	1.2
CL10-DO	10/23/2013	25.1	ND(0.10)	510
	4/10/2014	50.1	ND(0.10)	180
	10/15/2014	40.8	ND(1.0)	84
MW-009	1/14/2009	822	60	7
	4/2/2009	711	70	6
MW-013	4/21/2010	586	2.4	2300
	10/14/2010	928	ND(1.0)	4800
	4/14/2011	1920	2.8	3100
	10/27/2011	1410	ND(0.50)	510
	4/5/2012	930	ND(0.50)	560
	11/26/2012	647	ND(1.0)	210
	4/17/2013	635	ND(0.10)	210
	10/24/2013	491	ND(0.10)	31
	4/9/2014	506	ND(0.10)	23
MW-030	4/9/2009	135	0.16	0.012
MW-2_32-Tozer	11/8/2011	489	2.58	---
	10/15/2014	595	2.4	19500
OB-05-DO	4/8/2014	32.4	0.3	0.23
OB-06-DO	4/9/2014	32.7	0.11	0.13
OB-09-BR	1/14/2009	16	1.5	0.17
	4/9/2009	20	1.5	0.24
OB-09-DO	1/13/2009	32.6	ND(0.10)	ND(0.010)
	4/9/2009	44.6	ND(0.10)	ND(0.010)
OB-09-S	4/9/2009	122	16	2
OB-12-DO	10/27/2009	116	ND(0.50)	1100
	10/26/2011	87.6	ND(0.50)	54
	11/26/2012	120	ND(1.0)	790
	4/17/2013	62.8	ND(0.10)	22
	10/24/2013	53.8	ND(0.10)	0.11
	4/9/2014	39.4	ND(0.10)	0.18
	10/16/2014	1440	ND(100)	6400
OB-19-DO	10/13/2010	15.9	ND(0.10)	1.1
	4/4/2011	24	0.84	2.6
	10/26/2011	34	0.78	3.2
	4/5/2012	25.8	ND(0.10)	5.8
	11/26/2012	26.7	0.13	4.9
	4/15/2013	28.3	ND(0.10)	0.061

TABLE 3
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE_ID	DATE	Chloride Total (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-19-DO (Cont.)	10/23/2013	30.4	ND(0.10)	2.3
	4/16/2014	33	ND(0.10)	0.11
	10/16/2014	33.2	0.35	2.5
OB-25-BR	11/26/2012	812	ND(1.0)	7300
	10/23/2013	151	ND(0.10)	0.64
Dup.	10/23/2013	145	ND(0.10)	0.63
	4/16/2014	114	ND(0.10)	6.4
	10/16/2014	14100	ND(100)	35000
OB-27-BR	4/22/2010	214	1.9	1800
	10/14/2010	421	ND(1.0)	4800
	4/14/2011	690	5.2	6700
	10/28/2011	94	ND(0.50)	300
	4/6/2012	273	ND(0.50)	2200
	11/26/2012	540	ND(1.0)	4400
	4/15/2013	113	ND(0.50)	770
	10/24/2013	117	ND(0.50)	200
	4/11/2014	36.6	0.76	370
OB-32-DO	4/20/2010	74	ND(1.0)	540
	10/14/2010	211	ND(1.0)	690
	4/14/2011	262	ND(1.0)	520
	10/28/2011	175	ND(0.50)	290
	4/5/2012	204	ND(0.20)	190
	11/27/2012	209	ND(1.0)	220
	4/18/2013	203	ND(0.10)	140
	10/24/2013	132	ND(0.10)	40
	4/21/2014	107	ND(0.10)	60
OB-34-DO	10/27/2009	38.7	ND(0.50)	10
OB-35-DO	4/9/2009	79.1	ND(0.10)	0.03
	10/28/2009	328	ND(0.10)	ND(0.010)
	4/22/2010	73.2	ND(0.10)	0.2
	10/14/2010	193	ND(0.10)	0.074
	4/7/2011	112J	ND(0.10)	0.023
	10/27/2011	84.3	ND(0.10)	0.066
	4/6/2012	78.4	ND(0.10)	0.028
	11/27/2012	83.5	ND(0.10)	4.2
	4/15/2013	135	ND(0.10)	0.37
	10/24/2013	91.5	ND(0.10)	15
	4/21/2014	96.1	ND(0.10)	6.2
	10/16/2014	94.2	ND(0.10)	0.14
OB-36-DO	4/21/2014	419	0.13	2200

TABLE 3
Water Quality Data - Chloride, Dissolved Iron and Dissolved Manganese Results
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

SITE_ID	DATE	Chloride Total (mg/l)	Iron Dissolved (mg/l)	Manganese Dissolved (mg/l)
OB-37-DO	5/7/2010	47.3	ND(1.0)	63
	10/13/2010	621	ND(1.0)	3800
	4/7/2011	10800J	11	18000
	10/28/2011	890	ND(10)	15000
	4/6/2012	438	ND(1.5)	3200
	11/27/2012	14.4	0.56	20
	4/15/2013	181	ND(0.10)	66
OB-38-DO	4/9/2009	459	ND(0.10)	0.14
	10/28/2009	31.7	ND(0.10)	0.025
OB-39-DO	4/9/2009	15.5	ND(0.10)	ND(0.010)
OB-40-DO	4/9/2009	48.2	ND(0.10)	ND(0.010)
OB-44-S	3/17/2015	---	0.39	0.54
OB-46-S	3/17/2015	---	ND(0.10)	0.013
STR-03	1/13/2009	1790	1.4	0.58
	4/9/2009	1320	3.5	2.6
UNNAMED_STREAM	1/14/2009	1460	48	6.9
	4/9/2009	1170	22	6.1
MW-2_32-TOZER	11/8/2011	489	2.58	---

Notes:
mg/l = milligrams per liter
--- = not analyzed
ND(0.05) = non detect (method detection limit)
Dup. = Duplicate sample
J = Estimated value.

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-13-DO 1/14/2009	AP-13-DO 4/2/2009	AP-13-DO 4/22/2010	AP-13-DO 7/14/2010	AP-13-DO 10/12/2010	AP-13-DO 1/4/2011	AP-13-DO 4/5/2011	AP-13-DO 7/28/2011	AP-13-DO 10/25/2011	AP-13-DO 1/17/2012	AP-13-DO 4/3/2012	AP-13-DO 1/20/2014	AP-13-DO 4/8/2014	AP-13-DO 8/14/2014	AP-13-DO 1/20/2015
Dissolved Metals																
Iron	mg/L	0.26	0.2	---	---	---	---	---	---	---	---	---	---	---	<0.1	0.16
Manganese	mg/L	9.27	13	---	---	---	---	---	---	---	---	---	---	---	25.3	21.8
Sulfate	mg/L	<2.0	2.6	---	---	---	---	---	---	---	---	---	---	---	319	144
Nitrate	mg/L	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	<1.0	<10
Metabolic Acids																
Acetic acid	mg/L	78	180	460	630J	980	2500	1600	2700	2500	1300	1200	---	---	---	---
Lactic Acid	mg/L	<1.0	<1.0	<5.0	<10J	360	16000	930	35000	6300	740	290	---	---	---	---
n-Butanoic acid	mg/L	<2.0	6.3	<10	<20J	18	<200	68	<400	<100	<40	20	---	---	---	---
Propionic acid	mg/L	26	48	74	85J	150	220	93	270	210	41	16	---	---	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<2.5	<5.0J	14	<50	7.7	<100	<25	<10	<5.0	---	---	---	---
Miscellaneous Analyses																
Methane	ug/L	<2.0	2.8	83	18J	6.6	5.4	2.7	8.6	3.6	3	2.3	<1.0	<1.0	2.3	7.7
Ethane	ug/L	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	3.6
Ethene	ug/L	<1.0	<1.0	17	5.6J	17	21	5	71	35	7.8	3.3	1.9	9.9	57	510D
Chloride	mg/L	150	273	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	65.1	106	---	---	----	---	---	---	---	---	---	484	569	616	10200
Dehalococcoides sp.	cells/ml	7,400	<77	1,200,000	44,000	110,000	40,000	12,000	63J	710	<28	<42	<92	11J	42	1,002,400
Field Parameters																
pH	--	8.15	8.83	---	7.81	7.19	7.28	7.17	---	---	---	---	6.52	---	---	4.86
ORP	mV	-170	-153.5	---	-32	-71	-181.9	-354	---	---	---	---	-7	---	---	-76.2
Dissolved Oxygen	mg/L	0.32	0.44	---	0.39	0.22	0.79	0.43	---	---	---	---	3.86	---	---	1.94
Specific Conductivity	ms/cm	8.547	12.369	---	9.527	9.191	11.269	9.699	---	---	---	---	0.071	---	---	0.68

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-23-DO 1/14/2009	AP-23-DO 4/2/2009	AP-23-DO 1/28/2010	AP-23-DO 4/22/2010	AP-23-DO 7/14/2010	AP-23-DO 10/12/2010	AP-23-DO 1/4/2011	AP-23-DO 4/5/2011	AP-23-DO 7/28/2011	AP-23-DO 10/25/2011	AP-23-DO 1/17/2012	AP-23-DO 4/3/2012	AP-23-DO 1/20/2014	AP-23-DO 4/8/2014	AP-23-DO 8/6/2014	AP-23-DO 8/6/2014	AP-23-DO 1/20/2015
Dissolved Metals																		
Iron	mg/L	1.73	3.2	---	---	---	---	---	---	---	---	---	---	---	---	0.57	--	11.7
Manganese	mg/L	6.44	19	---	---	---	---	---	---	---	---	---	---	---	---	7.6	--	1.24
Sulfate	mg/L	<2.0	5.2	---	---	---	---	---	---	---	---	---	---	---	---	6.6	---	52
Nitrate	mg/L	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	<1.0	---	<10UJ
Metabolic Acids																		
Acetic acid	mg/L	220	290	28	320	260J	620	2800	2000	920	220	26	190	---	---	---	---	---
Lactic Acid	mg/L	6.1	33	5.7	15	<10J	<10	20000	11000	150	5.5	6	4.1	---	---	---	---	---
n-Butanoic acid	mg/L	36	77	3.1	22	41J	240	<400	1200	140	25	<2.0	17	---	---	---	---	---
Propionic acid	mg/L	500	670D	41	770	620J	1100	5200	3100	1800	390	42	290	---	---	---	---	---
Pyruvic Acid	mg/L	<2.5	<0.50	<0.50	<2.5	<5.0J	<5.0	430	<50	19	<1.0	<0.50	<1.0	---	---	---	---	---
Miscellaneous Analyses																		
Methane	ug/L	3.9	36	27	14	19J	700D	200	240	340	120	26	130	120J	280	110	---	20
Ethane	ug/L	2.2	2.1	<2.0	<1.0	<1.0J	2.5	<10	<10	<10U	<2.0	<2.0	<4.0	17J	<5.0	<10	---	1.3
Ethene	ug/L	22	36	170	65	65J	310D	2500D	640	500	65	230D	510D	4700DJ	610D	750	---	91
Chloride	mg/L	43.6	60.7	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	324	417	---	---	---	---	---	---	---	---	---	---	2270	387	231	---	9700
Dehalococcoides sp.	cells/ml	3,100,000	45,000	35,000	100,000	36,000	710,000	60,000	370,000	21,000	2,700,000	550,000	14,000,000	3,160	9J	3,170	---	14,700
Field Parameters																		
pH	--	7.66	8.1	8.31	8.44	7.3	7.28	6.52	7.2	---	---	---	---	6.52	---	6.52	6.67	5.89
ORP	mV	54.3	-36.3	-231	-390	-156	-200	-348.6	-360	---	---	---	---	-238.2	---	-130.6	-169.5	-269
Dissolved Oxygen	mg/L	0.92	0.65	0.2	0.16	0.43	0.21	0.21	0.35	---	---	---	---	0.87	---	0.38	1.01	1.71
Specific Conductivity	ms/cm	28.13	25.632	20.055	19.235	16.707	17.112	16.25	16.20	---	---	---	---	3.162	---	5.327	2.070	2.216

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-24-DO 1/14/2009	AP-24-DO 4/2/2009	AP-24-DO 1/28/2010	AP-24-DO 4/22/2010	AP-24-DO 7/14/2010	AP-24-DO 10/12/2010	AP-24-DO 1/4/2011	AP-24-DO 4/5/2011	AP-24-DO 7/28/2011	AP-24-DO 10/25/2011	AP-24-DO 4/3/2012	AP-24-DO 1/20/2014	AP-24-DO 4/8/2014	AP-24-DO 8/6/2014	AP-24-DO 8/6/2014	AP-24-DO 1/20/2015
Dissolved Metals																	
Iron	mg/L	0.48	0.25	---	---	---	---	---	---	---	---	---	---	---	1.7	---	38.5
Manganese	mg/L	7.46	11	---	---	---	---	---	---	---	---	---	---	---	1.2	---	20.2
Sulfate	mg/L	<2.0	48.4	---	---	---	---	---	---	---	---	---	---	---	13.4	---	39.6
Nitrate	mg/L	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	0.58	---	---	---	---	---	---	---	---	---	---	---	<1.0	---	<1.0
Metabolic Acids																	
Acetic acid	mg/L	440	780D	73	260	190J	480	2500	480	280	780	380	---	---	---	---	---
Lactic Acid	mg/L	<10	4600D	4.8	340	<1.0J	<5.0	11000	33	20000	750	<5.0	---	---	---	---	---
n-Butanoic acid	mg/L	53	130	11	21	16J	15	250	120	<400U	710	54	---	---	---	---	---
Propionic acid	mg/L	930	1200D	48	330	200J	340	4900	740	<200U	1600	420	---	---	---	---	---
Pyruvic Acid	mg/L	<5.0	2.5	<0.50	<1.0	<0.50J	<2.5	89	<5.0	<100U	6.5	<2.5	---	---	---	---	---
Miscellaneous Analyses																	
Methane	ug/L	59	110	<4.0	<20	<20J	<50	<100	<100	<40U	<8.0	<8.0	2.1	<1.0	<1.0	---	5.1
Ethane	ug/L	<1.0	<2.0	<2.0	<10	<10J	<25	<50	<50	<20U	<4.0	<4.0	1.1	<1.0	<1.0	---	4.6
Ethene	ug/L	1.6	3.9	160	680	1900DJ	4600D	4500	2600	1400	300	5100D	100D	16	10	---	96
Chloride	mg/L	117	283	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	629	1950	---	---	---	---	---	---	---	---	---	1520	38.2	13.6	---	9750
Dehalococcoides sp.	cells/ml	32,000	6,200	51,000	2,100,000	88,000	180,000	150,000	1,800,000	8,000	34,000	22,000,000	---	3J	5.6J	---	<10
Field Parameters																	
pH	--	7.83	7.74	8.38	8.05	7.29	7.1	6.35	7.27	---	---	---	6.6	---	7.28	6.62	5.48
ORP	mV	-238.3	-92.7	-223	-195	-33	-191	-133.1	-360	---	---	---	-7.6	---	-165.7	-123.5	-247.3
Dissolved Oxygen	mg/L	0.28	0.69	0.32	0.49	0.41	0.39	0.39	0.59	---	---	---	4.27	---	0.44	0.44	1.75
Specific Conductivity	ms/cm	14.33	8.644	3.816	3.262	3.473	3.415	12.112	3.542	---	---	---	1.834	---	2.152	0.501	0.66

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-25-DO 1/14/2009	AP-25-DO 4/2/2009	AP-25-DO 1/28/2010	AP-25-DO 1/4/2011	AP-25-DO 4/5/2011	AP-25-DO 10/22/2013	AP-25-DO 1/20/2014	AP-25-DO 4/8/2014	AP-25-DO 8/6/2014	AP-25-DO 8/6/2014	AP-25-DO 1/20/2015	AP-33-DO 1/20/2014	AP-33-DO 4/8/2014	AP-33-DO 8/6/2014	AP-33-DO 10/17/2014	AP-33-DO 1/20/2015
Dissolved Metals																	
Iron	mg/L	0.28	<0.10	---	---	---	---	---	---	---	---	---	--	---	4.3	---	59
Manganese	mg/L	0.24	0.11	---	---	---	---	---	---	---	---	---	--	---	1.9	---	10
Sulfate	mg/L	<2.0	7.9	---	---	---	---	---	---	---	---	---	---	---	<2.0	---	18.8
Nitrate	mg/L	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	<1.0	---	<1.0
Metabolic Acids																	
Acetic acid	mg/L	24	59	<1.0	8.2	---	--	---	---	---	---	---	--	---	---	---	---
Lactic Acid	mg/L	<1.0	1.9	<1.0	<1.0	---	--	---	---	---	---	---	--	---	---	---	---
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	---	--	---	---	---	---	---	--	---	---	---	---
Propionic acid	mg/L	5.8	15	<1.0	<1.0	---	--	---	---	---	---	---	--	---	---	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	---	--	---	---	---	---	---	--	---	---	---	---
Miscellaneous Analyses																	
Methane	ug/L	<10	57	16	130D	---	5.7	13J	9.1	<1.0	---	8.6	61J	60	24	---	97
Ethane	ug/L	<5.0	<20	<1.0	<1.0	---	<1.0	<1.0UJ	<1.0	<1.0	---	<1.0	100DJ	<50	13	---	37
Ethene	ug/L	440	1100	18	320D	---	<1.0	110DJ	47	<1.0	---	290D	4800DJ	2400	850D	---	2500D
Chloride	mg/L	34.9	61.1	---	---	---	---	---	---	---	---	---	--	---	---	---	---
TOC	mg/L	19.3	32.2	---	---	---	1.8	3.3	2.5	4.4	---	2.2	3100	625	177	---	495
Dehalococcoides sp.	cells/ml	950,000	23,000	26,000	11,000	---	---	---	---	---	---	---	12JD	<92	<10	---	1,520
Field Parameters																	
pH	--	7.03	8.17	8.04	7.62	10.02	8.02	7.13	---	7.97	8.30	6.82	6.57	---	6.73	6.67	5.92
ORP	mV	-110.3	-133.5	-165	-175.9	-351	111.1	-73.9	---	-114.4	-89.2	25.8	-205.7	---	-135	-149.1	-101.2
Dissolved Oxygen	mg/L	0.2	0.22	0.13	0.38	0.8	2.05	0.52	---	0.77	9.71	2.05	0.49	---	0.94	0.90	4.17
Specific Conductivity	ms/cm	0.357	0.495	0.185	0.271	0.116	0.106	3.503	---	0.275	0.096	0.185	9.869	---	2.591	1.920	2.192

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	AP-34-DO 1/20/2014	AP-34-DO 4/8/2014	AP-34-DO 8/6/2014	AP-34-DO 1/20/2015	AP-35-DO 1/20/2014	AP-35-DO 4/8/2014	AP-35-DO 8/6/2014	AP-35-DO 1/20/2015	BW-01 1/13/2009	BW-01 4/2/2009	BW-01 7/14/2009	BW-01 10/27/2009	BW-01 1/28/2010	BW-01 4/22/2010
Dissolved Metals															
Iron	mg/L	--	---	0.89	200	--	--	0.82	18.6	2.1	3.8	---	---	---	---
Manganese	mg/L	--	---	9.1	37.5	--	--	0.31	5.7	2.3	3.2	---	---	---	---
Sulfate	mg/L	---	---	3.1	10.5	---	---	2.2	<2.0	16.1	8.6	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	---	<0.50	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	<1.0	<1.0	---	---	1.8	<1.0UJ	---	1.03	---	---	---	---
Metabolic Acids															
Acetic acid	mg/L	--	---	---	---	--	--	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Lactic Acid	mg/L	--	---	---	---	--	--	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	--	---	---	---	--	--	---	---	<2.0	<2.0	---	<2.0	<2.0	<2.0
Propionic acid	mg/L	--	---	---	---	--	--	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	--	---	---	---	--	--	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses															
Methane	ug/L	19J	25	43	140D	24	62	19	65	1700	260	170	77	54	1300
Ethane	ug/L	39J	<4.0	<1.0	49	4.3	4.3	1.0	14	<20U	<5.0	<2.0	<1.0	<1.0	<25
Ethene	ug/L	240DJ	210	42	630D	36	38	5.6	380D	<20U	<5.0	<2.0	<1.0	<1.0	<25
Chloride	mg/L	--	---	---	---	--	--	---	---	86.1	67.3	---	---	---	---
TOC	mg/L	1010	215	112	6440	1330	670	7.7	396	2.4	1.6	---	---	---	---
Dehalococcoides sp.	cells/ml	23JD	<85	2.4J	42,500	3,680D	<92	7.3J	<10	570	12,000	3,200	11,000	7,800	8,600
Field Parameters															
pH	--	6.59	---	6.69	5.76	7.49	--	6.16	6.34	6.15	6.46	6.01	6.21	---	---
ORP	mV	-153.7	---	-149.6	-131.6	-56.0	--	-138.4	-29.3	-45.5	35.3	59	-0.8	---	---
Dissolved Oxygen	mg/L	0.48	---	0.53	1.01	10.51	--	0.60	3.41	0.29	5.5	0.27	0.17	---	---
Specific Conductivity	ms/cm	5.261	---	2.169	2.274	0.061	--	6.626	1.745	0.348	0.174	0.216	0.253	---	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-02 1/13/2009	BW-02 4/2/2009	BW-02 7/14/2009	BW-02 10/27/2009	BW-02 1/28/2010	BW-02 4/22/2010	BW-03 1/13/2009	BW-03 4/2/2009	BW-03 7/14/2009	BW-03 10/27/2009	BW-03 1/28/2010	BW-03 4/22/2010	BW-04 1/13/2009	BW-04 4/2/2009	BW-04 7/14/2009	BW-04 10/27/2009	BW-04 1/28/2010	BW-04 4/22/2010
Dissolved Metals																			
Iron	mg/L	8.2	6.4	---	---	---	---	12.6	18	---	---	---	---	9.5	10	---	---	---	---
Manganese	mg/L	2.3	2.4	---	---	---	---	5.6	8	---	---	---	---	3.8	3.2	---	---	---	---
Sulfate	mg/L	16.4	14.6	---	---	---	---	14.8	13.3	---	---	---	---	7.7	3.2	---	---	---	---
Nitrate	mg/L	<0.50	---	---	---	---	---	<0.50	---	---	---	---	---	<0.50	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	0.6	---	---	---	---	---	0.59	---	---	---	---	---	<0.50	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<1.0	86	<1.0	<1.0	2
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	110	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.58
Miscellaneous Analyses																			
Methane	ug/L	1900	1300	71	100	170	1400	1900	2300	1300	45	800	2000	4800	9200	2700	2300	37	1800
Ethane	ug/L	<20	<25	<1.0	<1.0	<2.0	<25	<20	<40	<20	<1.0	<10	<20	<50	<100	<50	130	<1.0	<25
Ethene	ug/L	<20	<25	1.9	<1.0	<2.0	<25	<20	<40	<20	<1.0	<10	<20	99	1300	1100	550	26	830
Chloride	mg/L	87.2	97.8	---	---	---	---	80.8	91.3	---	---	---	---	96.5	95.1	---	---	---	---
TOC	mg/L	2.3	3.8	---	---	---	---	3.8	2.8	---	---	---	---	22.1	15.2	---	---	---	---
Dehalococcoides sp.	cells/ml	1,400	4,600	9,500	16,000	7,600	<10	2000	1,500	17,000	10,000	---*	<29	62,000	<22	2,400,000	76,000	14,000	<29
Field Parameters																			
pH	--	6.12	6.46	6.11	6.25	---	---	6.43	6.67	6.19	6.43	---	---	7.17	7.38	6.81	6.9	---	---
ORP	mV	-49.5	11.4	4	13.9	---	---	-102.1	-16.7	-84	-53.7	---	---	-154	-140.4	-138	-116.7	---	---
Dissolved Oxygen	mg/L	0.35	2.53	0.48	0.22	---	---	0.62	1.27	0.25	0.12	---	---	0.39	0.36	0.13	0.2	---	---
Specific Conductivity	ms/cm	0.361	0.219	0.192	0.213	---	---	0.398	0.237	0.29	0.279	---	---	1.134	0.821	1.186	0.701	---	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-04 7/14/2010	BW-04 10/12/2010	BW-04 1/4/2011	BW-04 4/5/2011	BW-04 7/28/2011	BW-04 10/25/2011	BW-04 1/18/2012	BW-04 4/3/2012	BW-04 8/21/2012	BW-04 11/28/2012	BW-04 2/6/2013	BW-04 4/11/2013	BW-05 1/13/2009	BW-05 4/2/2009	BW-05 7/14/2009	BW-05 10/27/2009	BW-05 1/28/2010	BW-05 4/22/2010	BW-05 7/14/2010
Dissolved Metals																				
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	20.1	27	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	4.7	4.9	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	<2.0	3.2	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	<0.50	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	0.57	---	---	---	---	---
Metabolic Acids																				
Acetic acid	mg/L	280J	3.9	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---		81	41	44	1.7	<1.0	43	56J
Lactic Acid	mg/L	<10J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J
n-Butanoic acid	mg/L	35J	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	---	---		2.1	<2.0	---	<2.0	<2.0	<2.0	4.8J
Propionic acid	mg/L	660J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---		140	43	34	<1.0	<1.0	43	88J
Pyruvic Acid	mg/L	<5.0J	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---		<0.5	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50J
Miscellaneous Analyses																				
Methane	ug/L	2200J	3200D	2000	1100	590	240	17	1200D	960	970D	1200D	3100D	<100	210	340	260	490	<100	1600J
Ethane	ug/L	68J	99	110	40	62	19	<1.0	28	60	140	14	23	<50	<100	<50	23	<40	<50	<25J
Ethene	ug/L	950J	66	110	370	330	130	5.1	70	310	180	<5.0U	<20	4400	5100	3600	1900	2300	4700	1900J
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	205	130	---	---	---	---	---
TOC	mg/L	---	---	---	---	---	---	---	---	5.5	3.9	15.3	6.8	106	42.1	---	---	---	---	---
Dehalococcoides sp.	cells/ml	250,000	<800	2,300	<63	140	55,000	18,000	<11	<37	4,100,000	<100	<12	33,000	18,000	120,000	45,000	34,000	1,100,000	24,000
Field Parameters																				
pH	--	---	---	---	7.52	7.17	7.1	---	---	---	6.79	6.79	---	7.2	7.41	7.18	7.22	---	---	---
ORP	mV	---	---	---	-367	-179.5	-141	---	---	---	-89.1	-93.5	---	-171.3	-165.6	-185	-138.8	---	---	---
Dissolved Oxygen	mg/L	---	---	---	0.24	0.24	0.43	---	---	---	0.26	0.32	---	1.11	0.27	0.34	0.43	---	---	---
Specific Conductivity	ms/cm	---		---	0.69	0.484	0.567	---	---	---	0.602	0.635	---	0.952	0.862	0.692	0.571	---	---	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-05 10/12/2010	BW-05 1/4/2011	BW-05 4/5/2011	BW-05 7/28/2011	BW-05 10/25/2011	BW-05 1/18/2012	BW-05 4/3/2012	BW-05 8/21/2012	BW-05 11/28/2012	BW-05 2/6/2013	BW-05 4/11/2013	BW-05 10/17/2014	BW-06 7/28/2011	BW-06 10/25/2011	BW-06 1/18/2012	BW-06 4/3/2012	BW-06 8/21/2012	BW-06 11/28/2012
Dissolved Metals																			
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	32	<1.0	20	89	53	30	<1.0	---	---	---	---	---	180	1.5	110	63	---	---
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	---	---	<2.0	<1.0	<1.0	<1.0	---	---
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	6.6	<2.0	<2.0	<2.0	---	---	---	---	---	8.7	<2.0	2.6	<2.0	---	---
Propionic acid	mg/L	1.5	<1.0	<1.0	120	20	<1.0	<1.0	---	---	---	---	---	300	<1.0	58	<1.0	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	<1.0	<0.50	<0.50	<0.50	---	---
Miscellaneous Analyses																			
Methane	ug/L	1400	8900D	200	970	110	710	600D	4800D	11000D	20000	18000	---	210D	51	270	1700	350	6300D
Ethane	ug/L	130	1000	<50	31	<25	<25	67	49	<50	<200U	<200	---	<1.0	<5.0	<5.0	62	20	68
Ethene	ug/L	700	59	3700	1500	1700	4000D	750D	170	<50	<200U	<200	---	2800D	380	3900D	3500	77	140
Chloride	mg/L	---	---	---	---	---	---	---	---	---		---	---	---	---		---	---	---
TOC	mg/L	---	---	---	---	---	---	---	800	700	105	180	---	---	---	---	---	271	167
Dehalococcoides sp.	cells/ml	8,700	650	59,000	550	190,000	12,000	<10	<3,300	1,200,000	<120	<14	---	9,900	25,000	31,000	120,000	<3,300	<46
Field Parameters																			
pH	--	---	---	7.67	7.34	7.36	---	---	---	6.34	6.55	---	6.46	7.15	7.29	---	---	---	---
ORP	mV	---	---	-366	-170.8	-145.5	---	---	---	-135.6	15.4	---	-74.1	-157	-87.9	---	---	---	---
Dissolved Oxygen	mg/L	---	---	0.34	0.43	0.66	---	---	---	0.21	0.52	---	0.49	0.16	0.92	---	---	---	---
Specific Conductivity	ms/cm	---	---	0.617	0.816	0.64	---	---	---	2.559	2.078	---	1.010	1.174	0.508	---	---	---	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-06 2/6/2013	BW-06 4/11/2013	BW-08 1/13/2009	BW-08 4/2/2009	BW-08 7/14/2009	BW-08 10/27/2009	BW-08 1/28/2010	BW-08 4/22/2010	BW-08 7/14/2010	BW-08 10/12/2010	BW-08 1/5/2011	BW-08 4/5/2011	BW-08 7/28/2011	BW-08 10/25/2011	BW-08 1/18/2012	BW-08 4/3/2012	BW-08 8/21/2012	BW-08 11/28/2012
Dissolved Metals																			
Iron	mg/L	---	---	18.5	27	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	5.3	7.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	3.7	2.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	---	---	7	39	160	57	<1.0	<1.0	130J	270	290	21	220	1.8	12	100	---	---
Lactic Acid	mg/L	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0J	<2.0	<2.0	<1.0	<2.0	<1.0	<1.0	<1.0	---	---
n-Butanoic acid	mg/L	---	---	<2.0	<2.0	---	<2.0	<2.0	<2.0	22J	4.8	5.9	<2.0	11	<2.0	<2.0	<2.0	---	---
Propionic acid	mg/L	---	---	2.5	26	140	1.9	<1.0	<1.0	260J	110	120	<1.0	250	<1.0	<1.0	2.2	---	---
Pyruvic Acid	mg/L	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.0J	<1.0	<1.0	<0.50	<1.0	<0.50	<0.50	<0.50	---	---
Miscellaneous Analyses																			
Methane	ug/L	11000D	13000D	220	350	520	1000	81	210	1500DJ	4900D	16000D	8900	2800	250	1600D	4300D	1700	15000D
Ethane	ug/L	<100U	<100	<20	<100	<100	<100	12	<10	29J	75	1700	650	<100	17	20	82	40	40
Ethene	ug/L	<100U	<100	1500	7300	6900	5900	280	620	3800DJ	1300D	250	1900	4800	1000D	760	3400D	39	<20
Chloride	mg/L	---	---	124	104	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	34.1	72.2	10.1	34.4	---	---	---	---	---	---	---	---	---	---	---	---	194	630
Dehalococcoides sp.	cells/ml	<110	<24	450	1,300	140,000	560,000	48,000	<26	23,000	10,000	<10	37,000	210	46,000	290,000	180,000	<37	<31
Field Parameters																			
pH	--	6.3	---	6.95	7.36	7.1	7.39	---	---	---	---	---	7.5	7.21	7.43	---	---	---	6.15
ORP	mV	-62.5	---	-160.2	-138.4	-162	-191.5	---	---	---	---	---	-373	-167.6	-116.7	---	---	---	-88.1
Dissolved Oxygen	mg/L	0.41	---	0.2	0.16	0.14	0.06	---	---	---	---	---	0.22	0.36	0.82	---	---	---	0.26
Specific Conductivity	ms/cm	0.525	---	0.659	0.647	1.122	0.96	---	---	---	---	---	0.608	1.408	0.565	---	---	---	2.384

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	BW-08 2/6/2013	BW-08 4/11/2013	BW-08 10/17/2014	BW-09 1/13/2009	BW-09 4/2/2009	BW-09 7/14/2009	BW-09 10/27/2009	BW-09 1/28/2010	BW-09 4/22/2010	BW-09 7/28/2011	BW-09 10/25/2011	BW-09 1/18/2012	BW-09 4/3/2012	BW-09 8/21/2012	BW-09 11/28/2012	BW-09 2/6/2013	BW-09 4/11/2013
Dissolved Metals																		
Iron	mg/L	---	---	---	19.6	41	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	7.1	11	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	10.3	2.4	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																		
Acetic acid	mg/L	---	---	---	5.6	17	260	56	<1.0	<1.0	530	<1.0	32	85	---	---	---	---
Lactic Acid	mg/L	---	---	---	<1.0	<1.0	<2.0	1.5	<1.0	<1.0	<5.0	<1.0	<1.0	<1.0	---	---	---	---
n-Butanoic acid	mg/L	---	---	---	<2.0	<2.0	---	<2.0	<2.0	<2.0	31	<2.0	<2.0	<2.0	---	---	---	---
Propionic acid	mg/L	---	---	---	<1.0	2.2	250	<1.0	<1.0	<1.0	680	<1.0	4.1	4.2	---	---	---	---
Pyruvic Acid	mg/L	---	---	---	<0.50	<0.50	<1.0	<0.50	<0.50	<0.50	<2.5	<0.50	<0.50	<0.50	---	---	---	---
Miscellaneous Analyses																		
Methane	ug/L	21000D	19000	---	650	660	2500	2800	370	640	7500D	7400	2200	4500D	9400D	17000D	22000D	17000
Ethane	ug/L	<200U	<200	---	42	<20	74	140	57	<10	200	1500	160	350	450	<100	<200U	<200
Ethene	ug/L	<200U	<200	---	1200	2000	4600	4600	830	900	3500D	280	1100	4100D	370	<100	<200U	<200
Chloride	mg/L	---	---	---	131	174	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	181	52	---	9.8	13.8	---	---	---	---	---	---	---	---	1010	630	124	144
Dehalococcoides sp.	cells/ml	<83	3,300	---	1,900	6,700	40,000	120,000	83,000	<24	51	1,200	150,000	310,000	<31	<31	<77	<31
Field Parameters																		
pH	--	6.59	---	6.43	7.06	7.34	7.24	7.51	---	---	6.71	7.17	---	---	---	6.3	6.55	6.55
ORP	mV	-106.3	---	-92.1	-167.1	-106.5	-174	-197.9	---	---	-163.4	-113.6	---	---	---	-111.7	-118.1	-101.7
Dissolved Oxygen	mg/L	0.72	---	0.60	0.22	0.2	0.11	0.14	---	---	0.62	0.55	---	---	---	0.15	0.22	0.56
Specific Conductivity	ms/cm	1.754	---	1.765	0.724	0.699	1.463	1.094	---	---	3.207	0.636	---	---	---	2.362	1.725	1.896

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	MW-009 1/14/2009	MW-009 4/2/2009	MW-009 7/14/2009	MW-009 10/27/2009	MW-009 1/28/2010	MW-009 4/22/2010	MW-009 7/14/2010	MW-009 10/12/2010	MW-009 1/4/2011	MW-009 4/5/2011	MW-009 7/28/2011	MW-009 10/25/2011	MW-009 1/17/2012	MW-009 4/3/2012	MW-009 8/21/2012	MW-009 11/28/2012	MW-009 2/6/2013	MW-009 4/11/2013
Dissolved Metals																			
Iron	mg/L	59.5	70	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	7.0	6	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	<2.0	<2.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	190D	390	1000	500	250	600	320J	6.1	<1.0	6	<1.0U	<1.0	<1.0	<1.0	---	---	---	---
Lactic Acid	mg/L	<1.0	<1.0	370	<5.0	<2.0	<5.0	<2.0J	<1.0	<1.0	<1.0	<1.0U	<1.0	<1.0	<1.0	---	---	---	---
n-Butanoic acid	mg/L	4.9	11	---	30	12	63	11J	<2.0	<2.0	<2.0	<2.0U	<2.0	<2.0	<2.0	---	---	---	---
Propionic acid	mg/L	7.7	17	2900	810	200	370	74J	<1.0	<1.0	1.6	<1.0U	<1.0	<1.0	<1.0	---	---	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<20	<2.5	<1.0	<2.5	<1.0J	<0.50	<0.50	<0.50	<0.50U	<0.50	<0.50	<0.50	---	---	---	---
Miscellaneous Analyses																			
Methane	ug/L	15000	17000	9500	14000	16000	15000	15000J	12000	20000D	24000	15000	9500	17000D	16000	16000	20000	23000	15000
Ethane	ug/L	1300	1900	360	330	870	1200	1200J	930	1500	1900	1400	830	1900	2000	2500	2600	2200	1200
Ethene	ug/L	<250	<250	1600	690	<250	1000	<250J	220	430	910	1400	1100	2000	1200	1600	2700	6800	5400
Chloride	mg/L	822	711	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	109	183	---	---	---	---	---	---	---	---	---	---	---	---	28000	11900	7200	5800
Dehalococcoides sp.	cells/ml	8,800	15,000	270,000	120,000	25,000	560,000	9,000	<64	3,300	150,000	210	---	<40	<37	<3,300	<10	<3,300	<3,300
Field Parameters																			
pH	--	6.83	6.87	6.51	6.51	---	---	---	---	---	7.17	7.07	7.05		---	---	---	5.43	---
ORP	mV	-168.2	-143.3	-116	-105.1	---	---	---	---	---	-368	-169.8	-128.4		---	---	---	12	---
Dissolved Oxygen	mg/L	0.52	0.74	0.74	0.31	---	---	---	---	---	0.59	0.2	0.39		---	---	---	1.56	---
Specific Conductivity	ms/cm	3.53	3.435	7.494	5.223	---	---	---		---	5.494	4.105	2.545		---	---	---	3.539	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	MW-009 10/22/2013	MW-009 1/20/2014	MW-009 4/8/2014	MW-009 8/6/2014	MW-009 10/15/2014	MW-009 1/20/2015	OB-09-BR 1/14/2009	OB-09-BR 4/9/2009	OB-09-BR 7/14/2009	OB-09-BR 10/28/2009	OB-09-BR 1/28/2010	OB-09-BR 4/22/2010	OB-09-BR 7/14/2010	OB-09-BR 10/12/2010	OB-09-BR 1/5/2011	OB-09-BR 4/6/2011	OB-09-BR 7/28/2011
Dissolved Metals																		
Iron	mg/L	---	---	---	---	---	---	1.5	1.5	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	0.166	0.24	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	---	---	<2.0	<2.0	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	<0.50	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	<0.50	---	---	---	---	---	---	---	---	---
Metabolic Acids																		
Acetic acid	mg/L	---	---	---	---	---	---	<1.0	<1.0	<1.0	1.1	<1.0	<1.0	2.7J	2.4	6	2.8	8.6
Lactic Acid	mg/L	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	---	---	---	---	---	---	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0J	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.3J	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	---	---	---	---	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																		
Methane	ug/L	15000	12000	13000	9600	8000	17000D	210	12000	170	500	170	340	560DJ	490	1300D	720	1600D
Ethane	ug/L	1000	690	670	540	550	990	<2.5	<200	<2.5	<5.0	<2.0	<5.0	<5.0J	<10	<10	<10	<10
Ethene	ug/L	3000	4000	5300	1500	990	3000	4.5	<200	6.4	8.4	3	8.1	16J	13	28	20	34
Chloride	mg/L	---	---	---	---	---	---	16	20	---	---	---	---	---	---	---	---	---
TOC	mg/L	1910	1370	1110	890	750	646	6.5	4.1	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	200,000	---	19J	---	---	---	27,000	<32	8,500	18,000	<67	<31,000	---	---	3,600	---	---
Field Parameters																		
pH	--	6.06	6.26	---	---	6.27	6.64	9.18	7.69	7.91	8.83	7.48	---	8.51	7.65	8.51	8.10	---
ORP	mV	41.3	-89.2	---	---	-58.1	-75.5	-335.4	-156	-323	-415.7	-174	---	-63	-311	-405.5	-363	---
Dissolved Oxygen	mg/L	0.89	0.78	---	---	1.40	3.66	1.2	0.36	0.11	0.86	0.36	---	0.26	0.31	0.67	0.31	---
Specific Conductivity	ms/cm	5.052	4.527	---	---	4.840	5.107	0.111	0.136	0.139	0.144	0.146	---	0.157	0.17	0.173	0.190	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-BR 10/25/2011	OB-09-BR 1/18/2012	OB-09-BR 4/3/2012	OB-09-BR 8/21/2012	OB-09-BR 11/28/2012	OB-09-BR 2/6/2013	OB-09-BR 4/11/2013	OB-09-DO 1/13/2009	OB-09-DO 4/9/2009	OB-09-DO 4/27/2009	OB-09-DO 7/14/2009	OB-09-DO 10/28/2009	OB-09-DO 1/28/2010	OB-09-DO 4/22/2010	OB-09-DO 7/14/2010	OB-09-DO 10/12/2010
Dissolved Metals																	
Iron	mg/L	---	---	---	---	---	---	---	<0.100	<0.10	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	<0.0100	<0.010	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	---	---	---	2.4	4.7	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	1.12	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	---	1.63	---	---	---	---	---	---	---
Metabolic Acids																	
Acetic acid	mg/L	1.5	110	6.2	---	---	---	---	<1.0	---	<1.0J	<1.0	2.8	<1.0	72	4.0J	3.7
Lactic Acid	mg/L	<1.0	<1.0	<1.0	---	---	---	---	<1.0	---	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0
n-Butanoic acid	mg/L	<2.0	2.7	<2.0	---	---	---	---	<2.0	---	<2.0J	---	<2.0	<2.0	2.5	<2.0J	<2.0
Propionic acid	mg/L	<1.0	58	<1.0	---	---	---	---	<1.0	---	<1.0J	<1.0	<1.0	<1.0	140	<1.0J	<1.0
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	---	---	---	---	<0.50	---	<0.50J	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50
Miscellaneous Analyses																	
Methane	ug/L	1200	660	1700D	2500D	2100	2300	1800	<2.0	10000	---	2100	610	180	4500	13000DJ	3000
Ethane	ug/L	<20	<10	<10	<20	<50	<25U	<25	<1.0	320	---	130	16	<2.0	140	240J	80
Ethene	ug/L	<20	11	42	66	57	64	58	<1.0	370	---	73	31	<2.0	110	210J	57
Chloride	mg/L	---	---	---	---	---	---	---	32.6	44.6	---	---	---	---	---	---	---
TOC	mg/L	---	---	---	12.3	13.2	10.3	11.5	5.7	4.4	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	---	1,500	---	---	---	---	---	<20	<10	---	300,000	350,000	5,100	610,000	---	---
Field Parameters																	
pH	--	---	---	---	---	---	7.53	---	6.48	6.22	6.52	6.95	6.69	6.52	---	6.71	6.75
ORP	mV	---	---	---	---	---	-172.1	---	7.6	-41	37.9	-126	-130.7	-65	---	-34	-135
Dissolved Oxygen	mg/L	---	---	---	---	---	0.4	---	0.77	0.14	0.34	0.12	0.32	0.26	---	0.19	0.27
Specific Conductivity	ms/cm	---	---	---	---	---	0.31	---	0.105	0.233	0.161	0.21	0.226	0.124	---	0.266	0.259

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-DO 1/5/2011	OB-09-DO 4/6/2011	OB-09-DO 7/28/2011	OB-09-DO 10/25/2011	OB-09-DO 1/18/2011	OB-09-DO 4/3/2012	OB-09-DO 8/21/2012	OB-09-DO 11/28/2012	OB-09-DO 2/6/2013	OB-09-DO 4/11/2013	OB-09-S 4/9/2009	OB-09-S 4/27/2009	OB-09-S 7/14/2009	OB-09-S 10/28/2009	OB-09-S 1/28/2010	OB-09-S 4/22/2010	OB-9-S 7/14/2010	OB-09-S 10/12/2010
Dissolved Metals																			
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	16	---	---	---		---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	2	---	---	---		---	---	---
Sulfate	mg/L	---	---	---	---	---	---	---	---	---	---	<2.0	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	---	---	---	<0.50	---	---	---	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	1.5	1.2	2.1	7.8	1.4	<1.0	---	---	---	---	---	150J	660	92	53	310	160J	250
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	---	---	<1.0J	<20	<1.0	<1.0	290	220J	<2.0
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	---	---	---	---	31J	---	16	9	100	17J	8.5
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---	---	---	230J	1700	110	57	830	210J	170
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---	---	---	<0.50J	<10	<0.50	<0.50	<2.5	<1.0J	<1.0
Miscellaneous Analyses																			
Methane	ug/L	12000D	3000	600	1800D	1200	1200	1800	330	240	840D	10000	---	10000	3700	12000	12000	13000J	9000
Ethane	ug/L	410	100	<10	<10	<25	<20	<20	<5.0	<5.0U	<5.0	<200	---	<200	<50	320	<200	240J	370
Ethene	ug/L	330	80	11	37	<25	<20	<20	<5.0	<5.0U	5.6	4300	---	2000	580	820	1300	1700J	290
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	122	---	---	---	---	---	---	---
TOC	mg/L	---	---	---	---	---	---	29.7	8.8	6.4	5.5	231	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	240,000	---	---	---	180,000	---	---	---	---	---	---	10,000	960,000	2,400,000	150,000	960,000	<100	7,200
Field Parameters																			
pH	--	6.82	6.43	---	---	---	---	---	6	6.54	---	6.43	6.43	6.3	---	6.45	---	6.42	6.3
ORP	mV	-171.6	-390	---	---	---	---	---	-99.2	-16.1	---	-126	-106.4	-100	-102	-102	---	-43	-98
Dissolved Oxygen	mg/L	0.32	0.16	---	---	---	---	---	0.15	2.26	---	0.53	0.24	0.17	0.31	1.49	---	0.44	0.19
Specific Conductivity	ms/cm	0.225	0.105	---	---	---	---	---	0.212	0.112	---	14	11.583	10.859	7.857	12.945	---	6.045	6.144

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-S 1/5/2011	OB-09-S 4/5/2011	OB-09-S 7/28/2011	OB-09-S 10/25/2011	OB-09-S 1/18/2012	OB-09-S 4/3/2012	OB-09-S 8/21/2012	OB-09-S 11/28/2012	OB-09-S 2/6/2013	OB-09-S 4/11/2013	OB-09-S 10/22/2013	OB-09-S 1/21/2014	OB-09-S 4/9/2014
Dissolved Metals														
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids														
Acetic acid	mg/L	870	390	940	360	<1.0	54	---	---	---	---	---	---	---
Lactic Acid	mg/L	<10	<5.0	<10	<2.0	<1.0	<1.0	---	---	---	---	---	---	---
n-Butanoic acid	mg/L	270	100	48	74	<2.0	<2.0	---	---	---	---	---	---	---
Propionic acid	mg/L	1700	510	1100	300	<1.0	19	---	---	---	---	---	---	---
Pyruvic Acid	mg/L	<5.0	<2.5	<5.0	<1.0	<0.50	<0.50	---	---	---	---	---	---	---
Miscellaneous Analyses														
Methane	ug/L	25000D	25000	21000D	18000	18000	27000D	13000	15000	21000D	18000	10000	16000D	15000
Ethane	ug/L	470	<500	330	290	310	690	<200	<200	<200U	<200	<200	170	<250
Ethene	ug/L	1000	1000	<200	<250	<250	<250	<200	<200	<200U	<200	<200	<130	<250
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	---	---	---	---	---	---	210	32.7	23	34.9	81	28.1	26.4
Dehalococcoides sp.	cells/ml	8,100	940,000	1,600	490,000	48,000	640,000	<3,300	<91	<97	<120	<68	---	---
Field Parameters														
pH	--	6.16	6.8	---	---	---	---	---	5.8	6.43	---	6.52	6.65	---
ORP	mV	-144.9	-367	---	---	---	---	---	-62.2	-77.9	---	-34.8	-90.8	---
Dissolved Oxygen	mg/L	0.40	0.54	---	---	---	---	---	0.08	0.3	---	3.11	0.93	---
Specific Conductivity	ms/cm	---	11.86	---	---	---	---	---	0.276	1.539	---	2.151	1.88	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-09-S 8/6/2014	OB-09-S 10/15/2014	OB-09-S 1/20/2015	OB-15-S 7/14/2009	OB-15-S 1/28/2010	OB-15-S 4/22/2010	OB-15-S 10/12/2010	OB-15-S 1/4/2011	OB-15-S 7/28/2011	OB-15-S 10/25/2011	OB-15-S 1/17/2012	OB-15-S 4/3/2012	OB-15-S 8/21/2012	OB-15-S 11/28/2012	OB-15-S 2/6/2013	OB-15-S 4/11/2013	OB-15-S 10/22/2013	OB-15-S 1/21/2014
Dissolved Metals																			
Iron	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	---	---	---	180	<1.0	12	12	120	670	230	57	9.4	---	---	---	---	---	---
Lactic Acid	mg/L	---	---	---	420	<1.0	490	<1.0	<1.0	<10	<2.0	<1.0	<1.0	---	---	---	---	---	---
n-Butanoic acid	mg/L	---	---	---	---	<2.0	<10	<2.0	4.6	120	37	<2.0	<2.0	---	---	---	---	---	---
Propionic acid	mg/L	---	---	---	310	<1.0	24	11	110	1200	310	31	<1.0	---	---	---	---	---	---
Pyruvic Acid	mg/L	---	---	---	<1.3U	<0.50	<2.5	<0.50	<0.50	<5.0	<1.0	<0.50	<0.50	---	---	---	---	---	---
Miscellaneous Analyses																			
Methane	ug/L	14000	16000J	23000	55	92	390	5400D	12000D	8100	11000D	21000D	21000	21000	18000	24000	15000	13000	12000
Ethane	ug/L	<250	<250J	530	<1.0U	<1.0	<5.0	<5.0	150	<100	210	400	370	300	300	280	280	340	310
Ethene	ug/L	<250	<250J	<250	90	24	170	540D	210	230	480	160	310	280	<250	<250U	<250	<250U	210
Chloride	mg/L	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	29.8	35.7J	26.7	---	---	---	---	---	---	---	---	---	1750	1670	620	543	187	59
Dehalococcoides sp.	cells/ml	---	---	---	85,000	5,200	<77	88,000	110,000	61	18,000,000	<66	750,000	<3,300	<170	<110	110,000	<86	---
Field Parameters																			
pH	--	---	6.62	6.65	6.64	---	---	---	---	6.29	6.52	6.52	---	---	---	6.48	---	6.65	6.61
ORP	mV	---	-69.2	-65	-163	---	---	---	---	-145	-94.2	-94.2	---	---	---	-96.5	---	-105.2	-40.3
Dissolved Oxygen	mg/L	---	0.43	2.72	0.37	---	---	---	---	0.24	0.41	0.41	---	---	---	0.99	---	0.2	2.09
Specific Conductivity	ms/cm	---	1.646	1.75	9.071	---	---	---	---	14.038	3.543	3.543	---	---	---	2.18	---	2.505	1.046

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	OB-15-S 4/8/2014	OB-15-S 8/6/2014	OB-15-S 10/15/2014	OB-15-S 1/20/2015	OB-44-S 3/17/2015	OB-46-S 3/17/2015	STR-03 1/13/2009	STR-03 4/9/2009	STR-03 7/14/2009	STR-03 10/27/2009	STR-03 1/28/2010	STR-03 4/22/2010	STR-03 7/14/2010	STR-03 10/12/2010	STR-03 1/5/2011	STR-03 4/5/2011	STR-03 7/28/2011	STR-03 10/25/2011
Dissolved Metals																			
Iron	mg/L	---	---	---	---	0.39	<0.10	1.4	3.5	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	---	---	0.54	0.013	0.58	2.6	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	---	---	56.8	49.6	32.6	22	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	---	---	---	---	1.58	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	---	<1.0	<1.0	---	0.86	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																			
Acetic acid	mg/L	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	1.8	<1.0	1.5J	<1.0	<1.0	<1.0	<1.0	<1.0
Lactic Acid	mg/L	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butanoic acid	mg/L	---	---	---	---	---	---	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0J	<2.0	<2.0	<2.0	<2.0	<2.0
Propionic acid	mg/L	---	---	---	---	---	---	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0J	<1.0	<1.0	<1.0	<1.0	<1.0
Pyruvic Acid	mg/L	---	---	---	---	---	---	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50J	<0.50	<0.50	<0.50	<0.50	<0.50
Miscellaneous Analyses																			
Methane	ug/L	11000	15000D	9500J	22000	---	---	20	39	270	4.5	24	46	4.3J	<2.0	5.5	2	5	49
Ethane	ug/L	340	440	220J	980	---	---	<1.0	1.3	13	<1.0	1.1	1.5	<1.0J	<1.0	<1.0	<1.0	<1.0	2.5
Ethene	ug/L	160	<130	<130J	<250	---	---	<1.0	6.2	13	<1.0	3.6	3.5	<1.0J	<1.0	<1.0	<1.0	<1.0	7.8
Chloride	mg/L	---	---	---	---	---	---	1790	1320	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	17.5	36.5	36.7J	33.5	---	---	1.7	1.6	---	---	---	---	---	---	---	---	---	---
Dehalococcoides sp.	cells/ml	<150	---	---	---	---	---	<10	590	<10	20,000	5,200	<22	4,200	<64	1,600	3,100	<10	4,800
Field Parameters																			
pH	--	---	---	6.65	6.64	7.52	12.32	---	---	---	---	---	---	---	---	---	---	---	---
ORP	mV	---	---	-93.4	-49.3	-65.3	-66.4	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Oxygen	mg/L	---	---	0.55	2.45	0.6	3.87	---	---	---	---	---	---	6.05	8.02	---	10.12	2.87	---
Specific Conductivity	ms/cm	---	---	1.060	1.398	0.609	6.280	---	---	---	---	---	---	---	---	---	---	---	---

TABLE 4
Water Quality Data
Bioremediation Parameters
2009 to Present
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

CONSTITUENT	UNITS	STR-03 1/18/2011	STR-03 4/3/2012	UNNAMED STREAM 1/14/2009	UNNAMED STREAM 4/9/2009	UNNAMED STREAM 7/14/2009	UNNAMED STREAM 10/27/2009	UNNAMED STREAM 1/28/2010	UNNAMED STREAM 4/22/2010	UNNAMED STREAM 10/12/2010	UNNAMED STREAM 1/4/2011	UNNAMED STREAM 4/5/2011	UNNAMED STREAM 10/25/2011	UNNAMED STREAM 1/17/2012	UNNAMED STREAM 4/3/2012	UNNAMED STREAM 8/21/2012	UNNAMED STREAM 2/6/2013	UNNAMED STREAM 4/11/2013
Dissolved Metals																		
Iron	mg/L	---	---	47.8	22	---	---	---	---	---	---	---	---	---	---	---	---	---
Manganese	mg/L	---	---	6.89	6.1	---	---	---	---	---	---	---	---	---	---	---	---	---
Sulfate	mg/L	---	---	20.8	20.7	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate	mg/L	---	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Nitrate/Nitrogen	mg/L	---	---	---	<0.50	---	---	---	---	---	---	---	---	---	---	---	---	---
Metabolic Acids																		
Acetic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.5	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---
Lactic Acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---
n-Butanoic acid	mg/L	<2.0	<2.0	<2.0	<2.0	---	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	---	---	---
Propionic acid	mg/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	---	---	---
Pyruvic Acid	mg/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	1.4	<0.50	<0.50	<0.50	<0.50	<0.50	---	---	---
Miscellaneous Analyses																		
Methane	ug/L	170D	7.7	470	240	240	2300	360	260	<2.0	780D	290	620D	200	350D	160	540D	370D
Ethane	ug/L	10	<1.0	37	15	14	110	31	11	<1.0	57	19	52	12	26	14	33	17
Ethene	ug/L	36	<1.0	37	24	65	61	70	46	<1.0	61	21	32	9.6	49	55	100	35
Chloride	mg/L	---	---	1460	1170	---	---	---	---	---	---	---	---	---	---	---	---	---
TOC	mg/L	---	---	16.7	3.7	---	---	---	---	---	---	---	---	---	---	16.2	4.5	13.8
Dehalococcoides sp.	cells/ml	15,000	---	6,700	380	120,000	21,000	970	<22	1,600	520	<10	140,000	<40	4,500	<50	<59,000J	<11
Field Parameters								---										
pH	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
ORP	mV	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Dissolved Oxygen	mg/L	---	---	---	---	---	---	---	---	8.48	---	4.39	---	---	---	---	---	---
Specific Conductivity	ms/cm	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Notes:
< = Less than detection limit
--- = Not analyzed
mg/L = Milligrams per liter
ug/L = Micrograms per liter
mV = Millivolt
ms/cm = Millisiemen per centimeter
TOC = total organic carbon
cells/ml = cells per milliliter
D = Result reported is from a diluted sample
Field parameter results reported are from the closest date to the analytical sampling
(1) = results from RNA analysis
(2) = results from biotraps analysis by Microbial Insights (cells/grams of beads)
(3) = results from biotraps analysis by Shaw (cells/grams of beads)
* = Sample BW-03 collected on 1/28/2010 but was broken in transit, not analyzed.
J - Estimated concentration

Table 5
Permanganate Concentrations in Groundwater
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	April 2011		October-November 2011		April 2012		November 2012		April-May 2013		October 2013		April 2014		October 2014	
Well ID	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**	**NaMnO4 Result (mg/L)**	**Result (percent)**
AP-12-BR	110,000	11	9,900	1.0	19,000	1.9	8,000	0.8	2,800	0.3	1100	0.1	ND(<0.1)	NA	---	---
AP-12-DO	0.3	0.00003	ND(<0.2)	NA	0.2	0.00002	9,100	0.9	17,000	1.7	180	0.02	1.5	0.0002	---	---
AP-12-S	---	---	---	---	ND(<0.2)	NA	---	---	0.5	0.00005	---	---	---	---	---	---
AP-19	ND(<0.1)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.1)	NA	ND(<0.1)	NA	25	0.003
AP-20	0.1	0.00001	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA	0.1	0.00001	ND(<0.1)	NA	ND(<0.1)	NA	31000	3.1
AP-21	8,200	0.8	1,000	0.1	2,200	0.2	1,900	0.2	500	0.05	ND(<0.1)	NA	ND(<0.1)	NA	58000	5.8
AP-22	1.0	0.0001	3,200	0.3	10,000	1.0	9,700	1.0	400	0.04	1300	0.1	110	0.01	59000	5.9
AP-26-DO	---	---	ND(<0.2)	NA	ND(<0.2)	NA	17.0	0.002	ND(<0.2)	NA	12	0.001	5.6	0.0006	0.36	0.00004
AP-27-DO	---	---	0.4	0.00004	ND(<0.2)	NA	57.0	0.006	0.3	0.00003	ND(<0.1)	NA	ND(<0.1)	NA	---	---
AP-30-DO	20,000	2.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---
AP-30R-DO	---	---	84,000	8.4	19,000	1.9	---	---	7,700	0.8	---	---	---	---	---	---
AP-31-DO	12,000	1.2	2,400	0.2	0.2	0.00002	---	---	100.0	0.01	120	0.01	5.0	0.0005	ND(<0.1)	NA
AP-32-DO	3.7	0.00037	ND(<0.2)	NA	0.2	0.00002	---	---	ND(<0.2)	NA	590	0.06	240	0.02	ND(<0.1)	NA
B-2	---	---	---	---	---	---	ND(<0.2)	NA	---	---	---	---	---	---	---	---
BR-5_ZONE3	---	---	---	---	---	---	---	---	---	---	---	---	ND(<0.1)	NA	---	---
CL03-DO	---	---	---	---	---	---	---	---	---	---	---	---	0.7	0.00007	32	0.003
CL10-BR	0.2	0.00002	---	---	---	---	---	---	---	---	---	---	---	---	---	---
CL10-DO	250	0.03	7.1	0.0007	44.0	0.004	---	---	85.0	0.009	140	0.01	430	0.04	1500	0.2
CL10-S	ND(<0.1)	NA	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-013	6,900	0.7	1,200	0.1	1,300	0.1	440	0.04	610	0.06	140	0.01	57	0.006	15	0.0015
MW-2_32-Tozer	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND(<0.1)	NA
OB-05-DO	---	---	---	---	---	---	---	---	---	---	---	---	2.5	0.0003	---	---
OB-06-DO	---	---	---	---			---	---			---	---	0.3	0.00003	---	---
OB-10-S	87	0.009	---	---	---	---	---	---	---	---	---	---	---	---	---	---
OB-12-DO	---	---	190	0.02	ND(<0.2)	NA	2,000	0.2	47	0.005	ND(<0.1)	NA	1.3	0.0001	8200	0.8
OB-19-DO	---	---	ND(<0.2)	NA	---	---	---	---	ND(<0.2)	NA	ND(<0.1)	NA	1.9	0.0002	---	---
OB-25-BR	9,200	0.9	---	---	ND(<0.2)	NA	17,000	1.7	1,200	0.1	ND(<0.1)	NA	0.2	0.00002	150000	15
OB-26-BR	---	---	---	---	0.2	0.00002	12,000	1.2	ND(<0.2)	NA	ND(<0.1)	NA	---	---	---	---
OB-26-DO	---	---	---	---	---	---			---	---	---	---	---	---	---	---
OB-27-BR	14,000	1.4	1,500	0.2	5,700	0.6	---	---	2,000	0.2	1200	0.1	1030	0.1	1500	0.2
OB-28-BR	15	0.002	---	---	ND(<0.2)	NA	---	---	0.5	0.00005	---	---	---	---	---	---
OB-32-DO	1,200	0.1	670	0.07	630	0.06	470	0.05	300	0.03	180	0.02	150	0.02	590	0.06
OB-34-DO	18	0.002	ND(<0.2)	NA	31	0.003	31	0.003	18	0.002	20	0.002	---	---	---	---
OB 35-DO	ND(<0.1)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA	ND(<0.2)	NA	20	0.002	14	0.001	2.8	0.0003
OB-36-DO	ND(<0.1)	NA	---	---	0.3	0.00003	ND(<0.2)	NA	---	---	---	---	5300	0.5	360	0.04
OB-37-DO	180,000	18	34	0.003	9,700	1.0	60	0.01	84	0.008	ND(<0.1)	NA	ND(<0.1)	NA	---	---

Notes:

Color Key:

Sample Dark Purple	No color indicates groundwater sample was clear
Sample Medium Purple	--- = sample not collected
Sample Light Purple	ND (<0.2) = Not detected at estimated detection limit.
Sample Pink	NA = Not applicable or value does not appear when reporting to 2 significant figures.
Sample Pale Pink	mg NaMnO4/L = milligrams of sodium permanganate per liter
Light Brown	

Table 6
Permanganate Injection Volume
October 1, 2014 to March 31, 2015 Reporting Period
Former Varian Facility Site
150 Sohier Road
Beverly, MA

Location	Sodium Permanganate Injection Volume (in gallons of 20% solution)		
	Total Injection Volume During This Reporting Period[1]	Proposed Injection Volume	Remaining Volume
OB37-DO	13	45	32
AP32-DO	220	450	230
BLDG3-SVE4	450	450	0
BLDG3-SVE1	0	450	450
Total	**683**	**1395**	

Notes:
1 - Injections started January 26, 2015

Table 7
Bioremediation Injection Volume
October 1, 2014 to March 31, 2015 Reporting Period
Former Varian Facility Site
150 Sohier Road
Beverly, MA

Location	Total Injected Volume
AP23-DO	9
AP24-DO	1019
AP33-DO	1218
AP34-DO	1315
AP35-DO	198
	3759

Notes:

(1) Emulsified Vegetable Oil was mixed with groundwater and potable water to an appropriate dilution.
The solution was seeded with SDC-9 and TCA-20 culture mix.

Table 8
Operation and Maintenance Data
Building 3 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	Extraction Well BLD3-SVE1		Extraction Well BLD3-SVE2		Extraction Well BLD3-SVE3		Extraction Well BLD3-SVE4		BLDG3-VP1		BLDG3-VP2		BLDG3-VP3		BLDG3-VP5		BLDG3-VP6		BLDG3-VP7		Carbon Influent	Carbon Midpoint	Carbon Effluent	Total Flow Rate	Effluent Percent Reduction (1)
	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	VOC (ppm)	VOC (ppm)	VOC (ppm)	cfm	
10/7/2014	0.13	0.8	7.101	5.0	7.108	9.9	7.312	0.2	1.086	ND	0.074	0.4	0.038	0.6	0.082	2.4	0.14	32.3	+0.012	1.2	14.3	ND	ND	175	>99%
10/15/2014	0.145	ND	6.608	3.3	6.664	15.1	6.865	ND	1.042	ND	0.071	ND	0.031	ND	0.082	0.0	0.133	15.7	+0.014	ND	21.3	ND	ND	175	>99%
10/23/2014	8.51	0.4	0.25	0.5	8.33	17.5	8.48	ND	--	--	--	--	--	--	--	--	--	--	--	--	6.7	ND	ND	175	>99%
11/11/2014	4.01	0.2	3.84	1.2	3.86	3.8	OFF	OFF	0.643	45.2	0.065	180	0.030	131.0	0.051	138.0	0.075	404.0	+0.003	272.0	5.3	ND	ND	175	>99%
11/25/2014	OFF	OFF	7.49	3.7	7.53	10.4	7.69	ND	--	--	--	--	--	--	--	--	--	--	--	--	13.7	ND	ND	175	>99%
12/9/2014	OFF	OFF	7.582	2.0	7.586	4.6	7.72	0.7	1.061	0.6	0.073	1.5	0.031	2.9	0.075	2.6	0.133	73.9	+0.01	2.6	11.4	ND	ND	175	>99%
12/22/2014	3.96	ND	3.65	ND	3.69	1.3	3.74	ND	0.615	ND	0.063	ND	0.029	ND	0.042	0.5	0.066	27.2	+0.01	0.7	0.8	ND	ND	180	>99%
1/5/2015	4.77	0.2	4.61	1.7	OFF	OFF	4.62	ND	0.611	ND	0.054	0.4	0.024	1.1	0.04	1.1	0.071	42.6	+0.014	0.9	3.4	0.1	ND	180	>99%
1/9/2015	8.65	0.6	OFF	OFF	8.15	12	8.35	0.1	--	--	--	--	--	--	--	--	--	--	--	--	3.6	0.1	ND	175	>99%
1/19/2014	7.48	0.6	OFF	OFF	7.25	13.7	7.31	ND	0.133	0.2	0.053	0.1	0.027	1.7	0.016	3.4	0.014	72.5	+0.011	0.8	10.5	ND	ND	175	>99%
2/4/2015	4.05	ND	3.72	2.5	3.83	5.9	OFF	OFF	0.533	ND	0.05	0.3	0.024	1.2	0.038	2.8	0.063	52.4	+0.012	0.8	6.7	ND	ND	175	>99%
2/19/2015	OFF	OFF	7.25	1.0	7.13	1.5	OFF	OFF	--	--	--	--	--	--	--	--	--	--	--	--	1.2	ND	ND	155	>99%
3/4/2015	OFF	OFF	6.04	1.0	6.21	2.3	OFF	OFF	0.873	144	0.056	46.3	0.019	16.0	0.046	618.0	0.101	3996.0	+0.017	3479.0	5.4	ND	ND	165	>99%
3/13/2015	OFF	OFF	8.69	1.5	8.39	1.4	OFF	OFF	--	--	--	--	--	--	--	--	--	--	--	--	12.3	0.2	ND	175	>99%
3/25/2015	OFF	OFF	5.71	1.7	5.73	2.4	OFF	OFF	0.72	1.3	0.33	0.6	0.17	0.7	0.041	4.5	0.084	47	0.012	116	4.2	ND	ND	138	>99%

Notes:
-- not collected
"wc = inches of water column
VOC = volatile organic compounds measured with a photoionization detector
ppm = parts per million
cfm = cubic feet per minute
(1) = target off-gas VOC reduction is 95% per MassDEP policy (MADEP, 1994)
ND = not-detected above instrument detection limit (0.1 ppm)

Table 9
Soil Vapor Analytical Results
Building 3 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-SVE-INF	BLDG3-SVE1					BLDG3-SVE2					BLDG3-SVE3		BLDG3-SVE4	
CONSTITUENT (ug/m3)	**7/8/2014**	**2/4/2011**	**1/24/2012**	**7/8/2014**	**9/25/2014**	**12/11/2014**	**8/6/2009**	**2/4/2011**	**1/24/2012**	**7/8/2014**	**12/11/2014**	**9/25/2014**	**12/11/2014**	**9/25/2014**	**12/11/2014**
1,1,1-Trichloroethane	<0.80	<20	<21	<3.7 UJ	<1	<1	<960	<1700	<940	<1600	<1	<11	<10	<11	<10
1,1,2,2-Tetrachloroethane	<0.20	<4.9	<5.2	<0.92 UJ	<1	<1	<240	<430	<240	<390	<1	<14	<13	<14	<13
1,1,2-Trichloroethane	<0.80	<20	<21	<3.7 UJ	<1	<1	<960	<1700	<940	<1600	<1	<11	<10	<11	<10
1,1-Dichloroethane	<0.60	---	<16	<2.8 UJ	<0.8	<0.8	<720	<1300	<710	<1200	<0.8	<8	<8	<8	<8
1,1-Dichloroethene	<0.59	---	<15	<2.7 UJ	<0.8	<0.8	<700	<1300	<690	<1200	<0.8	<8	<7	<8	<7
1,2-Dibromoethane (EDB)	<0.23	<5.5	---	<1.0 UJ	<2	<2	---	<490	---	<450	<2	<15	<15	<15	<15
1,2-Dichlorobenzene	<1.8	<43	---	<8.1 UJ	<1	<1	---	<3800	---	<3500	<1	<12	<11	<12	<11
1,2-Dichloroethane	<0.60	<15	<16	<2.8 UJ	<0.8	<0.8	<720	<1300	<710	<1200	<0.8	<8	<8	<8	<8
1,2-Dichloropropane	<0.68	<17	<18	<3.1 UJ	<0.9	<0.9	<820	<1500	<800	<1300	<0.9	<9	<9	<9	<9
1,3-Dichlorobenzene	0.068J	<43	---	<8.1 UJ	<1	<1	---	<3800	---	<3500	<1	<12	<11	<12	<11
1,4-Dichlorobenzene	<1.8	<43	---	<8.1 UJ	<1	<1	---	<3800	---	<3500	<1	<12	<11	<12	<11
1,4-Dioxane	<6.7	<160	---	<31 UJ	<0.7	<0.7	---	<14000	---	<13000	<0.7	<7	<7	<7	<7
2-Butanone	0.96	---	---	3.2J	63	9	---	<1900	---	<1700	1	3200	7	13000	7
2-Hexanone	0.13J	<15	---	0.31J	<0.8	<0.8	---	<1300	---	<1200	<0.8	<8	<8	<8	<8
4-Methyl-2-pentanone	<1.2	<29	---	<5.5 UJ	<0.8	<0.8	---	<2600	---	<2400	<0.8	<8	<8	<8	<8
Acetone	21	230	680	39	290 J	170E	---	<14000	<7800	550J	49	1700	11	3700	14
Benzene	0.076J	<11	---	0.25J	<0.6	<0.6	---	<1000	---	<920	<0.6	<6	<6	<6	<6
Bromodichloromethane	<0.20	<4.9	<5.2	<0.92 UJ	<1	<1	<240	<430	<240	<390	<1	<13	<13	<13	<13
Bromoform	<1.5	<37	<39	<7.0 UJ	<2	<2	<1800	<3300	<1800	<3000	<2	<21	<20	<21	<20
Bromomethane	<0.58	---	<15	<2.6 UJ	<0.8	<0.8	<690	<1200	<670	<1100	<0.8	<8	<7	<8	<7
Carbontetrachloride	0.079J	6.2	<2.4	0.47 J	<1	<1	<110	<200	<110	<180	<1	<13	<12	<13	<12
Chlorobenzene	<0.68	<17	<18	<3.1 UJ	<0.9	<0.9	<820	<1500	<800	<1300	<0.9	<9	<9	<9	<9
Chloroethane	---	---	<20	---	---	---	<930	---	<910	---	---	---	---	---	---
Chloroform	<0.72	<18	<19	0.25J	<1	<1	<860	<1600	<850	<1400	1	<10	<9	<10	<9
Chloromethane	---	---	<16	---	---	---	<720	---	<710	---	---	---	---	---	---
cis-1,2-Dichloroethene	<0.59	---	<15	<2.7 UJ	<0.8	<0.8	<700	<1300	<690	<1200	1	120	11	<8	<7
cis-1,3-Dichloropropene	<1.3	<33	<35	<6.2 UJ	<0.9	<0.9	<1600	<2900	<1600	<2600	<0.9	<9	<9	<9	<9
Dibromochloromethane	<0.25	<6.2	<6.6	<1.2 UJ	<2	<2	<300	<550	<300	<500	<2	<17	<16	<17	<16
Dichloromethane	0.38J	---	<13	0.36J	7	2	<610	<1100	<600	<1000	14	<7	32	<7	15
Ethylbenzene	0.065J	<31	<33	0.092J	<0.9	<0.9	---	<2700	<1500	<2500	<0.9	<9	<8	<9	<8
Hexachlorobutadiene	<4.0	<98	---	<18 UJ	<2	<2	---	<8700	---	<7900	<2	<21	<20	<21	<20
Methyltert-butylether	<1.1	---	---	<4.9 UJ	<0.7	<0.7	---	<2300	---	<2100	<0.7	<7	<7	<7	<7
Naphthalene	<2.7	<65	---	<12 UJ	<1	<1	---	<5800	---	<5200	<1	<10	<10	<10	<10
Styrene	<1.3	<31	---	<5.8 UJ	<0.8	<0.8	---	<2700	---	<2500	<0.8	<8	<8	<8	<8
Tetrachloroethene	3.6	1500	160	0.33J	240	11	360000D	130000	73000	99000	950	410000	2200	69000	24
Toluene	0.28J	<13	---	0.69J	1	1	---	<1200	---	<1100	<0.8	<8	<7	<8	<7
trans-1,2-Dichloroethene	0.051J	---	<15	0.13J	<0.8	<0.8	<700	<1300	<690	<1200	<0.8	8	<7	<8	<7
Trans-1,3-Dichloropropene	<0.67	<16	<17	<3.1 UJ	<0.9	<0.9	<800	<1400	<780	<1300	<0.9	<9	<9	<9	<9
Trichloroethene	0.061J	1200	43	<0.37 UJ	3	1	320000D	21000	6700	2900	45	5000	130	500	<10
Trichlorofluoromethane	---	---	<21	---	---	---	<990	---	<970	---	---	---	---	---	---
Vinyl chloride	0.057J	---	<2.1	<0.37 UJ	<0.5	<0.5	<96	<170	<94	<160	<0.5	<5	<5	<5	<5
m/p-xylene	0.18J	<62	<66	0.23J	<2	<2	---	<5500	<3000	<5000	<2	<17	<16	<17	<16
o-Xylene	0.055J	<31	<33	0.073J	<0.9	<0.9	---	<2700	<1500	<2500	<0.9	<9	<8	<9	<8
Xylene (total)	0.235J	<62	<66	0.303J	<2	---	---	<5500	<3000	<5000	---	<17	---	<17	---

Notes:
ug/m3 = micrograms per cubic meter.
<3.1 = not detected above listed detection limit
--- = constituent not analyzed
D - results reported from a diluted sample
J - estimated value
U = non-detect per expert validation protocol

TABLE 10
VOC Mass Removal Estimate Summary
Building 3 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Date	Vapor Influent Concentration (ppm(v))	Flow (scfm)	Days Operational	VOC Mass Removal Rate (lb./day)	Total VOC Mass Removed (lb.)
10/7/2014	14.3	161	1701	1.02	1,534
10/15/2014	21.3	159	1709	1.70	1,548
10/23/2014	6.7	161	1717	1.35	1,558
11/11/2014	5.3	158	1736	0.57	1,569
11/25/2014	13.7	162	1750	0.92	1,582
12/9/2014	11.4	163	1764	1.23	1,599
12/22/2014	0.8	167	1777	0.61	1,607
1/5/2015	3.4	167	1791	0.21	1,610
1/9/2015	3.6	163	1795	0.34	1,612
1/19/2015	10.5	163	1804	0.69	1,618
2/4/2015	6.7	164	1820	0.85	1,631
2/19/2015	1.2	146	1834	0.54	1,639
3/4/2015	5.4	155	1846	0.31	1,643
3/13/2015	12.3	163	1852	0.87	1,648
3/25/2015	4.2	130	1864	0.64	1,655

Notes:

ppm = parts per million

scfm = standard cubic feet per minute (see note 6)

lbs./day = pounds per day

lbs. = pounds

VOC = volatile organic compounds

1. Vapor influent concentrations as measured with a photoionization detector (PID).
2. Total VOC mass removed (lbs.) is calculated by multiplying the VOC Mass Removal Rate (lbs./day) on the sampling date by the # of operating days between visits.
3. VOS mass removal rate (lbs./day) = average VOC level between current and previous monitoring (ppm)/ 10E6 x 1 lbmole/379.4 cu ft. x (158lbs/lbmole) x flow (ft^3/min) x (1440 min/day)
4. 158 lbs./lbmole is the weighted average molecular weight of the primary contaminants in the soil vapor (80% Tetrachloroethene, 19% Trichloroethene, and 1% acetone based on analytical results from recovered soil vapor).
5. VOC concentration not monitored on 2/4/10, assumed concentration noted on 2/18/10.
6. Flow rate (scfm) is calculated with the following equation: 128.8 x Flow coefficient (K) x pipe diameter^2 (in) x sqrt (psia x differential pressure (IWC)/(Temp (F) + 460) x Sp Gr @ 60°F)to adjust for system operating temperature

TABLE 11
Sub-Sab Soil Vapor Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG2-SV1		BLDG2-SV2	BLDG3-VP1											
CONSTITUENT (ug/m3)	**4/10/2014 (2)**	**1/29/2015**	**4/10/2014 (2)**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**6/27/2011**	**1/24/2012**	**3/5/2012 (1)**	**11/7/2012**	**3/29/2013**	**8/5/2013**	**11/1/2013**	**4/29/2014 (2)**	**1/29/2015**
1,1,1-Trichloroethane	<11000	<11	<20	<19	<4.2	<26	<14	<13	<30	<17	<5.7	<45	<11	<260	<1
1,1,2,2-Tetrachloroethane	<2900	<14	<4.9	<4.7	<1.1	<6.5	<3.4	<3.3	<7.4	<4.2	<1.4	<11	<2.6	<66	<1
1,1,2-Trichloroethane	<11000	<11	<20	<19	<4.2	<26	<14	<13	<30	<17	<5.7	<45	<11	<260	<1
1,1-Dichloroethane	<8600	<8	<15	<14	<3.2	<20	<10	<10	<22	<13	<4.3	<34	<7.9	<200	<0.8
1,1-Dichloroethene	<8400	<8	<14	<14	<3.1	<19	<10	<9.7	<22	<12	<4.2	<33	<7.7	<190	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	---	<7.4	<3.8	<3.8	<8.4	---	---	---	---	<74	---
1,2-Dichlorobenzene	---	---	---	---	---	<57	<30	<29	<66	---	---	---	---	<580	---
1,2-Dichloroethane	<8600	<8	<15	<14	<3.2	<20	<10	<10	<22	<13	<4.3	<34	<7.9	<200	<0.8
1,2-Dichloropropane	<9700	<9	<17	<16	<3.6	<22	<12	<11	<25	<14	<4.8	<38	<9.0	<220	<0.9
1,3-Dichlorobenzene	---	---	---	---	---	<57	<30	<29	<66	---	---	---	---	<580	---
1,4-Dichlorobenzene	---	---	---	---	---	<57	<30	<29	<66	---	---	---	---	<580	---
1,4-Dioxane	---	---	---	---	---	---	<110	<110	<250	---	---	---	---	<2200	---
2-Butanone	---	---	---	---	---	<28	<15	15	<32	---	---	---	---	<280	---
2-Hexanone	---	---	---	---	---	<20	<10	<10	<22	---	---	---	---	<200	---
4-Methyl-2-pentanone	---	---	---	---	---	<39	<20	<20	<45	---	---	---	---	<390	---
Acetone	<95000	49	<160	---	---	800	110	140	<250	150	120	<380	120	<2200	900
Benzene	---	---	---	---	---	<15	<7.9	<7.8	<17	---	---	---	---	<150	---
Bromodichloromethane	<2900	<13	<4.9	<4.7	<1.1	<6.5	<3.4	<3.3	<7.4	<4.2	<1.4	<11	<2.6	<66	<1
Bromoform	<22000	<21	<37	<36	<8.0	<50	<26	<25	<57	<32	<11	<86	<20	<500	<2
Bromomethane	<8200	<8	<14	<14	<3.0	<19	<9.7	<9.5	<21	<12	<4.1	<32	<7.6	<190	<0.8
Carbondisulfide	---	---	---	---	---	<15	---	---	---	---	---	---	---	---	---
Carbontetrachloride	<1300	<13	<2.3	<2.2	0.64	<3.0	<1.6	<1.6	<3.5	<2.0	<0.66	<5.3	<1.2	<31	<1
Chlorobenzene	<9700	<9	<17	<16	<3.6	<22	<12	<11	<25	<14	<4.8	<38	<9.0	<220	<0.9
Chloroethane	<11000	<5	<19	<18	<4.1	<25	---	---	---	<16	<5.5	<44	<10	---	<0.5
Chloroform	<10000	<10	<18	<17	4.4	29	22	17	29	<15	9.5	<41	16	<240	1
Chloromethane	<8600	<4	<15	<14	<3.2	<20	---	---	---	<13	<4.3	<34	<7.9	---	<0.4
cis-1,2-Dichloroethene	<8400	18	<14	<14	<3.1	<19	<10	<9.7	<22	<12	<4.2	<33	<7.7	<190	<0.8
cis-1,3-Dichloropropene	<19000	<9	<33	<31	<7.0	<44	<23	<22	<50	<28	<9.5	<75	<18	<440	<0.9
Dibromochloromethane	<3600	<17	<6.2	<6.0	<1.3	<8.3	<4.3	<4.2	<9.4	<5.3	<1.8	<14	<3.3	<83	<2
Dichloromethane	<7200	10	<12	<12	<2.7	<17	<8.6	<8.4	<19	<11	<3.6	<29	<6.7	<170	5
Ethylbenzene	---	---	---	---	---	160	240	150	120	79	26	---	---	<420	---
Freon 113	---	---	---	---	---	<7.4	---	---	---	---	---	---	---	---	---
Hexachlorobutadiene	---	---	---	---	---	---	<68	<66	<150	---	---	---	---	<1300	---
Methyltert-butylether	---	---	---	---	---	<34	<18	<18	<39	---	---	---	---	<350	---
Naphthalene	---	---	---	---	---	---	<45	<44	<99	---	---	---	---	<880	---
Styrene	---	---	---	---	---	<41	<21	<21	<47	---	---	---	---	<410	---
Tetrachloroethene	1200000	18000	11	1600	480	2100	2100D	1100	2100	1300	500	3200	1000	19000	87
Toluene	---	---	---	---	---	<18	<9.3	<9.1	<20	---	---	---	---	<180	---
trans-1,2-Dichloroethene	<8400	9	<14	<14	<3.1	<19	<10	<9.7	<22	<12	<4.2	<33	<7.7	<190	<0.8
Trans-1,3-Dichloropropene	<9500	<9	<16	<16	<3.5	<22	<11	<11	<25	<14	<4.7	<38	<8.8	<220	<0.9
Trichloroethene	48000	1700	31	510	130	1500	630	350	810	320	150	670	290	960	19
Trichlorofluoromethane	<12000	<11	<20	<19	<4.4	<27	---	---	---	<17	<5.9	<47	<11	---	<1
Vinyl acetate	---	---	---	---	---	<220	---	---	---	---	---	---	---	---	---
Vinyl chloride	<1100	<5	<2.0	<1.9	<0.42	<2.6	<1.4	<1.3	<3.0	<1.7	<0.57	<4.5	<1.1	<26	<0.5
m/p-xylene	---	---	---	---	---	610	990	600	480	340	100	---	---	<840	---
o-Xylene	---	---	---	---	---	57	87	57	<47	37	14	---	---	<420	---
Xylene (total)	---	---	---	---	---	670	1100	660	480	380	110	---	---	<840	---

TABLE 11
Sub-Sab Soil Vapor Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-VP2						BLDG3-VP3												
CONSTITUENT (ug/m3)	**11/7/2012**	**3/29/2013**	**8/5/2013**	**11/1/2013**	**4/29/2014 (2)**	**1/29/2015**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**6/27/2011**	**10/6/2011**	**1/10/2012**	**3/5/2012 (1)**	**11/7/2012**	**3/29/2013**	**8/5/2013**	**11/1/2013**	**4/29/2014 (2)**	**1/29/2015**
1,1,1-Trichloroethane	<13	<9.5	<1.8	<2.0	<130	<1	<400	<39	<290	<260	<19	<67	<71	<19	<10	<7.7	<12	<26	<1
1,1,2,2-Tetrachloroethane	<3.2	<2.4	<0.44	<0.50	<32	<1	<100	<9.8	<72	<65	<4.7	<17	<18	<4.8	<2.6	<1.9	<2.9	<6.5	<1
1,1,2-Trichloroethane	<13	<9.5	<1.8	<2.0	<130	<1	<400	<39	<290	<260	<19	<67	<71	<19	<10	<7.7	<12	<26	<1
1,1-Dichloroethane	<9.7	<7.2	<1.3	<1.5	<95	<0.8	<300	<29	<220	<200	<14	<50	<53	<14	<7.9	<5.8	<8.7	<19	<0.8
1,1-Dichloroethene	<9.5	<7.0	<1.3	<1.5	<93	<0.8	<290	<29	<210	<190	<14	<49	<52	<14	<7.7	<5.6	<8.5	<19	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	<36	---	---	---	<81	<74	---	<19	<20	---	---	---	---	<7.3	---
1,2-Dichlorobenzene	---	---	---	---	<280	---	---	---	<630	<570	---	<150	<160	---	---	---	---	<57	---
1,2-Dichloroethane	<9.7	<7.2	<1.3	<1.5	<95	<0.8	<300	<29	<220	<200	<14	<50	<53	<14	<7.9	<5.8	<8.7	<19	<0.8
1,2-Dichloropropane	<11	<8.1	<1.5	<1.7	<110	<9	<340	<33	<240	<220	<16	<57	<60	<16	<8.9	<6.5	<9.9	<22	<0.9
1,3-Dichlorobenzene	---	---	---	---	<280	---	---	---	<630	<570	---	<150	<160	---	---	---	---	<57	---
1,4-Dichlorobenzene	---	---	---	---	<280	---	---	---	<630	<570	---	<150	<160	---	---	---	---	<57	---
1,4-Dioxane	---	---	---	---	<1100	---	---	---	---	<2200	---	<560	<590	---	---	---	---	<220	---
2-Butanone	---	---	---	---	<140	---	---	---	<310	<280	---	<73	<77	---	---	---	---	<28	---
2-Hexanone	---	---	---	---	<95	---	---	---	<220	<200	---	<50	<53	---	---	---	---	<19	---
4-Methyl-2-pentanone	---	---	---	---	<190	---	---	---	<430	<390	---	<100	<110	---	---	---	---	<39	---
Acetone	360	320	220D	140D	<1100	400	---	---	<2400	<2200	1300	<560	<590	260	140	160	160	<220	620
Benzene	---	---	---	---	<74	---	---	---	<170	<150	---	<39	<41	---	---	---	---	<15	---
Bromodichloromethane	<3.2	<2.4	<0.44	<0.50	<32	<1	<100	<9.8	<72	<65	<4.7	<17	<18	<4.8	<2.6	<1.9	<2.9	<6.5	<1
Bromoform	<25	<18	<3.4	<3.8	<240	<2	<760	<74	<550	<490	<36	<130	<130	<36	<20	<15	<22	<49	<2
Bromomethane	<9.2	<6.8	<1.3	<1.4	<91	<0.8	<290	<28	<210	<190	<14	<48	<51	<14	<7.5	<5.5	<8.3	<19	<0.8
Carbondisulfide	---	---	---	---	---	---	---	---	<160	---	---	---	---	---	---	---	---	---	---
Carbontetrachloride	<1.5	<1.1	0.52	0.54	<15	<1	<47	<4.6	<34	<30	<2.2	<7.8	<8.3	<2.2	<1.2	1	<1.4	<3.0	<1
Chlorobenzene	<11	<8.1	<1.5	<1.7	<110	<0.9	<340	<33	<240	<220	<16	<57	<60	<16	<8.9	<6.5	<9.9	<22	<0.9
Chloroethane	<12	<9.2	2.5	<1.9	---	<0.5	<390	<38	<280	---	<18	---	---	<19	<10	<7.4	<11	---	<0.5
Chloroform	19	13	25	14	<110	1	<360	<35	<260	<230	<17	<60	<64	20	17	14	15	24	2
Chloromethane	<9.7	<7.2	<1.3	<1.5	---	<0.4	<300	<29	<220	---	<14	---	---	<14	<7.9	<5.8	<8.7	---	<0.4
cis-1,2-Dichloroethene	<9.5	<7.0	<1.3	<1.5	<93	<0.8	<290	<29	<210	<190	<14	<49	<52	32	22	19	19	20	4
cis-1,3-Dichloropropene	<22	<16	<3.0	<3.3	<210	<0.9	<670	<65	<480	<430	<31	<110	<120	<32	<17	<13	<19	<43	<0.9
Dibromochloromethane	<4.1	<3.0	<0.56	<0.63	<40	<2	<130	<12	<91	<82	<6.0	<21	<22	<6.1	<3.3	<2.4	<3.7	<8.2	<2
Dichloromethane	<8.2	<6.0	<1.1	<1.3	<81	17	<250	<25	<180	<160	<12	<42	<45	<12	<6.6	<4.9	<7.3	<16	18
Ethylbenzene	24	<15	---	---	<200	---	---	---	<460	<410	<30	<110	<110	<30	<17	---	---	<41	---
Freon 113	---	---	---	---	---	---	---	---	130	---	---	---	---	---	---	---	---	---	---
Hexachlorobutadiene	---	---	---	---	<640	---	---	---	---	<1300	---	<340	<360	---	---	---	---	<130	---
Methyltert-butylether	---	---	---	---	<170	---	---	---	<380	<340	---	<88	<93	---	---	---	---	<34	---
Naphthalene	---	---	---	---	<420	---	---	---	---	<870	---	<220	<240	---	---	---	---	<86	---
Styrene	---	---	---	---	<200	---	---	---	<450	<410	---	<100	<110	---	---	---	---	<40	---
Tetrachloroethene	61	26	130	31	9600	4	36000	3000	51000	27000	410	4800	5000	2200	960	1200D	620	2000	86
Toluene	---	---	---	---	<87	---	---	---	<200	<180	---	<46	<49	---	---	---	---	<18	---
trans-1,2-Dichloroethene	<9.5	<7.0	<1.3	<1.5	<93	<0.8	<290	<29	<210	<190	<14	<49	<52	<14	<7.7	<5.6	<8.5	<19	1
Trans-1,3-Dichloropropene	<11	<8.0	<1.5	<1.7	<110	<0.9	<330	<33	<240	<220	<16	<56	<59	<16	<8.7	<6.4	<9.7	<22	<0.9
Trichloroethene	12	11	25	11	820	2	3600	1000	4900	2100	42	640	620	600	390	380	270	460	31
Trichlorofluoromethane	<13	<9.9	<1.8	<2.1	---	<1	<410	<40	<300	---	<19	---	---	<20	<11	<7.9	<12	---	<1
Vinyl acetate	---	---	---	---	---	---	---	---	<2400	---	---	---	---	---	---	---	---	---	---
Vinyl chloride	<1.3	<0.95	<0.18	<0.20	<13	<0.5	<40	<3.9	<29	<26	<1.9	<6.7	<7.1	<1.9	<1.0	<0.77	<1.2	<2.6	<0.5
m/p-xylene	86	<30	---	---	<410	---	---	---	<920	<830	<60	<210	<230	110	<33	---	---	<82	---
o-Xylene	32	<15	---	---	<200	---	---	---	<460	<410	<30	<110	<110	38	<17	---	---	<41	---
Xylene (total)	120	<30	---	---	<410	---	---	---	<920	<830	<60	<210	<110	150	<33	---	---	<82	---

TABLE 11
Sub-Sab Soil Vapor Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-VP5				BLDG3-VP6							BLDG3-VP7		BLDG6-SV1					
CONSTITUENT (ug/m3)	**10/6/2011**	**1/10/2012**	**3/5/2012 (1)**	**11/7/2012**	**8/5/2010**	**8/30/2010**	**11/22/2010**	**2/22/2011**	**6/27/2011**	**10/6/2011**	**1/10/2012**	**3/27/2012**	**4/10/2014 (2)**	**2/22/2011**	**6/3/2011**	**8/22/2011**	**10/6/2011**	**1/10/2012**	**4/10/2014 (2)**
1,1,1-Trichloroethane	<3200	<1700	<1400	<180	<57	<17	<11	<1700	<990	<8600	<8200	<95	<8.4	<1200	<2300	<1100	<280	<1600	<640
1,1,2,2-Tetrachloroethane	<810	<430	<340	<46	<14	<4.2	<2.8	<420	<250	<2200	<2000	<24	<2.1	<300	<570	<270	<69	<400	<160
1,1,2-Trichloroethane	<3200	<1700	<1400	<180	<57	<17	<11	<1700	<990	<8600	<8200	<95	<8.4	<1200	<2300	<1100	<280	<1600	<640
1,1-Dichloroethane	<2400	<1300	<1000	<140	<43	<13	<8.5	<1300	<740	<6500	<6100	<71	<6.3	<890	<1700	<820	<210	<1200	<480
1,1-Dichloroethene	<2400	<1200	<1000	<140	<42	<12	<8.3	<1200	<730	<6300	<6000	<69	<6.2	<870	<1700	<800	<200	<1200	<470
1,2-Dibromoethane (EDB)	---	<480	<390	---	---	<4.8	---	<480	<280	---	<2300	<27	---	<340	---	---	---	<450	---
1,2-Dichlorobenzene	---	<3700	<3000	---	---	<37	---	<3700	<2200	---	<18000	<210	---	<2600	---	---	---	<3500	---
1,2-Dichloroethane	<2400	<1300	<1000	<140	<43	<13	<8.5	<1300	<740	<6500	<6100	<71	<6.3	<890	<1700	<820	<210	<1200	<480
1,2-Dichloropropane	<2800	<1400	<1200	<160	<48	<14	<9.7	<1400	<840	<7300	<6900	<80	<7.1	<1000	<1900	<930	<230	<1300	<540
1,3-Dichlorobenzene	---	<3700	<3000	---	---	<37	---	<3700	<2200	---	<18000	<210	---	<2600	---	---	---	<3500	---
1,4-Dichlorobenzene	---	<3700	<3000	---	---	<37	---	<3700	<2200	---	<18000	<210	---	<2600	---	---	---	<3500	---
1,4-Dioxane	---	<14000	<11000	---	---	<140	---	---	<8300	---	<68000	<790	---	---	---	---	---	<13000	---
2-Butanone	---	<1800	<1500	---	---	<18	---	<1800	<1100	---	<8800	<100	---	<1300	---	---	---	<1700	---
2-Hexanone	---	<1300	<1000	---	---	<13	---	<1300	<740	---	<6100	<71	---	<890	---	---	---	<1200	---
4-Methyl-2-pentanone	---	<2600	<2000	---	---	<25	---	<2500	<1500	---	<12000	<140	---	<1800	---	---	---	<2400	---
Acetone	<27000	<14000	<11000	<1500	---	410	---	24000	<130000D	150000	<68000	<790	130	<9900	<19000	---	<2300	<13000	<5300
Benzene	---	<990	<790	---	---	<9.8	---	<980	<580	---	<4800	<55	---	<700	---	---	---	<920	---
Bromodichloromethane	<810	<430	<340	<46	<14	<4.2	<2.8	<420	<250	<2200	<2000	<24	1.6	<300	<570	<270	<69	<400	<160
Bromoform	<6200	<3200	<2600	<350	<110	<32	<22	<3200	<1900	<16000	<16000	<180	<16	<2300	<4300	<2100	<520	<3000	<1200
Bromomethane	<2300	<1200	<970	<130	<41	<12	<8.1	<1200	<710	<6200	<5800	<68	<6.0	<850	<1600	<790	<200	<1100	<460
Carbondisulfide	---	---	---	---	---	---	---	<950	---	---	---	---	---	<680	---	---	---	---	---
Carbontetrachloride	<380	<200	<160	<22	<6.6	<2.0	<1.3	<200	<120	<1000	<950	<11	<0.98	<140	<270	<130	<32	<180	<75
Chlorobenzene	<2800	<1400	<1200	<160	<48	<14	<9.7	<1400	<840	<7300	<6900	<80	<7.1	<1000	<1900	<930	<230	<1300	<540
Chloroethane	<3100	---	---	<180	<55	---	<11	<1600	---	<8400	---	---	<8.1	<1200	<2200	<1100	<270	---	<620
Chloroform	<2900	<1500	<1200	<170	<51	<15	<10	<1500	<890	<7800	<7300	<85	39	<1100	<2000	<990	<250	<1400	<570
Chloromethane	<2400	---	---	<140	<43	---	69	<1300	---	<6500	---	---	<6.3	<890	<1700	<820	<210	---	<480
cis-1,2-Dichloroethene	<2400	<1200	<1000	<140	<42	<12	<8.3	<1200	<730	<6300	<6000	<69	13	<870	<1700	<800	<200	<1200	<470
cis-1,3-Dichloropropene	<5400	<2800	<2300	<310	<94	<28	<19	<2800	<1700	<14000	<14000	<160	<14	<2000	<3800	<1800	<460	<2600	<1100
Dibromochloromethane	<1000	<540	<430	<59	<18	<5.3	<3.6	<530	<310	<2700	<2600	<30	<2.7	<380	<720	<350	<87	<500	<200
Dichloromethane	<2100	<1100	<860	<120	<36	<11	<7.2	<1100	<630	<5500	<5200	<60	<5.3	<750	<1400	<690	<170	<1000	<400
Ethylbenzene	120000	60000	36000	8100	---	40	---	190000D	300000D	200000	180000	4700	---	<1900	---	<1700	<440	<2500	---
Freon 113	---	---	---	---	---	---	---	<480	---	---	---	---	---	<340	---	---	---	---	---
Hexachlorobutadiene	---	<8500	<6800	---	---	<84	---	---	<5000	---	<41000	<470	---	---	---	---	---	<7900	---
Methyltert-butylether	---	<2200	<1800	---	---	<22	---	<2200	<1300	---	<11000	<120	---	<1600	---	---	---	<2100	---
Naphthalene	---	<5700	<4500	---	---	<56	---	---	<3300	---	<27000	<320	---	---	---	---	---	<5300	---
Styrene	---	<2700	<2100	---	---	<26	---	<2600	<1600	---	<13000	<150	---	<1900	---	---	---	<2500	---
Tetrachloroethene	<430	<230	350	62	8.9J	<2.2	<1.5	<220	<130	<1200	<1100	210	520	85000	130000	70000	32000	100000	48000
Toluene	---	<1200	<930	---	---	<11	---	<1100	1000	---	<5600	<65	---	<810	---	---	---	<1100	---
trans-1,2-Dichloroethene	<2400	<1200	<1000	<140	<42	<12	<8.3	<1200	<730	<6300	<6000	<69	<6.2	<870	<1700	<800	<200	<1200	<470
Trans-1,3-Dichloropropene	<2700	<1400	<1100	<150	<47	<14	<9.5	<1400	<830	<7200	<6800	<79	<7.0	<990	<1900	<910	<230	<1300	<530
Trichloroethene	<320	<170	<140	<18	<5.7	<1.7	1.2	<170	<99	<860	<820	170	95	34000	45000	40000	14000	41000	22000
Trichlorofluoromethane	<3300	---	---	<190	<59	---	<12	<1700	---	<8900	---	---	<8.7	<1200	<2400	<1100	<280	---	<660
Vinyl acetate	---	---	---	---	---	---	---	<14000	---	---	---	---	---	<9900	---	---	---	---	---
Vinyl chloride	<320	<170	<140	<18	<5.7	<1.7	<1.1	<170	<99	<860	<820	<9.5	<0.84	<120	<230	<110	<28	<160	<64
m/p-xylene	470000	240000	140000	40000D	---	240	---	680000D	1100000D	700000	640000	15000D	---	<3800	---	<3500	<880	<5000	---
o-Xylene	47000	29000	18000	5700	---	<27	---	68000	100000D	62000	61000	1200	---	<1900	---	<1700	<440	<2500	---
Xylene (total)	520000	270000	158000	46000D	---	240	---	748000D	1200000D	760000	700000	16000D	---	<3800	---	<3500	<880	<5000	---

Notes:

< indicates chemical not detected, and concentration is less than reporting limit (value shown).

ug/m^3 = micrograms per cubic meter.

J = Estimated concentration.

D = Result is from a diluted sample.

--- Constituent not analyzed

(1) = sample collected following scheduled temporary SVE system shutdown from 2/27/12 to 3/5/12.

(2) = sample collected following scheduled temporary SVE system shutdown from 4/3/14 to 4/29/14

TABLE 12
Indoor Air Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG2-6																
	Environmental Testing Room Building 2 Basement																
CONSTITUENT (ug/m3)	**6/1/2009**	**10/8/2009**	**2/9/2010**	**5/19/2010**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**6/27/2011**	**10/6/2011**	**1/10/2012**	**3/5/2012 (1)**	**11/7/2012**	**8/5/2013**	**11/1/2013**	**4/10/2014 (2)**	**4/29/2014 (2)**	**1/29/2015**
1,1,1-Trichloroethane	<39	<0.88	<1.5	<1.2	<0.94	<1.1	0.87	<0.92	<1.4	<7.7	<1.1	<5.2	<1.1	<18	<1.1	<1.0	<1
1,1,2,2-Tetrachloroethane	<9.8	<0.22	<0.38	<0.31	<0.23	<0.28	<0.22	<0.23	<0.36	<1.9	<0.27	<1.3	<0.28	<4.4	<0.27	<0.26	<1
1,1,2-Trichloroethane	<39	<0.88	<1.5	<1.2	<0.94	<1.1	<0.86	<0.92	<1.4	<7.7	<1.1	<5.2	<1.1	<18	<1.1	<1.0	<1
1,1-Dichloroethane	<30	<0.66	<1.1	<0.93	<0.70	<0.84	<0.65	<0.69	<1.1	<5.8	<0.82	<3.9	<0.84	<13	<0.80	<0.78	<0.8
1,1-Dichloroethene	<29	<0.65	<1.1	<0.91	<0.69	<0.83	<0.63	<0.68	<1.0	<5.6	<0.80	<3.8	<0.82	<13	<0.79	<0.76	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	---	---	---	---	---	---	<0.31	---	---	---	---	<0.29	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	<2.4	---	---	---	---	<2.3	---
1,2-Dichloroethane	<30	<0.66	<1.1	<0.93	<0.70	<0.84	<0.65	<0.69	<1.1	<5.8	<0.82	<3.9	<0.84	<13	<0.80	<0.78	<0.8
1,2-Dichloropropane	<33	<0.75	<1.3	<1.1	<0.80	<0.96	<0.73	<0.79	<1.2	<6.5	<0.93	<4.4	<0.95	<15	<0.91	<0.88	<0.9
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	<2.4	---	---	---	---	<2.3	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	<2.4	---	---	---	---	<2.3	---
1,4-Dioxane	---	---	---	---	---	---	---	---	---	---	<9.1	---	---	---	---	<8.6	---
2-Butanone	---	---	---	---	---	---	---	---	---	---	3.2	---	---	---	---	14	---
2-Hexanone	---	---	---	---	---	---	---	---	---	---	<0.82	---	---	---	---	<0.78	---
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	---	---	<1.6	---	---	---	---	4.1	---
Acetone	---	---	---	---	---	---	---	330	290	240	210D	160	340D	440	95D	75D	110
Benzene	---	---	---	---	---	---	---	---	---	---	<0.64	---	---	---	---	<0.60	---
Bromodichloromethane	<9.8	<0.22	<0.38	<0.31	<0.23	<0.28	<0.22	<0.23	<0.36	<1.9	<0.27	<1.3	<0.28	<4.4	<0.27	<0.26	<1
Bromoform	<75	<1.7	<2.9	<2.4	<1.8	<2.1	<1.6	<1.8	<2.7	<15	<2.1	<9.9	<2.1	<34	<2.0	<2.0	<2
Bromomethane	<28	<0.63	<1.1	<0.89	<0.67	<0.81	<0.62	<0.66	<1.0	<5.5	<0.78	<3.7	<0.80	<13	<0.77	<0.74	<0.8
Carbontetrachloride	<4.6	0.33	0.52	0.64	0.61	0.62	0.55	0.57	0.59	<0.90	0.57	<0.61	0.51	<2.1	0.48	0.49	<1
Chlorobenzene	<33	<0.75	<1.3	<1.1	<0.80	<0.96	<0.73	<0.79	<1.2	<6.5	<0.93	<4.4	<0.95	<15	<0.91	<0.88	<0.9
Chloroethane	<38	<0.85	<1.5	<1.2	<0.90	<1.1	<0.84	<0.89	<1.4	<7.4	---	<5.0	<1.1	<17	<1.0	---	<0.5
Chloroform	<35	<0.79	<1.4	<1.1	<0.84	<1.0	<0.78	<0.83	<1.3	<6.9	<0.98	<4.7	<1.0	<16	<0.97	<0.93	<1
Chloromethane	<30	0.89	1.1	1.2	1.1	1.1	1.2	1.1	1.1	<5.8	---	<3.9	<0.84	<13	0.9	---	0.7
cis-1,2-Dichloroethene	<29	<0.65	<1.1	<0.91	<0.69	<0.83	<0.63	<0.68	<1.0	<5.6	<0.80	<3.8	<0.82	<13	<0.79	<0.76	<0.8
cis-1,3-Dichloropropene	<66	<1.5	<2.6	<2.1	<1.6	<1.9	<1.4	<1.5	<2.4	<13	<1.8	<8.7	<1.9	<29	<1.8	<1.7	<0.9
Dibromochloromethane	<12	<0.28	<0.48	<0.39	<0.30	<0.36	<0.27	<0.29	<0.45	<2.4	<0.35	<1.7	<0.35	<5.6	<0.34	<0.33	<2
Dichloromethane	<25	<0.56	<0.97	0.9	1.2	1.5	<0.55	0.64	<0.90	<4.9	<0.62	<3.3	<0.71	<11	<0.68	<0.66	4
Ethylbenzene	---	---	---	---	---	---	---	<1.5	<2.3	<12	<1.7	<8.3	---	---	---	<1.6	---
Hexachlorobutadiene	---	---	---	---	---	---	---	---	---	---	<5.5	---	---	---	---	<5.2	---
Methyltert-butylether	---	---	---	---	---	---	---	---	---	---	<1.4	---	---	---	---	<1.4	---
Naphthalene	---	---	---	---	---	---	---	---	---	---	<3.6	---	---	---	---	<3.5	---
Styrene	---	---	---	---	---	---	---	---	---	---	<1.7	---	---	---	---	<1.6	---
Tetrachloroethene	12	3.3	40	12	9	8.9	9.3	13	3.1	1.7	2.9	5.4	7.5	22	4.0	3.2	2
Toluene	---	---	---	---	---	---	---	---	---	---	1.8	---	---	---	---	1.3	---
trans-1,2-Dichloroethene	<29	<0.65	2.9	<0.91	<0.69	<0.83	<0.63	<0.68	<1.0	<5.6	2.5	<3.8	1.4	<13	<0.79	<0.76	<0.8
Trans-1,3-Dichloropropene	<33	<0.74	<1.3	<1.0	<0.78	<0.94	<0.72	<0.77	<1.2	<6.4	<0.91	<4.4	<0.93	<15	<0.89	<0.86	<0.9
Trichloroethene	<3.9	1.1	3.1	2.6	2.2	3.1	2	2.7	1.5	1.2	1.9	1.9	2.3	5.7	0.96	0.55	4
Trichlorofluoromethane	<41	1.1	1.7	2.1	2	1.6	1.4	1.9	1.7	<7.9	---	<5.4	1.8	<18	1.3	---	<1
Vinyl chloride	<3.9	<0.088	<0.15	<0.12	<0.094	<0.090	<0.086	<0.092	<0.14	<0.77	<0.11	<0.52	<0.11	<1.8	<0.11	<0.10	<0.5
m/p-xylene	---	---	---	---	---	---	---	<2.9	<4.5	<24	<3.5	<17	---	---	---	<3.3	---
o-Xylene	---	---	---	---	---	---	---	<1.5	<2.3	<12	<1.7	<8.3	---	---	---	<1.6	---
Xylene (total)	---	---	---	---	---	---	---	<2.9	<4.5	<24	<1.7	<17	---	---	---	<3.3	---

TABLE 12
Indoor Air Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG2-7	BLDG3-1								
	Storage Room Building 2 Basement	Main Chemical Laboratory								
CONSTITUENT (ug/m3)	4/10/2014 (2)	6/1/2009	10/8/2009	2/9/2010	5/19/2010	8/5/2010	11/22/2010	2/22/2011	3/5/2012 (1)	1/29/2015
1,1,1-Trichloroethane	<1.7	<75	<3.0	<4.6	<2.8	<1.5	<0.88	<0.91	<1.1	<1
1,1,2,2-Tetrachloroethane	<0.43	<19	<0.74	<1.2	<0.70	<0.38	<0.22	<0.23	<0.27	<1
1,1,2-Trichloroethane	<1.7	<75	<3.0	<4.6	<2.8	<1.5	<0.88	<0.91	<1.1	<1
1,1-Dichloroethane	<1.3	<56	<2.2	<3.5	<2.1	<1.1	<0.66	<0.68	<0.82	<0.8
1,1-Dichloroethene	<1.2	<55	<2.2	<3.4	<2.0	<1.1	<0.65	<0.67	<0.80	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	---	---	---	---	<0.31	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	<2.4	---
1,2-Dichloroethane	<1.3	<56	<2.2	<3.5	<2.1	<1.1	<0.66	<0.68	<0.82	<0.8
1,2-Dichloropropane	<1.4	<63	<2.5	<3.9	<2.4	<1.3	<0.75	<0.78	<0.93	<0.9
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	<2.4	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	<2.4	---
1,4-Dioxane	---	---	---	---	---	---	---	---	<9.1	---
2-Butanone	---	---	---	---	---	---	---	---	2.2	---
2-Hexanone	---	---	---	---	---	---	---	---	<0.82	---
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	<1.6	---
Acetone	87D	---	---	---	---	---	---	---	300D	850
Benzene	---	---	---	---	---	---	---	---	<0.64	---
Bromodichloromethane	<0.43	<19	<0.74	<1.2	<0.70	<0.38	<0.22	<0.23	<0.27	<1
Bromoform	<3.2	<140	<5.6	<8.8	<5.3	<2.9	<1.7	<1.7	<2.1	<2
Bromomethane	<1.2	<53	<2.1	<3.3	<2.0	<1.1	<0.63	<0.65	<0.78	<0.8
Carbontetrachloride	0.46	<8.7	0.36	<0.54	0.58	0.3	0.55	0.58	0.56	<1
Chlorobenzene	<1.4	<63	<2.5	<3.9	<2.4	<1.3	<0.75	<0.78	<0.93	<0.9
Chloroethane	<1.6	<72	<2.9	<4.5	<2.7	<1.5	<0.85	<0.88	---	<0.5
Chloroform	<1.5	<67	<2.7	<4.2	<2.5	<1.4	<0.79	<0.82	<0.98	<1
Chloromethane	<1.3	<56	<2.2	<3.5	<2.1	<1.1	1.1	1.2	---	0.6
cis-1,2-Dichloroethene	<1.2	<55	<2.2	<3.4	<2.0	<1.1	<0.65	<0.67	<0.80	<0.8
cis-1,3-Dichloropropene	<2.8	<120	<4.9	<7.7	<4.7	<2.5	<1.5	<1.5	<1.8	<0.9
Dibromochloromethane	<0.54	<24	<0.94	<1.5	<0.88	<0.48	<0.28	<0.29	<0.35	<2
Dichloromethane	<1.1	<47	<1.9	<2.9	<1.8	0.96	2.5	<0.58	<0.59	6
Ethylbenzene	---	---	---	---	---	---	---	---	<1.7	---
Hexachlorobutadiene	---	---	---	---	---	---	---	---	<5.5	---
Methyltert-butylether	---	---	---	---	---	---	---	---	<1.4	---
Naphthalene	---	---	---	---	---	---	---	---	<3.6	---
Styrene	---	---	---	---	---	---	---	---	<1.7	---
Tetrachloroethene	0.36	18	23	3.8	0.72	2	1.1	1.3	3	<1
Toluene	---	---	---	---	---	---	---	---	1.1	---
trans-1,2-Dichloroethene	<1.2	<55	<2.2	<3.4	<2.0	<1.1	0.67	<0.67	1.4	<0.8
Trans-1,3-Dichloropropene	<1.4	<62	<2.5	<3.9	<2.3	<1.3	<0.74	<0.76	<0.91	<0.9
Trichloroethene	0.37	<7.5	8.2	4.4	<0.28	0.61	0.37	0.13	0.31	<1
Trichlorofluoromethane	<1.8	<77	<3.1	<4.8	<2.9	<1.6	1.6	1.4	---	<1
Vinyl chloride	<0.17	<7.5	<0.30	<0.46	<0.28	<0.15	<0.088	0.16	<0.11	<0.5
m/p-xylene	---	---	---	---	---	---	---	---	<3.5	---
o-Xylene	---	---	---	---	---	---	---	---	<1.7	---
Xylene (total)	---	---	---	---	---	---	---	---	<3.5	---

TABLE 12
Indoor Air Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-2													
	Chemical Laboratory Bench Testing Room													
CONSTITUENT (ug/m3)	**6/1/2009**	**10/8/2009**	**2/9/2010**	**5/19/2010**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**6/27/2011**	**10/6/2011**	**1/10/2012**	**3/5/2012 (1)**	**8/5/2013**	**11/1/2013**	**4/29/2014 (2)**
1,1,1-Trichloroethane	<100	<4.5	<9.2	<6.1	<1.8	<1.0	<1.5	<3.4	<1.5	<18	<1.1	<3.6	<4.0	<2.3
1,1,2,2-Tetrachloroethane	<25	<1.1	<2.3	<1.5	<0.46	<0.26	<0.38	<0.85	<0.37	<4.6	<0.28	<0.90	<1.0	<0.57
1,1,2-Trichloroethane	<100	<4.5	<9.2	<6.1	<1.8	<1.0	<1.5	<3.4	<1.5	<18	<1.1	<3.6	<4.0	<2.3
1,1-Dichloroethane	<75	<3.4	<6.9	<4.6	<1.4	<0.78	<1.1	<2.6	<1.1	<14	<0.83	<2.7	<3.0	<1.7
1,1-Dichloroethene	<73	<3.3	<6.7	<4.5	<1.4	<0.77	<1.1	<2.5	<1.1	<13	<0.81	<2.6	<3.0	<1.7
1,2-Dibromoethane (EDB)	---	---	---	---	---	---	---	---	---	---	<0.31	---	---	<0.65
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	<2.4	---	---	<5.1
1,2-Dichloroethane	<75	<3.4	<6.9	<4.6	<1.4	<0.78	<1.1	<2.6	<1.1	<14	<0.83	<2.7	<3.0	<1.7
1,2-Dichloropropane	<85	<3.8	<7.8	<5.2	<1.6	<0.89	<1.3	<2.9	<1.2	<16	<0.94	<3.0	<3.4	<2.0
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	<2.4	---	---	<5.1
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	<2.4	---	---	<5.1
1,4-Dioxane	---	---	---	---	---	---	---	---	---	---	<9.2	---	---	<19
2-Butanone	---	---	---	---	---	---	---	---	---	---	3.6	---	---	19
2-Hexanone	---	---	---	---	---	---	---	---	---	---	<0.83	---	---	<1.7
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	---	---	<1.7	---	---	<3.4
Acetone	---	---	---	---	---	---	---	1900	400	550	410D	2900D	1100D	2000D
Benzene	---	---	---	---	---	---	---	---	---	---	<0.64	---	---	<1.3
Bromodichloromethane	<25	<1.1	<2.3	<1.5	<0.46	<0.26	<0.38	<0.85	<0.37	<4.6	<0.28	<0.90	<1.0	<0.57
Bromoform	<190	<8.6	<17	<12	<3.5	<2.0	<2.9	<6.5	<2.8	<35	<2.1	<6.8	<7.6	<4.4
Bromomethane	<72	<3.2	<6.6	<4.4	<1.3	<0.75	<1.1	<2.4	<1.0	<13	<0.79	<2.6	<2.9	<1.6
Carbontetrachloride	<12	<0.53	<1.1	<0.71	0.4	0.63	0.54	0.53	0.62	<2.1	0.56	0.58	0.52	0.46
Chlorobenzene	<85	<3.8	<7.8	<5.2	<1.6	<0.89	<1.3	<2.9	<1.2	<16	<0.94	<3.0	<3.4	<2.0
Chloroethane	<97	<4.4	<8.9	<5.9	<1.8	<1.0	<1.5	<3.3	<1.4	<18	---	<3.5	<3.9	---
Chloroform	<90	<4.1	<8.3	<5.5	<1.7	<0.94	<1.4	<3.1	<1.3	<17	<0.99	<3.2	<3.6	<2.1
Chloromethane	<75	<3.4	<6.9	<4.6	<1.4	1.2	1.2	<2.6	<1.1	<14	---	<2.7	<3.0	---
cis-1,2-Dichloroethene	<73	<3.3	<6.7	<4.5	<1.4	<0.77	<1.1	<2.5	<1.1	<13	<0.81	<2.6	<3.0	<1.7
cis-1,3-Dichloropropene	<170	<7.5	<15	<10	<3.1	<1.7	<2.5	<5.7	<2.4	<31	<1.8	<6.0	<6.7	<3.8
Dibromochloromethane	<32	<1.4	<2.9	<1.9	<0.59	<0.33	<0.48	<1.1	<0.46	<5.8	<0.35	<1.1	<1.3	<0.73
Dichloromethane	<63	<2.9	<5.8	<3.9	<1.2	0.82	<0.96	<2.2	<0.92	<12	<0.59	<2.3	<2.5	<1.5
Ethylbenzene	---	---	---	---	---	---	---	<5.4	<2.3	<29	<1.7	---	---	<3.6
Hexachlorobutadiene	---	---	---	---	---	---	---	---	---	---	<5.5	---	---	<11
Methyltert-butylether	---	---	---	---	---	---	---	---	---	---	<1.4	---	---	<3.0
Naphthalene	---	---	---	---	---	---	---	---	---	---	<3.7	---	---	<7.7
Styrene	---	---	---	---	---	---	---	---	---	---	<1.7	---	---	<3.6
Tetrachloroethene	46	6.4	3.7	2	2.3	3.1	1.3	1.2	1	<2.4	1.7	1.6	2.4	1.9
Toluene	---	---	---	---	---	---	---	---	---	---	1.4	---	---	13
trans-1,2-Dichloroethene	<73	<3.3	<6.7	<4.5	<1.4	<0.77	<1.1	<2.5	<1.1	<13	3	<2.6	<3.0	<1.7
Trans-1,3-Dichloropropene	<83	<3.8	<7.7	<5.1	<1.5	<0.87	<1.3	<2.8	<1.2	<15	<0.92	<3.0	<3.4	<1.9
Trichloroethene	19	3.2	5.3	0.79	0.6	1.6	0.42	0.93	1.3	<1.8	1.2	0.58	1	0.37
Trichlorofluoromethane	<100	<4.7	<9.5	<6.3	<1.9	1.6	<1.6	<3.5	1.7	<19	---	<3.7	<4.2	---
Vinyl chloride	<10	<0.45	<0.92	<0.61	<0.18	<0.10	<0.15	<0.34	<0.15	<1.8	<0.11	<0.36	<0.40	<0.23
m/p-xylene	---	---	---	---	---	---	---	<11	<4.6	<58	<3.5	---	---	<7.3
o-Xylene	---	---	---	---	---	---	---	<5.4	<2.3	<29	<1.7	---	---	<3.6
Xylene (total)	---	---	---	---	---	---	---	<11	<4.6	<58	<3.5	---	---	<7.3

TABLE 12
Indoor Air Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-3																		
	MID Stockroom																		
CONSTITUENT (ug/m3)	**6/1/2009**	**10/8/2009**	**11/2/2009**	**11/12/2009**	**12/21/2009**	**2/9/2010**	**5/19/2010**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**6/27/2011**	**10/6/2011**	**1/10/2012**	**3/5/2012 (1)**	**11/7/2012**	**8/5/2013**	**11/1/2013**	**4/29/2014 (2)**	**1/29/2015**
1,1,1-Trichloroethane	<9.5	<10	<8.8	<8.5	<4.6	<6.2	<0.91	<1.9	<0.85	<2.2	<1.7	<1.6	<11	<1.1	<2.2	<1.9	<1.8	<2.6	<1
1,1,2,2-Tetrachloroethane	<2.4	<2.5	<2.2	<2.1	<1.2	<1.6	<0.23	<0.47	<0.21	<0.55	<0.43	<0.39	<2.7	<0.28	<0.54	<0.48	<0.45	<0.66	<1
1,1,2-Trichloroethane	<9.5	<10	<8.8	<8.5	<4.6	<6.2	<0.91	<1.9	<0.85	<2.2	<1.7	<1.6	<11	<1.1	<2.2	<1.9	<1.8	<2.6	<1
1,1-Dichloroethane	<7.1	<7.5	<6.6	<6.4	<3.5	<4.7	<0.68	<1.4	<0.64	<1.6	<1.3	<1.2	<8.1	<0.84	<1.6	<1.4	<1.4	<2.0	<0.8
1,1-Dichloroethene	<7.0	<7.3	<6.5	<6.2	<3.4	<4.6	<0.67	<1.4	<0.62	<1.6	<1.3	<1.2	<7.9	<0.82	<1.6	<1.4	<1.3	<1.9	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.32	---	---	---	<0.74	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	---	<5.8	---
1,2-Dichloroethane	<7.1	<7.5	<6.6	<6.4	<3.5	<4.7	<0.68	<1.4	<0.64	<1.6	<1.3	<1.2	<8.1	<0.84	<1.6	<1.4	<1.4	<2.0	<0.8
1,2-Dichloropropane	<8.1	<8.5	<7.5	<7.2	<3.9	<5.3	<0.78	<1.6	<0.72	<1.9	<1.5	<1.3	<9.2	<0.95	<1.8	<1.6	<1.5	<2.2	<0.9
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	---	<5.8	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	---	---	---	---	---	<2.5	---	---	---	<5.8	---
1,4-Dioxane	---	---	---	---	---	---	---	---	---	---	---	---	---	<9.4	---	---	---	<22	---
2-Butanone	---	---	---	---	---	---	---	---	---	---	---	---	---	4	---	---	---	5.1	---
2-Hexanone	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.84	---	---	---	<2.0	---
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.4	---	---	---	<3.9	---
Acetone	---	---	---	---	---	---	---	---	---	---	810	340	240	370D	1400D	860D	400D	880D	1800E
Benzene	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.65	---	---	---	<1.5	---
Bromodichloromethane	<2.4	<2.5	<2.2	<2.1	<1.2	<1.6	<0.23	<0.47	<0.21	<0.55	<0.43	<0.39	<2.7	<0.28	<0.54	<0.48	<0.45	<0.66	<1
Bromoform	<18	<19	<17	<16	<8.8	<12	<1.7	<3.6	<1.6	<4.2	<3.3	<3.0	<20	<2.1	<4.1	<3.6	<3.4	<5.0	<2
Bromomethane	<6.8	<7.2	<6.3	<6.1	<3.3	<4.5	<0.65	<1.3	<0.61	<1.6	<1.2	<1.1	<7.7	<0.80	<1.5	<1.4	<1.3	<1.9	<0.8
Carbontetrachloride	<1.1	<1.2	<1.0	<0.99	<0.54	<0.73	0.5	0.52	0.57	0.54	0.54	0.55	<1.3	0.56	<0.25	0.52	0.58	0.45	<1
Chlorobenzene	<8.1	<8.5	<7.5	<7.2	<3.9	<5.3	<0.78	<1.6	<0.72	<1.9	<1.5	<1.3	<9.2	<0.95	<1.8	<1.6	<1.5	<2.2	<0.9
Chloroethane	<9.2	<9.6	<8.5	<8.2	<4.5	<6.0	<0.88	<1.8	<0.82	<2.1	<1.7	<1.5	<10	---	<2.1	<1.9	<1.7	---	<0.5
Chloroform	<8.5	<9.0	<7.9	<7.7	<4.2	<5.6	<0.82	<1.7	<0.77	<2.0	<1.6	<1.4	<9.7	<1.0	<1.9	<1.7	<1.6	<2.4	<1
Chloromethane	<7.1	<7.5	<6.6	<6.4	<3.5	<4.7	0.96	<1.4	1.1	<1.6	<1.3	<1.2	<8.1	---	<1.6	<1.4	<1.4	---	0.7
cis-1,2-Dichloroethene	<7.0	<7.3	<6.5	<6.2	<3.4	<4.6	<0.67	<1.4	<0.62	<1.6	<1.3	<1.2	<7.9	<0.82	<1.6	<1.4	<1.3	<1.9	<0.8
cis-1,3-Dichloropropene	<16	<17	<15	<14	<7.7	<10	<1.5	<3.1	<1.4	<3.7	<2.9	<2.6	<18	<1.9	<3.6	<3.2	<3.0	<4.4	<0.9
Dibromochloromethane	<3.0	<3.2	<2.8	<2.7	<1.5	<2.0	<0.29	<0.59	<0.27	<0.69	<0.55	<0.50	<3.4	<0.36	<0.68	<0.61	<0.57	<0.83	<2
Dichloromethane	<6.0	<6.3	<5.6	<5.4	<2.9	<4.0	<0.58	<1.2	0.58	<1.4	<1.1	<1.0	<6.8	<0.60	<1.4	<1.2	<1.1	<1.7	5
Ethylbenzene	---	---	---	---	---	---	---	---	---	---	<2.7	<2.5	<17	<1.8	<3.4	---	---	<4.2	---
Hexachlorobutadiene	---	---	---	---	---	---	---	---	---	---	---	---	---	<5.6	---	---	---	<13	---
Methyltert-butylether	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.5	---	---	---	<3.5	---
Naphthalene	---	---	---	---	---	---	---	---	---	---	---	---	---	<3.7	---	---	---	<8.7	---
Styrene	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.8	---	---	---	<4.1	---
Tetrachloroethene	23	750	520	470	2.1	3.7	0.63	1.2	1	0.86	0.83	0.83	<1.4	65	1.1	0.89	0.84	99	3
Toluene	---	---	---	---	---	---	---	---	---	---	---	---	---	2.8	---	---	---	5.4	---
trans-1,2-Dichloroethene	<7.0	<7.3	<6.5	<6.2	<3.4	<4.6	<0.67	<1.4	<0.62	<1.6	<1.3	<1.2	<7.9	2.4	<1.6	<1.4	<1.3	<1.9	<0.8
Trans-1,3-Dichloropropene	<7.9	<8.3	<7.4	<7.1	<3.9	<5.2	<0.76	<1.6	<0.71	<1.8	<1.4	<1.3	<9.0	<0.94	<1.8	<1.6	<1.5	<2.2	<0.9
Trichloroethene	8.6	360	220	180	0.69	4.4	0.42	0.32	0.41	0.34	0.35	0.7	<1.1	4	0.32	0.39	0.39	1.7	<1
Trichlorofluoromethane	<9.8	<10	<9.1	<8.8	<4.8	<6.4	1.7	<1.9	1.5	<2.3	<1.8	<1.6	<11	---	<2.2	<2.0	<1.9	---	<11
Vinyl chloride	<0.95	<1.0	<0.88	<0.85	<0.46	<0.62	<0.091	<0.19	<0.085	<0.22	<0.17	<0.16	<1.1	<0.11	<0.22	<0.19	<0.18	<0.26	<0.5
m/p-xylene	---	---	---	---	---	---	---	---	---	---	<5.5	<5.0	<34	<3.6	<6.9	---	---	<8.3	---
o-Xylene	---	---	---	---	---	---	---	---	---	---	<2.7	<2.5	<17	<1.8	<3.4	---	---	<4.2	---
Xylene (total)	---	---	---	---	---	---	---	---	---	---	<5.5	<5.0	<34	<13.6	<6.9	---	---	<8.3	---

TABLE 12
Indoor Air Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-4													
	Building 3 Machine Shop													
CONSTITUENT (ug/m3)	**6/1/2009**	**7/16/2009**	**10/8/2009**	**2/9/2010**	**5/19/2010**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**3/5/2012 (1)**	**11/7/2012**	**8/5/2013**	**11/1/2013**	**4/29/2014 (2)**	**1/29/2015**
1,1,1-Trichloroethane	<110	21	12	<18	<3.5	<1.9	<5.4	<8.9	<1.1	<2.8	<2.6	<3.2	<3.1	<1
1,1,2,2-Tetrachloroethane	<27	<1.2	<1.1	<4.6	<0.88	<0.48	<1.4	<2.2	<0.28	<0.70	<0.65	<0.81	<0.77	<1
1,1,2-Trichloroethane	<110	<4.6	<4.5	<18	<3.5	<1.9	<5.4	<8.9	<1.1	<2.8	<2.6	<3.2	<3.1	<1
1,1-Dichloroethane	<80	<3.5	<3.4	<14	<2.6	<1.4	<4.1	<6.7	<0.84	<2.1	<1.9	<2.4	<2.3	<0.8
1,1-Dichloroethene	<78	<3.4	<3.3	<14	<2.6	<1.4	<4.0	<6.6	<0.82	<2.1	<1.9	<2.4	<2.3	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	---	---	---	---	<0.32	---	---	---	<0.87	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---	---	<2.5	---	---	---	<6.8	---
1,2-Dichloroethane	<80	<3.5	<3.4	<14	<2.6	<1.4	<4.1	<6.7	<0.84	<2.1	<1.9	<2.4	<2.3	<0.8
1,2-Dichloropropane	<90	<3.9	<3.8	<16	<3.0	<1.6	<4.6	<7.6	<0.95	<2.4	<2.2	<2.7	<2.6	<0.9
1,3-Dichlorobenzene	---	---	---	---	---	---	---	---	<2.5	---	---	---	<6.8	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---	---	<2.5	---	---	---	<6.8	---
1,4-Dioxane	---	---	---	---	---	---	---	---	<9.3	---	---	---	<26	---
2-Butanone	---	---	---	---	---	---	---	---	2.5	---	---	---	11	---
2-Hexanone	---	---	---	---	---	---	---	---	<0.84	---	---	---	<2.3	---
4-Methyl-2-pentanone	---	---	---	---	---	---	---	---	<1.7	---	---	---	<4.6	---
Acetone	---	---	---	---	---	---	---	---	870D	2100D	1000D	780D	2300D	2400E
Benzene	---	---	---	---	---	---	---	---	<0.65	---	---	---	<1.8	---
Bromodichloromethane	<27	<1.2	<1.1	<4.6	<0.88	<0.48	<1.4	<2.2	<0.28	<0.70	<0.65	<0.81	<0.77	<1
Bromoform	<200	<8.8	<8.6	<35	<6.7	<3.7	<10	<17	<2.1	<5.3	<4.9	<6.1	<5.8	<2
Bromomethane	<76	<3.3	<3.2	<13	<2.5	<1.4	<3.9	<6.4	<0.80	<2.0	<1.8	<2.3	<2.2	<0.8
Carbontetrachloride	<12	<0.54	<0.53	<2.2	0.52	0.56	<0.63	<1.0	0.55	0.41	0.56	0.52	0.43	<1
Chlorobenzene	<90	<3.9	<3.8	<16	<3.0	<1.6	<4.6	<7.6	<0.95	<2.4	<2.2	<2.7	<2.6	<0.9
Chloroethane	<100	<4.5	<4.4	<18	<3.4	<1.9	<5.3	<8.6	---	<2.7	<2.5	<3.1	---	<0.5
Chloroform	<95	<4.2	<4.1	<17	<3.2	<1.7	<4.9	<8.0	<1.0	<2.5	<2.3	<2.9	<2.8	<1
Chloromethane	<80	<3.5	<3.4	<14	<2.6	<1.4	<4.1	<6.7	---	<2.1	<1.9	<2.4	---	0.7
cis-1,2-Dichloroethene	<78	<3.4	<3.3	<14	<2.6	<1.4	<4.0	<6.6	<0.82	<2.1	<1.9	<2.4	<2.3	<0.8
cis-1,3-Dichloropropene	<180	<7.7	<7.5	<31	<5.9	<3.2	<9.1	<15	<1.9	<4.7	<4.3	<5.4	<5.1	<0.9
Dibromochloromethane	<34	<1.5	<1.4	<5.9	<1.1	<0.61	<1.7	<2.8	<0.35	<0.89	<0.82	<1.0	<0.97	<2
Dichloromethane	<67	<2.9	<2.9	<12	<2.2	<1.2	<3.4	<5.7	<0.60	<1.8	<1.6	<2.0	<1.9	5
Ethylbenzene	---	---	---	---	---	---	---	<14	<1.8	<4.5	---	---	<4.9	---
Hexachlorobutadiene	---	---	---	---	---	---	---	---	<5.6	---	---	---	<15	---
Methyltert-butylether	---	---	---	---	---	---	---	---	<1.5	---	---	---	<4.1	---
Naphthalene	---	---	---	---	---	---	---	---	<3.7	---	---	---	<10	---
Styrene	---	---	---	---	---	---	---	---	<1.7	---	---	---	<4.8	---
Tetrachloroethene	72	25	8.2	3	0.9	2.1	1.8	1.2	5.9	1.8	0.9	1.6	5.7	4
Toluene	---	---	---	---	---	---	---	---	1.4	---	---	---	14	---
trans-1,2-Dichloroethene	<78	<3.4	<3.3	<14	<2.6	<1.4	<4.0	<6.6	2.4	<2.1	<1.9	<2.4	<2.3	<0.8
Trans-1,3-Dichloropropene	<88	<3.9	<3.8	<15	<2.9	<1.6	<4.5	<7.5	<0.93	<2.3	<2.2	<2.7	<2.6	<0.9
Trichloroethene	30	10	5.4	2.1	0.4	0.25	0.7	<0.89	0.7	0.4	<0.26	0.55	<0.31	<1
Trichlorofluoromethane	<110	<4.8	<4.7	<19	<3.6	<2.0	<5.6	<9.2	---	<2.9	<2.7	<3.3	---	<1
Vinyl chloride	<11	<0.46	<0.45	<1.8	<0.35	<0.19	<0.54	<0.89	<0.11	<0.28	<0.26	<0.32	<0.31	<0.5
m/p-xylene	---	---	---	---	---	---	---	<28	<3.6	<8.9	---	---	<9.8	---
o-Xylene	---	---	---	---	---	---	---	<14	<1.8	<4.5	---	---	<4.9	---
Xylene (total)	---	---	---	---	---	---	---	<28	<3.6	<8.9	---	---	<9.8	---

TABLE 12
Indoor Air Analytical Results
Building 3 Area
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG3-5								BLDG3-6
	Boiler room, Building 3 Basement								Building 3 Storage Room
CONSTITUENT (ug/m3)	**6/1/2009**	**10/8/2009**	**2/9/2010**	**5/19/2010**	**8/5/2010**	**11/22/2010**	**2/22/2011**	**3/5/2012 (1)**	**6/27/2011**
1,1,1-Trichloroethane	<0.91	<0.91	<0.88	<0.89	<1.8	<1.1	<0.88	<1.1	<1.8
1,1,2,2-Tetrachloroethane	<0.23	<0.23	<0.22	<0.22	<0.46	<0.26	<0.22	<0.26	<0.45
1,1,2-Trichloroethane	<0.91	<0.91	<0.88	<0.89	<1.8	<1.1	<0.88	<1.1	<1.8
1,1-Dichloroethane	<0.68	<0.68	<0.66	<0.67	<1.4	<0.79	<0.66	<0.79	<1.4
1,1-Dichloroethene	<0.66	<0.66	<0.65	<0.66	<1.3	<0.78	<0.65	<0.77	<1.3
1,2-Dibromoethane (EDB)	---	---	---	---	---	---	---	<0.30	---
1,2-Dichlorobenzene	---	---	---	---	---	---	---	<2.3	---
1,2-Dichloroethane	<0.68	<0.68	<0.66	<0.67	<1.4	<0.79	<0.66	<0.79	<1.4
1,2-Dichloropropane	<0.77	<0.77	<0.75	<0.76	<1.6	<0.90	<0.75	<0.90	<1.5
1,3-Dichlorobenzene	---	---	---	---	---	---	---	<2.3	---
1,4-Dichlorobenzene	---	---	---	---	---	---	---	<2.3	---
1,4-Dioxane	---	---	---	---	---	---	---	<8.8	---
2-Butanone	---	---	---	---	---	---	---	<1.1	---
2-Hexanone	---	---	---	---	---	---	---	<0.79	---
4-Methyl-2-pentanone	---	---	---	---	---	---	---	<1.6	---
Acetone	---	---	---	---	---	---	---	200D	800
Benzene	---	---	---	---	---	---	---	<0.61	---
Bromodichloromethane	<0.23	<0.23	<0.22	<0.22	<0.46	<0.26	<0.22	<0.26	<0.45
Bromoform	<1.7	<1.7	<1.7	<1.7	<3.5	<2.0	<1.7	<2.0	<3.4
Bromomethane	<0.65	<0.65	<0.63	<0.64	<1.3	<0.76	<0.63	<0.75	<1.3
Carbontetrachloride	0.77	0.46	0.65	0.45	0.46	0.64	0.59	0.55	0.55
Chlorobenzene	<0.77	<0.77	<0.75	<0.76	<1.6	<0.90	<0.75	<0.90	<1.5
Chloroethane	<0.88	<0.88	<0.85	<0.86	<1.8	<1.0	<0.85	---	<1.8
Chloroform	<0.82	<0.82	<0.79	<0.80	<1.7	<0.95	<0.79	<0.95	<1.6
Chloromethane	0.95	1	1.1	0.86	<1.4	1.3	1.2	---	<1.4
cis-1,2-Dichloroethene	<0.66	<0.66	<0.65	<0.66	<1.3	<0.78	<0.65	<0.77	<1.3
cis-1,3-Dichloropropene	<1.5	<1.5	<1.5	<1.5	<3.1	<1.8	<1.5	<1.8	<3.0
Dibromochloromethane	<0.29	<0.29	<0.28	<0.28	<0.58	<0.33	<0.28	<0.33	<0.57
Dichloromethane	<0.57	<0.57	<0.56	<0.57	1.9	<0.67	<0.56	<0.60	<1.1
Ethylbenzene	---	---	---	---	---	---	---	<1.7	<2.9
Hexachlorobutadiene	---	---	---	---	---	---	---	<5.3	---
Methyltert-butylether	---	---	---	---	---	---	---	<1.4	---
Naphthalene	---	---	---	---	---	---	---	<3.5	---
Styrene	---	---	---	---	---	---	---	<1.7	---
Tetrachloroethene	7	1.1	5.2	0.9	4.2	1.1	1.1	1.9	0.67
Toluene	---	---	---	---	---	---	---	0.88	---
trans-1,2-Dichloroethene	<0.66	<0.66	<0.65	<0.66	<1.3	<0.78	<0.65	0.98	<1.3
Trans-1,3-Dichloropropene	<0.76	<0.76	<0.74	<0.75	<1.5	<0.88	<0.74	<0.88	<1.5
Trichloroethene	2.5	0.38	5	<0.089	0.19	0.12	<0.088	0.22	0.4
Trichlorofluoromethane	1.7	1.2	1.7	1.6	<1.9	1.7	1.4	---	<1.9
Vinyl chloride	<0.091	<0.091	<0.088	<0.089	<0.18	<0.11	<0.088	<0.11	<0.18
m/p-xylene	---	---	---	---	---	---	---	<3.4	<5.8
o-Xylene	---	---	---	---	---	---	---	<1.7	<2.9
Xylene (total)	---	---	---	---	---	---	---	<3.4	<5.8

Notes
< indicates chemical not detected, and concentration is less than reporting limit (value shown).
ug/m^3 = micrograms per cubic meter.
--- = Not Sampled
D = Result is from a diluted sample.
System Startup occurred in January 2010
(1) = sample collected following scheduled temporary SVE system shutdown from 2/27/12 to 3/5/12
(2) = sample collected following scheduled temporary SVE system shutdown from 4/3/14 to 4/29/14

Table 13
Operation and Maintenance Data
Building 5 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Date	BLDG5-SVE1		BLDG5-SVE2		BLDG5-SVE3		BLDG5-SVE4		BLDG5-SV1		BLDG5-SV2		BLDG5-SV3		BLDG5-SV4		BLDG5-SV5		BLDDG5-SV6		Carbon Influent	Carbon Midpoint	Carbon Effluent		VOC Off-gas Reduction (2)
	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	Vacuum ("wc)	VOC (ppm)	VOC (ppm)	VOC (ppm)	Total Vapor Flow (cfm)(1)	
10/7/2014	10.6	16.12	OFF	OFF	OFF	OFF	ND	15.39	ND	0	0.3	0.027	1	0.001	0	+0.001	ND	0.168	0.7	+0.028	0.8	ND	ND	160	>99%
10/15/2014	21.3	15.65	OFF	OFF	OFF	OFF	ND	10.47	9.9	0.001	7.3	0.032	11.6	0.004	2.5	+0.003	1.1	0.163	4	+0.027	2.4	1.9	0.5	160	79%
10/15/2014	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	ND	160	>99% (3)
10/23/2014	11.3	17.68	2.7	17.59	ND	17.01	OFF	OFF	---	---	---	---	---	---	---	---	---	---	---	---	2.8	ND	ND	152	>99%
11/11/2014	0.6	17.05	0.3	17.02	0.7	16.44	OFF	OFF	2.9	0.707	12	0.559	3.2	0.006	1.3	+0.002	4.9	0.143	3.9	0.146	0.2	ND	ND	152	>99%
11/25/2014	6.4	8.8	OFF	OFF	0.3	8.55	ND	6.03	---	---	---	---	---	---	---	---	---	---	---	---	0	ND	ND	168	>99%
12/9/2014	3.1	8.42	OFF	OFF	1.3	8.25	0.2	5.74	0.2	0.358	0.2	0.274	1.3	0.004	0.4	+0.034	0.4	0.104	1.9	+0.021	0.6	ND	ND	160	>99%
12/22/2014	5.5	6.95	ND	15.22	ND	6.77	ND	4.21	ND	0.299	5.2	0.241	0.8	0.004	0.3	+0.001	ND	0.130	0.8	0.021	0	ND	ND	160	>99%
1/5/2015	2.4	30.71	ND	30.55	OFF	OFF	OFF	OFF	3.2	0.001	ND	0.034	2.2	0.007	0.1	+0.11	1.1	0.224	4.2	0.266	0	ND	ND	113	>99%
1/9/2015	OFF	OFF	OFF	OFF	0.4	7.26	0.4	5.03	---	---	---	---	---	---	---	---	---	---	---	---	0.7	ND	ND	175	>99%
1/19/2015	3.7	7.07	OFF	OFF	0.6	6.82	ND	4.79	ND	0.302	ND	0.245	0.2	0.003	0	+0.002	0.1	0.064	4.4	+0.01	1.1	ND	ND	143	>99%
2/4/2015	3.2	6.98	OFF	OFF	ND	6.8	ND	6.65	ND	0.299	---	---	0.4	0.005	0	+0.004	ND	0.056	2.4	0.028	0	ND	ND	143	>99%
2/19/2015	2.4	12.81	0.4	12.83	0.8	12.43	OFF	OFF	---	---	---	---	---	---	---	---	---	---	---	---	0.4	ND	ND	134	>99%
3/4/2015	3.7	14.31	5.7	14.35	7.8	13.88	OFF	OFF	16.2	0.629	253	0.475	2.7	0.005	11.4	+0.007	46.1	0.111	78.6	0.123	6.1	0.1	ND	143	>99%
3/13/2015	1.6	15.43	0.2	15.47	0.6	14.99	OFF	OFF	---	---	---	---	---	---	---	---	---	---	---	---	1.4	ND	ND	143	>99%
3/25/2015	9.2	7.63	OFF	OFF	ND	7.41	ND	5.16	3.1	0.304	9.7	0.258	11.1	0.004	11	+0.001	6.8	0.070	7.3	0.013	0.4	ND	ND	152	>99%

Notes:
"wc = inches of water column
VOC = volatile organic compounds measured with a photoionization detector
ppm = parts per million
cfm = cubic feet per minute
(1) = Not adjusted for temperature
(2) = target off-gas VOC reduction is 95% per MassDEP policy (MADEP, 1994)
(3) = after carbon change out
--- = Not collected
ND = not detected above instrument detection limit (0.1 ppm)

TABLE 14
VOC Mass Removal Estimate Summary
Building 5 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Sample Date	Vapor Influent Concentration (ppm(v))	Flow (scfm)	Days Operational	VOC Mass Removal Rate (lb./day)	Total VOC Mass Removed (lb.)
10/7/2014	0.8	148	573	0.05	82.5
10/15/2014	2.4	148	581	0.12	83.4
10/23/2014	2.8	143	589	0.19	84.9
11/11/2014	0.2	142	608	0.11	87.0
11/25/2014	0.0	159	622	0.01	87.1
12/9/2014	0.6	153	636	0.02	87.4
12/22/2014	0.0	152	649	0.02	87.7
1/5/2015	0.0	104	663	0.00	87.7
1/9/2015	0.7	138	667	0.02	87.8
1/19/2015	1.1	137	677	0.06	88.5
2/4/2015	0.0	136	693	0.04	89.1
2/19/2015	0.4	128	706	0.01	89.3
3/4/2015	6.1	134	719	0.22	92.1
3/13/2015	1.4	135	728	0.26	94.5
3/25/2015	0.4	145	740	0.07	95.3

Notes:
ppm = parts per million
scfm = standard cubic feet per minute (see note 5)
lbs./day = pounds per day
lbs. = pounds
VOC = volatile organic compounds
1. Vapor influent concentrations as measured with a photoionization detector (PID).
2. Total VOC mass removed (lbs.) is calculated by multiplying the VOC Mass Removal Rate (lbs./day) on the sampling date by the # of operating days between visits.
3. VOC mass removal rate (lbs./day) = average VOC level between current and previous monitoring (ppm)/ 10E6 x 1 lbmole/379.4 cu ft. x (134lbs/lbmole) x flow (ft^3/min) x (1440 min/day)
4. 134 lbs./lbmole is the weighted average molecular weight of the primary contaminants in the soil vapor (93% Trichloroethene and 7% Tetrachloroethene based on analytical results from recovered soil vapor).
5. Flow rate (scfm) is calculated with the following equation: 128.8 x Flow coefficient (K) x pipe diameter^2 (in) x sqrt (psia x differential pressure (IWC)/(Temp (F) + 460) x Sp Gr @ 60°F)to adjust for system operating temperature

Table 15
Soil Vapor Analytical Results
Building 5 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG5-SVE-INF					BLDG5-SVE1							
	6/20/2013	11/5/2013	1/27/2014	5/15/2014	9/3/2014	9/8/2012	3/20/2013	6/20/2013	11/5/2013	1/27/2014	5/15/2014	9/3/2014	12/11/2014
CONSTITUENT (ug/m^3)	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	(8)
1,1,1-Trichloroethane	<24	<55	<24	<9.1	<1	<3400	<1400	<920	<1800	<450	<91	<11	<26
1,1,2,2-Tetrachloroethane	<6.0	<14	<5.9	<2.3	<1	<860	<360	<230	<450	<110	<23	<14	<32
1,1,2-Trichloroethane	<24	<55	<24	<9.1	<1	<3400	<1400	<920	<1800	<450	<91	<11	<26
1,1-Dichloroethane	<18	<41	<18	<6.8	<0.8	<2600	<1100	<690	<1400	<340	<68	<8	<19
1,1-Dichloroethene	<18	<41	<17	<6.7	<0.8	<2500	<1000	<670	<1300	<330	<67	<8	<19
1,2-Dibromoethane (EDB)	---	---	<6.7	<2.6	<2	---	---	---	---	<130	<26	<15	<36
1,2-Dichlorobenzene	---	---	<52	<20	<1	---	---	---	---	<1000	<200	<12	<28
1,2-Dichloroethane	<18	<41	<18	<6.8	<0.8	<2600	<1100	<690	<1400	<340	<68	<8	<19
1,2-Dichloropropane	<21	<47	<20	<7.7	<0.9	<2900	<1200	<780	<1500	<390	<77	<9	<22
1,3-Dichlorobenzene	---	---	<52	<20	<1	---	---	---	---	<1000	<200	<12	<28
1,4-Dichlorobenzene	---	---	<52	<20	<1	---	---	---	---	<1000	<200	<12	<28
1,4-Dioxane	---	---	<200	<76	---	---	---	---	---	<3800	<760	---	<17
2-Butanone	---	---	78	50	5	---	---	---	---	<490	<99	21	55
2-Hexanone	---	---	<18	<6.8	<0.8	---	---	---	---	<340	<68	<8	<19
4-Methyl-2-pentanone	---	---	<36	<14	<0.8	---	---	---	---	<680	<140	<8	<19
Acetone	440	530	240	130	13	<29000	<12000	<7700	<15000	<3800	<760	73	140
Benzene	---	---	<14	<5.3	<0.6	---	---	---	---	<260	<53	<6	<15
Bromodichloromethane	<6.0	<14	<5.9	<2.3	<1	<860	<360	<230	<450	<110	<23	<13	<32
Bromoform	<46	<110	<45	<17	<2	<6500	<2700	<1700	<3400	<860	<170	<21	<49
Bromomethane	<17	<40	<17	<6.5	<0.8	<2500	<1000	<660	<1300	<320	<65	<8	<18
Carbondisulfide	---	---	---	---	<0.6	---	---	---	---	---	---	<6	---
Carbontetrachloride	<2.8	<6.5	<2.8	<1.1	<1	<400	<170	<110	<210	<53	<11	<13	<30
Chlorobenzene	<21	<47	<20	<7.7	<0.9	<2900	<1200	<780	<1500	<390	<77	<9	<22
Chloroethane	<23	<53	---	---	<0.5	<3300	<1400	<890	<1800	---	---	<5	---
Chloroform	<22	<50	<21	<8.2	<1	<3100	<1300	<830	<1600	<410	<82	<10	<23
Chloromethane	<18	<41	---	---	<0.4	<2600	<1100	<690	<1400	---	---	<4	---
cis-1,2-Dichloroethene	52	90	42	73	14	<2500	<1000	970	<1300	430	230	300	120
cis-1,3-Dichloropropene	<40	<92	<39	<15	<0.9	<5700	<2400	<1500	<3000	<760	<150	<9	<22
Dibromochloromethane	<7.7	<18	<7.5	<2.9	<2	<1100	<450	<290	<570	<140	<29	<17	<40
Dichloromethane	<15	<35	<15	<5.8	6	14000	<910	<580	<1100	<290	<58	27	40
Ethylbenzene	<38	---	<37	<14	<0.9	<5400	<2300	<1500	---	<720	<140	<9	<21
Freon 113	---	---	---	---	2	---	---	---	---	---	---	40	---
Hexachlorobutadiene	---	---	<120	<45	---	---	---	---	---	<2300	<460	---	<50
Methyltert-butylether	---	---	<31	<12	<0.7	---	---	---	---	<600	<120	<7	<17
Naphthalene	---	---	<79	<30	---	---	---	---	---	<1500	<300	---	<25
Styrene	---	---	<37	<14	<0.8	---	---	---	---	<710	<140	<8	<20
Tetrachloroethene	300	1100	320	280	140	26000	8800	5800	18000	3900	920	3000	240
Toluene	---	---	<16	<6.2	<0.8	---	---	---	---	<310	<62	<8	<18
trans-1,2-Dichloroethene	<18	<41	<17	<6.7	<0.8	<2500	<1000	<670	<1300	<330	<67	<8	<19
Trans-1,3-Dichloropropene	<20	<46	<20	<7.6	<0.9	<2900	<1200	<770	<1500	<380	<76	<9	<22
Trichloroethene	2500D	6100D	1300	960D	390	240000	98000	70000	150000	35000	9900D	30000	4400
Trichlorofluoromethane	<25	<57	---	---	2 J	<3600	<1500	<950	<1900	---	---	<11	---
Vinyl Acetate	---	---	---	---	<0.7	---	---	---	---	---	---	<7	---
Vinyl chloride	<2.4	<5.5	<2.4	<0.91	<0.5	<340	<140	<92	<180	<45	<9.1	<5	<12
m/p-xylene	<77	---	<75	<29	<2	<11000	<4600	<2900	---	<1400	<290	<17	<41
o-Xylene	<38	---	<37	<14	<0.9	<5400	<2300	<1500	---	<720	<140	<9	<21
Xylene (total)	<38	---	<75	<29	<2	<11000	<4600	<2900	---	<1400	<290	<17	<41

Table 15
Soil Vapor Analytical Results
Building 5 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

	BLDG5-SVE2								BLDG5-SVE3				BLDG5-SVE4	
	9/8/2012	3/20/2013	6/20/2013	11/5/2013	1/27/2014	5/13/2014	9/3/2014	12/11/2014	6/20/2013	11/5/2013	1/27/2014	12/11/2014	9/3/2014	12/11/2014
CONSTITUENT (ug/m^3)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(3)	(4)	(5)	(8)	(7)	(8)
1,1,1-Trichloroethane	<71	<32	<10	<10	7.8	5.1	<1	2	<30	<20	<12	<1	<1	<1
1,1,2,2-Tetrachloroethane	<18	<7.9	<2.5	<2.6	<1.2	<1.2	<1	<1	<7.4	<5.1	<3.1	<1	<1	<1
1,1,2-Trichloroethane	<71	<32	<10	<10	<5.0	<4.7	<1	<1	<30	<20	<12	<1	<1	<1
1,1-Dichloroethane	<53	<24	<7.6	<7.7	<3.7	<3.5	<0.8	0.9	<22	<15	<9.2	<0.8	<0.8	<0.8
1,1-Dichloroethene	<52	<23	<7.5	<7.5	<3.7	<3.4	<0.8	<0.8	<22	<15	<9.0	<0.8	<0.8	<0.8
1,2-Dibromoethane (EDB)	---	---	---	---	<1.4	<1.3	<2	<2	---	---	<3.5	<2	<2	<2
1,2-Dichlorobenzene	---	---	---	---	<11	<10	<1	<1	---	---	<27	<1	<1	<1
1,2-Dichloroethane	<53	<24	<7.6	<7.7	<3.7	<3.5	<0.8	<0.8	<22	<15	<9.2	<0.8	<0.8	<0.8
1,2-Dichloropropane	<60	<27	<8.7	<8.7	<4.2	<4.0	<0.9	<0.9	<25	<17	<10	<0.9	<0.9	<0.9
1,3-Dichlorobenzene	---	---	---	---	<11	<10	<1	<1	---	---	<27	<1	<1	<1
1,4-Dichlorobenzene	---	---	---	---	<11	<10	<1	<1	---	---	<27	<1	<1	<1
1,4-Dioxane	---	---	---	---	<42	<39	---	<0.7	---	---	<100	35	---	<0.7
2-Butanone	---	---	---	---	53	51	10	34	---	---	130	90	16	71
2-Hexanone	---	---	---	---	<3.7	<3.5	<0.8	<0.8	---	---	<9.2	<0.8	<0.8	<0.8
4-Methyl-2-pentanone	---	---	---	---	<7.5	13	2	6	---	---	18	13	2	9
Acetone	790	790	380	310	82	90	15	56	1000	750	330	320E	40	150E
Benzene	---	---	---	---	<2.9	<2.7	<0.6	<0.6	---	---	<7.2	0.9	<0.6	0.7
Bromodichloromethane	<18	<7.9	<2.5	<2.6	<1.2	<1.2	<1	<1	<7.4	<5.1	<3.1	<1	<1	<1
Bromoform	<130	<60	<19	<19	<9.5	<8.9	<2	<2	<57	<38	<23	<2	<2	<2
Bromomethane	<51	<23	<7.3	<7.3	<3.6	<3.3	<0.8	<0.8	<21	<15	<8.8	<0.8	<0.8	<0.8
Carbondisulfide	---	---	---	---	---	---	<0.6	---	---	---	---	---	<0.6	---
Carbontetrachloride	<8.3	<3.7	<1.2	<1.2	<0.58	<0.54	<1	<1	<3.5	<2.4	<1.4	<1	<1	<1
Chlorobenzene	<60	<27	<8.7	<8.7	<4.2	<4.0	<0.9	<0.9	<25	<17	<10	<0.9	<0.9	<0.9
Chloroethane	<68	<31	<9.8	<9.9	---	---	<0.5	---	<29	<20	---	---	<0.5	---
Chloroform	<64	<28	<9.2	<9.2	<4.5	<4.2	<1	<1	<27	<18	<11	<1	<1	1
Chloromethane	<53	<24	<7.6	<7.7	---	---	<0.4	---	<22	<15	---	---	<0.4	---
cis-1,2-Dichloroethene	<52	<23	47	120	68	53	9	32	<22	<15	<9.0	4	<0.8	13
cis-1,3-Dichloropropene	<120	<53	<17	<17	<8.3	<7.8	<0.9	<0.9	<50	<34	<20	<0.9	<0.9	<0.9
Dibromochloromethane	<22	<10	<3.2	<3.2	<1.6	<1.5	<2	<2	<9.4	<6.4	<3.9	<2	<2	<2
Dichloromethane	<45	<20	<6.4	<6.5	<3.2	<3.0	5	5	<19	<13	<7.8	3	5	62
Ethylbenzene	<110	<50	<16	---	<7.9	<7.4	<0.9	1	<47	---	<19	1	<0.9	1
Freon 113	---	---	---	---	---	---	<2	---	---	---	---	---	<2	---
Hexachlorobutadiene	---	---	---	---	<25	<23	---	<2	---	---	<61	<2	---	<2
Methyltert-butylether	---	---	---	---	<6.6	<6.1	<0.7	<0.7	---	---	<16	<0.7	<0.7	0.9
Naphthalene	---	---	---	---	<17	<16	---	<1	---	---	<41	<1	---	<1
Styrene	---	---	---	---	<7.8	<7.3	<0.8	<0.8	---	---	<19	<0.8	<0.8	<0.8
Tetrachloroethene	1700	110	140	250	350	200	86	70	74	420	160	18	59	12
Toluene	---	---	---	---	<3.4	<3.2	<0.8	2	---	---	<8.4	4	<0.8	3
trans-1,2-Dichloroethene	<52	<23	<7.5	<7.5	<3.7	<3.4	<0.8	<0.8	<22	<15	<9.0	<0.8	<0.8	<0.8
Trans-1,3-Dichloropropene	<59	<26	<8.5	<8.5	<4.2	<3.9	<0.9	<0.9	<25	<17	<10	<0.9	<0.9	<0.9
Trichloroethene	5800	330	190	270	310	260	40	87	220	1100	430	68	7	10
Trichlorofluoromethane	<73	<33	<11	<11	---	---	2	---	<31	<21	---	---	2	---
Vinyl Acetate	---	---	---	---	---	---	0.9	---	---	---	---	---	<0.7	---
Vinyl chloride	<7.1	<3.2	<1.0	<1.0	1.7	<0.47	<0.5	2	<3.0	<2.0	<1.2	<0.5	<0.5	2
m/p-xylene	<230	<100	<32	---	<16	<15	<2	5	<95	---	<39	5	<2	4
o-Xylene	<110	<50	<16	---	<7.9	<7.4	<0.9	1	<47	---	<19	2	<0.9	1
Xylene (total)	<230	<100	<32	---	<16	<15	<2	6	<47	---	<39	7	<2	5

Notes: ug/m3 = micrograms per cubic meter.
<3.1 = not detected above listed detection limit.
--- = constituent not analyzed
(1) sample collected during pilot testing
(2) collected on day seven of system operation
(3) collected on day 101 of system operation
(4) collected on day 239 of system operation
(5) collected on day 320 of system operation
(6) collected on day 428 of system operation
(7) collected on day 539 of system operation
(8) collected on day 638 of system operation
E - Estimated
D- Diluted

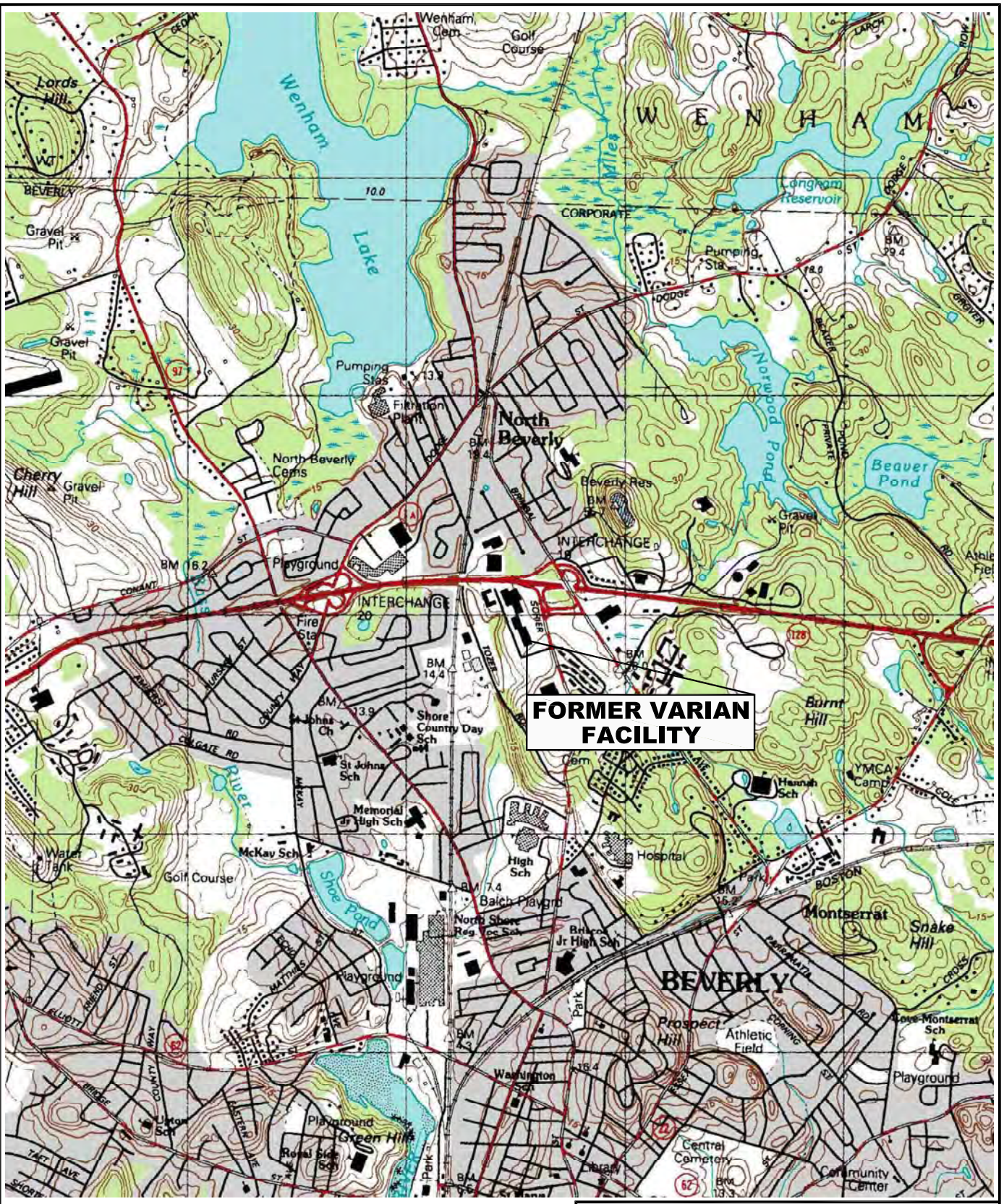
Table 16
Sub-Slab Soil Vapor and Indoor Air Analytical Results
32 Tozer Road
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

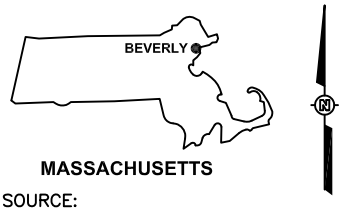
	32 TOZER-1					32 TOZER-2					32 TOZER-3					MassDEP
CONSTITUENT (ug/m3)	**5/28/2013 Indoor Air**	**10/24/2013 Indoor Air**	**2/6/2014 Indoor Air**	**4/17/2014 Indoor Air**	**10/20/2014 Indoor air**	**5/28/2013 Indoor Air**	**10/24/2013 Indoor Air**	**2/6/2014 Indoor Air**	**4/17/2014 Indoor Air**	**10/20/2014 Indoor air**	**5/28/2013 Indoor Air**	**10/24/2013 Indoor Air**	**2/6/2014 Indoor Air**	**4/17/2014 Indoor Air**	**10/20/2014 Indoor air**	**Commercial/ Industrial Indoor Air Threshold Value (1)**
1,1,1-Trichloroethane	<0.94	<1.2	<0.95	<0.93	<1	<1.0	<0.99	<0.99	<0.94	<1	<0.98	<1.0	<0.92	<0.86	<1	4,600
1,1-Dichloroethane	<0.71	<0.92	<0.71	<0.70	<0.8	<0.76	<0.74	<0.74	<0.70	<0.8	<0.74	<0.77	<0.69	<0.65	<0.8	440
1,1-Dichloroethene	<0.69	<0.90	<0.70	<0.68	<0.8	<0.74	<0.73	<0.73	<0.69	<0.8	<0.72	<0.76	<0.67	<0.63	<0.8	180
cis-1,2-Dichloroethene	**1.5**	**3.3**	**1.3**	**3.9**	<0.8	**1.8**	**2.2**	**1.1**	**1.7**	**1**	<0.72	<0.76	<0.67	<0.63	<0.8	31
Tetrachloroethene	**6.5**	**11**	**6.6**	**18**	**2**	**12**	**3.9**	**1.3**	**3.8**	**2**	<0.13	**0.33**	**0.25**	**0.26**	<1	4.1
trans-1,2-Dichloroethene	<0.69	<0.90	<0.70	<0.68	<0.8	<0.74	<0.73	<0.73	<0.69	<0.8	<0.72	<0.76	<0.67	<0.63	<0.8	62
Trichloroethene	**0.96**	**1.5**	**0.81**	**1.9**	<1	**1.3**	**0.67**	**0.29**	**0.55**	<1	<0.098	<0.10	**0.092**	<0.086	<1	1.8
Vinyl chloride	<0.094	<0.12	<0.095	<0.093	<0.5	<0.10	<.099	<0.099	<0.094	<0.5	<0.098	<0.10	<0.092	<0.086	<0.5	1.3

	32 TOZER-SV3					32 TOZER-SV4					32 TOZER-SV5					MassDEP
CONSTITUENT (ug/m3)	**5/28/2013 Soil Vapor**	**10/24/2013 Soil Vapor**	**2/6/2014 Soil Vapor**	**4/17/2014 Soil Vapor**	**10/20/2014 Soil Vapor**	**5/28/2013 Soil Vapor**	**10/24/2013 Soil Vapor**	**2/6/2014 Soil Vapor**	**4/17/2014 Soil Vapor**	**10/20/2014 Soil Vapor**	**5/28/2013 Soil Vapor**	**10/24/2013 Soil Vapor**	**2/6/2014 Soil Vapor**	**4/17/2014 Soil Vapor**	**10/20/2014 Soil Vapor**	**Commercial/ Industrial Sub-Slab Soil Gas Screening**
1,1,1-Trichloroethane	<270	<110	<110	<370	<1	<20	<5.0	<7.2	<0.83	<1	<20	<1.3	<1.2	<0.91	<1	320,000
1,1-Dichloroethane	<210	<79	<80	<280	**2**	<15	<3.7	<5.4	**0.8**	<0.8	<15	<0.95	<0.87	<0.68	<0.8	31,000
1,1-Dichloroethene	<200	<77	<79	<270	<0.8	<15	<3.7	<5.3	<0.61	<0.8	<15	<0.93	<0.85	<0.67	<0.8	13,000
cis-1,2-Dichloroethene	**8,900**	**3,100**	**4,300**	**17,000**	**640**	**130**	**80**	**83**	**45**	**21**	**38**	**7.9**	<0.85	<0.67	**1**	2,200
Tetrachloroethene	**8,600**	**8,100**	**7,600**	**14,000**	**5**	**300**	**610**	**460**	**160**	**10**	**32**	**24**	**1.3**	**1.4**	<1	290
trans-1,2-Dichloroethene	<200	<77	<79	<270	**3**	<15	<3.7	<5.3	<0.61	<0.8	<15	<0.93	<0.85	<0.67	<0.8	4,300
Trichloroethene	**6,100**	**1,500**	**1,900**	**4,500**	**61**	**150**	**68**	**70**	**37**	**10**	**15**	**4.8**	**0.45**	**0.41**	<1	130
Vinyl chloride	<27	<11	<11	<37	<0.5	<2.0	**1.7**	**2.2**	**1.2**	**1**	<2.0	<0.13	<0.12	<0.091	<0.5	91

Notes:
(1) Massachusetts DEP December 2011 Interim Final Vapor Intrusion Guidance (WSC-11-435) Table I.2 Commercial/Industrial Indoor Air Threshold Values (updated 3/7/13)
(2) Massachusetts DEP December 2011 Interim Final Vapor Intrusion Guidance (WSC-11-435) Table II.2 Commercial/Industrial Sub-Slab Soil Gas Screening Values (updated 3/7/13).
Detections are shown in bold.
ug/m3 = Micrograms per cubic meter.
<3.1 = not detected above listed detection limit.
Shaded = Result exceeds applicable Massachusetts DEP threshold or screening value

FIGURES





SOURCE:

USGS 7.5 MIN. SERIES TARGET QUAD, 1985
SCALE: 1:25,000
X = 250750 m
Y = 925017 m
MA STATE PLANE GRID (meters)

CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 1
SITE LOCATION MAP

FORMER VARIAN FACILITY
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

OFFICE	DRAWN BY		CHECKED BY		APPROVED BY		DRAWING NUMBER
CANTON, MA	CD	04/02/14	RC	04/02/14	--	--	139340-01SITELOC

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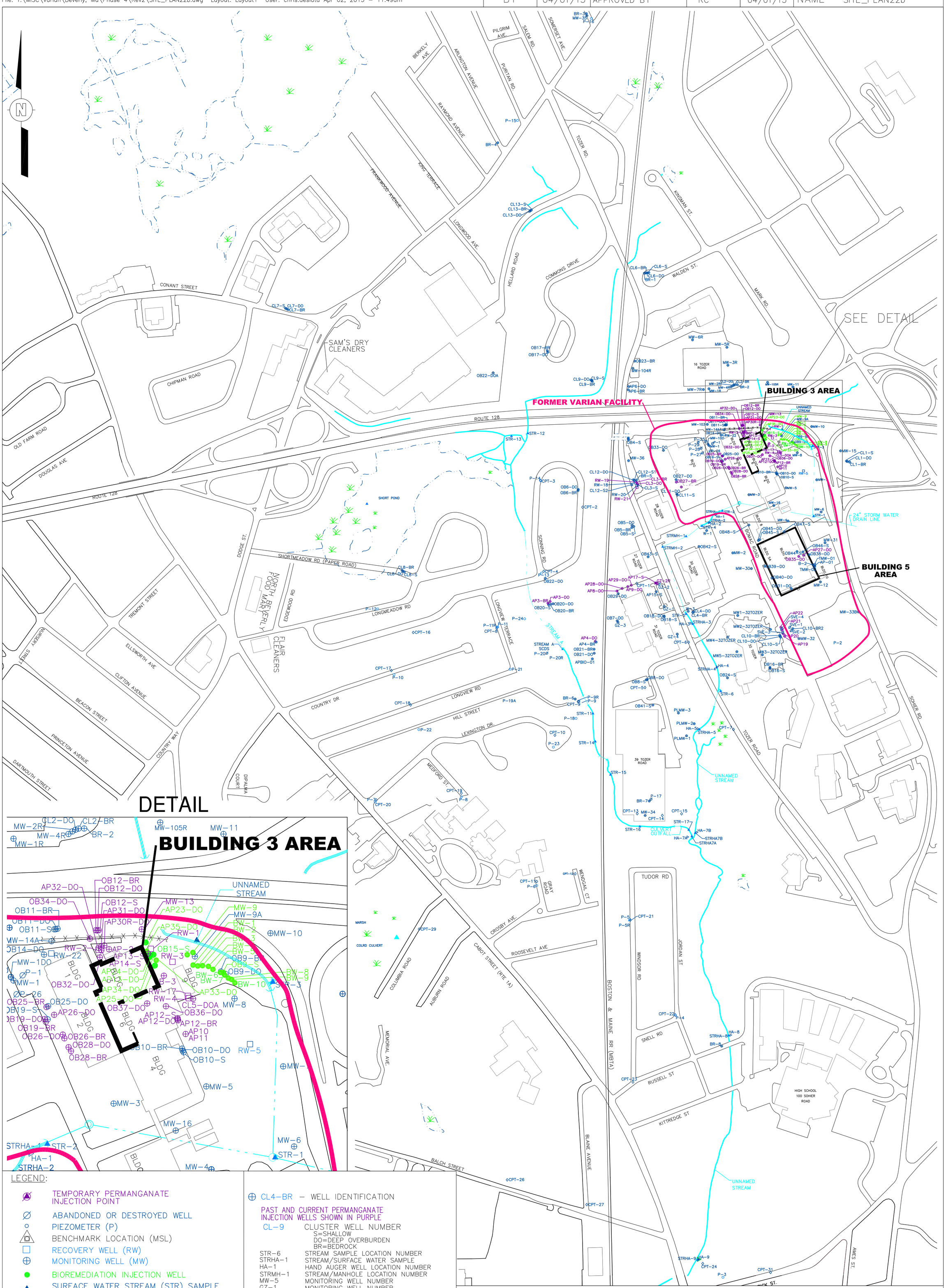
	04/01/15	APPROVED BY	RC	04/01/15	



LEGEND:

- TEMPORARY PERMANGANATE INJECTION POINT
- ABANDONED OR DESTROYED WELL
- PIEZOMETER (P)
- BENCHMARK LOCATION (MSL)
- RECOVERY WELL (RW)
- MONITORING WELL (MW)
- BIOREMEDIATION INJECTION WELL
- SURFACE WATER STREAM (STR) SAMPLE LOCATION
- CONE PENETROMETER TESTPOINT (CPT)
- HAND AUGER SAMPLE LOCATION (HA) ADJACENT TO A STREAM (STRHA)
- STRMH MANHOLE ACCESS TO THE STREAM LOCATED WITHIN A CULVERT
- APPROXIMATE BUILDING LOCATION
- APPROXIMATE DRAIN MANHOLE LOCATION
- APPROXIMATE LOCATION OF STREAM IN CULVERT
- APPROXIMATE STREAM LOCATION
- WATER AND MARSH AREA

CL4-BR – WELL IDENTIFICATION

PAST AND CURRENT PERMANGANATE INJECTION WELLS SHOWN IN PURPLE

CL-9 CLUSTER WELL NUMBER
S=SHALLOW
DO=DEEP OVERBURDEN
BR=BEDROCK

STR-6	STREAM SAMPLE LOCATION NUMBER
STRHA-1	STREAM/SURFACE WATER SAMPLE
HA-1	HAND AUGER WELL LOCATION NUMBER
STRMH-1	STREAM/MANHOLE LOCATION NUMBER
MW-5	MONITORING WELL NUMBER
GZ-1	MONITORING WELL NUMBER
PLMW-1	MONITORING WELL NUMBER
BR-1	BEDROCK WELL NUMBER

BEDROCK WELLS BR-1 THROUGH BR-8 AND CL9-BR HAVE MULTILEVEL GROUNDWATER MONITORING SYSTEMS PRESENT WITHIN THE BEDROCK. ZONE 1 REFERS TO THE DEEPEST SAMPLING ZONE, ZONE 2 REFERS IS THE MIDDLE SAMPLING INTERVAL, AND ZONE 3 CLOSEST TO THE GROUND SURFACE.

THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004; 2005, JULY 2012, MAY 2014, FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.

FIGURE 2
EXPANDED SITE PLAN
FORMER VARIAN FACILITY SITE – BEVERLY, MA.

PREPARED FOR: VARIAN MEDICAL FACILITY, INC.
PALO ALTO, CALIFORNIA

SCALE 0 250 500 FEET

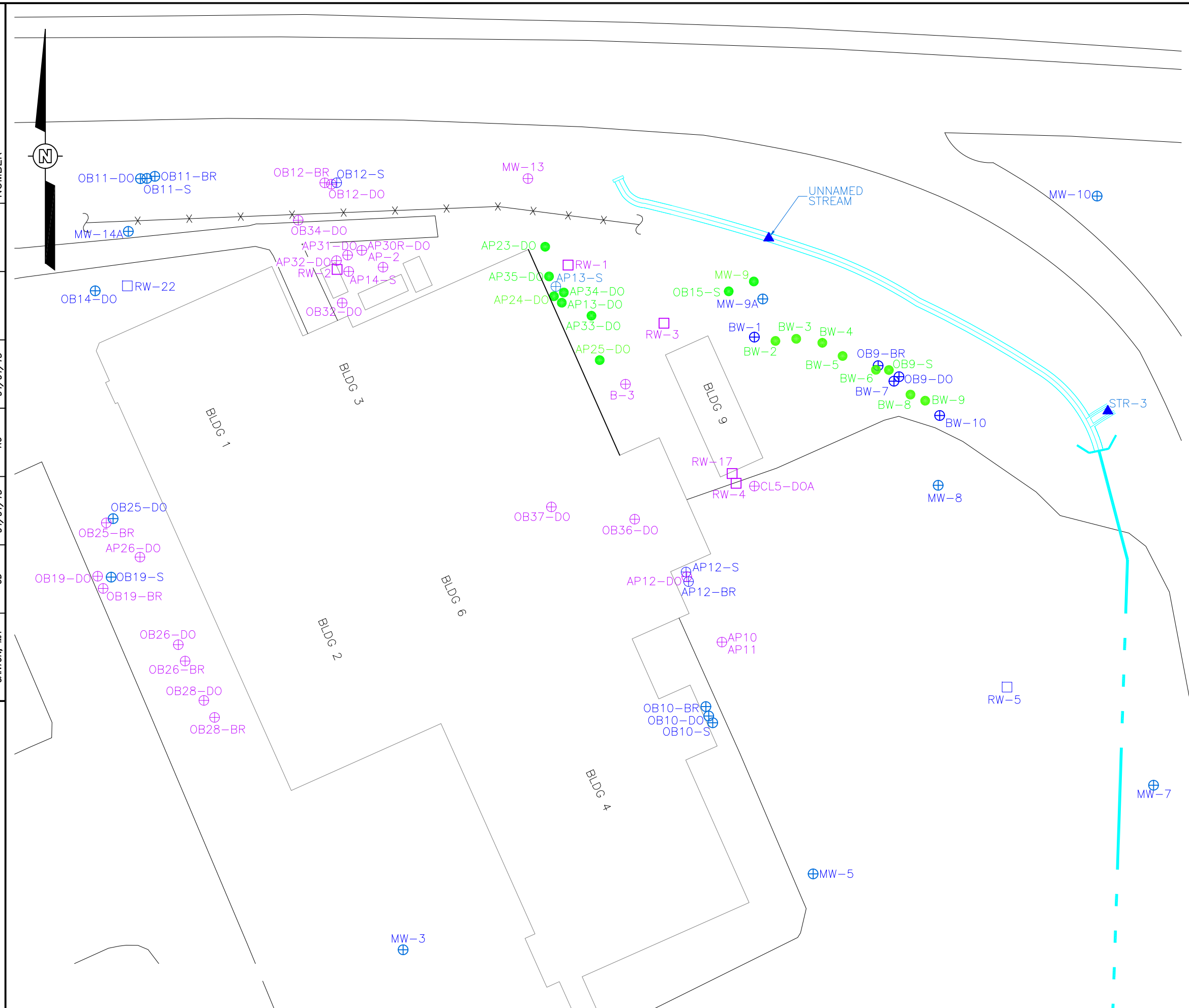
DRAFTED BY: CD

DATE: 1 APRIL 2015

PROJECT NO.: 152780

PREPARED BY:

CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.



LEGEND

- APPROXIMATE BUILDING LOCATION
- APPROXIMATE LOCATION OF STREAM IN CULVERT
- APPROXIMATE STREAM LOCATION
- RECOVERY WELL (RW)
- MONITORING WELL (MW)
- BIOREMEDIATION INJECTION WELL SHOWN IN GREEN (PERMAGANATE INJECTION WELLS SHOWN IN PURPLE)
- SURFACE WATER STREAM (STR) SAMPLE LOCATION
- CL4-BR – WELL IDENTIFICATION

CL-9	CLUSTER WELL NUMBER S=SHALLOW DO=DEEP OVERBURDEN BR=BEDROCK
STR-6	STREAM SAMPLE LOCATION NUMBER
STRHA-1	STREAM/SURFACE WATER SAMPLE
HA-1	HAND AUGER WELL LOCATION NUMBER
STRMH-1	STREAM/MANHOLE LOCATION NUMBER
MW-5	MONITORING WELL NUMBER
GZ-1	MONITORING WELL NUMBER
PLMW-1	MONITORING WELL NUMBER
BR-1	BEDROCK WELL NUMBER

BEDROCK WELLS BR-1 THROUGH BR-8 AND CL9-BR HAVE MULTILEVEL GROUNDWATER MONITORING SYSTEMS PRESENT WITHIN THE BEDROCK. ZONE 1 REFERS TO THE DEEPEST SAMPLING ZONE, ZONE 2 REFERS IS THE MIDDLE SAMPLING INTERVAL, AND ZONE 3 CLOSEST TO THE GROUND SURFACE.

THIS MAP HAS BEEN COMPILED FROM SURVEY DATA COLLECTED IN JULY 1994, MARCH 1995, OCTOBER 1995, SEPTEMBER 1996, MARCH 1997, DECEMBER 1997, SEPTEMBER 1998, JANUARY 2000, FEBRUARY 2001, JUNE 2002, SEPTEMBER 2002, JULY 2003, FEBRUARY 2004, OCTOBER 2004; 2005, JULY 2012, MAY 2014 FROM VARIOUS EXISTING PLANS, AND OBSERVATIONS MADE IN THE FIELD BY CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.

SCALE

0 50 100 FEET

CB&I ENVIRONMENTAL & AND INFRASTRUCTURE, INC.
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 3
BIOREMEDIATION
INJECTION WELL LOCATIONS
VARIAN MEDICAL SYSTEMS, INC.
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
CANTON, MA	CD 04/01/15	RC 04/01/15	-- --	BUILDING9_SITE_PLAN_rev1

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Plotted By: chris.desiata

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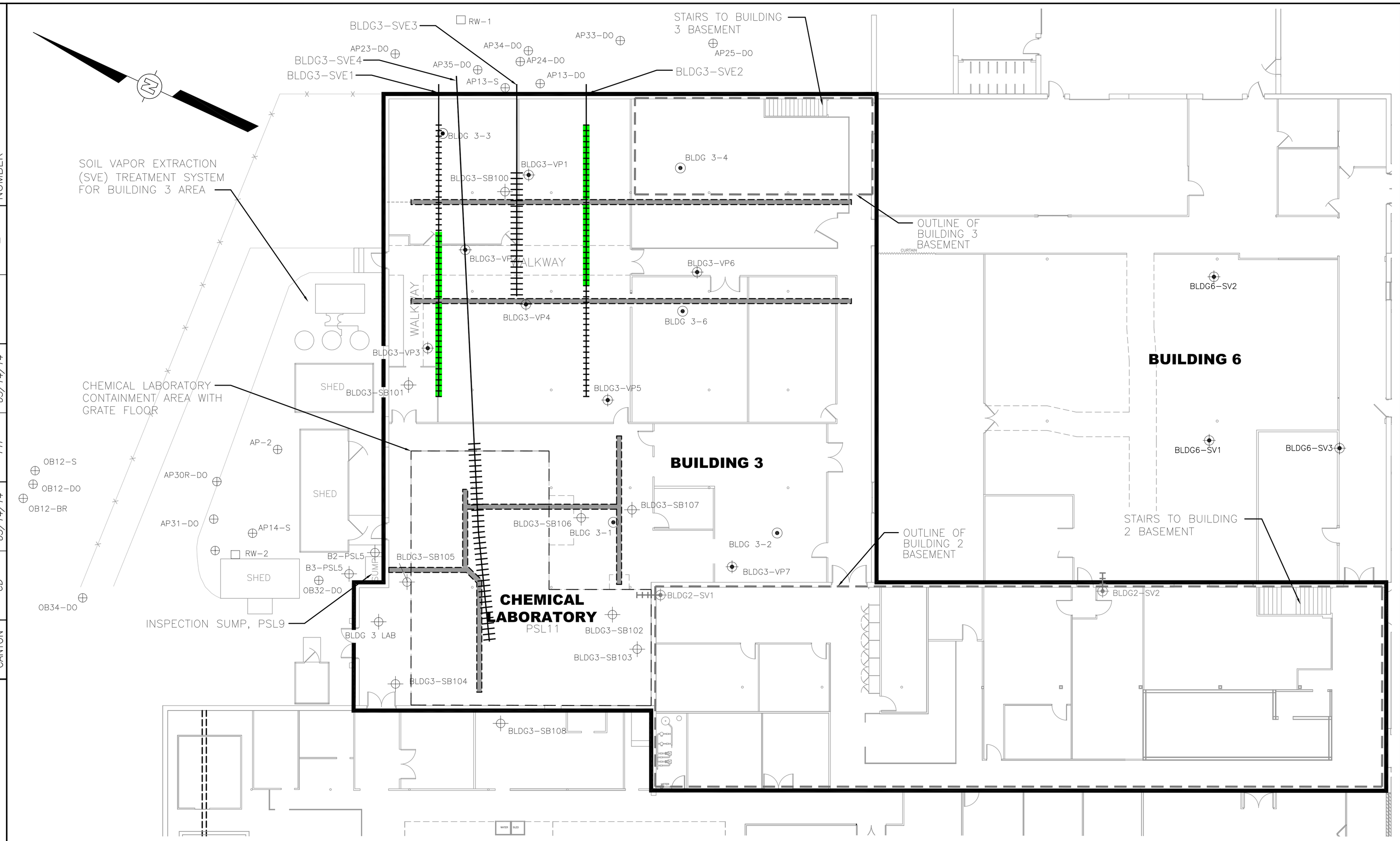
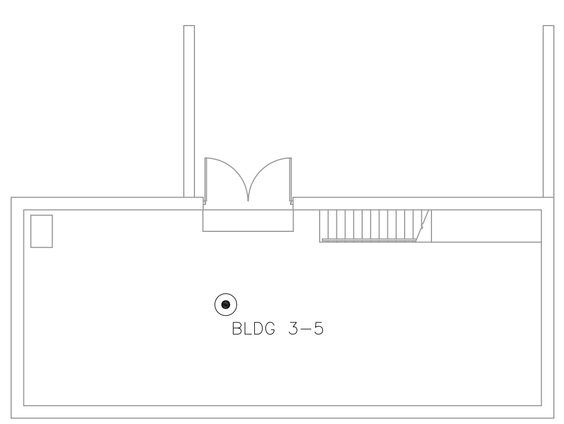


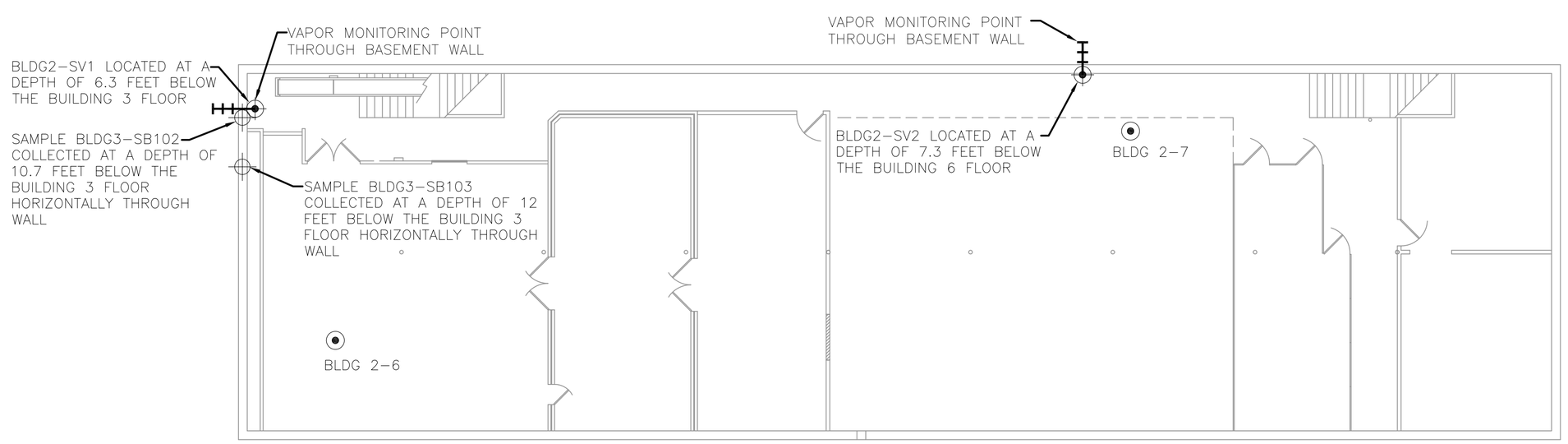
LEGEND

- BUILDING 3 TREATMENT AREA
- HORIZONTAL SOIL VAPOR EXTRACTION (SVE) WELL LOCATION
- PORTION (SHADED) OF HORIZONTAL SOIL VAPOR EXTRACTION (SVE) WELL SEAL WITH PACKER INSTALLED
- SUB-SLAB SOIL VAPOR MONITORING POINT
- SOIL BORING LOCATION
- INDOOR AIR SAMPLE LOCATION
- MONITORING WELL
- RECOVERY WELL
- BUILDING COLUMNS
- UTILITY TRENCH
- FORMER UTILITY TRENCH-FILLED WITH CONCRETE
- BUILDING WALLS
- FENCE LINE
- PSL — POTENTIAL SOURCE LOCATION AS DESCRIBED IN PHASE II CSA FOR RTN 3-0485

INDOOR AIR SAMPLE ID	ROOM
BLDG 2-6	ENVIRONMENTAL TESTING ROOM BUILDING 2 BASEMENT
BLDG 2-7	STORAGE ROOM BUILDING 2 BASEMENT
BLDG 3-1	MAIN CHEMICAL LABORATORY
BLDG 3-2	CHEMISTRY LABORATORY BENCH TESTING ROOM
BLDG 3-3	MID STOCK ROOM
BLDG 3-4	BUILDING 3 MACHINE SHOP
BLDG 3-5	BOILER ROOM BUILDING 3 BASEMENT
BLDG 3-6	BUILDING 3 STORAGE ROOM



BUILDING 3 BASEMENT



BUILDING 2 BASEMENT

SCALE
0 10 20 30 FEET

REFERENCE:
PLAN DERIVED FROM CPI COMMUNICATIONS & POWER INDUSTRIES, BEVERLY MICROWAVE DIVISION, AND CB&I ENVIRONMENTAL FIELD RECONNAISSANCE.

CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 4
BUILDING 3 REMEDIAL TREATMENT AREA SAMPLE LOCATIONS
FORMER VARIAN FACILTIY SITE
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

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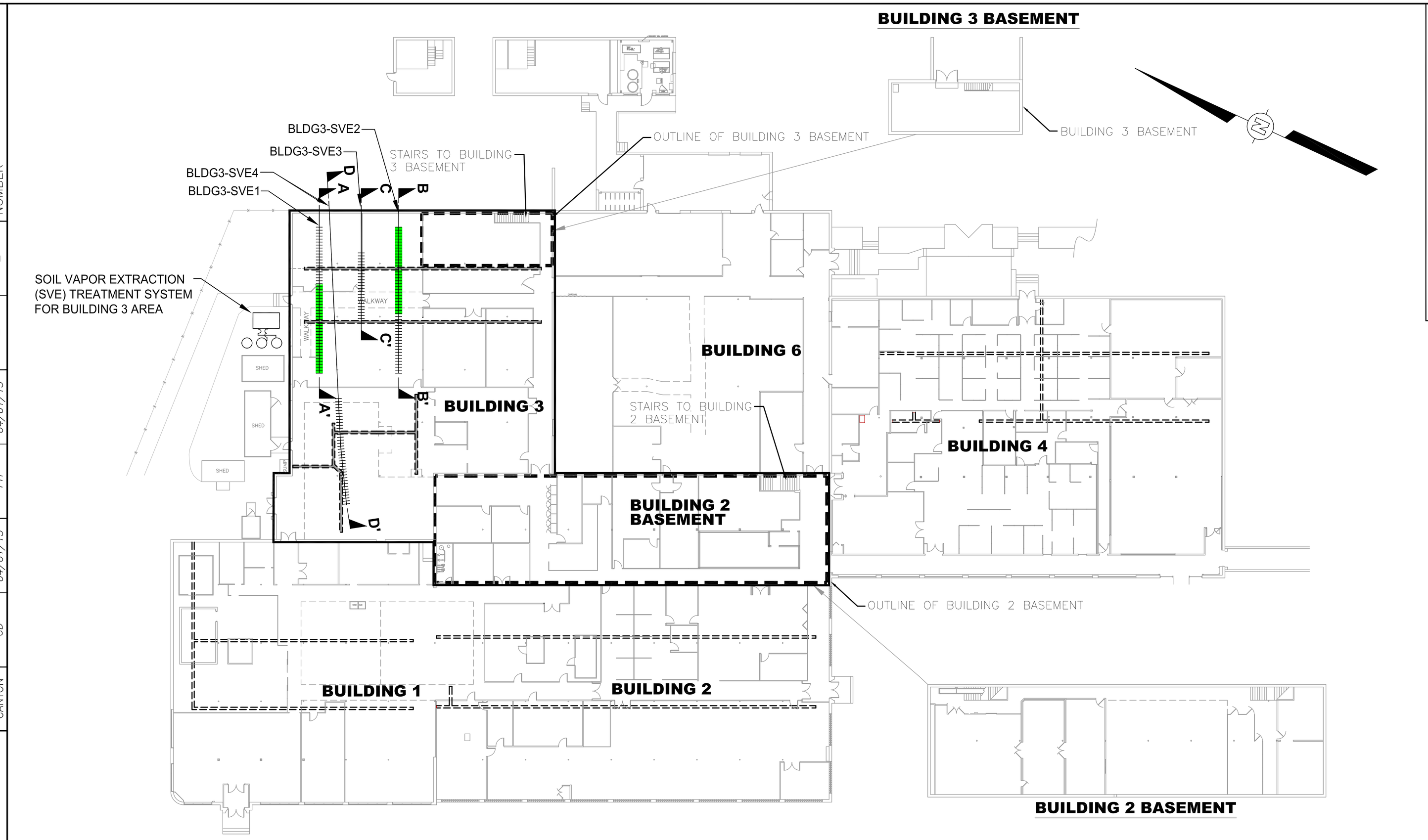
Plotted By: chris.desiato

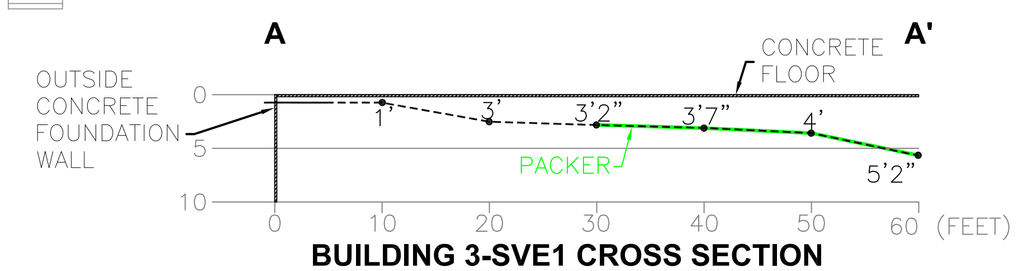


LEGEND

- BUILDING 3 TREATMENT AREA (INCLUDES BUILDING 2 BASEMENT)
- HORIZONTAL SOIL VAPOR EXTRACTION (SVE) WELL OPEN TO EXTRACTION
- PORTION OF HORIZONTAL SOIL VAPOR EXTRACTION (SVE) WELL SEALED WITH PACKERS
- BUILDING COLUMNS
- UTILITY TRENCH
- FORMER UTILITY TRENCH– FILLED WITH CONCRETE
- BUILDING WALLS
- FENCE LINE

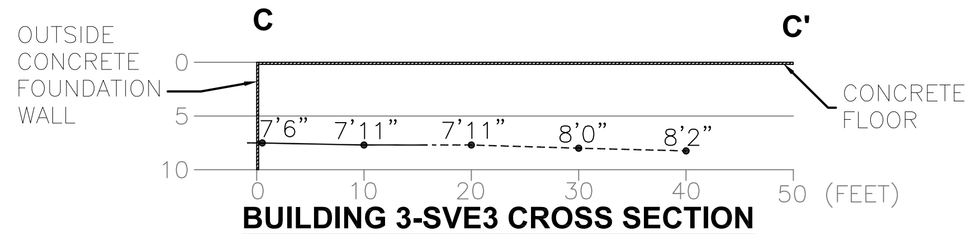
SCALE 0 20 40 60 FEET

BUILDING 2 BASEMENT



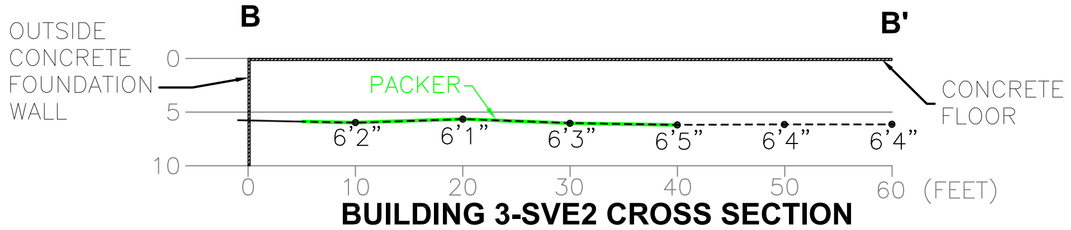
BUILDING 3-SVE1 CROSS SECTION WELL CONSTRUCTION

55' OF 2" 0.010 SLOT SCHEDULE 80 PVC 5' OF 2" SCHEDULE 80 PVC, (3'7") DEPTH OF WELL BENEATH FLOOR
PACKER INSTALLED 30'–60' FROM WELL HEAD



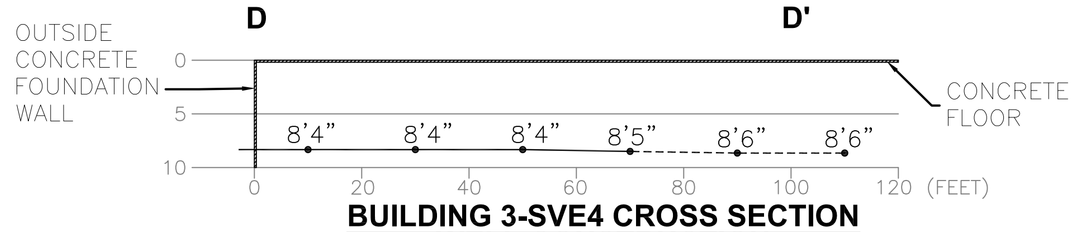
BUILDING 3-SVE3 CROSS SECTION WELL CONSTRUCTION

25' OF 3" 0.010 SLOT SCHEDULE 80 PVC 25' of 3" SCHEDULE 80 PVC (8') DEPTH OF WELL BENEATH FLOOR



BUILDING 3-SVE2 CROSS SECTION WELL CONSTRUCTION

55' OF 2" 0.010 SLOT SCHEDULE 80 PVC 5' of 2" SCHEDULE 80 PVC (6'3") DEPTH OF WELL BENEATH FLOOR
PACKER INSTALLED 21'–41' FROM WELL HEAD



BUILDING 3-SVE4 CROSS SECTION WELL CONSTRUCTION

40' OF 3" 0.010 SLOT SCHEDULE 80 PVC 70' of 3" SCHEDULE 80 PVC (8.5') DEPTH OF WELL BENEATH FLOOR

REFERENCE:
PLAN DERIVED FROM CPI COMMUNICATIONS & POWER INDUSTRIES, BEVERLY MICROWAVE DIVISION, AND CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC. FIELD RECONNAISSANCE.

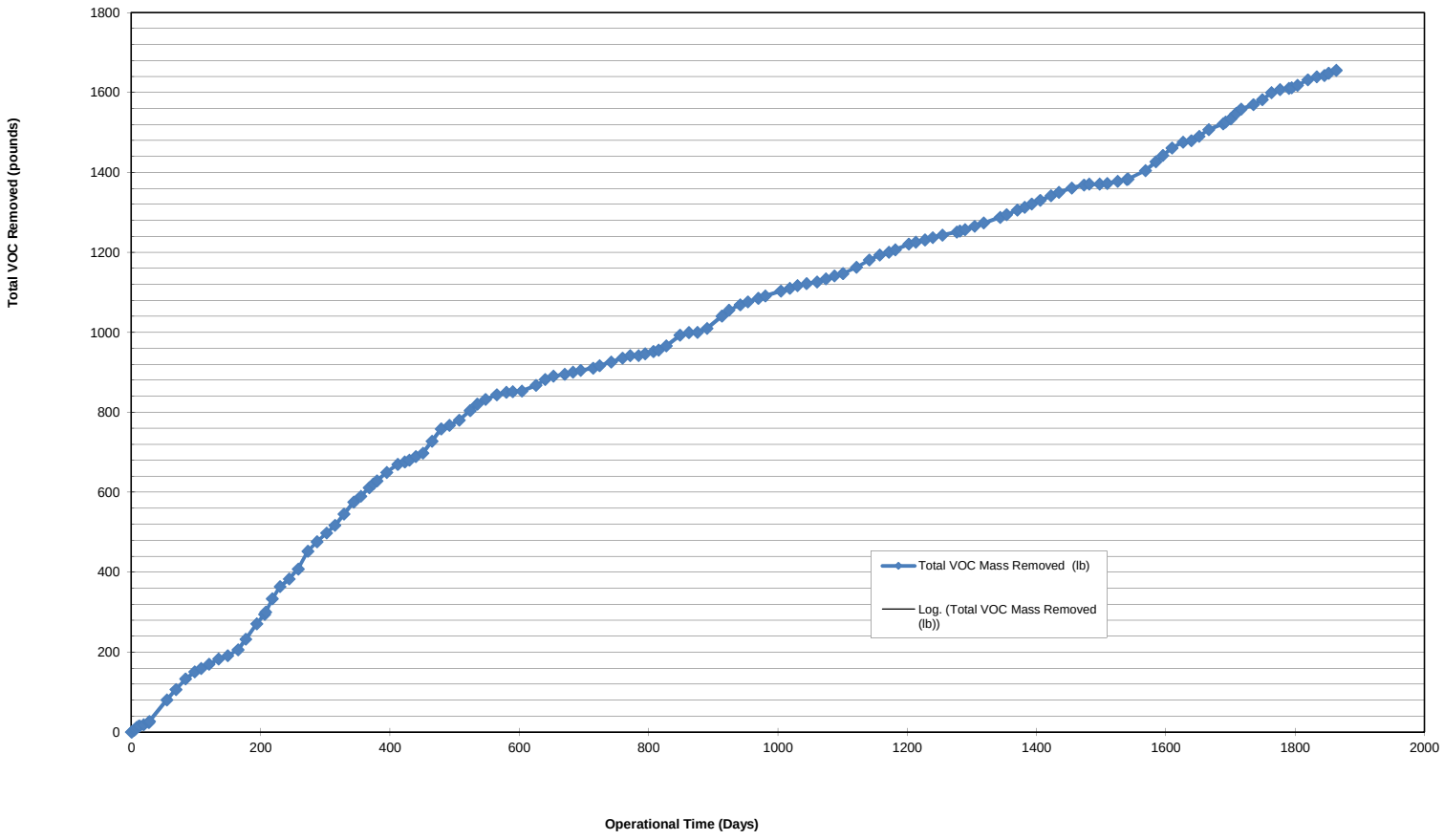
CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

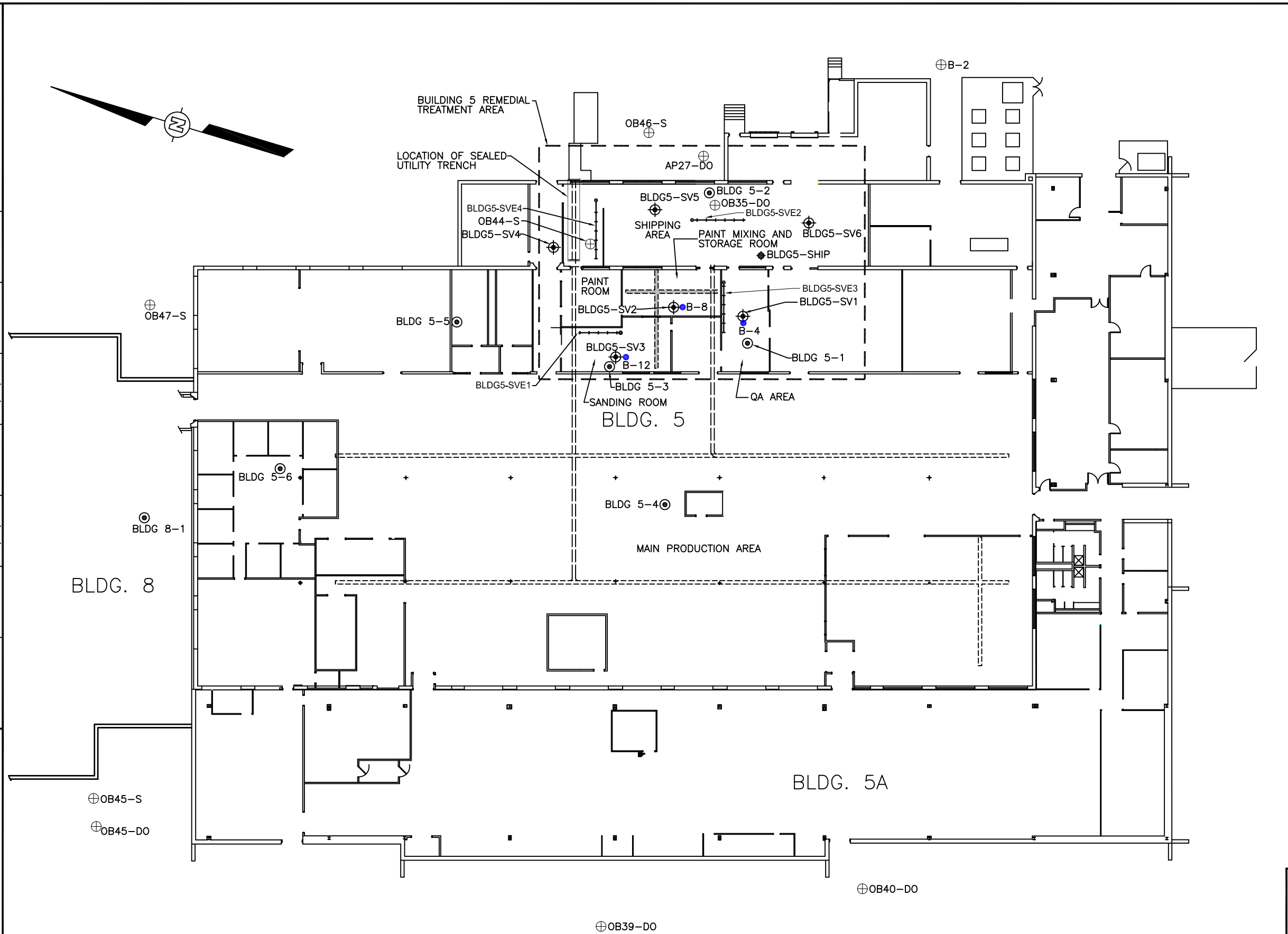
FIGURE 5
BUILDING 3 REMEDIAL TREATMENT AREA - SVE CROSS SECTIONS
FORMER VARIAN FACILTIY SITE
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
CANTON	CD 04/01/15	PH 04/01/15	– –	150148–D1

File: T:\MISC\Varian\Beverly, Ma\Phase 4\BUILDING 5 SYSTEM\150148–D1.dwg
Plot Date/Time: Apr 02, 2015 – 12:29pm
Plotted By: chris.desiato

Figure 6
VOC Mass Removal Estimate
Building 3 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts





LEGEND

- SUB-SLAB SOIL VAPOR SAMPLE LOCATION (2011-2014)
- INDOOR AIR SAMPLE LOCATION (2011-2014)
- SUB-SLAB SOIL VAPOR SAMPLE LOCATION (1995)
- MONITORING WELL
- SOIL BORING
- FORMER UTILITY TRENCH FILLED WITH CONCRETE
- UTILITY TRENCH
- SVE TRENCH WELL

INDOOR AIR SAMPLE ID RTN 3-0485	ROOM
BLDG 5-1	QA AREA
BLDG 5-2	SHIPPING AREA
BLDG 5-3	SANDING ROOM
BLDG 5-4	PRODUCTION AREA
BLDG 5-5	CATHODE SPRAY ROOM
BLDG 5-6	COMMON OFFICE AREA
BLDG 8-1	HIGH POWER TESTING BUILDING 8 BASEMENT

REFERENCE:

PLAN DERIVED FROM COMMUNICATIONS & POWER INDUSTRIES MAP, DATED 07/11/03, CLEAN HARBORS ENVIRONMENTAL SERVICES, INC. MAP TITLED "1962-BUILDING 5", AND CB&I ENVIRONMENTAL FIELD RECONNAISSANCE, JULY 2012 AND APRIL 2014.

SCALE

0 30 60 FEET

CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 7

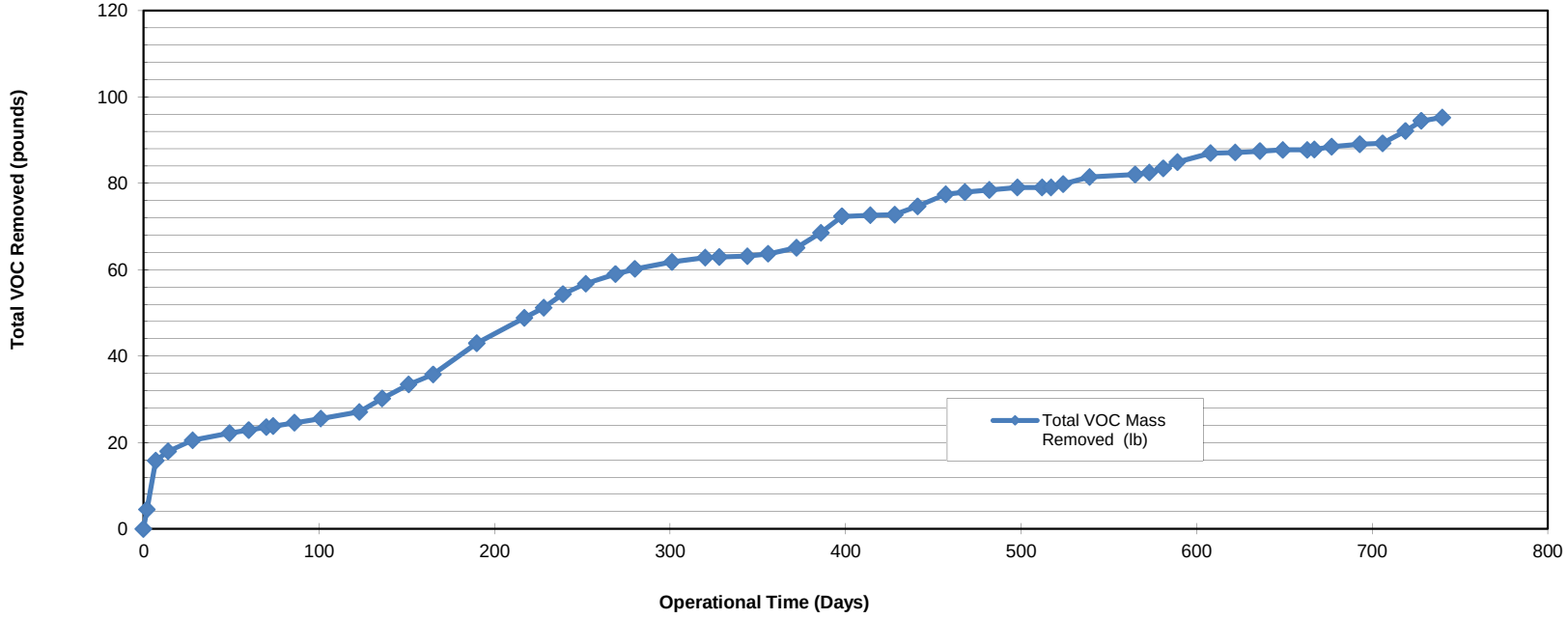
BUILDING 5 REMEDIAL TREATMENT AREA

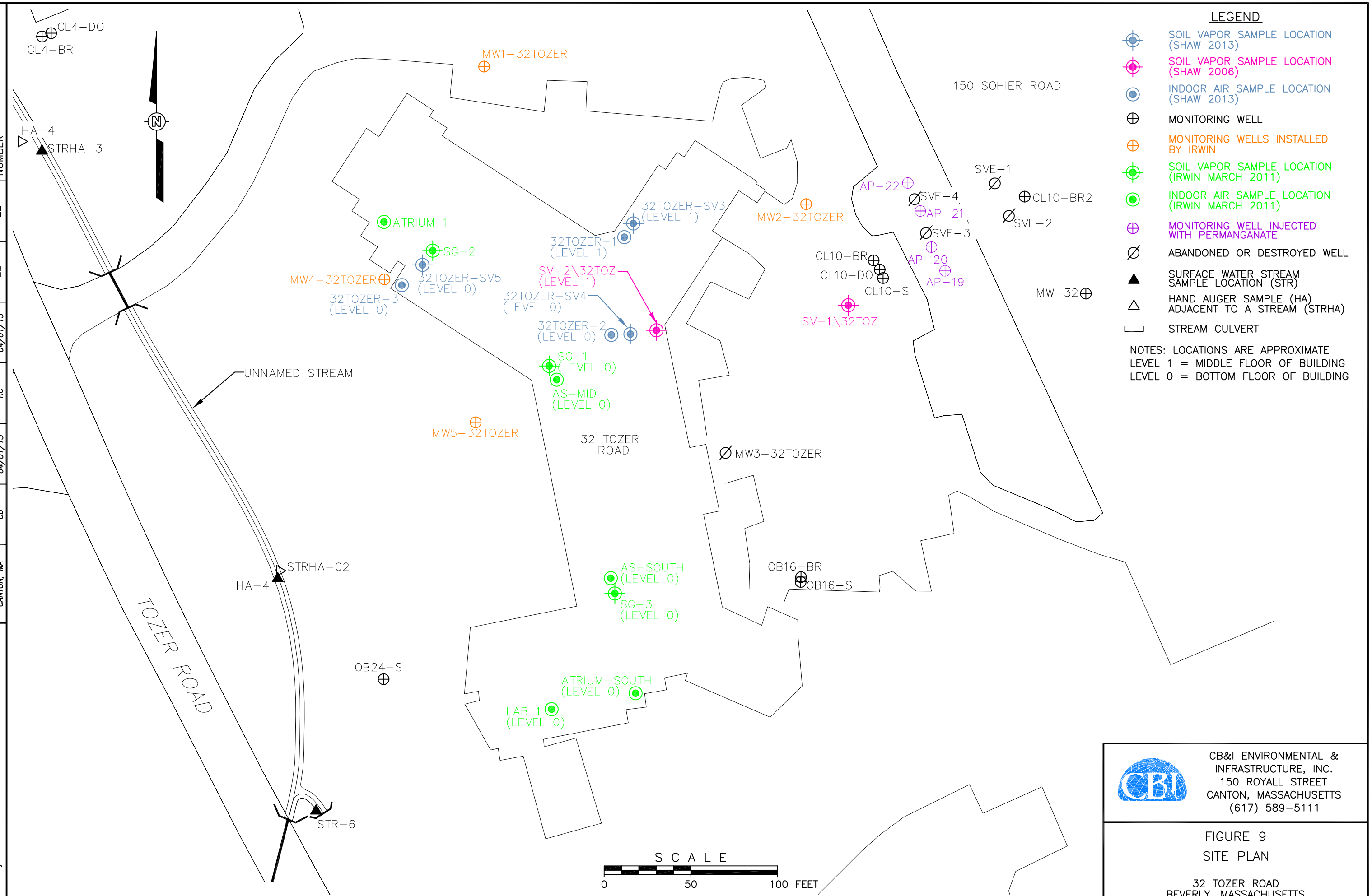
FORMER VARIAN FACILITY
150 SOHIER ROAD
BEVERLY, MASSACHUSETTS

DRAWING NUMBER	APPROVED BY	CHECKED BY	DRAWN BY	OFFICE
146898-SITE PLAN	-- --	PH 04/27/15	CD 04/27/15	CANTON, MA

XREF Files: IMAGE Files:
File: T:\MISC\Varian\Beverly, Ma\Phase 4\BUILDING 5 SYSTEM\146898-SITE PLAN.dwg
Plot Date/Time: Apr 27, 2015 - 4:17pm
Plotted By: chris.desiata

Figure 8
VOC Mass Removal Estimate
Building 5 Sub-Slab SVE System
Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts





LEGEND

- SOIL VAPOR SAMPLE LOCATION (SHAW 2013)
- SOIL VAPOR SAMPLE LOCATION (SHAW 2006)
- INDOOR AIR SAMPLE LOCATION (SHAW 2013)
- MONITORING WELL
- MONITORING WELLS INSTALLED BY IRWIN
- SOIL VAPOR SAMPLE LOCATION (IRWIN MARCH 2011)
- INDOOR AIR SAMPLE LOCATION (IRWIN MARCH 2011)
- MONITORING WELL INJECTED WITH PERMANGANATE
- ABANDONED OR DESTROYED WELL
- SURFACE WATER STREAM SAMPLE LOCATION (STR)
- HAND AUGER SAMPLE (HA) ADJACENT TO A STREAM (STRHA)
- STREAM CULVERT

NOTES: LOCATIONS ARE APPROXIMATE
LEVEL 1 = MIDDLE FLOOR OF BUILDING
LEVEL 0 = BOTTOM FLOOR OF BUILDING

CB&I ENVIRONMENTAL & INFRASTRUCTURE, INC.
150 ROYALL STREET
CANTON, MASSACHUSETTS
(617) 589-5111

FIGURE 9
SITE PLAN

32 TOZER ROAD
BEVERLY, MASSACHUSETTS

OFFICE	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
CANTON, MA	CD 04/01/15	RC 04/01/15	-- --	32TOZERROAD

XREF Files: IMAGE Files:
File: T:\MISC\Varian\Beverly, Ma\Phase 4\Rev2\32TOZERROAD.dwg
Plot Date/Time: Apr 01, 2015 - 5:52pm
Plotted By: chris.desiata

APPENDIX A

MADEP COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM (BWSC108) AND REMEDIAL MONITORING REPORT (RMR) CHECKLIST

Massachusetts Department of Environmental Protection

eDEP Transaction Copy

Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username:	**TIMKEMPER**
Transaction ID:	**731787**
Document:	**BWSC108 Comp. Res. Action Transmittal Form & Phase I**
Size of File:	**934.41K**
Status of Transaction:	**Submitted**
Date and Time Created:	**5/7/2015:9:14:45 AM**

Note: This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to “Download a Copy” from the Current Submittals page.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

BWSC 108

Release Tracking Number
3 - 485

A. SITE LOCATION:

1. Site Name: VARIAN-MICROWAVE DIV

2. Street Address: 150 SOHIER RD

3. City/Town: BEVERLY 4. ZIP Code: 019150000

☑ 5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category:

☑ a. Tier I ☐ b. Tier ID ☐ c. Tier II

B. THIS FORM IS BEING USED TO: (check all that apply)

☐ 1. Submit a **Phase I Completion Statement,** pursuant to 310 CMR 40.0484.

☐ 2. Submit a **Revised Phase I Completion Statement,** pursuant to 310 CMR 40.0484.

☐ 3. Submit a **Phase II Scope of Work,** pursuant to 310 CMR 40.0834.

☐ 4. Submit an **interim Phase II Report.** This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.

☐ 5. Submit a **final Phase II Report and Completion Statement,** pursuant to 310 CMR 40.0836.

☐ 6. Submit a **Revised Phase II Report and Completion Statement,** pursuant to 310 CMR 40.0836.

☐ 7. Submit a **Phase III Remedial Action Plan and Completion Statement,** pursuant to 310 CMR 40.0862.

☐ 8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement,** pursuant to 310 CMR 40.0862.

☐ 9. Submit a **Phase IV Remedy Implementation Plan,** pursuant to 310 CMR 40.0874.

☐ 10. Submit a **Modified Phase IV Remedy Implementation Plan,** pursuant to 310 CMR 40.0874.

☐ 11. Submit an **As-Built Construction Report,** pursuant to 310 CMR 40.0875.

☐ 12. Submit a **Phase IV Status Report,** pursuant to 310 CMR 40.0877.

☐ 13. Submit a **Phase IV Completion Statement,** pursuant to 310 CMR 40.0878 and 40.0879.

Specify the outcome of Phase IV activities: (check one)

☐ a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Permanent or Temporary Solution.

☐ b. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ c. The requirements of a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 14. Submit a **Revised Phase IV Completion Statement,** pursuant to 310 CMR 40.0878 and 40.0879.

☐ 15. Submit a **Phase V Status Report,** pursuant to 310 CMR 40.0892.

☑ 16. Submit a **Remedial Monitoring Report.** (This report can only be submitted through eDEP.)

a. Type of Report: (check one) ☐ i. Initial Report ☑ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal: (check all that apply)

☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.

☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.

☑ iii. A Remedial Monitoring Report(s) submitted every six months, concurrent with a Status Report.

☐ iv. A Remedial Monitoring Report(s) submitted annually, concurrent with a Status Report.

c. Status of Site: (check one) ☐ i. Phase IV ☐ ii. Phase V ☑ iii. Remedy Operation Status ☐ iv. Temporary Solution

d. Number of Remedial Systems and/or Monitoring Programs: 3

A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 17. Submit a **Remedy Operation Status,** pursuant to 310 CMR 40.0893.

☑ 18. Submit a **Status Report to maintain a Remedy Operation Status,** pursuant to 310 CMR 40.0893(2).

☐ 19. Submit a **Transfer and/or a Modification of Persons Maintaining a Remedy Operation Status (ROS),** pursuant to 310 CMR 40.0893(5) (check one, or both, if applicable).

☐ a. Submit a Transfer of Persons Maintaining an ROS (the transferee should be the person listed in Section D, "Person Undertaking Response Actions").

☐ b. Submit a Modification of Persons Maintaining an ROS (the primary representative should be the person listed in Section D, "Person Undertaking Response Actions").

c. Number of Persons Maintaining an ROS not including the primary representative: _____

☐ 20. Submit a **Termination of a Remedy Operation Status,** pursuant to 310 CMR 40.0893(6).(check one)

☐ a. Submit a notice indicating ROS performance standards have not been met. A plan and timetable pursuant to 310 CMR 40.0893(6)(b) for resuming the ROS are attached.

☐ b. Submit a notice of Termination of ROS.

☐ 21. Submit a **Phase V Completion Statement,** pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

☐ a. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ b. The requirements for a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ 22. Submit a **Revised Phase V Completion Statement,** pursuant to 310 CMR 40.0894.

☐ 23. Submit a **Temporary Solution Status Report,** pursuant to 310 CMR 40.0898.

☐ 24. Submit a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

a. Status of Site: (check one)

☐ i. Phase IV ☐ ii. Phase V ☐ iii. Remedy Operation Status ☐ iv. Temporary Solution

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT
Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

BWSC 108

Release Tracking Number
3 - 485

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B indicates that a* ***Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement*** *and/or a* ***Termination of a Remedy Operation Status*** *is being submitted*, the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that a* ***Phase II Scope of Work*** *or a* ***Phase IV Remedy Implementation Plan*** *is being submitted,* the response action (s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that an* ***As-Built Construction Report,*** *a* ***Remedy Operation Status,*** *a* ***Phase IV, Phase V or Temporary Solution Status Report,*** *a* ***Status Report to Maintain a Remedy Operation Status,*** *a* ***Transfer or Modification of Persons Maintaining a Remedy Operation Status*** *and/or a* ***Remedial Monitoring Report*** *is being submitted,* the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP#: 9070

2. First Name: TIMOTHY W 3. Last Name: KEMPER

4. Telephone: 617-515-3004 5. Ext.: 6. Email:

7. Signature: TIMOTHY W KEMPER

8. Date: 5/6/2015 (mm/dd/yyyy) 9. LSP Stamp:

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT
Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

BWSC 108

Release Tracking Number
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D. PERSON UNDERTAKING RESPONSE ACTIONS:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: VARIAN MEDICAL SYSTEMS INC

3. Contact First Name: JOHN R 4. Last Name: BUCHANAN

5. Street: 3120 HANSEN WAY M/S G-100 6. Title: ENVIRONMENTAL AFFAIRS MANAGER

7. City/Town: PALO ALTO 8. State: CA 9. ZIP Code: 943041030

10. Telephone: 650-424-6103 11. Ext: 12. Email: john.buchanan@varian.com

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS: ☐ Check here to change relationship

☑ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☑ e. Other RP or PRP Specify: OTHER PRPS

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking Response Actions Specify Relationship:

F. REQUIRED ATTACHMENT AND SUBMITTALS:

☑ 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☐ 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.

☐ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.

☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.

☐ 5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.

☐ 6. If submitting a Transfer of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for the person making this submittal (transferee) is attached.

☐ 7. If submitting a Modification of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for each new person making this submittal is attached.

☐ 8. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to: BWSC.eDEP@state.ma.us.

☑ 9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT
Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

BWSC 108

Release Tracking Number
3 - 485

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, JOHN R BUCHANAN, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

>*if Section B indicates that this is a* **Modification of a Remedy Operation Status (ROS),** I attest under the pains and penalties of perjury that I am fully authorized to act on behalf of all persons performing response actions under the ROS as stated in 310 CMR 40.0893(5)(d) to receive oral and written correspondence from MassDEP with respect to performance of response actions under the ROS, and to receive a statement of fee amount as per 4.03(3).

I understand that any material received by the Primary Representative from MassDEP shall be deemed received by all the persons performing response actions under the ROS, and I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information.

2. By: JOHN R BUCHANAN
Signature

3. Title: ENVIRONMENTAL AFFAIRS MANAGER

4. For: VARIAN MEDICAL SYSTEMS INC
(Name of person or entity recorded in Section D)

5. Date: 5/6/2015
(mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street:

8. City/Town: 9. State: 10. ZIP Code:

11. Telephone: 12. Ext.: 13. Email:

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on 5/6/2015 5:37:47 PM

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
Pursuant to 310 CMR 40.0800 (SUBPART H)
Remedial System or Monitoring Program: 2 of: 3

BWSC108 -A

Release Tracking Number
3 - 485

A. DESCRIPTION OF ACTIVE OPERATION AND MAINTENANCE ACTIVITY:

1. Type of Active Operation and Maintenance Activity: (check all that apply)

☑ a. Active Remedial System: (check all that apply)

☐ i. NAPL Recovery ☐ ii. Soil Vapor Extraction/Bioventing ☐ iii. Vapor-phase Carbon Adsorption
☐ iv. Groundwater Recovery ☐ v. Dual/Multi-phase Extraction ☐ vi. Aqueous-phase Carbon Adsorption
☐ vii. Air Stripping ☐ viii. Sparging/Biosparging ☐ ix. Cat/Thermal Oxidation
☑ x. Other Describe: BLDG3 SUB-SLAB SVE SYSTEM

☑ b. Active Exposure Pathway Elimination Measure
Active Exposure Pathway Mitigation System to address (check one): ☑ i. Indoor Air ☐ ii. Drinking Water

☐ c. Application of Remedial Additives: (check all that apply)
☐ i. To the Subsurface ☐ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ d. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section G5)
☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe:

2. Mode of Operation: (check one)
☑ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other:

3. System Effluent/Discharge: (check all that apply)
☐ a. Sanitary Sewer/POTW
☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
☑ c. Vapor-phase Discharge to Ambient Air: (check one) ☑ i. Off-gas Controls ☐ ii. No Off-gas Controls
☐ d. Drinking Water Supply
☐ e. Surface Water (including Storm Drains)
☐ f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 10/1/2014 (mm/dd/yyyy) To: 3/31/2015 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)
☐ a. System Startup: (if applicable)
☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
☐ ii. Other Describe:
☑ b. Post-system Startup (after first month) or Monitoring Program:
☐ i. Monthly
☐ ii. Quarterly
☐ iii. Annually
☑ iv. Other Describe: BI-WEEKLY

☑ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit
☐ c. Emergency Exclusion Effective Date of Permit: (mm/dd/yyyy)

☑ 2. MCP Performance Standard MCP Citations(s): MADEP POLICY #WSC94-150

☐ 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)

☐ 4. Other Describe:

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
Pursuant to 310 CMR 40.0800 (SUBPART H)
Remedial System or Monitoring Program: 2 of: 3

BWSC108 -A

Release Tracking Number
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D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.
a. Name: _____ b. Grade: _____
c. License No: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☐ 2. Not Required
☑ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☑ 1. The Active Remedial System was functional one or more days during the Reporting Period.
a. Days System was Fully Functional: 173 b. GW Recovered (gals): _____
c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____
e. Avg. Soil Gas Recovery Rate (scfm): 171 f. Avg. Sparging Rate (scfm): _____

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.
☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
Pursuant to 310 CMR 40.0800 (SUBPART H)
Remedial System or Monitoring Program: 2 of: 3

BWSC108 -A

Release Tracking Number
3 - 485

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☑ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: 10 b. Total Number of Days of Unscheduled Shutdowns: 9

c. Reason(s) for Unscheduled Shutdowns: LOW VACUUM DUE TO ICE AND WATER BUILD UP

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____ (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☑ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☑ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☐ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
Pursuant to 310 CMR 40.0800 (SUBPART H)
Remedial System or Monitoring Program: 3 of: 3

BWSC108 -A

Release Tracking Number
3 - 485

A. DESCRIPTION OF ACTIVE OPERATION AND MAINTENANCE ACTIVITY:

1. Type of Active Operation and Maintenance Activity: (check all that apply)

☑ a. Active Remedial System: (check all that apply)

☐ i. NAPL Recovery ☐ ii. Soil Vapor Extraction/Bioventing ☐ iii. Vapor-phase Carbon Adsorption
☐ iv. Groundwater Recovery ☐ v. Dual/Multi-phase Extraction ☐ vi. Aqueous-phase Carbon Adsorption
☐ vii. Air Stripping ☐ viii. Sparging/Biosparging ☐ ix. Cat/Thermal Oxidation
☑ x. Other Describe: BUILDING 5 SUB-SLAB SVE SYSTEM

☑ b. Active Exposure Pathway Elimination Measure
Active Exposure Pathway Mitigation System to address (check one): ☑ i. Indoor Air ☐ ii. Drinking Water

☐ c. Application of Remedial Additives: (check all that apply)
☐ i. To the Subsurface ☐ ii. To Groundwater (Injection) ☐ iii. To the Surface

☐ d. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section G5)
☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe:

2. Mode of Operation: (check one)
☑ a. Continuous ☐ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other:

3. System Effluent/Discharge: (check all that apply)
☐ a. Sanitary Sewer/POTW
☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
☑ c. Vapor-phase Discharge to Ambient Air: (check one) ☑ i. Off-gas Controls ☐ ii. No Off-gas Controls
☐ d. Drinking Water Supply
☐ e. Surface Water (including Storm Drains)
☐ f. Other Describe:

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 10/1/2014 (mm/dd/yyyy) To: 3/31/2015 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)
☐ a. System Startup: (if applicable)
☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
☐ ii. Other Describe:
☑ b. Post-system Startup (after first month) or Monitoring Program:
☐ i. Monthly
☐ ii. Quarterly
☐ iii. Annually
☑ iv. Other Describe: BI-WEEKLY

☐ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit
☐ c. Emergency Exclusion Effective Date of Permit: (mm/dd/yyyy)

☑ 2. MCP Performance Standard MCP Citations(s): MADEP POLICY #WSC94-150

☐ 3. DEP Approval Letter Date of Letter: (mm/dd/yyyy)

☐ 4. Other Describe:

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D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.
a. Name: _____ b. Grade: _____
c. License No: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☐ 2. Not Required
☑ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☑ 1. The Active Remedial System was functional one or more days during the Reporting Period.
a. Days System was Fully Functional: 180 b. GW Recovered (gals): _____
c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____
e. Avg. Soil Gas Recovery Rate (scfm): 151 f. Avg. Sparging Rate (scfm): _____

☐ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.
☐ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Microorganisms:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

☐ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Permanganates:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

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E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☑ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: 1 b. Total Number of Days of Unscheduled Shutdowns: 2

c. Reason(s) for Unscheduled Shutdowns: LOW VACUUM DUE TO ICE AND WATER BUILD UP

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____ (mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☑ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☑ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☐ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

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A. DESCRIPTION OF ACTIVE OPERATION AND MAINTENANCE ACTIVITY:

1. Type of Active Operation and Maintenance Activity: (check all that apply)
   - ☐ a. Active Remedial System: (check all that apply)
     - ☐ i. NAPL Recovery ☐ ii. Soil Vapor Extraction/Bioventing ☐ iii. Vapor-phase Carbon Adsorption
     - ☐ iv. Groundwater Recovery ☐ v. Dual/Multi-phase Extraction ☐ vi. Aqueous-phase Carbon Adsorption
     - ☐ vii. Air Stripping ☐ viii. Sparging/Biosparging ☐ ix. Cat/Thermal Oxidation
     - ☐ x. Other Describe: _____
   - ☐ b. Active Exposure Pathway Elimination Measure
     Active Exposure Pathway Mitigation System to address (check one): ☐ i. Indoor Air ☐ ii. Drinking Water
   - ☑ c. Application of Remedial Additives: (check all that apply)
     - ☐ i. To the Subsurface ☑ ii. To Groundwater (Injection) ☐ iii. To the Surface
   - ☐ d. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section G5)
     - ☐ i. Reactive Wall ☐ ii. Natural Attenuation ☐ iii. Other Describe: _____
2. Mode of Operation: (check one)
   - ☐ a. Continuous ☑ b. Intermittent ☐ c. Pulsed ☐ d. One-time Event Only ☐ e. Other: _____
3. System Effluent/Discharge: (check all that apply)
   - ☐ a. Sanitary Sewer/POTW
   - ☐ b. Groundwater Re-infiltration/Re-injection: (check one) ☐ i. Downgradient ☐ ii. Upgradient
   - ☐ c. Vapor-phase Discharge to Ambient Air: (check one) ☐ i. Off-gas Controls ☐ ii. No Off-gas Controls
   - ☐ d. Drinking Water Supply
   - ☐ e. Surface Water (including Storm Drains)
   - ☑ f. Other Describe: NA

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 10/1/2014 (mm/dd/yyyy) To: 3/31/2015 (mm/dd/yyyy)
2. Number of monitoring events during the reporting period: (check one)
   - ☐ a. System Startup: (if applicable)
     - ☐ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
     - ☐ ii. Other Describe: _____
   - ☑ b. Post-system Startup (after first month) or Monitoring Program:
     - ☑ i. Monthly
     - ☐ ii. Quarterly
     - ☐ iii. Annually
     - ☐ iv. Other Describe: _____
3. ☑ Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

- ☐ 1. NPDES: (check one) ☐ a. Remediation General Permit ☐ b. Individual Permit ☐ c. Emergency Exclusion
  Effective Date of Permit: _____ (mm/dd/yyyy)
- ☐ 2. MCP Performance Standard MCP Citations(s): _____
- ☐ 3. DEP Approval Letter Date of Letter: _____ (mm/dd/yyyy)
- ☐ 4. Other Describe: _____

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D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

☐ 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.
a. Name: _____ b. Grade: _____
c. License No: _____ d. License Exp. Date: _____ (mm/dd/yyyy)

☑ 2. Not Required
☐ 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

☐ 1. The Active Remedial System was functional one or more days during the Reporting Period.
a. Days System was Fully Functional: _____ b. GW Recovered (gals): _____
c. NAPL Recovered (gals): _____ d. GW Discharged (gals): _____
e. Avg. Soil Gas Recovery Rate (scfm): _____ f. Avg. Sparging Rate (scfm): _____

☑ 2. Remedial Additives: (check all that apply)

☐ a. No Remedial Additives applied during the Reporting Period.
☑ b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)

☐ i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☑ iii. Microorganisms:

Name of Additive	Date	Quantity	Units
DEHALOCOIDES CUL	11/5/2014	500	ML

☑ iv. Other:

Name of Additive	Date	Quantity	Units
EMULSIFIED VEGETA	11/5/2014	3759	GAL

☑ c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)

☑ i. Permanganates:

Name of Additive	Date	Quantity	Units
SODIUM PERMANGA	1/26/2015	683	GAL

☐ ii. Peroxides:

Name of Additive	Date	Quantity	Units

☐ iii. Persulfates:

Name of Additive	Date	Quantity	Units

☐ iv. Other:

Name of Additive	Date	Quantity	Units

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E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)

☐ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

☐ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

☐ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

☐ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: _____ b. Total Number of Days of Scheduled Shutdowns: _____

c. Reason(s) for Scheduled Shutdowns: _____

☐ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____
(mm/dd/yyyy)

☐ b. No Further Effluent Discharges.

☐ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

☐ d. No Further Submittals Planned.

☐ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

☐ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

☐ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

☑ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

☑ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.

APPENDIX B

GROUNDWATER GAUGING RESULTS, PHYSICAL PARAMETER DATA

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
AP-13-DO	12/10/14	Clear	--	--	--	--
AP-13-DO	01/06/15	White	-76.2	4.86	0.680	1.94
AP-13-DO	01/23/15	White	--	--	--	--
AP-19	10/01/14	Purple	--	--	--	--
AP-19	10/17/14	Clear	159.3	7.62	0.114	4.10
AP-19	11/12/14	Clear	202.4	7.66	0.105	3.86
AP-19	12/10/14	Clear	72.7	7.70	0.066	8.96
AP-19	01/23/15	Clear	65.1	7.65	0.071	7.25
AP-20	10/01/14	Purple	--	--	--	--
AP-20	10/16/14	Purple	--	--	--	--
AP-20	10/17/14	Dark Purple	--	--	--	--
AP-20	11/12/14	Dark Purple	--	--	--	--
AP-20	12/10/14	Clear	493.8	8.00	0.111	12.71
AP-20	01/23/15	Clear	412.9	7.91	0.115	8.13
AP-21	10/01/14	Purple	--	--	--	--
AP-21	10/16/14	Purple	--	--	--	--
AP-21	10/17/14	Dark Purple	--	--	--	--
AP-21	11/12/14	Dark Purple	--	--	--	--
AP-21	12/10/14	Dark Purple	--	--	--	--
AP-21	01/23/15	Dark Purple	--	--	--	--
AP-22	10/01/14	Purple	--	--	--	--
AP-22	10/16/14	Purple	--	--	--	--
AP-22	10/17/14	Dark Purple	--	--	--	--
AP-22	11/12/14	Dark Purple	--	--	--	--
AP-22	12/10/14	Dark Purple	--	--	--	--
AP-22	01/23/15	Dark Purple	--	--	--	--
AP-23-DO	10/17/14	Clear	-169.5	6.67	2.070	1.01
AP-23-DO	11/12/14	Clear	-107.4	6.93	1.171	0.31
AP-23-DO	11/13/14	Clear	-80	6.83	1.426	0.94
AP-23-DO	11/18/14	White	-16.3	6.42	0.983	0.61
AP-23-DO	11/19/14	White	23.8	6.21	0.809	0.92
AP-23-DO	12/10/14	White	-246.1	10.09	8.180	0.86
AP-23-DO	01/06/15	White	-67.1	9.82	9.748	0.51
AP-23-DO	01/23/15	White	-269.0	5.89	2.216	1.71
AP-24-DO	10/17/14	Clear	-123.5	6.62	0.501	0.44
AP-24-DO	11/12/14	Clear	-146.7	6.78	0.415	0.72
AP-24-DO	11/13/14	White	-17	5.70	1.168	0.48
AP-24-DO	11/18/14	White	100.9	6.26	0.476	0.81
AP-24-DO	11/19/14	White	61.5	6.26	0.440	0.550
AP-24-DO	12/10/14	White	-128.4	6.05	1.597	0.30
AP-24-DO	01/06/15	White	-62.4	5.90	2.411	0.20
AP-24-DO	01/23/15	White	-247.3	5.48	0.660	1.75

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

WATER LEVEL MONITORING DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
AP-12-BR	10/01/14	71.32	19.61	51.71	DTB = 74.05'
AP-12-BR	10/15/14	71.32	13.39	57.93	
AP-12-DO	10/01/14	71.30	13.63	57.67	DTB = 49.00'
AP-12-DO	10/15/14	71.30	19.55	51.75	
AP-12-S	10/01/14	71.44	11.16	60.28	DTB = 27.25'
AP-12-S	10/15/14	71.44	10.78	60.66	
AP-13-DO	10/17/14	68.86	16.25	52.61	
AP-13-DO	11/12/14	68.86	14.91	53.95	
AP-13-DO	12/10/14	68.86	27.89	40.97	
AP-13-DO	01/06/15	68.86	29.40	39.46	DTB = 51.73'
AP-13-DO	01/20/15	68.86	Dry	NA	
AP-13-DO	01/23/15	68.86	29.52	39.34	
AP-19	10/01/14	81.30	14.33	66.97	
AP-19	10/16/14	81.30	14.04	67.26	
AP-19	10/17/14	81.30	13.90	67.40	
AP-19	11/12/14	81.30	14.07	67.23	
AP-19	12/10/14	81.30	9.79	71.51	
AP-19	01/23/15	81.30	11.92	69.38	
AP-20	10/01/14	81.43	14.47	66.96	
AP-20	10/16/14	81.43	14.21	67.22	
AP-20	11/12/14	81.43	NM	NA	
AP-20	12/10/14	81.43	7.90	73.53	
AP-20	01/23/15	81.43	9.85	71.58	
AP-21	10/01/14	81.50	17.14	64.36	
AP-21	10/16/14	81.50	16.44	65.06	
AP-21	11/12/14	81.50	NM	NA	
AP-21	12/10/14	81.50	10.51	70.99	
AP-21	01/23/15	81.50	12.62	68.88	
AP-22	10/01/14	81.96	18.66	63.30	
AP-22	10/16/14	81.96	18.18	63.78	
AP-22	11/12/14	81.96	NM	NA	
AP-22	12/10/14	81.96	10.34	71.62	
AP-22	01/23/15	81.96	12.30	69.66	
AP-23-DO	10/17/14	69.46	13.19	56.27	
AP-23-DO	11/12/14	69.46	12.10	57.36	
AP-23-DO	11/13/14	69.46	12.15	57.31	
AP-23-DO	12/10/14	69.46	26.32	43.14	
AP-23-DO	01/06/15	69.46	28.15	41.31	DTB = 48.70'
AP-23-DO	01/20/15	69.46	Dry	NA	
AP-23-DO	01/23/15	69.46	27.92	41.54	
AP-24-DO	10/17/14	69.56	11.98	57.58	
AP-24-DO	11/12/14	69.56	11.10	58.46	
AP-24-DO	12/10/14	69.56	8.98	60.58	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
AP-24-DO	01/06/15	69.56	29.75	39.81	DTB = 48.50'
AP-24-DO	01/20/15	69.56	Dry	NA	
AP-24-DO	01/23/15	69.56	24.00	45.56	
AP-25-DO	10/17/14	65.58	7.41	58.17	
AP-25-DO	12/10/14	65.58	1.10	64.48	
AP-25-DO	01/06/15	65.58	5.40	60.18	DTB = 47.80'
AP-25-DO	01/20/15	65.58	6.38	59.20	
AP-25-DO	01/23/15	65.58	9.35	56.23	
AP-26-DO	10/01/14	73.99	16.52	57.47	DTB = 61.10'
AP-26-DO	10/16/14	73.99	16.54	57.45	
AP-26-DO	10/17/14	73.99	16.53	57.46	
AP-26-DO	11/12/14	73.99	16.68	57.31	
AP-26-DO	12/10/14	73.99	11.41	62.58	
AP-26-DO	01/23/15	73.99	13.99	60.00	
AP-27-DO	10/01/14	77.34	18.98	58.36	DTB = 57.90'
AP-27-DO	10/15/14	77.34	18.94	58.40	
AP-27-DO	10/17/14	77.34	18.83	58.51	
AP-27-DO	11/12/14	77.34	19.05	58.29	
AP-27-DO	12/10/14	77.34	14.31	63.03	
AP-27-DO	01/23/15	77.34	15.60	61.74	
AP-30R-DO	10/17/14	NA	24.33	NA	
AP-30R-DO	01/06/15	NA	20.20	NA	
AP-30R-DO	01/20/15	NA	22.72	NA	
AP-30R-DO	01/23/15	NA	14.88	NA	
AP-32-DO	10/17/14	NA	14.71	NA	
AP-32-DO	11/12/14	NA	15.02	NA	
AP-32-DO	12/10/14	NA	13.18	NA	
AP-32-DO	01/23/15	NA	14.95	NA	
AP-33-DO	10/17/14	66.49	8.80	57.69	
AP-33-DO	11/12/14	66.49	8.01	58.48	
AP-33-DO	12/10/14	66.49	5.95	60.54	
AP-33-DO	01/06/15	66.49	7.25	59.24	DTB = 37.27'
AP-33-DO	01/20/15	66.49	8.15	58.34	
AP-33-DO	01/23/15	66.49	8.22	58.27	
AP-34-DO	10/17/14	68.33	10.67	57.66	
AP-34-DO	11/12/14	68.33	9.81	58.52	
AP-34-DO	12/10/14	68.33	7.66	60.67	
AP-34-DO	01/06/15	68.33	19.55	48.78	DTB = 38.70'
AP-34-DO	01/20/15	68.33	Dry	NA	
AP-34-DO	01/23/15	68.33	14.88	53.45	
AP-35-DO	10/17/14	68.92	11.29	57.63	
AP-35-DO	11/12/14	68.92	10.39	58.53	
AP-35-DO	12/10/14	68.92	5.40	63.52	
AP-35-DO	01/06/15	68.92	9.75	59.17	DTB = 36.30'

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
AP-35-DO	01/20/15	68.92	10.58	58.34	
AP-35-DO	01/23/15	68.92	9.68	59.24	
BW-05	10/01/14	65.17	8.55	56.62	DTB = 10.45'
BW-05	10/15/14	65.17	7.97	57.20	
BW-05	10/17/14	65.17	7.11	58.06	
BW-06	10/15/14	65.44	8.40	57.04	
BW-08	10/01/14	65.44	8.85	56.59	DTB = 14.70'
BW-08	10/17/14	65.44	7.68	57.76	
BW-09	10/17/14	65.30	6.49	58.81	
CL02-DO	10/17/14	62.76	8.57	54.19	
CL02-DO	11/12/14	62.76	8.70	54.06	
CL02-DO	12/10/14	62.76	2.06	60.70	
CL02-DO	01/23/15	62.76	3.76	59.00	
CL03-DO	10/01/14	50.40	10.52	39.88	DTB = 80.21'
CL03-DO	10/15/14	50.40	10.50	39.90	
CL03-DO	10/17/14	50.40	10.39	40.01	
CL03-DO	11/12/14	50.40	10.97	39.43	
CL03-DO	12/10/14	50.40	7.11	43.29	
CL03-DO	01/23/15	50.40	8.26	42.14	
CL05-DOA	10/01/14	70.26	2.28	67.98	DTB = 4.95'
CL05-DOA	10/15/14	70.26	12.48	57.78	
CL10-BR	10/01/14	72.28	7.53	64.75	DTB = 46.95'
CL10-BR	10/15/14	72.28	7.38	64.90	
CL10-DO	10/01/14	72.54	7.31	65.23	DTB = 37.22'
CL10-DO	10/15/14	72.54	6.98	65.56	
CL10-DO	11/12/14	72.54	NM	NA	
CL10-DO	12/10/14	72.54	3.17	69.37	
CL10-DO	01/23/15	72.54	4.93	67.61	
CL10-S	10/01/14	72.54	6.20	66.34	DTB = 16.01'
CL10-S	10/15/14	72.54	5.87	66.67	
MW-008	10/17/14	68.96	12.34	56.62	
MW-009	10/01/14	63.48	6.85	56.63	
MW-009	10/15/14	63.48	6.30	57.18	
MW-009	10/17/14	63.48	5.78	57.70	
MW-009	01/06/15	63.48	4.67	58.81	DTB = 21.25'
MW-009	01/20/15	63.48	5.21	58.27	
MW-009A	10/01/14	63.86	7.43	56.43	DTB = 14.40'
MW-009A	10/15/14	63.86	6.96	56.90	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
MW-013	10/01/14	69.11	12.61	56.50	DTB = 55.25'
MW-013	10/16/14	69.11	11.91	57.20	
MW-013	10/17/14	69.11	11.53	57.58	
MW-032	10/17/14	82.44	9.92	72.52	
MW-032	11/12/14	82.44	10.17	72.27	
MW-032	12/10/14	82.44	5.07	77.37	
MW-032	01/23/15	82.44	7.09	75.35	
MW-2_32-TOZER	10/01/14	70.83	8.42	62.41	DTB = 20.08'
MW-2_32-TOZER	10/15/14	70.83	8.12	62.71	
MW-2_32-TOZER	10/17/14	70.83	7.99	62.84	
MW-2_32-TOZER	11/12/14	70.83	7.98	62.85	
MW-2_32-TOZER	12/10/14	70.83	4.30	66.53	
MW-2_32-TOZER	01/23/15	70.83	6.05	64.78	
OB-04-DO	10/01/14	54.35	14.31	40.04	DTB = 70.08'
OB-04-DO	10/15/14	54.35	14.32	40.03	
OB-05-DO	10/01/14	49.06	9.41	39.65	DTB = 85.96'
OB-05-DO	10/15/14	49.06	9.41	39.65	
OB-09-BR	10/01/14	65.25	11.19	54.06	DTB = 120.00'
OB-09-BR	10/15/14	65.25	11.11	54.14	
OB-09-DO	10/01/14	65.11	11.15	53.96	DTB = 92.00'
OB-09-DO	10/15/14	65.11	10.99	54.12	
OB-09-S	10/01/14	65.22	8.56	56.66	
OB-09-S	10/15/14	65.22	8.06	57.16	
OB-09-S	10/17/14	65.22	7.40	57.82	
OB-09-S	01/06/15	65.22	7.00	58.22	DTB = 20.98'
OB-09-S	01/20/15	65.22	7.28	57.94	
OB-10-BR	10/01/14	71.04	19.38	51.66	DTB = 73.96'
OB-10-BR	10/15/14	71.04	19.31	51.73	
OB-12-BR	10/17/14	73.67	21.53	52.14	
OB-12-BR	11/12/14	73.67	21.83	51.84	
OB-12-BR	12/10/14	73.67	18.49	55.18	
OB-12-BR	01/23/15	73.67	19.97	53.70	
OB-12-DO	10/01/14	73.54	18.45	55.09	DTB = 60.30'
OB-12-DO	10/16/14	73.54	7.77	65.77	
OB-12-DO	11/12/14	73.54	NM	NA	
OB-12-DO	12/10/14	73.54	13.32	60.22	
OB-12-DO	01/23/15	73.54	15.28	58.26	
OB-15-S	10/01/14	63.26	6.65	56.61	
OB-15-S	10/15/14	63.26	5.92	57.34	
OB-15-S	10/17/14	63.26	5.29	57.97	
OB-15-S	01/06/15	63.26	4.28	58.98	DTB = 19.30'
OB-15-S	01/20/15	63.26	5.18	58.08	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
OB-18-S	10/01/14	44.98	7.60	37.38	DTB = 15.25'
OB-18-S	10/15/14	44.98	5.57	39.41	
OB-19-DO	10/01/14	74.28	18.39	55.89	DTB = 57.87'
OB-19-DO	10/16/14	74.28	18.34	55.94	
OB-19-DO	10/17/14	74.28	18.32	55.96	
OB-19-DO	11/12/14	74.28	18.54	55.74	
OB-19-DO	12/10/14	74.28	13.82	60.46	
OB-19-DO	01/23/15	74.28	15.11	59.17	
OB-20-BR	10/01/14	43.85	4.41	39.44	DTB = 100.80'
OB-20-BR	10/15/14	43.85	4.36	39.49	
OB-20-DO	10/01/14	43.98	4.48	39.50	DTB = 7.42'
OB-20-DO	10/15/14	43.98	4.47	39.51	
OB-25-BR	10/01/14	74.26	31.28	42.98	
OB-25-BR	10/16/14	74.26	30.46	43.80	
OB-25-BR	11/12/14	74.26	NM	NA	
OB-25-BR	12/10/14	74.26	25.43	48.83	
OB-25-BR	01/23/15	74.26	27.39	46.87	
OB-25-DO	10/01/14	74.52	23.86	50.66	DTB = 68.71'
OB-25-DO	10/16/14	74.52	23.81	50.71	
OB-25-DO	10/17/14	74.52	23.64	50.88	
OB-25-DO	11/12/14	74.52	23.75	50.77	
OB-25-DO	12/10/14	74.52	20.28	54.24	
OB-25-DO	01/06/15	74.52	21.35	53.17	DTB = 71.00'
OB-25-DO	01/21/15	74.52	22.05	52.47	
OB-25-DO	01/23/15	74.52	22.03	52.49	
OB-26-DO	10/01/14	74.48	17.05	57.43	DTB = 59.60'
OB-26-DO	10/16/14	74.48	17.04	57.44	
OB-27-BR	10/01/14	71.68	28.34	43.34	
OB-27-BR	10/16/14	71.68	28.39	43.29	
OB-27-BR	11/12/14	71.68	NM	NA	
OB-27-BR	12/10/14	71.68	24.11	47.57	
OB-27-BR	01/23/15	71.68	26.62	45.06	
OB-32-DO	10/01/14	75.70	14.60	61.10	
OB-32-DO	10/16/14	75.70	14.73	60.97	
OB-34-DO	10/01/14	75.10	18.58	56.52	DTB = 63.95'
OB-34-DO	10/16/14	75.10	18.41	56.69	
OB-34-DO	10/17/14	75.10	18.82	56.28	
OB-34-DO	11/12/14	75.10	18.80	56.30	
OB-34-DO	12/10/14	75.10	13.79	61.31	
OB-34-DO	01/23/15	75.10	14.91	60.19	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

WATER LEVEL MONITORING DATA
(Continued)

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Location	Date	Reference Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Notes
OB-35-DO	10/01/14	81.41	13.45	67.96	
OB-35-DO	11/12/14	81.41	NM	NA	
OB-35-DO	12/10/14	81.41	10.69	70.72	
OB-35-DO	01/23/15	81.41	12.81	68.60	
OB-36-DO	10/01/14	75.92	19.90	56.02	DTB = 52.37'
OB-36-DO	10/16/14	75.92	19.31	56.61	
OB-37-DO	10/01/14	75.86	20.38	55.48	DTB = 46.97'
OB-37-DO	10/16/14	75.86	20.23	55.63	
OB-38-DO	10/01/14	77.45	5.27	72.18	DTB = 45.61'
OB-38-DO	10/15/14	77.45	9.72	67.73	
OB-39-DO	10/17/14	79.01	20.70	58.31	
OB-39-DO	11/12/14	79.01	20.89	58.12	
OB-39-DO	12/10/14	79.01	16.02	62.99	
OB-39-DO	01/23/15	79.01	17.99	61.02	
OB-41-S	10/01/14	33.26	4.15	29.11	DTB = 14.95'
OB-41-S	10/15/14	33.26	4.14	29.12	
OB-42-S	10/01/14	51.40	6.48	44.92	DTB = 15.16'
OB-42-S	10/15/14	51.40	6.47	44.93	
OB-43-S	10/01/14	52.58	12.96	39.62	DTB = 17.01'
OB-43-S	10/15/14	52.58	12.97	39.61	
OB-44-S	10/01/14	81.49	8.65	72.84	DTB = 18.78'
OB-44-S	10/16/14	81.49	8.44	73.05	
OB-44-S	10/17/14	81.49	8.78	72.71	
OB-44-S	11/12/14	81.49	8.91	72.58	
OB-44-S	12/10/14	81.49	6.71	74.78	
OB-44-S	01/23/15	81.49	6.75	74.74	
OB-45-DO	10/01/14	76.48	17.87	58.61	DTB = 40.90'
OB-45-DO	10/16/14	76.48	17.78	58.70	
OB-45-DO	10/17/14	76.48	17.62	58.86	
OB-45-DO	11/12/14	76.48	17.77	58.71	
OB-45-DO	12/10/14	76.48	12.72	63.76	
OB-45-DO	01/23/15	76.48	14.02	62.46	
OB-45-S	10/01/14	76.57	13.33	63.24	DTB = 14.71'
OB-45-S	10/16/14	76.57	12.75	63.82	
P-09R	10/01/14	37.86	4.03	33.83	DTB = 4.48'
P-09R	10/16/14	37.86	4.27	33.59	
RW-01_MW-18	10/17/14	63.32	10.02	53.30	
RW-01_MW-18	12/10/14	63.32	7.05	56.27	
RW-01_MW-18	01/06/15	63.32	8.25	55.07	DTB = 38.60'
RW-01_MW-18	01/20/15	63.32	9.13	54.19	
RW-01_MW-18	01/23/15	63.32	9.30	54.02	

Feet = Measured below surface grade NM = Not Measured NA = Not Applicable

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
AP-25-DO	10/17/14	Clear	-89.2	8.30	0.096	9.71
AP-25-DO	12/10/14	Clear	-107.9	8.58	0.090	11.52
AP-25-DO	01/06/15	Clear	-87.6	7.44	0.212	1.61
AP-25-DO	01/20/15	Clear	25.8	6.82	0.185	2.05
AP-25-DO	01/23/15	Clear	-205.1	8.40	0.14	8.35
AP-26-DO	10/17/14	Clear	118.9	7.20	0.323	5.14
AP-26-DO	11/12/14	Clear	136.2	7.13	0.313	4.75
AP-26-DO	12/10/14	Clear	168.3	7.00	0.248	6.22
AP-26-DO	01/23/15	Clear	94.4	6.70	0.242	6.78
AP-27-DO	10/15/14	Light Purple	--	--	--	--
AP-27-DO	10/17/14	Clear	236.0	8.33	0.887	1.62
AP-27-DO	11/12/14	Clear	221.5	8.25	0.866	1.25
AP-27-DO	12/10/14	Clear	246.6	8.18	0.858	1.05
AP-27-DO	01/23/15	Clear	262.4	8.05	0.813	0.81
AP-30R-DO	10/17/14	Clear	--	--	--	--
AP-30R-DO	01/06/15	Clear	120.7	7.39	8.462	11.62
AP-30R-DO	01/23/15	Light Pink	--	--	--	--
AP-31-DO	10/01/14	Purple	--	--	--	--
AP-32-DO	10/01/14	Purple	--	--	--	--
AP-32-DO	10/17/14	Light Purple	--	--	--	--
AP-32-DO	11/12/14	Light Purple	--	--	--	--
AP-32-DO	12/10/14	Light Pink	240.1	6.76	0.987	9.11
AP-32-DO	01/23/15	Light Pink	--	--	--	--
AP-33-DO	10/17/14	Clear	-149.1	6.67	1.920	0.90
AP-33-DO	11/12/14	Clear	-54.5	6.59	0.068	0.95
AP-33-DO	11/13/14	White	-8.0	5.77	1.113	0.64
AP-33-DO	11/18/14	White	123.9	6.57	0.366	5.59
AP-33-DO	11/19/14	White	110.2	6.30	0.427	0.427
AP-33-DO	12/10/14	Clear	-182.3	6.32	1.579	0.31
AP-33-DO	01/06/15	White	-100.7	6.18	2.257	0.12
AP-33-DO	01/23/15	White	-101.2	5.92	2.192	4.17
AP-34-DO	10/17/14	Clear	-199.8	7.13	1.362	0.63
AP-34-DO	11/12/14	Clear	-139.6	7.23	0.952	0.73
AP-34-DO	11/13/14	White	-16	5.88	1.089	0.65
AP-34-DO	11/18/14	White	109.9	6.41	0.433	4.15
AP-34-DO	11/19/14	White	74.0	6.22	0.504	0.566
AP-34-DO	12/10/14	White	-121.3	6.25	1.724	0.32
AP-34-DO	01/06/15	White	-62	5.75	3.552	0.21
AP-34-DO	01/23/15	White	-131.6	5.76	2.274	1.01
AP-35-DO	10/17/14	Clear	-139.6	6.56	3.224	0.80
AP-35-DO	11/12/14	Clear	57.3	6.95	0.026	8.33
AP-35-DO	11/13/14	White	-37	5.89	1.196	0.18
AP-35-DO	11/18/14	White	72.1	6.42	0.344	3.55

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
AP-35-DO	11/19/14	White	88.2	6.34	0.432	0.230
AP-35-DO	12/10/14	Clear	-15.4	6.64	0.058	11.10
AP-35-DO	01/06/15	White	-44.0	5.76	1.462	0.14
AP-35-DO	01/20/15		-29.3	6.34	1.745	3.41
AP-35-DO	01/23/15	Clear	-158.0	6.04	2.567	1.53
BW-05	10/17/14	Clear	-74.1	6.46	1.010	0.49
BW-08	10/17/14	Clear	-92.1	6.43	1.765	0.60
BW-09	10/17/14	Clear	-101.7	6.55	1.896	0.56
CL02-DO	10/17/14	Clear	-117.6	6.88	1.549	1.23
CL02-DO	11/12/14	Clear	-105.1	6.76	1.327	0.99
CL02-DO	12/10/14	Clear	87.7	6.90	0.454	7.28
CL02-DO	01/23/15	Clear	93.4	6.81	0.432	6.22
CL03-DO	10/15/14	Light Purple	--	--	--	--
CL03-DO	10/17/14	Clear	115.9	7.13	0.168	1.26
CL03-DO	11/12/14	Clear	122.5	7.04	0.144	0.95
CL03-DO	12/10/14	Clear	141.8	7.02	0.183	1.19
CL03-DO	01/23/15	Clear	114.7	7.30	0.196	1.01
CL10-DO	10/01/14	Light Purple	--	--	--	--
CL10-DO	10/15/14	Purple	--	--	--	--
CL10-DO	10/17/14	Dark Purple	--	--	--	--
CL10-DO	11/12/14	Dark Purple	--	--	--	--
CL10-DO	12/10/14	Medium Pink	--	--	--	--
CL10-DO	01/23/15	Pink	--	--	--	--
MW-008	10/17/14	Clear	-145.2	6.85	1.207	0.63
MW-009	10/17/14	Clear	-58.1	6.27	4.840	1.40
MW-009	01/06/15	Clear	-65.3	6.63	4.842	13.9
MW-009	01/20/15	Clear	-75.5	6.64	5.107	3.66
MW-013	10/17/14	Very Light Pink	485.6	6.66	2.186	23.24
MW-032	10/17/14	Clear	131.7	8.54	0.013	10.20
MW-032	11/12/14	Clear	142.6	8.47	0.02	6.55
MW-032	12/10/14	Clear	-57.6	8.08	0.072	9.34
MW-032	01/23/15	Clear	-43.7	8.15	0.59	6.95
MW-2_32-TOZER	10/17/14	Clear	-16.9	6.54	3.105	0.78
MW-2_32-TOZER	11/12/14	Clear	-9.3	6.70	2.831	0.61
MW-2_32-TOZER	12/10/14	Clear	27.8	6.58	2.841	0.51
MW-2_32-TOZER	01/23/15	Clear	31.9	6.92	2.937	0.59
OB-09-S	10/17/14	Clear	-69.2	6.62	1.646	0.43
OB-09-S	01/06/15	Clear	-76.2	6.86	1.820	0.44
OB-09-S	01/20/15	Clear	-65.0	6.65	1.750	2.72
OB-12-BR	10/17/14	Clear	27.4	10.01	0.104	1.69
OB-12-BR	11/12/14	Clear	27.2	10.09	0.119	1.17
OB-12-BR	12/10/14	Clear	19.6	10.32	0.122	1.27
OB-12-BR	01/23/15	Clear	-8.7	7.27	0.140	2.40

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
OB-12-DO	10/01/14	Purple	--	--	--	--
OB-12-DO	10/16/14	Purple	--	--	--	--
OB-12-DO	10/17/14	Dark Purple	--	--	--	--
OB-12-DO	11/12/14	Dark Purple	--	--	--	--
OB-12-DO	12/10/14	Dark Purple	--	--	--	--
OB-12-DO	01/23/15	Dark Purple	--	--	--	--
OB-15-S	10/17/14	Clear	-93.4	6.65	1.060	0.55
OB-15-S	01/06/15	Clear	-55.9	6.68	1.031	2.0
OB-15-S	01/20/15	Clear	-49.3	6.64	1.398	2.45
OB-19-DO	10/17/14	Clear	-19.4	7.34	0.569	1.91
OB-19-DO	11/12/14	Clear	-24.7	7.31	0.505	2.13
OB-19-DO	12/10/14	Clear	54.6	7.35	0.524	1.23
OB-19-DO	01/23/15	Clear	43.1	7.42	0.536	1.84
OB-25-BR	10/17/14	Dark Purple	--	--	--	--
OB-25-BR	11/12/14	Dark Purple	--	--	--	--
OB-25-BR	12/10/14	Dark Purple	--	--	--	--
OB-25-BR	01/23/15	Dark Purple	--	--	--	--
OB-25-DO	10/17/14	Clear	135.9	7.86	0.485	22.14
OB-25-DO	11/12/14	Clear	144.6	7.92	0.459	9.36
OB-25-DO	12/10/14	Clear	186.6	7.74	0.462	23.23
OB-25-DO	01/06/15	Clear	26.5	7.19	0.967	5.84
OB-25-DO	01/21/15	Clear	266.3	6.05	0.712	11.72
OB-25-DO	01/23/15	Clear	194.2	7.86	0.502	8.43
OB-27-BR	10/17/14	Dark Purple	--	--	--	--
OB-27-BR	11/12/14	Dark Purple	--	--	--	--
OB-27-BR	12/10/14	Dark Purple	--	--	--	--
OB-27-BR	01/23/15	Dark Purple	--	--	--	--
OB-27-DO	10/01/14	Purple	--	--	--	--
OB-32-DO	10/01/14	Medium Purple	--	--	--	--
OB-32-DO	10/16/14	Medium Purple	--	--	--	--
OB-34-DO	10/17/14	Light Purple	--	--	--	--
OB-34-DO	11/12/14	Light Purple	--	--	--	--
OB-34-DO	12/10/14	Light Purple	--	--	--	--
OB-34-DO	01/23/15	Light Purple	--	--	--	--
OB-35-DO	10/17/14	Dark Purple	--	--	--	--
OB-35-DO	11/12/14	Dark Purple	--	--	--	--
OB-35-DO	12/10/14	Dark Purple	--	--	--	--
OB-35-DO	01/23/15	Dark Purple	--	--	--	--
OB-36-DO	10/01/14	Purple	--	--	--	--
OB-39-DO	10/17/14	Clear	55.2	9.37	0.162	8.41
OB-39-DO	11/12/14	Clear	63.4	9.22	0.143	5.70
OB-39-DO	12/10/14	Clear	323.1	8.39	0.214	0.81
OB-39-DO	01/23/15	Clear	302.9	8.52	0.184	0.66

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

GROUNDWATER PHYSICAL PARAMETER DATA

Former Varian Facility Site
150 Sohier Road
Beverly, Massachusetts

Site ID	Date	Color	ORP (mV)	pH	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)
OB-44-S	10/17/14	Clear	-155.6	7.60	0.610	2.68
OB-44-S	11/12/14	Clear	-170.8	7.83	0.621	2.43
OB-44-S	12/10/14	Clear	99.6	7.51	0.465	3.18
OB-44-S	01/23/15	Clear	75.3	7.48	0.470	2.93
OB-45-DO	10/17/14	Clear	92.1	7.64	0.554	1.81
OB-45-DO	11/12/14	Clear	108.3	7.75	0.503	1.22
OB-45-DO	12/10/14	Clear	158.1	8.22	0.522	0.67
OB-45-DO	01/23/15	Clear	150.7	8.30	0.486	0.51
RW-01_MW-18	10/17/14	Clear	-238.4	7.68	0.915	0.47
RW-01_MW-18	12/10/14	Clear	-268.2	8.38	1.796	0.51
RW-01_MW-18	01/06/15	Clear	-164.2	10.20	5.077	38.0
RW-01_MW-18	01/20/15	Clear	-124.0	6.99	1.333	1.11
RW-01_MW-18	01/23/15	Clear	-219.2	6.82	1.475	2.48
UNNAMED_STREAM	11/12/14	Clear	--	--	--	--
UNNAMED_STREAM	12/10/14	Clear	--	--	--	--
UNNAMED_STREAM	01/23/15	Clear	--	--	--	--

NOTES: -- = Not Analyzed
mV=millivolts

ORP= Oxidation reduction potential
S/m= Siemans per meter

Deg.C= Degrees Celcius

APPENDIX C

LABORATORY ANALYTICAL REPORTS

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152780.04

Prepared By: Catherine Joe Mainville

Date : 11/3/2014

Matrix: Groundwater

Analyte Group : Volatile Organics
Metals
Chloride

Analytical Method : SW-846 8260C
6010 C
SM 4500-CL-E

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1408297

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes*

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
10/15 and 10/16/2014	SW-846 8260C	14 days	10 days	10/25, 10/27, 10/28/14
10/15 and 10/16/2014	6010 C	180 Days	180 Days	10/29, 10/30, 10/30/14
10/15 and 10/16/2014	SM 4500-CL-E	28 Days	28 Days	10/24/14

Sample temperature within QC limits: Yes, 4.2 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : EB-1, EB-2
Trip Blank ID : TB-1

Method Blank: SW-846 8260C 10/25, 10/27, 10/28/14

6010 C 10/29/14, 10/31/14

SM 4500-CL-E 10/24/2014

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? Yes

If so, list Sample ID/Compound/Concentration/Units: See Notes

Notes:
Several samples were reanalyzed at higher dilutions to bring target analytes within the calibration range of the method. Samples OB4-DO (69'), OB5-DO (85'), OB41-S (14') and MW-13 (54') were re-analyzed and both dilutions were reported with analytes over the range flagged with an "E" and the diluted analytes flagged with a "D".

Method Blank for Metals (6010C) analyzed on 10/29/14 had a detection of 36 ug/L for Manganese. A second method blank was ran on 10/31/14 and the result for Manganese was non-detect at <10 ug/L. No validation was required because results were either non-detect or detected greater than 5X the method blank for results analyzed on 10/29/14.

Reviewed By: Pernilla Haley 2/4/15

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

November 03, 2014

Service Request No: R1408297

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/152780-04000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on October 17, 2014. For your reference, these analyses have been assigned our service request number **R1408297**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

CC: Pernilla Haley

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1408297
Project:	Varian Beverly	**Project Number:**	152780-04000000
Sample Matrix:	Water	**Date Received:**	10/17/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 10/15-16/14 and received at ALS in good condition at a cooler temperature of 4.2 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #. All Soluble parameters were filtered by field personnel.

Volatile Organics

Twenty eight water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples OB4-DO (69'), OB5-DO (85'), OB42-S (14') and MW-13 (54') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial and continuing calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries and RPD's were within QC limits.

All samples were analyzed within the required holding time of 14 days.

Inorganic Analyses

Nine water samples were analyzed for a site specific list of inorganics. Please attached data pages for method numbers.

The initial and continuing calibration criteria were met for all analytes.

All Method blanks were free of contamination except for a low level detection for Manganese. No data was affected.

All Blank Spike (LCS) recoveries were within QC limits.

00002 rev

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152780

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1408297-001-028

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A X	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A X	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Janice Jaeger

Printed Name: Janice Jaeger

Position: Client Services Manager

Date: 11/04/14

00003

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1408297

Lab ID	Client ID
R1408297-001	EB-1
R1408297-002	CL10-S (15')
R1408297-003	CL10-DO (36')
R1408297-004	CL10-BR (46')
R1408297-005	OB20-DO (73')
R1408297-006	OB20-BR (100')
R1408297-007	STRM-A-SCDS
R1408297-008	TB-1
R1408297-009	OB41S (14')
R1408297-010	CL3-DO (79')
R1408297-011	OB4-DO (69')
R1408297-012	MW2-32 TOZIER (19')
R1408297-013	OB5-DO (85')
R1408297-014	OB43-S (16')
R1408297-015	OB18-S (14')
R1408297-016	OB42-S (14')
R1408297-017	STRHA-7A
R1408297-018	STRHA-7B
R1408297-019	EB-2
R1408297-020	P-9R (4)
R1408297-021	BR6-ZONE 3 (42)
R1408297-022	AP-19 (29')
R1408297-023	AP-20 (29')
R1408297-024	AP-21 (29')
R1408297-025	AP-22 (29')
R1408297-026	MW-13 (54')
R1408297-027	OB12-DO (59')
R1408297-028	OB35-DO (61')

00004rev

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: **LARRY LEWIS**

for the analysis of **NON POTABLE WATER (CHEMISTRY)**

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: **01 JUL 2014**
Expires: **30 JUN 2015**

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEI	EPA 608

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0700
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/25/14 03:03
Sample Name:	EB-1	**Units:**	µg/L
Lab Code:	R1408297-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0059.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/25/14 03:03	
Dibromofluoromethane	95	70-130	10/25/14 03:03	
Toluene-d8	102	70-130	10/25/14 03:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0730
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 09:21
Sample Name:	CL10-S (15')	**Units:**	µg/L
Lab Code:	R1408297-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8104.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**18**		2.0	
79-01-6	Trichloroethene (TCE)	**9.8**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**4.0**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	70-130	10/28/14 09:21	
Dibromofluoromethane	93	70-130	10/28/14 09:21	
Toluene-d8	100	70-130	10/28/14 09:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0800
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	CL10-DO (36')		
Lab Code:	R1408297-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**40.8**		mg/L	1.0	1	NA	10/24/14 11:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0800
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	CL10-DO (36')		
Lab Code:	R1408297-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	1000	U	µg/L	1000	1	10/22/14	10/29/14 15:58	
Manganese, Dissolved	6010C	**84500**		µg/L	100	1	10/22/14	10/29/14 15:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0800
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/25/14 03:35
Sample Name:	CL10-DO (36')	**Units:**	µg/L
Lab Code:	R1408297-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0060.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/25/14 03:35	
Dibromofluoromethane	96	70-130	10/25/14 03:35	
Toluene-d8	101	70-130	10/25/14 03:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0830
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/25/14 04:07
Sample Name:	CL10-BR (46')	**Units:**	µg/L
Lab Code:	R1408297-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0061.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/25/14 04:07	
Dibromofluoromethane	92	70-130	10/25/14 04:07	
Toluene-d8	101	70-130	10/25/14 04:07	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0900
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 09:44
Sample Name:	OB20-DO (73')	**Units:**	µg/L
Lab Code:	R1408297-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8105.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**6.5**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**5.5**		2.0	
156-59-2	cis-1,2-Dichloroethene	**42**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	10/28/14 09:44	
Dibromofluoromethane	95	70-130	10/28/14 09:44	
Toluene-d8	103	70-130	10/28/14 09:44	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0930
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 12:49
Sample Name:	OB20-BR (100')	**Units:**	µg/L
Lab Code:	R1408297-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8113.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	10	U	10	
79-01-6	Trichloroethene (TCE)	**55**		10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	**11**		10	
156-59-2	cis-1,2-Dichloroethene	**810**		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	**16**		10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	10/28/14 12:49	
Dibromofluoromethane	95	70-130	10/28/14 12:49	
Toluene-d8	101	70-130	10/28/14 12:49	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1000
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/25/14 04:40
Sample Name:	STRM-A-SCDS	**Units:**	µg/L
Lab Code:	R1408297-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0062.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**4.9**		2.0	
79-01-6	Trichloroethene (TCE)	**17**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**5.1**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/25/14 04:40	
Dibromofluoromethane	95	70-130	10/25/14 04:40	
Toluene-d8	88	70-130	10/25/14 04:40	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1015
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/25/14 02:31
Sample Name:	TB-1	**Units:**	µg/L
Lab Code:	R1408297-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0058.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/25/14 02:31	
Dibromofluoromethane	94	70-130	10/25/14 02:31	
Toluene-d8	101	70-130	10/25/14 02:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1030
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 10:07
Sample Name:	OB41S (14')	**Units:**	µg/L
Lab Code:	R1408297-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8106.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**29**		2.0	
79-01-6	Trichloroethene (TCE)	**110**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**39**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	10/28/14 10:07	
Dibromofluoromethane	93	70-130	10/28/14 10:07	
Toluene-d8	100	70-130	10/28/14 10:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	CL3-DO (79')		
Lab Code:	R1408297-010	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**16.3**		mg/L	1.0	1	NA	10/24/14 11:08	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	CL3-DO (79')		
Lab Code:	R1408297-010	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/22/14	10/29/14 16:04	
Manganese, Dissolved	6010C	**1160**		µg/L	10	1	10/22/14	10/29/14 16:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/25/14 05:12
Sample Name:	CL3-DO (79')	**Units:**	µg/L
Lab Code:	R1408297-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0063.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**18**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/25/14 05:12	
Dibromofluoromethane	92	70-130	10/25/14 05:12	
Toluene-d8	97	70-130	10/25/14 05:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1115
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 11:14
Sample Name:	OB4-DO (69')	**Units:**	µg/L
Lab Code:	R1408297-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8050.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**150**		2.0	
79-01-6	Trichloroethene (TCE)	**360**	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**97**		2.0	
156-59-2	cis-1,2-Dichloroethene	**560**	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	10/27/14 11:14	
Dibromofluoromethane	97	70-130	10/27/14 11:14	
Toluene-d8	103	70-130	10/27/14 11:14	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1115
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 13:12
Sample Name:	OB4-DO (69')	**Units:**	µg/L
Lab Code:	R1408297-011	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8114.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**140**	D	10	
79-01-6	Trichloroethene (TCE)	**330**	D	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	**93**	D	10	
156-59-2	cis-1,2-Dichloroethene	**540**	D	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	10/28/14 13:12	
Dibromofluoromethane	97	70-130	10/28/14 13:12	
Toluene-d8	105	70-130	10/28/14 13:12	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0908
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	MW2-32 TOZIER (19')		
Lab Code:	R1408297-012	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**595**		mg/L	10	10	NA	10/24/14 11:08	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0908
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	MW2-32 TOZIER (19')		
Lab Code:	R1408297-012	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**2370**		µg/L	100	1	10/22/14	10/30/14 17:37	
Manganese, Dissolved	6010C	**19500**		µg/L	500	50	10/22/14	10/29/14 16:11	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0908
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 15:50
Sample Name:	MW2-32 TOZIER (19')	**Units:**	µg/L
Lab Code:	R1408297-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8062.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**4900**		100	
79-01-6	Trichloroethene (TCE)	**850**		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	**1500**		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	70-130	10/27/14 15:50	
Dibromofluoromethane	94	70-130	10/27/14 15:50	
Toluene-d8	98	70-130	10/27/14 15:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 16:13
Sample Name:	OB5-DO (85')	**Units:**	µg/L
Lab Code:	R1408297-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8063.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**25**		20	
79-01-6	Trichloroethene (TCE)	**35**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	**2000**	E	20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	10/27/14 16:13	
Dibromofluoromethane	97	70-130	10/27/14 16:13	
Toluene-d8	103	70-130	10/27/14 16:13	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 13:35
Sample Name:	OB5-DO (85')	**Units:**	µg/L
Lab Code:	R1408297-013	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8115.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	40	U	40	
79-01-6	Trichloroethene (TCE)	**49**	D	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	**1900**	D	40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	10/28/14 13:35	
Dibromofluoromethane	95	70-130	10/28/14 13:35	
Toluene-d8	102	70-130	10/28/14 13:35	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1145
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 10:30
Sample Name:	OB43-S (16')	**Units:**	µg/L
Lab Code:	R1408297-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8107.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**3.7**		2.0	
79-01-6	Trichloroethene (TCE)	**3.1**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	70-130	10/28/14 10:30	
Dibromofluoromethane	92	70-130	10/28/14 10:30	
Toluene-d8	100	70-130	10/28/14 10:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1200
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 12:00
Sample Name:	OB18-S (14')	**Units:**	µg/L
Lab Code:	R1408297-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8052.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**2.1**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**9.1**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	10/27/14 12:00	
Dibromofluoromethane	97	70-130	10/27/14 12:00	
Toluene-d8	102	70-130	10/27/14 12:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1215
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 16:36
Sample Name:	OB42-S (14')	**Units:**	µg/L
Lab Code:	R1408297-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8064.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**110**		5.0	
79-01-6	Trichloroethene (TCE)	**2700**	E	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	**810**	E	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	**8.9**		5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	10/27/14 16:36	
Dibromofluoromethane	95	70-130	10/27/14 16:36	
Toluene-d8	101	70-130	10/27/14 16:36	

00033rev

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1215
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 13:58
Sample Name:	OB42-S (14')	**Units:**	µg/L
Lab Code:	R1408297-016	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8116.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Methylene Chloride	50	U	50	
127-18-4	Tetrachloroethene (PCE)	**94**	D	50	
79-01-6	Trichloroethene (TCE)	**2300**	D	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	
156-59-2	cis-1,2-Dichloroethene	**700**	D	50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	10/28/14 13:58	
Dibromofluoromethane	94	70-130	10/28/14 13:58	
Toluene-d8	100	70-130	10/28/14 13:58	

00034rev

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1245
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 12:23
Sample Name:	STRHA-7A	**Units:**	µg/L
Lab Code:	R1408297-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8053.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**6.1**		2.0	
79-01-6	Trichloroethene (TCE)	**29**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**36**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	70-130	10/27/14 12:23	
Dibromofluoromethane	96	70-130	10/27/14 12:23	
Toluene-d8	100	70-130	10/27/14 12:23	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1300
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 12:46
Sample Name:	STRHA-7B	**Units:**	µg/L
Lab Code:	R1408297-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8054.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**3.2**		2.0	
79-01-6	Trichloroethene (TCE)	**10**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**4.4**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	10/27/14 12:46	
Dibromofluoromethane	96	70-130	10/27/14 12:46	
Toluene-d8	102	70-130	10/27/14 12:46	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1330
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 21:36
Sample Name:	EB-2	**Units:**	µg/L
Lab Code:	R1408297-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418261
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8077.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	10/27/14 21:36	
Dibromofluoromethane	95	70-130	10/27/14 21:36	
Toluene-d8	102	70-130	10/27/14 21:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0730
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 13:09
Sample Name:	P-9R (4)	**Units:**	µg/L
Lab Code:	R1408297-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8055.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	88	70-130	10/27/14 13:09	
Dibromofluoromethane	94	70-130	10/27/14 13:09	
Toluene-d8	99	70-130	10/27/14 13:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0830
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 13:32
Sample Name:	BR6-ZONE 3 (42)	**Units:**	µg/L
Lab Code:	R1408297-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8056.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	10/27/14 13:32	
Dibromofluoromethane	100	70-130	10/27/14 13:32	
Toluene-d8	104	70-130	10/27/14 13:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0915
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-19 (29')		
Lab Code:	R1408297-022	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**2.6**		mg/L	1.0	1	NA	10/24/14 11:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0915
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-19 (29')		
Lab Code:	R1408297-022	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/22/14	10/29/14 16:17	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	10/30/14	10/31/14 09:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0915
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 10:54
Sample Name:	AP-19 (29')	**Units:**	µg/L
Lab Code:	R1408297-022	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8108.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**2.2**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	10/28/14 10:54	
Dibromofluoromethane	94	70-130	10/28/14 10:54	
Toluene-d8	100	70-130	10/28/14 10:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1000
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-20 (29')		
Lab Code:	R1408297-023	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**4120**		mg/L	100	100	NA	10/24/14 11:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1000
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-20 (29')		
Lab Code:	R1408297-023	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100000	U	µg/L	100000	100	10/22/14	10/30/14 17:44	
Manganese, Dissolved	6010C	**10300000**		µg/L	20000	200	10/22/14	10/29/14 16:24	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1000
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 11:17
Sample Name:	AP-20 (29')	**Units:**	µg/L
Lab Code:	R1408297-023	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8109.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**3.1**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	70-130	10/28/14 11:17	
Dibromofluoromethane	97	70-130	10/28/14 11:17	
Toluene-d8	102	70-130	10/28/14 11:17	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1045
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-21 (29')		
Lab Code:	R1408297-024	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**10100**		mg/L	200	200	NA	10/24/14 11:13	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1045
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-21 (29')		
Lab Code:	R1408297-024	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100000	U	µg/L	100000	100	10/22/14	10/30/14 17:51	
Manganese, Dissolved	6010C	**13500000**		µg/L	20000	200	10/22/14	10/29/14 16:30	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1045
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 11:40
Sample Name:	AP-21 (29')	**Units:**	µg/L
Lab Code:	R1408297-024	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8110.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**74**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**6.2**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	70-130	10/28/14 11:40	
Dibromofluoromethane	94	70-130	10/28/14 11:40	
Toluene-d8	100	70-130	10/28/14 11:40	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-22 (29')		
Lab Code:	R1408297-025	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**10700**		mg/L	200	200	NA	10/24/14 11:13	

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Analytical Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Collected: 10/16/14 1130
Date Received: 10/17/14

Sample Name: AP-22 (29')
Lab Code: R1408297-025

Basis: NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100000	U	µg/L	100000	100	10/22/14	10/30/14 17:59	
Manganese, Dissolved	6010C	**12100000**		µg/L	20000	200	10/22/14	10/29/14 16:49	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 13:55
Sample Name:	AP-22 (29')	**Units:**	µg/L
Lab Code:	R1408297-025	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8057.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**11**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	10/27/14 13:55	
Dibromofluoromethane	99	70-130	10/27/14 13:55	
Toluene-d8	102	70-130	10/27/14 13:55	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1200
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 18:09
Sample Name:	MW-13 (54')	**Units:**	µg/L
Lab Code:	R1408297-026	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8068.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**250**		5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	**12**		5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**6.5**		5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	**350**		5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	**580**	E	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**35**		5.0	
79-01-6	Trichloroethene (TCE)	5.0	U	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	10/27/14 18:09	
Dibromofluoromethane	100	70-130	10/27/14 18:09	
Toluene-d8	102	70-130	10/27/14 18:09	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1200
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 14:21
Sample Name:	MW-13 (54')	**Units:**	µg/L
Lab Code:	R1408297-026	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8117.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**230**	D	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	**11**	D	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	**310**	D	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	**550**	D	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**31**	D	10	
79-01-6	Trichloroethene (TCE)	10	U	10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	10	U	10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	70-130	10/28/14 14:21	
Dibromofluoromethane	96	70-130	10/28/14 14:21	
Toluene-d8	99	70-130	10/28/14 14:21	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1230
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB12-DO (59')		
Lab Code:	R1408297-027	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**1440**		mg/L	20	20	NA	10/24/14 11:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1230
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB12-DO (59')		
Lab Code:	R1408297-027	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100000	U	µg/L	100000	100	10/22/14	10/30/14 18:07	
Manganese, Dissolved	6010C	**6430000**		µg/L	20000	200	10/22/14	10/29/14 16:56	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1230
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 12:03
Sample Name:	OB12-DO (59')	**Units:**	µg/L
Lab Code:	R1408297-027	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8111.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**5.1**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**2.4**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	10/28/14 12:03	
Dibromofluoromethane	94	70-130	10/28/14 12:03	
Toluene-d8	101	70-130	10/28/14 12:03	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1330
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB35-DO (61')		
Lab Code:	R1408297-028	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**94.2**		mg/L	1.0	1	NA	10/24/14 11:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1330
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB35-DO (61')		
Lab Code:	R1408297-028	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/22/14	10/29/14 17:02	
Manganese, Dissolved	6010C	**143**		µg/L	10	1	10/30/14	10/31/14 10:29	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1330
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/28/14 12:26
Sample Name:	OB35-DO (61')	**Units:**	µg/L
Lab Code:	R1408297-028	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8112.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**11**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**6.1**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	70-130	10/28/14 12:26	
Dibromofluoromethane	94	70-130	10/28/14 12:26	
Toluene-d8	101	70-130	10/28/14 12:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1408297-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	1.0	U	mg/L	1.0	1	NA	10/24/14 11:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1408297-MB1	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/22/14	10/29/14 15:32	
Manganese, Dissolved	6010C	**36**		µg/L	10	1	10/22/14	10/29/14 15:32	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1408297-MB2	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Manganese, Dissolved	6010C	10	U	µg/L	10	1	10/30/14	10/31/14 09:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/25/14 01:58
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413053-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417980
Data File Name:	I:\ACQUDATA\msvoa12\Data\102414\MM0057.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/25/14 01:58	
Dibromofluoromethane	93	70-130	10/25/14 01:58	
Toluene-d8	102	70-130	10/25/14 01:58	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/27/14 10:28
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413133-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418259
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8048.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	10/27/14 10:28	
Dibromofluoromethane	97	70-130	10/27/14 10:28	
Toluene-d8	103	70-130	10/27/14 10:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/27/14 21:13
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413135-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418261
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102714\B8076.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	70-130	10/27/14 21:13	
Dibromofluoromethane	93	70-130	10/27/14 21:13	
Toluene-d8	98	70-130	10/27/14 21:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408297
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/28/14 08:53
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413405-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418447
Data File Name:	I:\ACQUDATA\MSVOA14\Data\102814\B8103.D\	**Instrument Name:**	R-MS-14
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	10/28/14 08:53	
Dibromofluoromethane	97	70-130	10/28/14 08:53	
Toluene-d8	104	70-130	10/28/14 08:53	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/24/14

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1408297-LCS Result	Spike Amount	% Rec	% Rec Limits
Chloride	SM 4500-Cl-E-1997(20	24.4	25.0	98	86 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/29/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1408297-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	987	1000	99	80 - 120
Manganese, Dissolved	6010C	570	500	114	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/31/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1408297-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Manganese, Dissolved	6010C	520	500	104	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/25/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 417980

Analyte Name	Lab Control Sample RQ1413053-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1413053-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane (TCA)	19.3	20.0	96	18.7	20.0	93	70 - 130	3	20
1,1,2,2-Tetrachloroethane	20.5	20.0	102	20.2	20.0	101	70 - 130	1	20
1,1,2-Trichloroethane	21.8	20.0	109	23.2	20.0	116	70 - 130	6	20
1,1-Dichloroethane (1,1-DCA)	18.7	20.0	93	18.7	20.0	94	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	23.2	20.0	116	22.9	20.0	114	70 - 130	1	20
1,2-Dichloroethane	18.7	20.0	94	18.9	20.0	94	70 - 130	<1	20
1,2-Dichloropropane	20.1	20.0	101	20.7	20.0	103	70 - 130	3	20
Acetone	16.0	20.0	80	17.5	20.0	87	40 - 160	9	20
Bromodichloromethane	19.9	20.0	99	20.1	20.0	100	70 - 130	<1	20
Bromoform	19.4	20.0	97	19.8	20.0	99	70 - 130	2	20
Bromomethane	17.8	20.0	89	16.4	20.0	82	40 - 160	8	20
Carbon Tetrachloride	18.0	20.0	90	17.5	20.0	88	70 - 130	3	20
Chlorobenzene	21.3	20.0	107	21.2	20.0	106	70 - 130	<1	20
Chloroethane	21.0	20.0	105	23.4	20.0	117	70 - 130	11	20
Chloroform	18.8	20.0	94	19.0	20.0	95	70 - 130	<1	20
Chloromethane	18.5	20.0	92	17.9	20.0	90	40 - 160	3	20
Dibromochloromethane	20.7	20.0	103	20.8	20.0	104	70 - 130	<1	20
Methylene Chloride	21.1	20.0	106	20.8	20.0	104	70 - 130	2	20
Tetrachloroethene (PCE)	21.1	20.0	106	20.4	20.0	102	70 - 130	3	20
Trichloroethene (TCE)	23.5	20.0	118	22.6	20.0	113	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	19.0	20.0	95	19.2	20.0	96	70 - 130	1	20
Vinyl Chloride	20.4	20.0	102	19.5	20.0	98	70 - 130	4	20
cis-1,2-Dichloroethene	20.7	20.0	104	21.4	20.0	107	70 - 130	3	20
cis-1,3-Dichloropropene	20.9	20.0	104	20.9	20.0	104	70 - 130	<1	20
trans-1,2-Dichloroethene	21.1	20.0	106	21.3	20.0	107	70 - 130	<1	20
trans-1,3-Dichloropropene	21.3	20.0	106	21.3	20.0	106	70 - 130	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/27/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 418259

	Lab Control Sample RQ1413133-03			Duplicate Lab Control Sample RQ1413133-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	19.9	20.0	99	18.6	20.0	93	70 - 130	6	20
1,1,2,2-Tetrachloroethane	20.2	20.0	101	18.9	20.0	94	70 - 130	7	20
1,1,2-Trichloroethane	18.7	20.0	94	17.8	20.0	89	70 - 130	5	20
1,1-Dichloroethane (1,1-DCA)	19.3	20.0	97	18.1	20.0	90	70 - 130	7	20
1,1-Dichloroethene (1,1-DCE)	18.3	20.0	92	17.2	20.0	86	70 - 130	6	20
1,2-Dichloroethane	18.3	20.0	91	17.6	20.0	88	70 - 130	3	20
1,2-Dichloropropane	19.8	20.0	99	18.9	20.0	95	70 - 130	5	20
Acetone	17.0	20.0	85	14.8	20.0	74	40 - 160	14	20
Bromodichloromethane	19.3	20.0	97	18.8	20.0	94	70 - 130	3	20
Bromoform	22.3	20.0	112	20.9	20.0	104	70 - 130	7	20
Bromomethane	19.8	20.0	99	21.1	20.0	105	40 - 160	6	20
Carbon Tetrachloride	18.7	20.0	94	19.2	20.0	96	70 - 130	3	20
Chlorobenzene	19.3	20.0	96	18.8	20.0	94	70 - 130	3	20
Chloroethane	18.3	20.0	92	17.2	20.0	86	70 - 130	6	20
Chloroform	19.3	20.0	96	18.5	20.0	93	70 - 130	4	20
Chloromethane	20.7	20.0	103	19.6	20.0	98	40 - 160	6	20
Dibromochloromethane	19.7	20.0	98	18.6	20.0	93	70 - 130	6	20
Methylene Chloride	18.3	20.0	91	17.5	20.0	87	70 - 130	4	20
Tetrachloroethene (PCE)	20.5	20.0	102	19.6	20.0	98	70 - 130	5	20
Trichloroethene (TCE)	18.7	20.0	93	18.0	20.0	90	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	18.9	20.0	94	17.8	20.0	89	70 - 130	6	20
Vinyl Chloride	19.0	20.0	95	17.7	20.0	88	70 - 130	7	20
cis-1,2-Dichloroethene	19.4	20.0	97	18.6	20.0	93	70 - 130	4	20
cis-1,3-Dichloropropene	21.7	20.0	108	20.7	20.0	103	70 - 130	5	20
trans-1,2-Dichloroethene	19.5	20.0	97	18.6	20.0	93	70 - 130	5	20
trans-1,3-Dichloropropene	20.7	20.0	103	19.7	20.0	98	70 - 130	5	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/27/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 418261

	Lab Control Sample RQ1413135-03			Duplicate Lab Control Sample RQ1413135-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	19.8	20.0	99	70 - 130	2	20
1,1,2,2-Tetrachloroethane	20.9	20.0	105	21.8	20.0	109	70 - 130	4	20
1,1,2-Trichloroethane	20.0	20.0	100	20.4	20.0	102	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	20.5	20.0	103	21.0	20.0	105	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	19.2	20.0	96	19.7	20.0	98	70 - 130	3	20
1,2-Dichloroethane	19.7	20.0	99	20.6	20.0	103	70 - 130	4	20
1,2-Dichloropropane	21.0	20.0	105	21.3	20.0	107	70 - 130	2	20
Acetone	17.6	20.0	88	19.7	20.0	99	40 - 160	11	20
Bromodichloromethane	20.7	20.0	103	20.9	20.0	104	70 - 130	1	20
Bromoform	21.7	20.0	109	22.5	20.0	112	70 - 130	3	20
Bromomethane	25.1	20.0	126	23.8	20.0	119	40 - 160	6	20
Carbon Tetrachloride	19.7	20.0	99	19.1	20.0	96	70 - 130	3	20
Chlorobenzene	20.7	20.0	103	21.2	20.0	106	70 - 130	2	20
Chloroethane	19.8	20.0	99	19.9	20.0	100	70 - 130	<1	20
Chloroform	21.1	20.0	105	21.2	20.0	106	70 - 130	<1	20
Chloromethane	22.5	20.0	112	22.7	20.0	114	40 - 160	1	20
Dibromochloromethane	20.1	20.0	100	20.8	20.0	104	70 - 130	4	20
Methylene Chloride	20.2	20.0	101	20.7	20.0	104	70 - 130	3	20
Tetrachloroethene (PCE)	20.8	20.0	104	21.2	20.0	106	70 - 130	2	20
Trichloroethene (TCE)	21.0	20.0	105	21.0	20.0	105	70 - 130	<1	20
Trichlorofluoromethane (CFC 11)	19.4	20.0	97	19.6	20.0	98	70 - 130	1	20
Vinyl Chloride	20.4	20.0	102	20.6	20.0	103	70 - 130	<1	20
cis-1,2-Dichloroethene	21.2	20.0	106	21.3	20.0	107	70 - 130	<1	20
cis-1,3-Dichloropropene	21.5	20.0	107	21.7	20.0	109	70 - 130	1	20
trans-1,2-Dichloroethene	21.1	20.0	105	21.6	20.0	108	70 - 130	2	20
trans-1,3-Dichloropropene	19.9	20.0	99	20.2	20.0	101	70 - 130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408297
Date Analyzed: 10/28/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 418447

	Lab Control Sample RQ1413405-03			Duplicate Lab Control Sample RQ1413405-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	18.1	20.0	90	18.5	20.0	92	70 - 130	2	20
1,1,2,2-Tetrachloroethane	19.3	20.0	96	19.8	20.0	99	70 - 130	2	20
1,1,2-Trichloroethane	18.2	20.0	91	17.9	20.0	90	70 - 130	2	20
1,1-Dichloroethane (1,1-DCA)	18.5	20.0	92	18.5	20.0	93	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	18.0	20.0	90	17.9	20.0	90	70 - 130	<1	20
1,2-Dichloroethane	18.0	20.0	90	17.8	20.0	89	70 - 130	1	20
1,2-Dichloropropane	18.9	20.0	94	19.6	20.0	98	70 - 130	4	20
Acetone	14.6	20.0	73	15.3	20.0	76	40 - 160	5	20
Bromodichloromethane	18.3	20.0	91	18.4	20.0	92	70 - 130	<1	20
Bromoform	19.3	20.0	96	19.2	20.0	96	70 - 130	<1	20
Bromomethane	23.0	20.0	115	22.3	20.0	111	40 - 160	3	20
Carbon Tetrachloride	17.7	20.0	88	18.2	20.0	91	70 - 130	3	20
Chlorobenzene	18.9	20.0	94	19.4	20.0	97	70 - 130	2	20
Chloroethane	17.8	20.0	89	17.5	20.0	87	70 - 130	2	20
Chloroform	19.0	20.0	95	19.1	20.0	95	70 - 130	<1	20
Chloromethane	19.9	20.0	100	19.9	20.0	99	40 - 160	<1	20
Dibromochloromethane	17.8	20.0	89	18.4	20.0	92	70 - 130	3	20
Methylene Chloride	18.4	20.0	92	18.1	20.0	91	70 - 130	2	20
Tetrachloroethene (PCE)	19.7	20.0	98	20.2	20.0	101	70 - 130	3	20
Trichloroethene (TCE)	18.0	20.0	90	18.1	20.0	91	70 - 130	<1	20
Trichlorofluoromethane (CFC 11)	17.8	20.0	89	18.5	20.0	92	70 - 130	4	20
Vinyl Chloride	18.0	20.0	90	18.3	20.0	92	70 - 130	2	20
cis-1,2-Dichloroethene	19.1	20.0	96	19.2	20.0	96	70 - 130	<1	20
cis-1,3-Dichloropropene	19.4	20.0	97	19.1	20.0	96	70 - 130	1	20
trans-1,2-Dichloroethene	19.1	20.0	96	19.4	20.0	97	70 - 130	1	20
trans-1,3-Dichloropropene	17.5	20.0	87	17.9	20.0	90	70 - 130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 3

Project Name: Varian Beverly
Project Number: 152780-04000000
Project Manager: Raymond Cadorette
Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021
Phone #: 617-589-6102
E-mail: raymond.cadorette@cbi.com
Sampler's Signature:
Sampler's Printed Name: DANIEL C. LEARY

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 2 0

Preservative Key: 0. NONE 1. HCL 2. HNO_3 3. H_2SO_4 4. NaOH 5. Zn. Acetate 6. MeOH 7. $NaHSO_4$ 8. Other _____

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP List	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+ Mn Chloride							REMARKS/ ALTERNATE DESCRIPTION
EB-1		10/15/14	0700	GW	3	3													
CL10-S (15')		10/15/14	0730	GW	3	3													
CL10-DO (36')		10/15/14	0800		5	3					1	1							
CL10-BR (46')		10/15/14	0830		3	3													
OB20-DO (73')		10/15/14	0900		3	3													
OB20-BR (100')		10/15/14	0930		3	3													
STRM-A-SCDS		10/15/14	1000		3	3													
TB-1		10/10/14	1015	LW	3	3													BY LAB
OB42-S (14')		10/15/14	1030	GW	3	3													
CL3-DO (79')		10/15/14	1100	GW	3	3					1	1							

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered

Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED: MA

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature	Signature	Signature	
Printed Name: DAN LEARY	Printed Name:	Printed Name	Printed Name	Printed Name	
Firm: CB&I	Firm: ARS	Firm	Firm	Firm	
Date/Time: 10/16/14 1430	Date/Time: 10/17/14 0925	Date/Time	Date/Time	Date/Time	

R1408297 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 2 OF 3

Project Name: Varian Beverly	Project Number: 152780-04000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: raymond.cadorette@cbi.com
Sampler's Signature: [signature]	Sampler's Printed Name: DANIEL C. CEARLY

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP LIST	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+ Mn	Chloride							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	0						
OB4-DO (69')		10/15/14	1115	GW	3	3														
MW2-32 (TOZIER)		10/15/14	0908		5	3						1	1							
OB5-DO (85')		10/15/14	1130		3	3														
OB43-S (16')		10/15/14	1145		3	3														
OB18-S (14')		10/15/14	1200		3	3														
OB41-S (14")		10/15/14	1215		3	3														
STRHA-7A		10/15/14	1245		3	3														
STRHA-7B		10/15/14	1300		3	3														
EB-2		10/15/14	1330	LW	3	3														
P-9R		10/16/14	0730	GW	3	3														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with F
Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

R1408297 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

STATE WHERE SAMPLES WERE COLLECTED: MA

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: DAN CEARLY	Printed Name: [signature]	Printed Name	Printed Name	Printed Name	Printed Name
Firm: CBI	Firm: AES	Firm	Firm	Firm	Firm
Date/Time: 10/16/14 1430	Date/Time: 10/17/14 0925	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax)

Project Name: Varian Beverly
Project Number: 152780-04000000
Project Manager: Raymond Cadorette
Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021
Phone #: 617-589-6102
E-mail: raymond.cadorette@cbi.com
Sampler's Signature: [signature]
Sampler's Printed Name: DANIEL C. LAMM

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1 | 2 | 0

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's 5172 SPLP ☐ 8260 ☐ 624 ☐ CLP VOC	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) PH	CHLORIDE							REMARKS/ ALTERNATE DESCRIPTION
BR6-ZONE 3		10/16/14	0830	GW	3	3														
AP-19 (29')		10/16/14	0915		5	3						1	1							
AP-20 (29')		10/16/14	1000		5	3						1	1							
AP-21 (29')		10/16/14	1045		5	3						1	1							
AP-22 (29')		10/16/14	1130		5	3						1	1							
MW-13 (54')		10/16/14	1200		3	3														
OB12-DO (59')		10/16/14	1230		5	3						1	1							
OB35-DO (61')		10/16/14	1330		5	3						1	1							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

R1408297

STATE WHERE SAMPLES WERE COLLECTED: MA

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: DAN LAMM	Printed Name: Guy Vitz	Printed Name	Printed Name	Printed Name	Printed Name
Firm: CBI	Firm: ARI	Firm	Firm	Firm	Firm
Date/Time: 10/16/14 1440	Date/Time: 10/17/14 0925	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

Cooler Receipt and Preservation Check Form

R1408297 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Project/Client CB+I Folder Number R14-8297

Cooler received on 10/17/14 by: GE COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y N	5a	Perchlorate samples have required headspace?	Y N NA
2	Custody papers properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* bubbles?	Y N NA
3	Did all bottles arrive in good condition (unbroken)?	Y N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: Wet Ice Dry Ice Gel packs present?	Y N	7	Soil VOA received as: Bulk Encore 5035set	NA

8. Temperature Readings Date: 10/17/14 Time: 1034 ID: IR#3 IR#4 From: Temp Blank Sample Bottle

Observed Temp (°C)	4.6	*7.2					
Correction Factor (°C)	-0.4	-0.4					
Corrected Temp (°C)	4.2°	6.8°					
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by GE on 10/17/14 at 1037
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JMS 10/17/14

Cooler Breakdown: Date: 10/20/14 Time: 1340 by: GE

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	✓		client, client covered					
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4113070	9/15				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: client, client covered, 062314-2440,
Other Comments:

* only 1 bag of ice in cooler

COC says 0B42-S (14')
bottles say 0B41-S (14')

PC Secondary Review: JMS 10/22/14 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152780.04

Prepared By: Catherine Joe Mainville

Date : 1/28/2015

Matrix: Groundwater

Analyte Group : Volatile Organics
Metals
Chloride
TOC
Dissolved Gases

Analytical Method : SW-846 8260C
6010 C
SM 4500-CL-E
SM 5310B/C-2000
RSK175

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1408298

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes*

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
10/15 and 10/16/2014	SW-846 8260C	14 days	10 days	10/21, 10/22, 10/23, 10/27/14
10/15 and 10/16/2014	RSK175	7 Days	7 Days	10/21/2014
10/15 and 10/16/2014	6010 C	180 Days	180 Days	10/23, 10/24/14
10/15 and 10/16/2014	SM 4500-CL-E	28 Days	28 Days	10/24/2014
10/15 and 10/16/2014	SM 5310B/C-2000	28 Days	28 Days	10/21/14

Sample temperature within QC limits: No, 6.8 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? no

If no, list sample ID where range was exceeded: see notes

Equipment Field Blank ID : NA
Trip Blank ID : TRIP BLANK

Method Blank:

SW-846 8260C	10/21, 10/22, 10/23, 10/27/14
6010 C	10/23/14, 10/24/14
SM 4500-CL-E	10/24/2014
SM 5310B/C-2000	10/21/2014
RSK175	10/21/2014

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? Yes

If so, list Sample ID/Compound/Concentration/Units: See Notes

Notes:
Due to the elevated temperature the samples were received at the lab, data qualifiers have been added, "UJ" to non detects and "J" to detected compounds

Several samples were
AP12-DO (48'), AP12-BR (73'), AP-27DO (56'), OB37-DO (46') and AP-32-DO (30') were re-analyzed and both dilutions were reported with analytes over the range flagged with an "E" and the diluted analytes flagged with a "D".

Method Blank for Metals (6010C) analyzed on 10/23/14 had a non-detect result for Manganese. A second method blank was run on 10/24/14 and had a Manganese detection of 13 ug/L. No qualification necessary as Manganese results were either non-detect or detected at greater than 5X the detection in the method blank.

The relative percent difference (RPD) for the LCS/LCSD was outside limits for Chloroethane in the lab control sample associated with several samples. No qualification was necessary for chloroethane for samples OB10-BR, STR-3, UNNNAMED STREAM, OB38-DO, OB45-S, OB27-BR and OB25-DO as the results were non-detect.

The RPD for the LCS/LCSD was outside limits for Acetone in the lab control sample associated with several samples. No qualification was necessary for acetone for samples AP12-DO, AP12-BR, BW-5, BW-8, AP27-DO, OB9-BR and OB19-DO as the results were non-detect.

As stated in the lab narrative, all initial calibrations were compliant. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Bromomethane and trans-1,3-Dichloropropene on the 10/21/14 (Run 417255) and 10/23/14 CCV's, Bromomethane and Acetone on the 10/21/14 CCV (Run 417265), Acetone on the 10/22/14 CCV and Bromomethane on the 10/27/14 CCV. All positive detections for these analytes for samples associated with these CCV's should be considered as estimated. However, since actual calibration data was not reported and all results are estimated due to elevated cooler temperature when received by lab, no qualifiers were applied based on CCV.

*AP-32-DO(30') was not listed on COC. There were 4-5 samples that the IDs did not match up with those on the COC. Samples were confirmed based on date and time as labeled with the ID's on the COC.

Reviewed By: Pernilla Haley, 2/4/15

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

November 03, 2014

Service Request No: R1408298

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/152780-04000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on October 17, 2014. For your reference, these analyses have been assigned our service request number **R1408298**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

CC: Pernilla Haley

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1408298
Project:	Varian Beverly	**Project Number:**	152780-04000000
Sample Matrix:	Water	**Date Received:**	10/17/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 10/15-16/14 and received at ALS in good condition at a cooler temperature of 6.8 °C as noted on the cooler receipt and preservation check form. The client was notified of the out of temperature cooler and the samples analyzed. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #. All Soluble parameters were filtered by field personnel.

Volatile Organics

Thirty two water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples AP26-DO (60'), AP12-DO (48'), AP12-BR (73'), AP-27DO (56'), OB37-DO (46') and AP-32-DO (30') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial calibrations were compliant. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Bromomethane and trans-1,3-Dichloropropene on the 10/21/14 (Run 417255) and 10/23/14 CCV's, Bromomethane and Acetone on the 10/21/14 CCV (Run 417265), Acetone on the 10/22/14 CCV and Bromomethane on the 10/27/14 CCV. All positive detections for these analytes for samples associated with these CCV's should be considered as estimated.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits. Various RPD's were outside limits and have been flagged with an "*". No data was affected.

All samples were analyzed within the required holding time of 14 days.

Dissolved Gases

Three water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits.

All samples were analyzed within the required holding time of 14 days.

Inorganic Analyses

Five water samples were analyzed for a site specific list of inorganics. Please attached data pages for method numbers.

The initial and continuing calibration criteria were met for all analytes.

All Method blanks were free of contamination except for a low level detection for Manganese. No data was affected.

All Blank Spike (LCS) recoveries were within QC limits.

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152780

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1408298-001-033

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A X	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A X	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	Yes X No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Client Services Manager

Printed Name: Janice Jaeger **Date:** 11/04/14

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1408298

Lab ID	Client ID
R1408298-001	OB10-BR (72')
R1408298-002	STR-3
R1408298-003	UNNAMED STREAM
R1408298-004	OB38-DO (44')
R1408298-005	OB45S (14')
R1408298-006	OB45-DO (38')
R1408298-007	OB27-BR (86')
R1408298-008	OB25-DO (67')
R1408298-009	OB26-DO (58')
R1408298-010	AP26-DO (60')
R1408298-011	MW-9 (19')
R1408298-012	OB9-S (20')
R1408298-013	OB15-S (19')
R1408298-014	AP12-S (26')
R1408298-015	AP12-DO (48')
R1408298-016	AP12-BR (73')
R1408298-017	BW-5 (9')
R1408298-018	BW-8 (14')
R1408298-019	AP-27DO (56')
R1408298-020	CL5 DOA (49')
R1408298-021	MW-9A (12')
R1408298-022	OB9-DO (91')
R1408298-023	OB9-BR (119')
R1408298-024	OB19-DO (56')
R1408298-025	OB25-BR (99')
R1408298-026	OB32-DO (60')
R1408298-027	OB34-DO (63')
R1408298-028	AP31-DO (30')
R1408298-029	OB37-DO (46')
R1408298-030	OB36-DO (51')
R1408298-031	OB44-S (17')
R1408298-032	TRIP BLANK
R1408298-033	AP-32-DO (30')

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032 ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: LARRY LEWIS

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: 01 JUL 2014
Expires: 30 JUN 2015

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

00003

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1500
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 20:12
Sample Name:	OB10-BR (72')	**Units:**	µg/L
Lab Code:	R1408298-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3231.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**900**		100	
79-01-6	Trichloroethene (TCE)	**4400**		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	**820**		100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	10/21/14 20:12	
Dibromofluoromethane	105	70-130	10/21/14 20:12	
Toluene-d8	102	70-130	10/21/14 20:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1300
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 20:41
Sample Name:	STR-3	**Units:**	µg/L
Lab Code:	R1408298-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3232.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	70-130	10/21/14 20:41	
Dibromofluoromethane	105	70-130	10/21/14 20:41	
Toluene-d8	102	70-130	10/21/14 20:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1230
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 21:11
Sample Name:	UNNAMED STREAM	**Units:**	µg/L
Lab Code:	R1408298-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3233.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**69**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**5.0**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**12**		2.0	
79-01-6	Trichloroethene (TCE)	**4.6**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**9.6**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	10/21/14 21:11	
Dibromofluoromethane	104	70-130	10/21/14 21:11	
Toluene-d8	102	70-130	10/21/14 21:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1600
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 21:41
Sample Name:	OB38-DO (44')	**Units:**	µg/L
Lab Code:	R1408298-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3234.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**25**		2.0	
79-01-6	Trichloroethene (TCE)	**50**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**100**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	**5.0**		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	10/21/14 21:41	
Dibromofluoromethane	106	70-130	10/21/14 21:41	
Toluene-d8	101	70-130	10/21/14 21:41	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0900
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 22:10
Sample Name:	OB45S (14')	**Units:**	µg/L
Lab Code:	R1408298-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3235.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/21/14 22:10	
Dibromofluoromethane	107	70-130	10/21/14 22:10	
Toluene-d8	101	70-130	10/21/14 22:10	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0830
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 11:56
Sample Name:	OB45-DO (38')	**Units:**	µg/L
Lab Code:	R1408298-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3310.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	10/23/14 11:56	
Dibromofluoromethane	105	70-130	10/23/14 11:56	
Toluene-d8	99	70-130	10/23/14 11:56	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 0930
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 23:10
Sample Name:	OB27-BR (86')	**Units:**	µg/L
Lab Code:	R1408298-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3237.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**42**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**19**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	70-130	10/21/14 23:10	
Dibromofluoromethane	107	70-130	10/21/14 23:10	
Toluene-d8	101	70-130	10/21/14 23:10	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1000
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 23:40
Sample Name:	OB25-DO (67')	**Units:**	µg/L
Lab Code:	R1408298-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3238.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**430**		200	
79-01-6	Trichloroethene (TCE)	**12000**		200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	**350**		200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	70-130	10/21/14 23:40	
Dibromofluoromethane	106	70-130	10/21/14 23:40	
Toluene-d8	102	70-130	10/21/14 23:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1030
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 12:26
Sample Name:	OB26-DO (58')	**Units:**	µg/L
Lab Code:	R1408298-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3311.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**310**		20	
79-01-6	Trichloroethene (TCE)	**1600**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	**190**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	10/23/14 12:26	
Dibromofluoromethane	103	70-130	10/23/14 12:26	
Toluene-d8	100	70-130	10/23/14 12:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 00:39
Sample Name:	AP26-DO (60')	**Units:**	µg/L
Lab Code:	R1408298-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3240.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	5.0	U	5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5.0	U	5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5.0	U	5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	**33**		5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**1800**	E	5.0	
79-01-6	Trichloroethene (TCE)	**2600**	E	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	5.0	U	5.0	
156-59-2	cis-1,2-Dichloroethene	5.0	U	5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	10/22/14 00:39	
Dibromofluoromethane	106	70-130	10/22/14 00:39	
Toluene-d8	103	70-130	10/22/14 00:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 12:55
Sample Name:	AP26-DO (60')	**Units:**	µg/L
Lab Code:	R1408298-010	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3312.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Methylene Chloride	50	U	50	
127-18-4	Tetrachloroethene (PCE)	**1700**	D	50	
79-01-6	Trichloroethene (TCE)	**2500**	D	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50	U	50	
75-01-4	Vinyl Chloride	50	U	50	
156-59-2	cis-1,2-Dichloroethene	50	U	50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/23/14 12:55	
Dibromofluoromethane	103	70-130	10/23/14 12:55	
Toluene-d8	102	70-130	10/23/14 12:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	MW-9 (19')		
Lab Code:	R1408298-011	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**750**		mg/L	100	100	NA	10/21/14 11:17	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 10:32
Sample Name:	MW-9 (19')	**Units:**	µg/L
Lab Code:	R1408298-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417265
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3260.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	40	U	40	
79-01-6	Trichloroethene (TCE)	40	U	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	**1200**		40	
156-59-2	cis-1,2-Dichloroethene	**1700**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	70-130	10/22/14 10:32	
Dibromofluoromethane	105	70-130	10/22/14 10:32	
Toluene-d8	101	70-130	10/22/14 10:32	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 10:14
Sample Name:	MW-9 (19')	**Units:**	µg/L
Lab Code:	R1408298-011	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	417210
Data File Name:	1005.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	125

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**550**		130	
74-85-1	Ethylene	**990**		130	
74-82-8	Methane	**8000**		130	
74-98-6	Propane	130	U	130	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB9-S (20')		
Lab Code:	R1408298-012	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**35.7**		mg/L	4.0	4	NA	10/21/14 11:37	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 13:25
Sample Name:	OB9-S (20')	**Units:**	µg/L
Lab Code:	R1408298-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3313.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**81**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**4.5**		2.0	
156-59-2	cis-1,2-Dichloroethene	**4.9**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	10/23/14 13:25	
Dibromofluoromethane	105	70-130	10/23/14 13:25	
Toluene-d8	100	70-130	10/23/14 13:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1100
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 10:39
Sample Name:	OB9-S (20')	**Units:**	µg/L
Lab Code:	R1408298-012	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	417210
Data File Name:	1006.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	250	U	250	
74-85-1	Ethylene	250	U	250	
74-82-8	Methane	**16000**		250	
74-98-6	Propane	250	U	250	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1250
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB15-S (19')		
Lab Code:	R1408298-013	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**36.7**		mg/L	4.0	4	NA	10/21/14 11:58	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1250
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 11:31
Sample Name:	OB15-S (19')	**Units:**	µg/L
Lab Code:	R1408298-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417265
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3262.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**3.7**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**4.8**		2.0	
156-59-2	cis-1,2-Dichloroethene	**3.8**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	70-130	10/22/14 11:31	
Dibromofluoromethane	105	70-130	10/22/14 11:31	
Toluene-d8	104	70-130	10/22/14 11:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1250
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/21/14 11:00
Sample Name:	OB15-S (19')	**Units:**	µg/L
Lab Code:	R1408298-013	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	417210
Data File Name:	1008.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	125

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**220**		130	
74-85-1	Ethylene	130	U	130	
74-82-8	Methane	**9500**		130	
74-98-6	Propane	130	U	130	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1330
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 12:01
Sample Name:	AP12-S (26')	**Units:**	µg/L
Lab Code:	R1408298-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417265
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3263.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**2400**		40	
79-01-6	Trichloroethene (TCE)	**2100**		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	**400**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	70-130	10/22/14 12:01	
Dibromofluoromethane	106	70-130	10/22/14 12:01	
Toluene-d8	102	70-130	10/22/14 12:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1400
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 12:30
Sample Name:	AP12-DO (48')	**Units:**	µg/L
Lab Code:	R1408298-015	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417265
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3264.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	**100**		20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**5700**	E	20	
79-01-6	Trichloroethene (TCE)	**880**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	**130**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	70-130	10/22/14 12:30	
Dibromofluoromethane	107	70-130	10/22/14 12:30	
Toluene-d8	103	70-130	10/22/14 12:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1400
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 13:55
Sample Name:	AP12-DO (48')	**Units:**	µg/L
Lab Code:	R1408298-015	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3314.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**4800**	D	100	
79-01-6	Trichloroethene (TCE)	**620**	D	100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	100	U	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/23/14 13:55	
Dibromofluoromethane	105	70-130	10/23/14 13:55	
Toluene-d8	102	70-130	10/23/14 13:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1430
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 13:00
Sample Name:	AP12-BR (73')	**Units:**	µg/L
Lab Code:	R1408298-016	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417265
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3265.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**6.4**		2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**120**		2.0	
79-01-6	Trichloroethene (TCE)	**1400**	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**6.0**		2.0	
156-59-2	cis-1,2-Dichloroethene	**1900**	E	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	**18**		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	70-130	10/22/14 13:00	
Dibromofluoromethane	105	70-130	10/22/14 13:00	
Toluene-d8	103	70-130	10/22/14 13:00	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1430
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 14:25
Sample Name:	AP12-BR (73')	**Units:**	µg/L
Lab Code:	R1408298-016	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3315.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**160**	D	40	
79-01-6	Trichloroethene (TCE)	**1400**	D	40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	40	U	40	
156-59-2	cis-1,2-Dichloroethene	**2100**	D	40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	40	U	40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/23/14 14:25	
Dibromofluoromethane	104	70-130	10/23/14 14:25	
Toluene-d8	102	70-130	10/23/14 14:25	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0730
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 19:27
Sample Name:	BW-5 (9')	**Units:**	µg/L
Lab Code:	R1408298-017	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3278.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**40**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/22/14 19:27	
Dibromofluoromethane	105	70-130	10/22/14 19:27	
Toluene-d8	100	70-130	10/22/14 19:27	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0800
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 19:56
Sample Name:	BW-8 (14')	**Units:**	µg/L
Lab Code:	R1408298-018	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3279.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**11**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**5.7**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/22/14 19:56	
Dibromofluoromethane	106	70-130	10/22/14 19:56	
Toluene-d8	102	70-130	10/22/14 19:56	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1530
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-27DO (56')		
Lab Code:	R1408298-019	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**242**		mg/L	4.0	4	NA	10/24/14 11:18	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1530
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	AP-27DO (56')		
Lab Code:	R1408298-019	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/21/14	10/23/14 18:31	
Manganese, Dissolved	6010C	**3650**		µg/L	200	20	10/21/14	10/23/14 16:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1530
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 20:26
Sample Name:	AP-27DO (56')	**Units:**	µg/L
Lab Code:	R1408298-019	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3280.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**4.9**		2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**160**		2.0	
79-01-6	Trichloroethene (TCE)	**4800**	E	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**4.2**		2.0	
156-59-2	cis-1,2-Dichloroethene	**120**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	**40**		2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/22/14 20:26	
Dibromofluoromethane	105	70-130	10/22/14 20:26	
Toluene-d8	102	70-130	10/22/14 20:26	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1530
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 15:52
Sample Name:	AP-27DO (56')	**Units:**	µg/L
Lab Code:	R1408298-019	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418267
Data File Name:	I:\ACQUDATA\msvoa10\data\102714\A3419.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	200

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	400	U	400	
79-34-5	1,1,2,2-Tetrachloroethane	400	U	400	
79-00-5	1,1,2-Trichloroethane	400	U	400	
75-34-3	1,1-Dichloroethane (1,1-DCA)	400	U	400	
75-35-4	1,1-Dichloroethene (1,1-DCE)	400	U	400	
107-06-2	1,2-Dichloroethane	400	U	400	
78-87-5	1,2-Dichloropropane	400	U	400	
67-64-1	Acetone	2000	U	2000	
75-27-4	Bromodichloromethane	400	U	400	
75-25-2	Bromoform	400	U	400	
74-83-9	Bromomethane	400	U	400	
56-23-5	Carbon Tetrachloride	400	U	400	
108-90-7	Chlorobenzene	400	U	400	
75-00-3	Chloroethane	400	U	400	
67-66-3	Chloroform	400	U	400	
74-87-3	Chloromethane	400	U	400	
124-48-1	Dibromochloromethane	400	U	400	
75-09-2	Methylene Chloride	400	U	400	
127-18-4	Tetrachloroethene (PCE)	400	U	400	
79-01-6	Trichloroethene (TCE)	**15000**	**D**	400	
75-69-4	Trichlorofluoromethane (CFC 11)	400	U	400	
75-01-4	Vinyl Chloride	400	U	400	
156-59-2	cis-1,2-Dichloroethene	400	U	400	
10061-01-5	cis-1,3-Dichloropropene	400	U	400	
156-60-5	trans-1,2-Dichloroethene	400	U	400	
10061-02-6	trans-1,3-Dichloropropene	400	U	400	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/27/14 15:52	
Dibromofluoromethane	105	70-130	10/27/14 15:52	
Toluene-d8	102	70-130	10/27/14 15:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0900
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 15:24
Sample Name:	CL5 DOA (49')	**Units:**	µg/L
Lab Code:	R1408298-020	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3317.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/23/14 15:24	
Dibromofluoromethane	105	70-130	10/23/14 15:24	
Toluene-d8	101	70-130	10/23/14 15:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1030
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 15:54
Sample Name:	MW-9A (12')	**Units:**	µg/L
Lab Code:	R1408298-021	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3318.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**3.7**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	**2.3**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**17**		2.0	
156-59-2	cis-1,2-Dichloroethene	**82**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	10/23/14 15:54	
Dibromofluoromethane	108	70-130	10/23/14 15:54	
Toluene-d8	102	70-130	10/23/14 15:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 1000
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 16:24
Sample Name:	OB9-DO (91')	**Units:**	µg/L
Lab Code:	R1408298-022	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3319.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	20	U	20	
79-01-6	Trichloroethene (TCE)	20	U	20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	**1500**		20	
156-59-2	cis-1,2-Dichloroethene	**1300**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/23/14 16:24	
Dibromofluoromethane	108	70-130	10/23/14 16:24	
Toluene-d8	101	70-130	10/23/14 16:24	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14 0945
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 22:25
Sample Name:	OB9-BR (119')	**Units:**	µg/L
Lab Code:	R1408298-023	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3284.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	50	U	50	
79-34-5	1,1,2,2-Tetrachloroethane	50	U	50	
79-00-5	1,1,2-Trichloroethane	50	U	50	
75-34-3	1,1-Dichloroethane (1,1-DCA)	50	U	50	
75-35-4	1,1-Dichloroethene (1,1-DCE)	50	U	50	
107-06-2	1,2-Dichloroethane	50	U	50	
78-87-5	1,2-Dichloropropane	50	U	50	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	50	U	50	
75-25-2	Bromoform	50	U	50	
74-83-9	Bromomethane	50	U	50	
56-23-5	Carbon Tetrachloride	50	U	50	
108-90-7	Chlorobenzene	50	U	50	
75-00-3	Chloroethane	50	U	50	
67-66-3	Chloroform	50	U	50	
74-87-3	Chloromethane	50	U	50	
124-48-1	Dibromochloromethane	50	U	50	
75-09-2	Methylene Chloride	50	U	50	
127-18-4	Tetrachloroethene (PCE)	50	U	50	
79-01-6	Trichloroethene (TCE)	50	U	50	
75-69-4	Trichlorofluoromethane (CFC 11)	50	U	50	
75-01-4	Vinyl Chloride	**1900**		50	
156-59-2	cis-1,2-Dichloroethene	**2900**		50	
10061-01-5	cis-1,3-Dichloropropene	50	U	50	
156-60-5	trans-1,2-Dichloroethene	50	U	50	
10061-02-6	trans-1,3-Dichloropropene	50	U	50	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/22/14 22:25	
Dibromofluoromethane	106	70-130	10/22/14 22:25	
Toluene-d8	102	70-130	10/22/14 22:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB19-DO (56')		
Lab Code:	R1408298-024	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**33.2**		mg/L	1.0	1	NA	10/24/14 11:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB19-DO (56')		
Lab Code:	R1408298-024	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**350**		µg/L	100	1	10/21/14	10/23/14 18:39	
Manganese, Dissolved	6010C	**2510**		µg/L	100	10	10/21/14	10/23/14 16:34	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1130
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 22:54
Sample Name:	OB19-DO (56')	**Units:**	µg/L
Lab Code:	R1408298-024	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3285.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	20

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	40	U	40	
79-34-5	1,1,2,2-Tetrachloroethane	40	U	40	
79-00-5	1,1,2-Trichloroethane	40	U	40	
75-34-3	1,1-Dichloroethane (1,1-DCA)	40	U	40	
75-35-4	1,1-Dichloroethene (1,1-DCE)	40	U	40	
107-06-2	1,2-Dichloroethane	40	U	40	
78-87-5	1,2-Dichloropropane	40	U	40	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	40	U	40	
75-25-2	Bromoform	40	U	40	
74-83-9	Bromomethane	40	U	40	
56-23-5	Carbon Tetrachloride	40	U	40	
108-90-7	Chlorobenzene	40	U	40	
75-00-3	Chloroethane	40	U	40	
67-66-3	Chloroform	40	U	40	
74-87-3	Chloromethane	40	U	40	
124-48-1	Dibromochloromethane	40	U	40	
75-09-2	Methylene Chloride	40	U	40	
127-18-4	Tetrachloroethene (PCE)	**490**		40	
79-01-6	Trichloroethene (TCE)	**1700**		40	
75-69-4	Trichlorofluoromethane (CFC 11)	40	U	40	
75-01-4	Vinyl Chloride	**45**		40	
156-59-2	cis-1,2-Dichloroethene	**720**		40	
10061-01-5	cis-1,3-Dichloropropene	40	U	40	
156-60-5	trans-1,2-Dichloroethene	**46**		40	
10061-02-6	trans-1,3-Dichloropropene	40	U	40	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/22/14 22:54	
Dibromofluoromethane	107	70-130	10/22/14 22:54	
Toluene-d8	100	70-130	10/22/14 22:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1200
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB25-BR (99')		
Lab Code:	R1408298-025	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**14100**		mg/L	200	200	NA	10/24/14 11:25	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1200
Sample Matrix:	Water	**Date Received:**	10/17/14
Sample Name:	OB25-BR (99')		
Lab Code:	R1408298-025	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100000	U	µg/L	100000	100	10/22/14	10/24/14 11:29	
Manganese, Dissolved	6010C	**35300000**		µg/L	200000	2000	10/22/14	10/24/14 10:05	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1200
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 16:53
Sample Name:	OB25-BR (99')	**Units:**	µg/L
Lab Code:	R1408298-025	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3320.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**2.5**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	**2.5**		2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**11**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	10/23/14 16:53	
Dibromofluoromethane	107	70-130	10/23/14 16:53	
Toluene-d8	100	70-130	10/23/14 16:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1300
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 17:23
Sample Name:	OB32-DO (60')	**Units:**	µg/L
Lab Code:	R1408298-026	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3321.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**16**		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	**3.8**		2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	**24**		2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**15**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**18**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	10/23/14 17:23	
Dibromofluoromethane	106	70-130	10/23/14 17:23	
Toluene-d8	98	70-130	10/23/14 17:23	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1330
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 17:53
Sample Name:	OB34-DO (63')	**Units:**	µg/L
Lab Code:	R1408298-027	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3322.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**530**		10	
79-01-6	Trichloroethene (TCE)	**440**		10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	**18**		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/23/14 17:53	
Dibromofluoromethane	104	70-130	10/23/14 17:53	
Toluene-d8	101	70-130	10/23/14 17:53	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1400
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 00:53
Sample Name:	AP31-DO (30')	**Units:**	µg/L
Lab Code:	R1408298-028	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3289.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**230**		100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	**270**		100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**4900**		100	
79-01-6	Trichloroethene (TCE)	**2000**		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	100	U	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/23/14 00:53	
Dibromofluoromethane	106	70-130	10/23/14 00:53	
Toluene-d8	102	70-130	10/23/14 00:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1530
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 01:23
Sample Name:	OB37-DO (46')	**Units:**	µg/L
Lab Code:	R1408298-029	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3290.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	2.5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**42**		5.0	
79-34-5	1,1,2,2-Tetrachloroethane	5.0	U	5.0	
79-00-5	1,1,2-Trichloroethane	5.0	U	5.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**16**		5.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**87**		5.0	
107-06-2	1,2-Dichloroethane	5.0	U	5.0	
78-87-5	1,2-Dichloropropane	5.0	U	5.0	
67-64-1	Acetone	25	U	25	
75-27-4	Bromodichloromethane	5.0	U	5.0	
75-25-2	Bromoform	5.0	U	5.0	
74-83-9	Bromomethane	5.0	U	5.0	
56-23-5	Carbon Tetrachloride	5.0	U	5.0	
108-90-7	Chlorobenzene	5.0	U	5.0	
75-00-3	Chloroethane	5.0	U	5.0	
67-66-3	Chloroform	5.0	U	5.0	
74-87-3	Chloromethane	5.0	U	5.0	
124-48-1	Dibromochloromethane	5.0	U	5.0	
75-09-2	Methylene Chloride	5.0	U	5.0	
127-18-4	Tetrachloroethene (PCE)	**6900**	E	5.0	
79-01-6	Trichloroethene (TCE)	**15000**	E	5.0	
75-69-4	Trichlorofluoromethane (CFC 11)	5.0	U	5.0	
75-01-4	Vinyl Chloride	**15**		5.0	
156-59-2	cis-1,2-Dichloroethene	**83**		5.0	
10061-01-5	cis-1,3-Dichloropropene	5.0	U	5.0	
156-60-5	trans-1,2-Dichloroethene	5.0	U	5.0	
10061-02-6	trans-1,3-Dichloropropene	5.0	U	5.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/23/14 01:23	
Dibromofluoromethane	104	70-130	10/23/14 01:23	
Toluene-d8	105	70-130	10/23/14 01:23	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1530
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/27/14 16:22
Sample Name:	OB37-DO (46')	**Units:**	µg/L
Lab Code:	R1408298-029	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418267
Data File Name:	I:\ACQUDATA\msvoa10\data\102714\A3420.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2000	U	2000	
79-34-5	1,1,2,2-Tetrachloroethane	2000	U	2000	
79-00-5	1,1,2-Trichloroethane	2000	U	2000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2000	U	2000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2000	U	2000	
107-06-2	1,2-Dichloroethane	2000	U	2000	
78-87-5	1,2-Dichloropropane	2000	U	2000	
67-64-1	Acetone	10000	U	10000	
75-27-4	Bromodichloromethane	2000	U	2000	
75-25-2	Bromoform	2000	U	2000	
74-83-9	Bromomethane	2000	U	2000	
56-23-5	Carbon Tetrachloride	2000	U	2000	
108-90-7	Chlorobenzene	2000	U	2000	
75-00-3	Chloroethane	2000	U	2000	
67-66-3	Chloroform	2000	U	2000	
74-87-3	Chloromethane	2000	U	2000	
124-48-1	Dibromochloromethane	2000	U	2000	
75-09-2	Methylene Chloride	2000	U	2000	
127-18-4	Tetrachloroethene (PCE)	**11000**	D	2000	
79-01-6	Trichloroethene (TCE)	**74000**	D	2000	
75-69-4	Trichlorofluoromethane (CFC 11)	2000	U	2000	
75-01-4	Vinyl Chloride	2000	U	2000	
156-59-2	cis-1,2-Dichloroethene	2000	U	2000	
10061-01-5	cis-1,3-Dichloropropene	2000	U	2000	
156-60-5	trans-1,2-Dichloroethene	2000	U	2000	
10061-02-6	trans-1,3-Dichloropropene	2000	U	2000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/27/14 16:22	
Dibromofluoromethane	105	70-130	10/27/14 16:22	
Toluene-d8	102	70-130	10/27/14 16:22	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1500
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 18:52
Sample Name:	OB36-DO (51')	**Units:**	µg/L
Lab Code:	R1408298-030	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3324.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**8.0**		2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	**5.5**		2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**10**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	**2.9**		2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	**17**		2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**2.4**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	10/23/14 18:52	
Dibromofluoromethane	107	70-130	10/23/14 18:52	
Toluene-d8	98	70-130	10/23/14 18:52	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1600
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 19:22
Sample Name:	OB44-S (17')	**Units:**	µg/L
Lab Code:	R1408298-031	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3325.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	
79-34-5	1,1,2,2-Tetrachloroethane	500	U	500	
79-00-5	1,1,2-Trichloroethane	500	U	500	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	
107-06-2	1,2-Dichloroethane	500	U	500	
78-87-5	1,2-Dichloropropane	500	U	500	
67-64-1	Acetone	2500	U	2500	
75-27-4	Bromodichloromethane	500	U	500	
75-25-2	Bromoform	500	U	500	
74-83-9	Bromomethane	500	U	500	
56-23-5	Carbon Tetrachloride	500	U	500	
108-90-7	Chlorobenzene	500	U	500	
75-00-3	Chloroethane	500	U	500	
67-66-3	Chloroform	500	U	500	
74-87-3	Chloromethane	500	U	500	
124-48-1	Dibromochloromethane	500	U	500	
75-09-2	Methylene Chloride	500	U	500	
127-18-4	Tetrachloroethene (PCE)	**15000**		500	
79-01-6	Trichloroethene (TCE)	**8800**		500	
75-69-4	Trichlorofluoromethane (CFC 11)	500	U	500	
75-01-4	Vinyl Chloride	500	U	500	
156-59-2	cis-1,2-Dichloroethene	**31000**		500	
10061-01-5	cis-1,3-Dichloropropene	500	U	500	
156-60-5	trans-1,2-Dichloroethene	500	U	500	
10061-02-6	trans-1,3-Dichloropropene	500	U	500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	10/23/14 19:22	
Dibromofluoromethane	104	70-130	10/23/14 19:22	
Toluene-d8	100	70-130	10/23/14 19:22	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/15/14
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/22/14 18:57
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1408298-032	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3277.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	10/22/14 18:57	
Dibromofluoromethane	105	70-130	10/22/14 18:57	
Toluene-d8	99	70-130	10/22/14 18:57	

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Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1430
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 02:52
Sample Name:	AP-32-DO (30')	**Units:**	µg/L
Lab Code:	R1408298-033	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3293.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**830**		20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	**36**		20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	**290**		20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	**1100**		20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**19000**	E	20	
79-01-6	Trichloroethene (TCE)	**38000**	E	20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	20	U	20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/23/14 02:52	
Dibromofluoromethane	107	70-130	10/23/14 02:52	
Toluene-d8	105	70-130	10/23/14 02:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	10/16/14 1430
Sample Matrix:	Water	**Date Received:**	10/17/14
		Date Analyzed:	10/23/14 19:52
Sample Name:	AP-32-DO (30')	**Units:**	µg/L
Lab Code:	R1408298-033	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3326.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	500

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	1000	U	1000	
79-34-5	1,1,2,2-Tetrachloroethane	1000	U	1000	
79-00-5	1,1,2-Trichloroethane	1000	U	1000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	U	1000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	U	1000	
107-06-2	1,2-Dichloroethane	1000	U	1000	
78-87-5	1,2-Dichloropropane	1000	U	1000	
67-64-1	Acetone	5000	U	5000	
75-27-4	Bromodichloromethane	1000	U	1000	
75-25-2	Bromoform	1000	U	1000	
74-83-9	Bromomethane	1000	U	1000	
56-23-5	Carbon Tetrachloride	1000	U	1000	
108-90-7	Chlorobenzene	1000	U	1000	
75-00-3	Chloroethane	1000	U	1000	
67-66-3	Chloroform	1000	U	1000	
74-87-3	Chloromethane	1000	U	1000	
124-48-1	Dibromochloromethane	1000	U	1000	
75-09-2	Methylene Chloride	1000	U	1000	
127-18-4	Tetrachloroethene (PCE)	**11000**	D	1000	
79-01-6	Trichloroethene (TCE)	**48000**	D	1000	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	U	1000	
75-01-4	Vinyl Chloride	1000	U	1000	
156-59-2	cis-1,2-Dichloroethene	1000	U	1000	
10061-01-5	cis-1,3-Dichloropropene	1000	U	1000	
156-60-5	trans-1,2-Dichloroethene	1000	U	1000	
10061-02-6	trans-1,3-Dichloropropene	1000	U	1000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	10/23/14 19:52	
Dibromofluoromethane	107	70-130	10/23/14 19:52	
Toluene-d8	101	70-130	10/23/14 19:52	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1408298-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	1.0	U	mg/L	1.0	1	NA	10/21/14 09:11	
Chloride	SM 4500-Cl-E-1997(20	1.0	U	mg/L	1.0	1	NA	10/24/14 11:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1408298-MB1	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/21/14	10/23/14 18:18	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	10/21/14	10/23/14 16:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1408298-MB2	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	10/22/14	10/24/14 08:47	
Manganese, Dissolved	6010C	**13**		µg/L	10	1	10/22/14	10/24/14 08:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/21/14 17:14
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413026-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417255
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3225.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	10/21/14 17:14	
Dibromofluoromethane	104	70-130	10/21/14 17:14	
Toluene-d8	101	70-130	10/21/14 17:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/22/14 05:36
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413194-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417265
Data File Name:	I:\ACQUDATA\msvoa10\data\102114\A3250.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	70-130	10/22/14 05:36	
Dibromofluoromethane	103	70-130	10/22/14 05:36	
Toluene-d8	102	70-130	10/22/14 05:36	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/22/14 18:28
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413389-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417565
Data File Name:	I:\ACQUDATA\msvoa10\data\102214\A3276.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	10/22/14 18:28	
Dibromofluoromethane	103	70-130	10/22/14 18:28	
Toluene-d8	100	70-130	10/22/14 18:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/23/14 11:27
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413403-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	417673
Data File Name:	I:\ACQUDATA\msvoa10\data\102314\A3309.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	70-130	10/23/14 11:27	
Dibromofluoromethane	106	70-130	10/23/14 11:27	
Toluene-d8	100	70-130	10/23/14 11:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/27/14 14:23
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1413368-06	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	418267
Data File Name:	I:\ACQUDATA\msvoa10\data\102714\A3416.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	102	70-130	10/27/14 14:23	
Dibromofluoromethane	105	70-130	10/27/14 14:23	
Toluene-d8	100	70-130	10/27/14 14:23	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1408298
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	10/21/14 09:23
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1412808-01	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	417210
Data File Name:	1002.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethylene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	
74-98-6	Propane	1.0	U	1.0	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/21/14 - 10/24/14

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1408298-LCS Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	9.54	10.0	95	76 - 123
Chloride	SM 4500-Cl-E-1997(20	24.4	25.0	98	86 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/23/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1408298-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1090	1000	109	80 - 120
Manganese, Dissolved	6010C	535	500	107	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/24/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1408298-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1020	1000	102	80 - 120
Manganese, Dissolved	6010C	506	500	101	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/21/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 417255

	Lab Control Sample RQ1413026-02			Duplicate Lab Control Sample RQ1413026-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.1	20.0	100	18.0	20.0	90	70 - 130	11	20
1,1,2,2-Tetrachloroethane	23.3	20.0	116	20.8	20.0	104	70 - 130	11	20
1,1,2-Trichloroethane	21.0	20.0	105	19.7	20.0	99	70 - 130	6	20
1,1-Dichloroethane (1,1-DCA)	19.7	20.0	98	17.4	20.0	87	70 - 130	12	20
1,1-Dichloroethene (1,1-DCE)	20.5	20.0	103	18.4	20.0	92	70 - 130	11	20
1,2-Dichloroethane	22.0	20.0	110	20.0	20.0	100	70 - 130	10	20
1,2-Dichloropropane	21.6	20.0	108	19.0	20.0	95	70 - 130	13	20
Acetone	20.4	20.0	102	17.3	20.0	87	40 - 160	16	20
Bromodichloromethane	22.6	20.0	113	21.1	20.0	106	70 - 130	7	20
Bromoform	23.4	20.0	117	21.5	20.0	108	70 - 130	8	20
Bromomethane	12.4	20.0	62	11.0	20.0	55	40 - 160	12	20
Carbon Tetrachloride	19.5	20.0	98	18.0	20.0	90	70 - 130	8	20
Chlorobenzene	19.2	20.0	96	18.0	20.0	90	70 - 130	6	20
Chloroethane	24.5	20.0	123	18.1	20.0	90	70 - 130	30 *	20
Chloroform	20.7	20.0	103	18.5	20.0	93	70 - 130	11	20
Chloromethane	20.7	20.0	103	18.9	20.0	95	40 - 160	9	20
Dibromochloromethane	22.2	20.0	111	20.6	20.0	103	70 - 130	8	20
Methylene Chloride	19.9	20.0	100	18.6	20.0	93	70 - 130	7	20
Tetrachloroethene (PCE)	19.1	20.0	96	17.8	20.0	89	70 - 130	7	20
Trichloroethene (TCE)	18.2	20.0	91	17.0	20.0	85	70 - 130	7	20
Trichlorofluoromethane (CFC 11)	19.6	20.0	98	17.6	20.0	88	70 - 130	11	20
Vinyl Chloride	18.9	20.0	95	16.5	20.0	82	70 - 130	14	20
cis-1,2-Dichloroethene	19.3	20.0	97	17.9	20.0	89	70 - 130	8	20
cis-1,3-Dichloropropene	22.3	20.0	111	20.6	20.0	103	70 - 130	8	20
trans-1,2-Dichloroethene	18.8	20.0	94	16.7	20.0	84	70 - 130	11	20
trans-1,3-Dichloropropene	23.9	20.0	119	22.0	20.0	110	70 - 130	8	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/22/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 417265

	Lab Control Sample RQ1413194-02			Duplicate Lab Control Sample RQ1413194-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	16.8	20.0	84	19.3	20.0	97	70 - 130	14	20
1,1,2,2-Tetrachloroethane	14.9	20.0	74	18.1	20.0	91	70 - 130	20	20
1,1,2-Trichloroethane	19.3	20.0	96	21.6	20.0	108	70 - 130	11	20
1,1-Dichloroethane (1,1-DCA)	17.1	20.0	86	19.7	20.0	98	70 - 130	14	20
1,1-Dichloroethene (1,1-DCE)	18.9	20.0	95	21.1	20.0	105	70 - 130	11	20
1,2-Dichloroethane	19.4	20.0	97	22.0	20.0	110	70 - 130	13	20
1,2-Dichloropropane	18.7	20.0	93	21.2	20.0	106	70 - 130	13	20
Acetone	20.5	20.0	102	23.9	20.0	120	40 - 160	15	20
Bromodichloromethane	19.8	20.0	99	22.2	20.0	111	70 - 130	11	20
Bromoform	20.4	20.0	102	23.4	20.0	117	70 - 130	13	20
Bromomethane	11.7	20.0	58	13.2	20.0	66	40 - 160	12	20
Carbon Tetrachloride	17.3	20.0	86	20.7	20.0	103	70 - 130	18	20
Chlorobenzene	16.9	20.0	84	19.2	20.0	96	70 - 130	13	20
Chloroethane	19.2	20.0	96	21.1	20.0	105	70 - 130	9	20
Chloroform	17.9	20.0	89	20.8	20.0	104	70 - 130	15	20
Chloromethane	17.4	20.0	87	19.7	20.0	99	40 - 160	13	20
Dibromochloromethane	20.2	20.0	101	23.1	20.0	115	70 - 130	13	20
Methylene Chloride	17.8	20.0	89	20.5	20.0	103	70 - 130	14	20
Tetrachloroethene (PCE)	16.3	20.0	82	19.1	20.0	95	70 - 130	16	20
Trichloroethene (TCE)	20.2	20.0	101	22.4	20.0	112	70 - 130	10	20
Trichlorofluoromethane (CFC 11)	17.2	20.0	86	19.6	20.0	98	70 - 130	13	20
Vinyl Chloride	16.2	20.0	81	19.0	20.0	95	70 - 130	16	20
cis-1,2-Dichloroethene	16.9	20.0	85	20.0	20.0	100	70 - 130	16	20
cis-1,3-Dichloropropene	19.4	20.0	97	22.1	20.0	110	70 - 130	13	20
trans-1,2-Dichloroethene	16.6	20.0	83	19.8	20.0	99	70 - 130	17	20
trans-1,3-Dichloropropene	20.1	20.0	100	23.5	20.0	117	70 - 130	15	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/22/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 417565

	Lab Control Sample RQ1413389-02			Duplicate Lab Control Sample RQ1413389-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	17.6	20.0	88	18.6	20.0	93	70 - 130	6	20
1,1,2,2-Tetrachloroethane	21.6	20.0	108	22.1	20.0	110	70 - 130	2	20
1,1,2-Trichloroethane	19.1	20.0	95	21.0	20.0	105	70 - 130	10	20
1,1-Dichloroethane (1,1-DCA)	17.3	20.0	86	18.6	20.0	93	70 - 130	8	20
1,1-Dichloroethene (1,1-DCE)	18.3	20.0	92	18.3	20.0	92	70 - 130	<1	20
1,2-Dichloroethane	20.0	20.0	100	21.0	20.0	105	70 - 130	5	20
1,2-Dichloropropane	18.8	20.0	94	20.2	20.0	101	70 - 130	7	20
Acetone	13.8	20.0	69	17.3	20.0	87	40 - 160	22 *	20
Bromodichloromethane	20.5	20.0	102	20.8	20.0	104	70 - 130	2	20
Bromoform	20.9	20.0	105	23.3	20.0	116	70 - 130	10	20
Bromomethane	20.4	20.0	102	21.8	20.0	109	40 - 160	6	20
Carbon Tetrachloride	18.5	20.0	92	19.8	20.0	99	70 - 130	7	20
Chlorobenzene	17.9	20.0	89	19.7	20.0	98	70 - 130	10	20
Chloroethane	18.1	20.0	90	20.2	20.0	101	70 - 130	11	20
Chloroform	18.0	20.0	90	19.4	20.0	97	70 - 130	7	20
Chloromethane	17.7	20.0	89	19.4	20.0	97	40 - 160	9	20
Dibromochloromethane	20.5	20.0	102	22.5	20.0	112	70 - 130	9	20
Methylene Chloride	18.1	20.0	90	19.1	20.0	96	70 - 130	6	20
Tetrachloroethene (PCE)	18.1	20.0	90	18.5	20.0	93	70 - 130	3	20
Trichloroethene (TCE)	16.9	20.0	84	17.8	20.0	89	70 - 130	5	20
Trichlorofluoromethane (CFC 11)	17.3	20.0	87	18.4	20.0	92	70 - 130	6	20
Vinyl Chloride	16.6	20.0	83	17.9	20.0	89	70 - 130	8	20
cis-1,2-Dichloroethene	17.4	20.0	87	18.2	20.0	91	70 - 130	4	20
cis-1,3-Dichloropropene	20.9	20.0	104	21.5	20.0	108	70 - 130	3	20
trans-1,2-Dichloroethene	16.3	20.0	82	18.2	20.0	91	70 - 130	11	20
trans-1,3-Dichloropropene	21.4	20.0	107	23.1	20.0	115	70 - 130	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/23/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 417673

	Lab Control Sample RQ1413403-02			Duplicate Lab Control Sample RQ1413403-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	18.1	20.0	90	17.3	20.0	87	70 - 130	4	20
1,1,2,2-Tetrachloroethane	21.4	20.0	107	20.7	20.0	104	70 - 130	3	20
1,1,2-Trichloroethane	18.0	20.0	90	19.9	20.0	100	70 - 130	10	20
1,1-Dichloroethane (1,1-DCA)	17.1	20.0	86	17.0	20.0	85	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	17.2	20.0	86	17.4	20.0	87	70 - 130	1	20
1,2-Dichloroethane	19.5	20.0	98	20.9	20.0	104	70 - 130	7	20
1,2-Dichloropropane	18.3	20.0	91	19.4	20.0	97	70 - 130	6	20
Acetone	19.5	20.0	98	16.3	20.0	82	40 - 160	18	20
Bromodichloromethane	19.9	20.0	99	20.8	20.0	104	70 - 130	4	20
Bromoform	21.7	20.0	109	22.2	20.0	111	70 - 130	2	20
Bromomethane	13.1	20.0	66	15.4	20.0	77	40 - 160	16	20
Carbon Tetrachloride	18.2	20.0	91	17.7	20.0	88	70 - 130	3	20
Chlorobenzene	17.7	20.0	88	18.2	20.0	91	70 - 130	3	20
Chloroethane	17.9	20.0	89	16.9	20.0	85	70 - 130	5	20
Chloroform	18.4	20.0	92	18.4	20.0	92	70 - 130	<1	20
Chloromethane	17.8	20.0	89	17.2	20.0	86	40 - 160	3	20
Dibromochloromethane	20.6	20.0	103	20.3	20.0	102	70 - 130	1	20
Methylene Chloride	17.3	20.0	86	17.8	20.0	89	70 - 130	3	20
Tetrachloroethene (PCE)	18.3	20.0	91	17.9	20.0	89	70 - 130	2	20
Trichloroethene (TCE)	16.9	20.0	85	19.4	20.0	97	70 - 130	14	20
Trichlorofluoromethane (CFC 11)	18.2	20.0	91	17.6	20.0	88	70 - 130	4	20
Vinyl Chloride	16.8	20.0	84	16.2	20.0	81	70 - 130	4	20
cis-1,2-Dichloroethene	16.9	20.0	84	17.0	20.0	85	70 - 130	<1	20
cis-1,3-Dichloropropene	19.9	20.0	100	20.6	20.0	103	70 - 130	4	20
trans-1,2-Dichloroethene	16.8	20.0	84	16.6	20.0	83	70 - 130	1	20
trans-1,3-Dichloropropene	21.4	20.0	107	21.9	20.0	110	70 - 130	2	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/27/14

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 418267

	Lab Control Sample RQ1413368-07			Duplicate Lab Control Sample RQ1413368-08					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	19.1	20.0	96	18.8	20.0	94	70 - 130	2	20
1,1,2,2-Tetrachloroethane	21.7	20.0	108	21.3	20.0	106	70 - 130	2	20
1,1,2-Trichloroethane	20.6	20.0	103	19.9	20.0	100	70 - 130	4	20
1,1-Dichloroethane (1,1-DCA)	17.6	20.0	88	17.6	20.0	88	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	18.9	20.0	94	19.4	20.0	97	70 - 130	3	20
1,2-Dichloroethane	20.7	20.0	104	20.9	20.0	105	70 - 130	1	20
1,2-Dichloropropane	19.0	20.0	95	18.9	20.0	94	70 - 130	<1	20
Acetone	16.1	20.0	80	14.4	20.0	72	40 - 160	11	20
Bromodichloromethane	21.6	20.0	108	21.7	20.0	109	70 - 130	<1	20
Bromoform	23.7	20.0	118	24.2	20.0	121	70 - 130	2	20
Bromomethane	15.0	20.0	75	16.3	20.0	82	40 - 160	9	20
Carbon Tetrachloride	19.5	20.0	97	20.3	20.0	102	70 - 130	4	20
Chlorobenzene	18.9	20.0	95	19.1	20.0	95	70 - 130	<1	20
Chloroethane	18.5	20.0	93	17.8	20.0	89	70 - 130	4	20
Chloroform	19.0	20.0	95	18.9	20.0	94	70 - 130	<1	20
Chloromethane	18.6	20.0	93	18.1	20.0	91	40 - 160	3	20
Dibromochloromethane	22.5	20.0	113	22.3	20.0	111	70 - 130	1	20
Methylene Chloride	18.5	20.0	92	18.1	20.0	91	70 - 130	2	20
Tetrachloroethene (PCE)	19.6	20.0	98	19.1	20.0	96	70 - 130	2	20
Trichloroethene (TCE)	18.2	20.0	91	18.8	20.0	94	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	19.0	20.0	95	18.9	20.0	94	70 - 130	<1	20
Vinyl Chloride	17.4	20.0	87	16.9	20.0	84	70 - 130	3	20
cis-1,2-Dichloroethene	17.6	20.0	88	17.5	20.0	87	70 - 130	<1	20
cis-1,3-Dichloropropene	21.8	20.0	109	21.9	20.0	109	70 - 130	<1	20
trans-1,2-Dichloroethene	17.9	20.0	89	17.6	20.0	88	70 - 130	1	20
trans-1,3-Dichloropropene	22.9	20.0	115	23.0	20.0	115	70 - 130	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1408298
Date Analyzed: 10/21/14

Lab Control Sample Summary
Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
Basis: NA

Analysis Lot: 417210

	Lab Control Sample RQ1412808-02			Duplicate Lab Control Sample RQ1412808-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethane	25.1	25.9	97	25.2	25.9	97	75 - 118	<1	30
Ethylene	24.4	24.2	101	24.5	24.2	101	73 - 129	<1	30
Methane	25.2	26.1	96	25.3	26.1	97	65 - 126	<1	30
Propane	24.6	25.4	97	24.5	25.4	97	72 - 118	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE _____ OF _____

Project Name: Varian Beverly	Project Number: 152780-04000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: raymond.cadorette@cbi.com
Sampler's Signature:	Sampler's Printed Name: Paul Ledoux

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's 3rd Specific ☐ 8260 ☐ 624 ☐ CLP List	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED Fe + Mn (List in comments below)	Chloride							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	0						
OB 10-BR (72)		10.15.14	1300	GW	3	3														
STR-3			1300		3	3														
unnamed stream			1330		3	3														
OB 38-DO (56)			1600		3	3														
OB 45S (14)		10.16.14	0900		3	3														
OB 45DO (38)			0830		3	3														
OB 27 BR (86)			0930		3	3														
OB 25 DO (67)			1000		3	3														
OB26 DO (58)			1030		3	3														
AP 26 DO (60)			1100		3	3														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD & PDF of report to:
Catherine.Joe@[redacted].cbi.com

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED:

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature:	Signature:	Signature:	Signature:	Signature:	Signature:
Printed Name: Paul Ledoux	Printed Name: Gregory D. Esmerian	Printed Name:	Printed Name:	Printed Name:	Printed Name:
Firm: CB&I	Firm: A2S	Firm:	Firm:	Firm:	Firm:
Date/Time: 10.16.14 1600	Date/Time: 10.17.14 9:25	Date/Time:	Date/Time:	Date/Time:	Date/Time:

R1408298 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 1

Project Name: Varian Beverly	Project Number: 152728-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: raymond.cadorette@cbi.com
Sampler's Signature:	Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS (pa)	GC/MS VOA's ☐8260 ☐624 ☐CLP	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	Methane, Ethane, Ethene	TOC						REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE														1	3					
MW-9 (19')		10.15.14	1130	GW	7	✓							✓	✓						
OB9-S (20')		10.15.14	1100		7	✓							✓	✓						
OB15-S (19')		10.15.14	1250		7	✓							✓	✓						

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals N/A
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD & PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED:

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Ra

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #:
BILL TO: CB&I

R1408298 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name	Printed Name: Gregory O. Esnerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm	Firm: CLS	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 10-17-14 9:25	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

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CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE _____ OF _____

Project Name: Varian Beverly	Project Number: 152780-04000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: raymond.cadorette@cbi.com
Sampler's Signature: [signature]	Sampler's Printed Name: Paul Leduc

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's Site Specific ☐ 8260 ☐ 624 ☐ CLP List	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe + Mn	Chloride							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	0						
AP 12-~~BB~~ S (26)		10.15.14	13.30	GW	3	3														
AP 12-~~BA~~ DO (46)			1400		3	3														
AP 12-~~B~~ BR (73)			1430		3	3														
BW-5 (9)			0730		3	3														
BW-8 (14)			0800		3	3														
AP-27 DO (46)			1530		5	3						1	1							
CL5 DOA (49)			0900		3	3														
MW 9A (12)			1030		3	3														
OB9-DO (91)			1000		3	3														
OB9-BR (119)		↓	0945	↓	3	3														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD & PDF of report to:
Catherine.Joe@cbi.com

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

R1408298

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: Paul Leduc	Printed Name: Gregory O. Emerson	Printed Name	Printed Name	Printed Name	Printed Name
Firm: CBI	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time: 10.15.14 1630	Date/Time: 10-17-14 9:25	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

Columbia Analytical Services™

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE _____ OF _____

Project Name: Varian Beverly
Project Number: 152780-04000000
Project Manager: Raymond Cadorette
Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc.
150 Royall Street
Canton, MA 02021
Phone #: 617-589-6102
E-mail: raymond.cadorette@cbi.com
Sampler's Signature:
Sampler's Printed Name:

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS		GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP LIST Site Specific	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe + Mn	Chloride							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE							1							2	0						
OB 19-DO (56)		10-16-14	1130	GW	5	3							1	1							
OB 25-BR (99)			1200		5	3							1	1							
OB 32 DO (60)			1300		3	3															
OB 34 DO (63)			1330		3	3															
AP 31 DO (30)			1400		3	3															
~~AP 33 DO (30)~~			~~1430~~		~~3~~	~~3~~	RC														
OB 37-DO (46)			1530		3	3															
OB 36 DO (51)			1500		3	3															
OB 445 (97)			1600		3	3															
Trip Blank		LAB			3	3															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

R1408298

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Paul Lodoad	Signature: [signature]	Signature	Signature	Signature	Signature
Printed Name: CBI	Printed Name: Gregory O. Esmerian	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 10-16-14 1600	Firm: ARS	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 10-17-14 9:25	Date/Time	Date/Time	Date/Time	Date/Time

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

R1408298 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number MY-8298

Cooler received on 10/17/14 by: GE COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y N	5a	Perchlorate samples have required headspace?	Y N NA
2	Custody papers properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* bubbles?	Y N NA
3	Did all bottles arrive in good condition (unbroken)?	Y N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle Wet Ice Dry Ice Gel packs present?	Y N	7	Soil VOA received as: Bulk Encore 5035set	NA

8. Temperature Readings Date: 10/17/14 Time: 10:34 ID: IR#3 IR#4 From: Temp Blank Sample Bottle

Observed Temp (°C)	4.6	*7.2					
Correction Factor (°C)	-0.4	-0.4					
Corrected Temp (°C)	4.2°	6.8°					
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: JMN 10/17/14

All samples held in storage location: P-002 by GE on 10/17/14 at 1037
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JMN 10/17/14

Cooler Breakdown: Date: 10/20/14 Time: 1515 by: JJ

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO **
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated NA

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	✓		BD3261384	9/15				
≤2	H_2SO_4	✓		WR140011C	9/15				
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	411 3070	9/15				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 4-162-002, 062314-2AMW, 080414-1BMC

Other Comments:

* only 1 bag of ice in cooler

* AP-32-DO (30') - was not on COC.

** There were 4-5 samples that the ID's did not match up w/ those on the COC. Samples were continued based on date & time as labeled with the ID's on the COC.

PC Secondary Review: JMN 10/22/14 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152780.04

Prepared By: Catherine Joe Mainville

Date : 1/28/2015

Matrix: Groundwater

Analyte Group : Metals
Chloride

Analytical Method : 6010C
SM 4500-CL-E

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1409222

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
11/11/2014	6010 C	180 Days	180 Days	11/21 and 11/24/14
11/11/14	SM 4500-CL-E	28 Days	28 Days	11/24/14

Sample temperature within QC limits: Yes, 4.7 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: 6010 C 11/21 and 11/24/14
SM 4500-CL-E 11/24/2014

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:

No qualification required.

Reviewed By: Pernilla Haley, 2/4/15

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

November 26, 2014

Analytical Report for Service Request No: R1409222

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/152780-04000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on November 14, 2014. For your reference, these analyses have been assigned our service request number **R1409222**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Client Services Manager

CC: Pernilla Haley

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1409222
Project:	Varian Beverly	**Project Number:**	152780-04000000
Sample Matrix:	Water	**Date Received:**	11/14/14

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 11/11/14 and received at ALS in good condition at a cooler temperature of 4.7°C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #. All Soluble parameters were filtered by field personnel.

Inorganic Analyses

Two water samples were analyzed for a site specific list of inorganics. Please see attached data pages for method numbers.

The initial and continuing calibration criteria were met for all analytes.

All Method blanks were free of contamination.

All Blank Spike (LCS) recoveries were within QC limits.

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152780

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1409200-001-002

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A X	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Client Services Manager

Printed Name: Janice Jaeger **Date:** 12/03/14

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1409222

Lab ID	Client ID
R1409222-001	AP-31DO (30)
R1409222-002	AP-32DO (30)

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

ACCREDITED IN ACCORDANCE WITH nelac

Rochester Lab ID # for State Certifications[1]

NELAP Accredited	Maine ID #NY0032	New Hampshire ID # 294100 A/B
Connecticut ID # PH0556	Nebraska Accredited	
Delaware Accredited	Nevada ID # NY-00032	North Carolina #676
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047		Virginia #460167

[1] Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the laboratory case narrative provided. For a specific list of accredited analytes, refer to http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads

INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	3010A
200.8	ILM05.3
6010C	3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3010A
6010 SPLP (1312) extract	3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1409222
Project:	Varian Beverly/152780-04000000	**Date Collected:**	11/11/14 1500
Sample Matrix:	Water	**Date Received:**	11/14/14
Sample Name:	AP-31DO (30)		
Lab Code:	R1409222-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**183**		mg/L	2.0	2	NA	11/24/14 16:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1409222
Project:	Varian Beverly/152780-04000000	**Date Collected:**	11/11/14 1500
Sample Matrix:	Water	**Date Received:**	11/14/14
Sample Name:	AP-31DO (30)		
Lab Code:	R1409222-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/18/14	11/24/14 21:44	
Manganese, Dissolved	6010C	**59**		µg/L	10	1	11/18/14	11/21/14 21:18	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1409222
Project:	Varian Beverly/152780-04000000	**Date Collected:**	11/11/14 1530
Sample Matrix:	Water	**Date Received:**	11/14/14
Sample Name:	AP-32DO (30)		
Lab Code:	R1409222-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	**150**		mg/L	2.0	2	NA	11/24/14 16:54	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1409222
Project:	Varian Beverly/152780-04000000	**Date Collected:**	11/11/14 1530
Sample Matrix:	Water	**Date Received:**	11/14/14
Sample Name:	AP-32DO (30)		
Lab Code:	R1409222-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/18/14	11/24/14 17:29	
Manganese, Dissolved	6010C	**191**		µg/L	10	1	11/18/14	11/21/14 22:04	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1409222
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1409222-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Chloride	SM 4500-Cl-E-1997(20	1.0	U	mg/L	1.0	1	NA	11/24/14 16:51	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1409222
Project:	Varian Beverly/152780-04000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1409222-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	11/18/14	11/24/14 18:36	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	11/18/14	11/21/14 19:02	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1409222
Date Analyzed: 11/24/14

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1409222-LCS Result	Spike Amount	% Rec	% Rec Limits
Chloride	SM 4500-Cl-E-1997(20	25.0	25.0	100	86 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152780-04000000
Sample Matrix: Water

Service Request: R1409222
Date Analyzed: 11/21/14 - 11/24/14

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1409222-LCS Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1090	1000	109	80 - 120
Manganese, Dissolved	6010C	480	500	96	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE _____ OF _____

Project Name: Varian Beverly	Project Number: 152780-04000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: raymond.cadorette@cbi.com
Sampler's Signature: [signature]	Sampler's Printed Name: Paul LeDoux

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's Site Specific ☐ 8260 ☐ 624 ☐ CLP List	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe+Mn	Chloride							REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	0						
AP-31DO (30)		11.11.14	~~0700~~ 1030	GW	2							1	1							
AP-32DO (30)		11.11.14	1530		2							1	1							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD and PDF of report to:
Catherine.Joe@cbi.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915904
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature: [signature]	Signature: [signature]	Signature	Signature
Printed Name: Paul LeDoux	Printed Name: Val Sasso	Printed Name: Val Sasso	Printed Name: [signature]	Printed Name	Printed Name
Firm: CB&I	Firm: CB+I	Firm: CB+I	Firm: Gary Lutz	Firm	Firm
Date/Time: 11.11.14 1600	Date/Time: 11/11/14 1600	Date/Time: 11/13/14 3:30 TO UPS	Date/Time: AS 11/14/14 0905	Date/Time	Date/Time

R1409222 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

R1409222 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Cooler Receipt and Preservation Check Form

Project/Client CB + I Folder Number my-9222.

Cooler received on 11/14/14 by: [illegible]

COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y (N)
2	**Custody papers** properly completed (ink, signed)?	(Y) N
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y) N

5a	**Perchlorate** samples have required headspace?	Y N (NA)
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N (NA)
6	Where did the bottles originate? (ALS/ROC) CLIENT	
7	Soil VOA received as: Bulk Encore 5035set (NA)	

8. Temperature Readings Date: 11/14/14 Time: 0915 ID: IR#3 (IR#4) From: (Temp Blank) Sample Bottle

Observed Temp (°C)	4.7						
Correction Factor (°C)	—						
Corrected Temp (°C)	4.7°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by [illegible] on 11/14/14 at 0916
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: [illegible] 11/14/14

Cooler Breakdown: Date: 11/17/14 Time: 1608 by: JB

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH		✓						
≤2	HNO_3	✓		clear cover					
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

Bottle lot numbers: clear cover

Other Comments:

PC Secondary Review: [illegible] 11/19/14

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152728.05

Prepared By: Catherine Joe Mainville

Date : 1/30/2015

Matrix: Groundwater

Analyte Group : Volatile Organics
Metals
Nitrate as Nitrogen and Sulfate
TOC
Dissolved Gases

Analytical Method : SW-846 8260C
6010 C
300.0
SM 5310B/C-2000
RSK175

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1500495

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
1/20/15 and 1/21/15	SW-846 8260C	14 days	10 days	1/29/2015
1/20/15	RSK175	7 Days	7 Days	1/29/2015
1/20/15	6010 C	180 Days	180 Days	1/29/2015, 1/30/15
1/20/15	300.0 (Nitrate)	NA	48 hours	1/22/2015
1/20/15	300.0 (Sulfate)	NA	28 days	1/22/2015
1/20/15	SM 5310B/C-2000	28 Days	28 Days	1/29/2015, 1/30/15

Sample temperature within QC limits: Yes, 4.3 - 5.3 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : EB-1
Trip Blank ID : TRIP BLANK

Method Blank:

SW-846 8260C	1/29/2015
6010 C	1/29/2015
300.0	1/22/2015
SM 5310B/C-2000	1/28/2015, 1/29/2015, 1/30/2015
RSK175	1/29/2015

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units:

Notes:
One Volatile Organics sample was analyzed at a dilution to bring target analytes within the calibration range of the method. Sample RW-1 (37.6') was re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

Several Dissolved Gases samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples AP35-DO (36'), AP34-DO (37.7'), AP 13-DO (50.7), AP33-DO (36), AP25-DO (46.8), RW-1 (37.6) and MW-9 (20') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

Two samples for Nitrate were received too close to its 48 hour holding time as noted by the "*" in the lab report. The samples were analyzed past the hold time. These results are estimated due to hold time exceedance. Qualified "UJ" for the non-detect results.

Reviewed By: Pernilla Haley, 3/5/15

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

January 30, 2015

Analytical Report for Service Request No: R1500495

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/152728-05000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on January 22, 2015. For your reference, these analyses have been assigned our service request number **R1500495**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Pernilla Haley

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1500495
Project:	Varian Beverly	**Project Number:**	152728-05000000
Sample Matrix:	Water	**Date Received:**	01/22/15

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 01/20-21/15 and received at ALS in good condition at cooler temperatures of 4.3 – 5.3 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #. All Soluble parameters were filtered by field personnel.

Volatile Organics

Fourteen water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples RW-1 (37.6') was re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits.

All samples were analyzed within the required holding time of 14 days.

Dissolved Gases

Eleven water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method. Samples AP35-DO (36'), AP34-DO (37.7'), AP 13-DO (50.7), AP33-DO (36), AP25-DO (46.8), RW-1 (37.6) and MW-9 (20') were re-analyzed at larger dilutions to bring target analytes within the calibration range of the method. Both dilutions were reported with analytes over the calibration range flagged with an "E" and the diluted analytes flagged with a "D".

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits.

All samples were analyzed within the required holding time of 14 days.

Inorganic Analyses

Eleven water samples were analyzed for a site specific list of inorganics. Please attached data pages for method numbers.

Several samples for Nitrate were received too close to its 48 hour holding time as noted by the "*". The samples were analyzed as soon as possible after receipt.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152728

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1500495-001-014

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A X	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A X	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Client Services Manager

Printed Name: Janice Jaeger **Date:** 02/02/15

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1500495

Lab ID	Client ID
R1500495-001	AP23-DO (47.8)
R1500495-002	AP35-DO (36')
R1500495-003	AP34-DO (37.7')
R1500495-004	AP13-DO (50.7)
R1500495-005	AP24-DO (47.8')
R1500495-006	AP33-DO (36')
R1500495-007	AP25-DO (46.8')
R1500495-008	RW-1 (37.6')
R1500495-009	MW-9 (20')
R1500495-010	OB15-S (18')
R1500495-011	OB9-S (20')
R1500495-012	OB25 (70')
R1500495-013	EB-1
R1500495-014	TRIP BLANK

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032 ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: LARRY LEWIS

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: 01 JUL 2014
Expires: 30 JUN 2015

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEF	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 0907
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP23-DO (47.8)		
Lab Code:	R1500495-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**9700**		mg/L	1000	1000	NA	1/29/15 20:57	
Nitrate as Nitrogen	300.0	10	U	mg/L	10	100	NA	1/22/15 11:02	*
Sulfate	300.0	**52**		mg/L	20	100	NA	1/22/15 11:02	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 0907
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP23-DO (47.8)		
Lab Code:	R1500495-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**11700**		µg/L	100	1	1/26/15	1/29/15 17:24	
Manganese, Dissolved	6010C	**1240**		µg/L	10	1	1/26/15	1/29/15 17:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 0907
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 08:11
Sample Name:	AP23-DO (47.8)	**Units:**	µg/L
Lab Code:	R1500495-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2598.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	5000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10000	U	10000	
79-34-5	1,1,2,2-Tetrachloroethane	10000	U	10000	
79-00-5	1,1,2-Trichloroethane	10000	U	10000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10000	U	10000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10000	U	10000	
107-06-2	1,2-Dichloroethane	10000	U	10000	
78-87-5	1,2-Dichloropropane	10000	U	10000	
67-64-1	Acetone	50000	U	50000	
75-27-4	Bromodichloromethane	10000	U	10000	
75-25-2	Bromoform	10000	U	10000	
74-83-9	Bromomethane	10000	U	10000	
56-23-5	Carbon Tetrachloride	10000	U	10000	
108-90-7	Chlorobenzene	10000	U	10000	
75-00-3	Chloroethane	10000	U	10000	
67-66-3	Chloroform	10000	U	10000	
74-87-3	Chloromethane	10000	U	10000	
124-48-1	Dibromochloromethane	10000	U	10000	
75-09-2	Methylene Chloride	10000	U	10000	
127-18-4	Tetrachloroethene (PCE)	**32000**		10000	
79-01-6	Trichloroethene (TCE)	**400000**		10000	
75-69-4	Trichlorofluoromethane (CFC 11)	10000	U	10000	
75-01-4	Vinyl Chloride	10000	U	10000	
156-59-2	cis-1,2-Dichloroethene	10000	U	10000	
10061-01-5	cis-1,3-Dichloropropene	10000	U	10000	
156-60-5	trans-1,2-Dichloroethene	10000	U	10000	
10061-02-6	trans-1,3-Dichloropropene	10000	U	10000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	1/29/15 08:11	
Dibromofluoromethane	102	70-130	1/29/15 08:11	
Toluene-d8	103	70-130	1/29/15 08:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 0907
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 11:07
Sample Name:	AP23-DO (47.8)	**Units:**	µg/L
Lab Code:	R1500495-001	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1010.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**1.3**		1.0	
74-85-1	Ethene	**91**		1.0	
74-82-8	Methane	**20**		1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1000
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP35-DO (36')		
Lab Code:	R1500495-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**396**		mg/L	20	20	NA	1/29/15 00:12	
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	NA	1/22/15 11:14	*
Sulfate	300.0	2.0	U	mg/L	2.0	10	NA	1/22/15 11:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1000
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP35-DO (36')		
Lab Code:	R1500495-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**18600**		µg/L	100	1	1/26/15	1/29/15 17:30	
Manganese, Dissolved	6010C	**5730**		µg/L	10	1	1/26/15	1/29/15 17:30	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1000
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 18:24
Sample Name:	AP35-DO (36')	**Units:**	µg/L
Lab Code:	R1500495-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430883
Data File Name:	I:\ACQUDATA\msvoa12\Data\012915\MM2617.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2000	U	2000	
79-34-5	1,1,2,2-Tetrachloroethane	2000	U	2000	
79-00-5	1,1,2-Trichloroethane	2000	U	2000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2000	U	2000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2000	U	2000	
107-06-2	1,2-Dichloroethane	2000	U	2000	
78-87-5	1,2-Dichloropropane	2000	U	2000	
67-64-1	Acetone	10000	U	10000	
75-27-4	Bromodichloromethane	2000	U	2000	
75-25-2	Bromoform	2000	U	2000	
74-83-9	Bromomethane	2000	U	2000	
56-23-5	Carbon Tetrachloride	2000	U	2000	
108-90-7	Chlorobenzene	2000	U	2000	
75-00-3	Chloroethane	2000	U	2000	
67-66-3	Chloroform	2000	U	2000	
74-87-3	Chloromethane	2000	U	2000	
124-48-1	Dibromochloromethane	2000	U	2000	
75-09-2	Methylene Chloride	2000	U	2000	
127-18-4	Tetrachloroethene (PCE)	2000	U	2000	
79-01-6	Trichloroethene (TCE)	2000	U	2000	
75-69-4	Trichlorofluoromethane (CFC 11)	2000	U	2000	
75-01-4	Vinyl Chloride	2000	U	2000	
156-59-2	cis-1,2-Dichloroethene	**91000**		2000	
10061-01-5	cis-1,3-Dichloropropene	2000	U	2000	
156-60-5	trans-1,2-Dichloroethene	2000	U	2000	
10061-02-6	trans-1,3-Dichloropropene	2000	U	2000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 18:24	
Dibromofluoromethane	102	70-130	1/29/15 18:24	
Toluene-d8	103	70-130	1/29/15 18:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1000
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 11:20
Sample Name:	AP35-DO (36')	**Units:**	µg/L
Lab Code:	R1500495-002	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1011.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**14**		1.0	
74-85-1	Ethene	**370**	E	1.0	
74-82-8	Methane	**65**		1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1000
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 11:32
Sample Name:	AP35-DO (36')	**Units:**	µg/L
Lab Code:	R1500495-002	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1012.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**13**	D	5.0	
74-85-1	Ethene	**380**	D	5.0	
74-82-8	Methane	**66**	D	5.0	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1030
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP34-DO (37.7')		
Lab Code:	R1500495-003	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**6440**		mg/L	400	400	NA	1/29/15 21:18	
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	NA	1/22/15 10:16	
Sulfate	300.0	**10.5**		mg/L	2.0	10	NA	1/22/15 10:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1030
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP34-DO (37.7')		
Lab Code:	R1500495-003	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**200000**		µg/L	1000	10	1/26/15	1/30/15 07:14	
Manganese, Dissolved	6010C	**37500**		µg/L	100	10	1/26/15	1/30/15 07:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1030
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 06:01
Sample Name:	AP34-DO (37.7')	**Units:**	µg/L
Lab Code:	R1500495-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2594.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	500

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	1000	U	1000	
79-34-5	1,1,2,2-Tetrachloroethane	1000	U	1000	
79-00-5	1,1,2-Trichloroethane	1000	U	1000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	1000	U	1000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	1000	U	1000	
107-06-2	1,2-Dichloroethane	1000	U	1000	
78-87-5	1,2-Dichloropropane	1000	U	1000	
67-64-1	Acetone	5000	U	5000	
75-27-4	Bromodichloromethane	1000	U	1000	
75-25-2	Bromoform	1000	U	1000	
74-83-9	Bromomethane	1000	U	1000	
56-23-5	Carbon Tetrachloride	1000	U	1000	
108-90-7	Chlorobenzene	1000	U	1000	
75-00-3	Chloroethane	1000	U	1000	
67-66-3	Chloroform	1000	U	1000	
74-87-3	Chloromethane	1000	U	1000	
124-48-1	Dibromochloromethane	1000	U	1000	
75-09-2	Methylene Chloride	1000	U	1000	
127-18-4	Tetrachloroethene (PCE)	1000	U	1000	
79-01-6	Trichloroethene (TCE)	1000	U	1000	
75-69-4	Trichlorofluoromethane (CFC 11)	1000	U	1000	
75-01-4	Vinyl Chloride	1000	U	1000	
156-59-2	cis-1,2-Dichloroethene	**57000**		1000	
10061-01-5	cis-1,3-Dichloropropene	1000	U	1000	
156-60-5	trans-1,2-Dichloroethene	1000	U	1000	
10061-02-6	trans-1,3-Dichloropropene	1000	U	1000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 06:01	
Dibromofluoromethane	102	70-130	1/29/15 06:01	
Toluene-d8	103	70-130	1/29/15 06:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1030
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 11:48
Sample Name:	AP34-DO (37.7')	**Units:**	µg/L
Lab Code:	R1500495-003	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1013.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**49**		1.0	
74-85-1	Ethene	**620**	E	1.0	
74-82-8	Methane	**140**	E	1.0	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1030
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 12:46
Sample Name:	AP34-DO (37.7')	**Units:**	µg/L
Lab Code:	R1500495-003	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1015.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**49**	D	10	
74-85-1	Ethene	**630**	D	10	
74-82-8	Methane	**140**	D	10	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1100
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP13-DO (50.7)		
Lab Code:	R1500495-004	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**10200**		mg/L	600	600	NA	1/30/15 10:43	
Nitrate as Nitrogen	300.0	10	U	mg/L	10	100	NA	1/22/15 10:27	
Sulfate	300.0	**144**		mg/L	20	100	NA	1/22/15 10:27	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1100
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP13-DO (50.7)		
Lab Code:	R1500495-004	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**160**		µg/L	100	1	1/26/15	1/29/15 17:44	
Manganese, Dissolved	6010C	**21800**		µg/L	100	10	1/26/15	1/30/15 07:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1100
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 06:34
Sample Name:	AP13-DO (50.7)	**Units:**	µg/L
Lab Code:	R1500495-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2595.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**23000**		4000	
79-34-5	1,1,2,2-Tetrachloroethane	4000	U	4000	
79-00-5	1,1,2-Trichloroethane	4000	U	4000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	4000	U	4000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	4000	U	4000	
107-06-2	1,2-Dichloroethane	4000	U	4000	
78-87-5	1,2-Dichloropropane	4000	U	4000	
67-64-1	Acetone	**23000**		20000	
75-27-4	Bromodichloromethane	4000	U	4000	
75-25-2	Bromoform	4000	U	4000	
74-83-9	Bromomethane	4000	U	4000	
56-23-5	Carbon Tetrachloride	4000	U	4000	
108-90-7	Chlorobenzene	4000	U	4000	
75-00-3	Chloroethane	4000	U	4000	
67-66-3	Chloroform	4000	U	4000	
74-87-3	Chloromethane	4000	U	4000	
124-48-1	Dibromochloromethane	4000	U	4000	
75-09-2	Methylene Chloride	4000	U	4000	
127-18-4	Tetrachloroethene (PCE)	**93000**		4000	
79-01-6	Trichloroethene (TCE)	**340000**		4000	
75-69-4	Trichlorofluoromethane (CFC 11)	4000	U	4000	
75-01-4	Vinyl Chloride	**5500**		4000	
156-59-2	cis-1,2-Dichloroethene	**15000**		4000	
10061-01-5	cis-1,3-Dichloropropene	4000	U	4000	
156-60-5	trans-1,2-Dichloroethene	4000	U	4000	
10061-02-6	trans-1,3-Dichloropropene	4000	U	4000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 06:34	
Dibromofluoromethane	102	70-130	1/29/15 06:34	
Toluene-d8	103	70-130	1/29/15 06:34	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1100
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 13:03
Sample Name:	AP13-DO (50.7)	**Units:**	µg/L
Lab Code:	R1500495-004	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1016.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**3.6**		1.0	
74-85-1	Ethene	**500**	E	1.0	
74-82-8	Methane	**7.7**		1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1100
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 13:13
Sample Name:	AP13-DO (50.7)	**Units:**	µg/L
Lab Code:	R1500495-004	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1017.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	10	U	10	
74-85-1	Ethene	**510**	D	10	
74-82-8	Methane	10	U	10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Collected: 1/20/15 1130
Date Received: 1/22/15

Sample Name: AP24-DO (47.8')
Lab Code: R1500495-005

Basis: NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**9750**		mg/L	400	400	NA	1/29/15 01:15	
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	NA	1/22/15 10:39	
Sulfate	300.0	**39.6**		mg/L	2.0	10	NA	1/22/15 10:39	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1130
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP24-DO (47.8')		
Lab Code:	R1500495-005	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**38500**		µg/L	100	1	1/26/15	1/29/15 17:50	
Manganese, Dissolved	6010C	**20200**		µg/L	100	10	1/26/15	1/30/15 07:27	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1130
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 18:57
Sample Name:	AP24-DO (47.8')	**Units:**	µg/L
Lab Code:	R1500495-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430883
Data File Name:	I:\ACQUDATA\msvoa12\Data\012915\MM2618.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1000

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**10000**		2000	
79-34-5	1,1,2,2-Tetrachloroethane	2000	U	2000	
79-00-5	1,1,2-Trichloroethane	2000	U	2000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2000	U	2000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2000	U	2000	
107-06-2	1,2-Dichloroethane	2000	U	2000	
78-87-5	1,2-Dichloropropane	2000	U	2000	
67-64-1	Acetone	10000	U	10000	
75-27-4	Bromodichloromethane	2000	U	2000	
75-25-2	Bromoform	2000	U	2000	
74-83-9	Bromomethane	2000	U	2000	
56-23-5	Carbon Tetrachloride	2000	U	2000	
108-90-7	Chlorobenzene	2000	U	2000	
75-00-3	Chloroethane	2000	U	2000	
67-66-3	Chloroform	2000	U	2000	
74-87-3	Chloromethane	2000	U	2000	
124-48-1	Dibromochloromethane	2000	U	2000	
75-09-2	Methylene Chloride	2000	U	2000	
127-18-4	Tetrachloroethene (PCE)	2000	U	2000	
79-01-6	Trichloroethene (TCE)	**10000**		2000	
75-69-4	Trichlorofluoromethane (CFC 11)	2000	U	2000	
75-01-4	Vinyl Chloride	2000	U	2000	
156-59-2	cis-1,2-Dichloroethene	**81000**		2000	
10061-01-5	cis-1,3-Dichloropropene	2000	U	2000	
156-60-5	trans-1,2-Dichloroethene	2000	U	2000	
10061-02-6	trans-1,3-Dichloropropene	2000	U	2000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 18:57	
Dibromofluoromethane	102	70-130	1/29/15 18:57	
Toluene-d8	103	70-130	1/29/15 18:57	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1130
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 13:31
Sample Name:	AP24-DO (47.8')	**Units:**	µg/L
Lab Code:	R1500495-005	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1018.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**4.6**		1.0	
74-85-1	Ethene	**96**		1.0	
74-82-8	Methane	**5.1**		1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1200
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP33-DO (36')		
Lab Code:	R1500495-006	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**495**		mg/L	30	30	NA	1/29/15 01:36	
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	NA	1/22/15 10:50	
Sulfate	300.0	**18.8**		mg/L	2.0	10	NA	1/22/15 10:50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1200
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP33-DO (36')		
Lab Code:	R1500495-006	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**59400**		µg/L	1000	10	1/26/15	1/30/15 07:33	
Manganese, Dissolved	6010C	**10300**		µg/L	100	10	1/26/15	1/30/15 07:33	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1200
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 07:38
Sample Name:	AP33-DO (36')	**Units:**	µg/L
Lab Code:	R1500495-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2597.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	2500

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	**79000**		5000	
79-34-5	1,1,2,2-Tetrachloroethane	5000	U	5000	
79-00-5	1,1,2-Trichloroethane	5000	U	5000	
75-34-3	1,1-Dichloroethane (1,1-DCA)	5000	U	5000	
75-35-4	1,1-Dichloroethene (1,1-DCE)	5000	U	5000	
107-06-2	1,2-Dichloroethane	5000	U	5000	
78-87-5	1,2-Dichloropropane	5000	U	5000	
67-64-1	Acetone	25000	U	25000	
75-27-4	Bromodichloromethane	5000	U	5000	
75-25-2	Bromoform	5000	U	5000	
74-83-9	Bromomethane	5000	U	5000	
56-23-5	Carbon Tetrachloride	5000	U	5000	
108-90-7	Chlorobenzene	5000	U	5000	
75-00-3	Chloroethane	5000	U	5000	
67-66-3	Chloroform	5000	U	5000	
74-87-3	Chloromethane	5000	U	5000	
124-48-1	Dibromochloromethane	5000	U	5000	
75-09-2	Methylene Chloride	5000	U	5000	
127-18-4	Tetrachloroethene (PCE)	**62000**		5000	
79-01-6	Trichloroethene (TCE)	**340000**		5000	
75-69-4	Trichlorofluoromethane (CFC 11)	5000	U	5000	
75-01-4	Vinyl Chloride	**5200**		5000	
156-59-2	cis-1,2-Dichloroethene	**160000**		5000	
10061-01-5	cis-1,3-Dichloropropene	5000	U	5000	
156-60-5	trans-1,2-Dichloroethene	5000	U	5000	
10061-02-6	trans-1,3-Dichloropropene	5000	U	5000	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 07:38	
Dibromofluoromethane	101	70-130	1/29/15 07:38	
Toluene-d8	103	70-130	1/29/15 07:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1200
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 13:42
Sample Name:	AP33-DO (36')	**Units:**	µg/L
Lab Code:	R1500495-006	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1019.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**37**		10	
74-85-1	Ethene	**3100**	E	10	
74-82-8	Methane	**97**		10	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1200
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 14:28
Sample Name:	AP33-DO (36')	**Units:**	µg/L
Lab Code:	R1500495-006	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1023.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	50	U	50	
74-85-1	Ethene	**2500**	D	50	
74-82-8	Methane	**79**	D	50	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1300
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	AP25-DO (46.8')		
Lab Code:	R1500495-007	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**2.2**		mg/L	1.0	1	NA	1/29/15 01:57	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1300
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 17:21
Sample Name:	AP25-DO (46.8')	**Units:**	µg/L
Lab Code:	R1500495-007	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430883
Data File Name:	I:\ACQUDATA\msvoa12\Data\012915\MM2615.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	20	U	20	
79-01-6	Trichloroethene (TCE)	**130**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	**410**		20	
156-59-2	cis-1,2-Dichloroethene	**1500**		20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 17:21	
Dibromofluoromethane	102	70-130	1/29/15 17:21	
Toluene-d8	102	70-130	1/29/15 17:21	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1300
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 13:53
Sample Name:	AP25-DO (46.8')	**Units:**	µg/L
Lab Code:	R1500495-007	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1020.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	**280**	E	1.0	
74-82-8	Methane	**8.6**		1.0	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1300
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 14:03
Sample Name:	AP25-DO (46.8')	**Units:**	µg/L
Lab Code:	R1500495-007	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1021.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	5.0	U	5.0	
74-85-1	Ethene	**290**	D	5.0	
74-82-8	Methane	**8.9**	D	5.0	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1330
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	RW-1 (37.6')		
Lab Code:	R1500495-008	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**67.2**		mg/L	6.0	6	NA	1/29/15 02:18	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1330
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 04:24
Sample Name:	RW-1 (37.6')	**Units:**	µg/L
Lab Code:	R1500495-008	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2591.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	100	U	100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	100	U	100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
67-64-1	Acetone	500	U	500	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
56-23-5	Carbon Tetrachloride	100	U	100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	100	U	100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
75-09-2	Methylene Chloride	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**1000**		100	
79-01-6	Trichloroethene (TCE)	**800**		100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	**480**		100	
156-59-2	cis-1,2-Dichloroethene	**10000**	E	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	**110**		100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 04:24	
Dibromofluoromethane	101	70-130	1/29/15 04:24	
Toluene-d8	103	70-130	1/29/15 04:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1330
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 10:25
Sample Name:	RW-1 (37.6')	**Units:**	µg/L
Lab Code:	R1500495-008	**Basis:**	NA
Run Type:	Dilution		

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2602.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	100

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	1000	U	1000	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	**940**	D	200	
79-01-6	Trichloroethene (TCE)	**760**	D	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	**490**	D	200	
156-59-2	cis-1,2-Dichloroethene	**9700**	D	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 10:25	
Dibromofluoromethane	100	70-130	1/29/15 10:25	
Toluene-d8	103	70-130	1/29/15 10:25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1330
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 14:15
Sample Name:	RW-1 (37.6')	**Units:**	µg/L
Lab Code:	R1500495-008	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1022.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	10	U	10	
74-85-1	Ethene	**1400**	E	10	
74-82-8	Methane	**1600**	E	10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1330
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 15:51
Sample Name:	RW-1 (37.6')	**Units:**	µg/L
Lab Code:	R1500495-008	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430949
Data File Name:	1028.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	25

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	25	U	25	
74-85-1	Ethene	**1000**	D	25	
74-82-8	Methane	**1300**	D	25	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1345
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	MW-9 (20')		
Lab Code:	R1500495-009	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**646**		mg/L	40	40	NA	1/29/15 02:39	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1345
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 09:53
Sample Name:	MW-9 (20')	**Units:**	µg/L
Lab Code:	R1500495-009	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2601.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**5.0**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**3.4**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**190**		2.0	
156-59-2	cis-1,2-Dichloroethene	**96**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	70-130	1/29/15 09:53	
Dibromofluoromethane	101	70-130	1/29/15 09:53	
Toluene-d8	103	70-130	1/29/15 09:53	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1345
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 16:03
Sample Name:	MW-9 (20')	**Units:**	µg/L
Lab Code:	R1500495-009	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430949
Data File Name:	1029.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	125

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**990**		130	
74-85-1	Ethene	**3000**		130	
74-82-8	Methane	**17000**	E	130	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1345
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 16:14
Sample Name:	MW-9 (20')	**Units:**	µg/L
Lab Code:	R1500495-009	**Basis:**	NA
Run Type:	Dilution		

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430949
Data File Name:	1030.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**1000**	D	250	
74-85-1	Ethene	**3000**	D	250	
74-82-8	Methane	**17000**	D	250	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1400
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	OB15-S (18')		
Lab Code:	R1500495-010	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**33.5**		mg/L	4.0	4	NA	1/29/15 02:59	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1400
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 02:47
Sample Name:	OB15-S (18')	**Units:**	µg/L
Lab Code:	R1500495-010	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2588.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	**4.0**		2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**6.7**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	**89**		2.0	
156-59-2	cis-1,2-Dichloroethene	**120**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 02:47	
Dibromofluoromethane	102	70-130	1/29/15 02:47	
Toluene-d8	103	70-130	1/29/15 02:47	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1400
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 16:29
Sample Name:	OB15-S (18')	**Units:**	µg/L
Lab Code:	R1500495-010	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430949
Data File Name:	1031.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**980**		250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**22000**		250	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1430
Sample Matrix:	Water	**Date Received:**	1/22/15
Sample Name:	OB9-S (20')		
Lab Code:	R1500495-011	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	**26.7**		mg/L	4.0	4	NA	1/29/15 04:23	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1430
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 03:20
Sample Name:	OB9-S (20')	**Units:**	µg/L
Lab Code:	R1500495-011	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2589.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	**86**		2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	**2.1**		2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**2.6**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	1/29/15 03:20	
Dibromofluoromethane	102	70-130	1/29/15 03:20	
Toluene-d8	102	70-130	1/29/15 03:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1430
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 16:40
Sample Name:	OB9-S (20')	**Units:**	µg/L
Lab Code:	R1500495-011	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430949
Data File Name:	1032.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	**530**		250	
74-85-1	Ethene	250	U	250	
74-82-8	Methane	**23000**		250	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/21/15 0930
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 17:52
Sample Name:	OB25 (70')	**Units:**	µg/L
Lab Code:	R1500495-012	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430883
Data File Name:	I:\ACQUDATA\msvoa12\Data\012915\MM2616.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	10

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	20	U	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	U	20	
79-00-5	1,1,2-Trichloroethane	20	U	20	
75-34-3	1,1-Dichloroethane (1,1-DCA)	20	U	20	
75-35-4	1,1-Dichloroethene (1,1-DCE)	20	U	20	
107-06-2	1,2-Dichloroethane	20	U	20	
78-87-5	1,2-Dichloropropane	20	U	20	
67-64-1	Acetone	100	U	100	
75-27-4	Bromodichloromethane	20	U	20	
75-25-2	Bromoform	20	U	20	
74-83-9	Bromomethane	20	U	20	
56-23-5	Carbon Tetrachloride	20	U	20	
108-90-7	Chlorobenzene	20	U	20	
75-00-3	Chloroethane	20	U	20	
67-66-3	Chloroform	20	U	20	
74-87-3	Chloromethane	20	U	20	
124-48-1	Dibromochloromethane	20	U	20	
75-09-2	Methylene Chloride	20	U	20	
127-18-4	Tetrachloroethene (PCE)	**370**		20	
79-01-6	Trichloroethene (TCE)	**1200**		20	
75-69-4	Trichlorofluoromethane (CFC 11)	20	U	20	
75-01-4	Vinyl Chloride	20	U	20	
156-59-2	cis-1,2-Dichloroethene	20	U	20	
10061-01-5	cis-1,3-Dichloropropene	20	U	20	
156-60-5	trans-1,2-Dichloroethene	20	U	20	
10061-02-6	trans-1,3-Dichloropropene	20	U	20	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 17:52	
Dibromofluoromethane	100	70-130	1/29/15 17:52	
Toluene-d8	103	70-130	1/29/15 17:52	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/21/15 1200
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 01:42
Sample Name:	EB-1	**Units:**	µg/L
Lab Code:	R1500495-013	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2586.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	70-130	1/29/15 01:42	
Dibromofluoromethane	101	70-130	1/29/15 01:42	
Toluene-d8	97	70-130	1/29/15 01:42	

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Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	1/20/15 1245
Sample Matrix:	Water	**Date Received:**	1/22/15
		Date Analyzed:	1/29/15 02:15
Sample Name:	TRIP BLANK	**Units:**	µg/L
Lab Code:	R1500495-014	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2587.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	70-130	1/29/15 02:15	
Dibromofluoromethane	102	70-130	1/29/15 02:15	
Toluene-d8	101	70-130	1/29/15 02:15	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1500495-MB1	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	1.0	U	mg/L	1.0	1	NA	1/28/15 17:00	
Nitrate as Nitrogen	300.0	0.10	U	mg/L	0.10	1	NA	1/22/15 09:53	
Sulfate	300.0	0.20	U	mg/L	0.20	1	NA	1/22/15 09:53	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1500495-MB2	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	1.0	U	mg/L	1.0	1	NA	1/29/15 03:41	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1500495-MB3	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	1.0	U	mg/L	1.0	1	NA	1/29/15 17:12	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1500495-MB4	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	1.0	U	mg/L	1.0	1	NA	1/30/15 10:01	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1500495-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	1/26/15	1/29/15 17:11	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	1/26/15	1/29/15 17:11	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	1/29/15 01:10
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1500961-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430706
Data File Name:	I:\ACQUDATA\msvoa12\Data\012815\MM2585.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 01:10	
Dibromofluoromethane	102	70-130	1/29/15 01:10	
Toluene-d8	102	70-130	1/29/15 01:10	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	1/29/15 14:07
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501025-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	430883
Data File Name:	I:\ACQUDATA\msvoa12\Data\012915\MM2609.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	70-130	1/29/15 14:07	
Dibromofluoromethane	101	70-130	1/29/15 14:07	
Toluene-d8	102	70-130	1/29/15 14:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	1/29/15 08:59
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501043-01	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430947
Data File Name:	1001.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1500495
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	1/29/15 15:24
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501044-01	**Basis:**	NA

Dissolved Gases by GC/FID

Analytical Method:	RSK 175	**Analysis Lot:**	430949
Data File Name:	1026.run	**Instrument Name:**	R-GC-02
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
74-84-0	Ethane	1.0	U	1.0	
74-85-1	Ethene	1.0	U	1.0	
74-82-8	Methane	1.0	U	1.0	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/22/15 - 1/28/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1500495-LCS1 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	9.38	10.0	94	76 - 123
Nitrate as Nitrogen	300.0	1.01	1.00	101	90 - 110
Sulfate	300.0	1.92	2.00	96	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/29/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1500495-LCS2 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	9.24	10.0	92	76 - 123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/29/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1500495-LCS3 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	9.23	10.0	92	76 - 123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/30/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1500495-LCS4 Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310B/C-2000(201	9.15	10.0	92	76 - 123

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/29/15

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1500495-LCS Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1030	1000	103	80 - 120
Manganese, Dissolved	6010C	495	500	99	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/28/15 - 1/29/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 430706

	Lab Control Sample RQ1500961-03			Duplicate Lab Control Sample RQ1500961-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	18.4	20.0	92	19.3	20.0	97	70 - 130	5	20
1,1,2,2-Tetrachloroethane	16.7	20.0	84	18.2	20.0	91	70 - 130	8	20
1,1,2-Trichloroethane	16.4	20.0	82	18.2	20.0	91	70 - 130	11	20
1,1-Dichloroethane (1,1-DCA)	18.2	20.0	91	19.2	20.0	96	70 - 130	5	20
1,1-Dichloroethene (1,1-DCE)	19.5	20.0	98	20.7	20.0	103	70 - 130	6	20
1,2-Dichloroethane	17.1	20.0	85	17.9	20.0	90	70 - 130	5	20
1,2-Dichloropropane	17.2	20.0	86	18.3	20.0	91	70 - 130	6	20
Acetone	17.0	20.0	85	17.0	20.0	85	40 - 160	<1	20
Bromodichloromethane	17.1	20.0	86	18.4	20.0	92	70 - 130	7	20
Bromoform	15.7	20.0	79	17.1	20.0	85	70 - 130	8	20
Bromomethane	12.1	20.0	61	12.3	20.0	61	40 - 160	1	20
Carbon Tetrachloride	18.0	20.0	90	18.9	20.0	95	70 - 130	5	20
Chlorobenzene	17.7	20.0	88	18.7	20.0	93	70 - 130	6	20
Chloroethane	17.4	20.0	87	18.3	20.0	91	70 - 130	5	20
Chloroform	17.4	20.0	87	18.5	20.0	93	70 - 130	6	20
Chloromethane	16.5	20.0	82	17.7	20.0	89	40 - 160	7	20
Dibromochloromethane	16.8	20.0	84	17.7	20.0	88	70 - 130	5	20
Methylene Chloride	17.6	20.0	88	18.3	20.0	91	70 - 130	4	20
Tetrachloroethene (PCE)	17.5	20.0	87	18.5	20.0	92	70 - 130	6	20
Trichloroethene (TCE)	18.6	20.0	93	19.3	20.0	96	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	17.1	20.0	86	18.2	20.0	91	70 - 130	6	20
Vinyl Chloride	17.4	20.0	87	18.2	20.0	91	70 - 130	5	20
cis-1,2-Dichloroethene	17.5	20.0	88	18.3	20.0	91	70 - 130	4	20
cis-1,3-Dichloropropene	16.7	20.0	83	17.8	20.0	89	70 - 130	7	20
trans-1,2-Dichloroethene	18.4	20.0	92	19.8	20.0	99	70 - 130	7	20
trans-1,3-Dichloropropene	16.7	20.0	83	17.9	20.0	89	70 - 130	7	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/29/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 430883

	Lab Control Sample RQ1501025-03			Duplicate Lab Control Sample RQ1501025-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	19.4	20.0	97	19.1	20.0	96	70 - 130	1	20
1,1,2,2-Tetrachloroethane	18.3	20.0	92	18.3	20.0	92	70 - 130	<1	20
1,1,2-Trichloroethane	17.6	20.0	88	17.8	20.0	89	70 - 130	1	20
1,1-Dichloroethane (1,1-DCA)	19.0	20.0	95	18.9	20.0	94	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	21.0	20.0	105	21.0	20.0	105	70 - 130	<1	20
1,2-Dichloroethane	18.1	20.0	90	18.1	20.0	90	70 - 130	<1	20
1,2-Dichloropropane	18.2	20.0	91	18.4	20.0	92	70 - 130	1	20
Acetone	16.4	20.0	82	15.0	20.0	75	40 - 160	9	20
Bromodichloromethane	18.5	20.0	92	18.1	20.0	91	70 - 130	2	20
Bromoform	17.8	20.0	89	18.3	20.0	92	70 - 130	3	20
Bromomethane	17.5	20.0	88	14.7	20.0	74	40 - 160	17	20
Carbon Tetrachloride	19.0	20.0	95	19.0	20.0	95	70 - 130	<1	20
Chlorobenzene	19.0	20.0	95	18.7	20.0	94	70 - 130	1	20
Chloroethane	18.7	20.0	93	18.5	20.0	92	70 - 130	1	20
Chloroform	18.3	20.0	92	18.5	20.0	93	70 - 130	1	20
Chloromethane	18.4	20.0	92	18.1	20.0	90	40 - 160	2	20
Dibromochloromethane	18.0	20.0	90	18.5	20.0	93	70 - 130	3	20
Methylene Chloride	18.5	20.0	92	18.5	20.0	93	70 - 130	<1	20
Tetrachloroethene (PCE)	18.6	20.0	93	18.6	20.0	93	70 - 130	<1	20
Trichloroethene (TCE)	18.8	20.0	94	19.0	20.0	95	70 - 130	1	20
Trichlorofluoromethane (CFC 11)	18.6	20.0	93	18.3	20.0	91	70 - 130	1	20
Vinyl Chloride	19.0	20.0	95	18.3	20.0	92	70 - 130	3	20
cis-1,2-Dichloroethene	18.6	20.0	93	18.2	20.0	91	70 - 130	2	20
cis-1,3-Dichloropropene	18.0	20.0	90	18.1	20.0	90	70 - 130	<1	20
trans-1,2-Dichloroethene	19.7	20.0	98	19.5	20.0	98	70 - 130	<1	20
trans-1,3-Dichloropropene	18.4	20.0	92	18.8	20.0	94	70 - 130	3	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/29/15

Lab Control Sample Summary
Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
Basis: NA

Analysis Lot: 430947

	Lab Control Sample RQ1501043-02			Duplicate Lab Control Sample RQ1501043-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Ethane	23.0	25.9	89	22.2	25.9	86	75 - 118	4	30
Ethene	22.5	24.2	93	21.7	24.2	90	73 - 129	3	30
Methane	23.0	26.1	88	22.2	26.1	85	65 - 126	3	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1500495
Date Analyzed: 1/29/15

Lab Control Sample Summary
Dissolved Gases by GC/FID

Analytical Method: RSK 175

Units: µg/L
Basis: NA

Analysis Lot: 430949

Analyte Name	Lab Control Sample RQ1501044-02 Result	Spike Amount	% Rec	% Rec Limits
Ethane	23.3	25.9	90	75 - 118
Ethene	23.5	24.2	97	73 - 129
Methane	23.2	26.1	89	65 - 126

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 2

Project Name: Varian Beverly	Project Number: 152728-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@CBI.com
Sampler's Signature: Wayne Holt	Sampler's Printed Name: Wayne Holt

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's Site Specific ☐8260 ☐624 ☐CLP List	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe + Mn	Methane, Ethane, Ethene	TOC	Nitrate, Sulfate					REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	1	3	0				
AP23-D0 (47.8')		1-20	0904	GW		3						1	3	1	1					
AP35-D0 (36')		1-20	1000			3						1	3	1	1					
AP34-D0 (37.7')		1-20	1030			3						1	3	1	1					
AP13-D0 (50.7')		1-20	1100			3						1	3	1	1					
AP24-D0 (47.8')		1-20	1130			3						1	3	1	1					
AP33-D0 (36')		1-20	1200			3						1	3	1	1					
AP-25-D0 (46.8')		1-20	1300			3							3	1						
RW-1 (37.6')		1-20	1330			3							3	1						
MW-9 (20')		1-20	1345			3							3	1						
OB15-S (18')		1-20 2015	1400	✓		3							3	1						

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@CBI.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915964
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Wayne Holt	Signature: [signature]	Signature	Signature	Signature	
Printed Name: Wayne Holt	Printed Name: Gregory D. Esmenian	Printed Name	Printed Name	Printed Name	
Firm: CB&I	Firm: ALS	Firm	Firm	Firm	
Date/Time: 1-21-15 1250	Date/Time: 1-22-15 09:45	Date/Time	Date/Time	Date/Time	

R1500495 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

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Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 2 OF 2

Project Name: Varian Beverly	Project Number: 152728-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street, Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@cbi.com
Sampler's Signature: Wayne Holt	Sampler's Printed Name: Wayne Holt

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's 8260 ☐ 624 ☐ CLP Site specific List	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe + Mn	Methane, Ethane, Ethene	TOC	Nitrate, Sulfate					REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	1	3	0	4			
OB9-S (20')		1-20-15	1430	GW		3						3	1							
OB25 (70')		1-21-15	0930			3														
EB-1		1-21-15	200			1														
Trip Blank		1-13-15	1245			1														

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD & PDF of report to:
Catherine.Mainville@CBI.com.

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE
_____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915964
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Wayne Holt	Signature: [signature]	Signature	Signature	Signature	
Printed Name: Wayne Holt	Printed Name: Gregory D. Esmerian	Printed Name	Printed Name	Printed Name	
Firm: CBI	Firm: ALS	Firm	Firm	Firm	
Date/Time: 1-21-15 1230	Date/Time: 1-22-15 08:45	Date/Time	Date/Time	Date/Time	Date/Time

R1500495 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

R1500495 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number R1500495

Cooler received on 1-22-15 by: KE, GL COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y N	5a	**Perchlorate** samples have required headspace?	Y N NA
2	**Custody papers** properly completed (ink, signed)?	Y N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
3	Did all bottles arrive in good **condition** (unbroken)?	Y N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice Dry Ice Gel packs** present?	Y N	7	Soil VOA received as: Bulk Encore 5035set	NA

8. Temperature Readings Date: 1-22-15 Time: 08:50 ID: IR#3 IR#4 From: Temp Blank Sample Bottle

Observed Temp (°C)	6.1	4.0					
Correction Factor (°C)	~~+1.3~~ 0.8	+0.3					
Corrected Temp (°C)	~~4.8~~ 5.9°	4.3°					
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by GE on 1/22/15 at 0853
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JMS 1/22/15

Cooler Breakdown: Date: 1-22-15 Time: 10:35 by: KE

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	✓		BDB261406	12/15				
≤2	H_2SO_4	✓		WL1400924	11/15				
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114050	12/15				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 4-258-004, 102014-1BMC

Other Comments:

Headspace: Trip Blank 2 vials
OB9-S (20') 1 vial
AD25-DO (46.8) 1 vial
AP35-DO (36') 1 vial
AP33-DO (36') 1 vial
AP34-DO (47.8') 1 vial
RW-1 (37.6') 1 vial
OB15-S (18') 1 vial

PC Secondary Review: JMS 1/26/15

*significant air bubbles: VOA ≥ 5-6 mm : WC >1 in. diameter

00080

P:\INTRANET\QAQC\Forms Controlled\Cooler Receipt r7.doc 5/6/14

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc **Job Number :** 152728.05

Prepared By: Pernilla Haley **Date :** 3/31/2015

Matrix: Groundwater

Analyte Group : Volatile Organics **Analytical Method :** SW-846 8260C

Completed MADEP CAM Certification Form included: Yes **Laboratory ID No. :** R1501207

Chain of Custody included in Data Package ? Yes **Is it Complete ?** Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
2/19/15	SW-846 8260C	14 days	10 days	2/25/2015

Sample temperature within QC limits: Yes, 0.7 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? No see notes

If no, list sample ID where range was exceeded:

Equipment Field Blank ID :
Trip Blank ID :

Method Blank: SW-846 8260C 2/25/2015

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units:

Notes:
Several Volatile Organics samples were analyzed at dilutions to bring target analytes within the calibration range of the method.

The RPD was outside limits in the LCS or LCSD for 1,4-dioxane in the lab control sample
No qualification was necessary for 1,4-dioxane as the results were non-detect.

Reviewed By: Ray Cadorette 4/1/15

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

February 26, 2015

Analytical Report for Service Request No: R1501207

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/15278-05000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on February 20, 2015. For your reference, these analyses have been assigned our service request number **R1501207**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Pernilla Haley

CASE NARRATIVE

Client:	CB&I	**Service Request No.:**	R1501207
Project:	Varian Beverly	**Project Number:**	152728-05000000
Sample Matrix:	Water	**Date Received:**	02/20/15

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II, deliverables with Massachusetts CAM analyses reporting. When appropriate to the method, method blank results have been reported with each analytical test.

Sample Receipt

Water samples were collected on 02/19/15 and received at ALS in good condition at a cooler temperature of 0.7 °C as noted on the cooler receipt and preservation check form. The samples were stored in a refrigerator at 1 - 6 °C upon receipt at the laboratory. See the second page of the Case Narrative for a cross-reference between Client ID and ALS Job #. All Soluble parameters were filtered by field personnel.

Volatile Organics

One water sample was analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method.

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries and RPD's were within QC limits except the RPD for 1,4-Dioxane and has been flagged with an "*". No data was affected.

All samples were analyzed within the required holding time of 14 days.

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1501207

Lab ID	Client ID
R1501207-001	AP-30R-DO (85)

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152728

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1500495-001

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: Janice Jaeger

Position: Client Services Manager

Printed Name: Janice Jaeger

Date: 03/02/15

00004

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: **LARRY LEWIS**

for the analysis of **NON POTABLE WATER (CHEMISTRY)**

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: **01 JUL 2014**
Expires: **30 JUN 2015**

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEI	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501207
Project:	Varian Beverly/15278-05000000	**Date Collected:**	2/19/15 1130
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 08:20
Sample Name:	AP-30R-DO (85)	**Units:**	µg/L
Lab Code:	R1501207-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433944
Data File Name:	I:\ACQUDATA\msvoa12\Data\022415\MM3013.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
630-20-6	1,1,1,2-Tetrachloroethane	100	U	100	
71-55-6	1,1,1-Trichloroethane (TCA)	**520**		100	
79-34-5	1,1,2,2-Tetrachloroethane	100	U	100	
79-00-5	1,1,2-Trichloroethane	**150**		100	
75-34-3	1,1-Dichloroethane (1,1-DCA)	100	U	100	
75-35-4	1,1-Dichloroethene (1,1-DCE)	100	U	100	
563-58-6	1,1-Dichloropropene	100	U	100	
87-61-6	1,2,3-Trichlorobenzene	100	U	100	
96-18-4	1,2,3-Trichloropropane	100	U	100	
120-82-1	1,2,4-Trichlorobenzene	100	U	100	
95-63-6	1,2,4-Trimethylbenzene	100	U	100	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	100	U	100	
106-93-4	1,2-Dibromoethane	100	U	100	
95-50-1	1,2-Dichlorobenzene	100	U	100	
107-06-2	1,2-Dichloroethane	100	U	100	
78-87-5	1,2-Dichloropropane	100	U	100	
108-67-8	1,3,5-Trimethylbenzene	100	U	100	
541-73-1	1,3-Dichlorobenzene	100	U	100	
142-28-9	1,3-Dichloropropane	100	U	100	
106-46-7	1,4-Dichlorobenzene	100	U	100	
123-91-1	1,4-Dioxane	2000	U	2000	
594-20-7	2,2-Dichloropropane	100	U	100	
78-93-3	2-Butanone (MEK)	500	U	500	
95-49-8	2-Chlorotoluene	100	U	100	
591-78-6	2-Hexanone	500	U	500	
106-43-4	4-Chlorotoluene	100	U	100	
99-87-6	p-Isopropyltoluene	100	U	100	
108-10-1	4-Methyl-2-pentanone	500	U	500	
67-64-1	Acetone	500	U	500	
71-43-2	Benzene	100	U	100	
108-86-1	Bromobenzene	100	U	100	
74-97-5	Bromochloromethane	100	U	100	
75-27-4	Bromodichloromethane	100	U	100	
75-25-2	Bromoform	100	U	100	
74-83-9	Bromomethane	100	U	100	
75-15-0	Carbon Disulfide	100	U	100	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501207
Project:	Varian Beverly/15278-05000000	**Date Collected:**	2/19/15 1130
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 08:20
Sample Name:	AP-30R-DO (85)	**Units:**	µg/L
Lab Code:	R1501207-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433944
Data File Name:	I:\ACQUDATA\msvoa12\Data\022415\MM3013.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
56-23-5	Carbon Tetrachloride	**1100**		100	
108-90-7	Chlorobenzene	100	U	100	
75-00-3	Chloroethane	100	U	100	
67-66-3	Chloroform	**5100**		100	
74-87-3	Chloromethane	100	U	100	
124-48-1	Dibromochloromethane	100	U	100	
74-95-3	Dibromomethane	100	U	100	
75-71-8	Dichlorodifluoromethane (CFC 12)	100	U	100	
75-09-2	Dichloromethane	100	U	100	
60-29-7	Diethyl Ether	100	U	100	
108-20-3	Diisopropyl Ether	100	U	100	
637-92-3	Ethyl tert-Butyl Ether	100	U	100	
100-41-4	Ethylbenzene	100	U	100	
87-68-3	Hexachlorobutadiene	100	U	100	
98-82-8	Isopropylbenzene (Cumene)	100	U	100	
1634-04-4	Methyl tert-Butyl Ether	100	U	100	
91-20-3	Naphthalene	100	U	100	
100-42-5	Styrene	100	U	100	
127-18-4	Tetrachloroethene (PCE)	**110**		100	
109-99-9	Tetrahydrofuran (THF)	100	U	100	
108-88-3	Toluene	100	U	100	
79-01-6	Trichloroethene (TCE)	100	U	100	
75-69-4	Trichlorofluoromethane (CFC 11)	100	U	100	
75-01-4	Vinyl Chloride	100	U	100	
156-59-2	cis-1,2-Dichloroethene	100	U	100	
10061-01-5	cis-1,3-Dichloropropene	100	U	100	
179601-23-1	m,p-Xylenes	100	U	100	
104-51-8	n-Butylbenzene	100	U	100	
103-65-1	n-Propylbenzene	100	U	100	
95-47-6	o-Xylene	100	U	100	
135-98-8	sec-Butylbenzene	100	U	100	
994-05-8	tert-Amyl Methyl Ether	100	U	100	
98-06-6	tert-Butylbenzene	100	U	100	
156-60-5	trans-1,2-Dichloroethene	100	U	100	
10061-02-6	trans-1,3-Dichloropropene	100	U	100	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501207
Project:	Varian Beverly/15278-05000000	**Date Collected:**	2/19/15 1130
Sample Matrix:	Water	**Date Received:**	2/20/15
		Date Analyzed:	2/25/15 08:20
Sample Name:	AP-30R-DO (85)	**Units:**	Percent
Lab Code:	R1501207-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433944
Data File Name:	I:\ACQUDATA\msvoa12\Data\022415\MM3013.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	50

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	70-130	2/25/15 08:20	
Dibromofluoromethane	109	70-130	2/25/15 08:20	
Toluene-d8	110	70-130	2/25/15 08:20	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501207
Project:	Varian Beverly/15278-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/25/15 01:56
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501885-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433944
Data File Name:	I:\ACQUDATA\msvoa12\Data\022415\MM3009.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
630-20-6	1,1,1,2-Tetrachloroethane	2.0	U	2.0	
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
563-58-6	1,1-Dichloropropene	2.0	U	2.0	
87-61-6	1,2,3-Trichlorobenzene	2.0	U	2.0	
96-18-4	1,2,3-Trichloropropane	2.0	U	2.0	
120-82-1	1,2,4-Trichlorobenzene	2.0	U	2.0	
95-63-6	1,2,4-Trimethylbenzene	2.0	U	2.0	
96-12-8	1,2-Dibromo-3-chloropropane (DBCP)	2.0	U	2.0	
106-93-4	1,2-Dibromoethane	2.0	U	2.0	
95-50-1	1,2-Dichlorobenzene	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
108-67-8	1,3,5-Trimethylbenzene	2.0	U	2.0	
541-73-1	1,3-Dichlorobenzene	2.0	U	2.0	
142-28-9	1,3-Dichloropropane	2.0	U	2.0	
106-46-7	1,4-Dichlorobenzene	2.0	U	2.0	
123-91-1	1,4-Dioxane	40	U	40	
594-20-7	2,2-Dichloropropane	2.0	U	2.0	
78-93-3	2-Butanone (MEK)	10	U	10	
95-49-8	2-Chlorotoluene	2.0	U	2.0	
591-78-6	2-Hexanone	10	U	10	
106-43-4	4-Chlorotoluene	2.0	U	2.0	
99-87-6	p-Isopropyltoluene	2.0	U	2.0	
108-10-1	4-Methyl-2-pentanone	10	U	10	
67-64-1	Acetone	10	U	10	
71-43-2	Benzene	2.0	U	2.0	
108-86-1	Bromobenzene	2.0	U	2.0	
74-97-5	Bromochloromethane	2.0	U	2.0	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
75-15-0	Carbon Disulfide	2.0	U	2.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501207
Project:	Varian Beverly/15278-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/25/15 01:56
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1501885-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433944
Data File Name:	I:\ACQUDATA\msvoa12\Data\022415\MM3009.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
74-95-3	Dibromomethane	2.0	U	2.0	
75-71-8	Dichlorodifluoromethane (CFC 12)	2.0	U	2.0	
75-09-2	Dichloromethane	2.0	U	2.0	
60-29-7	Diethyl Ether	2.0	U	2.0	
108-20-3	Diisopropyl Ether	2.0	U	2.0	
637-92-3	Ethyl tert-Butyl Ether	2.0	U	2.0	
100-41-4	Ethylbenzene	2.0	U	2.0	
87-68-3	Hexachlorobutadiene	2.0	U	2.0	
98-82-8	Isopropylbenzene (Cumene)	2.0	U	2.0	
1634-04-4	Methyl tert-Butyl Ether	2.0	U	2.0	
91-20-3	Naphthalene	2.0	U	2.0	
100-42-5	Styrene	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
109-99-9	Tetrahydrofuran (THF)	2.0	U	2.0	
108-88-3	Toluene	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
179601-23-1	m,p-Xylenes	2.0	U	2.0	
104-51-8	n-Butylbenzene	2.0	U	2.0	
103-65-1	n-Propylbenzene	2.0	U	2.0	
95-47-6	o-Xylene	2.0	U	2.0	
135-98-8	sec-Butylbenzene	2.0	U	2.0	
994-05-8	tert-Amyl Methyl Ether	2.0	U	2.0	
98-06-6	tert-Butylbenzene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501207
Project:	Varian Beverly/15278-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	2/25/15 01:56
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	RQ1501885-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	433944
Data File Name:	I:\ACQUDATA\msvoa12\Data\022415\MM3009.D\	**Instrument Name:**	R-MS-12
		Dilution Factor:	1

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	70-130	2/25/15 01:56	
Dibromofluoromethane	108	70-130	2/25/15 01:56	
Toluene-d8	111	70-130	2/25/15 01:56	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/15278-05000000
Sample Matrix: Water

Service Request: R1501207
Date Analyzed: 2/25/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 433944

Analyte Name	Lab Control Sample RQ1501885-03 Result	Spike Amount	% Rec	Duplicate Lab Control Sample RQ1501885-04 Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
1,1,1,2-Tetrachloroethane	19.6	20.0	98	19.3	20.0	97	70 - 130	2	20
1,1,1-Trichloroethane (TCA)	20.9	20.0	104	21.0	20.0	105	70 - 130	<1	20
1,1,2,2-Tetrachloroethane	20.1	20.0	101	19.0	20.0	95	70 - 130	6	20
1,1,2-Trichloroethane	19.8	20.0	99	19.0	20.0	95	70 - 130	4	20
1,1-Dichloroethane (1,1-DCA)	21.7	20.0	108	21.5	20.0	107	70 - 130	<1	20
1,1-Dichloroethene (1,1-DCE)	21.0	20.0	105	20.7	20.0	103	70 - 130	2	20
1,1-Dichloropropene	21.1	20.0	106	20.5	20.0	103	70 - 130	3	20
1,2,3-Trichlorobenzene	21.3	20.0	106	19.3	20.0	97	70 - 130	9	20
1,2,3-Trichloropropane	21.5	20.0	108	19.7	20.0	98	70 - 130	9	20
1,2,4-Trichlorobenzene	20.4	20.0	102	18.9	20.0	94	70 - 130	7	20
1,2,4-Trimethylbenzene	21.3	20.0	106	20.7	20.0	104	70 - 130	3	20
1,2-Dibromo-3-chloropropane (DBCP)	19.2	20.0	96	16.6	20.0	83	70 - 130	15	20
1,2-Dibromoethane	19.9	20.0	99	19.9	20.0	100	70 - 130	<1	20
1,2-Dichlorobenzene	20.9	20.0	105	20.1	20.0	100	70 - 130	4	20
1,2-Dichloroethane	21.0	20.0	105	21.2	20.0	106	70 - 130	<1	20
1,2-Dichloropropane	20.7	20.0	103	20.3	20.0	102	70 - 130	2	20
1,3,5-Trimethylbenzene	21.2	20.0	106	20.6	20.0	103	70 - 130	3	20
1,3-Dichlorobenzene	20.4	20.0	102	20.0	20.0	100	70 - 130	2	20
1,3-Dichloropropane	20.3	20.0	102	20.0	20.0	100	70 - 130	1	20
1,4-Dichlorobenzene	20.7	20.0	104	20.2	20.0	101	70 - 130	3	20
1,4-Dioxane	605	400	151	469	400	117	40 - 160	25 *	20
2,2-Dichloropropane	19.4	20.0	97	19.1	20.0	96	70 - 130	1	20
2-Butanone (MEK)	21.0	20.0	105	22.5	20.0	112	40 - 160	7	20
2-Chlorotoluene	21.7	20.0	109	21.1	20.0	106	70 - 130	3	20
2-Hexanone	20.6	20.0	103	20.8	20.0	104	40 - 160	<1	20
4-Chlorotoluene	21.4	20.0	107	20.4	20.0	102	70 - 130	4	20
p-Isopropyltoluene	20.9	20.0	105	20.7	20.0	103	70 - 130	1	20
4-Methyl-2-pentanone	19.5	20.0	97	18.9	20.0	94	40 - 160	3	20
Acetone	23.4	20.0	117	24.3	20.0	122	40 - 160	4	20
Benzene	21.2	20.0	106	21.0	20.0	105	70 - 130	<1	20
Bromobenzene	21.8	20.0	109	21.4	20.0	107	70 - 130	2	20
Bromochloromethane	22.1	20.0	111	21.3	20.0	106	70 - 130	4	20
Bromodichloromethane	20.6	20.0	103	19.6	20.0	98	70 - 130	5	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/15278-05000000
Sample Matrix: Water

Service Request: R1501207
Date Analyzed: 2/25/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 433944

	Lab Control Sample RQ1501885-03			Duplicate Lab Control Sample RQ1501885-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
Bromoform	19.3	20.0	96	18.9	20.0	95	70 - 130	2	20
Bromomethane	17.4	20.0	87	16.7	20.0	84	40 - 160	4	20
Carbon Disulfide	20.6	20.0	103	21.1	20.0	105	70 - 130	2	20
Carbon Tetrachloride	20.7	20.0	103	20.2	20.0	101	70 - 130	2	20
Chlorobenzene	21.0	20.0	105	20.8	20.0	104	70 - 130	1	20
Chloroethane	22.5	20.0	113	22.9	20.0	114	70 - 130	1	20
Chloroform	20.1	20.0	101	20.0	20.0	100	70 - 130	<1	20
Chloromethane	22.7	20.0	113	22.9	20.0	115	40 - 160	1	20
Dibromochloromethane	19.8	20.0	99	19.4	20.0	97	70 - 130	2	20
Dibromomethane	20.3	20.0	101	20.0	20.0	100	70 - 130	1	20
Dichlorodifluoromethane (CFC 12)	24.1	20.0	120	23.5	20.0	117	40 - 160	3	20
Dichloromethane	22.1	20.0	111	21.9	20.0	109	70 - 130	1	20
Diethyl Ether	20.4	20.0	102	20.7	20.0	103	70 - 130	2	20
Diisopropyl Ether	19.4	20.0	97	20.2	20.0	101	70 - 130	4	20
Ethyl tert-Butyl Ether	19.9	20.0	100	20.5	20.0	102	70 - 130	3	20
Ethylbenzene	19.6	20.0	98	19.1	20.0	96	70 - 130	2	20
Hexachlorobutadiene	21.9	20.0	110	19.8	20.0	99	70 - 130	10	20
Isopropylbenzene (Cumene)	22.0	20.0	110	21.3	20.0	106	70 - 130	3	20
Methyl tert-Butyl Ether	20.7	20.0	103	20.5	20.0	102	70 - 130	1	20
Naphthalene	20.3	20.0	102	19.0	20.0	95	70 - 130	7	20
Styrene	20.2	20.0	101	20.2	20.0	101	70 - 130	<1	20
Tetrachloroethene (PCE)	20.1	20.0	100	19.9	20.0	100	70 - 130	<1	20
Tetrahydrofuran (THF)	21.3	20.0	107	19.2	20.0	96	70 - 130	11	20
Toluene	21.4	20.0	107	21.1	20.0	105	70 - 130	2	20
Trichloroethene (TCE)	21.9	20.0	109	22.4	20.0	112	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	21.8	20.0	109	22.4	20.0	112	70 - 130	3	20
Vinyl Chloride	22.1	20.0	110	21.5	20.0	107	70 - 130	3	20
cis-1,2-Dichloroethene	20.3	20.0	102	20.5	20.0	103	70 - 130	1	20
cis-1,3-Dichloropropene	20.4	20.0	102	19.5	20.0	97	70 - 130	5	20
m,p-Xylenes	41.7	40.0	104	41.1	40.0	103	70 - 130	1	20
n-Butylbenzene	20.7	20.0	103	20.2	20.0	101	70 - 130	2	20
n-Propylbenzene	21.5	20.0	107	20.9	20.0	105	70 - 130	3	20
o-Xylene	20.8	20.0	104	20.7	20.0	104	70 - 130	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/15278-05000000
Sample Matrix: Water

Service Request: R1501207
Date Analyzed: 2/25/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 433944

	Lab Control Sample RQ1501885-03			Duplicate Lab Control Sample RQ1501885-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
sec-Butylbenzene	20.7	20.0	103	20.1	20.0	101	70 - 130	3	20
tert-Amyl Methyl Ether	20.3	20.0	102	20.8	20.0	104	70 - 130	2	20
tert-Butylbenzene	21.1	20.0	105	20.6	20.0	103	70 - 130	2	20
trans-1,2-Dichloroethene	20.8	20.0	104	20.6	20.0	103	70 - 130	<1	20
trans-1,3-Dichloropropene	20.1	20.0	101	19.3	20.0	96	70 - 130	5	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS

Columbia Analytical Services™

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 1

Project Name: Varian Beverly	Project Number: 152728-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@cbi.com
Sampler's Signature: [signature]	Sampler's Printed Name: Dan Leahy 2015

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐8260 ☐624 ☐CLP EPA 8260 3 TIC specified list	GC/MS SVOA's ☐8270 ☐625	GC VOA's ☐8021 ☐601/602	PESTICIDES ☐8081 ☐608	PCB's ☐8082 ☐608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
AP-30R-DO(85)		2/19	1130	GW	3	3							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS

Metals Site specific VOC list.

Massachusetts CAM analyses reporting and QA/QC.
Please email GISKey formatted EDD & PDF of report to:
Raymond.Cadorette@cbi.com & Catherine.Mainville@cbi.com.
(85) added as per Pernilla Haley 2/20/15

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
____ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ____ Yes ____ No

INVOICE INFORMATION
PO #: 91564
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED: MASSACHUSETTS

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: [signature]	Signature: [signature]	Signature	Signature	Signature	
Printed Name: Dan Leahy	Printed Name: J. Sevan	Printed Name	Printed Name	Printed Name	
Firm: CBI	Firm: ALS	Firm	Firm	Firm	
Date/Time: 2/19/15 1145	Date/Time: 2/20/15 0930	Date/Time	Date/Time	Date/Time	

R1501207 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

SCOC Rev. 10/2010

R1501207 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number R15-1207

Cooler received on 2/20/15 by: JS

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y N
2	**Custody papers** properly completed (ink, signed)?	Y N
3	Did all bottles arrive in good **condition** (unbroken)?	Y N
4	Circle: **Wet Ice Dry Ice Gel packs** present?	Y N
5a	**Perchlorate** samples have required headspace?	Y N NA
5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y N NA
6	Where did the bottles originate? ALS/ROC	CLIENT
7	Soil VOA received as: Bulk Encore 5035set	NA

8. Temperature Readings Date: 2/20/15 Time: 0945 ID: IR#3 IR#4 From: Temp Blank Sample Bottle

Observed Temp (°C)	0.7						
Correction Factor (°C)	–						
Corrected Temp (°C)	0.7						
Within 0-6°C?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: Mez by JS on 2/20/15 at 0945
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: AMJ 2/20/15

Cooler Breakdown: Date: 2/20/15 Time: 1240 by: @

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? YES NO
2. Did all bottle labels and tags agree with custody papers? YES NO
3. Were correct containers used for the tests indicated? YES NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	Client					

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: Client

Other Comments:

PC Secondary Review: AMJ 2/25/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152728.05

Prepared By: Catherine Joe Mainville

Date : 3/31/2015

Matrix: Groundwater

Analyte Group : Volatile Organics
Metals
Nitrate as Nitrogen and Sulfate

Analytical Method : SW-846 8260C
6010 C
300.0

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : R1501883

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
3/17/15	SW-846 8260C	14 days	10 days	3/24/2015
3/17/15	6010 C	180 Days	180 Days	3/24/2015
3/17/15	300.0 (Nitrate)	NA	48 hours	3/18/2015
3/17/15	300.0 (Sulfate)	NA	28 days	3/18/2015

Sample temperature within QC limits: Yes, 2.2 - 2.9 C

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded:

Equipment Field Blank ID : EB-1
Trip Blank ID : TB-1

Method Blank: SW-846 8260C 3/24/2015
6010 C 3/24/2015
300.0 3/18/2015

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units:

Notes:
Several Volatile Organics samples were analyzed at dilutions to bring target analytes within the calibration range of the method.

All method analyses were compliant. No validation required.

Reviewed By: Pernilla Haley, 4/1/15

ALS Environmental
ALS Group USA, Corp
1565 Jefferson Rd, Building 300, Suite 360
Rochester, NY 14623
T: 585-288-5380
F: 585-288-8475
www.alsglobal.com

March 26, 2015

Analytical Report for Service Request No: R1501883

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/152728-05000000

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on March 18, 2015. For your reference, these analyses have been assigned our service request number **R1501883**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Pernilla Haley

ALS Environmental

Client:	CB&I
Service Request No.:	R1501883
Project:	Varian
Date Received:	3/18/15
Sample Matrix:	Water
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS).

Sample Receipt

Water samples were received for analysis at ALS Environmental on 3/18/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory. All Soluble samples were filtered in the field.

Volatile Organics

Six water samples were analyzed for a site list of Volatile Organics by SW-846 Method 8260C.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method.

All initial calibrations were compliant.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries were within QC limits.

All samples were analyzed within the required holding time of 14 days.

Inorganic Analyses

Two water samples were analyzed for a site specific list of inorganics. Please attached data pages for method numbers.

The initial and continuing calibration criteria were met for all analytes.

All Blank Spike (LCS) recoveries were within QC limits.

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152728

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1501883-001-006

Matrices: Groundwater/Surface Water X Soil/Sediment Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: _____ **Position:** Client Services Manager

Printed Name: Janice Jaeger **Date:** 03/26/15

00003

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1501883

Lab ID	Client ID
R1501883-001	OB44-S
R1501883-002	OB46-S
R1501883-003	OB47-S
R1501883-004	OB48-S
R1501883-005	TB-1
R1501883-006	EB-1

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

\# Spike was diluted out.

\+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032

ALS ENVIRONMENTAL ROCHESTER
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: LARRY LEWIS

for the analysis of NON POTABLE WATER (CHEMISTRY)

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: 01 JUL 2014
Expires: 30 JUN 2015

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEI	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0825
Sample Matrix:	Water	**Date Received:**	3/18/15
Sample Name:	OB44-S		
Lab Code:	R1501883-001	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	NA	3/18/15 18:55	
Sulfate	300.0	**56.8**		mg/L	2.0	10	NA	3/18/15 18:55	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0825
Sample Matrix:	Water	**Date Received:**	3/18/15
Sample Name:	OB44-S		
Lab Code:	R1501883-001	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	**390**		µg/L	100	1	3/19/15	3/24/15 22:24	
Manganese, Dissolved	6010C	**542**		µg/L	10	1	3/19/15	3/24/15 22:24	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0825
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 15:14
Sample Name:	OB44-S	**Units:**	µg/L
Lab Code:	R1501883-001	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0943.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	250

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	500	U	500	
79-34-5	1,1,2,2-Tetrachloroethane	500	U	500	
79-00-5	1,1,2-Trichloroethane	500	U	500	
75-34-3	1,1-Dichloroethane (1,1-DCA)	500	U	500	
75-35-4	1,1-Dichloroethene (1,1-DCE)	500	U	500	
107-06-2	1,2-Dichloroethane	500	U	500	
78-87-5	1,2-Dichloropropane	500	U	500	
67-64-1	Acetone	2500	U	2500	
75-27-4	Bromodichloromethane	500	U	500	
75-25-2	Bromoform	500	U	500	
74-83-9	Bromomethane	500	U	500	
56-23-5	Carbon Tetrachloride	500	U	500	
108-90-7	Chlorobenzene	500	U	500	
75-00-3	Chloroethane	500	U	500	
67-66-3	Chloroform	500	U	500	
74-87-3	Chloromethane	500	U	500	
124-48-1	Dibromochloromethane	500	U	500	
75-09-2	Methylene Chloride	500	U	500	
127-18-4	Tetrachloroethene (PCE)	**30000**		500	
79-01-6	Trichloroethene (TCE)	**9400**		500	
75-69-4	Trichlorofluoromethane (CFC 11)	500	U	500	
75-01-4	Vinyl Chloride	500	U	500	
156-59-2	cis-1,2-Dichloroethene	**20000**		500	
10061-01-5	cis-1,3-Dichloropropene	500	U	500	
156-60-5	trans-1,2-Dichloroethene	500	U	500	
10061-02-6	trans-1,3-Dichloropropene	500	U	500	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	3/24/15 15:14	
Dibromofluoromethane	102	70-130	3/24/15 15:14	
Toluene-d8	107	70-130	3/24/15 15:14	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0930
Sample Matrix:	Water	**Date Received:**	3/18/15
Sample Name:	OB46-S		
Lab Code:	R1501883-002	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Nitrate as Nitrogen	300.0	1.0	U	mg/L	1.0	10	NA	3/18/15 19:07	
Sulfate	300.0	**49.6**		mg/L	2.0	10	NA	3/18/15 19:07	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0930
Sample Matrix:	Water	**Date Received:**	3/18/15
Sample Name:	OB46-S		
Lab Code:	R1501883-002	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	3/19/15	3/24/15 22:28	
Manganese, Dissolved	6010C	**13**		µg/L	10	1	3/19/15	3/24/15 22:28	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0930
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 19:40
Sample Name:	OB46-S	**Units:**	µg/L
Lab Code:	R1501883-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0951.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**760**		10	
79-01-6	Trichloroethene (TCE)	**160**		10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	**250**		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	3/24/15 19:40	
Dibromofluoromethane	102	70-130	3/24/15 19:40	
Toluene-d8	105	70-130	3/24/15 19:40	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 1030
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 18:35
Sample Name:	OB47-S	**Units:**	µg/L
Lab Code:	R1501883-003	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0949.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**32**		2.0	
79-01-6	Trichloroethene (TCE)	**14**		2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	**2.6**		2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	3/24/15 18:35	
Dibromofluoromethane	101	70-130	3/24/15 18:35	
Toluene-d8	107	70-130	3/24/15 18:35	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 1135
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 17:31
Sample Name:	OB48-S	**Units:**	µg/L
Lab Code:	R1501883-004	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0947.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**19**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	**11**		2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	103	70-130	3/24/15 17:31	
Dibromofluoromethane	103	70-130	3/24/15 17:31	
Toluene-d8	106	70-130	3/24/15 17:31	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0645
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 13:38
Sample Name:	TB-1	**Units:**	µg/L
Lab Code:	R1501883-005	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0940.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**12**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	101	70-130	3/24/15 13:38	
Dibromofluoromethane	102	70-130	3/24/15 13:38	
Toluene-d8	107	70-130	3/24/15 13:38	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	3/17/15 0652
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 14:09
Sample Name:	EB-1	**Units:**	µg/L
Lab Code:	R1501883-006	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0941.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	**12**		10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	3/24/15 14:09	
Dibromofluoromethane	99	70-130	3/24/15 14:09	
Toluene-d8	107	70-130	3/24/15 14:09	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1501883-MB	**Basis:**	NA

General Chemistry Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Nitrate as Nitrogen	300.0	0.10	U	mg/L	0.10	1	NA	3/18/15 14:19	
Sulfate	300.0	0.20	U	mg/L	0.20	1	NA	3/18/15 14:19	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank		
Lab Code:	R1501883-MB	**Basis:**	NA

Inorganic Parameters

Analyte Name	Method	Result	Q	Units	MRL	Dilution Factor	Date Extracted	Date Analyzed	Note
Iron, Dissolved	6010C	100	U	µg/L	100	1	3/19/15	3/24/15 21:16	
Manganese, Dissolved	6010C	10	U	µg/L	10	1	3/19/15	3/24/15 21:16	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501883
Project:	Varian Beverly/152728-05000000	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/24/15 13:05
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1502837-05	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437505
Data File Name:	I:\ACQUDATA\MSVOA6\DATA\032415\M0939.D\	**Instrument Name:**	R-MS-06
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	3/24/15 13:05	
Dibromofluoromethane	102	70-130	3/24/15 13:05	
Toluene-d8	108	70-130	3/24/15 13:05	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1501883
Date Analyzed: 3/18/15

Lab Control Sample Summary
General Chemistry Parameters

Units: mg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1501883-LCS Result	Spike Amount	% Rec	% Rec Limits
Nitrate as Nitrogen	300.0	1.00	1.00	100	90 - 110
Sulfate	300.0	2.00	2.00	100	90 - 110

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1501883
Date Analyzed: 3/24/15

Lab Control Sample Summary
Inorganic Parameters

Units: µg/L
Basis: NA

Analyte Name	Method	Lab Control Sample R1501883-LCS Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1010	1000	101	80 - 120
Manganese, Dissolved	6010C	499	500	100	80 - 120

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152728-05000000
Sample Matrix: Water

Service Request: R1501883
Date Analyzed: 3/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 437505

	Lab Control Sample RQ1502837-03			Duplicate Lab Control Sample RQ1502837-04					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	20.3	20.0	101	20.9	20.0	104	70 - 130	3	20
1,1,2,2-Tetrachloroethane	19.0	20.0	95	20.9	20.0	104	70 - 130	9	20
1,1,2-Trichloroethane	19.5	20.0	98	20.5	20.0	103	70 - 130	5	20
1,1-Dichloroethane (1,1-DCA)	19.4	20.0	97	20.4	20.0	102	70 - 130	5	20
1,1-Dichloroethene (1,1-DCE)	19.7	20.0	98	20.1	20.0	100	70 - 130	2	20
1,2-Dichloroethane	19.1	20.0	96	19.2	20.0	96	70 - 130	<1	20
1,2-Dichloropropane	20.0	20.0	100	20.7	20.0	104	70 - 130	4	20
Acetone	20.8	20.0	104	23.5	20.0	118	40 - 160	12	20
Bromodichloromethane	21.0	20.0	105	21.2	20.0	106	70 - 130	1	20
Bromoform	22.1	20.0	111	23.7	20.0	118	70 - 130	7	20
Bromomethane	18.4	20.0	92	17.9	20.0	89	40 - 160	3	20
Carbon Tetrachloride	20.2	20.0	101	20.7	20.0	103	70 - 130	2	20
Chlorobenzene	20.2	20.0	101	21.0	20.0	105	70 - 130	4	20
Chloroethane	19.5	20.0	97	20.8	20.0	104	70 - 130	6	20
Chloroform	19.8	20.0	99	20.3	20.0	102	70 - 130	3	20
Chloromethane	20.6	20.0	103	20.9	20.0	104	40 - 160	1	20
Dibromochloromethane	21.4	20.0	107	21.9	20.0	109	70 - 130	2	20
Methylene Chloride	19.7	20.0	98	20.5	20.0	102	70 - 130	4	20
Tetrachloroethene (PCE)	21.3	20.0	106	21.9	20.0	109	70 - 130	3	20
Trichloroethene (TCE)	20.8	20.0	104	21.6	20.0	108	70 - 130	4	20
Trichlorofluoromethane (CFC 11)	19.8	20.0	99	19.9	20.0	99	70 - 130	<1	20
Vinyl Chloride	19.3	20.0	96	20.6	20.0	103	70 - 130	6	20
cis-1,2-Dichloroethene	20.5	20.0	102	20.6	20.0	103	70 - 130	<1	20
cis-1,3-Dichloropropene	20.7	20.0	104	20.9	20.0	105	70 - 130	<1	20
trans-1,2-Dichloroethene	19.9	20.0	99	20.7	20.0	104	70 - 130	4	20
trans-1,3-Dichloropropene	20.7	20.0	103	21.6	20.0	108	70 - 130	4	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Columbia Analytical Services

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

1 Mustard Street, Suite 250, Rochester, NY 14609 | 585.288.5380 | 800.695.7222 | 585.288.8475 (fax) PAGE 1 OF 1

Project Name: Varian Beverly	Project Number: 152728-05000000
Project Manager: Raymond Cadorette	Report CC:
Company/Address: CB&I Environmental & Infrastructure, Inc. 150 Royall Street Canton, MA 02021	
Phone #: 617-589-6102	E-mail: Raymond.Cadorette@cbi.com
Sampler's Signature: Dan Leahy	Sampler's Printed Name: Dan Leahy

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624 ☐ CLP	GC/MS SVOA's ☐ 8270 ☐ 625	GC VOA's ☐ 8021 ☐ 601/602	PESTICIDES ☐ 8081 ☐ 608	PCB's ☐ 8082 ☐ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below) Fe + Mn	Nitrate + Sulfate								REMARKS/ ALTERNATE DESCRIPTION
PRESERVATIVE						1							2	0							
OB44-S		3/17/15	0825	GW	5	3						1	1								
OB46-S		3/17/15	0930		5	3						1	1								
OB47-S		3/17/15	1030		3	3															
OB48-S		3/17/15	1135		3	3															
TB-1		3/17/15	0645		2	2															
FB-1		3/17/15	0652		3	3															

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS
Metals = Field Filtered
Site specific VOC list.
Massachusetts CAM analyses reporting and QA/QC.
Email GISKey formatted EDD and PDF of report to:
Catherine.Mainville@cbi.com.
* NITRATE + SULFATE 48 HOUR HOLD TIME

See QAPP ☐

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
✓ Standard

REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data

Edata ✓ Yes ____ No

INVOICE INFORMATION
PO #: 915964
BILL TO: CB&I

STATE WHERE SAMPLES WERE COLLECTED:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
Signature: Dan Leahy	Signature: [illegible]	Signature	Signature	Signature	Signature
Printed Name: CBI	Printed Name: J. Sewell	Printed Name	Printed Name	Printed Name	Printed Name
Firm: 3/17/15 1345	Firm: ALS	Firm	Firm	Firm	Firm
Date/Time	Date/Time: 3/18/15 0935	Date/Time	Date/Time	Date/Time	Date/Time

R1501883 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return To Originator

R1501883 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Cooler Receipt and Preservation Check Form

Project/Client CB+I Folder Number 115-1883.

Cooler received on 3/18/15 by: ~~0952~~ JTS COURIER: ALS (UPS) FEDEX VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	(Y) N	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	ALS/ROC CLIENT
4	Circle: **Wet Ice Dry Ice Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore 5035set	(NA)

8. Temperature Readings Date: 3/18/15 Time: 0952 ID: (IR#3) IR#4 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	2.2						
Correction Factor (°C)	+0.7						
Corrected Temp (°C)	2.9						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: MW by JTS on 3/18 at 0953
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: JMS 3/18/15

Cooler Breakdown: Date: 3/18/15 Time: 1503 by: JTS

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (NA)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3	✓		other covered					
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**						

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 4-258-002, 062314-2MAD.
Other Comments:

PC Secondary Review: JMS 3/25/15 *significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc **Job Number :** 146898

Prepared By: Catherine Joe Mainville **Date :** 1/28/2015

Matrix: Air

Analyte Group : Volatile Organics **Analytical Method :** EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes **Laboratory ID No. :** 2036454

Chain of Custody included in Data Package ? Yes **Is it Complete ?** Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
10/20/14	VOC TO-15		30 Days	10/28 and 10/29/14

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? Yes

If no, list sample ID where range was exceeded: NA

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 2091323

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:

No qualification required.

Reviewed By: Pernilla Haley 2/4/15

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

October 30, 2014

Mr. Ray Cadorette
CB& I - Canton - MA
150 Royall Street
Canton, MA 02021

Certificate of Analysis

Project Name:	**Varian Air Samples**	Workorder:	**2036454**
Purchase Order:	**853583-000**	Workorder ID:	**Varian - 146898-11000000**

Dear Mr. Cadorette:

Enclosed are the analytical results for samples received by the laboratory on Thursday, October 23, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Cathy Mainville

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental

34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: A2LA 0818.01
State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2036454 Varian - 146898-11000000

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2036454001	32 Tozer SV4	Air	10/20/2014 11:45	10/23/2014 15:20	Collected by Client
2036454002	32 Tozer SV3	Air	10/20/2014 11:58	10/23/2014 15:20	Collected by Client
2036454003	32 Tozer SV5	Air	10/20/2014 12:15	10/23/2014 15:20	Collected by Client
2036454004	32 Tozer - 2	Air	10/20/2014 15:45	10/23/2014 15:20	Collected by Client
2036454005	32 Tozer - 1	Air	10/20/2014 16:01	10/23/2014 15:20	Collected by Client
2036454006	32 Tozer - 3	Air	10/20/2014 16:05	10/23/2014 15:20	Collected by Client

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2036454 Varian - 146898-11000000

Lab ID: **2036454001** Date Collected: 10/20/2014 Matrix: Air
Sample ID: **32 Tozer SV4** Date Received: 10/23/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP										
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			10/28/14 21:23	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			10/28/14 21:23	ECB	A
cis-1,2-Dichloroethene	21		ug/m3	0.8	TO-15			10/28/14 21:23	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			10/28/14 21:23	ECB	A
Tetrachloroethene	10		ug/m3	1	TO-15			10/28/14 21:23	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			10/28/14 21:23	ECB	A
Trichloroethene	10		ug/m3	1	TO-15			10/28/14 21:23	ECB	A
Vinyl Chloride	1		ug/m3	0.5	TO-15			10/28/14 21:23	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
cis-1,2-Dichloroethene	5.4		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
Tetrachloroethene	1.4		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
Trichloroethene	1.8		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
Vinyl Chloride	0.38		ppbv	0.20	TO-15			10/28/14 21:23	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	107		%	70 - 130	TO-15			10/28/14 21:23	ECB	A

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ANALYTICAL RESULTS

Workorder: 2036454 Varian - 146898-11000000

Lab ID: **2036454002** Date Collected: 10/20/2014 Matrix: Air
Sample ID: **32 Tozer SV3** Date Received: 10/23/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP										
1,1-Dichloroethane	2		ug/m3	0.8	TO-15			10/28/14 22:04	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			10/28/14 22:04	ECB	A
cis-1,2-Dichloroethene	640		ug/m3	8	TO-15			10/27/14 22:07	ECB	A
trans-1,2-Dichloroethene	3		ug/m3	0.8	TO-15			10/28/14 22:04	ECB	A
Tetrachloroethene	5		ug/m3	1	TO-15			10/28/14 22:04	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			10/28/14 22:04	ECB	A
Trichloroethene	61		ug/m3	1	TO-15			10/28/14 22:04	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			10/28/14 22:04	ECB	A
1,1-Dichloroethane	0.48		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
cis-1,2-Dichloroethene	160		ppbv	2.0	TO-15			10/27/14 22:07	ECB	A
trans-1,2-Dichloroethene	0.76		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
Tetrachloroethene	0.78		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
Trichloroethene	11		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/28/14 22:04	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	105		%	70 - 130	TO-15			10/28/14 22:04	ECB	A
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15			10/27/14 22:07	ECB	A

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ANALYTICAL RESULTS

Workorder: 2036454 Varian - 146898-11000000

Lab ID: **2036454003** Date Collected: 10/20/2014 Matrix: Air
Sample ID: **32 Tozer SV5** Date Received: 10/23/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/28/14 22:46	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/28/14 22:46	ECB	A
cis-1,2-Dichloroethene	1		ug/m3	0.8	TO-15		10/28/14 22:46	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/28/14 22:46	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		10/28/14 22:46	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/28/14 22:46	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15		10/28/14 22:46	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/28/14 22:46	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
cis-1,2-Dichloroethene	0.27		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		10/28/14 22:46	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	107		%	70 - 130	TO-15		10/28/14 22:46	ECB	A

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ANALYTICAL RESULTS

Workorder: 2036454 Varian - 146898-11000000

Lab ID: **2036454004** Date Collected: 10/20/2014 Matrix: Air
Sample ID: **32 Tozer - 2** Date Received: 10/23/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		10/28/14 23:27	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		10/28/14 23:27	ECB	A
cis-1,2-Dichloroethene	1		ug/m3	0.8	TO-15		10/28/14 23:27	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		10/28/14 23:27	ECB	A
Tetrachloroethene	2		ug/m3	1	TO-15		10/28/14 23:27	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		10/28/14 23:27	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15		10/28/14 23:27	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		10/28/14 23:27	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
cis-1,2-Dichloroethene	0.37		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
Tetrachloroethene	0.26		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		10/28/14 23:27	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	100		%	70 - 130	TO-15		10/28/14 23:27	ECB	A

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ANALYTICAL RESULTS

Workorder: 2036454 Varian - 146898-11000000

Lab ID: **2036454005** Date Collected: 10/20/2014 Matrix: Air
Sample ID: **32 Tozer - 1** Date Received: 10/23/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP										
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			10/29/14 00:08	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			10/29/14 00:08	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			10/29/14 00:08	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			10/29/14 00:08	ECB	A
Tetrachloroethene	2		ug/m3	1	TO-15			10/29/14 00:08	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			10/29/14 00:08	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15			10/29/14 00:08	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			10/29/14 00:08	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
Tetrachloroethene	0.27		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/29/14 00:08	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	101		%	70 - 130	TO-15			10/29/14 00:08	ECB	A

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ANALYTICAL RESULTS

Workorder: 2036454 Varian - 146898-11000000

Lab ID: **2036454006** Date Collected: 10/20/2014 Matrix: Air
Sample ID: **32 Tozer - 3** Date Received: 10/23/2014

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP										
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15			10/29/14 00:50	ECB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15			10/29/14 00:50	ECB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			10/29/14 00:50	ECB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15			10/29/14 00:50	ECB	A
Tetrachloroethene	ND		ug/m3	1	TO-15			10/29/14 00:50	ECB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15			10/29/14 00:50	ECB	A
Trichloroethene	ND		ug/m3	1	TO-15			10/29/14 00:50	ECB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15			10/29/14 00:50	ECB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
Trichloroethene	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			10/29/14 00:50	ECB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	105		%	70 - 130	TO-15			10/29/14 00:50	ECB	A

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Columbia Analytical Services INC
An Employee - Owned Company

Air Quality Laboratory
2665 Park Center Drive, Suite D
Simi Valley, California 93065
Phone (805) 526-7161
Fax (805) 526-7270

Chain of Custody Record & Analytical Service Request

* 2 0 3 6 4 5 4 *

Requested Turnaround Time by Close of Business Day (Surcharges) Please Circle:
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (15%) 10 Day-Standard

CAS Contact:

Reporting Information (Company Name & Address)
CB&I Environmental, Inc.
150 Royall Street
Canton, MA 02021

Attention: Raymond Cadorette

Phone 617-589-6102 Fax 617-589-5495

Email Address for Result Reporting: raymond.Cadorette@cbi.com

P.O. # / Billing Information: 853583

Project Name: Varian Beverly

Project Number: 146898-11000000

Sampler (Print & Sign):

Analysis Method and/or Analytes

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Sample Type (Air/Liquid /Solid/Tube)	Canister ID (Bar Code#)	Flow Controller (Bar Code #)	Sample Volume	TO15 (~~Site specific list~~ only report 1,1,1 TCA; 1,1,1 DCA, 1,1 DCE, PCE, TCE, vinylchloride, cis-1,2 DCE, trans-1,2 DCE)				Comments e.g. Preservative or specific instructions
32 Tozer SV4	10/20/14	1145		Air	1534	A0195531-4		X			-5.2	2nd-run
32 Tozer SV3	10/20/14	1158		Air	L5627	A0195528-7		X			-4.9	report only list
32 Tozer SV5	10/20/14	1215		Air	L5638	7212000		X			-2.8	5 day TAT
32 Tozer-2	10/20/14	1545		Air	L5640	7288455		X			-5.2	
32 Tozer-1	10/20/14	1601		Air	H5041	A0199654-2		X			-5.0	guage on
32 Tozer-3	10/20/14	1605		Air	L5624	7281462		X			-7.0	FC-7212000 stuck on 12 Hg

	Y	N	Initials	Cooler Temp: °C
Custody Seals Present?			AT	
(if present Seals Intact?				Cooler #:
Received on ice?				
COC/Lbls Complete				Therm ID:
Cont in Good Cond?				
Correct Containers?				Ship Carrier:
Correct Samp Vol?				FedEx UPS
Correct Preservation?				DHL
Headspace/Volatiles?				
Tracking #: 9400 7158 2980				

BMC 10-24-14 1435

Report Tier Levels - please select
Tier I - (default if not specified) ____
Tier II (QC forms) ____
Tier III (QC, Raw Data, Spectra) 10% Surcharge ____
Other MADEP CAM

EDD required Yes / No
Type: GISKey format

Project Requirements (MRLs, QAPP)
Please report in ppmV and ug/m3.
QA/QC: MADEP CAM

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Kim Hoy	10/20/14	1615	[signature]	10/23/14	1520
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Cooler / Blank Temperature ____ °C

ALS-Middletown

TO-15 Sample Receipt Checklist

Client ID: CBoI Environmental
Horizon WO#: 2036454
Sample Delivery Group ID: MA
Log In By/Date: BWK 10-24-14
(signature) [illegible]
Number of Shipping Containers received: 2

Project Name/#: Varian Beverly
Date/Time received: 10/23/14 1520
Received By: Adam Trovinger
Project Manager Review (date) 10-24-14
(signature) [illegible]
Courier: FedEx Ground

Circle the response below as appropriate.

1. Did kit(s) come with a shipping slip (airbill, etc.)? ..... YES NO NA
   If YES, enter airbill numbers: _____

Shipping Container Information:

2. Were shipping containers received without signs of tampering? ..... YES NO NA
   Comments _____
3. Were custody seals present and intact? ..... YES NO NA
4. Were custody seals numbers present? ..... YES NO NA
   List Custody Seal Numbers:
   1427, 1426

Sample Condition:

5. Were sample containers received intact without signs of tampering? ..... YES NO NA
   Comments _____

Chain of Custody:

6. Did COC arrive with the samples? ..... YES NO NA
7. Do sample ID/Sample Description(s) match samples submitted? ..... YES NO NA
8. Is date and time of collection listed on the COC for all samples? ..... YES NO NA
9. Is identification of sampler on COC? ..... YES NO NA
10. Are requested test method(s) on COC? ..... YES NO NA
11. Are necessary signatures on COC? ..... YES NO NA
12. Was Internal COC initiated? (should always be YES) ..... YES NO NA

Sample Integrity Usability:

13. Do sample containers match the COC? ..... YES NO NA
14. Were sample canisters received within 15 days of shipment to client ..... YES NO NA

Anomalies or Non-Conformances: _____

Rev. 2/2011

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 2036454

Project Location: Varian | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
2036454001 to -006

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air x Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B x
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes (No)
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (No[1])

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] **Position:** Reporting Manager

Printed Name: Jennifer M. Stanhope Lamoreux **Date:** 10/30/2014

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State Certification: CT PH-0224, DE ID 11, GA 914, MA PA0102, MD 128, LA 04162, VA 421, WY EPA Region 8, WV 343

QUALITY CONTROL DATA

Workorder 2036454 **Project Name** Varian - 146898-11000000

QC Batch TO15 / 2591

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2036454002

2090534

Parameter	Original Result	Qualifiers	Units	Spike Conc.
cis-1,2-Dichloroethene		U	ug/m3	
cis-1,2-Dichloroethene		U	ppbv	
Surrogate Recoveries				
4-Bromofluorobenzene				

2090535

Parameter	Original Result	Qualifiers	Units	Spike Conc.
cis-1,2-Dichloroethene		U	ug/m3	
cis-1,2-Dichloroethene		U	ppbv	
Surrogate Recoveries				
4-Bromofluorobenzene				

2090536

Parameter	Original Result	Qualifiers	Units	Spike Conc.
cis-1,2-Dichloroethene		U	ug/m3	
cis-1,2-Dichloroethene		U	ppbv	

This is an addendum to the Certificate of Analysis.

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Workorder 2036454 **Project Name** Varian - 146898-11000000

Surrogate Recoveries						
4-Bromofluorobenzene						

METHOD BLANK 2090532

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
cis-1,2-Dichloroethene	ND	U	ug/m3	0.2		
cis-1,2-Dichloroethene	ND	U	ppbv	0.040		
Surrogate Recoveries						
4-Bromofluorobenzene			%		94	70-130

LABORATORY CONTROL SAMPLE 2090533

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
cis-1,2-Dichloroethene	0.8		ug/m3	0.8	99	60-140
cis-1,2-Dichloroethene	0.2		ppbv	0.2	99	60-140
Surrogate Recoveries						
4-Bromofluorobenzene			%		105	70-130

QC Batch TO15 / 2592

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2036454001 2036454002 2036454003 2036454004 2036454005 2036454006

2091325

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ppbv	
1,1,1-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethene		U	ppbv	
1,1-Dichloroethene		U	ug/m3	
cis-1,2-Dichloroethene		U	ppbv	
cis-1,2-Dichloroethene		U	ug/m3	
Tetrachloroethene		U	ug/m3	
Tetrachloroethene		U	ppbv	
trans-1,2-Dichloroethene		U	ppbv	
trans-1,2-Dichloroethene		U	ug/m3	

This is an addendum to the Certificate of Analysis.

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Trichloroethene	U	ppbv	
Trichloroethene	U	ug/m3	
Vinyl Chloride	U	ug/m3	
Vinyl Chloride	U	ppbv	
Surrogate Recoveries			
4-Bromofluorobenzene			

METHOD BLANK 2091323

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
cis-1,2-Dichloroethene	ND	U	ppbv	0.20		
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8		
Tetrachloroethene	ND	U	ppbv	0.20		
Tetrachloroethene	ND	U	ug/m3	1		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
Trichloroethene	ND	U	ug/m3	1		
Trichloroethene	ND	U	ppbv	0.20		
Vinyl Chloride	ND	U	ug/m3	0.5		
Vinyl Chloride	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		102	70-130

LABORATORY CONTROL SAMPLE 2091324

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	121	60-140
1,1,1-Trichloroethane	0.24		ppbv	0.2	121	60-140
1,1-Dichloroethane	1		ug/m3	0.8	126	60-140
1,1-Dichloroethane	0.25		ppbv	0.2	126	60-140
1,1-Dichloroethene	0.9		ug/m3	0.8	120	60-140
1,1-Dichloroethene	0.24		ppbv	0.2	120	60-140
cis-1,2-Dichloroethene	1		ug/m3	0.8	123	60-140
cis-1,2-Dichloroethene	0.25		ppbv	0.2	123	60-140
Tetrachloroethene	2		ug/m3	1	118	60-140

This is an addendum to the Certificate of Analysis.

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Workorder **2036454** **Project Name** **Varian - 146898-11000000**

Tetrachloroethene	0.24	ppbv	0.2	118	60-140
trans-1,2-Dichloroethene	0.25	ppbv	0.2	123	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	123	60-140
Trichloroethene	0.24	ppbv	0.2	118	60-140
Trichloroethene	1	ug/m3	1	118	60-140
Vinyl Chloride	0.27	ppbv	0.2	136	60-140
Vinyl Chloride	0.7	ug/m3	0.5	136	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		104	70-130

This is an addendum to the Certificate of Analysis.

Workorder 2036454 **Project Name** Varian - 146898-11000000

Standard Acronyms/Flags	
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
NC	Not Calculated
*	Result outside of QC limits
DIL	Dilution Factor

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2036454001	32 Tozer SV4	TO-15	TO15 / 2592	TO-15	TO15 / 2592
2036454002	32 Tozer SV3	TO-15	TO15 / 2591	TO-15	TO15 / 2591
2036454002	32 Tozer SV3	TO-15	TO15 / 2592	TO-15	TO15 / 2592
2036454003	32 Tozer SV5	TO-15	TO15 / 2592	TO-15	TO15 / 2592
2036454004	32 Tozer - 2	TO-15	TO15 / 2592	TO-15	TO15 / 2592
2036454005	32 Tozer - 1	TO-15	TO15 / 2592	TO-15	TO15 / 2592
2036454006	32 Tozer - 3	TO-15	TO15 / 2592	TO-15	TO15 / 2592

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152780.01 and 02

Prepared By: Catherine Joe Mainville

Date : 1/28/2015

Matrix: Air

Analyte Group : Volatile Organics

Analytical Method : EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : 2046142

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
12/11/14	VOC TO-15		30 Days	12/24/14

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? No

If no, list sample ID where range was exceeded: See Notes

Equipment Field Blank ID : NA
Trip Blank ID : NA

Method Blank: EPA TO-15 2117456

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:
The % recovery was high and outside limits in the LCS or LCSD for 1,3-Dichlorobenzene and 1,2-Dichlorobenzene in lab control samples associated with five samples. No qualification was necessary for 1,2-Dichlorobenzene and 1,3-Dichlorobenzene for BLDG3-SVE1, BLDG3-SVE2, BLDG5-SVE2, BLDG-SVE3 and BLDG5-SVE4 as all results were not detect.

The % recovery was high and outside limits in the LCS or LCSD for 1,1,2,2-tetrachloroethane in the lab control sample associated with one sample. No qualification was necessary for 1,1,2,2-Tetrachloroethane for sample BLDG5-SVE1 as the results were non-detect.

Acetone was detected at a level above the calibration range of the instrument in three samples. An "E" flag was added by the lab for Acetone results for BLDG5-SVE4, BLDG5-SVE3 and BLDG3-SVE1.

Reviewed By: Pernilla Haley 2/4/15

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

January 21, 2015

Mr. Ray Cadorette
CB& I - Canton - MA
150 Royall Street
Canton, MA 02021

Certificate of Analysis

Revised Report - 1/21/2015 4:40:39 PM - See workorder comment section for explanation

Project Name:	**Varian Air Samples**	Workorder:	**2046142**
Purchase Order:	**853583-000**	Workorder ID:	**CVC003|Varion 152780**

Dear Mr. Cadorette:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, December 16, 2014.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Cathy Mainville

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2046142 CVC003|Varion 152780

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2046142001	BLDG 3 - SVE 1	Air	12/11/2014 09:15	12/16/2014 10:20	Collected by Client
2046142002	BLDG 3 - SVE 2	Air	12/11/2014 09:20	12/16/2014 10:20	Collected by Client
2046142003	BLDG 3 - SVE 3	Air	12/11/2014 09:30	12/16/2014 10:20	Collected by Client
2046142004	BLDG 3 - SVE 4	Air	12/11/2014 09:38	12/16/2014 10:20	Collected by Client
2046142005	BLDG 5 - SVE 1	Air	12/11/2014 10:28	12/16/2014 10:20	Collected by Client
2046142006	BLDG 5 - SVE 2	Air	12/11/2014 10:37	12/16/2014 10:20	Collected by Client
2046142007	BLDG 5 - SVE 3	Air	12/11/2014 10:16	12/16/2014 10:20	Collected by Client
2046142008	BLDG 5 - SVE 4	Air	12/11/2014 10:13	12/16/2014 10:20	Collected by Client

SAMPLE SUMMARY

Workorder: 2046142 CVC003|Varion 152780

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

PROJECT SUMMARY

Workorder: 2046142 CVC003|Varion 152780

Workorder Comments

These reports were modified on 1/2/15 to add qualifiers to 001, 006, 007 and 008. VLF

This report was modified on 1/21/15 to attach a LIMS QC report per client request. VLF

Sample Comments

Lab ID: 2046142003 **Sample ID:** BLDG 3 - SVE 3 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

Lab ID: 2046142004 **Sample ID:** BLDG 3 - SVE 4 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

Lab ID: 2046142005 **Sample ID:** BLDG 5 - SVE 1 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142001** Date Collected: 12/11/2014 09:15 Matrix: Air

Sample ID: **BLDG 3 - SVE 1** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	170	E	ug/m3	0.5	TO-15		12/24/14 01:51	RHB	A
Benzene	ND		ug/m3	0.6	TO-15		12/24/14 01:51	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
Bromoform	ND		ug/m3	2	TO-15		12/24/14 01:51	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
2-Butanone	9		ug/m3	0.6	TO-15		12/24/14 01:51	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		12/24/14 01:51	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		12/24/14 01:51	RHB	A
Chloroform	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		12/24/14 01:51	RHB	A
1,2-Dichlorobenzene	ND	4	ug/m3	1	TO-15		12/24/14 01:51	RHB	A
1,3-Dichlorobenzene	ND	2	ug/m3	1	TO-15		12/24/14 01:51	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		12/24/14 01:51	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 01:51	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 01:51	RHB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		12/24/14 01:51	RHB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		12/24/14 01:51	RHB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		12/24/14 01:51	RHB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		12/24/14 01:51	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
Methylene Chloride	2		ug/m3	0.7	TO-15		12/24/14 01:51	RHB	A
Naphthalene	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
Styrene	ND		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
Tetrachloroethene	11		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
Toluene	1		ug/m3	0.8	TO-15		12/24/14 01:51	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 01:51	RHB	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142001** Date Collected: 12/11/2014 09:15 Matrix: Air

Sample ID: **BLDG 3 - SVE 1** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	1		ug/m3	1	TO-15		12/24/14 01:51	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		12/24/14 01:51	RHB	A
o-Xylene	ND		ug/m3	0.9	TO-15		12/24/14 01:51	RHB	A
mp-Xylene	ND		ug/m3	2	TO-15		12/24/14 01:51	RHB	A
Acetone	70	E	ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Benzene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
2-Butanone	3.1		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,2-Dichlorobenzene	ND	3	ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,3-Dichlorobenzene	ND	1	ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Ethylbenzene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
2-Hexanone	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Methylene Chloride	0.58		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Naphthalene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Styrene	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Tetrachloroethene	1.7		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A
Toluene	0.27		ppbv	0.20	TO-15		12/24/14 01:51	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142001** Date Collected: 12/11/2014 09:15 Matrix: Air
Sample ID: **BLDG 3 - SVE 1** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			12/24/14 01:51	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			12/24/14 01:51	RHB	A
Trichloroethene	0.20		ppbv	0.20	TO-15			12/24/14 01:51	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			12/24/14 01:51	RHB	A
o-Xylene	ND		ppbv	0.20	TO-15			12/24/14 01:51	RHB	A
mp-Xylene	ND		ppbv	0.40	TO-15			12/24/14 01:51	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	95		%	70 - 130	TO-15			12/24/14 01:51	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142002** Date Collected: 12/11/2014 09:20 Matrix: Air
Sample ID: **BLDG 3 - SVE 2** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	49		ug/m3	0.5	TO-15		12/24/14 03:15	RHB	A
Benzene	ND		ug/m3	0.6	TO-15		12/24/14 03:15	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
Bromoform	ND		ug/m3	2	TO-15		12/24/14 03:15	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
2-Butanone	1		ug/m3	0.6	TO-15		12/24/14 03:15	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		12/24/14 03:15	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		12/24/14 03:15	RHB	A
Chloroform	1		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		12/24/14 03:15	RHB	A
1,2-Dichlorobenzene	ND	4	ug/m3	1	TO-15		12/24/14 03:15	RHB	A
1,3-Dichlorobenzene	ND	2	ug/m3	1	TO-15		12/24/14 03:15	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
cis-1,2-Dichloroethene	1		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		12/24/14 03:15	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 03:15	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 03:15	RHB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		12/24/14 03:15	RHB	A
Ethylbenzene	ND		ug/m3	0.9	TO-15		12/24/14 03:15	RHB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		12/24/14 03:15	RHB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		12/24/14 03:15	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
Methylene Chloride	14		ug/m3	0.7	TO-15		12/24/14 03:15	RHB	A
Naphthalene	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
Styrene	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
Tetrachloroethene	950		ug/m3	14	TO-15		12/31/14 05:29	RHB	A
Toluene	ND		ug/m3	0.8	TO-15		12/24/14 03:15	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 03:15	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142002** Date Collected: 12/11/2014 09:20 Matrix: Air
Sample ID: **BLDG 3 - SVE 2** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	45		ug/m3	1	TO-15		12/24/14 03:15	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		12/24/14 03:15	RHB	A
o-Xylene	ND		ug/m3	0.9	TO-15		12/24/14 03:15	RHB	A
mp-Xylene	ND		ug/m3	2	TO-15		12/24/14 03:15	RHB	A
Acetone	21		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Benzene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
2-Butanone	0.37		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Chloroform	0.26		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,2-Dichlorobenzene	ND	3	ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,3-Dichlorobenzene	ND	1	ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
cis-1,2-Dichloroethene	0.24		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Ethylbenzene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
2-Hexanone	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Methylene Chloride	4.2		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Naphthalene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Styrene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A
Tetrachloroethene	140		ppbv	2.0	TO-15		12/31/14 05:29	RHB	A
Toluene	ND		ppbv	0.20	TO-15		12/24/14 03:15	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142002** Date Collected: 12/11/2014 09:20 Matrix: Air
Sample ID: **BLDG 3 - SVE 2** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			12/24/14 03:15	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			12/24/14 03:15	RHB	A
Trichloroethene	8.4		ppbv	0.20	TO-15			12/24/14 03:15	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15			12/24/14 03:15	RHB	A
o-Xylene	ND		ppbv	0.20	TO-15			12/24/14 03:15	RHB	A
mp-Xylene	ND		ppbv	0.40	TO-15			12/24/14 03:15	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15			12/24/14 03:15	RHB	A
4-Bromofluorobenzene (S)	103		%	70 - 130	TO-15			12/31/14 05:29	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142003** Date Collected: 12/11/2014 09:30 Matrix: Air
Sample ID: **BLDG 3 - SVE 3** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	11		ug/m3	5	TO-15		12/31/14 07:45	RHB	A
Benzene	ND		ug/m3	6	TO-15		12/31/14 07:45	RHB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		12/31/14 07:45	RHB	A
Bromoform	ND		ug/m3	20	TO-15		12/31/14 07:45	RHB	A
Bromomethane	ND		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
2-Butanone	7		ug/m3	6	TO-15		12/31/14 07:45	RHB	A
Carbon Tetrachloride	ND		ug/m3	12	TO-15		12/31/14 07:45	RHB	A
Chlorobenzene	ND		ug/m3	9	TO-15		12/31/14 07:45	RHB	A
Chlorodibromomethane	ND		ug/m3	16	TO-15		12/31/14 07:45	RHB	A
Chloroform	ND		ug/m3	9	TO-15		12/31/14 07:45	RHB	A
1,2-Dibromoethane	ND		ug/m3	15	TO-15		12/31/14 07:45	RHB	A
1,2-Dichlorobenzene	ND		ug/m3	11	TO-15		12/31/14 07:45	RHB	A
1,3-Dichlorobenzene	ND		ug/m3	11	TO-15		12/31/14 07:45	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	11	TO-15		12/31/14 07:45	RHB	A
1,1-Dichloroethane	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
1,1-Dichloroethene	ND		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
cis-1,2-Dichloroethene	11		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		12/31/14 07:45	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		12/31/14 07:45	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		12/31/14 07:45	RHB	A
1,4-Dioxane	ND		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
Ethylbenzene	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
Hexachlorobutadiene	ND		ug/m3	20	TO-15		12/31/14 07:45	RHB	A
2-Hexanone	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
Methylene Chloride	32		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
Naphthalene	ND		ug/m3	10	TO-15		12/31/14 07:45	RHB	A
Styrene	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	13	TO-15		12/31/14 07:45	RHB	A
Tetrachloroethene	2200		ug/m3	13	TO-15		12/31/14 07:45	RHB	A
Toluene	ND		ug/m3	7	TO-15		12/31/14 07:45	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	10	TO-15		12/31/14 07:45	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	10	TO-15		12/31/14 07:45	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142003** Date Collected: 12/11/2014 09:30 Matrix: Air
Sample ID: **BLDG 3 - SVE 3** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	130		ug/m3	10	TO-15		12/31/14 07:45	RHB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		12/31/14 07:45	RHB	A
o-Xylene	ND		ug/m3	8	TO-15		12/31/14 07:45	RHB	A
mp-Xylene	ND		ug/m3	16	TO-15		12/31/14 07:45	RHB	A
Acetone	4.8		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Benzene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Bromodichloromethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Bromoform	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Bromomethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
2-Butanone	2.3		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Carbon Tetrachloride	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Chlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Chlorodibromomethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Chloroform	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,2-Dibromoethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,2-Dichlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,3-Dichlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,4-Dichlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,1-Dichloroethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,2-Dichloroethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,1-Dichloroethene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
cis-1,2-Dichloroethene	2.9		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,2-Dichloropropane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,4-Dioxane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Ethylbenzene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Hexachlorobutadiene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
2-Hexanone	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Methyl t-Butyl Ether	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Methylene Chloride	9.1		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Naphthalene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Styrene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Tetrachloroethene	330		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Toluene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142003** Date Collected: 12/11/2014 09:30 Matrix: Air
Sample ID: **BLDG 3 - SVE 3** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
1,1,2-Trichloroethane	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Trichloroethene	25		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
Vinyl Chloride	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
o-Xylene	ND		ppbv	1.9	TO-15		12/31/14 07:45	RHB	A
mp-Xylene	ND		ppbv	3.8	TO-15		12/31/14 07:45	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	95		%	70 - 130	TO-15		12/31/14 07:45	RHB	A

Vicki Forney
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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142004** Date Collected: 12/11/2014 09:38 Matrix: Air
Sample ID: **BLDG 3 - SVE 4** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	14		ug/m3	5	TO-15		12/31/14 06:50	RHB	A
Benzene	ND		ug/m3	6	TO-15		12/31/14 06:50	RHB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		12/31/14 06:50	RHB	A
Bromoform	ND		ug/m3	20	TO-15		12/31/14 06:50	RHB	A
Bromomethane	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
2-Butanone	7		ug/m3	6	TO-15		12/31/14 06:50	RHB	A
Carbon Tetrachloride	ND		ug/m3	12	TO-15		12/31/14 06:50	RHB	A
Chlorobenzene	ND		ug/m3	9	TO-15		12/31/14 06:50	RHB	A
Chlorodibromomethane	ND		ug/m3	16	TO-15		12/31/14 06:50	RHB	A
Chloroform	ND		ug/m3	9	TO-15		12/31/14 06:50	RHB	A
1,2-Dibromoethane	ND		ug/m3	15	TO-15		12/31/14 06:50	RHB	A
1,2-Dichlorobenzene	ND		ug/m3	11	TO-15		12/31/14 06:50	RHB	A
1,3-Dichlorobenzene	ND		ug/m3	11	TO-15		12/31/14 06:50	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	11	TO-15		12/31/14 06:50	RHB	A
1,1-Dichloroethane	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
1,1-Dichloroethene	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		12/31/14 06:50	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		12/31/14 06:50	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		12/31/14 06:50	RHB	A
1,4-Dioxane	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
Ethylbenzene	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
Hexachlorobutadiene	ND		ug/m3	20	TO-15		12/31/14 06:50	RHB	A
2-Hexanone	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
Methylene Chloride	15		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
Naphthalene	ND		ug/m3	10	TO-15		12/31/14 06:50	RHB	A
Styrene	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	13	TO-15		12/31/14 06:50	RHB	A
Tetrachloroethene	24		ug/m3	13	TO-15		12/31/14 06:50	RHB	A
Toluene	ND		ug/m3	7	TO-15		12/31/14 06:50	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	10	TO-15		12/31/14 06:50	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	10	TO-15		12/31/14 06:50	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142004** Date Collected: 12/11/2014 09:38 Matrix: Air
Sample ID: **BLDG 3 - SVE 4** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	ND		ug/m3	10	TO-15		12/31/14 06:50	RHB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		12/31/14 06:50	RHB	A
o-Xylene	ND		ug/m3	8	TO-15		12/31/14 06:50	RHB	A
mp-Xylene	ND		ug/m3	16	TO-15		12/31/14 06:50	RHB	A
Acetone	6.0		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Benzene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Bromodichloromethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Bromoform	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Bromomethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
2-Butanone	2.4		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Carbon Tetrachloride	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Chlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Chlorodibromomethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Chloroform	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,2-Dibromoethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,2-Dichlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,3-Dichlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,4-Dichlorobenzene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,1-Dichloroethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,2-Dichloroethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,1-Dichloroethene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,2-Dichloropropane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,4-Dioxane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Ethylbenzene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Hexachlorobutadiene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
2-Hexanone	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Methyl t-Butyl Ether	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Methylene Chloride	4.4		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Naphthalene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Styrene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Tetrachloroethene	3.5		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A
Toluene	ND		ppbv	1.9	TO-15		12/31/14 06:50	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142004** Date Collected: 12/11/2014 09:38 Matrix: Air
Sample ID: **BLDG 3 - SVE 4** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	1.9	TO-15			12/31/14 06:50	RHB	A
1,1,2-Trichloroethane	ND		ppbv	1.9	TO-15			12/31/14 06:50	RHB	A
Trichloroethene	ND		ppbv	1.9	TO-15			12/31/14 06:50	RHB	A
Vinyl Chloride	ND		ppbv	1.9	TO-15			12/31/14 06:50	RHB	A
o-Xylene	ND		ppbv	1.9	TO-15			12/31/14 06:50	RHB	A
mp-Xylene	ND		ppbv	3.8	TO-15			12/31/14 06:50	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	93		%	70 - 130	TO-15			12/31/14 06:50	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142005** Date Collected: 12/11/2014 10:28 Matrix: Air
Sample ID: **BLDG 5 - SVE 1** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	140		ug/m3	11	TO-15		12/30/14 06:20	RHB	A
Benzene	ND		ug/m3	15	TO-15		12/30/14 06:20	RHB	A
Bromodichloromethane	ND		ug/m3	32	TO-15		12/30/14 06:20	RHB	A
Bromoform	ND		ug/m3	49	TO-15		12/30/14 06:20	RHB	A
Bromomethane	ND		ug/m3	18	TO-15		12/30/14 06:20	RHB	A
2-Butanone	55		ug/m3	14	TO-15		12/30/14 06:20	RHB	A
Carbon Tetrachloride	ND		ug/m3	30	TO-15		12/30/14 06:20	RHB	A
Chlorobenzene	ND		ug/m3	22	TO-15		12/30/14 06:20	RHB	A
Chlorodibromomethane	ND		ug/m3	40	TO-15		12/30/14 06:20	RHB	A
Chloroform	ND		ug/m3	23	TO-15		12/30/14 06:20	RHB	A
1,2-Dibromoethane	ND		ug/m3	36	TO-15		12/30/14 06:20	RHB	A
1,2-Dichlorobenzene	ND		ug/m3	28	TO-15		12/30/14 06:20	RHB	A
1,3-Dichlorobenzene	ND		ug/m3	28	TO-15		12/30/14 06:20	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	28	TO-15		12/30/14 06:20	RHB	A
1,1-Dichloroethane	ND		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
1,2-Dichloroethane	ND		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
1,1-Dichloroethene	ND		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
cis-1,2-Dichloroethene	120		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
1,2-Dichloropropane	ND		ug/m3	22	TO-15		12/30/14 06:20	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	22	TO-15		12/30/14 06:20	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	22	TO-15		12/30/14 06:20	RHB	A
1,4-Dioxane	ND		ug/m3	17	TO-15		12/30/14 06:20	RHB	A
Ethylbenzene	ND		ug/m3	21	TO-15		12/30/14 06:20	RHB	A
Hexachlorobutadiene	ND		ug/m3	50	TO-15		12/30/14 06:20	RHB	A
2-Hexanone	ND		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	17	TO-15		12/30/14 06:20	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ug/m3	19	TO-15		12/30/14 06:20	RHB	A
Methylene Chloride	40		ug/m3	16	TO-15		12/30/14 06:20	RHB	A
Naphthalene	ND		ug/m3	25	TO-15		12/30/14 06:20	RHB	A
Styrene	ND		ug/m3	20	TO-15		12/30/14 06:20	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	32	TO-15		12/30/14 06:20	RHB	A
Tetrachloroethene	240		ug/m3	32	TO-15		12/30/14 06:20	RHB	A
Toluene	ND		ug/m3	18	TO-15		12/30/14 06:20	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	26	TO-15		12/30/14 06:20	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	26	TO-15		12/30/14 06:20	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142005** Date Collected: 12/11/2014 10:28 Matrix: Air

Sample ID: **BLDG 5 - SVE 1** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	4400		ug/m3	25	TO-15		12/30/14 06:20	RHB	A
Vinyl Chloride	ND		ug/m3	12	TO-15		12/30/14 06:20	RHB	A
o-Xylene	ND		ug/m3	21	TO-15		12/30/14 06:20	RHB	A
mp-Xylene	ND		ug/m3	41	TO-15		12/30/14 06:20	RHB	A
Acetone	60		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Benzene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Bromodichloromethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Bromoform	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Bromomethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
2-Butanone	19		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Carbon Tetrachloride	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Chlorobenzene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Chlorodibromomethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Chloroform	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,2-Dibromoethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,2-Dichlorobenzene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,3-Dichlorobenzene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,4-Dichlorobenzene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,1-Dichloroethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,2-Dichloroethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,1-Dichloroethene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
cis-1,2-Dichloroethene	29		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,2-Dichloropropane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,4-Dioxane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Ethylbenzene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Hexachlorobutadiene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
2-Hexanone	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Methyl t-Butyl Ether	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
4-Methyl-2-Pentanone(MIBK)	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Methylene Chloride	11		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Naphthalene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Styrene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Tetrachloroethene	36		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Toluene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142005** Date Collected: 12/11/2014 10:28 Matrix: Air

Sample ID: **BLDG 5 - SVE 1** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
1,1,2-Trichloroethane	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Trichloroethene	820		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
Vinyl Chloride	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
o-Xylene	ND		ppbv	4.7	TO-15		12/30/14 06:20	RHB	A
mp-Xylene	ND		ppbv	9.5	TO-15		12/30/14 06:20	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15		12/30/14 06:20	RHB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142006** Date Collected: 12/11/2014 10:37 Matrix: Air
Sample ID: **BLDG 5 - SVE 2** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	56		ug/m3	0.5	TO-15		12/23/14 23:41	RHB	A
Benzene	ND		ug/m3	0.6	TO-15		12/23/14 23:41	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
Bromoform	ND		ug/m3	2	TO-15		12/23/14 23:41	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
2-Butanone	34		ug/m3	0.6	TO-15		12/23/14 23:41	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		12/23/14 23:41	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		12/23/14 23:41	RHB	A
Chloroform	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		12/23/14 23:41	RHB	A
1,2-Dichlorobenzene	ND	4	ug/m3	1	TO-15		12/23/14 23:41	RHB	A
1,3-Dichlorobenzene	ND	2	ug/m3	1	TO-15		12/23/14 23:41	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
1,1-Dichloroethane	0.9		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
cis-1,2-Dichloroethene	32		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		12/23/14 23:41	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/23/14 23:41	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/23/14 23:41	RHB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		12/23/14 23:41	RHB	A
Ethylbenzene	1		ug/m3	0.9	TO-15		12/23/14 23:41	RHB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		12/23/14 23:41	RHB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		12/23/14 23:41	RHB	A
4-Methyl-2-Pentanone(MIBK)	6		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		12/23/14 23:41	RHB	A
Naphthalene	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
Styrene	ND		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
Tetrachloroethene	70		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
Toluene	2		ug/m3	0.8	TO-15		12/23/14 23:41	RHB	A
1,1,1-Trichloroethane	2		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		12/23/14 23:41	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142006** Date Collected: 12/11/2014 10:37 Matrix: Air

Sample ID: **BLDG 5 - SVE 2** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	87		ug/m3	1	TO-15		12/23/14 23:41	RHB	A
Vinyl Chloride	2		ug/m3	0.5	TO-15		12/23/14 23:41	RHB	A
o-Xylene	1		ug/m3	0.9	TO-15		12/23/14 23:41	RHB	A
mp-Xylene	5		ug/m3	2	TO-15		12/23/14 23:41	RHB	A
Acetone	24		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Benzene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
2-Butanone	11		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,2-Dichlorobenzene	ND	3	ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,3-Dichlorobenzene	ND	1	ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,1-Dichloroethane	0.23		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
cis-1,2-Dichloroethene	8.0		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Ethylbenzene	0.27		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
2-Hexanone	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
4-Methyl-2-Pentanone(MIBK)	1.6		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Methylene Chloride	1.5		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Naphthalene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Styrene	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Tetrachloroethene	10		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A
Toluene	0.58		ppbv	0.20	TO-15		12/23/14 23:41	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142006** Date Collected: 12/11/2014 10:37 Matrix: Air
Sample ID: **BLDG 5 - SVE 2** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	0.36		ppbv	0.20	TO-15			12/23/14 23:41	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			12/23/14 23:41	RHB	A
Trichloroethene	16		ppbv	0.20	TO-15			12/23/14 23:41	RHB	A
Vinyl Chloride	0.89		ppbv	0.20	TO-15			12/23/14 23:41	RHB	A
o-Xylene	0.33		ppbv	0.20	TO-15			12/23/14 23:41	RHB	A
mp-Xylene	1.1		ppbv	0.40	TO-15			12/23/14 23:41	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	105		%	70 - 130	TO-15			12/23/14 23:41	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142007** Date Collected: 12/11/2014 10:16 Matrix: Air
Sample ID: **BLDG 5 - SVE 3** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	320	E	ug/m3	0.5	TO-15		12/24/14 01:10	RHB	A
Benzene	0.9		ug/m3	0.6	TO-15		12/24/14 01:10	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
Bromoform	ND		ug/m3	2	TO-15		12/24/14 01:10	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
2-Butanone	90		ug/m3	0.6	TO-15		12/24/14 01:10	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		12/24/14 01:10	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		12/24/14 01:10	RHB	A
Chloroform	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		12/24/14 01:10	RHB	A
1,2-Dichlorobenzene	ND	4	ug/m3	1	TO-15		12/24/14 01:10	RHB	A
1,3-Dichlorobenzene	ND	2	ug/m3	1	TO-15		12/24/14 01:10	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
cis-1,2-Dichloroethene	4		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		12/24/14 01:10	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 01:10	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 01:10	RHB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		12/24/14 01:10	RHB	A
Ethylbenzene	1		ug/m3	0.9	TO-15		12/24/14 01:10	RHB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		12/24/14 01:10	RHB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
Methyl t-Butyl Ether	ND		ug/m3	0.7	TO-15		12/24/14 01:10	RHB	A
4-Methyl-2-Pentanone(MIBK)	13		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
Methylene Chloride	3		ug/m3	0.7	TO-15		12/24/14 01:10	RHB	A
Naphthalene	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
Styrene	ND		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
Tetrachloroethene	18		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
Toluene	4		ug/m3	0.8	TO-15		12/24/14 01:10	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 01:10	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142007** Date Collected: 12/11/2014 10:16 Matrix: Air

Sample ID: **BLDG 5 - SVE 3** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	68		ug/m3	1	TO-15		12/24/14 01:10	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		12/24/14 01:10	RHB	A
o-Xylene	2		ug/m3	0.9	TO-15		12/24/14 01:10	RHB	A
mp-Xylene	5		ug/m3	2	TO-15		12/24/14 01:10	RHB	A
Acetone	130	E	ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Benzene	0.29		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
2-Butanone	31		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,2-Dichlorobenzene	ND	3	ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,3-Dichlorobenzene	ND	1	ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
cis-1,2-Dichloroethene	0.93		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Ethylbenzene	0.30		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
2-Hexanone	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Methyl t-Butyl Ether	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
4-Methyl-2-Pentanone(MIBK)	3.1		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Methylene Chloride	0.84		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Naphthalene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Styrene	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Tetrachloroethene	2.7		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Toluene	1.0		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142007** Date Collected: 12/11/2014 10:16 Matrix: Air
Sample ID: **BLDG 5 - SVE 3** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Trichloroethene	13		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
o-Xylene	0.36		ppbv	0.20	TO-15		12/24/14 01:10	RHB	A
mp-Xylene	1.1		ppbv	0.40	TO-15		12/24/14 01:10	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	98		%	70 - 130	TO-15		12/24/14 01:10	RHB	A

Vicki Forney
Mrs. Vicki A. Forney
Project Coordinator

ALS Environmental
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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142008** Date Collected: 12/11/2014 10:13 Matrix: Air
Sample ID: **BLDG 5 - SVE 4** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	150	E	ug/m3	0.5	TO-15		12/24/14 00:26	RHB	A
Benzene	0.7		ug/m3	0.6	TO-15		12/24/14 00:26	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
Bromoform	ND		ug/m3	2	TO-15		12/24/14 00:26	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
2-Butanone	71		ug/m3	0.6	TO-15		12/24/14 00:26	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		12/24/14 00:26	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		12/24/14 00:26	RHB	A
Chloroform	1		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
1,2-Dibromoethane	ND		ug/m3	2	TO-15		12/24/14 00:26	RHB	A
1,2-Dichlorobenzene	ND	4	ug/m3	1	TO-15		12/24/14 00:26	RHB	A
1,3-Dichlorobenzene	ND	2	ug/m3	1	TO-15		12/24/14 00:26	RHB	A
1,4-Dichlorobenzene	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
cis-1,2-Dichloroethene	13		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		12/24/14 00:26	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 00:26	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		12/24/14 00:26	RHB	A
1,4-Dioxane	ND		ug/m3	0.7	TO-15		12/24/14 00:26	RHB	A
Ethylbenzene	1		ug/m3	0.9	TO-15		12/24/14 00:26	RHB	A
Hexachlorobutadiene	ND		ug/m3	2	TO-15		12/24/14 00:26	RHB	A
2-Hexanone	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
Methyl t-Butyl Ether	0.9		ug/m3	0.7	TO-15		12/24/14 00:26	RHB	A
4-Methyl-2-Pentanone(MIBK)	9		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
Methylene Chloride	62		ug/m3	0.7	TO-15		12/24/14 00:26	RHB	A
Naphthalene	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
Styrene	ND		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
Tetrachloroethene	12		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
Toluene	3		ug/m3	0.8	TO-15		12/24/14 00:26	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		12/24/14 00:26	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142008** Date Collected: 12/11/2014 10:13 Matrix: Air

Sample ID: **BLDG 5 - SVE 4** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
Trichloroethene	10		ug/m3	1	TO-15		12/24/14 00:26	RHB	A
Vinyl Chloride	2		ug/m3	0.5	TO-15		12/24/14 00:26	RHB	A
o-Xylene	1		ug/m3	0.9	TO-15		12/24/14 00:26	RHB	A
mp-Xylene	4		ug/m3	2	TO-15		12/24/14 00:26	RHB	A
Acetone	63	E	ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Benzene	0.23		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
2-Butanone	24		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Chloroform	0.27		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,2-Dibromoethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,2-Dichlorobenzene	ND	3	ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,3-Dichlorobenzene	ND	1	ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,4-Dichlorobenzene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
cis-1,2-Dichloroethene	3.2		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,4-Dioxane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Ethylbenzene	0.28		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Hexachlorobutadiene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
2-Hexanone	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Methyl t-Butyl Ether	0.26		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
4-Methyl-2-Pentanone(MIBK)	2.3		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Methylene Chloride	18		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Naphthalene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Styrene	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Tetrachloroethene	1.7		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A
Toluene	0.78		ppbv	0.20	TO-15		12/24/14 00:26	RHB	A

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ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

Lab ID: **2046142008** Date Collected: 12/11/2014 10:13 Matrix: Air
Sample ID: **BLDG 5 - SVE 4** Date Received: 12/16/2014 10:20

Parameters	Results	Flag	Units	RDL	Method	Prepared	By	Analyzed	By	*Cntr*
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15			12/24/14 00:26	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15			12/24/14 00:26	RHB	A
Trichloroethene	1.8		ppbv	0.20	TO-15			12/24/14 00:26	RHB	A
Vinyl Chloride	0.85		ppbv	0.20	TO-15			12/24/14 00:26	RHB	A
o-Xylene	0.33		ppbv	0.20	TO-15			12/24/14 00:26	RHB	A
mp-Xylene	1.0		ppbv	0.40	TO-15			12/24/14 00:26	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared*	*By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	101		%	70 - 130	TO-15			12/24/14 00:26	RHB	A

Vicki Forney
Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2046142001	1	BLDG 3 - SVE 1	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142001	2	BLDG 3 - SVE 1	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142001	3	BLDG 3 - SVE 1	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142001	4	BLDG 3 - SVE 1	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142001	E	BLDG 3 - SVE 1	TO-15	Acetone
Result reported exceeds instrument calibration				
2046142002	1	BLDG 3 - SVE 2	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142002	2	BLDG 3 - SVE 2	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142002	3	BLDG 3 - SVE 2	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142002	4	BLDG 3 - SVE 2	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142006	1	BLDG 5 - SVE 2	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142006	2	BLDG 5 - SVE 2	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142006	3	BLDG 5 - SVE 2	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142006	4	BLDG 5 - SVE 2	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142007	1	BLDG 5 - SVE 3	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142007	2	BLDG 5 - SVE 3	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142007	3	BLDG 5 - SVE 3	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				

ANALYTICAL RESULTS

Workorder: 2046142 CVC003|Varion 152780

2046142007	4	BLDG 5 - SVE 3	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142007	E	BLDG 5 - SVE 3	TO-15	Acetone
Result reported exceeds instrument calibration				
2046142008	1	BLDG 5 - SVE 4	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142008	2	BLDG 5 - SVE 4	TO-15	1,3-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,3-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142008	3	BLDG 5 - SVE 4	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142008	4	BLDG 5 - SVE 4	TO-15	1,2-Dichlorobenzene
The QC sample type LCS for method TO-15 was outside the control limits for the analyte 1,2-Dichlorobenzene. The % Recovery was reported as 141 and the control limits were 60 to 140.				
2046142008	E	BLDG 5 - SVE 4	TO-15	Acetone
Result reported exceeds instrument calibration				

ALS Environmental

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P. 717-944-5541
F. 717-944-1430

AIR ANALYSIS
CHAIN- OF- CUSTODY/FIELD TEST DATA SHEET

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT/SAMPLER.
INSTRUCTIONS ON THE BACK.

COC #
ALS Q
2046142
of

1. CLIENT INFORMATION

Client Name/Address: CBI
150 Royall St Canton MA 02021
Contact: Raymond Cadorette
Phone#: 774 571 1183
Project Name/#: Varian 152780
Bill To:
TAT: ✓ Normal- Standard TAT is 10- 12 business days. Rush- TAT subject to ALS approval and surcharges.
Date Required: Approved By:
Email? ✓ Y Raymond.Cadorette@CBI.com
Fax? Y No.:

2. ANALYSES/METHOD REQUESTED

✓ APPROPRIATE TEST CODE/ANALYTE LIST.

No.	TO-15 Analysis	STD LIST	UST LIST	OTHER
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				

3. LABORATORY

LABORATORY CANISTER CERTIFIED BY:
GC/MS Analyst Signature: Erin C Boyd
CANISTERS PREPARED BY:
Name: Erin C Boyd
Title: Sr GC/MS Analyst
Custody Sealed Date/Time: 12/8/14 1405
Date Shipped to Client: 12/8/14
Custody Seal #(s): # 1497 + 1498

RECEIVING INFORMATION:

	Y	N	Initial
COC Complete/Accurate?	✓		AV
Labels Complete/Accurate?	✓		
Cont. In Good Cond.?	✓		
Custody Seals Present?		✓	
(if present) Seals Intact?			
Returned in ≤ 15 days?	✓		
Custody Seal #(s):			
Courier/Tracking #: 1260 2811 2139 8402 4340			

4. FIELD DATA SHEET

	SAMPLE INFORMATION FOR TO- 15						TO- 15 FIELD DATA						LABORATORY RECORD				
	Sample Description/Location (as it will appear on the lab report)	Sample Type- Choose one: *SA-Indoor air *AS-ambient soil *V-vapor *SS-sub-slab	Sample Date	Start Time	Stop Time	Temp Deg C	1L	6L	Canister No.	Flow Controller No.	Canister Pressure ("Hg) Start	Canister Pressure ("Hg) Stop	Canister Certification File	Canister Pressure ("Hg) Out	Canister Pressure ("Hg) In	Flow Controller Setpoint (mL/min)
1	Bldg 3 - SVE 1	SS	12-11-14	0910	0915	19	✓	✓	5633	None	-21	-5			-4.0	
2	Bldg 3 - SVE 2	SS		0915	0920				10039		-25	-5			-5.7	
3	Bldg 3 - SVE 3	SS		0922	0930				1269		-28	-7			-7.3	
4	Bldg 3 - SVE 4	SS		0932	0938				5639		-25	-6			-3.7	
5	Bldg 5 - SVE 1	SS		1018	1028	21			5022		-28	-7			-6.7	
6	Bldg 5 - SVE 2	SS		1030	1037				5634		-27	-6			-8.2	
7	Bldg 5 - SVE 3	SS		1010	1016				1836		-29	-5			-4.1	
8	Bldg 5 - SVE 4	SS		0957	1013				1075		-27	-7			-8.0	
9																
10																

5. SAMPLED BY (Please Print):

Paul Ledoux

LOGGED BY(signature): DATE 12-19-14 TIME 1477
REVIEWED BY(signature): DATE 12/22/14 TIME 1445

Relinquished By / Company Name	Date	Time	Received By / Company Name	Date	Time
1 Paul Ledoux / CBI	12-11-14	1600	2	12/12/14	1020
3			4		
5			6		
7			8		
9			10		

6. PROJECT INFORMATION

Data Deliverables: ☐ Standard ☐ CLP-like ☐ DOD ☐ TO-15 ☐ Other
EDDs- Type:
ALS Field Services: ☐ Pickup ☐ Labor
Other:

State Samples Collected In: ☐ NY ☐ NJ ☐ PA ☐ NC ☐ other

ALS

ALS-Middletown

TO-15 Sample Receipt Checklist

Client ID: CBI
Horizon WO#: 2046142
Sample Delivery Group ID: N/A
Log In By/Date: BWK 12-19-14
(signature) [illegible]
Number of Shipping containers received: 2

Project Name/#: Varian 152780
Date/Time received: 12/16/14 1020
Received By: Adam Trumger
Project Manager Review (date) 12/22/14
(signature) V Manley
Courier: UPS

Circle the response below as appropriate.

1. Did kit(s) come with a shipping slip (airbill, etc.)? ..... YES NO NA
   If YES, enter airbill numbers: 1260284213964247 40
   1260284213963227 94

Shipping Container Information:

2. Were shipping containers received without signs of tampering? ..... YES NO NA
   Comments
3. Were custody seals present and intact? ..... YES NO NA
4. Were custody seals numbers present? ..... YES NO NA
   List Custody Seal Numbers:

Sample Condition:

5. Were sample containers received intact without signs of tampering? ..... YES NO NA
   Comments

Chain of Custody:

6. Did COC arrive with the samples? ..... YES NO NA
7. Do sample ID/Sample Description(s) match samples submitted? ..... YES NO NA
8. Is date and time of collection listed on the COC for all samples? ..... YES NO NA
9. Is identification of sampler on COC? ..... YES NO NA
10. Are requested test method(s) on COC? ..... YES NO NA
11. Are necessary signatures on COC? ..... YES NO NA
12. Was Internal COC initiated? (should always be YES) ..... YES NO NA

Sample Integrity Usability:

13. Do sample containers match the COC? ..... YES NO NA
14. Were sample canisters received within 15 days of shipment to client ..... YES NO NA

Anomalies or Non-Conformances:

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 2046142

Project Location: Varian | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
2046142-001 to -008

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air x Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B x
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes (No)
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (No[1])

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] **Position:** Reporting Manager

Printed Name: Jennifer M. Stanhope Lamoreux **Date:** 1/5/2015

ALS Environmental
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State Certification: CT PH-0224, DE ID 11, GA 914, MA PA0102, MD 128, LA 04162, VA 421, WY EPA Region 8, WV 343

QUALITY CONTROL DATA

Workorder 2046142 **Project Name** Varion 152780

QC Batch TO15 / 2632

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2046142001 2046142002 2046142006 2046142007 2046142008

METHOD BLANK 2117456

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ppbv	0.20		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichlorobenzene	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ppbv	0.20		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
1,3-Dichlorobenzene	ND	U	ppbv	0.20		
1,3-Dichlorobenzene	ND	U	ug/m3	1		
1,4-Dichlorobenzene	ND	U	ppbv	0.20		

This is an addendum to the Certificate of Analysis.

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1,4-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dioxane	ND	U	ug/m3	0.7
1,4-Dioxane	ND	U	ppbv	0.20
2-Butanone	ND	U	ppbv	0.20
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ppbv	0.20
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ppbv	0.20
Bromoform	ND	U	ug/m3	2
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ppbv	0.20
Chlorodibromomethane	ND	U	ug/m3	2
Chloroform	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7
mp-Xylene	ND	U	ppbv	0.40
mp-Xylene	ND	U	ug/m3	2
Naphthalene	ND	U	ppbv	0.20
Naphthalene	ND	U	ug/m3	1
o-Xylene	ND	U	ppbv	0.20

This is an addendum to the Certificate of Analysis.

o-Xylene	ND	U	ug/m3	0.9		
Styrene	ND	U	ppbv	0.20		
Styrene	ND	U	ug/m3	0.8		
Tetrachloroethene	ND	U	ug/m3	1		
Tetrachloroethene	ND	U	ppbv	0.20		
Toluene	ND	U	ppbv	0.20		
Toluene	ND	U	ug/m3	0.8		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
trans-1,3-Dichloropropene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ug/m3	0.5		
Vinyl Chloride	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		95	70-130

LABORATORY CONTROL SAMPLE 2117457

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	0.22		ppbv	0.2	112	60-140
1,1,1-Trichloroethane	1		ug/m3	1	112	60-140
1,1,2,2-Tetrachloroethane	0.25		ppbv	0.2	127	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	127	60-140
1,1,2-Trichloroethane	0.26		ppbv	0.2	132	60-140
1,1,2-Trichloroethane	1		ug/m3	1	132	60-140
1,1-Dichloroethane	0.26		ppbv	0.2	132	60-140
1,1-Dichloroethane	1		ug/m3	0.8	132	60-140
1,1-Dichloroethene	0.25		ppbv	0.2	126	60-140
1,1-Dichloroethene	1		ug/m3	0.8	126	60-140
1,2-Dibromoethane	0.26		ppbv	0.2	129	60-140
1,2-Dibromoethane	2		ug/m3	2	129	60-140
1,2-Dichlorobenzene	2		ug/m3	1	141*	60-140
1,2-Dichlorobenzene	0.28		ppbv	0.2	141*	60-140
1,2-Dichloroethane	0.26		ppbv	0.2	129	60-140
1,2-Dichloroethane	1		ug/m3	0.8	129	60-140
1,2-Dichloropropane	0.24		ppbv	0.2	118	60-140
1,2-Dichloropropane	1		ug/m3	0.9	118	60-140
1,3-Dichlorobenzene	0.28		ppbv	0.2	141*	60-140
1,3-Dichlorobenzene	2		ug/m3	1	141*	60-140
1,4-Dichlorobenzene	0.28		ppbv	0.2	140	60-140

This is an addendum to the Certificate of Analysis.

1,4-Dichlorobenzene	2	ug/m3	1	140	60-140
1,4-Dioxane	0.9	ug/m3	0.7	119	60-140
1,4-Dioxane	0.24	ppbv	0.2	119	60-140
2-Butanone	0.25	ppbv	0.2	123	60-140
2-Butanone	0.7	ug/m3	0.6	123	60-140
2-Hexanone	0.24	ppbv	0.2	118	60-140
2-Hexanone	1	ug/m3	0.8	118	60-140
4-Methyl-2-Pentanone(MIBK)	0.24	ppbv	0.2	122	60-140
4-Methyl-2-Pentanone(MIBK)	1	ug/m3	0.8	122	60-140
Acetone	0.6	ug/m3	0.5	135	60-140
Acetone	0.27	ppbv	0.2	135	60-140
Benzene	0.25	ppbv	0.2	123	60-140
Benzene	0.8	ug/m3	0.6	123	60-140
Bromodichloromethane	0.24	ppbv	0.2	120	60-140
Bromodichloromethane	2	ug/m3	1	120	60-140
Bromoform	0.25	ppbv	0.2	125	60-140
Bromoform	3	ug/m3	2	125	60-140
Bromomethane	1	ug/m3	0.8	130	60-140
Bromomethane	0.26	ppbv	0.2	130	60-140
Carbon Tetrachloride	1	ug/m3	1	77	60-140
Carbon Tetrachloride	0.15	ppbv	0.2	77	60-140
Chlorobenzene	1	ug/m3	0.9	130	60-140
Chlorobenzene	0.26	ppbv	0.2	130	60-140
Chlorodibromomethane	0.24	ppbv	0.2	120	60-140
Chlorodibromomethane	2	ug/m3	2	120	60-140
Chloroform	0.27	ppbv	0.2	136	60-140
Chloroform	1	ug/m3	1	136	60-140
cis-1,2-Dichloroethene	0.25	ppbv	0.2	123	60-140
cis-1,2-Dichloroethene	1	ug/m3	0.8	123	60-140
cis-1,3-Dichloropropene	0.23	ppbv	0.2	113	60-140
cis-1,3-Dichloropropene	1	ug/m3	0.9	113	60-140
Ethylbenzene	1	ug/m3	0.9	112	60-140
Ethylbenzene	0.22	ppbv	0.2	112	60-140
Hexachlorobutadiene	0.28	ppbv	0.2	139	60-140
Hexachlorobutadiene	3	ug/m3	2	139	60-140
Methyl t-Butyl Ether	0.24	ppbv	0.2	121	60-140
Methyl t-Butyl Ether	0.9	ug/m3	0.7	121	60-140
Methylene Chloride	0.28	ppbv	0.2	139	60-140
Methylene Chloride	1	ug/m3	0.7	139	60-140
mp-Xylene	0.45	ppbv	0.4	114	60-140
mp-Xylene	2	ug/m3	2	114	60-140
Naphthalene	0.23	ppbv	0.2	117	60-140
Naphthalene	1	ug/m3	1	117	60-140
o-Xylene	0.23	ppbv	0.2	117	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2046142 **Project Name** Varion 152780

o-Xylene	1	ug/m3	0.9	117	60-140
Styrene	0.22	ppbv	0.2	111	60-140
Styrene	0.9	ug/m3	0.9	111	60-140
Tetrachloroethene	2	ug/m3	1	131	60-140
Tetrachloroethene	0.26	ppbv	0.2	131	60-140
Toluene	0.24	ppbv	0.2	121	60-140
Toluene	0.9	ug/m3	0.8	121	60-140
trans-1,2-Dichloroethene	0.25	ppbv	0.2	125	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	125	60-140
trans-1,3-Dichloropropene	0.22	ppbv	0.2	108	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	108	60-140
Trichloroethene	0.25	ppbv	0.2	123	60-140
Trichloroethene	1	ug/m3	1	123	60-140
Vinyl Chloride	0.7	ug/m3	0.5	130	60-140
Vinyl Chloride	0.26	ppbv	0.2	130	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		98	70-130

QC Batch TO15 / 2636

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2046142005

2119231

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ug/m3	
1,1,1-Trichloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,2-Dibromoethane		U	ppbv	
1,2-Dibromoethane		U	ug/m3	
1,2-Dichlorobenzene		U	ppbv	
1,2-Dichlorobenzene		U	ug/m3	
1,2-Dichloroethane		U	ppbv	
1,2-Dichloroethane		U	ug/m3	

This is an addendum to the Certificate of Analysis.

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1,2-Dichloropropane	U	ppbv
1,2-Dichloropropane	U	ug/m3
1,3-Dichlorobenzene	U	ug/m3
1,3-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ug/m3
1,4-Dichlorobenzene	U	ppbv
1,4-Dioxane	U	ppbv
1,4-Dioxane	U	ug/m3
2-Butanone	U	ppbv
2-Butanone	U	ug/m3
2-Hexanone	U	ppbv
2-Hexanone	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ppbv
Acetone	U	ppbv
Acetone	U	ug/m3
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ppbv
Bromodichloromethane	U	ug/m3
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ug/m3
Bromomethane	U	ppbv
Carbon Tetrachloride	U	ug/m3
Carbon Tetrachloride	U	ppbv
Chlorobenzene	U	ppbv
Chlorobenzene	U	ug/m3
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ppbv
Chloroform	U	ug/m3
cis-1,2-Dichloroethene	U	ug/m3
cis-1,2-Dichloroethene	U	ppbv
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ppbv
Ethylbenzene	U	ug/m3
Hexachlorobutadiene	U	ppbv
Hexachlorobutadiene	U	ug/m3
Methyl t-Butyl Ether	U	ppbv
Methyl t-Butyl Ether	U	ug/m3
Methylene Chloride	U	ug/m3
Methylene Chloride	U	ppbv

This is an addendum to the Certificate of Analysis.

mp-Xylene		U	ug/m3
mp-Xylene		U	ppbv
Naphthalene		U	ppbv
Naphthalene		U	ug/m3
o-Xylene		U	ppbv
o-Xylene		U	ug/m3
Styrene		U	ppbv
Styrene		U	ug/m3
Tetrachloroethene		U	ug/m3
Tetrachloroethene		U	ppbv
Toluene		U	ppbv
Toluene		U	ug/m3
trans-1,2-Dichloroethene		U	ppbv
trans-1,2-Dichloroethene		U	ug/m3
trans-1,3-Dichloropropene		U	ppbv
trans-1,3-Dichloropropene		U	ug/m3
Trichloroethene		U	ppbv
Trichloroethene		U	ug/m3
Vinyl Chloride		U	ug/m3
Vinyl Chloride		U	ppbv
Surrogate Recoveries			
4-Bromofluorobenzene			

2119232

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ug/m3	
1,1,1-Trichloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,2-Dibromoethane		U	ppbv	
1,2-Dibromoethane		U	ug/m3	
1,2-Dichlorobenzene		U	ppbv	
1,2-Dichlorobenzene		U	ug/m3	
1,2-Dichloroethane		U	ppbv	
1,2-Dichloroethane		U	ug/m3	

This is an addendum to the Certificate of Analysis.

1,2-Dichloropropane	U	ppbv
1,2-Dichloropropane	U	ug/m3
1,3-Dichlorobenzene	U	ug/m3
1,3-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ug/m3
1,4-Dichlorobenzene	U	ppbv
1,4-Dioxane	U	ppbv
1,4-Dioxane	U	ug/m3
2-Butanone	U	ppbv
2-Butanone	U	ug/m3
2-Hexanone	U	ppbv
2-Hexanone	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ppbv
Acetone	U	ppbv
Acetone	U	ug/m3
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ppbv
Bromodichloromethane	U	ug/m3
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ug/m3
Bromomethane	U	ppbv
Carbon Tetrachloride	U	ug/m3
Carbon Tetrachloride	U	ppbv
Chlorobenzene	U	ppbv
Chlorobenzene	U	ug/m3
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ppbv
Chloroform	U	ug/m3
cis-1,2-Dichloroethene	U	ug/m3
cis-1,2-Dichloroethene	U	ppbv
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ppbv
Ethylbenzene	U	ug/m3
Hexachlorobutadiene	U	ppbv
Hexachlorobutadiene	U	ug/m3
Methyl t-Butyl Ether	U	ppbv
Methyl t-Butyl Ether	U	ug/m3
Methylene Chloride	U	ug/m3
Methylene Chloride	U	ppbv

This is an addendum to the Certificate of Analysis.

mp-Xylene	U	ug/m3
mp-Xylene	U	ppbv
Naphthalene	U	ppbv
Naphthalene	U	ug/m3
o-Xylene	U	ppbv
o-Xylene	U	ug/m3
Styrene	U	ppbv
Styrene	U	ug/m3
Tetrachloroethene	U	ug/m3
Tetrachloroethene	U	ppbv
Toluene	U	ppbv
Toluene	U	ug/m3
trans-1,2-Dichloroethene	U	ppbv
trans-1,2-Dichloroethene	U	ug/m3
trans-1,3-Dichloropropene	U	ppbv
trans-1,3-Dichloropropene	U	ug/m3
Trichloroethene	U	ppbv
Trichloroethene	U	ug/m3
Vinyl Chloride	U	ppbv
Vinyl Chloride	U	ug/m3

Surrogate Recoveries

4-Bromofluorobenzene

METHOD BLANK 2119228

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ppbv	0.20		
1,2-Dibromoethane	ND	U	ug/m3	2		
1,2-Dichlorobenzene	ND	U	ug/m3	1		
1,2-Dichlorobenzene	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		

This is an addendum to the Certificate of Analysis.

1,2-Dichloropropane	ND	U	ppbv	0.20
1,2-Dichloropropane	ND	U	ug/m3	0.9
1,3-Dichlorobenzene	ND	U	ppbv	0.20
1,3-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ppbv	0.20
1,4-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dioxane	ND	U	ppbv	0.20
1,4-Dioxane	ND	U	ug/m3	0.7
2-Butanone	ND	U	ppbv	0.20
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ppbv	0.20
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ppbv	0.20
Bromoform	ND	U	ug/m3	2
Bromomethane	ND	U	ug/m3	0.8
Bromomethane	ND	U	ppbv	0.20
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorobenzene	ND	U	ppbv	0.20
Chlorodibromomethane	ND	U	ppbv	0.20
Chlorodibromomethane	ND	U	ug/m3	2
Chloroform	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7

This is an addendum to the Certificate of Analysis.

mp-Xylene	ND	U	ppbv	0.40		
mp-Xylene	ND	U	ug/m3	2		
Naphthalene	ND	U	ppbv	0.20		
Naphthalene	ND	U	ug/m3	1		
o-Xylene	ND	U	ppbv	0.20		
o-Xylene	ND	U	ug/m3	0.9		
Styrene	ND	U	ppbv	0.20		
Styrene	ND	U	ug/m3	0.8		
Tetrachloroethene	ND	U	ppbv	0.20		
Tetrachloroethene	ND	U	ug/m3	1		
Toluene	ND	U	ppbv	0.20		
Toluene	ND	U	ug/m3	0.8		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ppbv	0.20		
Vinyl Chloride	ND	U	ug/m3	0.5		
Surrogate Recoveries						
4-Bromofluorobenzene			%		91	70-130

LABORATORY CONTROL SAMPLE 2119229

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	102	60-140
1,1,1-Trichloroethane	0.2		ppbv	0.2	102	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	143*	60-140
1,1,2,2-Tetrachloroethane	0.29		ppbv	0.2	143*	60-140
1,1,2-Trichloroethane	0.27		ppbv	0.2	135	60-140
1,1,2-Trichloroethane	1		ug/m3	1	135	60-140
1,1-Dichloroethane	0.28		ppbv	0.2	139	60-140
1,1-Dichloroethane	1		ug/m3	0.8	139	60-140
1,1-Dichloroethene	0.26		ppbv	0.2	128	60-140
1,1-Dichloroethene	1		ug/m3	0.8	128	60-140
1,2-Dibromoethane	2		ug/m3	2	133	60-140
1,2-Dibromoethane	0.27		ppbv	0.2	133	60-140
1,2-Dichlorobenzene	0.27		ppbv	0.2	134	60-140
1,2-Dichlorobenzene	2		ug/m3	1	134	60-140
1,2-Dichloroethane	0.28		ppbv	0.2	140	60-140
1,2-Dichloroethane	1		ug/m3	0.8	140	60-140

1,2-Dichloropropane	0.26	ppbv	0.2	130	60-140
1,2-Dichloropropane	1	ug/m3	0.9	130	60-140
1,3-Dichlorobenzene	0.27	ppbv	0.2	136	60-140
1,3-Dichlorobenzene	2	ug/m3	1	136	60-140
1,4-Dichlorobenzene	0.28	ppbv	0.2	138	60-140
1,4-Dichlorobenzene	2	ug/m3	1	138	60-140
1,4-Dioxane	0.24	ppbv	0.2	119	60-140
1,4-Dioxane	0.9	ug/m3	0.7	119	60-140
2-Butanone	0.26	ppbv	0.2	129	60-140
2-Butanone	0.8	ug/m3	0.6	129	60-140
2-Hexanone	0.24	ppbv	0.2	119	60-140
2-Hexanone	1	ug/m3	0.8	119	60-140
4-Methyl-2-Pentanone(MIBK)	0.25	ppbv	0.2	123	60-140
4-Methyl-2-Pentanone(MIBK)	1	ug/m3	0.8	123	60-140
Acetone	0.7	ug/m3	0.5	140	60-140
Acetone	0.28	ppbv	0.2	140	60-140
Benzene	0.26	ppbv	0.2	130	60-140
Benzene	0.8	ug/m3	0.6	130	60-140
Bromodichloromethane	0.26	ppbv	0.2	130	60-140
Bromodichloromethane	2	ug/m3	1	130	60-140
Bromoform	0.25	ppbv	0.2	124	60-140
Bromoform	3	ug/m3	2	124	60-140
Bromomethane	0.27	ppbv	0.2	136	60-140
Bromomethane	1	ug/m3	0.8	136	60-140
Carbon Tetrachloride	2	ug/m3	1	132	60-140
Carbon Tetrachloride	0.26	ppbv	0.2	132	60-140
Chlorobenzene	1	ug/m3	0.9	136	60-140
Chlorobenzene	0.27	ppbv	0.2	136	60-140
Chlorodibromomethane	0.26	ppbv	0.2	132	60-140
Chlorodibromomethane	2	ug/m3	2	132	60-140
Chloroform	0.27	ppbv	0.2	136	60-140
Chloroform	1	ug/m3	1	136	60-140
cis-1,2-Dichloroethene	0.26	ppbv	0.2	132	60-140
cis-1,2-Dichloroethene	1	ug/m3	0.8	132	60-140
cis-1,3-Dichloropropene	1	ug/m3	0.9	121	60-140
cis-1,3-Dichloropropene	0.24	ppbv	0.2	121	60-140
Ethylbenzene	0.24	ppbv	0.2	119	60-140
Ethylbenzene	1	ug/m3	0.9	119	60-140
Hexachlorobutadiene	0.27	ppbv	0.2	135	60-140
Hexachlorobutadiene	3	ug/m3	2	135	60-140
Methyl t-Butyl Ether	0.25	ppbv	0.2	127	60-140
Methyl t-Butyl Ether	0.9	ug/m3	0.7	127	60-140
Methylene Chloride	0.27	ppbv	0.2	137	60-140
Methylene Chloride	1	ug/m3	0.7	137	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2046142 **Project Name** Varion 152780

mp-Xylene	0.48	ppbv	0.4	120	60-140
mp-Xylene	2	ug/m3	2	120	60-140
Naphthalene	1	ug/m3	1	109	60-140
Naphthalene	0.22	ppbv	0.2	109	60-140
o-Xylene	0.24	ppbv	0.2	119	60-140
o-Xylene	1	ug/m3	0.9	119	60-140
Styrene	0.23	ppbv	0.2	116	60-140
Styrene	1	ug/m3	0.9	116	60-140
Tetrachloroethene	0.26	ppbv	0.2	131	60-140
Tetrachloroethene	2	ug/m3	1	131	60-140
Toluene	0.25	ppbv	0.2	124	60-140
Toluene	0.9	ug/m3	0.8	124	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	134	60-140
trans-1,2-Dichloroethene	0.27	ppbv	0.2	134	60-140
trans-1,3-Dichloropropene	0.24	ppbv	0.2	122	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	122	60-140
Trichloroethene	0.26	ppbv	0.2	130	60-140
Trichloroethene	1	ug/m3	1	130	60-140
Vinyl Chloride	0.27	ppbv	0.2	136	60-140
Vinyl Chloride	0.7	ug/m3	0.5	136	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		103	70-130

QC Batch TO15 / 2638

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2046142002 2046142003 2046142004

2119818

Parameter	Original Result	Qualifiers	Units	Spike Conc.
1,1,1-Trichloroethane		U	ppbv	
1,1,1-Trichloroethane		U	ug/m3	
1,1,2,2-Tetrachloroethane		U	ppbv	
1,1,2,2-Tetrachloroethane		U	ug/m3	
1,1,2-Trichloroethane		U	ppbv	
1,1,2-Trichloroethane		U	ug/m3	
1,1-Dichloroethane		U	ppbv	
1,1-Dichloroethane		U	ug/m3	
1,1-Dichloroethene		U	ppbv	
1,1-Dichloroethene		U	ug/m3	
1,2-Dibromoethane		U	ug/m3	

This is an addendum to the Certificate of Analysis.

1,2-Dibromoethane	U	ppbv
1,2-Dichlorobenzene	U	ug/m3
1,2-Dichlorobenzene	U	ppbv
1,2-Dichloroethane	U	ppbv
1,2-Dichloroethane	U	ug/m3
1,2-Dichloropropane	U	ppbv
1,2-Dichloropropane	U	ug/m3
1,3-Dichlorobenzene	U	ug/m3
1,3-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ppbv
1,4-Dichlorobenzene	U	ug/m3
1,4-Dioxane	U	ug/m3
1,4-Dioxane	U	ppbv
2-Butanone	U	ug/m3
2-Butanone	U	ppbv
2-Hexanone	U	ug/m3
2-Hexanone	U	ppbv
4-Methyl-2-Pentanone(MIBK)	U	ug/m3
4-Methyl-2-Pentanone(MIBK)	U	ppbv
Acetone	U	ppbv
Acetone	U	ug/m3
Benzene	U	ppbv
Benzene	U	ug/m3
Bromodichloromethane	U	ug/m3
Bromodichloromethane	U	ppbv
Bromoform	U	ppbv
Bromoform	U	ug/m3
Bromomethane	U	ppbv
Bromomethane	U	ug/m3
Carbon Tetrachloride	U	ug/m3
Carbon Tetrachloride	U	ppbv
Chlorobenzene	U	ppbv
Chlorobenzene	U	ug/m3
Chlorodibromomethane	U	ppbv
Chlorodibromomethane	U	ug/m3
Chloroform	U	ug/m3
Chloroform	U	ppbv
cis-1,2-Dichloroethene	U	ppbv
cis-1,2-Dichloroethene	U	ug/m3
cis-1,3-Dichloropropene	U	ppbv
cis-1,3-Dichloropropene	U	ug/m3
Ethylbenzene	U	ug/m3
Ethylbenzene	U	ppbv
Hexachlorobutadiene	U	ppbv

This is an addendum to the Certificate of Analysis.

Hexachlorobutadiene	U	ug/m3
Methyl t-Butyl Ether	U	ppbv
Methyl t-Butyl Ether	U	ug/m3
Methylene Chloride	U	ppbv
Methylene Chloride	U	ug/m3
mp-Xylene	U	ug/m3
mp-Xylene	U	ppbv
Naphthalene	U	ug/m3
Naphthalene	U	ppbv
o-Xylene	U	ug/m3
o-Xylene	U	ppbv
Styrene	U	ppbv
Styrene	U	ug/m3
Tetrachloroethene	U	ppbv
Tetrachloroethene	U	ug/m3
Toluene	U	ug/m3
Toluene	U	ppbv
trans-1,2-Dichloroethene	U	ppbv
trans-1,2-Dichloroethene	U	ug/m3
trans-1,3-Dichloropropene	U	ppbv
trans-1,3-Dichloropropene	U	ug/m3
Trichloroethene	U	ppbv
Trichloroethene	U	ug/m3
Vinyl Chloride	U	ppbv
Vinyl Chloride	U	ug/m3

Surrogate Recoveries

4-Bromofluorobenzene

METHOD BLANK 2119816

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dibromoethane	ND	U	ppbv	0.20		

This is an addendum to the Certificate of Analysis.

1,2-Dibromoethane	ND	U	ug/m3	2
1,2-Dichlorobenzene	ND	U	ug/m3	1
1,2-Dichlorobenzene	ND	U	ppbv	0.20
1,2-Dichloroethane	ND	U	ppbv	0.20
1,2-Dichloroethane	ND	U	ug/m3	0.8
1,2-Dichloropropane	ND	U	ppbv	0.20
1,2-Dichloropropane	ND	U	ug/m3	0.9
1,3-Dichlorobenzene	ND	U	ppbv	0.20
1,3-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ug/m3	1
1,4-Dichlorobenzene	ND	U	ppbv	0.20
1,4-Dioxane	ND	U	ug/m3	0.7
1,4-Dioxane	ND	U	ppbv	0.20
2-Butanone	ND	U	ppbv	0.20
2-Butanone	ND	U	ug/m3	0.6
2-Hexanone	ND	U	ppbv	0.20
2-Hexanone	ND	U	ug/m3	0.8
4-Methyl-2-Pentanone(MIBK)	ND	U	ppbv	0.20
4-Methyl-2-Pentanone(MIBK)	ND	U	ug/m3	0.8
Acetone	ND	U	ppbv	0.20
Acetone	ND	U	ug/m3	0.5
Benzene	ND	U	ug/m3	0.6
Benzene	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ppbv	0.20
Bromodichloromethane	ND	U	ug/m3	1
Bromoform	ND	U	ug/m3	2
Bromoform	ND	U	ppbv	0.20
Bromomethane	ND	U	ppbv	0.20
Bromomethane	ND	U	ug/m3	0.8
Carbon Tetrachloride	ND	U	ug/m3	1
Carbon Tetrachloride	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ppbv	0.20
Chlorobenzene	ND	U	ug/m3	0.9
Chlorodibromomethane	ND	U	ug/m3	2
Chlorodibromomethane	ND	U	ppbv	0.20
Chloroform	ND	U	ug/m3	1
Chloroform	ND	U	ppbv	0.20
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8
cis-1,2-Dichloroethene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ppbv	0.20
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ug/m3	0.9
Ethylbenzene	ND	U	ppbv	0.20
Hexachlorobutadiene	ND	U	ug/m3	2

This is an addendum to the Certificate of Analysis.

Hexachlorobutadiene	ND	U	ppbv	0.20
Methyl t-Butyl Ether	ND	U	ug/m3	0.7
Methyl t-Butyl Ether	ND	U	ppbv	0.20
Methylene Chloride	ND	U	ug/m3	0.7
Methylene Chloride	ND	U	ppbv	0.20
mp-Xylene	ND	U	ug/m3	2
mp-Xylene	ND	U	ppbv	0.40
Naphthalene	ND	U	ppbv	0.20
Naphthalene	ND	U	ug/m3	1
o-Xylene	ND	U	ppbv	0.20
o-Xylene	ND	U	ug/m3	0.9
Styrene	ND	U	ug/m3	0.8
Styrene	ND	U	ppbv	0.20
Tetrachloroethene	ND	U	ug/m3	1
Tetrachloroethene	ND	U	ppbv	0.20
Toluene	ND	U	ug/m3	0.8
Toluene	ND	U	ppbv	0.20
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8
trans-1,2-Dichloroethene	ND	U	ppbv	0.20
trans-1,3-Dichloropropene	ND	U	ppbv	0.20
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9
Trichloroethene	ND	U	ppbv	0.20
Trichloroethene	ND	U	ug/m3	1
Vinyl Chloride	ND	U	ppbv	0.20
Vinyl Chloride	ND	U	ug/m3	0.5

Surrogate Recoveries

4-Bromofluorobenzene	%	96	70-130

LABORATORY CONTROL SAMPLE 2119817

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	1		ug/m3	1	129	60-140
1,1,1-Trichloroethane	0.26		ppbv	0.2	129	60-140
1,1,2,2-Tetrachloroethane	0.25		ppbv	0.2	126	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	126	60-140
1,1,2-Trichloroethane	0.28		ppbv	0.2	138	60-140
1,1,2-Trichloroethane	2		ug/m3	1	138	60-140
1,1-Dichloroethane	0.27		ppbv	0.2	137	60-140
1,1-Dichloroethane	1		ug/m3	0.8	137	60-140
1,1-Dichloroethene	0.25		ppbv	0.2	123	60-140
1,1-Dichloroethene	1		ug/m3	0.8	123	60-140
1,2-Dibromoethane	0.26		ppbv	0.2	130	60-140

This is an addendum to the Certificate of Analysis.

1,2-Dibromoethane	2	ug/m3	2	130	60-140
1,2-Dichlorobenzene	2	ug/m3	1	133	60-140
1,2-Dichlorobenzene	0.27	ppbv	0.2	133	60-140
1,2-Dichloroethane	0.28	ppbv	0.2	139	60-140
1,2-Dichloroethane	1	ug/m3	0.8	139	60-140
1,2-Dichloropropane	0.24	ppbv	0.2	120	60-140
1,2-Dichloropropane	1	ug/m3	0.9	120	60-140
1,3-Dichlorobenzene	0.24	ppbv	0.2	122	60-140
1,3-Dichlorobenzene	1	ug/m3	1	122	60-140
1,4-Dichlorobenzene	2	ug/m3	1	126	60-140
1,4-Dichlorobenzene	0.25	ppbv	0.2	126	60-140
1,4-Dioxane	0.26	ppbv	0.2	128	60-140
1,4-Dioxane	0.9	ug/m3	0.7	128	60-140
2-Butanone	0.26	ppbv	0.2	128	60-140
2-Butanone	0.8	ug/m3	0.6	128	60-140
2-Hexanone	0.24	ppbv	0.2	122	60-140
2-Hexanone	1	ug/m3	0.8	122	60-140
4-Methyl-2-Pentanone(MIBK)	1	ug/m3	0.8	119	60-140
4-Methyl-2-Pentanone(MIBK)	0.24	ppbv	0.2	119	60-140
Acetone	0.25	ppbv	0.2	126	60-140
Acetone	0.6	ug/m3	0.5	126	60-140
Benzene	0.25	ppbv	0.2	125	60-140
Benzene	0.8	ug/m3	0.6	125	60-140
Bromodichloromethane	0.23	ppbv	0.2	116	60-140
Bromodichloromethane	2	ug/m3	1	116	60-140
Bromoform	0.27	ppbv	0.2	135	60-140
Bromoform	3	ug/m3	2	135	60-140
Bromomethane	1	ug/m3	0.8	124	60-140
Bromomethane	0.25	ppbv	0.2	124	60-140
Carbon Tetrachloride	2	ug/m3	1	129	60-140
Carbon Tetrachloride	0.26	ppbv	0.2	129	60-140
Chlorobenzene	0.28	ppbv	0.2	139	60-140
Chlorobenzene	1	ug/m3	0.9	139	60-140
Chlorodibromomethane	0.26	ppbv	0.2	132	60-140
Chlorodibromomethane	2	ug/m3	2	132	60-140
Chloroform	0.26	ppbv	0.2	131	60-140
Chloroform	1	ug/m3	1	131	60-140
cis-1,2-Dichloroethene	1	ug/m3	0.8	132	60-140
cis-1,2-Dichloroethene	0.26	ppbv	0.2	132	60-140
cis-1,3-Dichloropropene	0.21	ppbv	0.2	104	60-140
cis-1,3-Dichloropropene	0.9	ug/m3	0.9	104	60-140
Ethylbenzene	0.24	ppbv	0.2	118	60-140
Ethylbenzene	1	ug/m3	0.9	118	60-140
Hexachlorobutadiene	0.27	ppbv	0.2	137	60-140

This is an addendum to the Certificate of Analysis.

Hexachlorobutadiene	3	ug/m3	2	137	60-140
Methyl t-Butyl Ether	0.23	ppbv	0.2	115	60-140
Methyl t-Butyl Ether	0.8	ug/m3	0.7	115	60-140
Methylene Chloride	0.24	ppbv	0.2	122	60-140
Methylene Chloride	0.8	ug/m3	0.7	122	60-140
mp-Xylene	0.48	ppbv	0.4	120	60-140
mp-Xylene	2	ug/m3	2	120	60-140
Naphthalene	0.21	ppbv	0.2	106	60-140
Naphthalene	1	ug/m3	1	106	60-140
o-Xylene	0.23	ppbv	0.2	113	60-140
o-Xylene	1	ug/m3	0.9	113	60-140
Styrene	0.23	ppbv	0.2	113	60-140
Styrene	1	ug/m3	0.9	113	60-140
Tetrachloroethene	0.28	ppbv	0.2	139	60-140
Tetrachloroethene	2	ug/m3	1	139	60-140
Toluene	0.25	ppbv	0.2	126	60-140
Toluene	1	ug/m3	0.8	126	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	132	60-140
trans-1,2-Dichloroethene	0.26	ppbv	0.2	132	60-140
trans-1,3-Dichloropropene	0.23	ppbv	0.2	113	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	113	60-140
Trichloroethene	0.25	ppbv	0.2	127	60-140
Trichloroethene	1	ug/m3	1	127	60-140
Vinyl Chloride	0.24	ppbv	0.2	120	60-140
Vinyl Chloride	0.6	ug/m3	0.5	120	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		95	70-130

Standard Acronyms/Flags	
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
NC	Not Calculated
*	Result outside of QC limits
DIL	Dilution Factor

ALS

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This is an addendum to the Certificate of Analysis.

ALS

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2046142001	BLDG 3 - SVE 1	TO-15	TO15 / 2632	TO-15	TO15 / 2632
2046142002	BLDG 3 - SVE 2	TO-15	TO15 / 2632	TO-15	TO15 / 2632
2046142002	BLDG 3 - SVE 2	TO-15	TO15 / 2638	TO-15	TO15 / 2638
2046142003	BLDG 3 - SVE 3	TO-15	TO15 / 2638	TO-15	TO15 / 2638
2046142004	BLDG 3 - SVE 4	TO-15	TO15 / 2638	TO-15	TO15 / 2638
2046142005	BLDG 5 - SVE 1	TO-15	TO15 / 2636	TO-15	TO15 / 2636
2046142006	BLDG 5 - SVE 2	TO-15	TO15 / 2632	TO-15	TO15 / 2632
2046142007	BLDG 5 - SVE 3	TO-15	TO15 / 2632	TO-15	TO15 / 2632
2046142008	BLDG 5 - SVE 4	TO-15	TO15 / 2632	TO-15	TO15 / 2632

Data Usability Worksheet

Project Name : Varian Medical Systems, Inc

Job Number : 152780

Prepared By: Catherine Joe Mainville

Date : 2/17/2015

Matrix: Air

Analyte Group : Volatile Organics

Analytical Method : EPA Method TO-15

Completed MADEP CAM Certification Form included: Yes

Laboratory ID No. : 2052542R

Chain of Custody included in Data Package ? Yes

Is it Complete ? Yes

Sample Collection Date	Analysis	Allowable Holding Time for extraction	Allowable Holding Time for analysis	Analysis Date
1/29/15	VOC TO-15		30 Days	2/5 and 2/6/15

Sample temperature within QC limits: NA - Air

Surrogate Recovery
Are all % recoveries within the allowable range ? Yes

If No, List sample ID where range was exceeded: NA

MS/MSD

Are all MS/MSD sample recoveries within the QC limits ? NA

If No, list sample ID, date and compound where limit was exceeded: NA

Laboratory Control Samples
Are all laboratory control sample recoveries within the QC limits ? No

If no, list sample ID where range was exceeded: See Notes

Equipment Field Blank ID : NA
Trip Blank ID : NA
Method Blank: EPA TO-15 2134918 and 2135849

Were any compounds identified in the method blank, field blank or trip blank above detection limits ? No

If so, list Sample ID/Compound/Concentration/Units: NA

Notes:

LCS associated with sample BLDG3-3 for method TO-15 was outside the control limits for the analyte Vinyl Chloride. The % Recovery was reported as 143 and the control limits were 60 to 140. No qualification necessary as results were non-detect.

Samples BLDG3-4 and BLDG3-3 had results reported for Acetone that exceed instrument calibration. These results were lab qualified with an "E".

Reviewed By: Pernilla Haley 3/5/15

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February 27, 2015

Mr. Ray Cadorette
CB& I - Canton - MA
150 Royall Street
Canton, MA 02021

Certificate of Analysis

Revised Report - 2/27/2015 8:45:58 AM - See workorder comment section for explanation

Project Name:	**Varian Air Samples**	Workorder:	**2052542**
Purchase Order:	**915904**	Workorder ID:	**CVC004|Varian Air Samples**

Dear Mr. Cadorette:

Enclosed are the analytical results for samples received by the laboratory on Tuesday, February 3, 2015.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Mrs. Vicki A. Forney (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

This laboratory report may not be reproduced, except in full, without the written approval of ALS Environmental.

ALS Spring City: 10 Riverside Drive, Spring City, PA 19475 610-948-4903

CC: Ms. Cathy Mainville

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

SAMPLE SUMMARY

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collected By
2052542001	Bldg. 2-6	Air	1/29/2015 09:18	2/3/2015 10:22	Collected by Client
2052542002	Bldg. 3-1	Air	1/29/2015 09:14	2/3/2015 10:22	Collected by Client
2052542003	Bldg. 3-4	Air	1/29/2015 09:16	2/3/2015 10:22	Collected by Client
2052542004	Bldg. 2-SV1	Air	1/29/2015 10:34	2/3/2015 10:22	Collected by Client
2052542005	Bldg. 3-VP1	Air	1/29/2015 10:31	2/3/2015 10:22	Collected by Client
2052542006	Bldg. 3-VP2	Air	1/29/2015 10:29	2/3/2015 10:22	Collected by Client
2052542007	Bldg. 3-VP3	Air	1/29/2015 10:27	2/3/2015 10:22	Collected by Client
2052542008	Bldg. 3-3	Air	1/29/2015 09:13	2/3/2015 10:22	Collected by Client

SAMPLE SUMMARY

Workorder: 2052542 CVC004|Varian Air Samples

Notes

-- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
-- All Waste Water analyses comply with methodology requirements of 40 CFR Part 136.
-- All Drinking Water analyses comply with methodology requirements of 40 CFR Part 141.
-- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.
-- The Chain of Custody document is included as part of this report.
-- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
-- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
-- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)

PROJECT SUMMARY

Workorder: 2052542 CVC004|Varian Air Samples

Workorder Comments

This report was revised to update the compound list reported and to include the MADEP form. DJM 2/12/15

This report was modified to 2/17/14 to update the compound list per client request. VLF

This report was modified on 2/27/15 to attach the LIMS QC report. VLF

Sample Comments

Lab ID: 2052542004 **Sample ID:** Bldg. 2-SV1 **Sample Type:** SAMPLE

The reporting limits for the TO15 analytes were raised due to the dilution of the sample caused by the level of target compounds.

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542001** Date Collected: 1/29/2015 09:18 Matrix: Air

Sample ID: **Bldg. 2-6** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	110		ug/m3	5	TO-15		2/5/15 17:01	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 17:28	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 17:28	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 17:28	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 17:28	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 17:28	RHB	A
Chloroform	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Chloromethane	0.7		ug/m3	0.4	TO-15		2/6/15 17:28	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 17:28	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 17:28	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 17:28	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 17:28	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 17:28	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		2/6/15 17:28	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 17:28	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 17:28	RHB	A
Methylene Chloride	4		ug/m3	0.7	TO-15		2/6/15 17:28	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Tetrachloroethene	2		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Trichloroethene	4		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		2/6/15 17:28	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		2/6/15 17:28	RHB	A
Acetone	47		ppbv	2.0	TO-15		2/5/15 17:01	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Chloromethane	0.33		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542001** Date Collected: 1/29/2015 09:18 Matrix: Air

Sample ID: **Bldg. 2-6** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Methylene Chloride	1.2		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Tetrachloroethene	0.26		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Trichloroethene	0.69		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		2/6/15 17:28	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	100		%	70 - 130	TO-15		2/6/15 17:28	RHB	A
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15		2/5/15 17:01	RHB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542002** Date Collected: 1/29/2015 09:14 Matrix: Air
Sample ID: **Bldg. 3-1** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	850		ug/m3	5	TO-15		2/5/15 17:43	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 18:10	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 18:10	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 18:10	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 18:10	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 18:10	RHB	A
Chloroform	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Chloromethane	0.6		ug/m3	0.4	TO-15		2/6/15 18:10	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 18:10	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 18:10	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 18:10	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 18:10	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 18:10	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		2/6/15 18:10	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 18:10	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 18:10	RHB	A
Methylene Chloride	6		ug/m3	0.7	TO-15		2/6/15 18:10	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Tetrachloroethene	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Trichloroethene	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		2/6/15 18:10	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		2/6/15 18:10	RHB	A
Acetone	360		ppbv	2.0	TO-15		2/5/15 17:43	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Chloromethane	0.31		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542002** Date Collected: 1/29/2015 09:14 Matrix: Air
Sample ID: **Bldg. 3-1** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Methylene Chloride	1.6		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Tetrachloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Trichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		2/6/15 18:10	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	100		%	70 - 130	TO-15		2/6/15 18:10	RHB	A
4-Bromofluorobenzene (S)	103		%	70 - 130	TO-15		2/5/15 17:43	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542003** Date Collected: 1/29/2015 09:16 Matrix: Air
Sample ID: **Bldg. 3-4** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	2400	E	ug/m3	5	TO-15		2/5/15 18:24	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 18:52	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 18:52	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 18:52	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 18:52	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 18:52	RHB	A
Chloroform	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Chloromethane	0.7		ug/m3	0.4	TO-15		2/6/15 18:52	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 18:52	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 18:52	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 18:52	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 18:52	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 18:52	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		2/6/15 18:52	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 18:52	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 18:52	RHB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		2/6/15 18:52	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Tetrachloroethene	4		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Trichloroethene	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		2/6/15 18:52	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		2/6/15 18:52	RHB	A
Acetone	1000	E	ppbv	2.0	TO-15		2/5/15 18:24	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Chloromethane	0.33		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542003** Date Collected: 1/29/2015 09:16 Matrix: Air
Sample ID: **Bldg. 3-4** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Methylene Chloride	1.4		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Tetrachloroethene	0.63		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Trichloroethene	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		2/6/15 18:52	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	105		%	70 - 130	TO-15		2/5/15 18:24	RHB	A
4-Bromofluorobenzene (S)	99		%	70 - 130	TO-15		2/6/15 18:52	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542004** Date Collected: 1/29/2015 10:34 Matrix: Air
Sample ID: **Bldg. 2-SV1** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	49		ug/m3	5	TO-15		2/5/15 19:03	RHB	A
Bromodichloromethane	ND		ug/m3	13	TO-15		2/5/15 19:03	RHB	A
Bromoform	ND		ug/m3	21	TO-15		2/5/15 19:03	RHB	A
Bromomethane	ND		ug/m3	8	TO-15		2/5/15 19:03	RHB	A
Carbon Tetrachloride	ND		ug/m3	13	TO-15		2/5/15 19:03	RHB	A
Chlorobenzene	ND		ug/m3	9	TO-15		2/5/15 19:03	RHB	A
Chlorodibromomethane	ND		ug/m3	17	TO-15		2/5/15 19:03	RHB	A
Chloroethane	ND		ug/m3	5	TO-15		2/5/15 19:03	RHB	A
Chloroform	ND		ug/m3	10	TO-15		2/5/15 19:03	RHB	A
Chloromethane	ND		ug/m3	4	TO-15		2/5/15 19:03	RHB	A
1,1-Dichloroethane	ND		ug/m3	8	TO-15		2/5/15 19:03	RHB	A
1,2-Dichloroethane	ND		ug/m3	8	TO-15		2/5/15 19:03	RHB	A
1,1-Dichloroethene	ND		ug/m3	8	TO-15		2/5/15 19:03	RHB	A
cis-1,2-Dichloroethene	18		ug/m3	8	TO-15		2/5/15 19:03	RHB	A
trans-1,2-Dichloroethene	9		ug/m3	8	TO-15		2/5/15 19:03	RHB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		2/5/15 19:03	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	9	TO-15		2/5/15 19:03	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	9	TO-15		2/5/15 19:03	RHB	A
Methylene Chloride	10		ug/m3	7	TO-15		2/5/15 19:03	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	14	TO-15		2/5/15 19:03	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	11	TO-15		2/5/15 19:03	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	11	TO-15		2/5/15 19:03	RHB	A
Trichloroethene	1700		ug/m3	11	TO-15		2/5/15 19:03	RHB	A
Trichlorofluoromethane	ND		ug/m3	11	TO-15		2/5/15 19:03	RHB	A
Vinyl Chloride	ND		ug/m3	5	TO-15		2/5/15 19:03	RHB	A
Acetone	21		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Bromodichloromethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Bromoform	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Bromomethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Carbon Tetrachloride	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Chlorobenzene	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Chlorodibromomethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Chloroethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Chloroform	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Chloromethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
1,1-Dichloroethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
1,2-Dichloroethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542004** Date Collected: 1/29/2015 10:34 Matrix: Air
Sample ID: **Bldg. 2-SV1** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,1-Dichloroethene	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
cis-1,2-Dichloroethene	4.5		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
trans-1,2-Dichloroethene	2.3		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
1,2-Dichloropropane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Methylene Chloride	3.0		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
1,1,1-Trichloroethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
1,1,2-Trichloroethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Trichloroethene	320		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Trichlorofluoromethane	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Vinyl Chloride	ND		ppbv	2.0	TO-15		2/5/15 19:03	RHB	A
Tetrachloroethene	2600		ppbv	24	TO-15		2/6/15 19:33	RHB	A
Tetrachloroethene	18000		ug/m3	160	TO-15		2/6/15 19:33	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	107		%	70 - 130	TO-15		2/5/15 19:03	RHB	A
4-Bromofluorobenzene (S)	106		%	70 - 130	TO-15		2/6/15 19:33	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542005** Date Collected: 1/29/2015 10:31 Matrix: Air

Sample ID: **Bldg. 3-VP1** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	900		ug/m3	5	TO-15		2/5/15 19:44	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 20:15	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 20:15	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 20:15	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 20:15	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 20:15	RHB	A
Chloroform	1		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Chloromethane	ND		ug/m3	0.4	TO-15		2/6/15 20:15	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 20:15	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 20:15	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 20:15	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 20:15	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 20:15	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		2/6/15 20:15	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 20:15	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 20:15	RHB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		2/6/15 20:15	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Tetrachloroethene	87		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Trichloroethene	19		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		2/6/15 20:15	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		2/6/15 20:15	RHB	A
Acetone	380		ppbv	2.0	TO-15		2/5/15 19:44	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Chloroform	0.30		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Chloromethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542005** Date Collected: 1/29/2015 10:31 Matrix: Air

Sample ID: **Bldg. 3-VP1** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Methylene Chloride	1.3		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Tetrachloroethene	13		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Trichloroethene	3.5		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		2/6/15 20:15	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	100		%	70 - 130	TO-15		2/6/15 20:15	RHB	A
4-Bromofluorobenzene (S)	102		%	70 - 130	TO-15		2/5/15 19:44	RHB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

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State Certifications: DE ID 11 , MA PA0102 , MD 128 , VA 460157 , WV 343

ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542006** Date Collected: 1/29/2015 10:29 Matrix: Air

Sample ID: **Bldg. 3-VP2** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	400		ug/m3	5	TO-15		2/5/15 20:24	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 20:56	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 20:56	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 20:56	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 20:56	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 20:56	RHB	A
Chloroform	1		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Chloromethane	ND		ug/m3	0.4	TO-15		2/6/15 20:56	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 20:56	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 20:56	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 20:56	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 20:56	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 20:56	RHB	A
1,2-Dichloropropane	ND		ug/m3	9	TO-15		2/5/15 20:24	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 20:56	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 20:56	RHB	A
Methylene Chloride	17		ug/m3	0.7	TO-15		2/6/15 20:56	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Tetrachloroethene	4		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Trichloroethene	2		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		2/6/15 20:56	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		2/6/15 20:56	RHB	A
Acetone	170		ppbv	2.0	TO-15		2/5/15 20:24	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Chloroform	0.23		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Chloromethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542006** Date Collected: 1/29/2015 10:29 Matrix: Air

Sample ID: **Bldg. 3-VP2** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
1,2-Dichloropropane	ND		ppbv	2.0	TO-15		2/5/15 20:24	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Methylene Chloride	4.9		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Tetrachloroethene	0.64		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Trichloroethene	0.39		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		2/6/15 20:56	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	99		%	70 - 130	TO-15		2/6/15 20:56	RHB	A
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15		2/5/15 20:24	RHB	A

Vicki Forney

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542007** Date Collected: 1/29/2015 10:27 Matrix: Air

Sample ID: **Bldg. 3-VP3** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	620		ug/m3	5	TO-15		2/5/15 21:05	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 21:37	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 21:37	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 21:37	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 21:37	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 21:37	RHB	A
Chloroform	2		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Chloromethane	ND		ug/m3	0.4	TO-15		2/6/15 21:37	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 21:37	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 21:37	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 21:37	RHB	A
cis-1,2-Dichloroethene	4		ug/m3	0.8	TO-15		2/6/15 21:37	RHB	A
trans-1,2-Dichloroethene	1		ug/m3	0.8	TO-15		2/6/15 21:37	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		2/6/15 21:37	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 21:37	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 21:37	RHB	A
Methylene Chloride	18		ug/m3	0.7	TO-15		2/6/15 21:37	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Tetrachloroethene	86		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Trichloroethene	31		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Trichlorofluoromethane	ND		ug/m3	1	TO-15		2/6/15 21:37	RHB	A
Vinyl Chloride	ND		ug/m3	0.5	TO-15		2/6/15 21:37	RHB	A
Acetone	260		ppbv	2.0	TO-15		2/5/15 21:05	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Chloroform	0.48		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Chloromethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542007** Date Collected: 1/29/2015 10:27 Matrix: Air

Sample ID: **Bldg. 3-VP3** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
cis-1,2-Dichloroethene	0.89		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
trans-1,2-Dichloroethene	0.33		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Methylene Chloride	5.2		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Tetrachloroethene	13		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Trichloroethene	5.8		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Trichlorofluoromethane	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Vinyl Chloride	ND		ppbv	0.20	TO-15		2/6/15 21:37	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15		2/6/15 21:37	RHB	A
4-Bromofluorobenzene (S)	104		%	70 - 130	TO-15		2/5/15 21:05	RHB	A

Vicki Forney

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542008** Date Collected: 1/29/2015 09:13 Matrix: Air
Sample ID: **Bldg. 3-3** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
VOLATILE ORGANICS @ STP									
Acetone	1800	E	ug/m3	5	TO-15		2/5/15 21:46	RHB	A
Bromodichloromethane	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
Bromoform	ND		ug/m3	2	TO-15		2/6/15 22:18	RHB	A
Bromomethane	ND		ug/m3	0.8	TO-15		2/6/15 22:18	RHB	A
Carbon Tetrachloride	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
Chlorobenzene	ND		ug/m3	0.9	TO-15		2/6/15 22:18	RHB	A
Chlorodibromomethane	ND		ug/m3	2	TO-15		2/6/15 22:18	RHB	A
Chloroethane	ND		ug/m3	0.5	TO-15		2/6/15 22:18	RHB	A
Chloroform	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
Chloromethane	0.7		ug/m3	0.4	TO-15		2/6/15 22:18	RHB	A
1,1-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 22:18	RHB	A
1,2-Dichloroethane	ND		ug/m3	0.8	TO-15		2/6/15 22:18	RHB	A
1,1-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 22:18	RHB	A
cis-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 22:18	RHB	A
trans-1,2-Dichloroethene	ND		ug/m3	0.8	TO-15		2/6/15 22:18	RHB	A
1,2-Dichloropropane	ND		ug/m3	0.9	TO-15		2/6/15 22:18	RHB	A
cis-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 22:18	RHB	A
trans-1,3-Dichloropropene	ND		ug/m3	0.9	TO-15		2/6/15 22:18	RHB	A
Methylene Chloride	5		ug/m3	0.7	TO-15		2/6/15 22:18	RHB	A
1,1,2,2-Tetrachloroethane	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
Tetrachloroethene	3		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
1,1,1-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
1,1,2-Trichloroethane	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
Trichloroethene	ND		ug/m3	1	TO-15		2/6/15 22:18	RHB	A
Trichlorofluoromethane	ND		ug/m3	11	TO-15		2/5/15 21:46	RHB	A
Vinyl Chloride	ND	2	ug/m3	0.5	TO-15		2/6/15 22:18	RHB	A
Acetone	740	E	ppbv	2.0	TO-15		2/5/15 21:46	RHB	A
Bromodichloromethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Bromoform	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Bromomethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Carbon Tetrachloride	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Chlorobenzene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Chlorodibromomethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Chloroethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Chloroform	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Chloromethane	0.34		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
1,1-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A

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ANALYTICAL RESULTS

Workorder: 2052542 CVC004|Varian Air Samples

Lab ID: **2052542008** Date Collected: 1/29/2015 09:13 Matrix: Air

Sample ID: **Bldg. 3-3** Date Received: 2/3/2015 10:22

Parameters	Results	Flag	Units	RDL	Method	Prepared By	Analyzed	By	*Cntr*
1,2-Dichloroethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
1,1-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
cis-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
trans-1,2-Dichloroethene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
1,2-Dichloropropane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
cis-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
trans-1,3-Dichloropropene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Methylene Chloride	1.4		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
1,1,2,2-Tetrachloroethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Tetrachloroethene	0.48		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
1,1,1-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
1,1,2-Trichloroethane	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Trichloroethene	ND		ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Trichlorofluoromethane	ND		ppbv	2.0	TO-15		2/5/15 21:46	RHB	A
Vinyl Chloride	ND	1	ppbv	0.20	TO-15		2/6/15 22:18	RHB	A
Surrogate Recoveries	*Results*	*Flag*	*Units*	*Limits*	*Method*	*Prepared By*	*Analyzed*	*By*	*Cntr*
4-Bromofluorobenzene (S)	103		%	70 - 130	TO-15		2/5/15 21:46	RHB	A
4-Bromofluorobenzene (S)	99		%	70 - 130	TO-15		2/6/15 22:18	RHB	A

Vicki Forney

Mrs. Vicki A. Forney
Project Coordinator

PARAMETER QUALIFIERS

Lab ID	#	Sample ID	Analytical Method	Analyte
2052542003	E	Bldg. 3-4	TO-15	Acetone
Result reported exceeds instrument calibration				
2052542008	1	Bldg. 3-3	TO-15	Vinyl Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Vinyl Chloride. The % Recovery was reported as 143 and the control limits were 60 to 140.				
2052542008	2	Bldg. 3-3	TO-15	Vinyl Chloride
The QC sample type LCS for method TO-15 was outside the control limits for the analyte Vinyl Chloride. The % Recovery was reported as 143 and the control limits were 60 to 140.				
2052542008	E	Bldg. 3-3	TO-15	Acetone
Result reported exceeds instrument calibration				

34 Dogwood Lane, Middletown, PA 17057 (717-944-5541)

Columbia Analytical Services INC
An Employee-Owned Company

Air Quality Laboratory
~~2655 Park Center Drive, Suite D~~
~~Simi Valley, California 93065~~
~~Phone (805) 526-7161~~
~~Fax (805) 526-7270~~

Chain of Custody Record & Analytical Service Request

Requested Turnaround Time by Close of Business Day (Surcharges) Please Circle:
1 Day (100%) 2 Day (75%) 3 Day (50%) 4 Day (35%) 5 Day (15%) 10 Day-Standard

2052542

CAS Contact:

Reporting Information (Company Name & Address)
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021
Attention: Raymond Cadorette

P.O. # / Billing Information
PO #915904

Project Name
Varian Beverly

Phone 617-589-6102
Fax 617-589-5495

Project Number
152780-01000000

Email Address for Result Reporting
Raymond.Cadorette@CBI.com

Sampler (Print & Sign)
Paul LeDoux

Analysis Method and/or Analytes

Client Sample ID	Date Collected	Time Collected	Lab Sample No.	Sample Type (Air/Liquid /Solid/Tube)	Canister ID (Bar Code#)	Flow Controller (Bar Code #)	Sample Volume	TO15 (Site specific list)				Comments e.g. Preservative or specific instructions
Bldg 2-6	1.29.15	0918		Air	None 5022	FC A0195535-10	6 liter	1				
Bldg 3-1		0914			9051 ~~SLC 00149~~	FC A0195535-4		1				
~~Bldg 3-3~~					~~SLC 00142~~	~~FC 7309695~~		~~1~~				
Bldg 3-4		0916			None 5024	FC 0180879-4		1				
Bldg 2-SV1		1034			9044 ~~SLC 00142~~	FC 7309695		1				
Bldg 3-VP1		1031			None 1053	FC 7302 08021		1				
Bldg 3-VP2		1029			9099 ~~SLC 00155~~	FC 7276970		1				
Bldg 3-VP3		1027			None 1076	FC A0180877-6		1				
Bldg 3-3		0913			None 1074	FC A0121686-7		1				

2/4/15 0148

Report Tier Levels - please select
Tier I - (default if not specified) ____
Tier II (QC forms) ____
Tier III (QC, Raw Data, Spectra) 10% Surcharge ____
Other ____

EDD required Yes / No
Type: GISKey

Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Paul LeDoux	1.29.15	1800		2/3/15	1022
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Date:	Time:	Received by: (Signature)	Date:	Time:

Project Requirements (MRLs, QAPP)
QA/QC: MADEP CAM
EDD units: ug/m3 & ppmv

Cooler / Blank Temperature ____ °C

ALS

ALS-Middletown

TO-15 Sample Receipt Checklist

Client ID: CB&I Environmental
Horizon WO#: 2052542
Sample Delivery Group ID:
Log In By/Date: Smith 2-4-15
(signature)
Number of Shipping containers received: 2

Project Name/#: Varian Beverly
Date/Time received: 2/3/15 1022
Received By: Adam Trovinger
Project Manager Review (date) 2/4/15
(signature)
Courier: UPS

Circle the response below as appropriate.

1. Did kit(s) come with a shipping slip (airbill, etc.)? ..... YES NO NA
   If YES, enter airbill numbers: 1Z6028W2139945 9865
   1Z6028W2139941 9456

Shipping Container Information:

2. Were shipping containers received without signs of tampering? ..... YES NO NA
   Comments
3. Were custody seals present and intact? ..... YES NO NA
4. Were custody seals numbers present? ..... YES NO NA
   List Custody Seal Numbers:

Sample Condition:

5. Were sample containers received intact without signs of tampering? ..... YES NO NA
   Comments

Chain of Custody:

6. Did COC arrive with the samples? ..... YES NO NA
7. Do sample ID/Sample Description(s) match samples submitted? ..... YES NO NA
8. Is date and time of collection listed on the COC for all samples? ..... YES NO NA
9. Is identification of sampler on COC? ..... YES NO NA
10. Are requested test method(s) on COC? ..... YES NO NA
11. Are necessary signatures on COC? ..... YES NO NA
12. Was Internal COC initiated? (should always be YES) ..... YES NO NA

Sample Integrity Usability:

13. Do sample containers match the COC? ..... YES NO NA
14. Were sample canisters received within 15 days of shipment to client ..... YES NO NA

Anomalies or Non-Conformances:

Rev. 2/2011

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental	Project #: 2052542
Project Location: Varian	RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
2052542-001 to -008

Matrices: Groundwater/Surface Water Soil/Sediment Drinking Water Air x Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B x
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	(Yes) No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	(Yes) No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	(Yes) No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	(Yes) No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes (No)
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	(Yes) No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	(Yes) No[1]

Data User Note: ***Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.***

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	(Yes) No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes (No[1])

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] **Position:** Reporting Manager

Printed Name: Jennifer M. Stanhope Lamoreux **Date:** 2/11/2015

ALS Environmental
34 Dogwood Lane ▪ Middletown, PA 17057 ▪ Phone: 717-944-5541 ▪ Fax: 717-944-1430 ▪ www.alsglobal.com

NELAP Certifications: NJ PA010, NY 11759, PA 22-293 DoD ELAP: AZLA 0818.01

State Certification: CT PH-0224, DE ID 11, GA 914, MA PA0102, MD 128, LA 04162, VA 421, WY EPA Region 8, WV 343

QUALITY CONTROL DATA

Workorder	**2052542**	**Project Name**	**Varian Air Samples**
QC Batch	TO15 / 2677		
QC Batch Method	TO-15	**Analysis Method**	TO-15

Associated Lab Samples 2052542001 2052542002 2052542003 2052542004 2052542005 2052542006 2052542007 2052542008

METHOD BLANK 2134918

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
1,2-Dichloropropane	ND	U	ppbv	0.20		
Acetone	ND	U	ppbv	0.20		
Acetone	ND	U	ug/m3	0.5		
Bromodichloromethane	ND	U	ppbv	0.20		
Bromodichloromethane	ND	U	ug/m3	1		
Bromoform	ND	U	ppbv	0.20		
Bromoform	ND	U	ug/m3	2		
Bromomethane	ND	U	ppbv	0.20		

2052542
Recvd 2/3/15

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Bromomethane	ND	U	ug/m3	0.8		
Carbon Tetrachloride	ND	U	ppbv	0.20		
Carbon Tetrachloride	ND	U	ug/m3	1		
Chlorobenzene	ND	U	ppbv	0.20		
Chlorobenzene	ND	U	ug/m3	0.9		
Chlorodibromomethane	ND	U	ug/m3	2		
Chlorodibromomethane	ND	U	ppbv	0.20		
Chloroethane	ND	U	ppbv	0.20		
Chloroethane	ND	U	ug/m3	0.5		
Chloroform	ND	U	ppbv	0.20		
Chloroform	ND	U	ug/m3	1		
Chloromethane	ND	U	ppbv	0.20		
Chloromethane	ND	U	ug/m3	0.4		
cis-1,2-Dichloroethene	ND	U	ppbv	0.20		
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8		
cis-1,3-Dichloropropene	ND	U	ppbv	0.20		
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Methylene Chloride	ND	U	ppbv	0.20		
Methylene Chloride	ND	U	ug/m3	0.7		
Tetrachloroethene	ND	U	ug/m3	1		
Tetrachloroethene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
trans-1,3-Dichloropropene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Trichlorofluoromethane	ND	U	ppbv	0.20		
Trichlorofluoromethane	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ug/m3	0.5		
Vinyl Chloride	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		100	70-130

LABORATORY CONTROL SAMPLE 2134919

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	0.22		ppbv	0.2	109	60-140
1,1,1-Trichloroethane	1		ug/m3	1	109	60-140
1,1,2,2-Tetrachloroethane	0.28		ppbv	0.2	141*	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	141*	60-140
1,1,2-Trichloroethane	0.26		ppbv	0.2	130	60-140

This is an addendum to the Certificate of Analysis.

1,1,2-Trichloroethane	1	ug/m3	1	130	60-140
1,1-Dichloroethane	0.24	ppbv	0.2	120	60-140
1,1-Dichloroethane	1	ug/m3	0.8	120	60-140
1,1-Dichloroethene	0.24	ppbv	0.2	122	60-140
1,1-Dichloroethene	1	ug/m3	0.8	122	60-140
1,2-Dichloroethane	0.23	ppbv	0.2	116	60-140
1,2-Dichloroethane	0.9	ug/m3	0.8	116	60-140
1,2-Dichloropropane	1	ug/m3	0.9	121	60-140
1,2-Dichloropropane	0.24	ppbv	0.2	121	60-140
Acetone	0.27	ppbv	0.2	137	60-140
Acetone	0.7	ug/m3	0.5	137	60-140
Bromodichloromethane	0.21	ppbv	0.2	106	60-140
Bromodichloromethane	1	ug/m3	1	106	60-140
Bromoform	0.26	ppbv	0.2	130	60-140
Bromoform	3	ug/m3	2	130	60-140
Bromomethane	0.28	ppbv	0.2	138	60-140
Bromomethane	1	ug/m3	0.8	138	60-140
Carbon Tetrachloride	0.22	ppbv	0.2	110	60-140
Carbon Tetrachloride	1	ug/m3	1	110	60-140
Chlorobenzene	1	ug/m3	0.9	135	60-140
Chlorobenzene	0.27	ppbv	0.2	135	60-140
Chlorodibromomethane	2	ug/m3	2	118	60-140
Chlorodibromomethane	0.24	ppbv	0.2	118	60-140
Chloroethane	0.7	ug/m3	0.5	140	60-140
Chloroethane	0.28	ppbv	0.2	140	60-140
Chloroform	0.22	ppbv	0.2	112	60-140
Chloroform	1	ug/m3	1	112	60-140
Chloromethane	0.27	ppbv	0.2	135	60-140
Chloromethane	0.6	ug/m3	0.4	135	60-140
cis-1,2-Dichloroethene	0.22	ppbv	0.2	110	60-140
cis-1,2-Dichloroethene	0.9	ug/m3	0.8	110	60-140
cis-1,3-Dichloropropene	0.24	ppbv	0.2	118	60-140
cis-1,3-Dichloropropene	1	ug/m3	0.9	118	60-140
Methylene Chloride	0.27	ppbv	0.2	135	60-140
Methylene Chloride	0.9	ug/m3	0.7	135	60-140
Tetrachloroethene	2	ug/m3	1	133	60-140
Tetrachloroethene	0.27	ppbv	0.2	133	60-140
trans-1,2-Dichloroethene	0.24	ppbv	0.2	121	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	121	60-140
trans-1,3-Dichloropropene	0.23	ppbv	0.2	113	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	113	60-140
Trichloroethene	0.24	ppbv	0.2	118	60-140
Trichloroethene	1	ug/m3	1	118	60-140
Trichlorofluoromethane	0.25	ppbv	0.2	125	60-140

This is an addendum to the Certificate of Analysis.

Workorder 2052542 **Project Name** Varian Air Samples

Trichlorofluoromethane	1	ug/m3	1	125	60-140
Vinyl Chloride	0.7	ug/m3	0.5	138	60-140
Vinyl Chloride	0.28	ppbv	0.2	138	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		100	70-130

QC Batch TO15 / 2679

QC Batch Method TO-15 **Analysis Method** TO-15

Associated Lab Samples 2052542001 2052542002 2052542003 2052542004 2052542005 2052542006 2052542007 2052542008

METHOD BLANK 2135849

Parameter	Blank Result	Qualifiers	Units	Reporting Limit	% Rec	% Rec Limits
1,1,1-Trichloroethane	ND	U	ug/m3	1		
1,1,1-Trichloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ppbv	0.20		
1,1,2,2-Tetrachloroethane	ND	U	ug/m3	1		
1,1,2-Trichloroethane	ND	U	ppbv	0.20		
1,1,2-Trichloroethane	ND	U	ug/m3	1		
1,1-Dichloroethane	ND	U	ppbv	0.20		
1,1-Dichloroethane	ND	U	ug/m3	0.8		
1,1-Dichloroethene	ND	U	ppbv	0.20		
1,1-Dichloroethene	ND	U	ug/m3	0.8		
1,2-Dichloroethane	ND	U	ppbv	0.20		
1,2-Dichloroethane	ND	U	ug/m3	0.8		
1,2-Dichloropropane	ND	U	ppbv	0.20		
1,2-Dichloropropane	ND	U	ug/m3	0.9		
Bromodichloromethane	ND	U	ug/m3	1		
Bromodichloromethane	ND	U	ppbv	0.20		
Bromoform	ND	U	ppbv	0.20		
Bromoform	ND	U	ug/m3	2		
Bromomethane	ND	U	ppbv	0.20		
Bromomethane	ND	U	ug/m3	0.8		
Carbon Tetrachloride	ND	U	ppbv	0.20		
Carbon Tetrachloride	ND	U	ug/m3	1		
Chlorobenzene	ND	U	ppbv	0.20		
Chlorobenzene	ND	U	ug/m3	0.9		
Chlorodibromomethane	ND	U	ug/m3	2		
Chlorodibromomethane	ND	U	ppbv	0.20		
Chloroethane	ND	U	ug/m3	0.5		
Chloroethane	ND	U	ppbv	0.20		

This is an addendum to the Certificate of Analysis.

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Chloroform	ND	U	ppbv	0.20		
Chloroform	ND	U	ug/m3	1		
Chloromethane	ND	U	ppbv	0.20		
Chloromethane	ND	U	ug/m3	0.4		
cis-1,2-Dichloroethene	ND	U	ppbv	0.20		
cis-1,2-Dichloroethene	ND	U	ug/m3	0.8		
cis-1,3-Dichloropropene	ND	U	ppbv	0.20		
cis-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Methylene Chloride	ND	U	ug/m3	0.7		
Methylene Chloride	ND	U	ppbv	0.20		
Tetrachloroethene	ND	U	ppbv	0.20		
Tetrachloroethene	ND	U	ug/m3	1		
trans-1,2-Dichloroethene	ND	U	ppbv	0.20		
trans-1,2-Dichloroethene	ND	U	ug/m3	0.8		
trans-1,3-Dichloropropene	ND	U	ppbv	0.20		
trans-1,3-Dichloropropene	ND	U	ug/m3	0.9		
Trichloroethene	ND	U	ppbv	0.20		
Trichloroethene	ND	U	ug/m3	1		
Trichlorofluoromethane	ND	U	ppbv	0.20		
Trichlorofluoromethane	ND	U	ug/m3	1		
Vinyl Chloride	ND	U	ug/m3	0.5		
Vinyl Chloride	ND	U	ppbv	0.20		
Surrogate Recoveries						
4-Bromofluorobenzene			%		99	70-130

LABORATORY CONTROL SAMPLE 2135850

Parameter	LCS Result	Qualifiers	Units	Spike Conc.	LCS % Rec	% Rec Limits
1,1,1-Trichloroethane	0.23		ppbv	0.2	116	60-140
1,1,1-Trichloroethane	1		ug/m3	1	116	60-140
1,1,2,2-Tetrachloroethane	0.26		ppbv	0.2	130	60-140
1,1,2,2-Tetrachloroethane	2		ug/m3	1	130	60-140
1,1,2-Trichloroethane	0.27		ppbv	0.2	133	60-140
1,1,2-Trichloroethane	1		ug/m3	1	133	60-140
1,1-Dichloroethane	0.27		ppbv	0.2	136	60-140
1,1-Dichloroethane	1		ug/m3	0.8	136	60-140
1,1-Dichloroethene	0.24		ppbv	0.2	119	60-140
1,1-Dichloroethene	0.9		ug/m3	0.8	119	60-140
1,2-Dichloroethane	0.26		ppbv	0.2	132	60-140
1,2-Dichloroethane	1		ug/m3	0.8	132	60-140
1,2-Dichloropropane	0.27		ppbv	0.2	135	60-140
1,2-Dichloropropane	1		ug/m3	0.9	135	60-140

Bromodichloromethane	1	ug/m3	1	108	60-140
Bromodichloromethane	0.22	ppbv	0.2	108	60-140
Bromoform	0.28	ppbv	0.2	142*	60-140
Bromoform	3	ug/m3	2	142*	60-140
Bromomethane	0.27	ppbv	0.2	134	60-140
Bromomethane	1	ug/m3	0.8	134	60-140
Carbon Tetrachloride	0.23	ppbv	0.2	116	60-140
Carbon Tetrachloride	1	ug/m3	1	116	60-140
Chlorobenzene	0.29	ppbv	0.2	145*	60-140
Chlorobenzene	1	ug/m3	0.9	145*	60-140
Chlorodibromomethane	0.24	ppbv	0.2	120	60-140
Chlorodibromomethane	2	ug/m3	2	120	60-140
Chloroethane	0.7	ug/m3	0.5	135	60-140
Chloroethane	0.27	ppbv	0.2	135	60-140
Chloroform	0.24	ppbv	0.2	121	60-140
Chloroform	1	ug/m3	1	121	60-140
Chloromethane	0.25	ppbv	0.2	124	60-140
Chloromethane	0.5	ug/m3	0.4	124	60-140
cis-1,2-Dichloroethene	0.25	ppbv	0.2	123	60-140
cis-1,2-Dichloroethene	1	ug/m3	0.8	123	60-140
cis-1,3-Dichloropropene	0.22	ppbv	0.2	112	60-140
cis-1,3-Dichloropropene	1	ug/m3	0.9	112	60-140
Methylene Chloride	0.9	ug/m3	0.7	125	60-140
Methylene Chloride	0.25	ppbv	0.2	125	60-140
Tetrachloroethene	0.27	ppbv	0.2	133	60-140
Tetrachloroethene	2	ug/m3	1	133	60-140
trans-1,2-Dichloroethene	0.26	ppbv	0.2	130	60-140
trans-1,2-Dichloroethene	1	ug/m3	0.8	130	60-140
trans-1,3-Dichloropropene	0.22	ppbv	0.2	108	60-140
trans-1,3-Dichloropropene	1	ug/m3	0.9	108	60-140
Trichloroethene	0.25	ppbv	0.2	123	60-140
Trichloroethene	1	ug/m3	1	123	60-140
Trichlorofluoromethane	0.25	ppbv	0.2	124	60-140
Trichlorofluoromethane	1	ug/m3	1	124	60-140
Vinyl Chloride	0.7	ug/m3	0.5	143*	60-140
Vinyl Chloride	0.29	ppbv	0.2	143*	60-140
Surrogate Recoveries					
4-Bromofluorobenzene		%		99	70-130

This is an addendum to the Certificate of Analysis.

Workorder 2052542 **Project Name** Varian Air Samples

Standard Acronyms/Flags	
J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND)
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Reporting Detection Limit
ND	Not Detected - indicates that the analyte was Not Detected at the RDL
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
NC	Not Calculated
*	Result outside of QC limits
DIL	Dilution Factor

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
2052542001	Bldg. 2-6	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542001	Bldg. 2-6	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542002	Bldg. 3-1	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542002	Bldg. 3-1	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542003	Bldg. 3-4	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542003	Bldg. 3-4	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542004	Bldg. 2-SV1	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542004	Bldg. 2-SV1	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542005	Bldg. 3-VP1	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542005	Bldg. 3-VP1	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542006	Bldg. 3-VP2	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542006	Bldg. 3-VP2	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542007	Bldg. 3-VP3	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542007	Bldg. 3-VP3	TO-15	TO15 / 2679	TO-15	TO15 / 2679
2052542008	Bldg. 3-3	TO-15	TO15 / 2677	TO-15	TO15 / 2677
2052542008	Bldg. 3-3	TO-15	TO15 / 2679	TO-15	TO15 / 2679

ALS Environmental
ALS Group USA, Corp
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Rochester, NY 14623
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F: 585-288-8475
www.alsglobal.com

March 26, 2015

Analytical Report for Service Request No: R1501866

Mr. Ray Cadorette
CB&I Environmental & Infrastructure
150 Royall Street
Canton, MA 02021

Laboratory Results for: Varian Beverly/152723

Dear Mr. Cadorette:

Enclosed are the results of the sample(s) submitted to our laboratory on March 18, 2015. For your reference, these analyses have been assigned our service request number **R1501866**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7472. You may also contact me via email at Janice.Jaeger@alsglobal.com.

Respectfully submitted,

ALS Group USA Corp. dba ALS Environmental

Janice Jaeger
Project Manager

CC: Pernilla Haley

ALS Environmental

Client:	CB&I
Service Request No.:	R1501866
Project:	Varian
Date Received:	3/18/15
Sample Matrix:	Water/Soil
Project/Case No.:	

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS).

Sample Receipt

Water samples were received for analysis at ALS Environmental on 3/18/15. The samples were received in good condition and consistent with the accompanying chain of custody form. All sampling activities performed by ALS personnel have been in accordance with "ALS Field Procedures and Measurements Manual" or by client specifications. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Volatile Organics

One water and one soil sample were analyzed for a site list of Volatile Organics by SW-846 Methods 5030/5035/8260C. The soil sample was not frozen within 48 hours of collection and a separate % solids was not received so the sample has been reported as "As received". The client was notified and the sample analyzed.

Several samples were initially analyzed at dilutions to bring target analytes within the calibration range of the method.

All initial calibrations were compliant. All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Chloromethane on the 03/24/15 CCV (Run #437277). No data was affected.

All the continuing calibration criteria were met for all analytes.

All Surrogate Standard recoveries were within QC limits.

All Blank Spike (LCS)/Blank Spike Duplicate (LCSD) recoveries and RPD's were within QC limits except the RPD for Acetone on the 03/24/15 RPD (Run #437503) and has been flagged with an "*". No data was affected.

All samples were analyzed within the required holding time of 14 days.

MassDEP Analytical Protocol Certification Form

Laboratory Name: ALS Environmental | Project #: 152728

Project Location: Varian Beverly | RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s):
R1501866-001-002

Matrices: Groundwater/Surface Water X Soil/Sediment X Drinking Water Air Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A **X**	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	X Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	X Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	X Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	X Yes No
E	VPH, EPH, APH, and TO-15 only: a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	X Yes No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	X Yes No[1]

***Data User Note**: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	X Yes No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	Yes X No[1]

[1]*All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.

Signature: [signature] **Position:** Client Services Manager

Printed Name: Janice Jaeger **Date:** 03/26/15 00002

CASE NARRATIVE

This report contains analytical results for the following samples:
Service Request Number: R1501866

Lab ID	Client ID
R1501866-001	SOIL-VARIAN-DISPOSAL-3-14-15
R1501866-002	WATER-VARIAN-DISPOSAL-3-14-15

ALS Environmental

REPORT QUALIFIERS AND DEFINITIONS

U Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.

J Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Arclors).

B Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.

E Inorganics- Concentration is estimated due to the serial dilution was outside control limits.

E Organics- Concentration has exceeded the calibration range for that specific analysis.

D Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.

* Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.

H Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.

Spike was diluted out.

+ Correlation coefficient for MSA is <0.995.

N Inorganics- Matrix spike recovery was outside laboratory limits.

N Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.

S Concentration has been determined using Method of Standard Additions (MSA).

W Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.

P Concentration >40% (25% for CLP) difference between the two GC columns.

C Confirmed by GC/MS

Q DoD reports: indicates a pesticide/Aroclor is not confirmed (≥100% Difference between two GC columns).

X See Case Narrative for discussion.

MRL Method Reporting Limit. Also known as:
LOQ Limit of Quantitation (LOQ)
The lowest concentration at which the method analyte may be reliably quantified under the method conditions.

MDL Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).

LOD Limit of Detection. A value at or above the MDL which has been verified to be detectable.

ND Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.

Lab ID # for Massachusetts Certification

M-NY032

Analyses were conducted in accordance with Massachusetts Department of Environmental Protection certification standards, except as noted in the laboratory case narrative provided. A copy of the current Department issued parameter list is included in this report.

The Commonwealth of Massachusetts

Department of Environmental Protection

Division of Environmental Analysis
Senator William X. Wall Experiment Station

certifies

M-NY032 **ALS ENVIRONMENTAL ROCHESTER**
1565 JEFFERSON RD
BUILDING 300, SUITE 360
ROCHESTER, NY 14623-0000

Laboratory Director: **LARRY LEWIS**

for the analysis of **NON POTABLE WATER (CHEMISTRY)**

pursuant to 310 CMR 42.00

This certificate supersedes all previous Massachusetts certificates issued to this laboratory. The laboratory is regulated by and shall be responsible for being in compliance with Massachusetts regulations at 310 CMR 42.00.

This certificate is valid only when accompanied by the latest dated Certified Parameter List as issued by the Massachusetts D.E.P. Contact the Division of Environmental Analysis to verify the current certification status of the laboratory.

Certification is no guarantee of the validity of the data. This certification is subject to unannounced laboratory inspections.

Issued: **01 JUL 2014**
Expires: **30 JUN 2015**

Director, Division of Environmental Analysis

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
ALUMINUM	EPA 200.7
ANTIMONY	EPA 200.7
ANTIMONY	EPA 200.8
ARSENIC	EPA 200.7
ARSENIC	EPA 200.8
BERYLLIUM	EPA 200.7
BERYLLIUM	EPA 200.8
CADMIUM	EPA 200.7
CADMIUM	EPA 200.8
CHROMIUM	EPA 200.7
CHROMIUM	EPA 200.8
COBALT	EPA 200.7
COBALT	EPA 200.8
COPPER	EPA 200.7
COPPER	EPA 200.8
IRON	EPA 200.7
LEAD	EPA 200.7
LEAD	EPA 200.8
MANGANESE	EPA 200.7
MANGANESE	EPA 200.8
MERCURY	EPA 245.1
MOLYBDENUM	EPA 200.7
MOLYBDENUM	EPA 200.8
NICKEL	EPA 200.7
NICKEL	EPA 200.8
SELENIUM	EPA 200.7
SELENIUM	EPA 200.8
SILVER	EPA 200.7
SILVER	EPA 200.8
THALLIUM	EPA 200.7
THALLIUM	EPA 200.8
VANADIUM	EPA 200.7
VANADIUM	EPA 200.8
ZINC	EPA 200.7
ZINC	EPA 200.8
SPECIFIC CONDUCTIVITY	EPA 120.1
TOTAL DISSOLVED SOLIDS	SM 2540C
HARDNESS (CACO3), TOTAL	SM 2340C
CALCIUM	EPA 200.7
MAGNESIUM	EPA 200.7
SODIUM	EPA 200.7
POTASSIUM	EPA 200.7
ALKALINITY, TOTAL	SM 2320B

COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Certified Parameter List as of: 01 JUL 2014

M-NY032 ALS ENVIRONMENTAL ROCHESTER
ROCHESTER NY

NON POTABLE WATER (CHEMISTRY) Effective Date 01 JUL 2014 Expiration Date 30 JUN 2015

Analytes	Methods
CHLORIDE	SM 4500-CL-E
CHLORIDE	EPA 300.0
FLUORIDE	EPA 300.0
SULFATE	EPA 300.0
AMMONIA-N	EPA 350.1
NITRATE-N	EPA 300.0
NITRATE-N	EPA 353.2
KJELDAHL-N	EPA 351.2
ORTHOPHOSPHATE	EPA 365.1
PHOSPHORUS, TOTAL	EPA 365.1
CHEMICAL OXYGEN DEMAND	EPA 410.4
BIOCHEMICAL OXYGEN DEMAND	SM 5210B
TOTAL ORGANIC CARBON	SM 5310C
CYANIDE, TOTAL	EPA 335.4
NON-FILTERABLE RESIDUE	SM 2540D
OIL AND GREASE	EPA 1664
PHENOLICS, TOTAL	EPA 420.4
VOLATILE HALOCARBONS	EPA 601
VOLATILE HALOCARBONS	EPA 624
VOLATILE AROMATICS	EPA 602
VOLATILE AROMATICS	EPA 624
SVOC-ACID EXTRACTABLES	EPA 625
SVOC-BASE/NEUTRAL EXTRACTABLES	EPA 625
POLYCHLORINATED BIPHENYLS (WATEI	EPA 608

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501866
Project:	Varian Beverly/152723	**Date Collected:**	3/14/15 1115
Sample Matrix:	Soil	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 13:43
Sample Name:	SOIL-VARIAN-DISPOSAL-3-14-15	**Units:**	µg/Kg
Lab Code:	R1501866-001	**Basis:**	As Received

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437277
Data File Name:	I:\ACQUDATA\msvoa10\data\032415\A7167.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	40

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	200	U	200	
79-34-5	1,1,2,2-Tetrachloroethane	200	U	200	
79-00-5	1,1,2-Trichloroethane	200	U	200	
75-34-3	1,1-Dichloroethane (1,1-DCA)	200	U	200	
75-35-4	1,1-Dichloroethene (1,1-DCE)	200	U	200	
107-06-2	1,2-Dichloroethane	200	U	200	
78-87-5	1,2-Dichloropropane	200	U	200	
67-64-1	Acetone	200	U	200	
75-27-4	Bromodichloromethane	200	U	200	
75-25-2	Bromoform	200	U	200	
74-83-9	Bromomethane	200	U	200	
56-23-5	Carbon Tetrachloride	200	U	200	
108-90-7	Chlorobenzene	200	U	200	
75-00-3	Chloroethane	200	U	200	
67-66-3	Chloroform	200	U	200	
74-87-3	Chloromethane	200	U	200	
124-48-1	Dibromochloromethane	200	U	200	
75-09-2	Methylene Chloride	200	U	200	
127-18-4	Tetrachloroethene (PCE)	200	U	200	
79-01-6	Trichloroethene (TCE)	200	U	200	
75-69-4	Trichlorofluoromethane (CFC 11)	200	U	200	
75-01-4	Vinyl Chloride	200	U	200	
156-59-2	cis-1,2-Dichloroethene	200	U	200	
10061-01-5	cis-1,3-Dichloropropene	200	U	200	
156-60-5	trans-1,2-Dichloroethene	200	U	200	
10061-02-6	trans-1,3-Dichloropropene	200	U	200	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85-122	3/24/15 13:43	
Dibromofluoromethane	101	89-119	3/24/15 13:43	
Toluene-d8	104	87-121	3/24/15 13:43	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501866
Project:	Varian Beverly/152723	**Date Collected:**	3/14/15 1115
Sample Matrix:	Water	**Date Received:**	3/18/15
		Date Analyzed:	3/24/15 14:13
Sample Name:	WATER-VARIAN-DISPOSAL-3-14-15	**Units:**	µg/L
Lab Code:	R1501866-002	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437503
Data File Name:	I:\ACQUDATA\msvoa10\data\032415\A7168.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	5

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	10	U	10	
79-34-5	1,1,2,2-Tetrachloroethane	10	U	10	
79-00-5	1,1,2-Trichloroethane	10	U	10	
75-34-3	1,1-Dichloroethane (1,1-DCA)	10	U	10	
75-35-4	1,1-Dichloroethene (1,1-DCE)	10	U	10	
107-06-2	1,2-Dichloroethane	10	U	10	
78-87-5	1,2-Dichloropropane	10	U	10	
67-64-1	Acetone	50	U	50	
75-27-4	Bromodichloromethane	10	U	10	
75-25-2	Bromoform	10	U	10	
74-83-9	Bromomethane	10	U	10	
56-23-5	Carbon Tetrachloride	10	U	10	
108-90-7	Chlorobenzene	10	U	10	
75-00-3	Chloroethane	10	U	10	
67-66-3	Chloroform	10	U	10	
74-87-3	Chloromethane	10	U	10	
124-48-1	Dibromochloromethane	10	U	10	
75-09-2	Methylene Chloride	10	U	10	
127-18-4	Tetrachloroethene (PCE)	**710**		10	
79-01-6	Trichloroethene (TCE)	**87**		10	
75-69-4	Trichlorofluoromethane (CFC 11)	10	U	10	
75-01-4	Vinyl Chloride	10	U	10	
156-59-2	cis-1,2-Dichloroethene	**83**		10	
10061-01-5	cis-1,3-Dichloropropene	10	U	10	
156-60-5	trans-1,2-Dichloroethene	10	U	10	
10061-02-6	trans-1,3-Dichloropropene	10	U	10	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	70-130	3/24/15 14:13	
Dibromofluoromethane	101	70-130	3/24/15 14:13	
Toluene-d8	104	70-130	3/24/15 14:13	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501866
Project:	Varian Beverly/152723	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
		Date Analyzed:	3/24/15 12:45
Sample Name:	Method Blank	**Units:**	µg/Kg
Lab Code:	RQ1502873-01	**Basis:**	As Received

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437277
Data File Name:	I:\ACQUDATA\msvoa10\data\032415\A7165.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	50

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	250	U	250	
79-34-5	1,1,2,2-Tetrachloroethane	250	U	250	
79-00-5	1,1,2-Trichloroethane	250	U	250	
75-34-3	1,1-Dichloroethane (1,1-DCA)	250	U	250	
75-35-4	1,1-Dichloroethene (1,1-DCE)	250	U	250	
107-06-2	1,2-Dichloroethane	250	U	250	
78-87-5	1,2-Dichloropropane	250	U	250	
67-64-1	Acetone	250	U	250	
75-27-4	Bromodichloromethane	250	U	250	
75-25-2	Bromoform	250	U	250	
74-83-9	Bromomethane	250	U	250	
56-23-5	Carbon Tetrachloride	250	U	250	
108-90-7	Chlorobenzene	250	U	250	
75-00-3	Chloroethane	250	U	250	
67-66-3	Chloroform	250	U	250	
74-87-3	Chloromethane	250	U	250	
124-48-1	Dibromochloromethane	250	U	250	
75-09-2	Methylene Chloride	250	U	250	
127-18-4	Tetrachloroethene (PCE)	250	U	250	
79-01-6	Trichloroethene (TCE)	250	U	250	
75-69-4	Trichlorofluoromethane (CFC 11)	250	U	250	
75-01-4	Vinyl Chloride	250	U	250	
156-59-2	cis-1,2-Dichloroethene	250	U	250	
10061-01-5	cis-1,3-Dichloropropene	250	U	250	
156-60-5	trans-1,2-Dichloroethene	250	U	250	
10061-02-6	trans-1,3-Dichloropropene	250	U	250	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	96	85-122	3/24/15 12:45	
Dibromofluoromethane	99	89-119	3/24/15 12:45	
Toluene-d8	103	87-121	3/24/15 12:45	

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	CB&I	**Service Request:**	R1501866
Project:	Varian Beverly/152723	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
		Date Analyzed:	3/24/15 13:14
Sample Name:	Method Blank	**Units:**	µg/L
Lab Code:	RQ1502875-01	**Basis:**	NA

Volatile Organic Compounds by GC/MS

Analytical Method:	8260C	**Analysis Lot:**	437503
Data File Name:	I:\ACQUDATA\msvoa10\data\032415\A7166.D\	**Instrument Name:**	R-MS-10
		Dilution Factor:	1

CAS No.	Analyte Name	Result	Q	MRL	Note
71-55-6	1,1,1-Trichloroethane (TCA)	2.0	U	2.0	
79-34-5	1,1,2,2-Tetrachloroethane	2.0	U	2.0	
79-00-5	1,1,2-Trichloroethane	2.0	U	2.0	
75-34-3	1,1-Dichloroethane (1,1-DCA)	2.0	U	2.0	
75-35-4	1,1-Dichloroethene (1,1-DCE)	2.0	U	2.0	
107-06-2	1,2-Dichloroethane	2.0	U	2.0	
78-87-5	1,2-Dichloropropane	2.0	U	2.0	
67-64-1	Acetone	10	U	10	
75-27-4	Bromodichloromethane	2.0	U	2.0	
75-25-2	Bromoform	2.0	U	2.0	
74-83-9	Bromomethane	2.0	U	2.0	
56-23-5	Carbon Tetrachloride	2.0	U	2.0	
108-90-7	Chlorobenzene	2.0	U	2.0	
75-00-3	Chloroethane	2.0	U	2.0	
67-66-3	Chloroform	2.0	U	2.0	
74-87-3	Chloromethane	2.0	U	2.0	
124-48-1	Dibromochloromethane	2.0	U	2.0	
75-09-2	Methylene Chloride	2.0	U	2.0	
127-18-4	Tetrachloroethene (PCE)	2.0	U	2.0	
79-01-6	Trichloroethene (TCE)	2.0	U	2.0	
75-69-4	Trichlorofluoromethane (CFC 11)	2.0	U	2.0	
75-01-4	Vinyl Chloride	2.0	U	2.0	
156-59-2	cis-1,2-Dichloroethene	2.0	U	2.0	
10061-01-5	cis-1,3-Dichloropropene	2.0	U	2.0	
156-60-5	trans-1,2-Dichloroethene	2.0	U	2.0	
10061-02-6	trans-1,3-Dichloropropene	2.0	U	2.0	

Surrogate Name	%Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	70-130	3/24/15 13:14	
Dibromofluoromethane	101	70-130	3/24/15 13:14	
Toluene-d8	105	70-130	3/24/15 13:14	

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152723
Sample Matrix: Soil

Service Request: R1501866
Date Analyzed: 3/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/Kg
Basis: As Received

Analysis Lot: 437277

	Lab Control Sample RQ1502873-02			Duplicate Lab Control Sample RQ1502873-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	18.0	20.0	90	18.9	20.0	94	71 - 123	4	30
1,1,2,2-Tetrachloroethane	19.3	20.0	96	20.1	20.0	101	74 - 127	5	30
1,1,2-Trichloroethane	17.6	20.0	88	17.8	20.0	89	79 - 117	1	30
1,1-Dichloroethane (1,1-DCA)	21.4	20.0	107	21.8	20.0	109	76 - 128	2	30
1,1-Dichloroethene (1,1-DCE)	16.4	20.0	82	17.6	20.0	88	74 - 135	7	30
1,2-Dichloroethane	20.6	20.0	103	21.8	20.0	109	72 - 130	6	30
1,2-Dichloropropane	22.4	20.0	112	23.0	20.0	115	80 - 119	3	30
Acetone	16.9	20.0	84	21.8	20.0	109	51 - 146	26	30
Bromodichloromethane	19.3	20.0	97	19.6	20.0	98	79 - 122	1	30
Bromoform	17.7	20.0	88	18.5	20.0	93	65 - 138	6	30
Bromomethane	20.8	20.0	104	21.2	20.0	106	41 - 159	2	30
Carbon Tetrachloride	18.3	20.0	91	18.5	20.0	92	66 - 126	1	30
Chlorobenzene	19.9	20.0	100	20.3	20.0	102	80 - 121	2	30
Chloroethane	18.6	20.0	93	19.2	20.0	96	71 - 128	3	30
Chloroform	19.6	20.0	98	20.1	20.0	100	76 - 120	2	30
Chloromethane	23.9	20.0	119	24.1	20.0	121	64 - 140	2	30
Dibromochloromethane	18.5	20.0	93	19.6	20.0	98	79 - 125	5	30
Methylene Chloride	19.5	20.0	97	19.5	20.0	97	73 - 122	<1	30
Tetrachloroethene (PCE)	18.7	20.0	93	19.9	20.0	100	69 - 124	7	30
Trichloroethene (TCE)	18.5	20.0	92	18.8	20.0	94	76 - 123	2	30
Trichlorofluoromethane (CFC 11)	17.6	20.0	88	17.9	20.0	89	69 - 130	1	30
Vinyl Chloride	19.2	20.0	96	19.8	20.0	99	69 - 136	3	30
cis-1,2-Dichloroethene	18.7	20.0	94	18.8	20.0	94	80 - 121	<1	30
cis-1,3-Dichloropropene	19.6	20.0	98	20.0	20.0	100	77 - 125	2	30
trans-1,2-Dichloroethene	18.1	20.0	90	18.4	20.0	92	78 - 124	2	30
trans-1,3-Dichloropropene	19.3	20.0	97	19.5	20.0	97	72 - 123	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp. dba ALS Environmental

QA/QC Report

Client: CB&I
Project: Varian Beverly/152723
Sample Matrix: Water

Service Request: R1501866
Date Analyzed: 3/24/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Analytical Method: 8260C

Units: µg/L
Basis: NA

Analysis Lot: 437503

	Lab Control Sample RQ1502875-02			Duplicate Lab Control Sample RQ1502875-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,1,1-Trichloroethane (TCA)	18.0	20.0	90	18.9	20.0	94	70 - 130	5	20
1,1,2,2-Tetrachloroethane	19.3	20.0	96	20.1	20.0	101	70 - 130	4	20
1,1,2-Trichloroethane	17.6	20.0	88	17.8	20.0	89	70 - 130	<1	20
1,1-Dichloroethane (1,1-DCA)	21.4	20.0	107	21.8	20.0	109	70 - 130	2	20
1,1-Dichloroethene (1,1-DCE)	16.4	20.0	82	17.6	20.0	88	70 - 130	7	20
1,2-Dichloroethane	20.6	20.0	103	21.8	20.0	109	70 - 130	5	20
1,2-Dichloropropane	22.4	20.0	112	23.0	20.0	115	70 - 130	3	20
Acetone	16.9	20.0	84	21.8	20.0	109	40 - 160	25 *	20
Bromodichloromethane	19.3	20.0	97	19.6	20.0	98	70 - 130	2	20
Bromoform	17.7	20.0	88	18.5	20.0	93	70 - 130	5	20
Bromomethane	20.8	20.0	104	21.2	20.0	106	40 - 160	2	20
Carbon Tetrachloride	18.3	20.0	91	18.5	20.0	92	70 - 130	1	20
Chlorobenzene	19.9	20.0	100	20.3	20.0	102	70 - 130	2	20
Chloroethane	18.6	20.0	93	19.2	20.0	96	70 - 130	4	20
Chloroform	19.6	20.0	98	20.1	20.0	100	70 - 130	2	20
Chloromethane	23.9	20.0	119	24.1	20.0	121	40 - 160	1	20
Dibromochloromethane	18.5	20.0	93	19.6	20.0	98	70 - 130	6	20
Methylene Chloride	19.5	20.0	97	19.5	20.0	97	70 - 130	<1	20
Tetrachloroethene (PCE)	18.7	20.0	93	19.9	20.0	100	70 - 130	7	20
Trichloroethene (TCE)	18.5	20.0	92	18.8	20.0	94	70 - 130	2	20
Trichlorofluoromethane (CFC 11)	17.6	20.0	88	17.9	20.0	89	70 - 130	2	20
Vinyl Chloride	19.2	20.0	96	19.8	20.0	99	70 - 130	3	20
cis-1,2-Dichloroethene	18.7	20.0	94	18.8	20.0	94	70 - 130	<1	20
cis-1,3-Dichloropropene	19.6	20.0	98	20.0	20.0	100	70 - 130	2	20
trans-1,2-Dichloroethene	18.1	20.0	90	18.4	20.0	92	70 - 130	2	20
trans-1,3-Dichloropropene	19.3	20.0	97	19.5	20.0	97	70 - 130	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Environmental

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

24201

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 1

Project Name: VARIAN
Project Number: 152728
Project Manager: RAYMOND CADDROTTE
Report CC:
Company/Address: CBI
150 ROYAL ST
CANTON MA
Phone #: 617 589 6102
Email: RAYMOND.CADDROTTE@CBI.COM
Sampler's Signature:
Sampler's Printed Name: BEN SAORT

ANALYSIS REQUESTED (Include Method Number and Container Preservative)

PRESERVATIVE: 1/6

CLIENT SAMPLE ID	FOR OFFICE USE ONLY LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NUMBER OF CONTAINERS	GCMS VOAs ○ 8260 ○ 624 ○ CLP	GCMS SVOAs ○ 8270 ○ 625	GC VOAs ○ 8021 ○ 601/602	PESTICIDES ○ 8081 ○ 608	PCBs ○ 8082 ○ 608	METALS, TOTAL (List in comments below)	METALS, DISSOLVED (List in comments below)	REMARKS/ ALTERNATE DESCRIPTION
SOIL-VARIAN-DISPOSAL-3-14-15		3/14/15	1115	SOIL	3	X							
WATER-VARIAN-DISPOSAL-3-14-15		3/14/15	1115	GW	3	X							

Preservative Key
0. NONE
1. HCL
2. HNO_3
3. H_2SO_4
4. NaOH
5. Zn. Acetate
6. MeOH
7. $NaHSO_4$
8. Other _____

SPECIAL INSTRUCTIONS/COMMENTS: VOC 8260 (SITE VOC LIST)
~~Metals~~
EDD TO CATHY MINVILLE
QA/QC MA DEP CAM
REPORT SITE SPECIFIC VOC LIST
See QAPP ☐

STATE WHERE SAMPLES WERE COLLECTED: MA

TURNAROUND REQUIREMENTS
____ RUSH (SURCHARGES APPLY)
____ 1 day ____ 2 day ____ 3 day
____ 4 day ____ 5 day
REQUESTED REPORT DATE _____

REPORT REQUIREMENTS
____ I. Results Only
____ II. Results + QC Summaries (LCS, DUP, MS/MSD as required)
____ III. Results + QC and Calibration Summaries
____ IV. Data Validation Report with Raw Data
Edata ____ Yes ____ No

INVOICE INFORMATION
PO # 915964
BILL TO:

RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY	RELINQUISHED BY	RECEIVED BY
	FED EX				
Signature	Signature	Signature	Signature	Signature	Signature
Printed Name: BEN SAORT	Printed Name	Printed Name	Printed Name	Printed Name	Printed Name
Firm: CBI	Firm	Firm	Firm	Firm	Firm
Date/Time: 3/17 @ 1500	Date/Time	Date/Time	Date/Time: 3/18/15 0935	Date/Time	Date/Time

R1501866 7 Y
CB&I Environmental & Infrastructure
Varian Beverly

Distribution: White - Lab Copy; Yellow - Return to Originator

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R1501866 7.Y
CB&I Environmental & Infrastructure
Varian Beverly

Cooler Receipt and Preservation Check Form

Project/Client CBI Folder Number R15-1866.

Cooler received on 3/18/15 by: [illegible]

COURIER: ALS UPS (FEDEX) VELOCITY CLIENT

1	Were **Custody seals** on outside of cooler?	Y (N)	5a	**Perchlorate** samples have required headspace?	Y N (NA)
2	**Custody papers** properly completed (ink, signed)?	(Y) N	5b	Did VOA vials, Alk,or Sulfide have sig* **bubbles**?	Y (N) NA
3	Did all bottles arrive in good **condition** (unbroken)?	(Y) N	6	Where did the bottles originate?	(ALS/ROC) CLIENT
4	Circle: (**Wet Ice**) **Dry Ice** **Gel packs** present?	(Y) N	7	Soil VOA received as: Bulk Encore (5035set) NA	

8. Temperature Readings Date: 3/18/15 Time: 0945 ID: (IR#3) IR#4 From: (Temp Blank) Sample Bottle

Observed Temp (°C)	1.6						
Correction Factor (°C)	+0.7						
Corrected Temp (°C)	2.3°						
Within 0-6°C?	(Y) N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed Same Day Rule

&Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by [illegible] on 3/18/15 at 0947
5035 samples placed in storage location: F-09 by [illegible] on 3/18/15 at 0947

PC Secondary Review: JMS 3/19/15

Cooler Breakdown: Date: 3/20/15 Time: 0846 by: [illegible]

1. Were all bottle labels complete (*i.e.* analysis, preservation, etc.)? (YES) NO
2. Did all bottle labels and tags agree with custody papers? (YES) NO
3. Were correct containers used for the tests indicated? (YES) NO
4. Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated (N/A)

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH								
≤2	HNO_3								
≤2	H_2SO_4								
<4	$NaHSO_4$								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add $Na_2S_2O_3$ (CN), ascorbic (phenol).					
	$Na_2S_2O_3$	-	-						
	ZnAcetate	-	-						
	HCl	**	**	4114050	1/16				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust: _____

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 4-25T-004

Other Comments:

Rec'd empty (5) 5035 sets and (1) VOC set

PC Secondary Review: JMS 3/20/15

*significant air bubbles: VOA > 5-6 mm : WC >1 in. diameter

CB & I

17 Princess Road
Lawrenceville, NJ 08648
Tel: 609/895-5370
Fax: 609/895-1858

Reduced Deliverable Package

Prepared for
Varian, Beverly MA

Lab ID
9407

Project Number: 77152728 05000000

Samples Received
22-Jan-15

Report
12-Feb-15

NJDEP Certified Lab 11001

Randi K Rothmel, PhD Date
Laboratory Director

Table of Contents

1.0 General Information

Chain of custody
Internal chains of custody
Methodology Review
Data Reporting Qualifiers

2.0 Sample Summary Results

3.0 QA/QC Report

1.0 General Information

Sample delivery Group **9407**

Sample ID Table

Lab ID	Location ID
9407- 1	AP23-DO(47.8')
9407- 2	AP243-DO(47.8')
9407- 3	AP33-DO(36')
9407- 4	AP34-DO(37.7')
9407- 5	AP35-DO(36')
9407- 6	AP13-DO(50.7')

Chain of Custody (s)

17 Princess Rd
Lawrenceville, NJ 08648
609-895-5370/ 609-895-1858
CB&I - Federal Services, LLC

CHAIN OF CUSTODY

Ref. Document # _____

Lab ID # 9407 ☐ R&D

Project Contact: Raymond Cadorette 617-589-6102 (Name & phone #)

Send Report To: CB&I Environmental & Infrastructure
Phone/Fax Number: 617-589-6102
Address: 150 Royall Street
City/State: Canton, MA 02021

Project Number/Cost code: 77 152728 / 5000000
Project Name / Location: Varian / Beverly, MA
Purchase Order #:

Shipment Date: 1-21-15
Waybill/Airbill Number: 6028W2
Lab Destination: Lawrenceville, NJ
Lab Contact Name / ph. #: Randi Rothmel / 609-895-5370

Sampler's Name(s): _____

Lab No.	Sample ID Number	Sample Description	Collection Information Date	Time	G/C	Matrix	# of containers	Container size	Preservative HCL	NaOH	HNO_3	H_2SO_4	Ice		Analyses Requested: Dehalococcoides sp.						Any Additional information	Turn Around Time Requested
	NA	~~AP13-DO (50.7')~~		~~1100~~		GW	1	1L.					1		1							
1		AP23-DO (47.8')	1-20-15	0904		GW	1	1L.					1		1							
2		AP24-DO (47.8')	1-20-15	1130		GW	1	1L.					1		1							
3		AP33-DO (36')	1-20-15	1200		GW	1	1L.					1		1							
4		AP34-DO (37.7')	1-20-15	1030		GW	1	1L.					1		1							
5		AP35-DO (36')	1-20-15	1000		GW	1	1L.					1		1							
6		AP13-DO (50.7')	1-20-15	1100		GW	1	1L.					1		1							

Special Instructions:

Known Waste Stream Circle:
RCRA PCB/dioxin PAH/oil RAD Corrosive Flammable Reactive

QC/Data Package Level Required:
I II III IV NJ EDD GIS EDD Preliminary data

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Wane Hall	1-21-15	1230		1/22/15	1100

G/C Codes
C = Composite G = Grab

QC Package Codes
Level I = data summary
Level II = data summary + basic QC
Level III = New Jersey QC reduced deliverable
Level IV = Full deliverable CLP package

Cooler temperature upon arrival at Lab:

Instructions: Do not Fill Shaded Areas; Check R&D Box if R&D samples Only

Lab ID 9407
Client: VARIAN
Date Received: 1-22-15

CBI -Federal Services Analytical and Treatability Laboratories Internal Chain of Custody

Pg 1 of 1

Sample ID	Parameter	Bottle Type	Perservative	Date/Time Removed	Relinquishing Custodian Initials	Receiving Analyst Initials	Date/Time Returned	Receiving Custodian Initials	Relinquishing Analyst Initials
1	gRCR prep	1L	—	1/27/15 12:05	[illegible]	[illegible]	1/27/15 13:00	[illegible]	[illegible]
2	↓	↓	↓	↓	↓	↓	↓	↓	↓
3	↓	↓	↓	↓	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓	↓	↓	↓	↓
5	↓	↓	↓	↓	↓	↓	↓	↓	↓
6	↓	↓	↓	↓	↓	↓	↓	↓	↓
1	gRCR	1L	—						
2	↓	↓	↓	2/9/15 [illegible]	[illegible]	CA	11:00	[illegible]	CA
3	↓	↓	↓	↓	↓	↓	↓	↓	↓
4	↓	↓	↓	↓	↓	↓	↓	↓	↓
5	↓	↓	↓	↓	↓	↓	↓	↓	↓
6	↓	↓	↓	↓	↓	↓	↓	↓	↓

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00501-152728-4701-05000000

TELEPHONE
Ray Cadorette 617-589-6102

CB & I

150 ROYALL STREET

CANTON **MA 02021**

DELIVERY TO

TELEPHONE
~~XXXX~~ Receiving 609-895-5370

CB&I

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17 Princess Road

Lawrenceville, NJ 08648

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TRACKING NUMBER

DATE OF SHIPMENT 1/24/15

SHIPMENT ID NUMBER 6028 W279 XYQ

0101911202609 1/10 S United Parcel Service, Louisville, KY

03320 013276_P1 19988776 41 of 100

Methodology Review

Dehalococcoides sp in groundwater

The microbial communities from the groundwater samples are screened for the presence of *Dehalococcoides* sp in groundwater by PCR-DNA methodology using a Roche Real-Time LightCycler PCR instrumentation according to internal SOP. Results are reported in units of cells/ml

Samples are filtered within 7 days of receipt using Sterivex filter cassette (mMillipore SVGV010RS,0.22uM). Filters are then stored at -80°C until processed (cells lysed and DNA extracted) for performing qPCR to quantify *Dehalococcoides* sp DNA. The filter paper is placed in a bead beating tube and is extracted using the ZR Soil Microbe DNA MicroPrep (ZymoResearch) following the instructions provided by the Manufacture, and eluted in 100ul buffer. The number of *Dehalococcoides* sp in the samples is determined based on the number of chromosomes detectd in 2 ul of the eluted DNA via qPCR using a RAPID Real-Time LightCycler PCR instrument. A negative control and standard curve is generated using known quantities of dehalococcoides DNA.

The standard curve is used to calculate the cells/ml in the test samples. Raw data is reported as a crossing threshold. Higher bacteria counts are asociated with lower crossing thresholds

Reporting Qualifiers

U- The compound was not detected at the indicated PQL concentration.

J- Approximate concentration of the compound. Detection of compound above calculated MDL but below the PQL of the analytical method. 99% confidence that the compound is present.

D- Diluted sample

B- The analyte was observed in laboratory blank as well as the sample - for EPA SW856 8260b and EPA 624 analysis

E- Compound detected above the linear range of the curve. Value given is an estimated value.

2.0 Sample Results

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9407-01**	**Date Sampled**	01/20/2015
Sample No	**AP23-DO (47.8')**	**Time Sampled**	9:04
		Date Received	01/22/2015
		Date Filtered	01/27/2015
Matrix	***Aqueous***	**Amount Filtered (ml)**	6.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concen tration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	01/29/2015	12:05	14,700		cells/ml	10	1.6	167	LAW-ATL068
							crossing threshold=	29.96	

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9407-02**	**Date Sampled**	01/20/2015
Sample No	**AP24-DO (47.8')**	**Time Sampled**	11:30
		Date Received	01/22/2015
		Date Filtered	01/27/2015
Matrix	***Aqueous***	**Amount Filtered (ml)**	10.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concen tration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	01/29/2015	12:05	10	U	cells/ml	10	1.6	100	LAW-ATL068
								crossing threshold=	non detected below detection

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9407-03**	**Date Sampled**	01/20/2015
Sample No	**AP33-DO (36')**	**Time Sampled**	12:00
		Date Received	01/22/2015
		Date Filtered	01/27/2015
Matrix	***Aqueous***	**Amount Filtered (ml)**	103.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concen tration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	01/29/2015	12:05	1,520		cells/ml	10	1.6	10	LAW-ATL068
							crossing threshold=	26.05	

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

Chicago Bridge and Iron
Analytical and Treatability Laboratories

17 Princess Road
Lawrenceville, New Jersey 08648
Tel; 609/895-5370
Fax: 609/895-1858

Sample Information			
Lab ID	**9407-04**	**Date Sampled**	01/20/2015
Sample No	**AP34-DO (37.7')**	**Time Sampled**	10:30
		Date Received	01/22/2015
		Date Filtered	01/27/2015
Matrix	***Aqueous***	**Amount Filtered (ml)**	20.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concen tration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	01/29/2015	12:05	42,500		cells/ml	10	1.6	50	LAW-ATL068
							crossing threshold=	23.34	

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

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Sample Information			
Lab ID	**9407-05**	**Date Sampled**	01/20/2015
Sample No	**AP35-DO (36')**	**Time Sampled**	10:00
		Date Received	01/22/2015
		Date Filtered	01/27/2015
Matrix	***Aqueous***	**Amount Filtered (ml)**	193.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concen tration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	01/29/2015	12:05	10	U	cells/ml	10	1.6	5	LAW-ATL068
								crossing threshold=	non detected below detection

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

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Sample Information

Lab ID	**9407-06**	**Date Sampled**	01/20/2015
Sample No	**AP13-DO (50.7')**	**Time Sampled**	11:00
		Date Received	01/22/2015
		Date Filtered	01/27/2015
Matrix	***Aqueous***	**Amount Filtered (ml)**	19.0

Analysis

Parameter	*Date Analyzed*	*Time analyze*	*Concentration*	*Qual (see below)*	*Units*	*PQL*	*MDL*	*Prep Factor**	*Method Code*
DHE (1)	01/29/2015	12:05	1,002,400		cells/ml	10	1.6	53	LAW-ATL068
							crossing threshold=	18.37	

* Preparation factor is based on volume actually filtered compared to maximum volume of 1,000 ml

NJDEP certified Lab ID 11001.
(1) Not listed as a Certified paramaters under the NJDEP lab certification program.
(2) Not available as a certified parameter under the NJDEP lab certification program.
( ) no qualification - sample run undiluted
(U) Compound not detected above method practical quantitation limit.
(D) Sample analyzed at indicated dilution
(J) Estimated value above MDL and less than PQL
(E) Estimated value beyond linear range

3.0 QC Summary

Sample Batch:DHE

Lab ID	Analysis dates	QC batch
9407- 1	1/29/2015	012915-DHE
9407- 2	1/29/2015	012915-DHE
9407- 3	1/29/2015	012915-DHE
9407- 4	1/29/2015	012915-DHE
9407- 5	1/29/2015	012915-DHE
9407- 6	1/29/2015	012915-DHE

Calibration Summary: DHE

Calibration Standard :

	Calibration Date:	1/29/2015	12:05
Sample:	expected copy number	Crossing Threshold	cells/ml
std 1	1.67E+08	6.565	307000000
std 2	1.67E+07	9.899	38100000
std 3	1.67E+06	14.34	2370000
std 4	1.67E+05	19.17	115000
std 5	16700	23.07	10100
std6	1670	25.33	2450
std7	167	27.27	728

curve = y=36.92-3.6324log(x)

r2=0.99058

QC Method Blank Summary: DHE

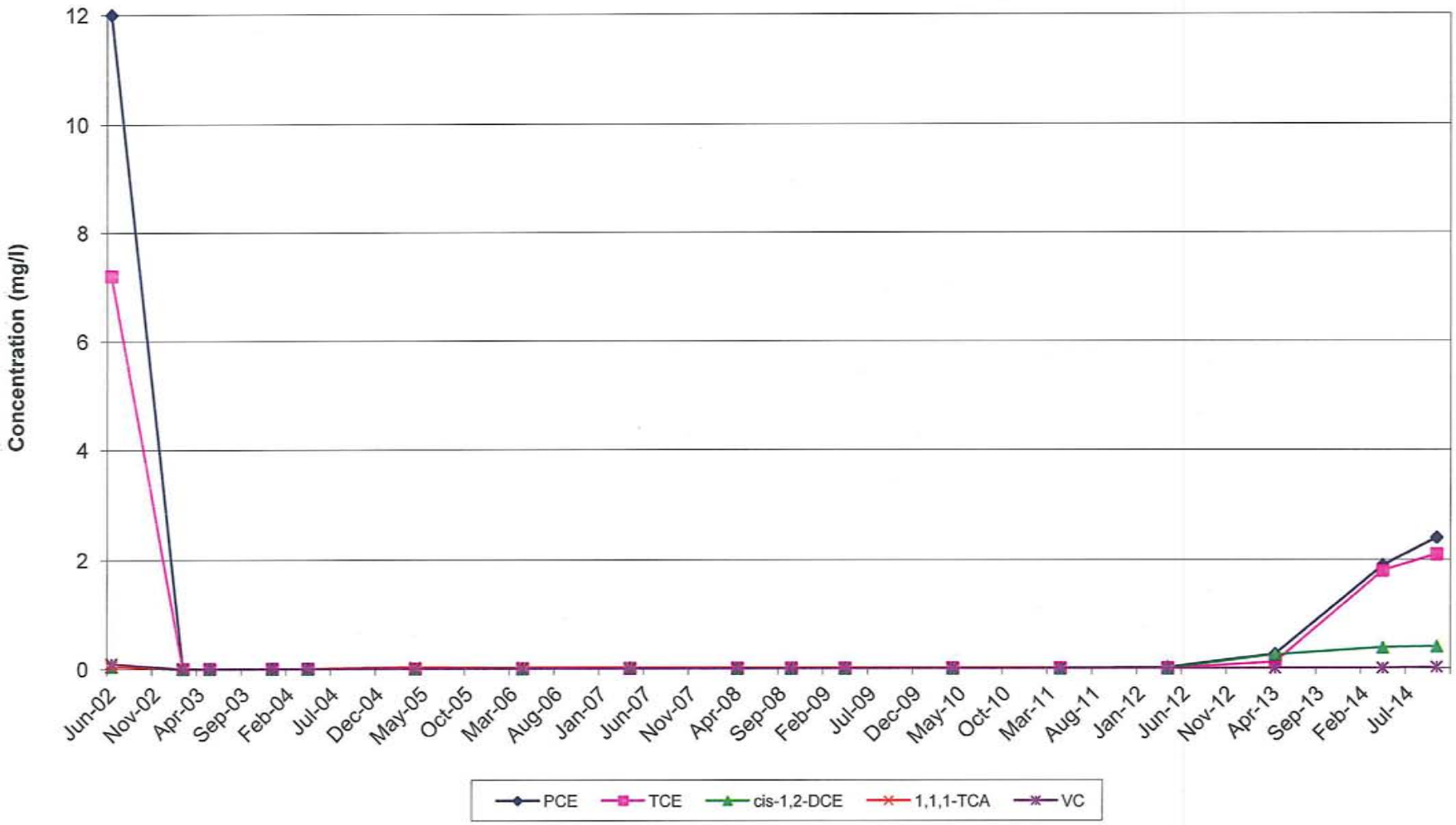
QC Batch	Date	Time	Parameter	Result	Qualifier	Units	MDL
012915-DHE	1/29/2015	12:05	DHE	12	U	cells/ml	1.6

APPENDIX D

GROUNDWATER VOC CONCENTRATION TREND GRAPHS

BUILDING 3/6 TREATMENT AREA

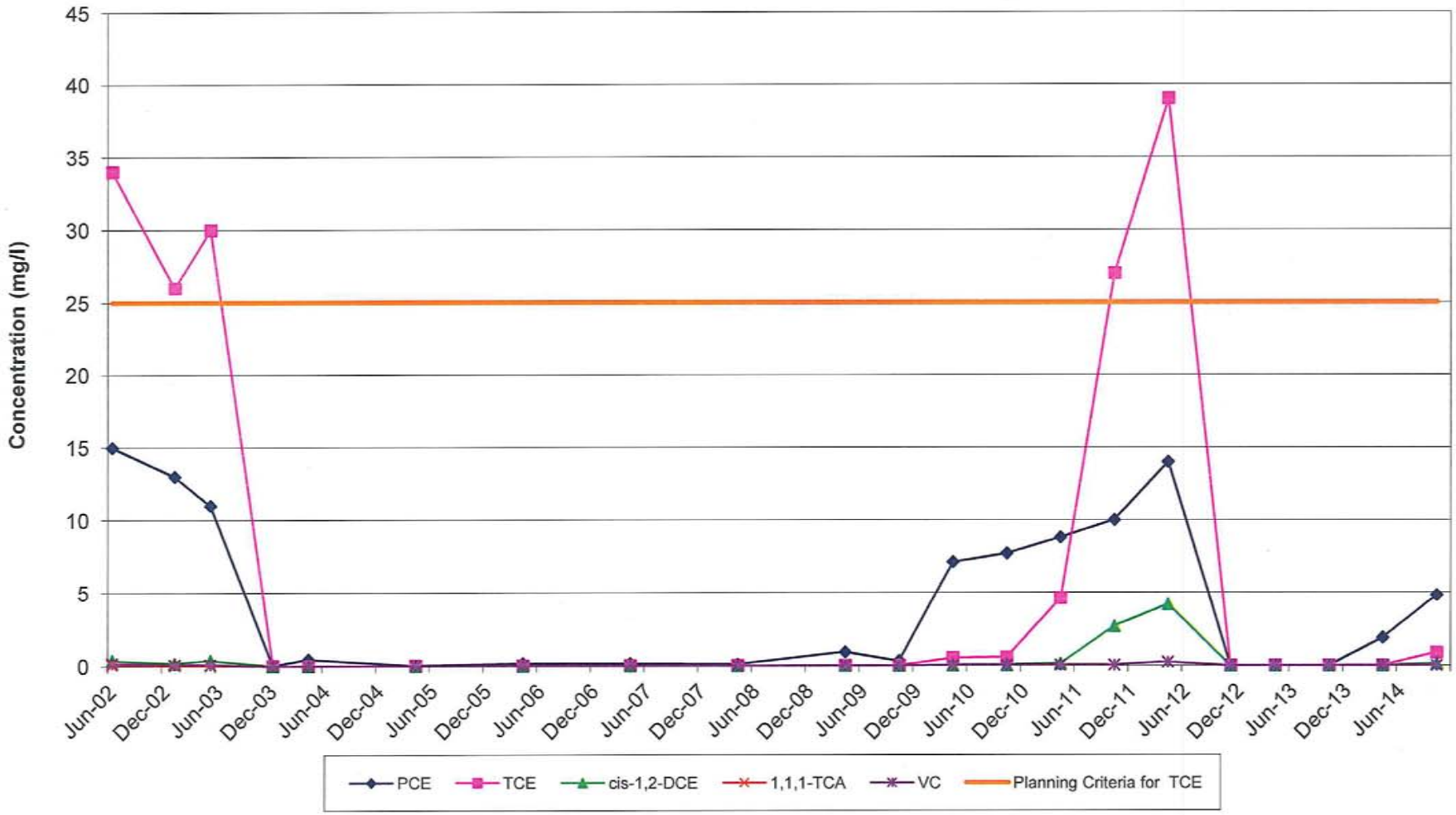
VOC Trends in Well AP-12-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-12-S is a shallow well adjacent to Building 6 where permanganate injection has been completed in 2002 and 2003. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

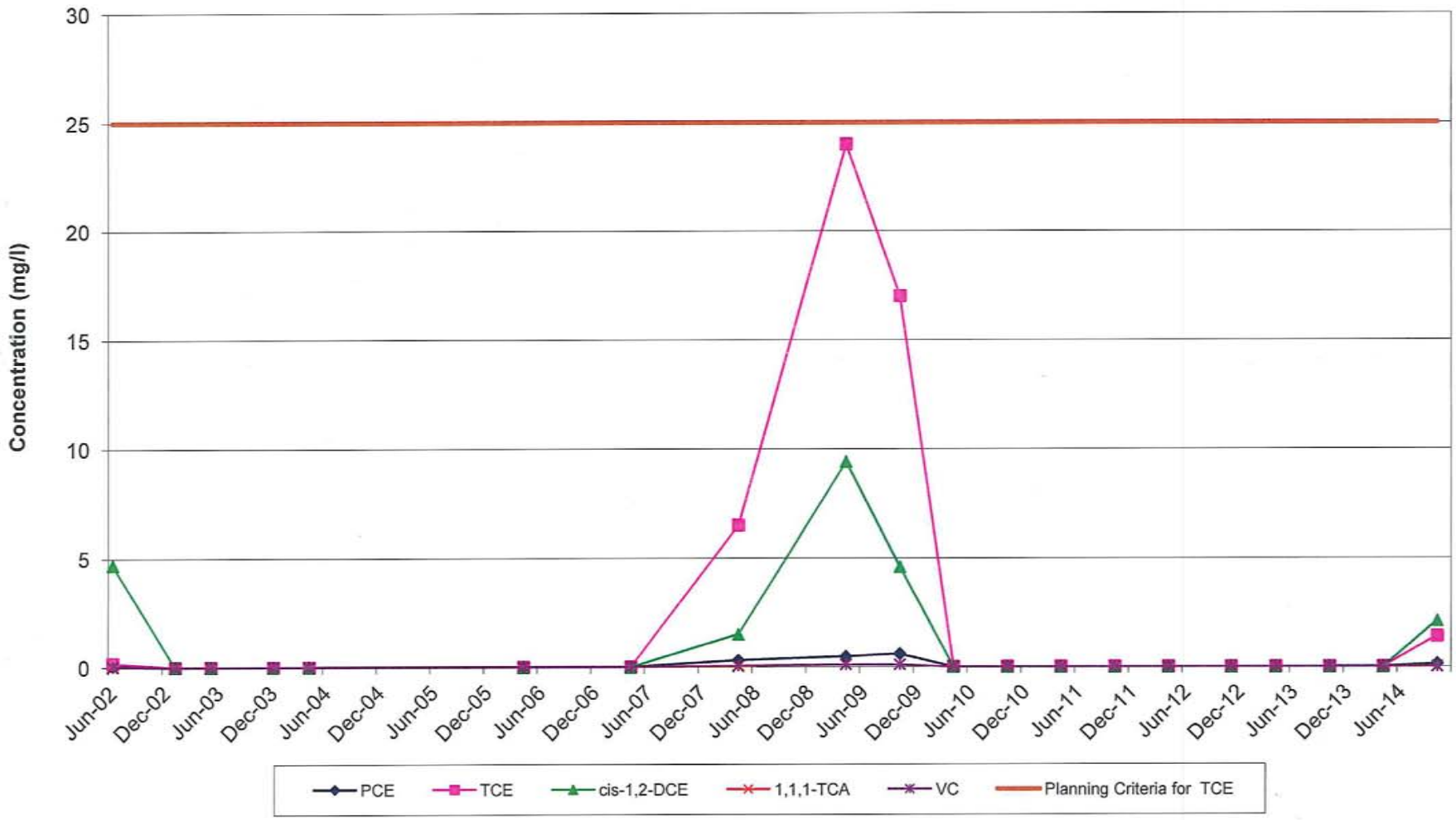
VOC Trends in Well AP-12-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-12-DO is a deep overburden well adjacent to Building 6 where permanganate injection was conducted in 2002, 2003, 2004, and 2012. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

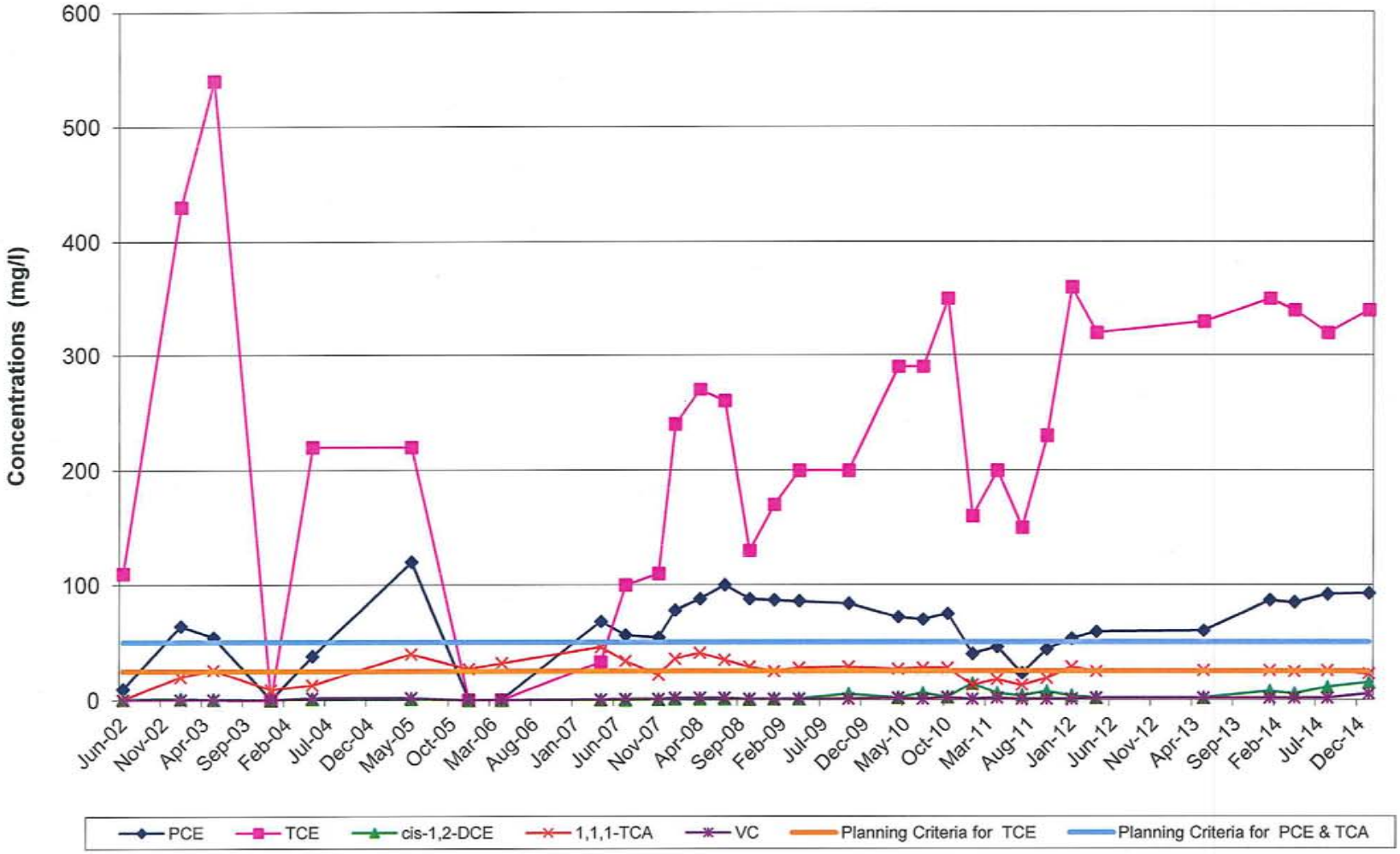
VOC Trends in Well AP-12-BR
Former Varian Facility Site
Beverly, Massachusetts



Notes: AP-12-DO is a deep overburden well adjacent to Building 6
where permanganate injection was conducted in 2002, 2003, 2004 and 2010.
See end of appendix for additional notes.

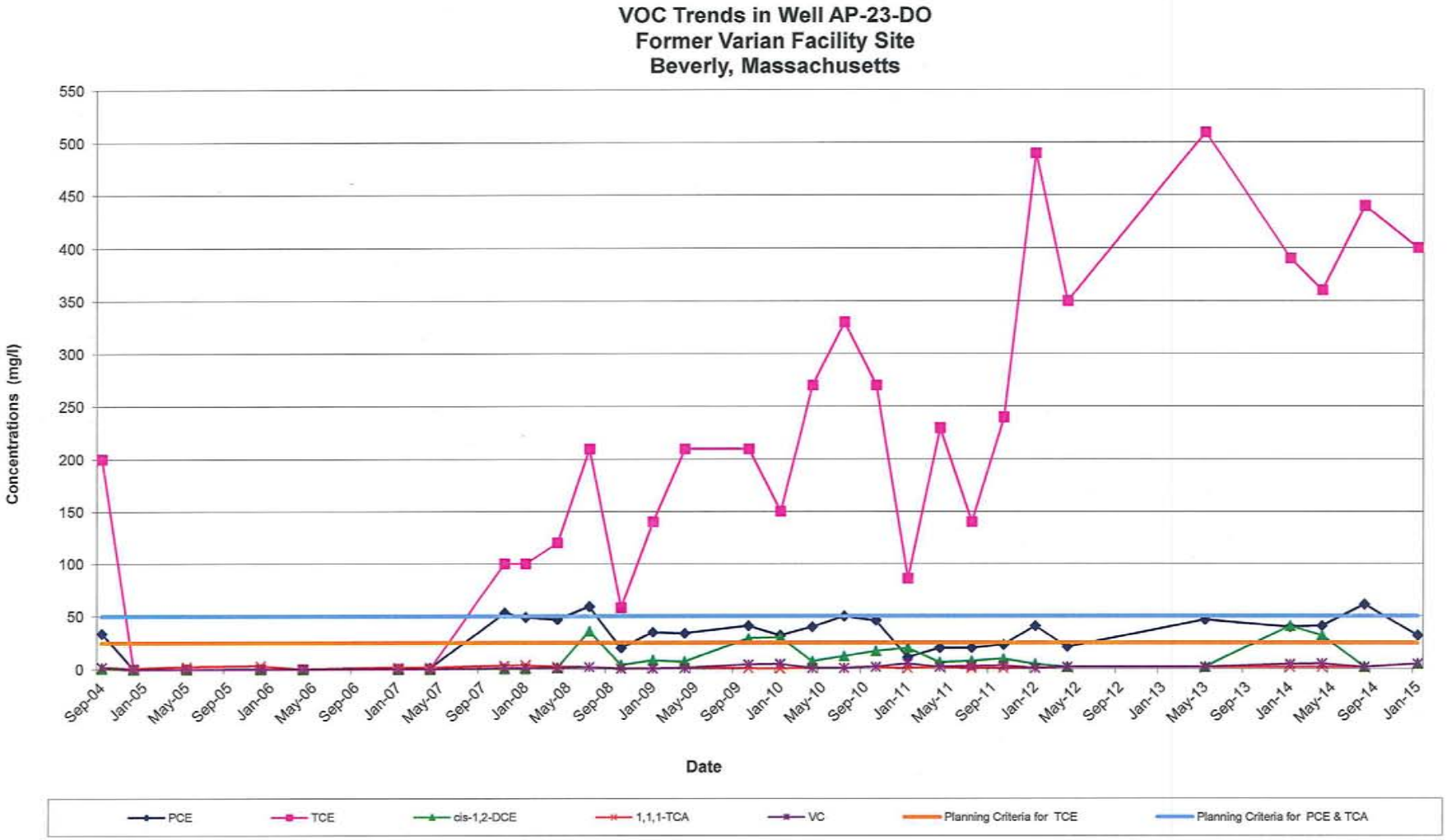
P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

VOC Trends in Well AP-13-DO
Former Varian Facility Site
Beverly, Massachusetts



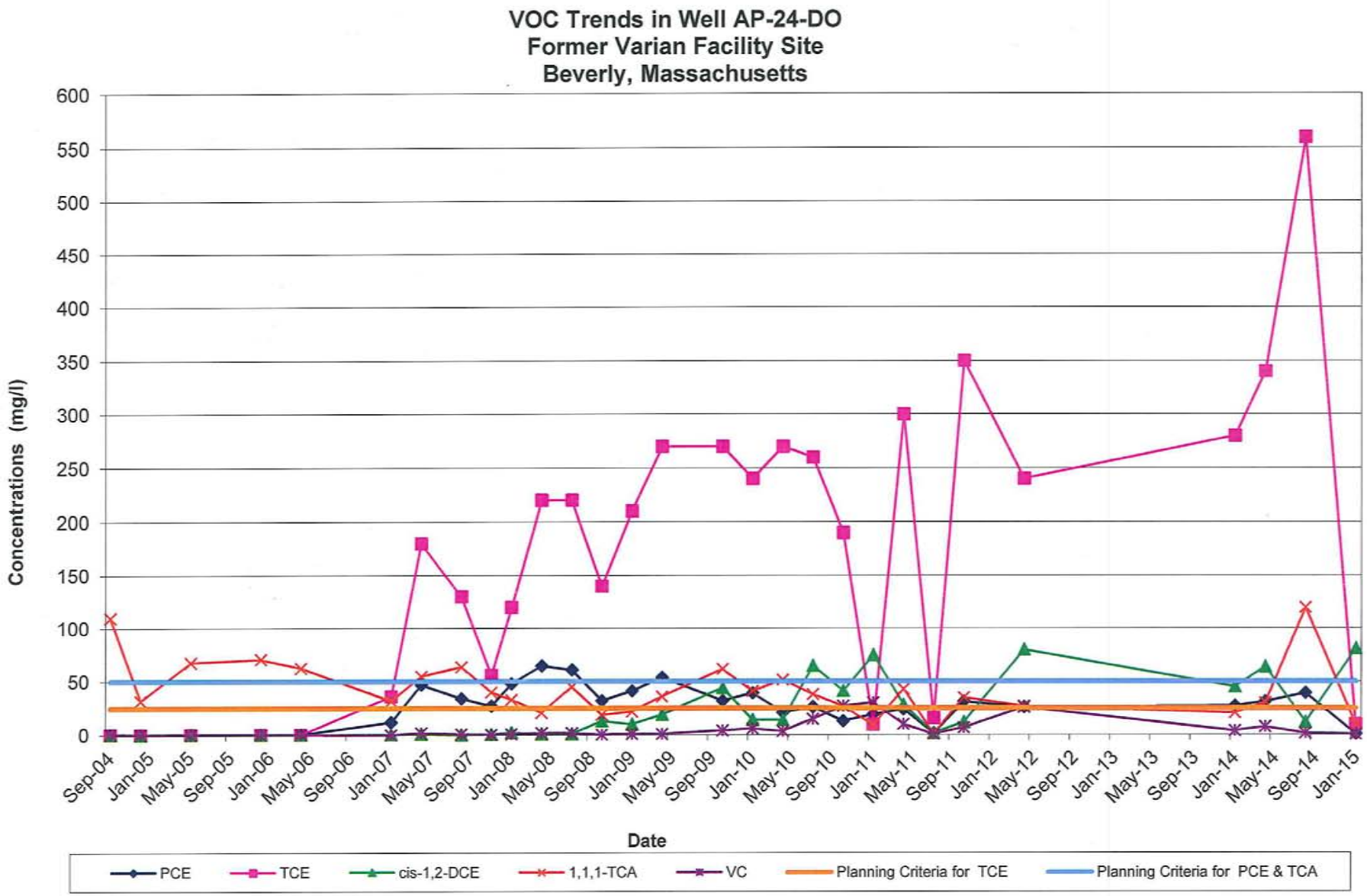
Notes: AP-13-DO is a deep overburden well adjacent to Building 3 where permanganate injection was conducted in 2002-2005 and bio-injection occurred in 2007, 2008, 2010, 2011 and 2014. See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC_MW-Jan2015.xlsx



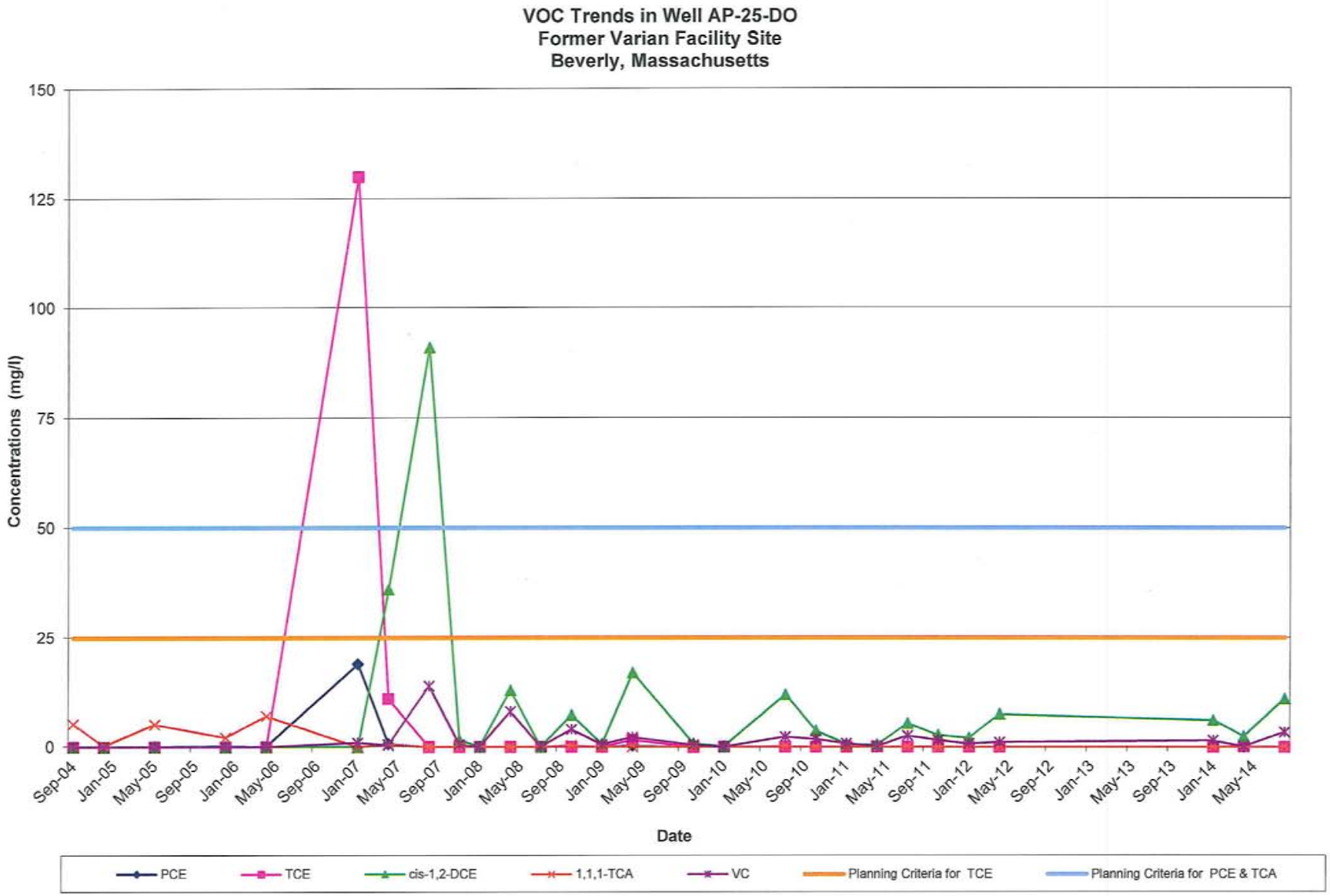
Notes: AP23-DO is a deep overburden well NE of Bld 3
where permanganate injection was conducted in 2003-2004
and bio-injection occurred in 2007-2008, 2010-2011 and 2014.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC_MW-Jan2015.xlsx



Notes: AP24-DO is a deep overburden well northeast of Building 3 where permangante injection was conducted in 2003-2004 and bio-injection occurred in 2006-2008, 2010-2011 and 2014.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC_MW-Jan2015.xlsx



Notes: AP25-DO is a deep overburden well east of Building 3 where permanganate injection was conducted in 2004 and bio-injection occurred in 2007.
See end of appendix for additional notes.

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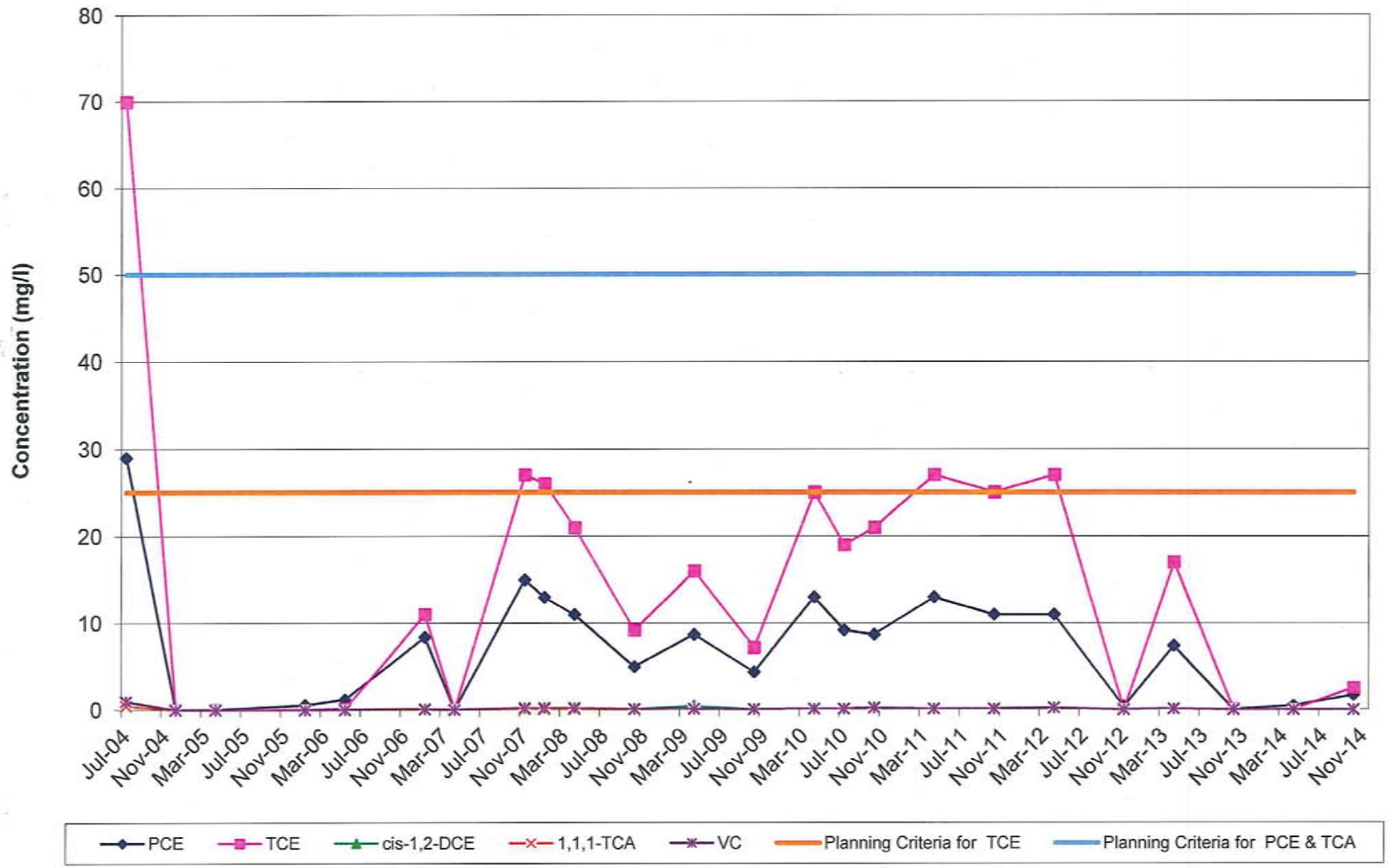
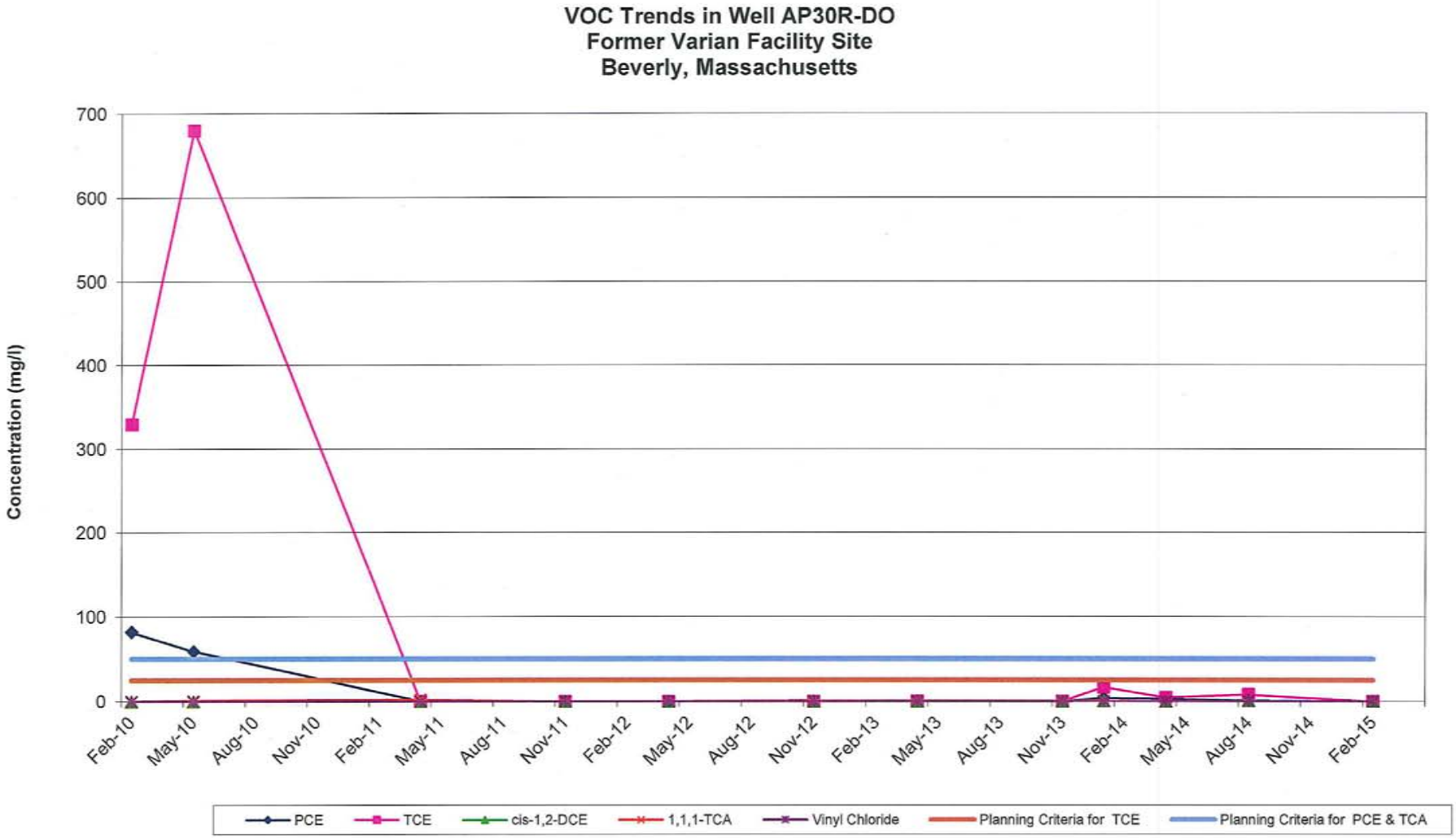
VOC Trends in Well AP-26-DO
Former Varian Facility Site
Beverly, Massachusetts



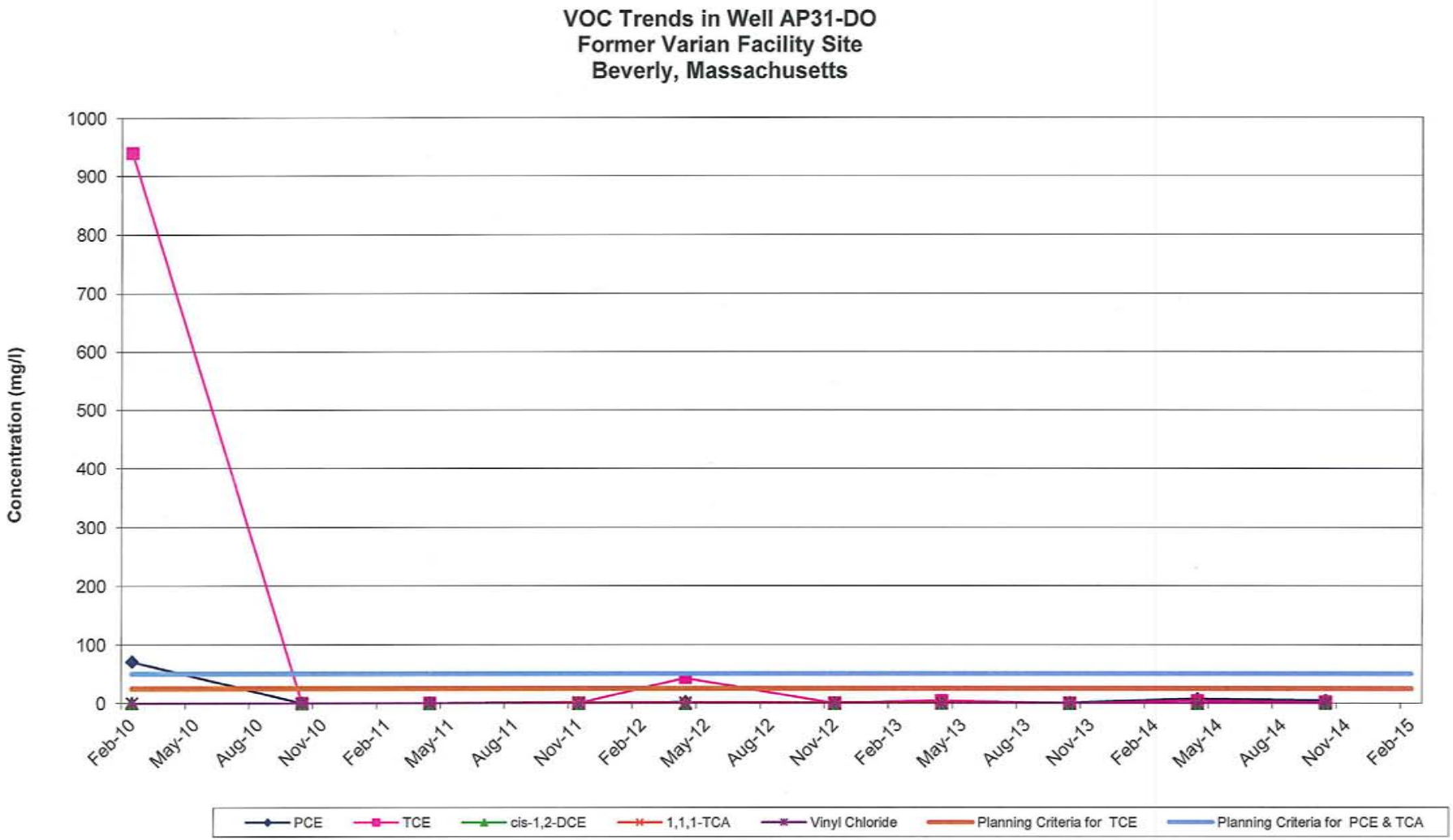
Notes: AP-26-DO is a deep overburden well just west of Building 1 where permanganate injection was conducted in 2004, 2012 and 2013. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx



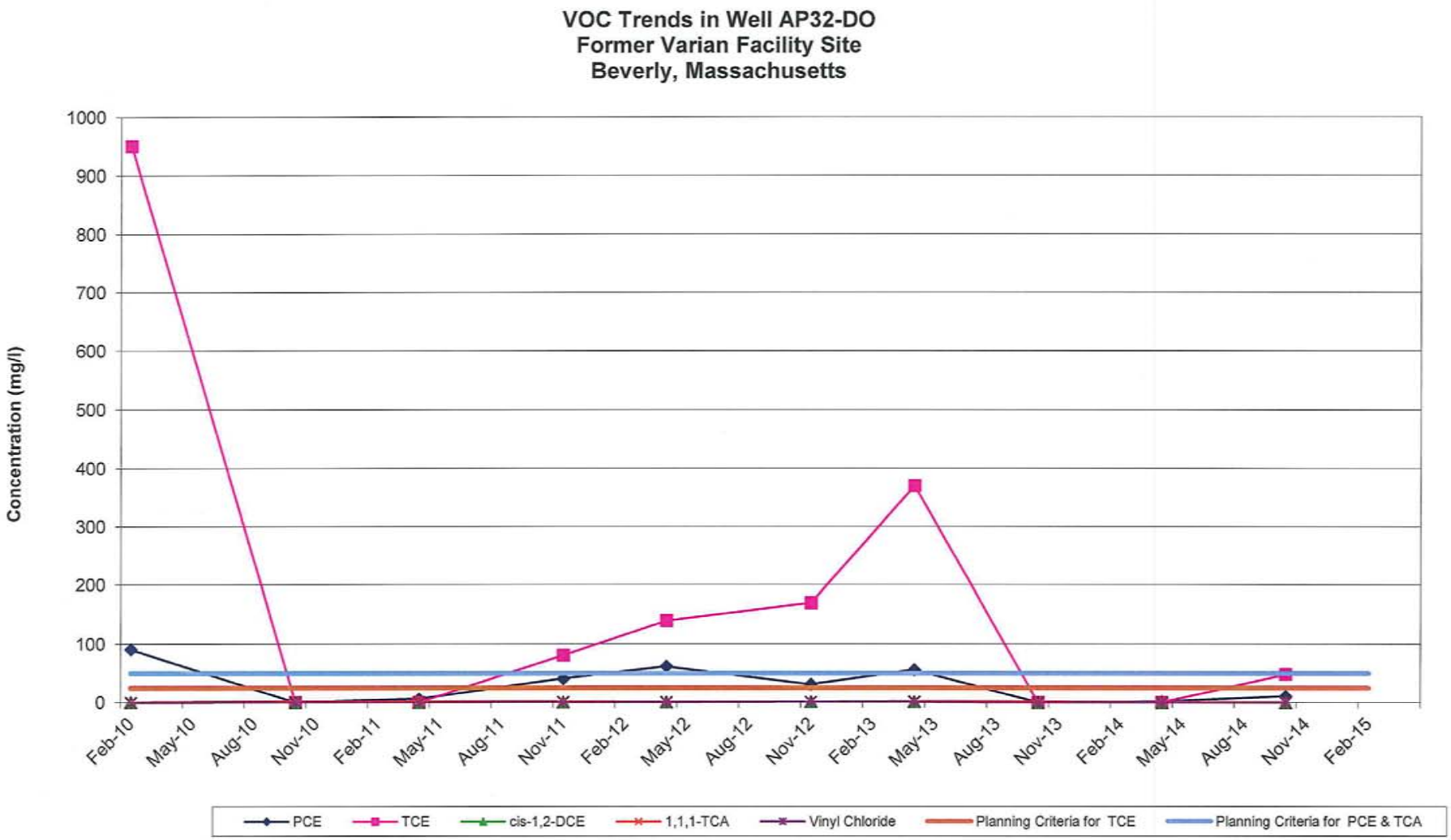
Notes: AP30R-DO is an angled well beneath Building 3.
Permanagante injections were conducted 2010-2011.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC Trends Bldg 3 Angled Wells-Oct14.xlsx



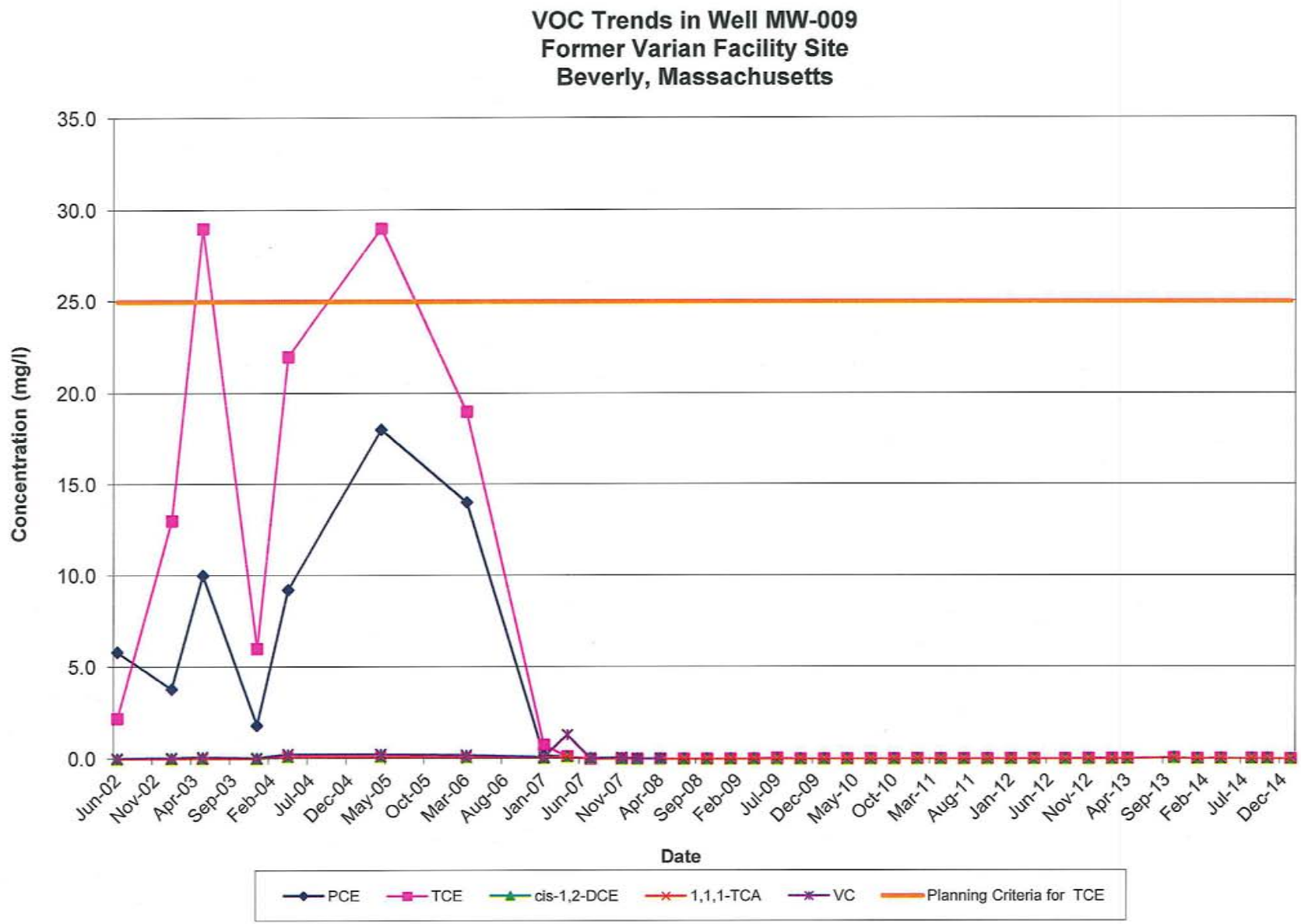
Notes: AP31-DO is an angled well beneath Building 3.
Permanganate injection was conducted in 2010-2011 and 2013.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC Trends Bldg 3 Angled Wells-Oct14.xlsx



Notes: AP32-DO is an angled well located beneath Building 3.
Permananganate injections were conducted 2010-2011, 2013 and 2015.
See end of appendix for additional notes.

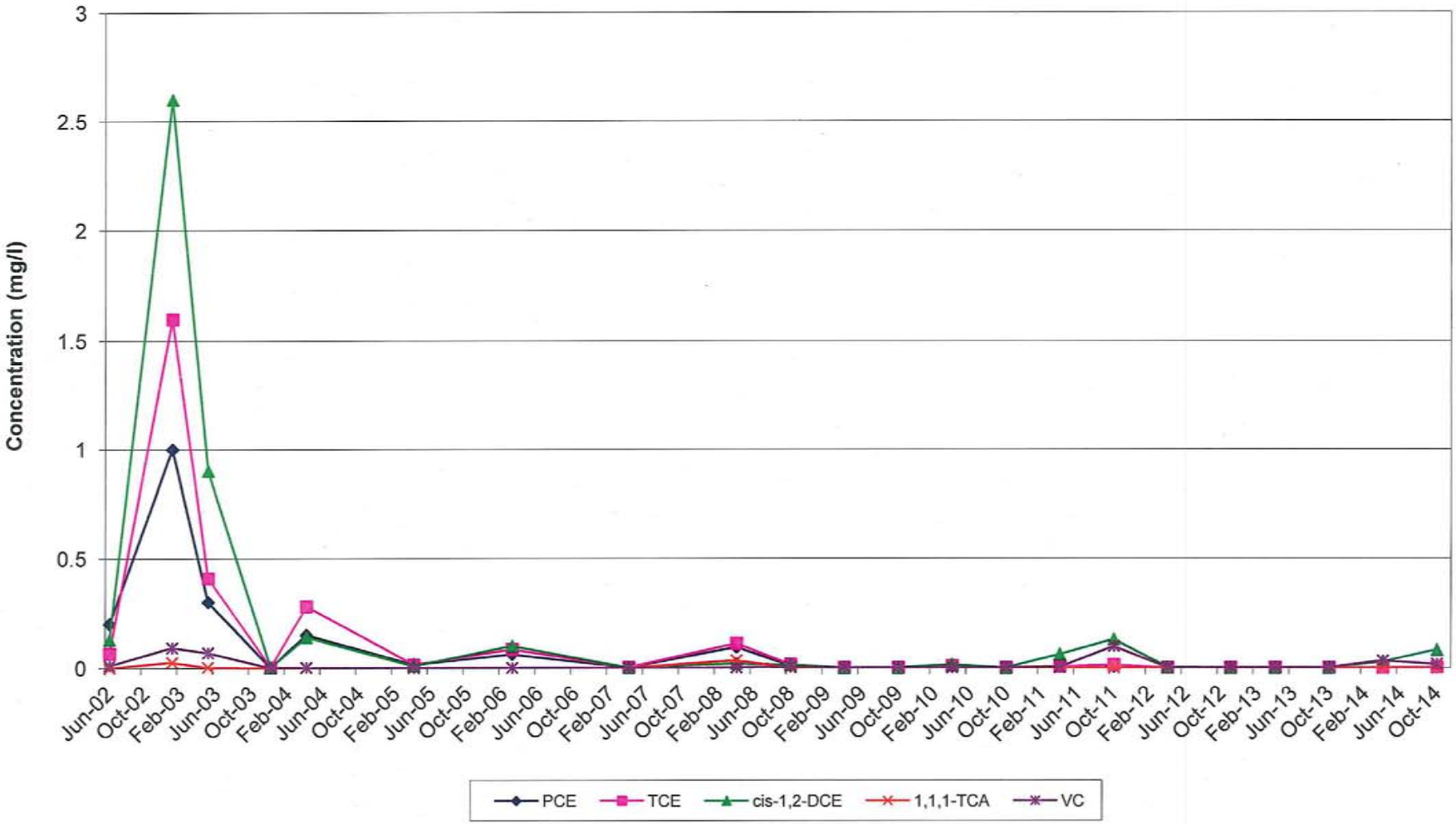
P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC Trends Bldg 3 Angled Wells-Oct14.xlsx



Notes: MW-9 is a shallow overburden well adjacent to Building 9 where bio-injection was conducted in 2006, 2007, 2009, and 2012. See end of appendix for additional notes.

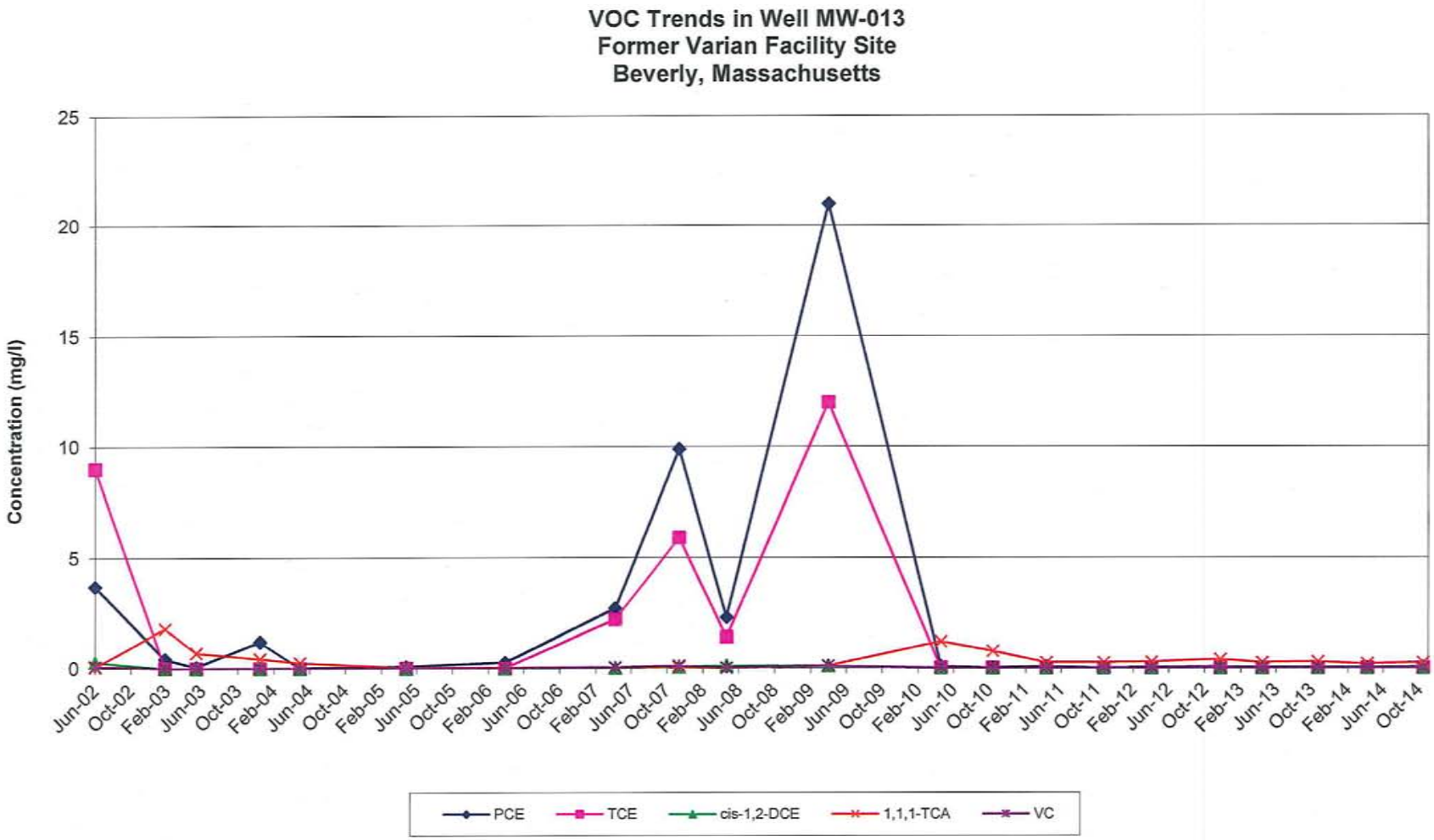
P:\Varian\Draft\Data\Groundwater sampling data evaluations\2015 Jan gw data\Graphs - VOC_MW-Jan2015.xlsx

VOC Trends in Well MW-009A
Former Varian Facility Site
Beverly, Massachusetts



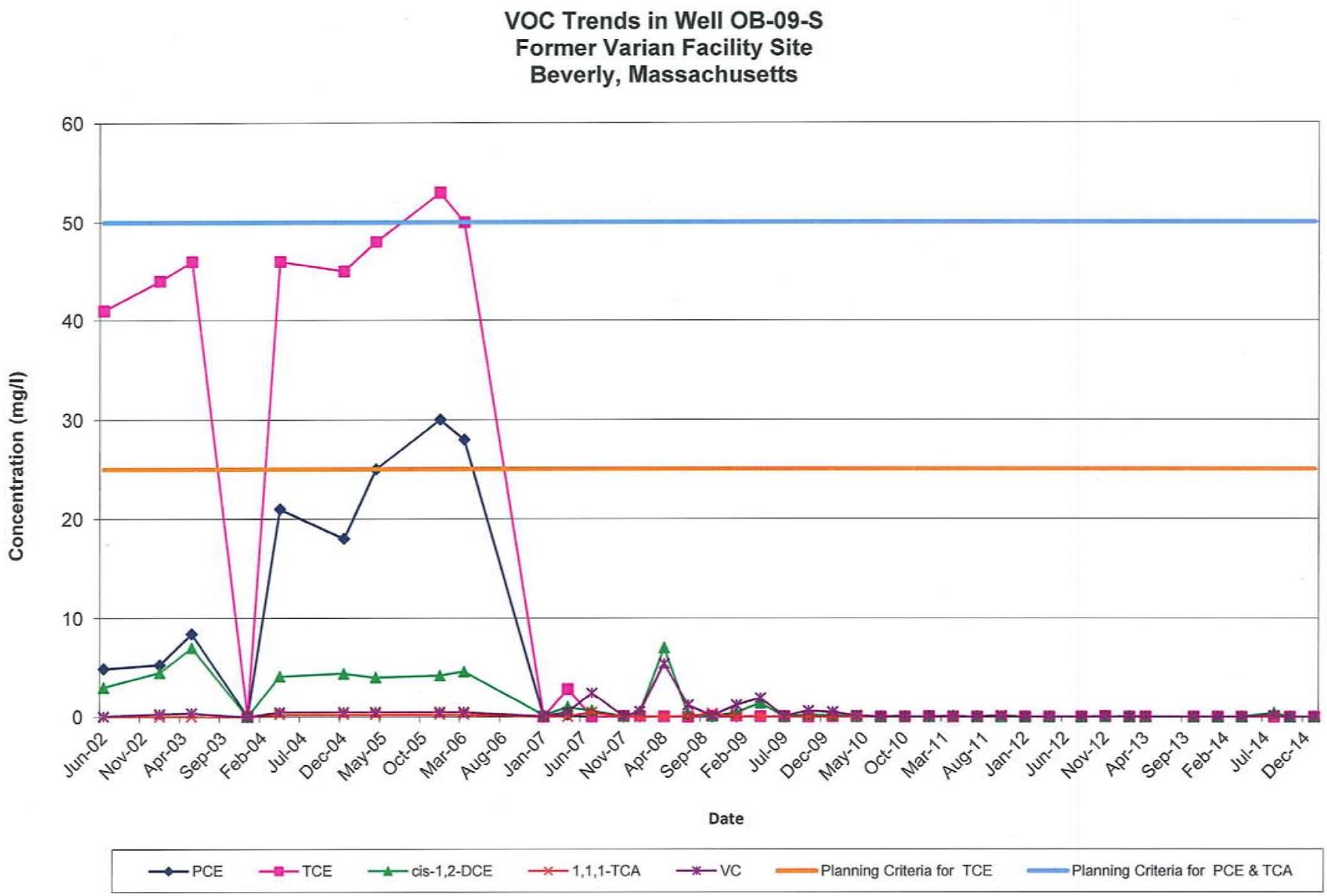
Notes: MW-9A is a shallow overburden well adjacent to Building 9.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx



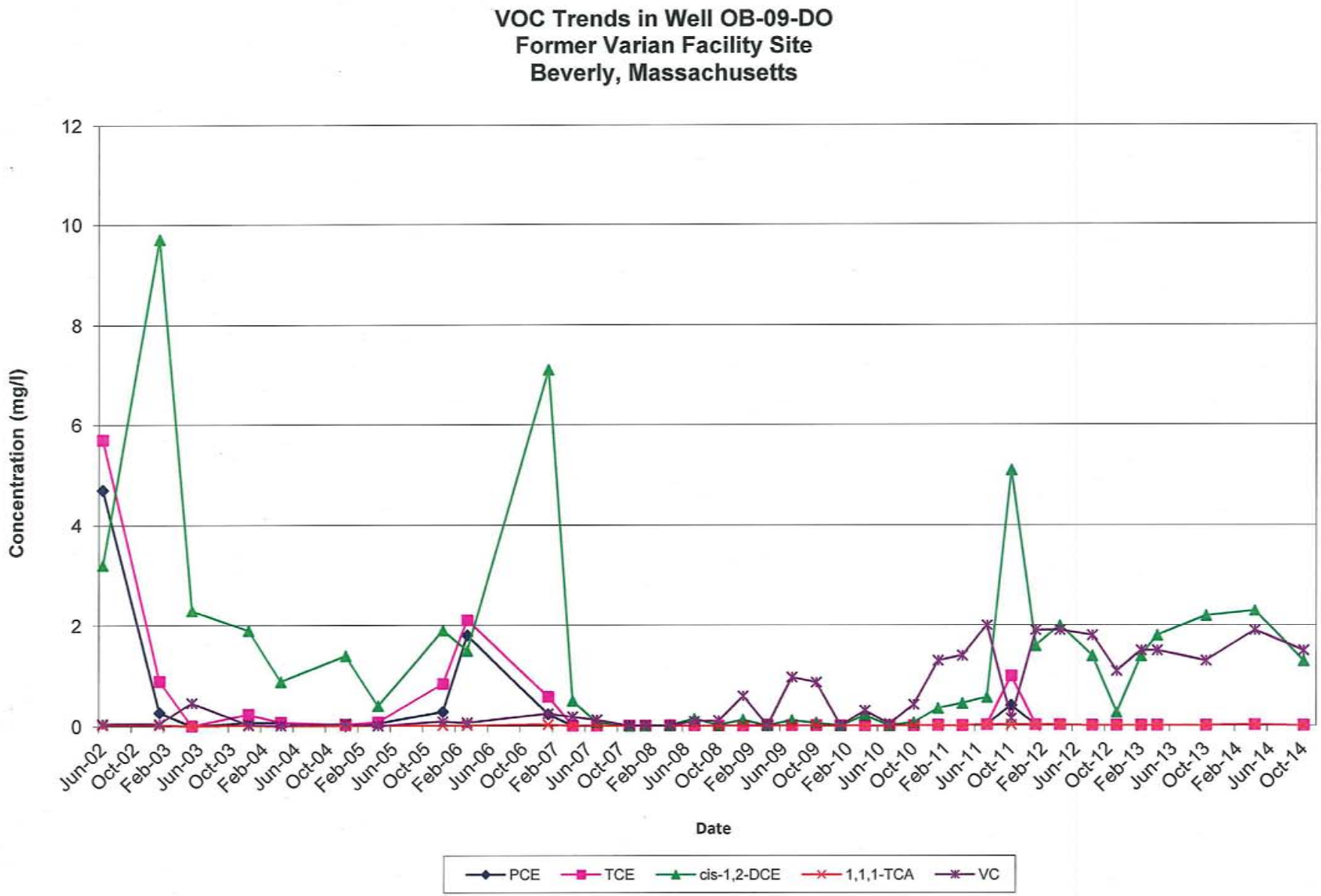
Note: MW-13 is a deep overburden well located to the northeast of Building 3 where permanganate injection was conducted in 2002 and 2010.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_MW-Jan2015.xlsx



Note: OB-9-S is a shallow well east of Building 9 where bio-injection was completed from 2006 to 2012.
See end of appendix for additional notes.

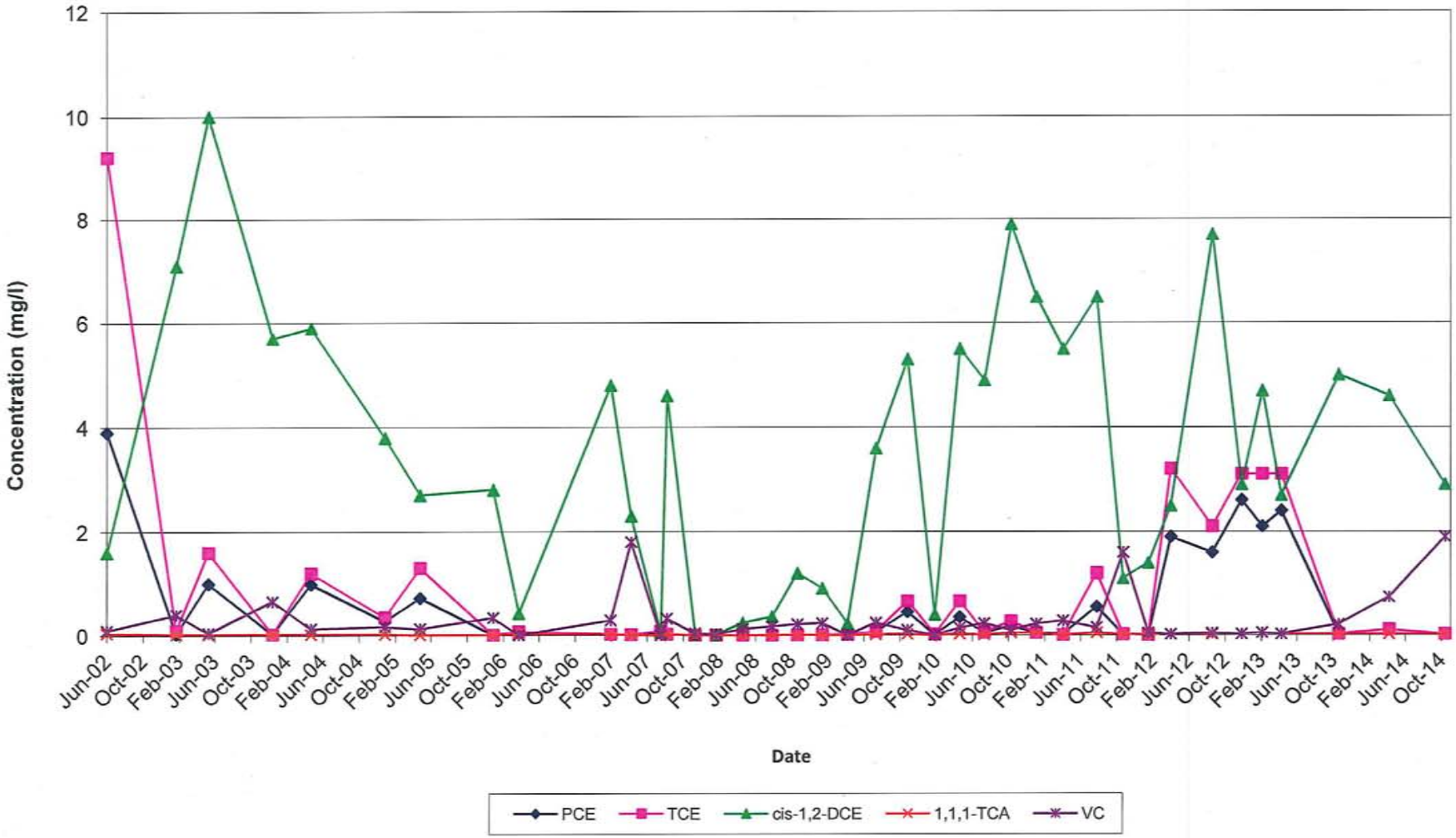
P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_OB Jan2015.xlsx



Note: OB-9-DO is a deep overburden well east of Building 9.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

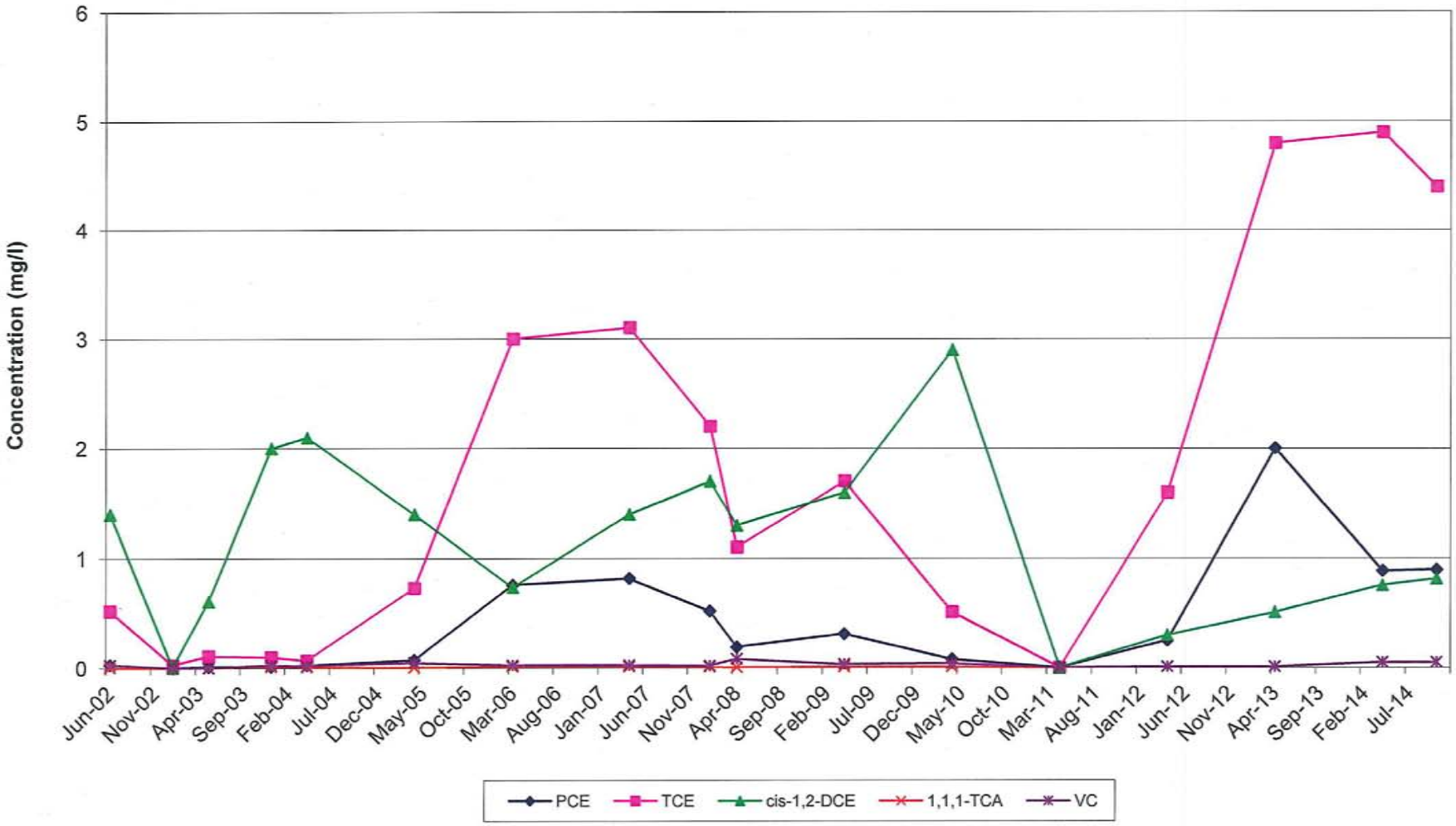
VOC Trends in Well OB-09-BR
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-9-BR is a bedrock well east of Building 9.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

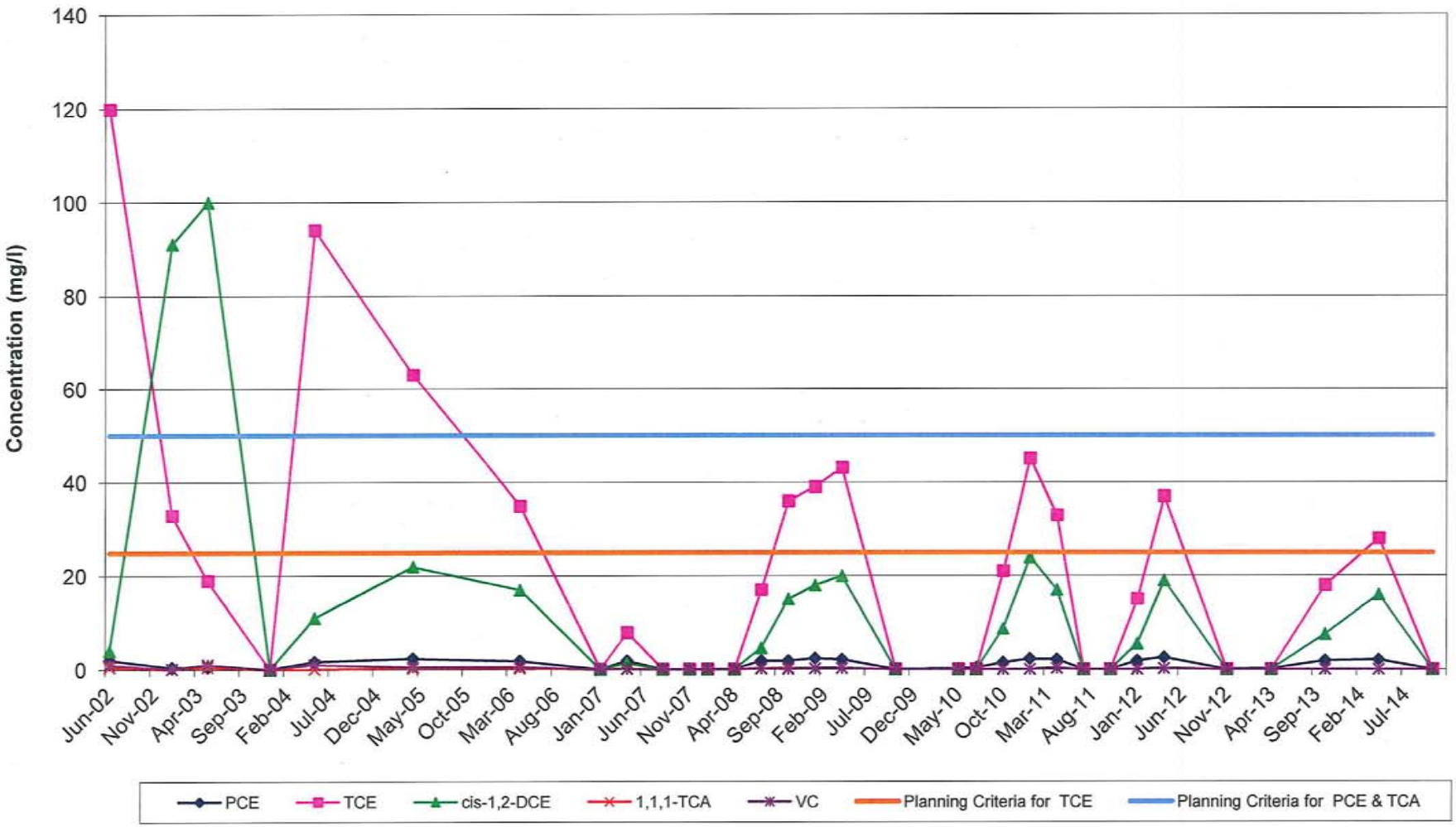
VOC Trends in Well OB-10-BR
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-10-BR is a bedrock well adjacent to Building 4 where permanganate injection was completed in 2010. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

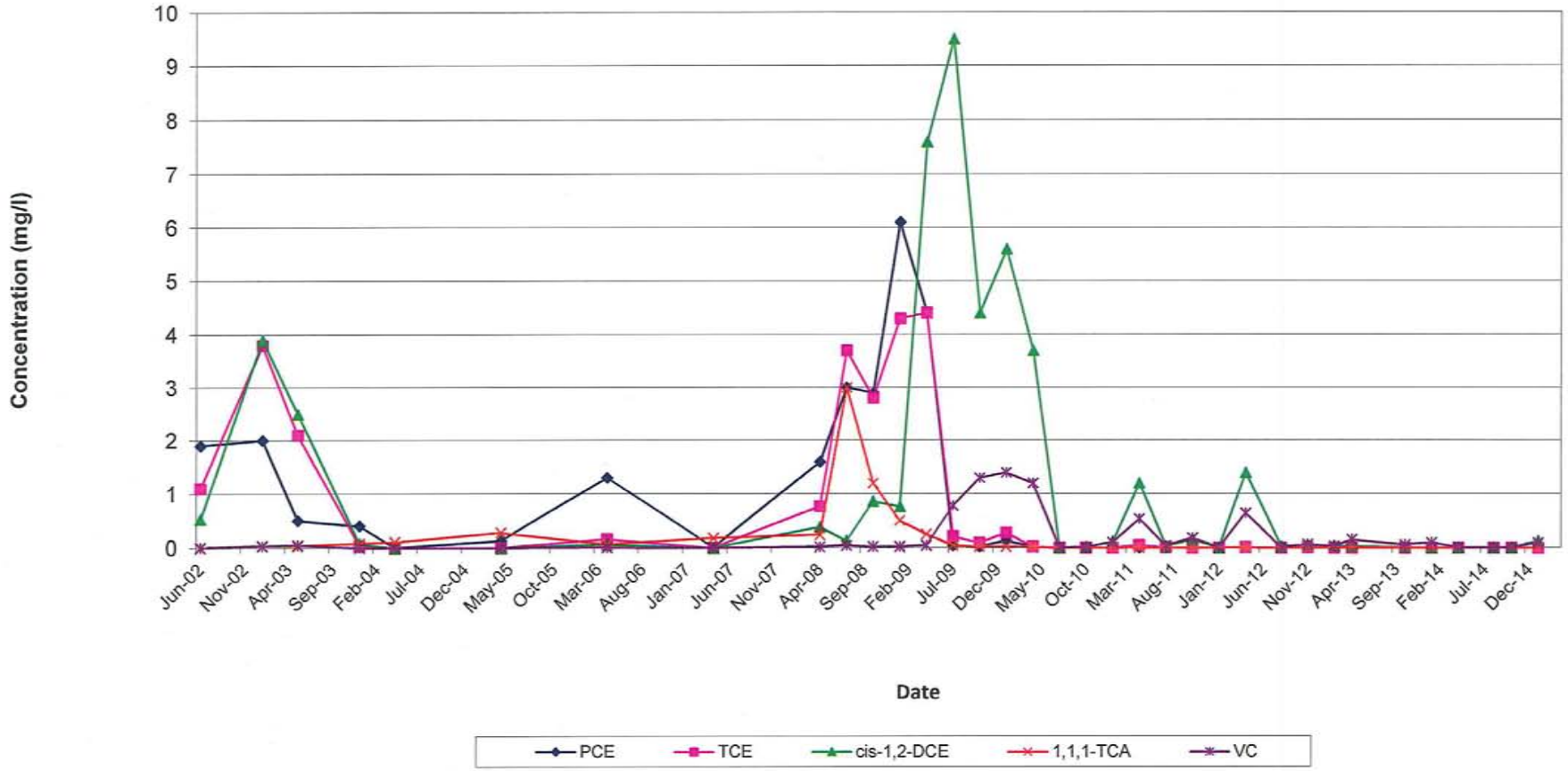
VOC Trends in Well OB-12-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-12-DO is a deep overburden well north of Building 3 where permanganate injection was completed 2003-2007, 2009, 2011, 2012, and 2014. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

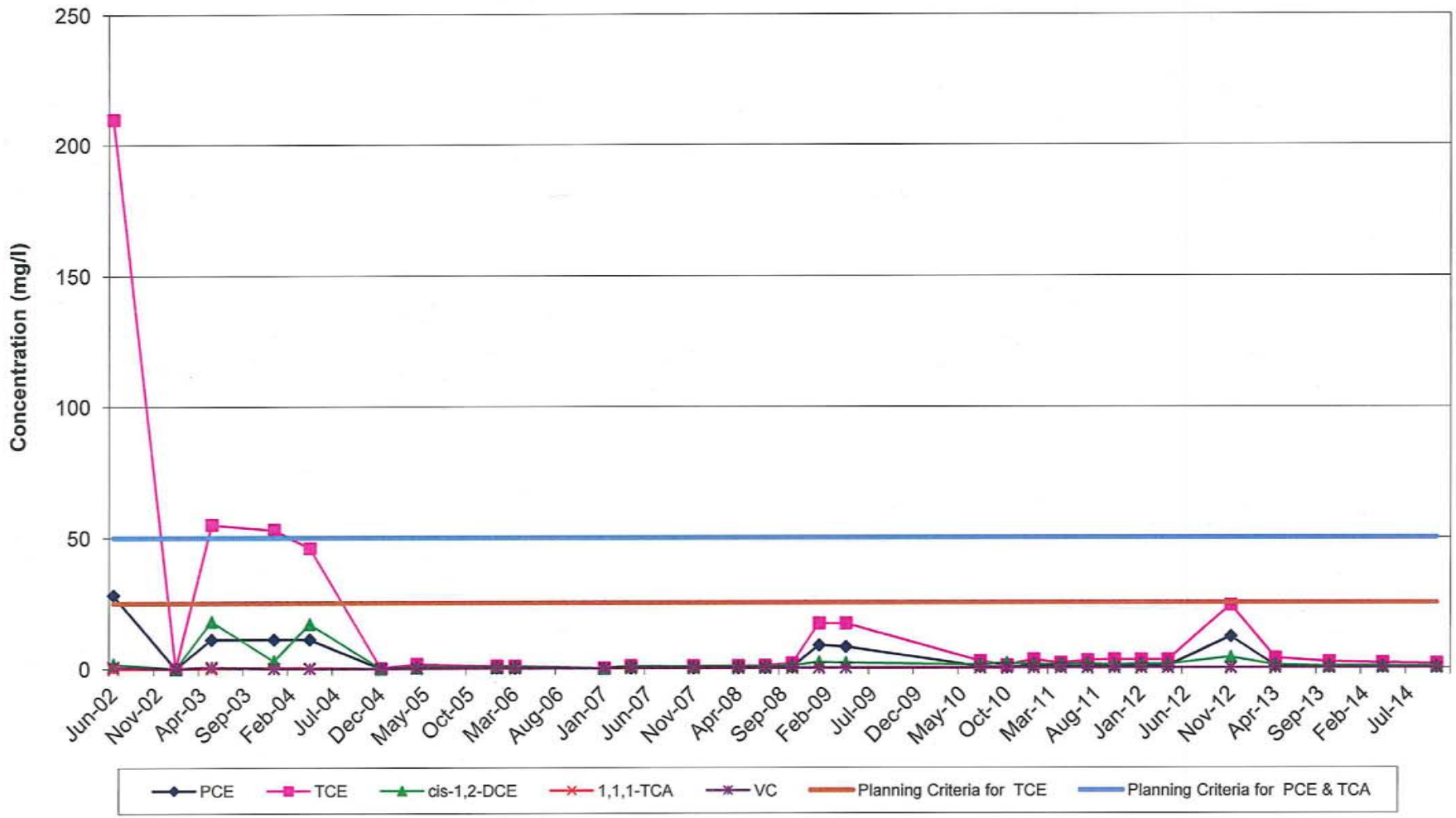
VOC Trends in Well OB-15-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB15-S is a shallow well northeast of Building 9 where bio-injection was conducted in 2009 through 2012.
See end of appendix for additional notes.

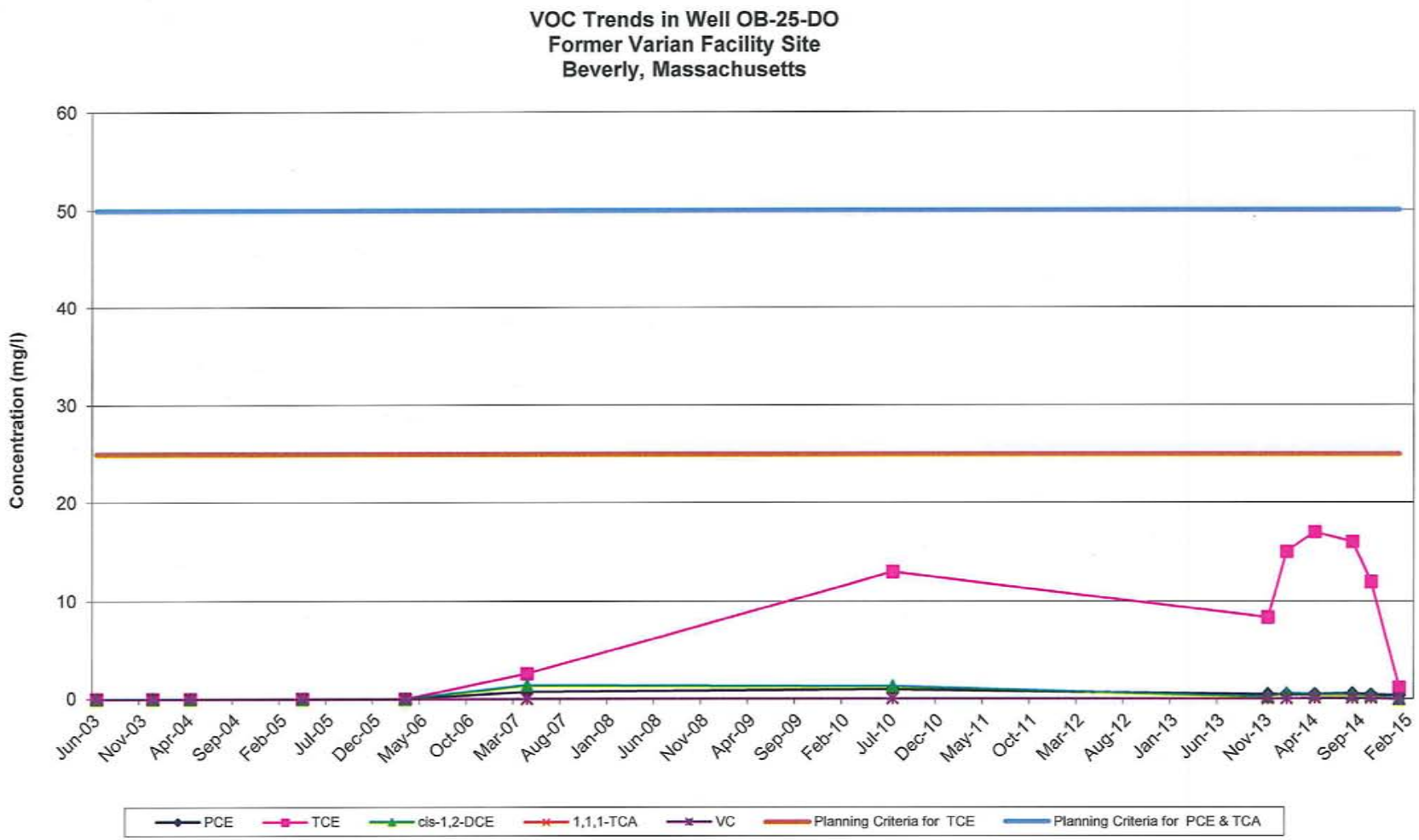
P:\Varian\Draft\Reports\Status\April 2015 ROS\Append D graphs\Graphs - VOC_OB Jan2015.xlsx

VOC Trends in Well OB-19-DO
Former Varian Facility Site
Beverly, Massachusetts



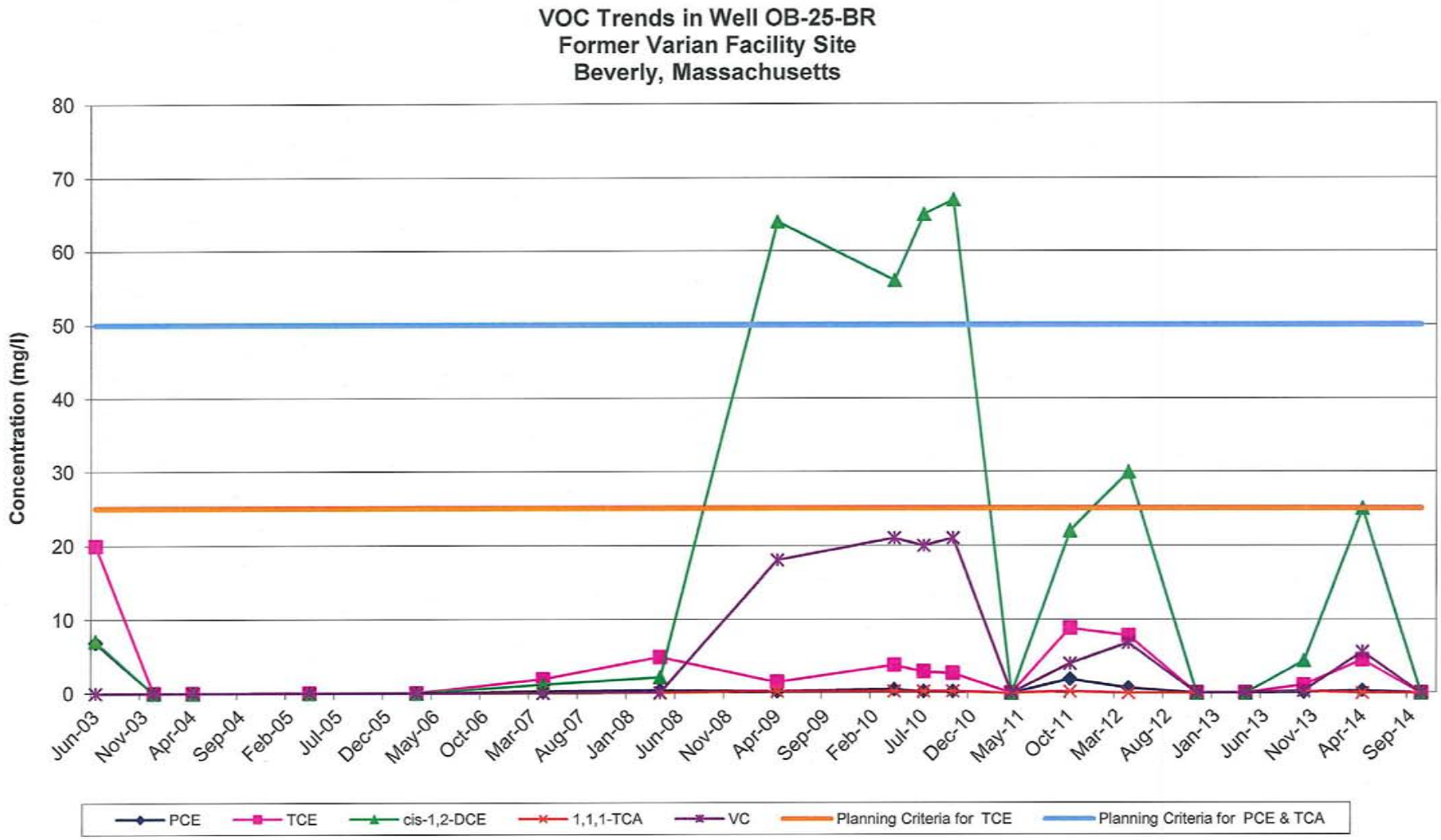
Note: OB-19-DO is a deep overburden well west of Building 2 where permanganate injection was conducted from 2002-2005. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx



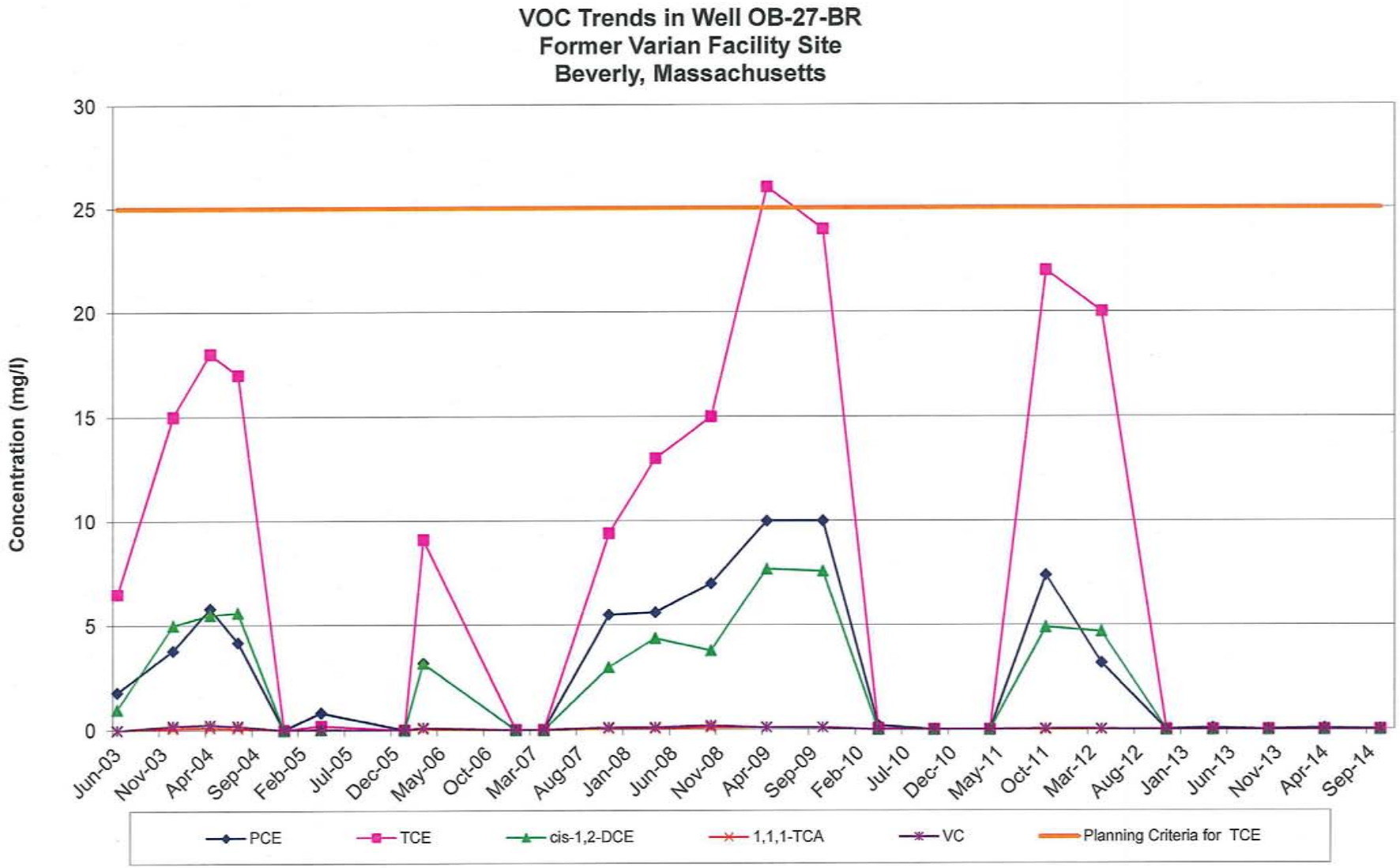
Notes: OB-25-DO is a deep overburden well located just west of Building 1.
See appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2015 Jan gw data\Graphs - VOC_OB Jan2015.xlsx



Notes: OB-25-BR is a bedrock well located just west of Building 1 where permanganate injection was conducted in 2003, 2010, and 2014. See end of appendix for additional notes.

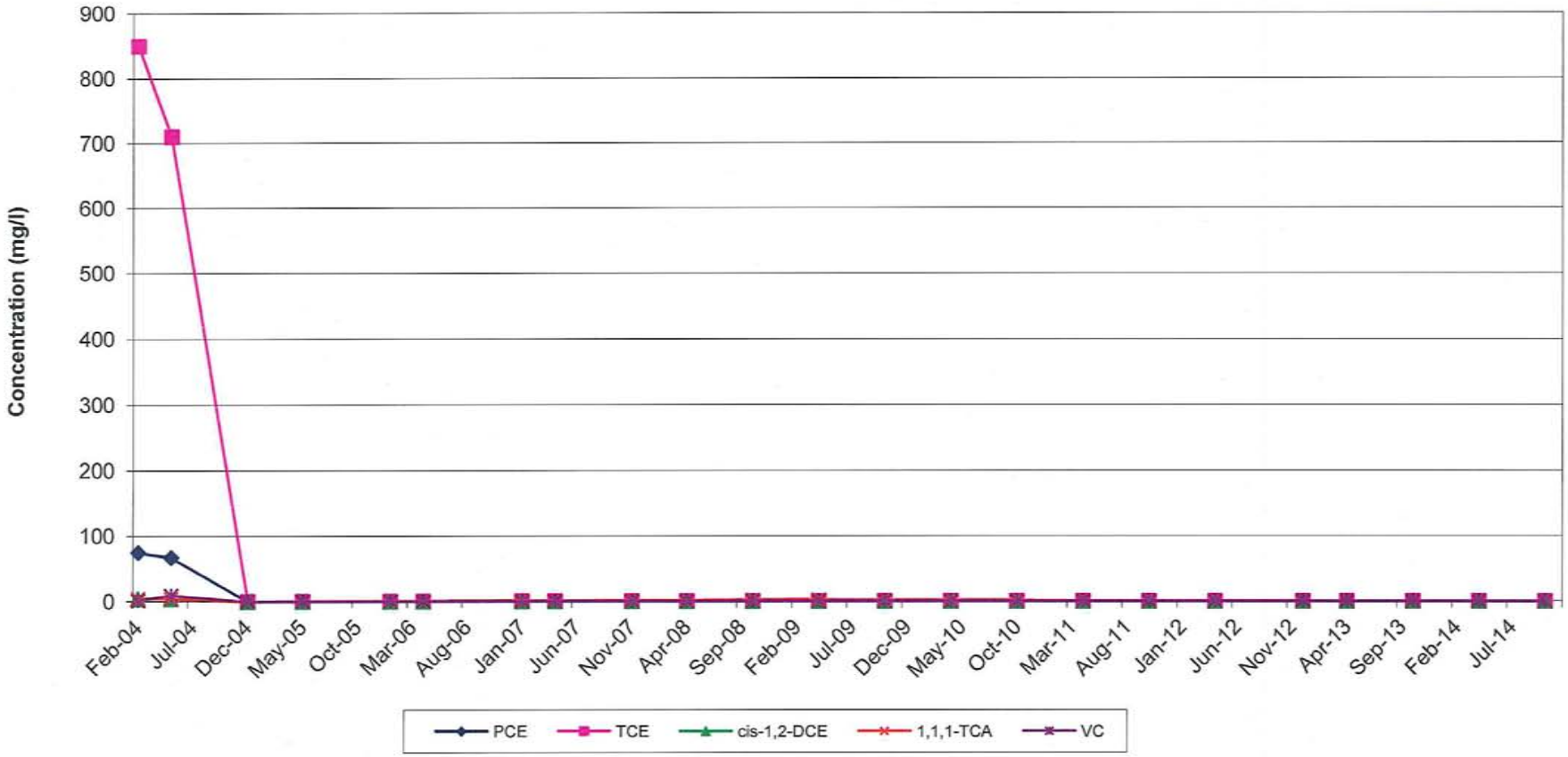
P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_OB Jan2015.xlsx



Notes: OB-27-BR is a bedrock well located west of Building 7.
Permanganate injection conducted in 2004-2007 and in 2010-2011.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_OB Jan2015.xlsx

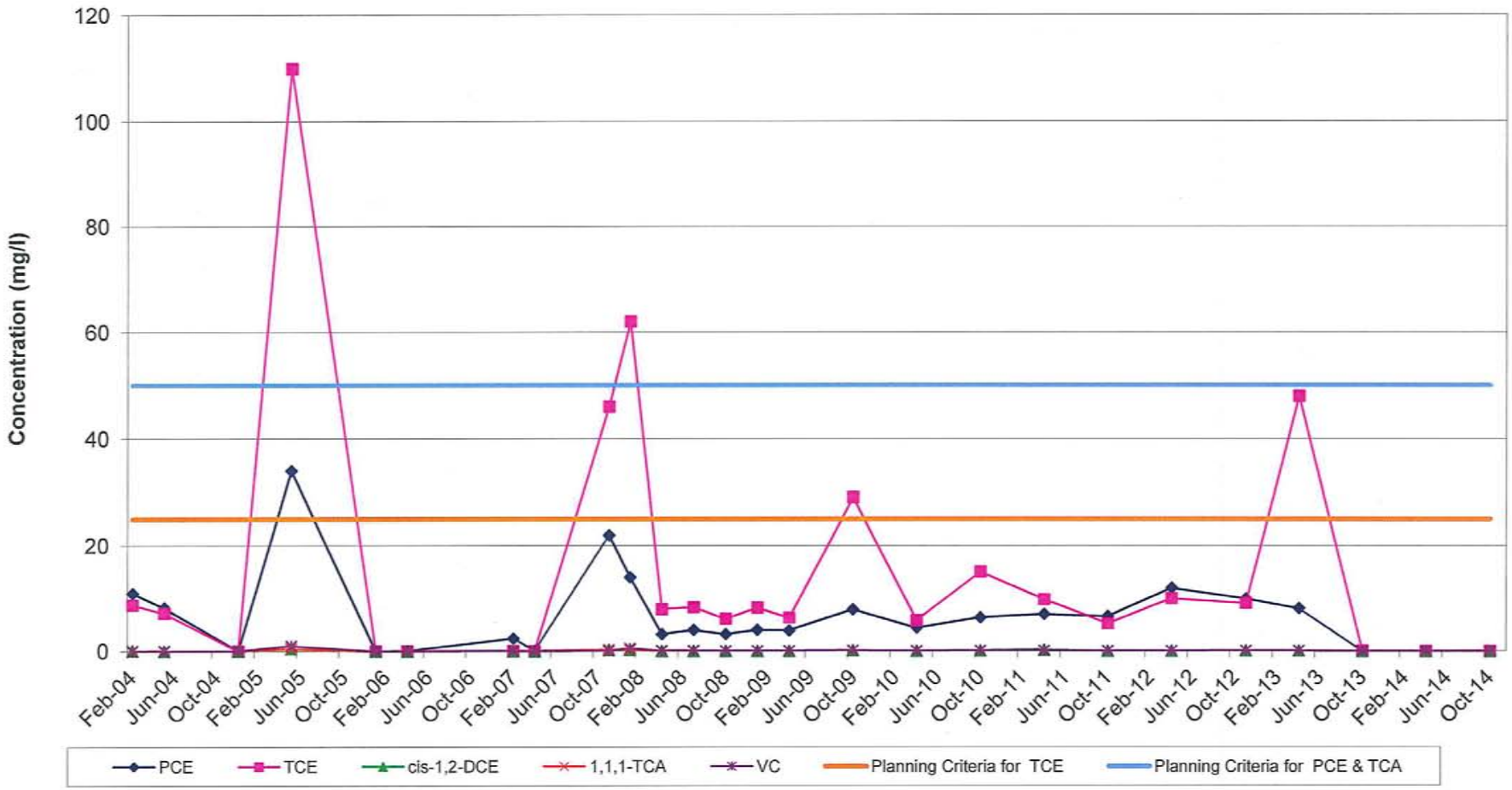
VOC Trends in Well OB-32-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-32-DO is a deep overburden well north of Building 3
where permanganate injection was conducted in 2004.
See end of appendix for additional notes.

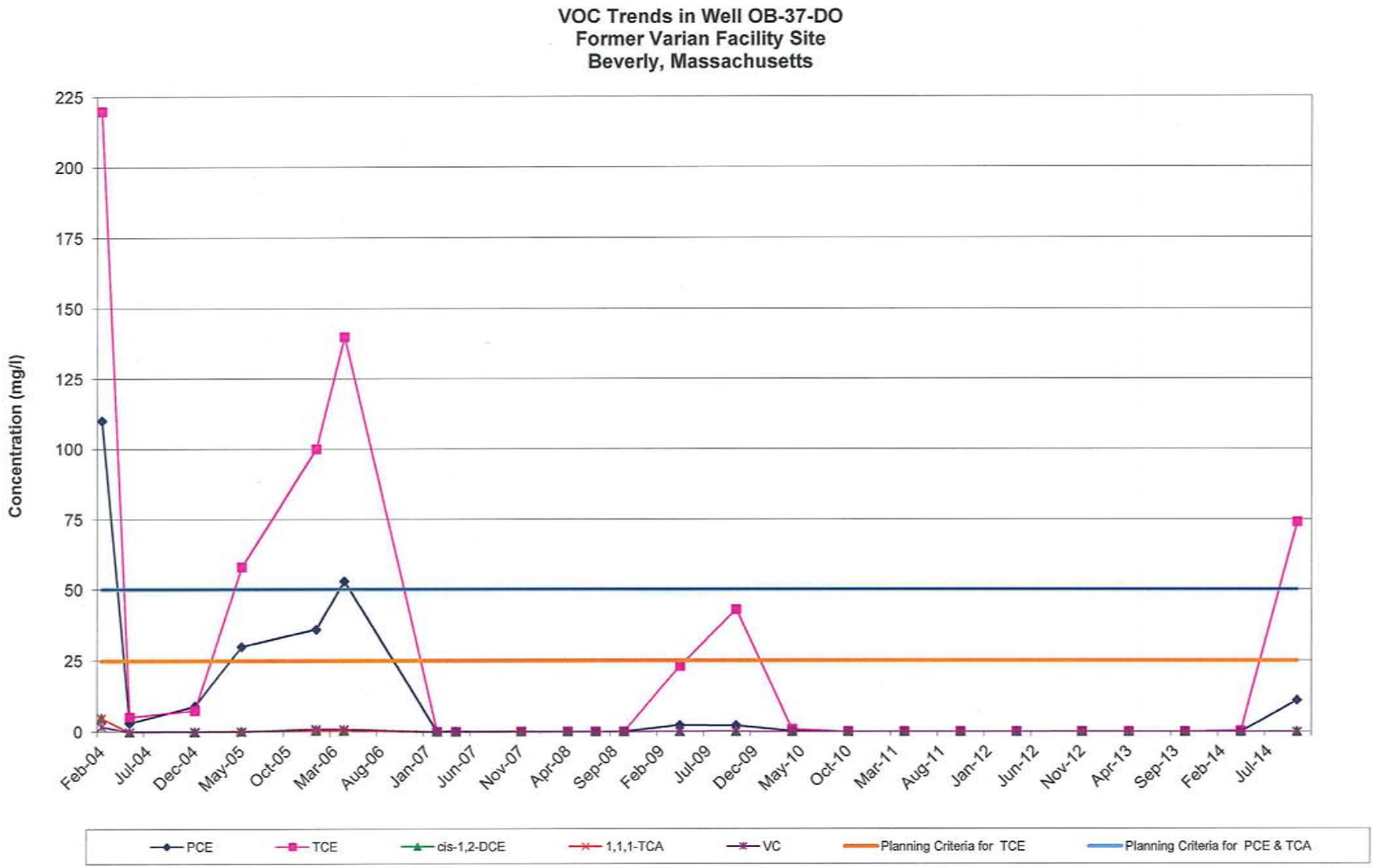
P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_OB Jan2015.xlsx

VOC Trends in Well OB-36-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-36-DO is a deep overburden well inside the Building 6 loading dock where permanganate injection was conducted in 2004-2005 and 2013. See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_OB Jan2015.xlsx



Notes: OB37-DO is a deep overburden well inside Building 6.
Permanganate injection conducted in 2006, 2007, 2010-2011 and 2015.
See end of appendix for additional notes.

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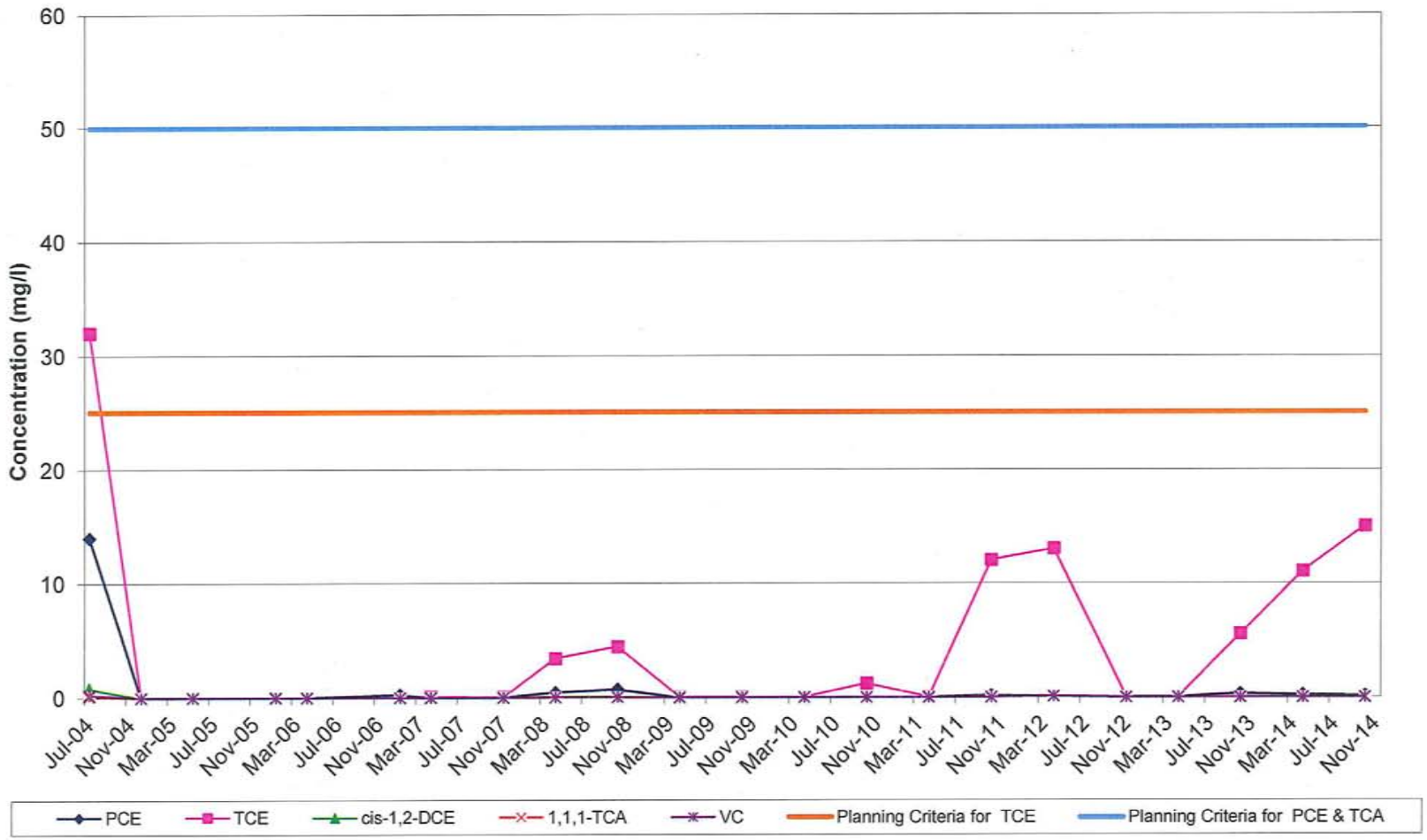
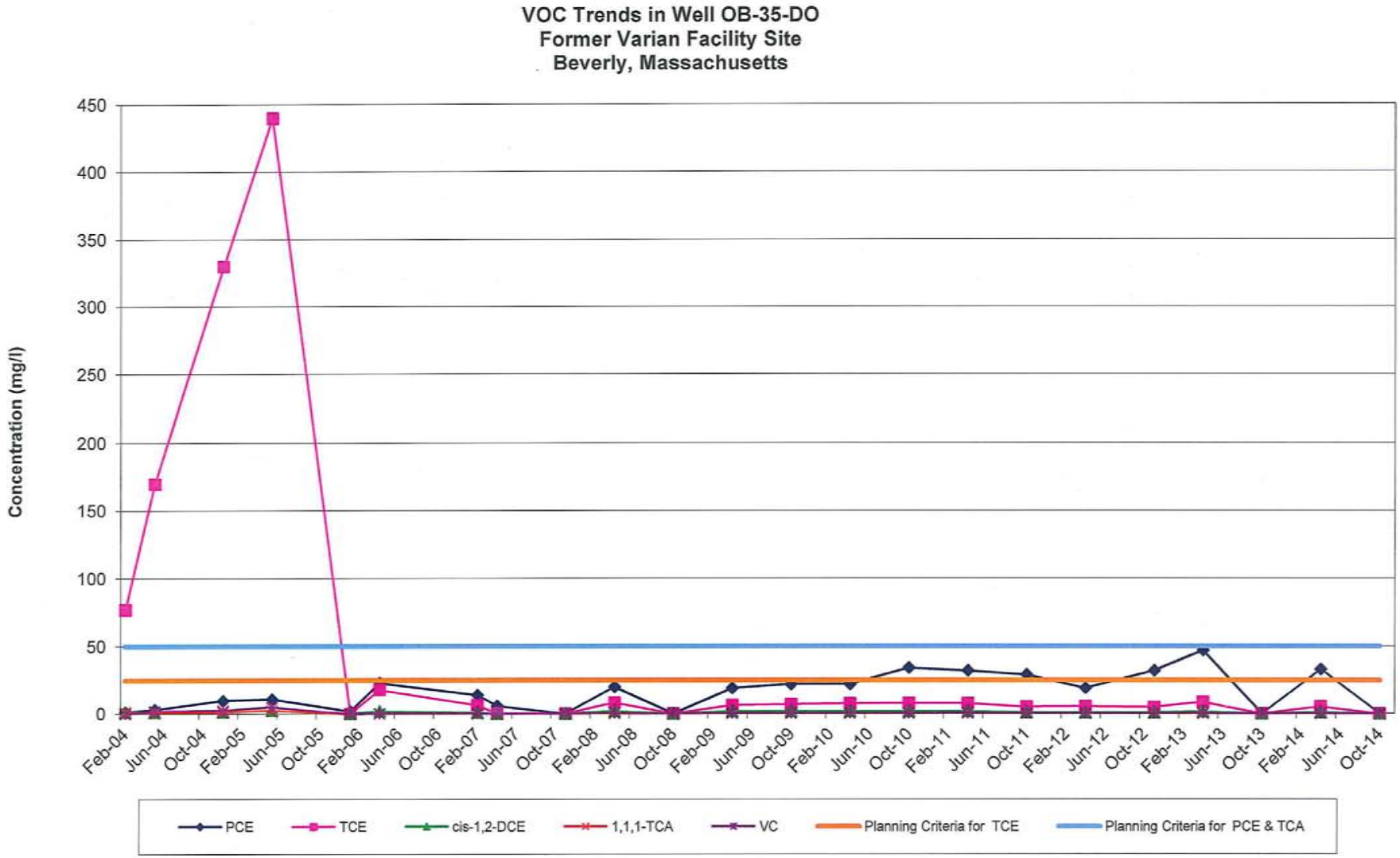
BUILDING 5 TREATMENT AREA

VOC Trends in Well AP-27-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: AP-27-DO is a deep overburden well east of Building 5 where permanganate injection was conducted in 2004, 2005 and 2012.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

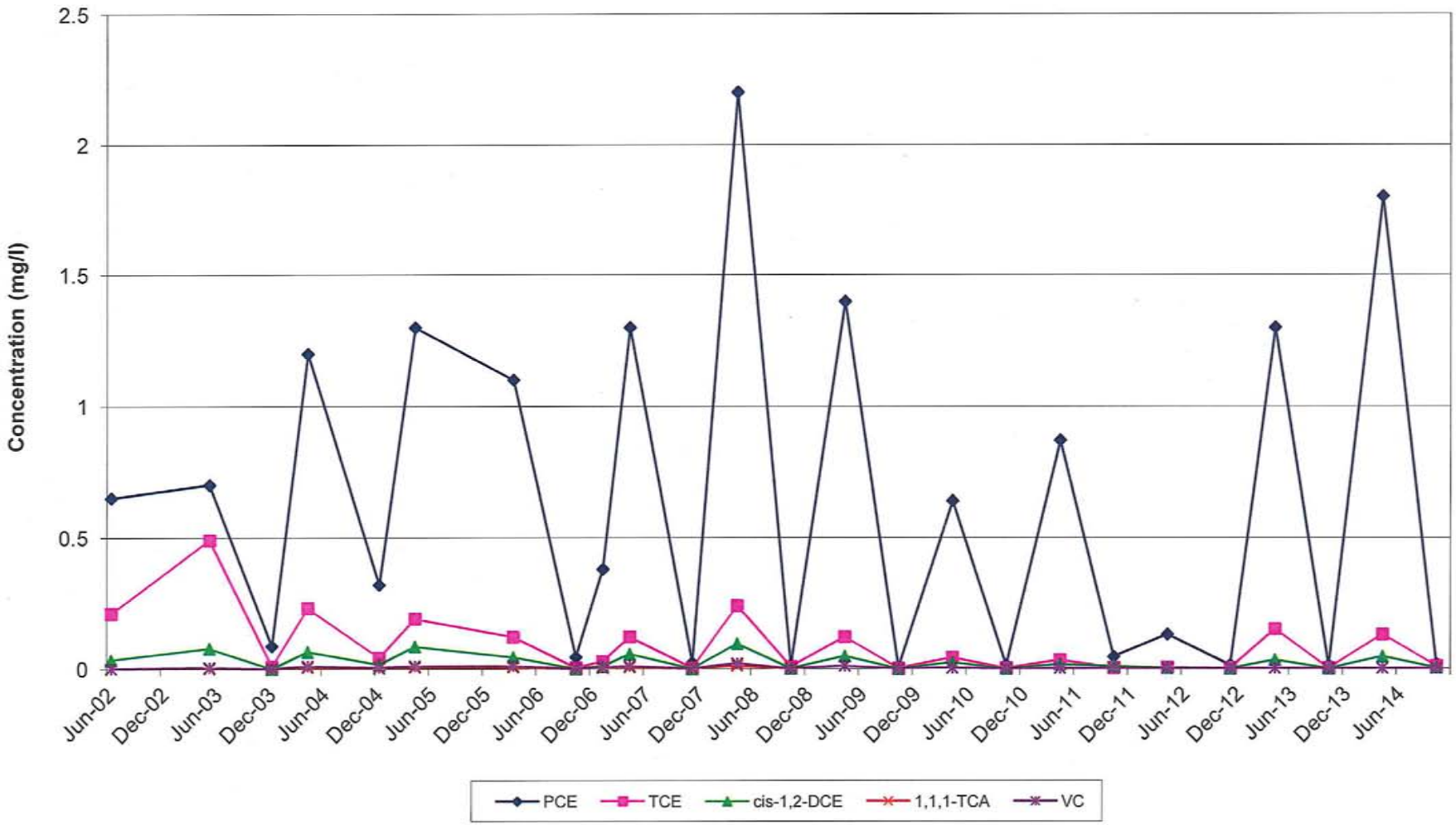


Note: OB-35-DO is a deep overburden well inside Building 5,
where permanganate injection was conducted from 2005-2008 and 2011-2014.
See end of appendix for additional notes.

P:\Varian\Draft\Reports\Status\April 2015 ROS\append D graphs\Graphs - VOC_OB Jan2015.xlsx

PSL 10 TREATMENT AREA

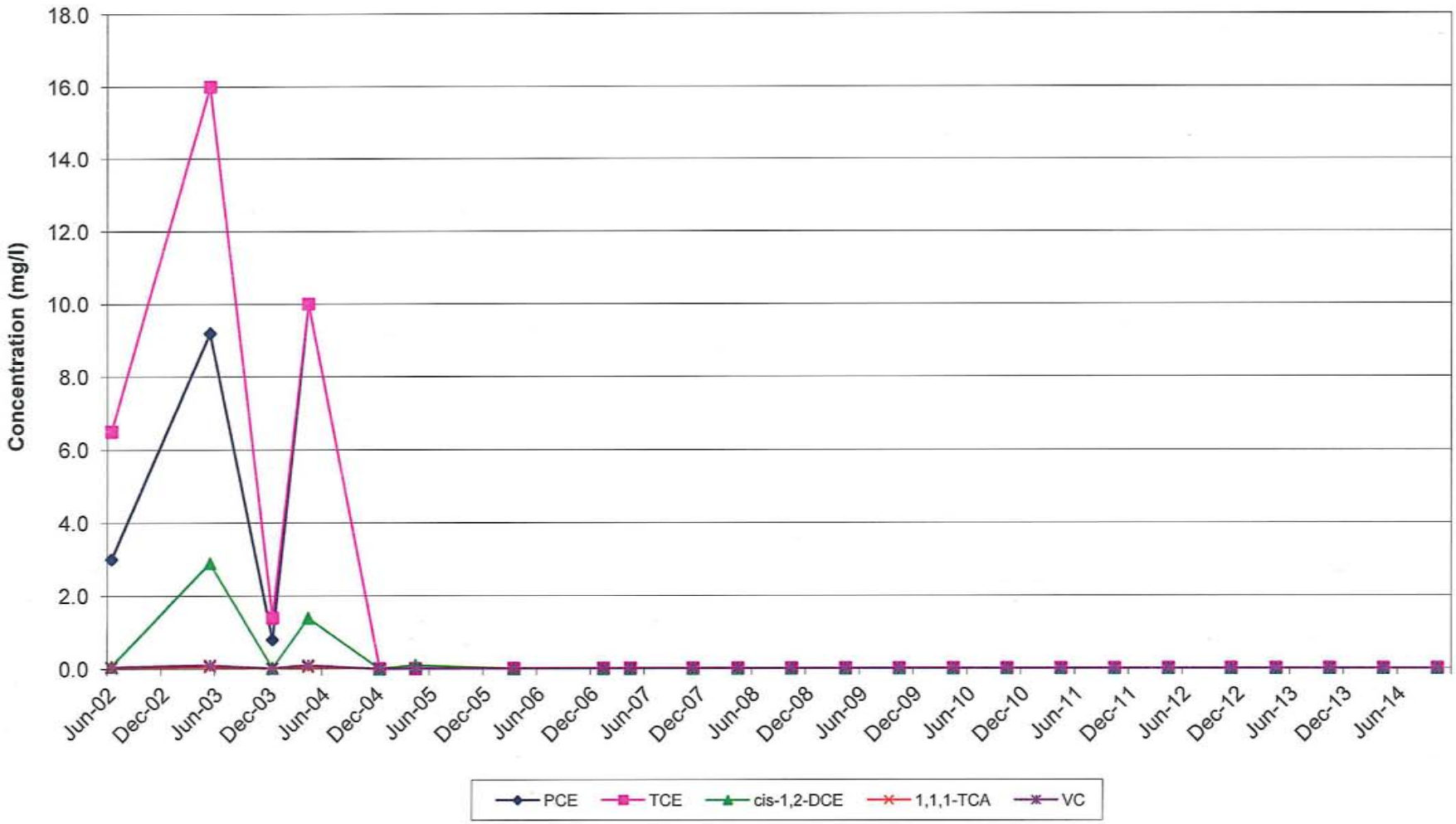
VOC Trends in Well CL10-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL10-S is a shallow overburden well located in the PSL10 treatment area, south of the facility. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

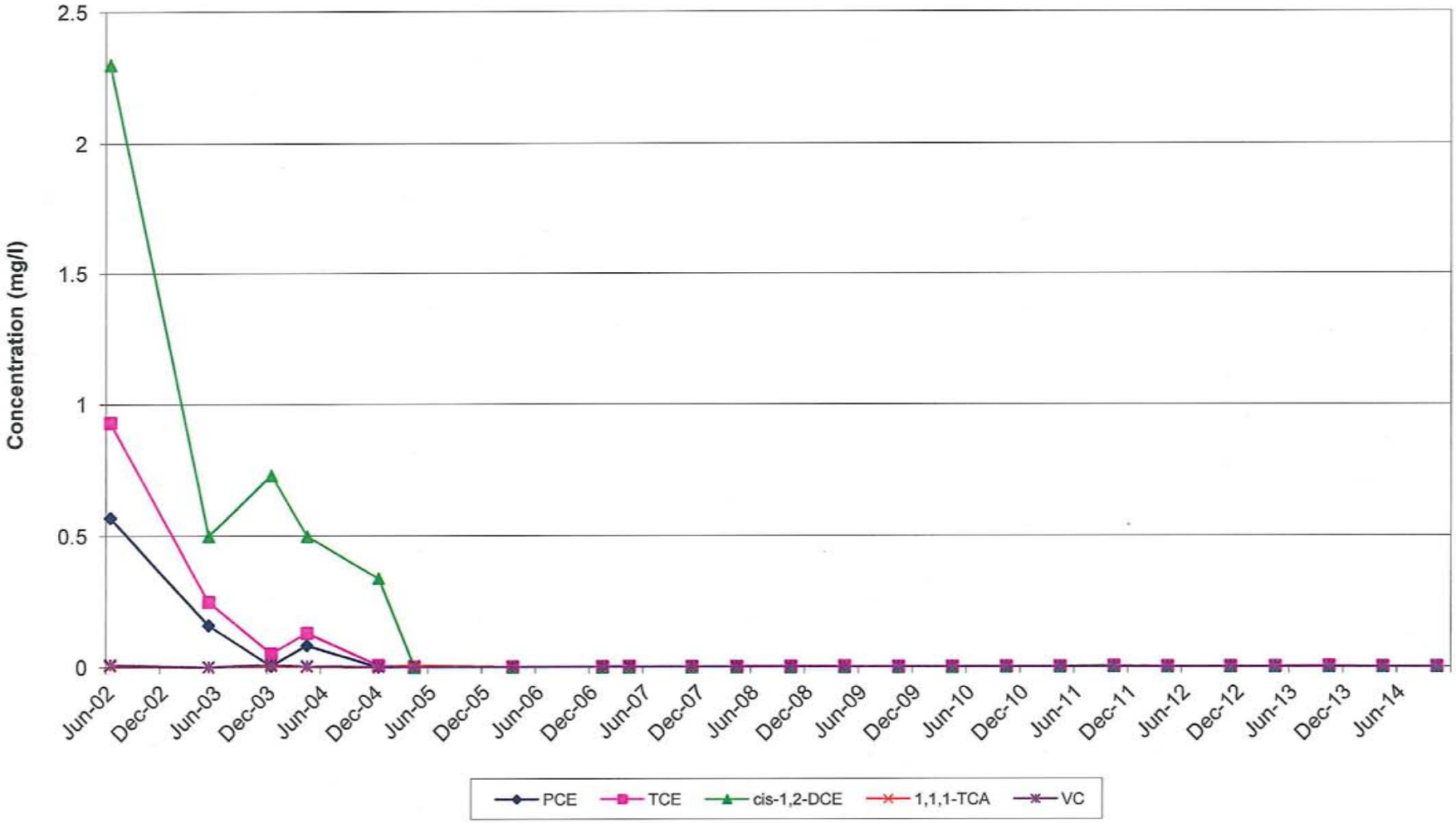
VOC Trends in Well CL10-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL10-DO is a deep overburden well located in the PSL10 treatment area, south of the facility. See end of appendix for additional notes.

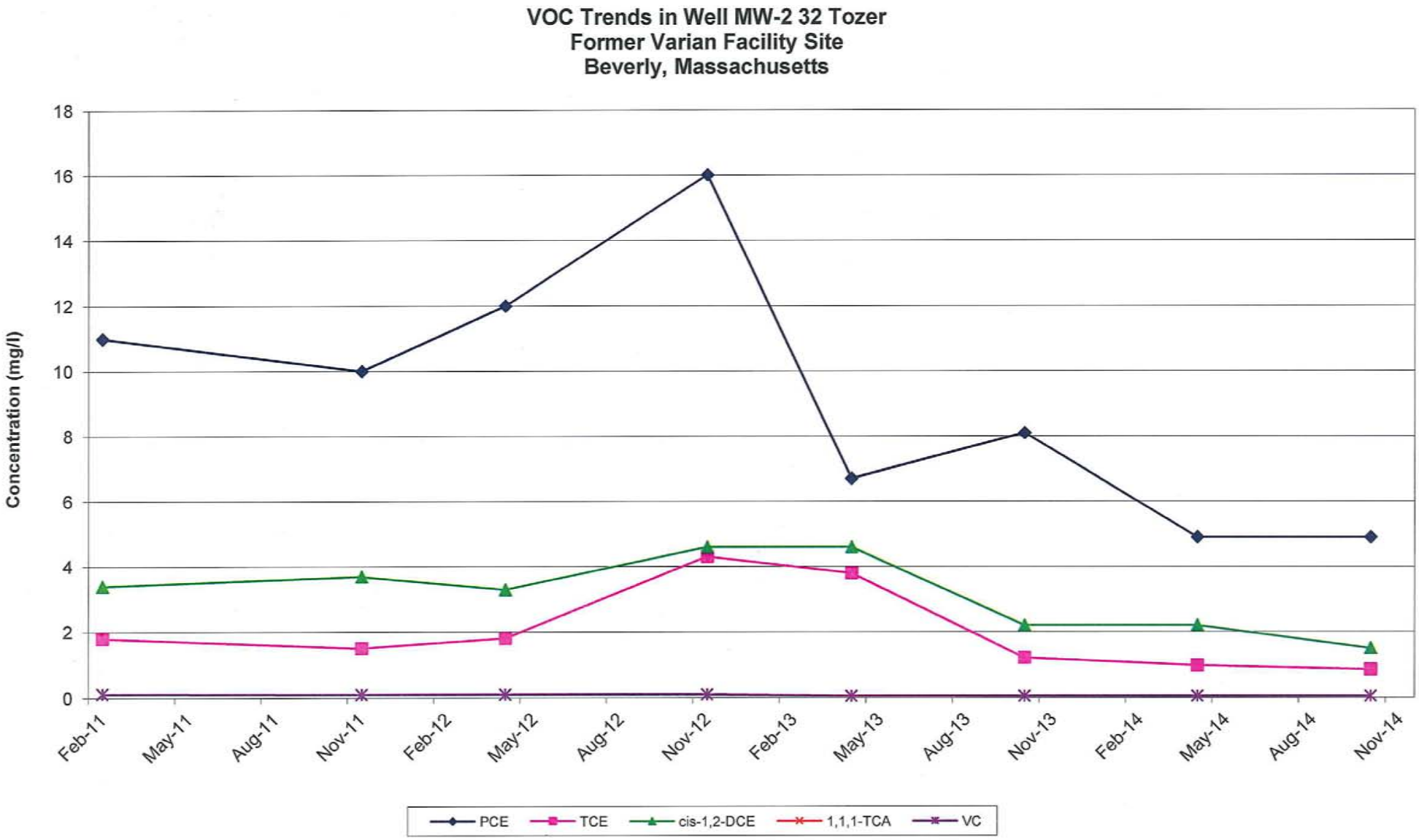
P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

VOC Trends in Well CL10-BR
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL10-BR is a bedrock well located in the PSL10 treatment area, south of the facility. See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

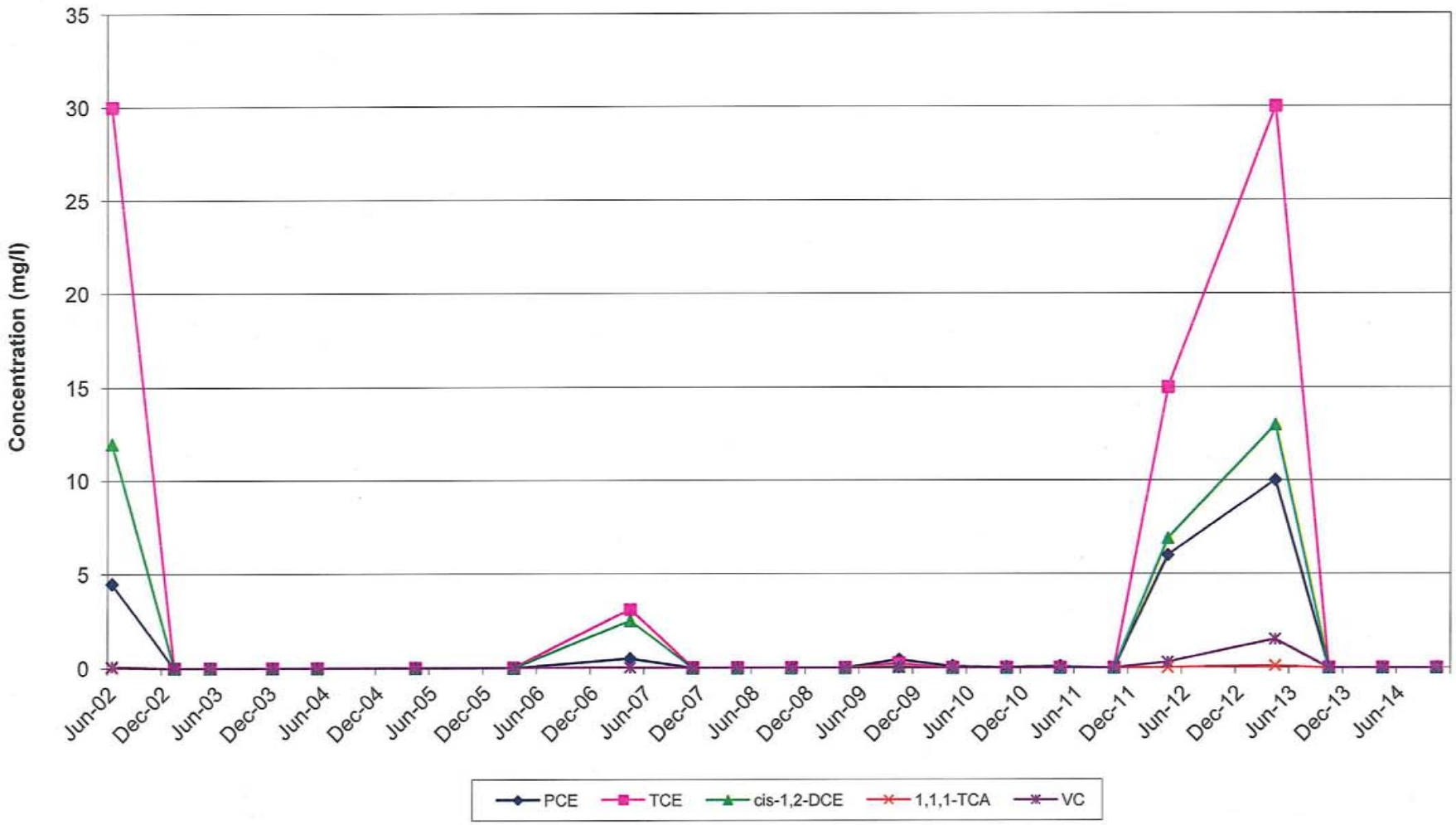


Note: MW-2 32 Tozer is a deep overburden well located east of the 32 Tozer Road building.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

TOZER ROAD TREATMENT AREA SOUTH OF ROUTE 128

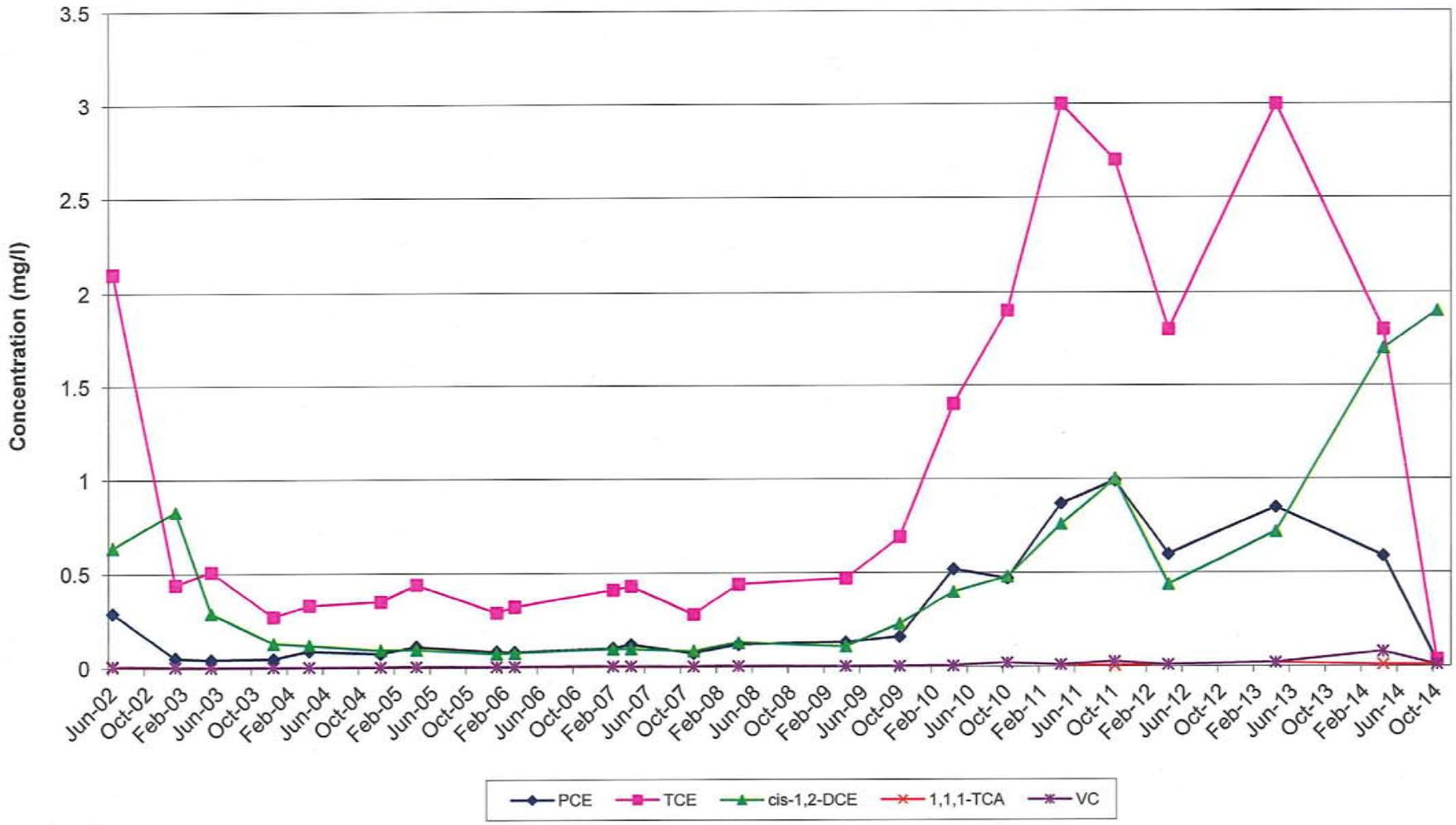
VOC Trends in Well CL03-DO
Former Varian Facility Site
Beverly, Massachusetts



Notes: CL3-DO is a deep overburden well located at 28 Tozer Road.
Where permanagante injections were conducted in 2002 and 2013.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

VOC Trends in Well OB-05-DO
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-5-DO is a deep overburden well south of the 28 Tozer Road treatment area.
See end of appendix for additional notes.

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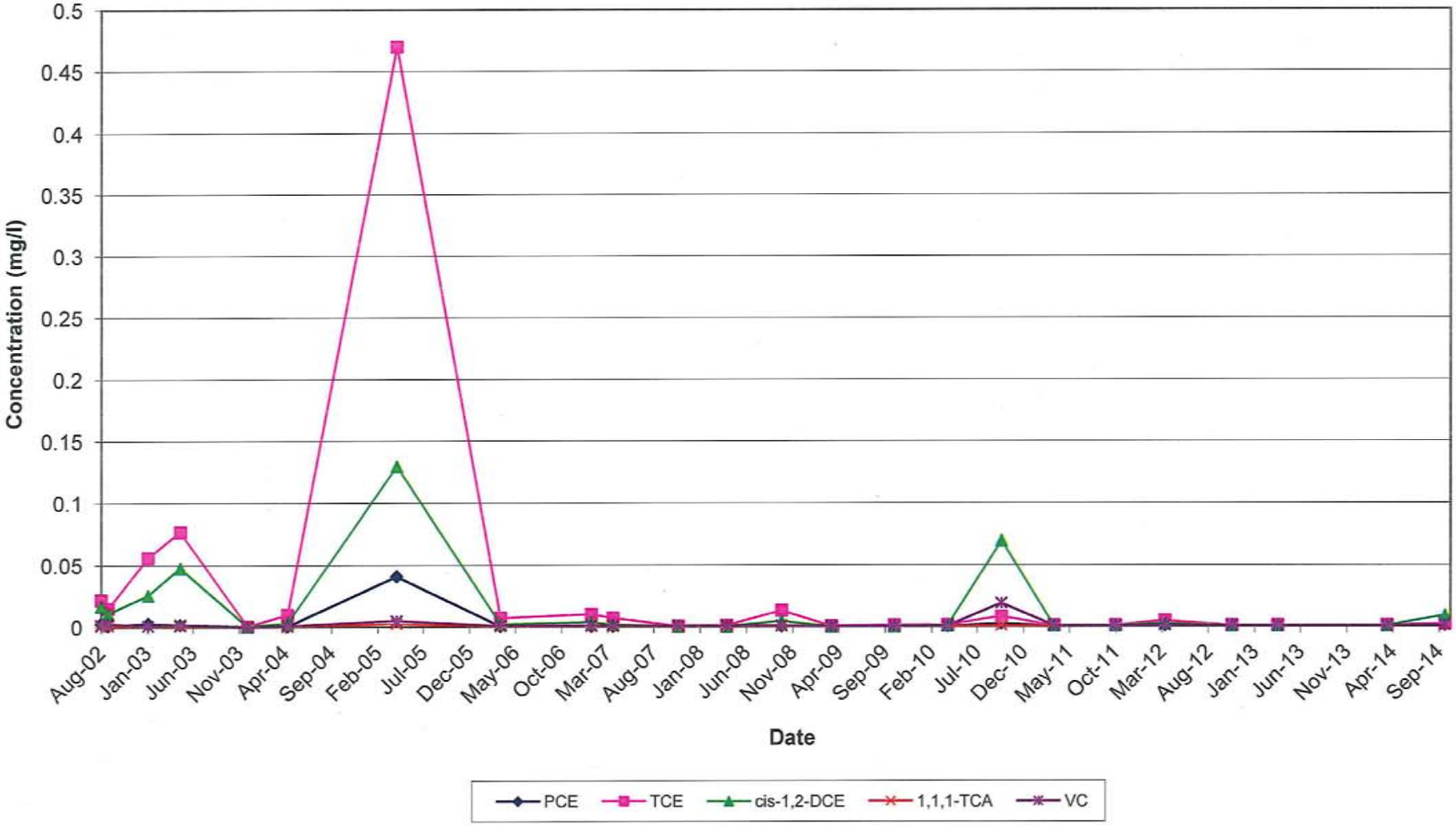
31 TOZER ROAD TREATMENT AREA

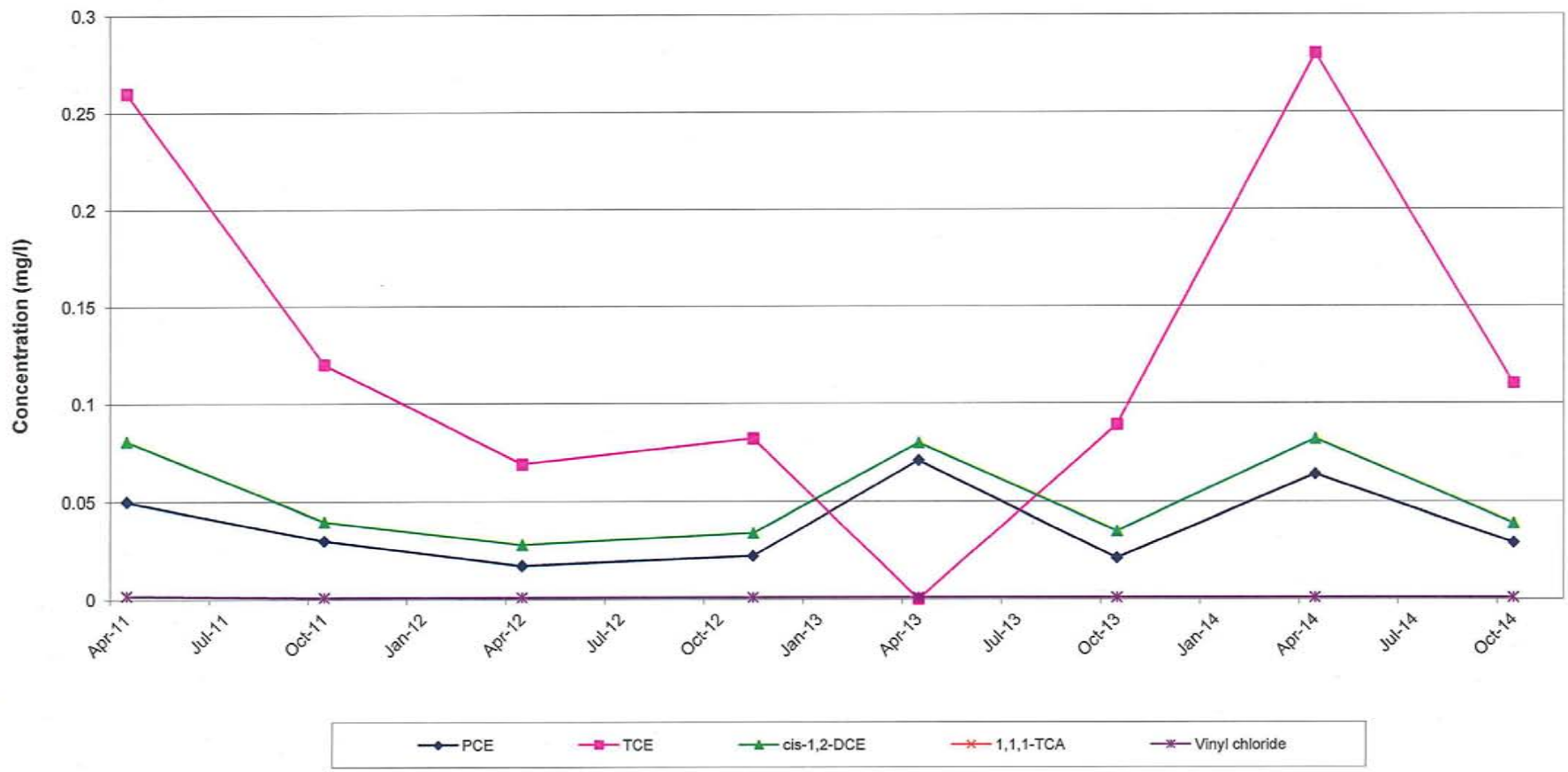
VOC Trends in Well OB-18-S
Former Varian Facility Site
Beverly, Massachusetts



Note: OB-18-S is a shallow overburden well
located at 31 Tozer Road.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

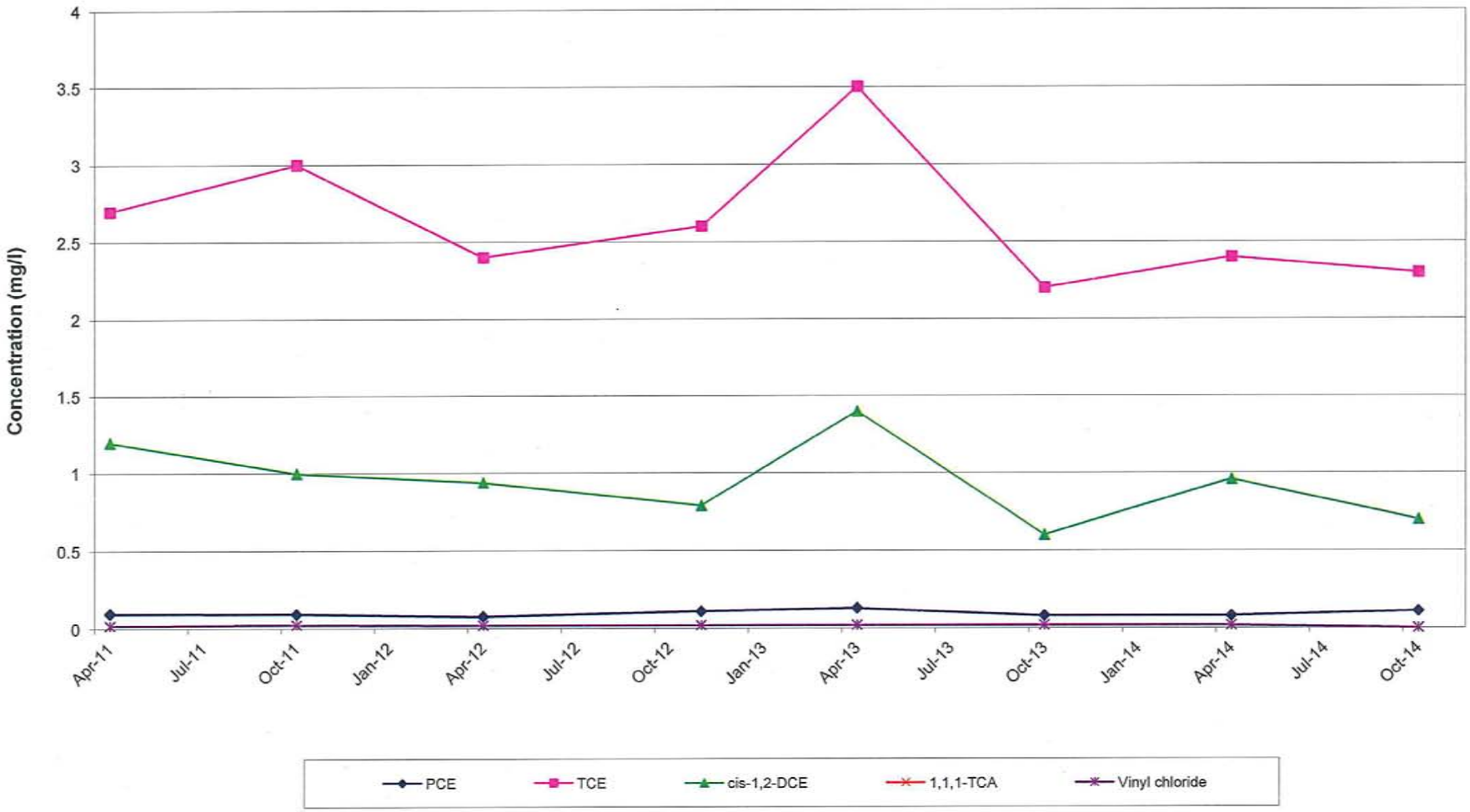
VOC Trends in Well OB-41-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB-41-S is a shallow well located at 39 Tozer Road.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

VOC Trends in Well OB-42-S
Former Varian Facility Site
Beverly, Massachusetts



Notes: OB-42-S is a shallow well located at 30 Tozer Road.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx

VOC Trends in Well OB-43-S
Former Varian Facility Site
Beverly, Massachusetts

Notes: OB-43-S is a shallow well located at 27 Tozer Road.
See end of appendix for additional notes.

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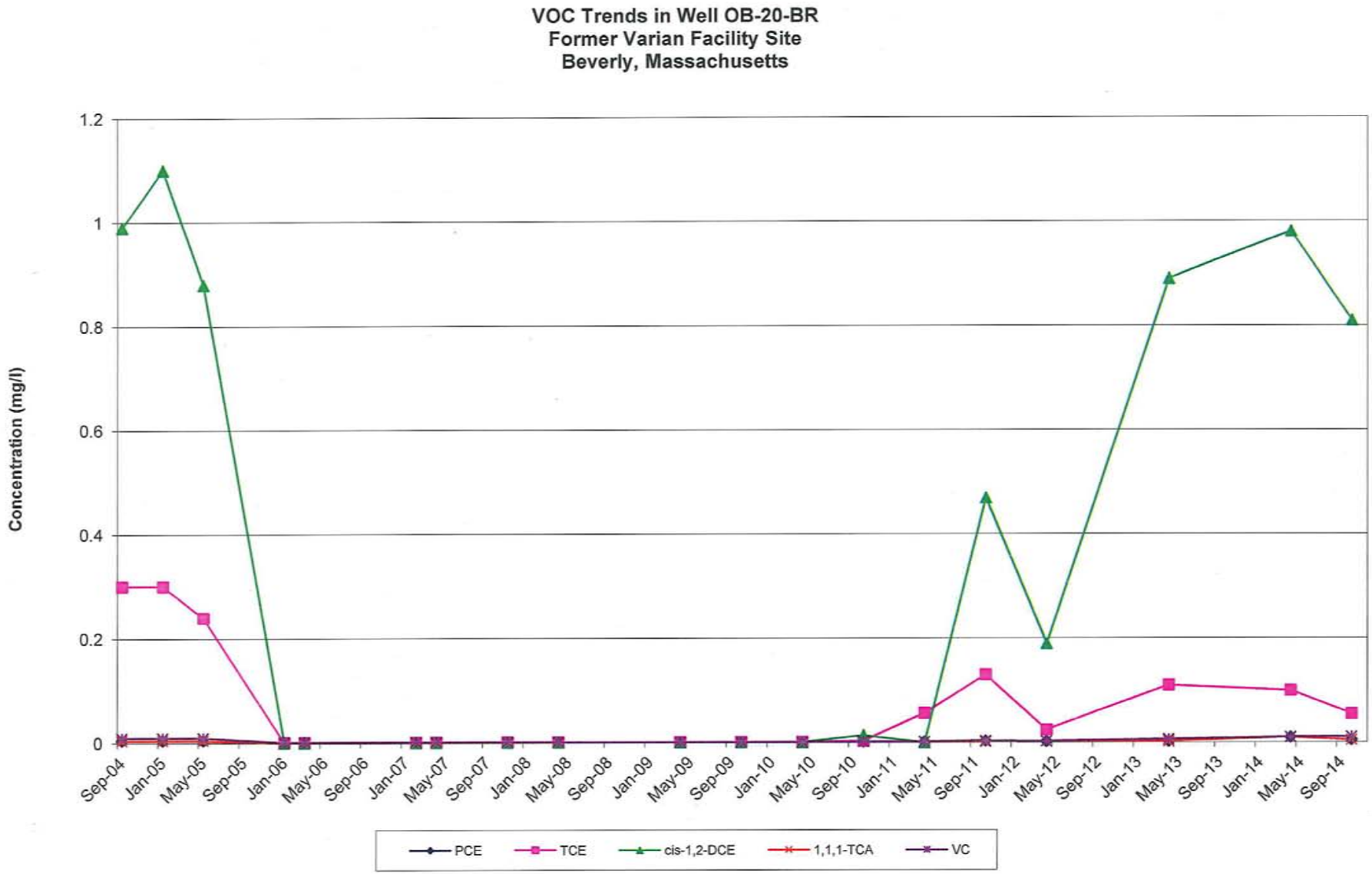
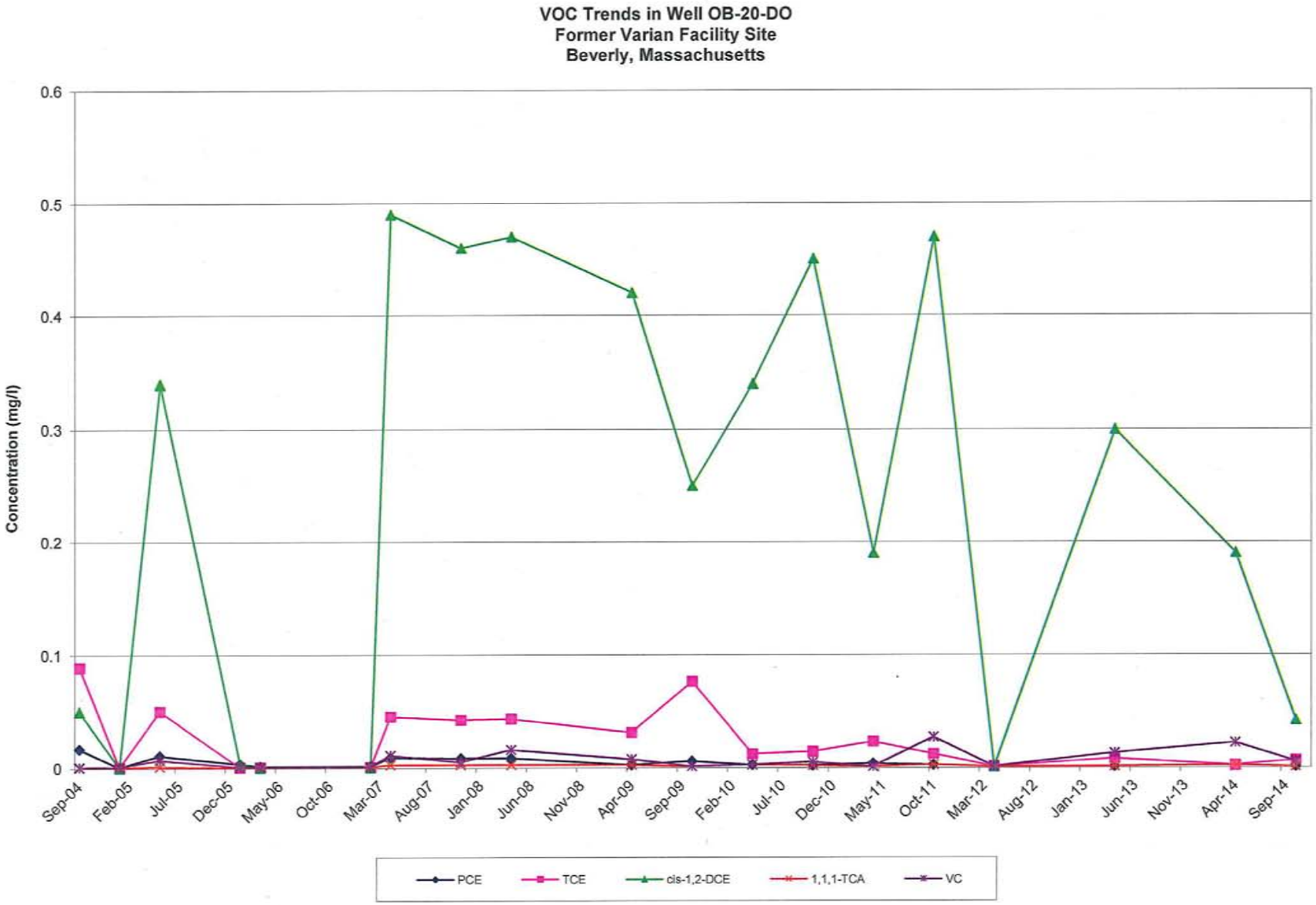
LONGVIEW/HILL STREET TREATMENT AREA



Note: OB-20-BR is a bedrock well south of Sonning Road in the Longview/Hill Street treatment area.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_OB Oct2014.xlsx



Notes: OB-20-DO is a deep overburden well south of Sonning Road in the Longview/HIll Street treatment area.
See end of appendix for additional notes.

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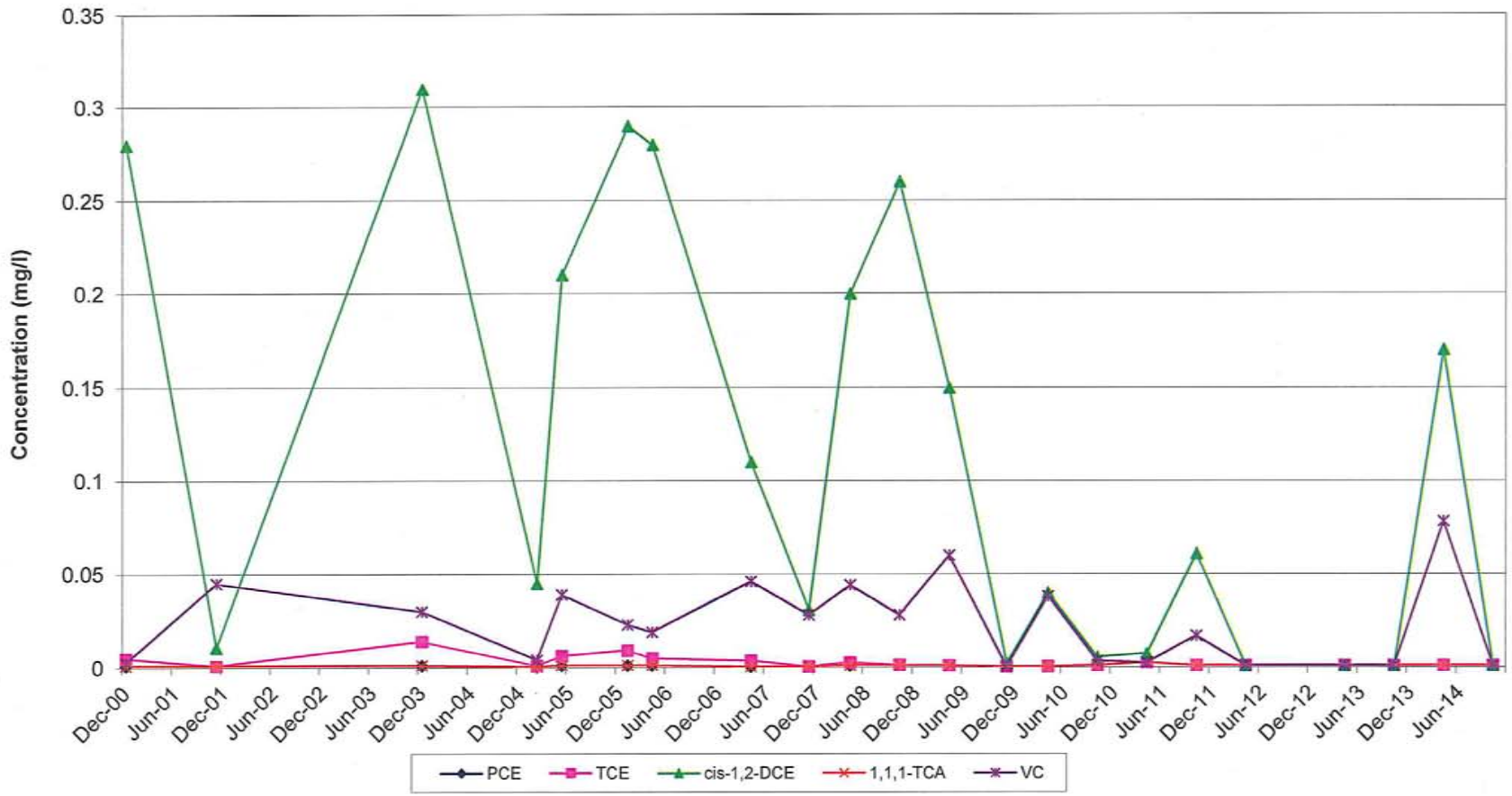
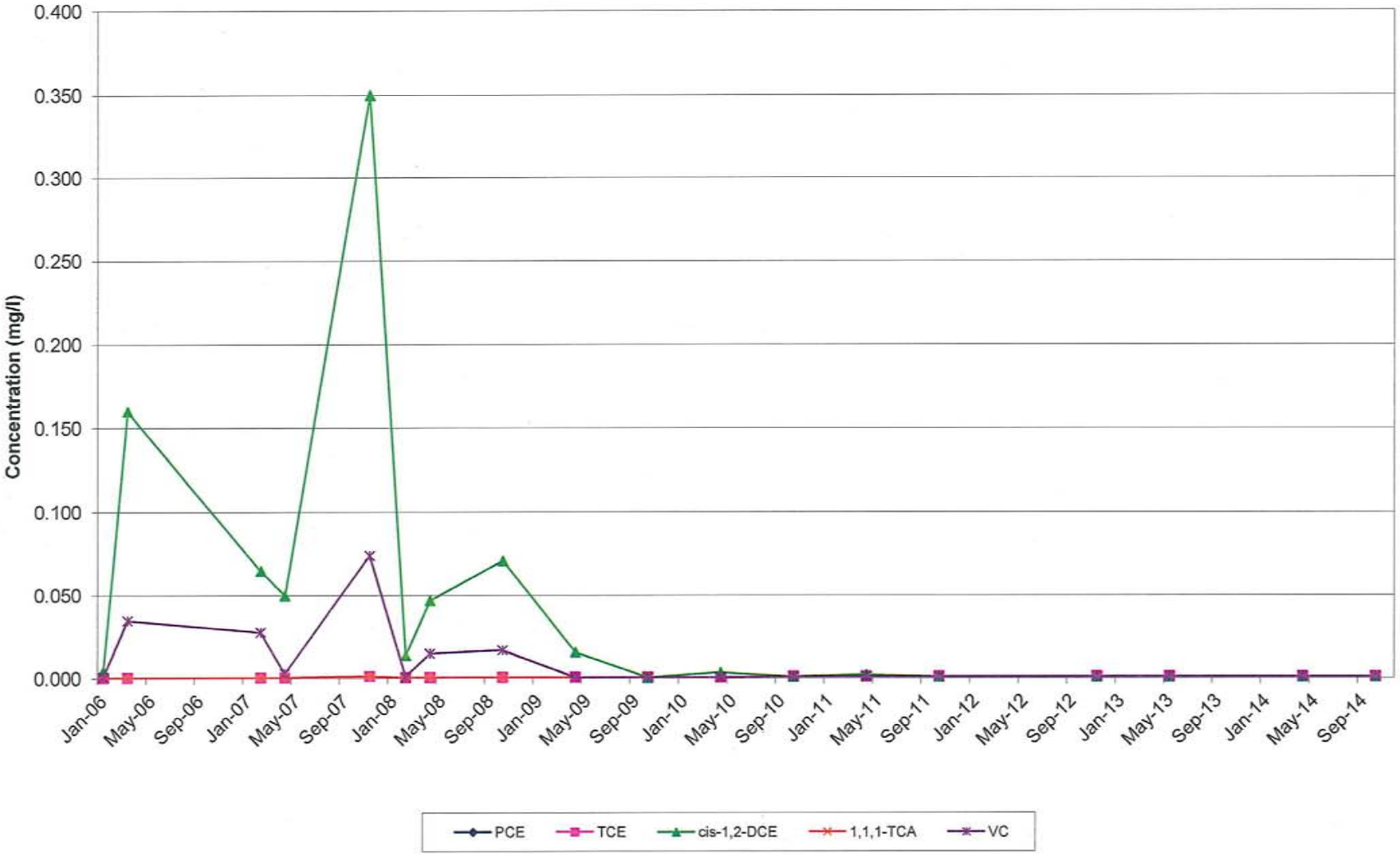
VOC Trends in Well BR-6_ZONE3
Former Varian Facility Site
Beverly, Massachusetts



Notes: BR-6 Zone 3 is the shallowest zone of a bedrock well on Hill Street.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

VOC Trends in Well P-9R
Former Varian Facility Site
Beverly, Massachusetts



Notes: P-9R is a shallow overburden well located on Hill Street.
See end of appendix for additional notes.

P:\Varian\Draft\Data\Groundwater sampling data evaluations\2014 10 Oct gw data\Graphs - VOC_MW-Oct2014.xlsx

APPENDIX E

COPIES OF WASTE MAINFESTS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAD000006234
2. Page 1 of 1
3. Emergency Response Phone: 888-424-9350
4. Manifest Tracking Number: 006197627 FLE

GENERATOR

5. Generator's Name and Mailing Address: Vineyard Medical Systems of CORE, 150 Rogers Street, Lowell, MA 01851
Generator's Site Address (if different than mailing address): Vineyard Medical Systems, Formerly Vineyard Facility, 28 Cambridge Street, Burlington, MA 01803
Generator's Phone: 650-424-6485

6. Transporter 1 Company Name: Horwith Trucks Inc
U.S. EPA ID Number: PAD146714674

7. Transporter 2 Company Name:
U.S. EPA ID Number:

8. Designated Facility Name and Site Address: Evergreen Waste Solutions LLC, 2633 Mountain Street
U.S. EPA ID Number:
Facility's Phone:

9a. HM	9b. U.S. DOT Description (Including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3077, Hazardous Waste Solids (Sorbents), 9, PG III	22	DM	15400	P	F002
	2.					
	3.					
	4.					

14. Special Handling Instructions and Additional Information
(150) Spent Vapor Carbon
Profile VA1382241-2 Expiration

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Raymond J. Cabrielle Agent for VMS
Signature:
Month 10 Day 23 Year 14

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Carl Whites
Signature:
Month 10 Day 23 Year 14
Transporter 2 Printed/Typed Name:
Signature:
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number:
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Signature: Month Day Year

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. GENERATOR'S INITIAL COPY

734386

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: MAR000006734
2. Page 1 of: 2
3. Emergency Response Phone: (877) 618-0087
4. Manifest Tracking Number: 000866960 VES

5. Generator's Name and Mailing Address: VARIAN MEDICAL SYSTEMS C/O CB&I ATTN: RAY CADORETTE 150 ROYALL STREET CANTON, MA 02021
Generator's Phone: 617 589-6102

Generator's Site Address (if different than mailing address): VARIAN MEDICAL SYSTEMS, INC 150 SOHIER ROAD - TRTMENT FAC. BEVERLY, MA 01915

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name: ~~FREEHOLD CARTAGE INC~~ & SJ Transportation Co Inc — U.S. EPA ID Number: ~~NJD981241644~~ MSD987162996

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS HIGHWAY 73 3.5 MILES W. OF TAYLOR'S BAYOU PORT ARTHUR, TX 77640
Facility's Phone: 409 736-2821 — U.S. EPA ID Number: TXD000838896

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
X	1. NA3082, HAZARDOUS WASTE, LIQUID, n.o.s., (TETRACHLOROETHENE), 9, III, RQ (F001)	7	TP	12320	P	F001 OUTS519H
X	2. NA3082, HAZARDOUS WASTE, LIQUID, n.o.s., (TETRACHLOROETHENE), 9, III, RQ (F001)	3	TP	5280	P	F001 OUTS119H
	3.					
	4.					

14. Special Handling Instructions and Additional Information
ER Service Contracted by VESTS. **CERTIFICATE OF DESTRUCTION REQUIRED** 1) ERG:171 W:690740 HIGH SOLIDS LIQUID W/PCE 2) ERG:171 W:690738 WATER W/PCE

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Raymond J. Cadorette Agent for VMS — Signature: [signature] — Month 11 Day 18 Year 14

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Jeremy A Neal — Signature: [signature] — Month 11 Day 18 Year 14
Transporter 2 Printed/Typed Name: BOB Oliver — Signature: Bob Oliver — Month 11 Day 24 Year 14

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. H040 2. H040 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: Alane Thomas — Signature: Alane Thomas — Month 12 Day 3 Year 14

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete. **DESIGNATED FACILITY TO GENERATOR**

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)

21. Generator ID Number: MAR000006734

22. Page: 2 of 2

23. Manifest Tracking Number: 008606960VES

24. Generator's Name: Varian Medical Systems, Inc.

25. Transporter 3 Company Name: Veolia ES Technical Solutions — U.S. EPA ID Number: NJD080631369

26. Transporter 4 Company Name: Third Transport Inc — U.S. EPA ID Number: OKD981588791

27a. HM	27b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	28. Containers No.	28. Containers Type	29. Total Quantity	30. Unit Wt./Vol.	31. Waste Codes		

Trans Only

32. Special Handling Instructions and Additional Information

GENERATOR

33. Transporter 3 Acknowledgment of Receipt of Materials

Printed/Typed Name: Lysa A. Greer — Signature: Lysa A. Greer — Month 11 Day 25 Year 14

34. Transporter ____ Acknowledgment of Receipt of Materials

Printed/Typed Name: Aubrey Garrett — Signature: Aubrey Garrett — Month 12 Day 01 Year 14

TRANSPORTER

35. Discrepancy

36. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

DESIGNATED FACILITY

EPA Form 8700-22A (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

VEOLIA
ENVIRONMENTAL SERVICES

Veolia ES Technical Solutions, L.L.C.
Federal EPA ID: TXD000838896
State EPA ID: 50212-001
Highway 73, 3.5 miles W. of Taylor's Bayou Bridge
Port Arthur, TX 77643
(409) 736-2821

VARIAN MEDICAL SYSTEMS, INC
100 TECHNOLOGY CENTER DRIVE
STOUGHTON, MA US 02072

ATTN: RAYMOND J. CADORETTE

CERTIFICATE OF DESTRUCTION

Veolia ES Technical Solutions, L.L.C. has received waste material from VARIAN MEDICAL SYSTEMS, INC (Fed EPA ID - MAR000006734) on 12/3/2014 as described on [State Manifest or Uniform] Hazardous Waste Manifest number 000866960VES.

Sequence 1

Profile Number: PTAVES012
Veolia Tracking ID: 734386-01

Veolia Unit ID	Treatment Date	Inter-Company #	Date CD Was Issued
1	12/14/2014	MF2119543000001070	12/16/2014
2	12/14/2014	MF2119543000001060	12/16/2014
3	12/14/2014	MF2119543000001010	12/16/2014
4	12/14/2014	MF2119543000001050	12/16/2014
5	12/14/2014	MF2119543000001040	12/16/2014
6	12/14/2014	MF2119543000001020	12/16/2014
7	12/14/2014	MF2119543000001030	12/16/2014

Sequence 2

Profile Number: PTAVES012
Veolia Tracking ID: 734386-02

Veolia Unit ID	Treatment Date	Inter-Company #	Date CD Was Issued
1	12/14/2014	MF2119543000002030	12/16/2014
2	12/14/2014	MF2119543000002020	12/16/2014
3	12/14/2014	MF2119543000002010	12/16/2014

APPENDIX F

DRILLING LOGS

Drilling Log

Monitoring Well **OB46-S**

Project	Varian Beverly	Owner	Varian Medical Systems, Inc.		
Location	Building 5, 150 Sohier Road, Beverly, Massachusetts			Proj. No.	152728
Surface Elev.	NA	Total Hole Depth	16.0 ft.	North	East
Top of Casing	NA	Water Level Initial	▽ 8.0 ft.	Static NA	Diameter
Screen: Dia	2 in.	Length	10 ft.	Type/Size	Sch. 40 PVC/Slot 0.010 in.
Casing: Dia	2 in.	Length	4.5 ft.	Type	Sch. 40 PVC
Fill Material	Concrete, Sand, Bentonite	Rig/Core	Track Mounted/CME		
Drill Co.	Drillex	Method	Hollow Stem Auger		
Driller	James, Curtis, Alex	Log By	Ben Short	Date 3/13/15	Permit # NA
Checked By		License No.			

COMMENTS

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic Descriptions are Based on the USCS.
							Concrete (3")
0							Cuttings, SAND and GRAVEL
2		0.0				SP GP	
4							
6		0.3	55%	14 21 28 34		TILL	Light brown to yellowish brown (10 yr, 5/4), dense, fine to medium SAND, angular to subangular GRAVEL, some fines (Till)
8 ▽		0.0	85%	19 23 26 31		TILL	Same as above, wet at 8'
10		0.3	40% 60 for 3"	14 16		TILL	Light grey (10 yr, 6/2), fine to medium SAND, SILT and GRAVEL (Till), boulder at 10' - 11'
12				16 14		TILL	Light grey, (10 yr, 6/2), GRAVEL (Till)
		0.0	35%	61 37		SM GP	Light grey, (10 yr, 6/2), SANDY SILT with GRAVEL
14		0.4	100%	19 24 23 25		TILL	(10 yr, 5/2), dense, silty TILL
16							End of exploration at 16 feet below surface grade. Well set at 15 feet below surface grade.
18							
20							
22							
24							

CB&I_LOGO Rev: 8/9/13 2015_BLDG5.GPJ IT_CORP.GDT 3/30/15

Drilling Log

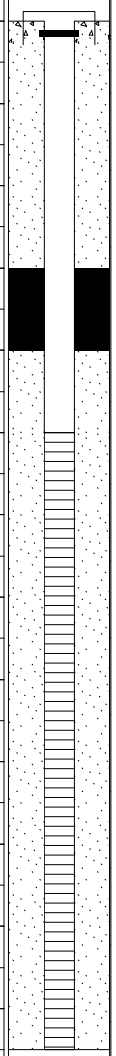
Monitoring Well **OB47-S**

Project: Varian Beverly | Owner: Varian Medical Systems, Inc.
Location: Building 5, 150 Sohier Road, Beverly, Massachusetts | Proj. No.: 152728
Surface Elev.: NA | Total Hole Depth: 25.0 ft. | North: | East:
Top of Casing: NA | Water Level Initial: ▽ 14.0 ft. | Static: NA | Diameter:
Screen: Dia: 2 in. | Length: 15 ft. | Type/Size: Sch. 40 PVC/Slot 0.010 in.
Casing: Dia: 2 in. | Length: 10 ft. | Type: Sch. 40 PVC
Fill Material: Concrete, Sand, Bentonite | Rig/Core: Track Mounted/CME
Drill Co.: Drillex | Method: Hollow Stem Auger
Driller: James, Curtis, Alex | Log By: Ben Short | Date: 3/14/15 | Permit #: NA
Checked By: R. Cadorette | License No.:

COMMENTS

ND = Not detected above instrument limit (0.1 ppm)

WOH = Weight of hammer



Depth (ft.)	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	USCS Class.	Description (Color, Texture, Structure) Geologic Descriptions are Based on the USCS.
0					
2	ND			SW	COBBLE and loose SAND
4					
6	ND	25%	2 2 2 3	SW GW	Light brown to yellow brown, loose fine to medium, SAND and GRAVEL, little silt
8	ND	15%	WOH 2 3 2	SM	Light brown/yellow brown, loose, fine, SILT and SAND, little coarse sand
10	ND	80%	2 9 10 11	SW GW	Yellowish brown, loose, fine to medium SAND and subrounded GRAVEL, little silt
12	ND	85%	12 12 14 7	SW	Yellowish brown, moist, medium dense, fine to medium SAND, some coarse sand and gravel
14 ▽	ND	90%	13 11 7 8	SM	Yellowish brown, wet, loose, fine SILTY SAND, some subangular gravel
16	ND	45%	13 10 14 15	SP	Yellowish brown, moist, medium dense, fine SAND, trace gravel, crushed rock
18	ND	85%	11 15 19 24	SW	Yellowish brown, wet, dense, fine to medium SAND, some gravel
20	ND		12 15 15 17	SP	Dark grayish brown, wet, medium dense, fine SAND, little silt and subangular gravel
22		0%	3 7 7 8		No recovery; rock in tip
24	ND	50%	7	SW	Yellowish brown, wet, loose, fine to medium SAND, some coarse grained
26					End of exploration at 25 feet below surface grade. Well set at 25 feet below surface grade.
28					

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Drilling Log

Monitoring Well **OB48-S**

Project	Varian Beverly	Owner	Varian Medical Systems, Inc.		
Location	Building 5, 150 Sohier Road, Beverly, Massachusetts			Proj. No.	152728
Surface Elev.	NA	Total Hole Depth	20.0 ft.	North		East	
Top of Casing	NA	Water Level Initial	NA	Static	NA	Diameter	
Screen: Dia	2 in.	Length	15 ft.	Type/Size	Sch. 40 PVC/Slot 0.010 in.
Casing: Dia	2 in.	Length	4.5 ft.	Type	Sch. 40 PVC
Fill Material	Concrete, Sand, Bentonite	Rig/Core	Track Mounted/CME		
Drill Co.	Drillex	Method	Hollow Stem Auger		
Driller	James, Curtis, Alex	Log By	Ben Short	Date	3/13/15	Permit #	NA
Checked By		License No.			

COMMENTS

Depth (ft.)	Well Completion	PID (ppm)	Sample ID % Recovery	Blow Count Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Geologic Descriptions are Based on the USCS.
0							SAND and GRAVEL
2		0.0				SP GP	
4							
6		0.0	100%	3 2 2 1		SP	Light brown (10 yr, 5/3), loose, medium SAND
				2		SM	Dark grey (10 yr, 2/1), fine SAND and SILT
8		0.0	20%	2 2 3 3		SM	Dark grey (10 yr, 2/1), fine SAND and SILT, over black to very dark brown(10 yr, 7/2), fine SAND and SILT, rock in tip
10			0%	2 2 2 2			No recovery
12		0.0		12 17 19 12		SW	Yellowish brown (10 yr, 5/6), dry to slightly damp, medium dense, fine to medium SAND, some subangular gravel
14			0%	8 4 16 18			No recovery
16		0.0	5%	12 17 19 16			No soil recovery, dry
18		0.0	50%	6 8 26 15		SW GW	Light brown (10 yr, 5/3), slightly moist, dense, fine to medium SAND and angular to subangular GRAVEL, crushed rock at 19' - 20'
20							End of exploration at 20 feet below surface grade. Well set at 20 feet below surface grade.
22							
24							

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