# Premier Environmental Services

DATA VALIDATION SUMMARY REPORT
OF THE
LAWRENCE AVIATION SUPERFUND SITE
PORT JEFFERSON, NY

ORGANIC AND INORGANIC ANALYSES IN AQUEOUS SAMPLES

TEST AMERICA LABORATORIES, INC. SOUTH BURLINGTON, VT

SDG NUMBER: 136458

June, 2010

Prepared for Panther Technologies, Inc. Medford, New Jersey

Prepared by
Premier Environmental Services
2815 Covered Bridge Road
Merrick, New York 11566
(516)223-9761

DATA VALIDATION FOR: Volatile Organic Compounds (VOC's)

SITE: Lawrence Aviation Superfund Site

CONTRACT LAB: Test America Laboratories, Inc.

South Burlington, VT

PROJECT NO.: 136458

REVIEWER: Rence Cohen

DATE REVIEW COMPLETED: June, 2010

MATRIX: Aqueous

The data validation was performed according to the guidelines in the USEPA National Functional Guidelines for Superfund Organic Methods Data Review (EPA-540-R-08-01, June 2008). All data are considered valid and acceptable except those analytes which have been deemed unusable "R" (unreliable). Due to various QC problems some analytes may have been qualified with a "J" (estimated), "N" (presumptive evidence for the presence of the material), "U" (non-detect), or "JN" (presumptive evidence for the presence of the material at an estimated value) flag. All actions are detailed on the attached sheets.

Table 1 of this report includes a cross reference between the field sample ID and laboratory sample ID used to perform data validation. Definitions of the data qualifiers that may be used in this report are located in Appendix A of this report. Qualified data result pages are located in Appendix B of this report. Copies of the Chain of Custody (COC) documents are located in Appendix C of this report.

This sample set included eight (8) aqueous samples and one (1) Trip Blank sample. This data assessment is for the organic analyses listed on the COC documents that accompanied the samples to the laboratory. The samples were collected March 19, 2010. The samples were received at Test America Laboratories located in South Burlington, VT. Samples were received at the laboratory on March 23, 2010 for the analyses requested on the COC documentation. The samples in this data set were analyzed for Volatile Organic Analytes (VOA) in accordance with USEPA CLP Method SOM01.2 for trace level analyses. These samples were also analyzed for TAL Metals and miscellaneous wet chemistry analyses. These analyses are reported in stand-alone data review reports provided with this complete report. This report is for the Volatile Organic Analyses.

#### 1. OVERVIEW:

Samples associated with this data set were analyzed for Volatile Organic Analytes (VOA) as noted by the COC documentation that accompanied the sample set to the laboratory. All analyses were performed in accordance with USEPA CLP Methods SOM01.2 for Low Level Soil sample analyses and USEPA CLP Method SOM01.2 for Trace Level Water Analyses. Test America Laboratories generated a stand-alone report for each sample matrix in compliance with the cited documents. A summary of the applicable QC will be discussed at each section of the report.

Laboratory report 136458 consists of eight (8) aqueous samples and one (1) Trip Blank sample. The COC associated with this data set listed seven (7) samples. Additional sample volume was collected at sample point D=5 1.5% MEDIUM. The correspondence between Panther Technologies, Inc. and the laboratory indicated that the additional sample volume was collected for the analysis of Volatile Organics. The Chain of Custody documents listed the field sample ID's that are summarized in Table 1 of this report. All of the samples in this data set were analyzed for Trace Level Volatile Organic Analytes.

#### 2. HOLDING TIME:

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. The USEPA CLP method specifies Technical Holding times for aqueous and solid and soil samples. The Technical Holding Time is based on collection date. The holding time for a properly preserved aqueous sample that is cooled and pH preserved to 2 or below is fourteen (14) days from sample collection. The holding time for non-aqueous samples that are properly cooled and preserved with NaHS04 is fourteen (14) days from sample collection.

The samples in laboratory report 136458 were collected March 19, 2010 and received at the laboratory on March 23, 2010. All of the aqueous field sample analyses associated with this data set were completed by March 27, 2010. All sample analyses were completed within the method holding time.

#### 3. SURROGATES:

Samples to be analyzed for Volatile Organic Analytes (VOA) are fortified with either thirteen (13) or fourteen (14) Deuterated Monitoring Compounds (DMC's). These DMC's are added to each sample prior to sample purging. The method recommended Deuterated Monitoring Surrogate Compounds include:

Vinyl Chloride-d3 Chloroethane-d5 1,1-Dichloroethene-d2 2-Butanone-d5

Chloroform-d 1,2-Dichloroethane-d4
Benzene-d6 1,2-Dichloropropane-d6
Toluene-d8 trans-1,3-Dichloropropene-d4

2-Hexanone-d5 1,4-Dioxane-d8\*\*
1,1,2,2-Tetrachloroethane-d2 1,2-Dichlorobenzene-d4

The laboratory reported CLP method specified recovery limits that are cited for both aqueous and non-aqueous samples reported in this data set. 1,4-Dioxane-d8 is not added as a Deuterated Monitoring Compound (DMC) in the Trace Volatile Organic Analyses associated with this data set.

Each of the aqueous samples in this data set was fortified with thirteen (13) DMC's prior to analysis. The method cites recovery limits for each surrogate. The percent recovery of each surrogate met the method specified QC criteria in each of the field and QC samples associated with this data set.

# 4. MATRIX SPIKE/SPIKE DUPLICATE, MS/MSD:

The MS/MSD data are generated to determine the long-term precision and accuracy of the analytical method in various matrices and to demonstrate acceptable compound recovery by the laboratory at the time of sample analysis. The MS/MSD may be used in conjunction with other QC criteria for additional qualification of data.

Site Specific MS/MSD analysis was no reported with the samples in this data set.

<sup>\*\*</sup> only reported in the low/medium non-aqueous Volatile Organic Analyses.

#### 5. BLANK CONTAMINATION:

Quality assurance (QA) blanks, such as the method, trip, field, or rinse blanks are prepared to identify any contamination which may have been introduced into the samples during sample preparation or field activity. Method blanks measure laboratory contamination. Trip blanks measure cross-contamination of samples during shipment. Field and rinse blanks measure cross-contamination of samples during field operations. Samples were only qualified with those QC samples associated with the particular blank.

This method requires the preparation and analysis of a laboratory storage blank. This laboratory storage blank is kept with the site samples and analyzed with the site samples.

## A) Method Blank contamination

Two (2) method blank samples are associated with the Trace Level Volatile Organic analyses (aqueous samples) in this data set. Each of these method blank samples was free from contamination of target analytes with the exception of the following:

VBLK ID	Date of Analysis	Analyte	Concentration
VBLKJT	3/26/10	Unknown	Retention Time:7.02
VBLKJU	3/26/10	Unknown	Retention Time:7.02

Each of these method blank samples contained one (1) unknown Tentatively Identified Compound (TIC). This TIC has been qualified "J" estimated and "X" to indicate a contaminant this is related to the Deuterated Monitoring Compound (DMC) and column bleed. When the associated target analytes and this unknown Tentatively Identified Compound were detected in the aqueous samples they have been negated and qualified "U".

Qualified data result pages are located in Appendix B of this report.

The aqueous storage blank sample associated with the soils in this data set is identified as VHBLK01. This storage blank sample is free from contamination of target analytes. This storage blank sample contains one (1) TIC at Retention Time 7:02 (2.1 JXB ug/l). This is the TIC that was identified in the associated method blank sample and been previously negated in each of the aqueous samples and qualified "U".

## B) Field or Equipment Rinse Blank (ERB) contamination

A Field Blank sample is not associated with this data set.

# C) Trip Blank contamination

The Trip Blank sample (823384) was analyzed with this data set. The Trip Blank sample was free from contamination of all target analytes. One (1) unknown TIC at retention time 7.02 was detected in this sample. This unknown was also detected in the associated method blank sample. This unknown TIC has been qualified "BJ" estimated and "X" to indicate a contaminant this is related column bleed. This unknown compound has been negated and qualified "U".

Oualified data result pages are located in Appendix B of this report.

#### 6. GC/MS CALIBRATION:

Satisfactory instrument calibration is established to ensure that the instrument is capable of producing acceptable quantitative data. An initial calibration demonstrates that the instrument is capable of giving acceptable performance at the beginning of an experimental sequence. The continuing calibration verifies that the instrument is giving satisfactory daily performance. USEPA CLP method states the concentration levels of target analytes that must be analyzed and reported for Initial Calibration of the GC/MS.

# A) RESPONSE FACTOR

Trace Volatile Organic Analysis - The response factor measures the instrument's response to specific chemical compounds. USEPA CLP criteria of the cited method requires that the response factor of all target analytes listed in Table 3 and the DMC's must be greater than or equal to 0.010. All other target analytes must have an RRF greater than or equal to 0.050 in both initial and continuing calibration analyses. Target analytes are qualified if the minimum RRF criteria are not in either the initial calibration analysis or the opening and closing continuing calibration standard analysis. Positive results are qualified "J". Non-detect results are qualified if the minimum RRF <0.050 (or 0.010 for specifics) are qualified "R", unusable

# Trace Level Volatile Organic Analysis -

One (1) initial calibration curve analysis was performed on March 25, 2010 (Inst. J.i). The laboratory summarized the RRF data on the CLP Form 6A. The laboratory included all raw data and instrument summary forms in the data report for review. The RRF of all target compounds met QC criteria in this initial calibration curve analysis.

The aqueous samples in this data set were analyzed on two (2) days. An opening and closing CCV standard is reported on each day of analysis. The RRF criteria for each of the opening and closing CCV standards met the QC criteria specified in the cited data validation guidelines.

#### 6. GC/MS CALIBRATION (cont'd):

# B) PERCENT RELATIVE STANDARD DEVIATION (RSD) AND PERCENT DIFFERENCE (%D):

Trace Volatile Organic Analyses - Percent RSD is calculated from the initial calibration and is used to indicate the stability of the specific compound response factor over increasing concentration. Percent D compares the response factor of the compounds in the continuing calibration standard to the mean response factor (RRF) from the initial calibration. Percent D is a measure of the instrument's daily performance. US EPA data validation criteria states that the percent RSD must be less than or equal to 40% for the volatile compounds and surrogate compounds listed in Table 3 and there associated Deuterated Monitoring compounds. All other %RSD must be less than or equal to 30% in the initial calibration curve analysis.

The %D in the opening CCV standard must be <40% for the compounds listed in Table 3 of the method. All other volatile organic compounds have a criteria <50% in the closing continuing calibration standard. A value outside of these limits indicates potential detection and quantitation errors. For these reasons, all positive results are flagged as estimated, "J" and non-detects may be flagged "UJ", based on professional judgment. If %RSD and %D grossly exceed QC criteria (>90%), non-detects data may be qualified "R", unusable.

# Trace Volatile Organic Analyses -

One (1) initial calibration curve analysis was performed on March 25, 2010 (Inst. J.i). The laboratory summarized the %RSD data on the CLP Form 6A. The laboratory included all raw data and instrument summary forms in the data report for review. The %RSD of all target compounds met QC criteria in this initial calibration curve analysis.

The aqueous samples in this data set were analyzed on two (2) days. An opening and closing CCV standard is reported on each day of analysis. The %Difference criteria for each of the opening and closing CCV standards met the QC criteria specified in the cited data validation guidelines.

## 7. GC/MS MASS SPECTROMETER TUNING:

Tuning and performance criteria are established to ensure adequate mass resolution, proper identification of compounds, and to some degree, sufficient instrument sensitivity. These criteria are not sample specific. Instrument performance is determined using standard materials. Therefore, these criteria should be met in all circumstances. The tuning standard for volatile organics is Bromofluorobenzene (BFB).

The tune criteria listed in the data report met or exceeded that required by the method. All tuning criteria associated with these sample analyses were met.

#### 8. GC/MS INTERNAL STANDARDS PERFORMANCE:

Internal standard (IS) performance criteria ensure that the GC/MS sensitivity and response are stable during every run. The method recommends that the internal standard area count must not vary by more than a factor of 2 (-50%to +100%) from the associated continuing calibration standard. The method recommends that the retention time of the internal standard must not vary more than ±30 seconds from the associated continuing calibration standard. The EPA CLP validation guidelines state that if the area count is outside the (-50% to +100%) range of the associated standard, all of the positive results for compounds quantitated using that IS are qualified estimated, "J", and all non-detects below 50% are qualified "UJ", non-detects above 100% should not be qualified or "R" if there is a severe loss of sensitivity. The internal standard area count evaluation criteria are applied to all field and QC samples.

All samples were spiked with the internal standards Chlorobenzene-d5, 1,4-Difluorobenzene and 1,4-Dichlorobenzene-d4 prior to analysis. The area counts and retention time of each internal standard met QC criteria in all field samples and QC samples associated with this data set.

#### 9. COMPOUND IDENTIFICATION:

Target compounds are identified on the GC/MS by using the analyte's relative retention time (RRT) and by comparison to the ion spectra obtained from known standards. For the results to be a positive hit, the sample peak must be within  $\pm$  0.06 RRT units of the standard compound, and have an ion spectra which has a ratio of the primary and secondary ion intensities with 20% of that in the standard compound. The laboratory reported each sample to the Contract Required Quantitation Limit (CRQL) listed in the cited method.

Eight (8) aqueous samples and one (1) Trip Blank sample are associated with this data set. The samples were analyzed using USEPA CLP Method SOM01.2. Tentatively Identified Compounds (TIC's) were reported when detected with this data set.

Sample D=5 1.5%HIGH was initially analyzed without dilution. The concentration of Methylene Chloride exceeded the calibration range of the GC/MS. The sample was reanalyzed using a 1:2 dilution to report this analyte (20 D ug/l) at this data point.

Sample D=5 CONTROL was initially analyzed using a dilution of 1:51.8 based on the results of preliminary screening. An additional more concentrated analysis was performed (1:4.4) to report a lower concentration of those target analytes not reported in the initial dilution analysis.

#### 10. FIELD DUPLICATE ANALYSES:

Field duplicate samples are collected and analyzed as an indication of overall precision. Field duplicate results are expected to have more variability than laboratory duplicate samples. Additional sample volume was collected at sample point D=5 1.5% MEDIUM. Correspondence between Panther Technologies and the laboratory indicated that duplicate analysis for Volatile Organics was to be performed.

Sample ID: D=5 1.5% MEDIUM (823378)/D=5 1.5% MEDIUM D (823379)

Analyte	Result	Result	RPD
·	(ug/l)	(ug/l)	(%)
Acetone	41	45	9.30
Methylene Chloride	16	16	0
2-Butanone	2.8 J	3.2 J	6.66
Chloroform	0.20 J	0.22 J	9.52
Toluene	0.69	0.67	2.94
Tetrachloroethene	0.72	0.74	2.74

A review of the results of this field duplicate sample indicate acceptable precision at this sample point.

#### 11. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

Analytical/method QC criteria was met for these analyses except where explained in the laboratory case narrative and the detailed in this validation report. The data reported by the laboratory agrees with the raw data provided in the final report. The laboratory provided a complete data package and reported all data using acceptable protocols and laboratory qualifiers as defined in the report package. All QC anomalies associated with this data set have been explained in the above sections of this data validation report.

All sample results are reported to the method detection limit except where detailed above. Reporting limits and positive results are adjusted based on the sample volume/weight utilized for each extraction procedure. All data provided for this data set is acceptable for use, with noted data qualifiers.

Appendix B of this report contains copies of qualified data result pages.

DATA VALIDATION FOR: Target Analyte List of Metals (TAL)

SITE: Lawrence Aviation Superfund Site

CONTRACT LAB: Test America Laboratories

South Burlington, VT

SDG NO.: 136458

REVIEWER: Rence Cohen

DATE REVIEW COMPLETED: June, 2010

MATRIX: Aqueous

The Chain of Custody (COC) documentation associated with this data set listed seven (7) aqueous samples. The samples in this data set were collected March 19, 2010 and delivered to Test America Laboratories located in South Burlington, VT on March 23, 2010.

The data evaluation was performed according to the guidelines noted in the "National Functional Guidelines for Inorganic Data Review", February 1999 and the USEPA Region II SOP for the Review of Inorganic Data (HW-2, Rev. 13 (10/06).

Several factors should be noted for all persons using this data. Persons using this data should be aware that no result is guaranteed to be accurate even if it has passed all QC tests. The main purpose of this review is to appropriately qualify outliers and to determine whether the results presented meet the specific site/project criteria for data quality and data use.

Table 1 of this report contains a cross reference between the Field Sample ID's and the Laboratory Sample ID's. Appendix A of this report contains a summary of the data qualifiers that may be used in the report. Appendix B contains the qualified data result pages. Appendix C contains the Chain of Custody (COC) documents associated with this data set.

The samples in this data set were analyzed for TAL metals. They were also analyzed for Volatile Organic Analytes (VOA) and miscellaneous wet chemistry analytes. The data review associated with these analyses are located in stand alone data reports that are enclosed with this complete report.

#### 1. OVERVIEW

Seven (7) aqueous samples and one (1) Trip Blank sample were collected on March 19, 2010 from the Lawrence Aviation Superfund Site and delivered to Test America Laboratories located in South Burlington, VT. These samples were received at the laboratory on March 23, 2010. These samples are reported in laboratory SDG 136458. Table 1 of this report lists each of the field sample and laboratory sample ID's. A full deliverable report was required to report the sample results. The seven (7) aqueous samples were marked on the COC documents for TAL Metals.

#### 2. HOLDING TIME

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. Metals with the exception of Mercury, is required to be digested and analyzed within 180 days of Verified Time of Sample Receipt (VTSR). Mercury samples are to be digested and analyzed within 26 days of VTSR.

Seven (7) aqueous samples were analyzed for the Target Analyte Metals (TAL). The ICP Metals were prepared in one (1) batch on March 24, 2010. These digestates were analyzed in two (2) analytical sequences on February 25, 2010. The samples were prepared for Mercury analysis on March 24, 2010. These digestates were analyzed in one (1) sequence on March 25, 2010.

All sample digestion and analyses associated with this data set were performed within the method holding time.

#### 3. CALIBRATION ANALYSIS

Inductively Coupled Plasma (ICP) was utilized for these analyses. The ICP was calibrated using the calibration standards required by the manufacturer. An initial calibration verification (ICV) standard is then analyzed to verify instrument calibration. One (1) continuing calibration standard was analyzed after each ten (10) field samples. Two (2) analytical sequences are associated with this data set. All target analytes with the exception of Silver, Arsenic, Cadmium, Manganese and Lead were analyzed in one sequence March 25, 2010. These analytes were analyzed in a second sequence on March 25, 2010. The laboratory reported provided raw data of each sequence for review. All ICV and CCV standards associated with this data set met QC criteria in each of these analytical sequences.

The Mercury analyses were performed in one (1) analytical sequence. The sample associated with this data set was analyzed on March 25, 2010. The laboratory reported provided raw data for this sequence to review. Review of the raw data to the results reported on the summary forms was made. All raw data matched that reported on the summary forms. All QC criteria were met in the data associated with this data set.

# 4. ICP CRDL STANDARD

The CRDL standard is used for the verification of instrument linearity near the CRDL. The CRDL standard control limits are 70%-130% recovery. If the CRDL standard falls outside of the control limits, associated data less than or equal to the 10X the CRDL are qualified estimated (J or UJ) or rejected (R) depending on the recovery of the CRDL standard and the concentration of the analyte in the sample. When the CRDL standard exceeds the control limit, indicating a high bias samples are qualified estimated (J or UJ).

The laboratory analyzed one (1) CRDL standard with each of the ICP analytical sequences. The recovery of all target analytes met QC criteria in each of the ICP analytical sequences.

# 5. ICP INTERFERENCE CHECK STANDARD

The Interference Check Standard (ICS) is used to verify the laboratory interelement and background correction factors of the ICP. Two solutions comprise the ICS A and ICS AB. Solution A consists of the interferent metals while solution AB is the group of target analytes and the interferents metals. An ICS analysis consists of analyzing both solutions consecutively for all wavelengths used for each analyte reported by ICP. The ICP ICS standards are to be analyzed at the beginning and end of each analytical run. The results are to fall within control limits of +/-20% of the true value.

The laboratory analyzed one (1) ICSA and one (1) ICSAB standard with each ICP analytical sequence. These QC samples are used to verify the laboratories interelement and background correction factors of the ICP. The recovery of all target analytes met QC criteria in each of the analytical sequences associated with this data set.

# 6. MATRIX SPIKE (MS) ANALYSIS

The spike sample analysis provides information about the effect of the sample matrix upon the digestion and measurement methodology. The spike control limits are 75%-125% when the sample concentration is less than four (4) times the spike added. If the matrix spike recoveries fall in the range of 30%-74%, the sample results are may be biased low and are qualified as estimated (J or UJ). If the matrix spike recoveries fall in the range of 126%-200%, sample results may be biased high. Positive results are qualified estimated (J). If the spike recovery is greater than 125% and the reported sample results are less than the IDL the data point is acceptable for use. If the matrix spike recovery is greater than 200%, the associated sample data are unusable and are rejected (R). If matrix spike results are less than 30%, the associated non-detect results are qualified unusable and rejected (R), and the results reported above the IDL are qualified estimated (J).

Site specific MS analysis was not prepared or analyzed with these ICP Metal or CVAA Mercury analyses.

# 7. POST DIGESTION SPIKE ANALYSIS

The post digestion spike sample analysis provides additional information about the effect of the sample matrix upon the digestion and measurement methodology. The post digestion spike is performed for each analyte that the predigestion spike recovery falls outside the 75-125% control limit.

Post digestion spike analysis was not reported with this data set.

# 8. DUPLICATE SAMPLE ANALYSIS

The laboratory duplicate sample analysis is used to evaluate the laboratory precision of the method for each analyte. If the duplicate sample analysis results for a particular analyte fall outside the control windows of 20% RPD or +/- CRDL, whichever is appropriate depending upon the concentration of the sample, the associated sample results are qualified "J" estimated.

Laboratory duplicate analysis was not reported with this data set.

#### 9. ICP SERIAL DILUTION

The serial dilution analysis indicates whether significant physical or chemical interference's exist due to the sample matrix. If the concentration of any analyte in the original sample is greater than 50 times the instrument detection limit (IDL), an analysis of a 5-fold dilution samples must yield results which have a percent difference (%D) of less than or equal to 10 with the original sample results. If the %D of the serial dilution exceeds the 10% (and is not greater than 100%) for a particular analyte, all the associated sample results are qualified estimated (J).

Serial dilution analysis was performed on sample D=5CONTROL. The %Difference of all target analytes in the serial dilution analysis met QC criteria.

# 10. BLANKS

Blank analyses are assessed to determine the existence and magnitude of contamination problems. The criteria for the evaluation of blanks applies to all blanks, including but not limited to reagent blanks, method blanks and field blanks. The responsibility for action in the case of an unsuitable blank result depends upon the circumstances and the origin of the blank itself. If the problem with any blank exists, then all associated data must be carefully evaluated to determine whether there is inherent variability in the data for that case, or the problem is an isolated occurrence not affecting other data.

The laboratory provided a summary report form for the method blank associated with each of the sample preparation batches. The ICP preparation blank was free from contamination of all target analytes above the reporting limit with the exception of Potassium (205.3 J ug/l) and Zinc (1.286 J ug/l). The concentration of Potassium detected in each of the samples was greater than ten times that detected in the preparation blank and cannot be attributed to the preparation blank. The concentration of Zinc in each of the samples was reported greater than the MDL but less than the CRDL and qualified "J" by the laboratory. Zinc has been negated and qualified "U" in each of the samples reported with this data set.

Qualified data result pages are located in Appendix B of this report,

The preparation blank associated with the Mercury sample analysis was free from contamination.

The laboratory provided summary forms to report the ICB and CCB analyses. All QC criteria were met in the ICB/CCB analyses associated with this data set.

# 11. LABORATORY CONTROL SAMPLE ANALYSIS (LCS)

The laboratory control sample (LCS) analysis provides information about the efficiency of the laboratory digestion procedure. If the recovery of any analyte is outside the established control limits, then laboratory performance and method accuracy are in question. Professional judgment is used to determine of data should be qualified or rejected.

The ICP LCS sample was fortified with all target analytes. Recovery limits of 80%-120% were applied to each target analyte. The recovery of all target analytes met QC criteria in the LCS sample.

All recoveries in the Mercury Laboratory Control Sample associated with this data set met QC criteria.

# 12. INSTRUMENT QC DATA

The laboratory provided the required annual and semiannual ICP Instrument QC summary report forms in this data report. This information was not reviewed by this data validator. All annual and semiannual QC studies were performed by the laboratory.

# 13. COMPOUND IDENTIFICATION

Seven (7) aqueous samples were analyzed for TAL Metals. The samples were analyzed in accordance with the required method (ILM05.4). The samples data was reported in the units ug/l (ppb). Each of the samples was prepared and analyzed/reported without dilution.

# 14. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

This data set included the reporting of seven (7) aqueous samples. The samples were analyzed for the TAL metals list. All samples were prepared and analyzed without dilution in accordance with the cited methods. A copy of the Chain of Custody is located in Appendix C of this report. The sample data is acceptable for use with the noted data qualifiers. Data qualification is explained in the above report.

Qualified data result pages are located in Appendix B of this report.

# **Data Validation Report**

DATA VALIDATION FOR: Miscellaneous Wet Chemistry

SITE: Lawrence Aviation Superfund Site

CONTRACT LAB: Test America Laboratories

South Burlington, VT

SDG: 136458

REVIEWER: Renee Cohen

DATE REVIEW COMPLETED: June, 2010

MATRIX: Aqueous

The Chain of Custody (COC) documentation associated with this data set included seven (7) aqueous samples. The samples were collected on March 19, 2010. The samples was delivered to Test America Laboratories located in South Burlington, VT on March 23, 2010. The sample was then subcontracted to the Test America Laboratories location in Savannah, GA. The sample was received in Georgia on March 24, 2010.

The data evaluation was performed in accordance with the QAPP that was developed for this site as well as method recommended QC practices. Several factors should be noted for all persons using this data. Persons using this data should be aware that no result is guaranteed to be accurate even if it has passed all QC tests. The main purpose of this review is to appropriately qualify outliers and to determine whether the results presented meet the specific site/project criteria for data quality and data use.

Table I of this report contains a cross reference between the Field Sample ID's and the Laboratory Sample ID's. Appendix A of this report contains a summary of the data qualifiers that may be used in the report. Appendix B contains the qualified data result pages. Appendix C contains the Chain of Custody (COC) documents associated with this data set.

The samples in this data set were analyzed for Miscellaneous Wet Chemistry parameters that were specified on the COC documents that accompanied the samples to the laboratory. This data review is associated with these Miscellaneous Wet Chemistry Analyses.

# 1. OVERVIEW

Seven (7) aqueous samples were collected on March 19, 2010 and received at the laboratory for the cited analyses on March 23, 2010. The Wet Chemistry analytes were subcontracted to the Test America Laboratory located in Savannah GA.

Table 1 is a summary of the field sample ID and laboratory sample ID. The samples in this data set were analyzed for the parameters listed on the COC documents. A full data deliverable was generated to report these analyses. These samples were analyzed for Chloride (EPA Method 300.0), Sulfate (EPA Method 300.0), Total Dissolved Solids (SM2540C), Total Suspended Solids (SM2540D), Alkalinity (SM2320B) and Total Organic Carbon (SM5310B).

## 2. HOLDING TIME

The amount of an analyte in a sample can change with time due to chemical instability, degradation, volatilization, etc. If the specified holding time is exceeded, the data may not be valid. The miscellaneous wet chemistry analytes have specific holding times cited in the approved method.

The samples in this data set were prepared and analyzed for the cited analyses within the method specified holding times.

# 3. CALIBRATION ANALYSIS

The laboratory summarized the initial and continuing calibration data associated with each of the wet chemistry analytes where applicable. All initial and continuing calibration standard analyses associated with this data set met OC criteria.

# 4. MATRIX SPIKE (MS) ANALYSIS

Multiple samples were utilized for the matrix spike analyses for each of these parameters. Acceptable recovery of the MS is +/- 25% of the True Value. Site specific matrix spike analysis was performed on sample D=5 CONTROL for Chloride and Sulfate by Ion Chromatography (EPA Method 300.0). The recovery of the matrix spike in each of these analyses met QC criteria.

# 5. DUPLICATE SAMPLE ANALYSIS

The laboratory duplicate sample analysis is used to evaluate the laboratory precision of the method for each analyte. If the duplicate sample analysis results for a particular analyte fall outside the control windows of 20% RPD or +/- CRDL, whichever is appropriate depending upon the concentration of the sample, the associated sample results are qualified "J" estimated. Sample D=5 1.75% MEDIUM was utilized as the duplicate sample for TDS analysis. The RPD of this duplicate analysis met QC criteria. Sample D=5 1.5% HIGH and D=5 2% MEDIUM were utilized as the duplicate sample for TSS analyses. The RPD of these duplicate analyses met QC criteria.

## 6. BLANKS

Blank analyses are assessed to determine the existence and magnitude of contamination problems. The criteria for the evaluation of blanks applies to all blanks, including but not limited to reagent blanks, method blanks and field blanks. The responsibility for action in the case of an unsuitable blank result depends upon the circumstances and the origin of the blank itself. If the problem with any blank exists, then all associated data must be carefully evaluated to determine whether there is inherent variability in the data for that case, or the problem is an isolated occurrence not affecting other data.

The laboratory provided Method Blank data results for all the Wet Chemistry analytes. The method blank and/or preparation blank associated with all of the miscellaneous Wet Chemistry methods was free from contamination of the target analyte above the reporting limit.

# 7. LABORATORY CONTROL SAMPLE ANALYSIS (LCS)

The laboratory control sample (LCS) analysis provides information about the efficiency of the laboratory digestion procedure. If the recovery of any analyte is outside the established control limits, then laboratory performance and method accuracy are in question. Professional judgment is used to determine of data should be qualified or rejected.

The laboratory reported LCS recovery for Chloride, Sulfate, Alkalinity and Total Organic Carbon analyses. The recovery of each LCS sample met QC criteria. The laboratory reported LCS/LCSD recoveries for TDS and TSS analyses. The recovery of all LCS and LCSD met QC criteria in these analyses.

# 8. COMPOUND IDENTIFICATION

All samples results are reported in accordance with the cited methods. Each of the samples in this data set were prepared and analyzed without dilution with the exception of the Ion Chromatography analyses (300.0). The Chloride and Sulfate analyses were analyzed using a dilution due to the color and appearance of the sample. Reporting limits have been elevated to reflect the sample dilution utilized for these analyses.

# 9. FIELD DUPLICATE DATA RESULTS:

Field duplicate samples are taken and analyzed as an indication of overall precision. These measure both field and laboratory precision; therefore, the results may have more variability than lab duplicate samples. Soil samples are also expected to have a greater variance due to the difficulties associated with collecting exact duplicate soil samples. Data was not qualified based on the results of the field duplicate sample data.

Field duplicate analysis was not reported with this data set.

# 10. SYSTEM PERFORMANCE AND OVERALL ASSESSMENT

The inorganic analyses associated with this data set included the reporting of seven (7) aqueous samples. The samples were analyzed for Miscellaneous Wet Chemistry analytes as noted on the COC documents that accompanied the data set. A copy of the Chain of Custody is located in Appendix C of this report. The sample results are reported in accordance with the cited methods.

The Miscellaneous Wet Chemistry data results are acceptable for use without data qualifiers.

# TABLE 1

#### **LABORATORY ID** FIELD SAMPLE ID D=5 CONTROL 823376 823377 D=5 1.5% HIGH **D=5 1.5% MEDIUM** 823378 **D=5 1.5% MEDIUM D** 823379 D=5 1.75% HIGH 823380 **D=5 1.75 MEDIUM** 823381 D=5 2% HIGH 823382 D=5 2% MEDIUM 823383 **TRIP BLANK** 823384 VHBLK01 823385

# APPENDIX A

# DATA QUALIFIER DEFINITIONS

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are unreliable/unusable. The presence or absence of the analyte cannot be verified.
- K The analyte is present. The reported value may be biased high. The actual value is expected to be lower than reported.
- L The analyte is present. The reported value may be biased low. The actual value is expected to be higher than reported.
- UL The analyte was not detected, and the reported quantitation limit is probably higher than reported.

# APPENDIX B

## 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

D5 CONTROLDL

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823376D1

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823376D

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 51.8

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

ı <del></del>		1	
A 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		CONCENTRATION UNITS:	_
CAS NO.	COMPOUND	(ug/L or ug/kg) <u>ug/L</u>	Q
75-71-8	Dichlorodifluoromethane	26	Ü
74-87-3	Chloromethane	26	ט
	Vinyl chloride	26	ט
	Bromomethane	26	ט
-	Chloroethane	26	U
	Trichlorofluoromethane	26	ט
75-35-4	1,1-Dichloroethene	j 26	U
76-13-1	) -   -   -     -   -   -	26	ט
67-64-1	Acetone	j 78 j	DJ
	Carbon disulfide	j 26	Ü
79-20-9	Methyl acetate	j 26	U
75-09-2	Methylene chloride	j 15 j	DJ
156-60-5	trans-1,2-Dichloroethene	26	Ü
1634-04-4	Methyl tert-butyl ether	26	Ū
	1,1-Dichloroethane	26	Ü
156-59-2	cis-1,2-Dichloroethene	ĺ 26	Ü
	2-Butanone	260	Ü
74-97-5	Bromochloromethane	26	Ü
67-66-3	Chloroform	26	Ü
71-55-6	1,1,1-Trichloroethane	26	Ü
110-82-7	Cyclohexane	26	Ü
56-23-5	Carbon tetrachloride	26	ū
71-43-2	Benzene	26	Ü
107-06-2	1,2-Dichloroethane	26	Ü
		20	J
		I	ī

Report 1,4-Dioxane for Low-Medium VOA analysis only

# 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

D5 CONTROLDL

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823376D1

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823376D

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 51.8

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

		CONCENTRATION UNITS:	
			0
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	: <del>-</del>
=======================================			20000000
79-01-6	Trichloroethene	590	D
108-87-2	Methylcyclohexane	26	ū
78-87-5	1,2-Dichloropropane	26	a
75-27-4	Bromodichloromethane	26	<u> </u>
10061-01-5	cis-1,3-Dichloropropene	26	ם
108-10-1	4-Methyl-2-pentanone	260	ū
108-88-3	Toluene	26	U
10061-02-6	trans-1,3-Dichloropropene	26	ū
79-00-5	1,1,2-Trichloroethane	26	ן ט
127-18-4	Tetrachloroethene	26	ט
591-78-6	2-Hexanone	260	ט
	Dibromochloromethane	26	ן ט
106-93-4	1,2-Dibromoethane	26	ט
	Chlorobenzene	26	ט
	Ethylbenzene	26	0
95-47-6	o-Xylene	26	U
179601-23-1	m,p-Xylene	26	0
100-42-5	Styrene	26	ס (
	Bromoform	26	ן ט
	Isopropylbenzene	26	Įυ
79-34-5		26	ָוֹ <u>ט</u>
541-73-1		26	ט
	1,4-Dichlorobenzene	26	יט
95-50-1	1,2-Dichlorobenzene	26	ט
96-12-8	1,2-Dibromo-3-chloropropane	26	U
120-82-1		26	ן ט
87-61-6	1,2,3-Trichlorobenzene	26	ן ט
1		i	
· ——			

# 1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

D5 CONTROLDL

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823376D1

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823376D

Level: (TRACE or LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 51.8

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
		=======	=======================================	====:
	Unknown	7.02	160	JXBD
	Note that the second se		Necocases	
V *				
				The state of the s
				-
	-			
		Management of the second		45-14-12
				-
				-
	-			
			2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
E966796(1)	Total Alkanes Registry Number.	N/A		

## 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. D5 CONTROL

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823376

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823376D2

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

ID: 0.53 (mm) Dilution Factor: 4.4

Soil Aliquot Volume:

(uL)

(uL)

Purge Volume: 25.0

Soil Extract Volume:

(mL)

		CONCENTRATION UNITS:	}
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
38000228200	********************		
75-71-8	Dichlorodifluoromethane	2.2	( U
74-87-3	Chloromethane	2.2	ן ט
75-01-4		2.2	ן ט
74-83-9	Bromomethane	2.2	ן ט ן
75-00-3	Chloroethane	2.2	ן ט
75-69-4	Trichlorofluoromethane	2.2	ן טן
	1,1-Dichloroethene	2.2	\ U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	2.2	ן ט ן
67-64-1	Acetone	22	
75-15-0	Carbon disulfide	2.2	U
79-20-9	Methyl acetate	2.2	ן ט
75-09-2	Methylene chloride	14	l
156-60-5	trans-1,2-Dichloroethene	2.2	ן ט
1634-04-4	Methyl tert-butyl ether	2.2	ט
75-34-3	1,1-Dichloroethane	2.2	ן ט
156-59-2	cis-1,2-Dichloroethene	1.1	J
78-93-3	2-Butanone	22	ប "
74-97-5	Bromochloromethane	2.2	ט
67-66-3	Chloroform	2.2	ט
71-55-6	1,1,1-Trichloroethane	2.2	ן ט
110-82-7		2.2	ט
56-23-5	Carbon tetrachloride	2.2	ប
71-43-2	Benzene	2.2	U
107-06-2	1,2-Dichloroethane	2.2	ן ט
			.

Report 1,4-Dioxane for Low-Medium VOA analysis only

# 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. D5 CONTROL

(uL)

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823376

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 823376D2

Soil Aliquot Volume:

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53

Dilution Factor: 4.4 (mm)

Soil Extract Volume: Purge Volume: 25.0

(uL)

(mL)

1		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	į Q
		*****	======
79-01-6	Trichloroethene	560	E
108-87-2	Methylcyclohexane	2.2	U
78-87-5	1,2-Dichloropropane	2.2	ן ט
75-27-4	Bromodichloromethane	2.2	ט
10061-01-5	cis-1,3-Dichloropropene	2.2	ט
108-10-1	4-Methyl-2-pentanone	22	ט
108-88-3	Toluene	2.2	ן ט
10061-02-6	trans-1,3-Dichloropropene	2.2	U
79-00-5	1,1,2-Trichloroethane	2.2	ן ט
127-18-4	Tetrachloroethene	3.8	
	2-Hexanone	22	Ü
	Dibromochloromethane	2.2	U
	1,2-Dibromoethane	2.2	ן ט
	Chlorobenzene	2.2	ט
100-41-4	Ethylbenzene	2.2	ַ ט (
95-47-6	o-Xylene	2.2	ט
179601-23-1	m,p-Xylene	2.2	<b>ט</b>
100-42-5	Styrene	2.2	U
75-25-2	Bromoform	2.2	ן ס
98-82-8	Isopropylbenzene	2.2	ט
i 79-34-5	1,1,2,2-Tetrachloroethane	2.2	U
541-73-1	1,3-Dichlorobenzene	2.2	ט
106-46-7	1.4-Dichlorobenzene	2.2	ן ט
95-50-1	1,2-Dichlorobenzene	2.2	ן ט
96-12-8		2.2	ט
120-82-1		2.2	ן ט
87-61-6	1,2,3-Trichlorobenzene	2.2	U
			l

# 1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. D5 CONTROL

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823376

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823376D2

Level: (TRACE or LOW/MED) TRACE

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

ID: 0.53

Dilution Factor: 4.4 (mm)

(uL)

Soil Extract Volume:

Soil Aliquot Volume: (uL)

Purge Volume: 25.0

(mL)

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	=======================================		=======	=======================================	====:
01		Unknown	7.02	15	JXB
02					
03					

01	Unknown	7.02	15 JXB
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
19 20			
21			
21 22			
23			
24			
25			
23   24   25   26   27   28   29   30			
27			
28			
29			
30			
E966796(1)	Total Alkanes	N/A	

(1) EPA-designated Registry Number.

# 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

DS 1.5HIGH

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV

Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823377

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823377

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

(mL)

1		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
=======================================			7222222
75-71-8	Dichlorodifluoromethane	0.50	ן ט
74-87-3	Chloromethane	0.50	ן ט
75-01-4	Vinyl chloride	0.50	ט
74-83-9	Bromomethane	0.50	ַ ט
75-00-3	Chloroethane	0.50	ט
	Trichlorofluoromethane	0.50	ן ט ן
	1,1-Dichloroethene	0.50	ן ט
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ט
67-64-1	Acetone	52	
75-15-0	Carbon disulfide	0.50	Ū
79-20-9	Methyl acetate	0.50	U
75-09-2	Methylene chloride	j 21	E
156-60-5	trans-1,2-Dichloroethene	0.50	์. บ
1634-04-4	Methyl tert-butyl ether	0.56	<b>!</b>
75-34-3	1,1-Dichloroethane	0.50	<del>ʊ</del>
156-59-2	cis-1,2-Dichloroethene	0.50	ט
78-93-3	2-Butanone	3.4	J
74-97-5	Bromochloromethane	0.50	ប
67-66-3	Chloroform	0.50	ប
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	ט
56-23-5	Carbon tetrachloride	0.50	ט
71-43-2	Benzene	0.50	ប
107-06-2	1,2-Dichloroethane	0.50	ט (
			1

Report 1,4-Dioxane for Low-Medium VOA analysis only

## 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

Mod. Ref No.:

EPA SAMPLE NO.

D5 1.5HIGH

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Case No.: LASS

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823377

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823377

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

\* Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

Lab Code: STLV

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	٥
22222222222		202230000000000000000000000000000000000	
79-01-6	Trichloroethene	0.50	ט ו
108-87-2	Methylcyclohexane	0.50	Ū
78-87-5	1,2-Dichloropropane	0.50	Ū
75-27-4	Bromodichloromethane	0.50	σ
10061-01-5	cis-1,3-Dichloropropene	0.50	Ū
108-10-1	4-Methyl-2-pentanone	5.0	ט
108-88-3	Toluene	0.70	İ
10061-02-6	trans-1,3-Dichloropropene	0.50	<u> </u>
79-00-5	1,1,2-Trichloroethane	0.50	ט
127-18-4	Tetrachloroethene	0.50	ט
591-78-6	2-Hexanone	5.0	υ
	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	U
108-90-7	Chlorobenzene	0.50	ט
100-41-4	Ethylbenzene	0.50	ט
95-47-6	o-Xylene	0.50	ប
179601-23-1	m,p-Xylene	0.50	σ
100-42-5	Styrene	0.50	ט
75-25-2	Bromoform	0.50	ט
98-82-8	Isopropylbenzene	0.50	σ
79-34-5	1,1,2,2-Tetrachloroethane	0.50	Ü
541-73-1	1,3-Dichlorobenzene	0.50	ช
106-46-7	1,4-Dichlorobenzene	0.50	Ü
	1,2-Dichlorobenzene	0.50	U
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	ט
87-61-6	1,2,3-Trichlorobenzene	0.50	U
[			

# 1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

D5 1.5HIGH

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823377

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823377

Level: (TRACE or LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
**********	=======================================	=======	==========	=====
	Unknown	7.02	-3.3	JXB
			-	
				-
				-
E966796(1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

# 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
D5 1.5HIGHDL

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823377D1

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823377D

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

		CONCENTRATION UNITS:	Γ
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	1.0	ן ט
74-87-3	Chloromethane	1.0	ט
75-01-4	Vinyl chloride	1.0	ט
74-83-9	Bromomethane	1.0	ן ט
75-00-3	Chloroethane	1.0	ט
75-69-4	Trichlorofluoromethane	1.0	ן ט
75-35-4	1,1-Dichloroethene	1.0	ט
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	1.0	U
67-64-1	Acetone	54	D
75-15-0	Carbon disulfide	1.0	ט
79-20-9	Methyl acetate	1.0	ט
75-09-2	Methylene chloride	20	D
156-60-5	trans-1,2-Dichloroethene	1.0	ן ט
1634-04-4	Methyl tert-butyl ether	0.56	DJ
75-34-3		1.0	ט
156-59-2	cis-1,2-Dichloroethene	1.0	ן ט
78-93-3	2-Butanone	3.4	DJ
74-97-5	Bromochloromethane	1.0	ט
67-66-3	Chloroform	1.0	ן ט
71-55-6	1,1,1-Trichloroethane	1.0	ן ט
110-82-7	Cyclohexane	1.0	ן ט
56-23-5	Carbon tetrachloride	1.0	ט
71-43-2	Benzene	1.0	บ
107-06-2	1,2-Dichloroethane	1.0	U

Report 1,4-Dioxane for Low-Medium VOA analysis only

# 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. D5 1.5HIGHDL

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823377D1

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823377D

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53

(mm)

Dilution Factor: 2.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

(mL)

1		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
===========	ecocacaecca:===============================	=======================================	20220000
79-01-6	Trichloroethene	1.0	U
108-87-2	Methylcyclohexane	1.0	ឋ
78-87-5	1,2-Dichloropropane	1.0	ឋ
75-27-4	Bromodichloromethane	1.0	บ
10061-01-5	cis-1,3-Dichloropropene	1.0	ט
108-10-1	4-Methyl-2-pentanone	10	บ
108-88-3	Toluene	0.66	DJ
10061-02-6	trans-1,3-Dichloropropene	1.0	ប
79-00-5	1,1,2-Trichloroethane	1.0	ับ
127-18-4	Tetrachloroethene	1.0	U
591-78-6	2-Hexanone	10	ប
124-48-1	Dibromochloromethane	1.0	ับ
106-93-4	1,2-Dibromoethane	1.0	บ
	Chlorobenzene	1.0	ប
100-41-4	Ethylbenzene	1.0	ט
95-47-6	o-Xylene	1.0	ซ
179601-23-1	m,p-Xylene	1.0	ប
100-42-5	Styrene	1.0	ซ
75-25-2	Bromoform	1.0	ן ע
98-82-8	Isopropylbenzene	1.0	υ
79-34-5	1 -,-,-,	1.0	ប
541-73-1	1,3-Dichlorobenzene	1.0	ซ
	1,4-Dichlorobenzene	1.0	ប
	1,2-Dichlorobenzene	1.0	ט
96-12-8	1,2-Dibromo-3-chloropropane	1.0	ប
120-82-1	1,2,4-Trichlorobenzene	1.0	ឋ
87-61-6	1,2,3-Trichlorobenzene	1.0	ប
	l	l	l

# 1J - FORM I VOA-TIC VOLATILE ORGANICS ANALYSIS DATA SHEET TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO. D5 1.5HIGHDL

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.:

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823377D1

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 823377D

Level: (TRACE or LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53

Dilution Factor: 2.0 (mm)

(uL)

Soil Extract Volume:

(uL)

Soil Aliquot Volume: Purge Volume: 25.0

(mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=======================================	***********	=======		=====
	Unknown	7.02	6.6	JXBD
	and the state of t			
			,	
		I	-	
				-
		-		-
				·
		.		
				.
	-		-	
F066706(7)	Motel Allegnor	N/A		-
E966796(1) (1)EPA-designated	Total Alkanes	N/A		

# 1A - FORM I VOA-1 VOLATILE ORGANICS ANALYSIS DATA SHEET

D5 1.5MEDIUM

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823378

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823378

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
		=======================================	2200000
75-71-8	Dichlorodifluoromethane	0.50	ן ט
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	U
74-83-9	Bromomethane	0.50	ū
75-00-3	Chloroethane	0.50	Ü
75-69-4	Trichlorofluoromethane	0.50	ט
75-35-4	1,1-Dichloroethene	0.50	บ
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	U
67-64-1	Acetone	41	
75-15-0	Carbon disulfide	0.50	Ū
79-20-9		0.50	U
75-09-2	Methylene chloride	16	Í
156-60-5	trans-1,2-Dichloroethene	j 0.50	Ū
1634-04-4	Methyl tert-butyl ether	0.52	İ
75-34-3	1,1-Dichloroethane	0.50	Ü
156-59-2	cis-1,2-Dichloroethene	0.50	ט
78-93-3	2-Butanone	2.8	J
74-97-5	Bromochloromethane	0.50	ט
67-66-3	Chloroform	0.20	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	U
56-23-5	. •	0.50	Ü
71-43-2	Benzene	0.50	Ü
107-06-2	1,2-Dichloroethane	0.50	ט
!		İ	l

Report 1,4-Dioxane for Low-Medium VOA analysis only

#### 1B - FORM I VOA-2 VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DS 1.5MEDIUM

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823378

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823378

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

\* Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

ID: 0.53

(mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

· (mL)

		CONCENTRATION UNITS:	· · · · · · · · · · · · · · · · · · ·
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
20000000000			
79-01-6	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	Ü
78-87-5		0.50	Ŭ
75-27-4	Bromodichloromethane	0.50	Ü
10061-01-5	cis-1,3-Dichloropropene	0.50	Ū
108-10-1	4-Methyl-2-pentanone	5.0	Ü
108-88-3		0.69	
10061-02-6	trans-1,3-Dichloropropene	0.50	Ü
79-00-5		0.50	ซ
127-18-4		0.72	
591-78-6	2-Hexanone	5.0	Ū
124-48-1	Dibromochloromethane	0.50	ប
106-93-4	1,2-Dibromoethane	0.50	Ü
108-90-7		0.50	U
100-41-4		0.50	Ü
95-47-6	o-Xylene	0.50	ט
179601-23-1	m,p-Xylene	0.50	<b>ט</b>
100-42-5	Styrene	0.50	บ
75-25-2		. 0.50	U
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	ט
541-73-1	1,3-Dichlorobenzene	0.50	บ
106-46-7	1,4-Dichlorobenzene	0.50	ซ
95-50-1	1,2-Dichlorobenzene	. 0.50	ט
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
	1,2,4-Trichlorobenzene	0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	ן ט
l[			

D5 1.5MEDIUM

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823378

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823378

Level: (TRACE or LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=======================================	= =====================================	=======	==========	=====
	Unknown	7.02	-3.3	JXB
	omaiowii			proposition of
	_			
				-
			-	
				-
3				
		-		-
	_			
E966796(1)	Total Alkanes	N/A	1	-

(1) EPA-designated Registry Number.

EPA SAMPLE NO.
D51.5MEDIUMD

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823379

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823379

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec.
Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
	=======================================		
75-71-8	Dichlorodifluoromethane	0.50	ט
74-87-3	Chloromethane	0.50	ן ט
75-01-4	Vinyl chloride	0.50	ן ט
74-83-9	Bromomethane	0.50	ט
75-00-3	Chloroethane	0.50	ט
75-69-4	Trichlorofluoromethane	0.50	ן ט
75-35-4	1,1-Dichloroethene	0.50	ט
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ט
67-64-1	Acetone	45	
75-15-0	Carbon disulfide	0.50	Ū
79-20-9	Methyl acetate	0.50	ט
75-09-2	Methylene chloride	16	
156-60-5	trans-1,2-Dichloroethene	0.50	Ū
1634-04-4	Methyl tert-butyl ether	0.54	l
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	ប
78-93-3	2-Butanone	3.2	J
74-97-5	Bromochloromethane	0.50	<b>ט</b>
67-66-3	Chloroform	j 0.22	J
71-55-6	1,1,1-Trichloroethane	0.50	ט
110-82-7	Cyclohexane	0.50	<b>ט</b> ו
56-23-5	Carbon tetrachloride	0.50	ט
71-43-2	Benzene	j 0.50	Ū
107-06-2	1,2-Dichloroethane	0.50	ט
		l	ĺ

Report 1,4-Dioxane for Low-Medium VOA analysis only

EPA SAMPLE NO. D51.5MEDIUMD

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Level: (TRACE/LOW/MED) TRACE

Lab Sample ID: 823379

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823379

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

(mL)

1		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
			=======
79-01-6	Trichloroethene	0.50	u '
108-87-2	Methylcyclohexane	0.50	ן ט
78-87-5	1,2-Dichloropropane	0.50	ן ט ן
75-27-4	Bromodichloromethane	0.50	ן ט ן
10061-01-5	cis-1,3-Dichloropropene	0.50	ן ט
108-10-1	4-Methyl-2-pentanone	5.0	ן ט
108-88-3	Toluene	0.67	
10061-02-6	trans-1,3-Dichloropropene	0.50	<del>U</del>
79-00-5	1,1,2-Trichloroethane	0.50	ן ט
127-18-4	Tetrachloroethene	0.74	
591-78-6	2-Hexanone	5.0	ן ט
124-48-1	Dibromochloromethane	0.50	ן טן
106-93-4	1,2-Dibromoethane	0.50	טן
108-90-7	Chlorobenzene	0.50	U
100-41-4	Ethylbenzene	0.50	ן ט
95-47-6	o-Xylene	0.50	ן ט
179601-23-1	m,p-Xylene	0.50	ן ט ן
100-42-5	Styrene	0.50	ן ט
75-25-2	Bromoform	0.50	ប
98-82-8	Isopropylbenzene	0.50	U
79-34-5	1,1,2,2-Tetrachloroethane	0.50	ן ט
541-73-1	1,3-Dichlorobenzene	0.50	ט
106-46-7		0.50	U
	1,2-Dichlorobenzene	0.50	ט
96-12-8	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1		0.50	U
87-61-6	1,2,3-Trichlorobenzene	0.50	U
l		.l	.

EPA SAMPLE NO. D51.5MEDIUMD

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823379

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823379

Level: (TRACE or LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

ID: 0.53

Dilution Factor: 1.0 (mm)

(uL)

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

Purge Volume: 25.0

(mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
	***************	=======	=========	=====
	Unknown	7.02	3.3	JXB
		1		
		l		
		·		
				-
		-		
				-
		.		
	- 20.00			·
		-		
		-		
E966796(1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

D5 1.75HIGH

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823380

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823380

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

			<del></del> ,
		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) <u>ug/L</u>	Q
		********	222222
75-71-8	Dichlorodifluoromethane	0.50	ן ט
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	0.50	ט
74-83-9	Bromomethane	0.50	U
75-00-3	Chloroethane	0.50	ט
75-69-4	Trichlorofluoromethane	0.50	ן ט
75-35-4	1,1-Dichloroethene	0.50	ט
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	) ប
67-64-1	Acetone	49	l
75-15-0	Carbon disulfide	0.50	Ü
79-20-9	Methyl acetate	0.50	ប
75-09-2	Methylene chloride	17	l
156-60-5	trans-1,2-Dichloroethene	0.50	Ū
1634-04-4	Methyl tert-butyl ether	0.60	l
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	טן
78-93-3	2-Butanone	4.3	J
74-97-5	Bromochloromethane	0.50	U
67-66-3	Chloroform	0.20	J
71-55-6	1,1,1-Trichloroethane	0.50	) U
110-82-7	Cyclohexane	0.50	U
56-23-5		0.50	U
71-43-2	Benzene	0.50	ប
107-06-2	1,2-Dichloroethane	0.50	ן ע
Ì		1	1

Report 1,4-Dioxane for Low-Medium VOA analysis only

EPA SAMPLE NO.

D5 1.75HIGH

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823380

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823380

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

\* Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

		CONCERNO PROVIDENCE	
CAS NO.	COMPOUND	CONCENTRATION UNITS:	۱ ۾
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Į Q
79-01-6	Trichloroethene		======
108-87-2		0.50	ַ
78-87-5	Methylcyclohexane	0.50	ַ
75-27-4	1,2-Dichloropropane	0.50	ū
	Bromodichloromethane	0.50	ם (
10061-01-5	cis-1,3-Dichloropropene	0.50	Ū
108-10-1	4-Methyl-2-pentanone	5.0	ט
108-88-3	Toluene	0.61	
10061-02-6	trans-1,3-Dichloropropene	0.50	ן ס
79-00-5	1,1,2-Trichloroethane	0.50	ט
127-18-4	Tetrachloroethene	0.50	ט
591-78-6	2-Hexanone	5.0	U
	Dibromochloromethane	0.50	U
106-93-4	1,2-Dibromoethane	0.50	ט
108-90-7	Chlorobenzene	0.50	Ü
100-41-4	Ethylbenzene	0.50	ซ
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	Ū
100-42-5	Styrene	0.50	U
	Bromoform	0.50	Ü
	Isopropylbenzene	0.50	Ū
	1,1,2,2-Tetrachloroethane	0.50	U
541-73-1	1,3-Dichlorobenzene	0.50	U
106-46-7	1,4-Dichlorobenzene	0.50	Ū
95-50-1	1,2-Dichlorobenzene	0.50	Ū
96-12-8	1,2-Dibromo-3-chloropropane	0.50	Ü
120-82-1	1,2,4-Trichlorobenzene	0.50	Ü
87-61-6	1,2,3-Trichlorobenzene	0.50	Ü

EPA SAMPLE NO. D5 1.75HIGH

Lab Name: TESTAMERICA BURLINGTON

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823380

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823380

Level: (TRACE or LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

Soil Aliquot Volume:

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

(uL)

Soil Extract Volume:

Purge Volume: 25.0

(mL)

Q	EST. CONC.	RT	COMPOUND NAME	CAS NUMBER
		=======		=======================================
JXB	3.4	7.02	Unknown	
-				
-				
-				
-				
-				
-				
-				
-				
_				
				-
-				
-				
-				
-				
-		N/A	Total Alkanes	E966796(1)

(uL)

(1) EPA-designated Registry Number.

EPA SAMPLE NO.
D51.75MEDIUM

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823381

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823381

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

<del></del>		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
			======
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	ט
75-01-4	Vinyl chloride	0.50	טן
	Bromomethane	0.50	ט
75-00-3	Chloroethane	0.50	ט
75-69-4	Trichlorofluoromethane	0.50	ט
75-35-4	1,1-Dichloroethene	0.50	ט
	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ט
67-64-1	Acetone	j 51	
75-15-0	Carbon disulfide	0.50	Ū
79-20-9	Methyl acetate	0.50	טן
75-09-2	Methylene chloride	15	·
156-60-5	trans-1,2-Dichloroethene	0.50	ט
1634-04-4	Methyl tert-butyl ether	0.59	l
75-34-3	1,1-Dichloroethane	0.50	U
156-59-2	cis-1,2-Dichloroethene	0.50	U
78-93-3	2-Butanone	3.3	J
74-97-5	Bromochloromethane	0.50	ט
67-66-3	Chloroform	0.23	J
71-55-6	1,1,1-Trichloroethane	0.50	ט ן
110-82-7		0.50	ן ט
56-23-5	Carbon tetrachloride	0.50	ן ט
71-43-2	Benzene	0.50	ט
107-06-2	1,2-Dichloroethane	0.50	ן ט
		1	

Report 1,4-Dioxane for Low-Medium VOA analysis only

EPA SAMPLE NO.

D51.75MEDIUM

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823381

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823381

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

\* Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume:

Soil Aliquot Volume: (uL)

(uL)

Purge Volume: 25.0

(mL)

		CONCENTRATION UNITS:	<del></del>
CAS NO.	COMPOUND		
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
79-01-6		=======================================	2222222
	Trichloroethene	0.50	U
108-87-2	Methylcyclohexane	0.50	ט
78-87-5	1,2-Dichloropropane	0.50	ט
75-27-4	Bromodichloromethane	0.50	ט
10061-01-5	cis-1,3-Dichloropropene	0.50	บ
108-10-1	4-Methyl-2-pentanone	5.0	ט
108-88-3	Toluene	0.66	
10061-02-6	trans-1,3-Dichloropropene	0.50	ש
79-00-5	1,1,2-Trichloroethane	0.50	<b>ט</b>
127-18-4	Tetrachloroethene	0.76	
591-78-6	2-Hexanone	5.0	Ū
124-48-1	Dibromochloromethane	0.50	บ
106-93-4	1,2-Dibromoethane	0.50	บ
	Chlorobenzene	0.50	Ŭ
100-41-4	Ethylbenzene	0.50	ŭ
95-47-6	o-Xylene	0.50	Ū
179601-23-1	m,p-Xylene	0.50	Ū
100-42-5	Styrene	0.50	Ŭ
75-25-2	Bromoform	0.50	บั
98-82-8	Isopropylbenzene	0.50	ซื
79-34-5	1,1,2,2-Tetrachloroethane	0.50	บั
541-73-1	1,3-Dichlorobenzene	0.50	Ü
106-46-7	1,4-Dichlorobenzene	0.50	ŭ
95-50-1	1,2-Dichlorobenzene	0.50	ŭ
96-12-8	1,2-Dibromo-3-chloropropane	0.50	ŭ
120-82-1	1,2,4-Trichlorobenzene	0.50	ម័
87-61-6	1,2,3-Trichlorobenzene	0.50	ŭ
		0.50	ا ا
·——			

D51.75MEDIUM

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823381

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823381

Level: (TRACE or LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=============	= =====================================	=======		=====
	Unknown	7.02	3.4	JXB
	orbanown.		İ	
<del> </del>	_			
				-
	_		-	
			1	
	_			-
	_			-
	_			-
	_			
	_			-
				-
E966796(1)	Total Alkanes	N/A		

(1) EPA-designated Registry Number.

EPA SAMPLE NO.
D5 2 HIGH

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823382

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823382

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
222222222	***************		
75-71-8	Dichlorodifluoromethane	0.50	ט
74-87-3	Chloromethane	0.50	ט
75-01-4	Vinyl chloride	0.50	ט (
74-83-9	Bromomethane	0.50	ט
75-00-3	Chloroethane	0.50	ប
75-69-4	Trichlorofluoromethane	0.50	ן ט
75-35-4	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ָ ט ן
67-64-1	Acetone	j 44	
75-15-0	Carbon disulfide	0.50	Ū
79-20-9	Methyl acetate	0.50	ប
75-09-2		j 16	İ
156-60-5	trans-1,2-Dichloroethene	0.50	<u>ו</u> ד
1634-04-4	Methyl tert-butyl ether	0.58	l
75-34-3	1,1-Dichloroethane	0.50	Ū
156-59-2	cis-1,2-Dichloroethene	0.50	ט
78-93-3	2-Butanone	3.2	jJ
74-97-5	Bromochloromethane	0.50	ט
67-66-3	Chloroform	0.23	J
71-55-6	1,1,1-Trichloroethane	0.50	ען
110-82-7	Cyclohexane	0.50	ט
56-23-5	Carbon tetrachloride	0.50	ן ט
71-43-2	Benzene	0.50	ט (
107-06-2	1,2-Dichloroethane	0.50	ט
			l

Report 1,4-Dioxane for Low-Medium VOA analysis only

SDG: 136458

EPA SAMPLE NO. D5 2 HIGH

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823382

Sample wt/vol: 25.0

(g/mL) mL

Lab File ID: 823382

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

\* Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624

(mm) ID: 0.53

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

(mL)

			<del></del> i	
		CONCENTRATION UN	ITS:	0
		(ug/L or ug/kg)	<u>ug/ ြ</u>	2222222 2322222
CAS NO.	COMPOUND		=====	U
20000000000		1	0.50	U U
79-01-6	Trichloroethene		0.50	U
108-87-2	Methylcyclohexane	1	0.50	_
78-87-5	1,2-Dichloropropane		0.50	ט
75-27-4	Bromodichloromethane	Ì	0.50	U
10061-01-5	cis-1,3-Dichloropropene	l	5.0	U
108-10-1	4-Methyl-2-pentanone	<u>.</u>	0.64	
108-88-3	Toluene	j	0.50	ע
10061-02-6	trans-1,3-Dichloropropene	l	0.50	ַ
79-00-5	1,1,2-Trichloroethane	Ĭ	0.50	ט
127-18-4	Tetrachloroethene	i	5.0	ן ס
591-78-6	2-Hexanone	İ	0.50	U
124-48-1	Dibromochloromethane	Ĭ	0.50	ט
106-93-4	1,2-Dibromoethane	i	0.50	U
108-90-7	Chlorobenzene	i	0.50	ן ט
100-41-4	Ethylbenzene	1	0.50	ט (
95-47-6	o-Xylene	1	0.50	ן ט
179601-23-1	m,p-xylene	l	0.50	ט
100-42-5	Styrene	į.	0.50	\ <b>U</b>
75-25-2	Bromoform	1	0.50	ן ט
98-82-8	Isopropylbenzene	1	0.50	ט
79-34-5	1,1,2,2-Tetrachloroethane	Į.	0.50	טן
541-73-1	1,3-Dichlorobenzene		0.50	ט
106-46-7	1,4-Dichlorobenzene		0.50	טן
95-50-1	1 2-Dichlorobenzene	}	0.50	U
96-12-8	1.2-Dibromo-3-chloropropane	· I	0.50	ט
120-82-1	1.2.4-Trichlorobenzene	}	0.50	ס (
87-61-6		l l		Ī

EPA SAMPLE NO. D5 2 HIGH

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823382

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823382

Level: (TRACE or LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

(uL)

Soil Extract Volume:

(uL) Soil Aliquot Volume: Purge Volume: 25.0 CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

(mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
*************	=======================================	=======	===========	
	Unknown	7.02	3.3	JXB
				-
		SAIDER DE COCCILITATION		-
				i
				-
700000000000000000000000000000000000000	m ( 3 22)	- 17/2		-
E966796(1) (1) EPA-designated	Total Alkanes	N/A		

D5 2 MEDIUM

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823383

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823383

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

ı <del> — –</del>		CONCENTRATION UNITS:	l
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	0
		(49, 5	
75-71-8	Dichlorodifluoromethane	0.50	บ
74-87-3	Chloromethane	0.50	U
75-01-4	Vinyl chloride	i 0.50	U
74-83-9		0.50	U
75-00-3	Chloroethane	0.50	ับ
	Trichlorofluoromethane	0.50	ט ו
		0.50	Ū
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	<b>ט</b>
	Acetone	j 38	
75-15-0	Carbon disulfide	i 0.50	Ū
79-20-9	Methyl acetate	0.50	U
		j 16	i
156-60-5	trans-1,2-Dichloroethene	0.50	Ū
1634-04-4	Methyl tert-butyl ether	0.57	
		0.50	Ū
156-59-2	cis-1,2-Dichloroethene	0.50	ט (
78-93-3		3.0	J
	Bromochloromethane	0.50	U
	Chloroform	0.24	J
71-55-6	1,1,1-Trichloroethane	0.50	U
110-82-7	Cyclohexane	0.50	ט
56-23-5	Carbon tetrachloride	0.50	Ū
71-43-2	Benzene	0.50	U
107-06-2	1,2-Dichloroethane	0.50	ט
		1	1

Report 1,4-Dioxane for Low-Medium VOA analysis only

SDG: 136458

EPA SAMPLE NO. D5 2 MEDIUM

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Mod. Ref No.:

SDG No.: 136458

Lab Code: STLV Case No.: LASS Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823383

(g/mL) mL

Sample wt/vol: 25.0

Lab File ID: 823383

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53

(mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

(mL)

		CONCENTRATION UNI	ITS:	0
	COMPOUND	(ug/L or ug/kg)	19/1	2000223
CAS NO.		==	0.50	U
79-01-6	Trichloroethene		0.50	Ü
108-87-2	Methylcyclohexane	,	0.50	U
78-87-5	1,2-Dichloropropane	l .	0.50	ប
75-27-4	Bromodichloromethane		0.50	Ü
10061-01-5	cis-1,3-Dichloropropene	ļ	5.0	ŭ
108-10-1	4-Methyl-2-pentanone	ļ	0.51	1 "
108-10-1	Toluene		0.50	<del></del>
10061-02-6	trans-1,3-Dichloropropene	<u> </u>	0.50	<del> </del>
79-00-5	1,1,2-Trichloroethane	ļ	0.50	١٠
127-18-4		1	5.0	<del> </del> <del> </del> <del> </del>
591-78-6	1	1	0.50	l ti
124-48-1	Dibromochloromethane	1	0.50	1 11
106-93-4			0.50	l ü
108-90-7	1 •	]	0.50	l a
100-41-4	Ethylbenzene		0.50	ט
95-47-6	•	ļ.	0.50	ן ט
179601-23-1	m,p-Xylene		•	١
100-42-5		1	0.50	ט ט
75-25-2	1 -	1	0.50	1 8
98-82-8	Tsopropylbenzene		0.50	0
79-34-5			0.50	1 8
541-73-1		Ļ	0.50	1 8
106-46-7	1.4-Dichlorobenzene	1	0.50	1 -
95-50-1	1.2-Dichlorobenzene	Į.	0.50	ם ו
96-12-8	1.2-Dibromo-3-chloropropane	1	0.50	l ü
120-82-1	1.2.4-Trichlorobenzene	1	0.50	l u
87-61-6	1,2,3-Trichlorobenzene	l	V.50	"

EPA SAMPLE NO.

D5 2 MEDIUM

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823383

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823383

Level: (TRACE or LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L Purge Volume: 25.0 (mL)

Unknown	7.02	3.2	JXB
Unknown	7.02	3.2	JXB
			1
			-
-2.2			
	-		-
Total Alkanes	N/A		
	Total Alkanes	Total Alkanes N/A	Total Alkanes N/A

EPA SAMPLE NO.
TRIP BLANK

Lab Name: TESTAMERICA BURLINGTON Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.: SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water Lab Sample ID: 823384

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823384

Level: (TRACE/LOW/MED) TRACE Date Received: 03/23/2010

% Moisture: not dec. Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: (uL) Soil Aliquot Volume: (uL)

Purge Volume: 25.0 (mL)

,		T	
<u> </u>		CONCENTRATION UNITS:	_
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	0.50	U
74-87-3	Chloromethane	0.50	ט
75-01-4	Vinyl chloride	0.50	ט
,	Bromomethane	0.50	ט
75-00-3	Chloroethane	0.50	ט
75-69-4	Trichlorofluoromethane	0.50	ט
	1,1-Dichloroethene	0.50	U
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	ט
67-64-1	Acetone	1.1	J
75-15-0	Carbon disulfide	0.50	U
79-20-9	Methyl acetate	0.50	ט
75-09-2	Methylene chloride	0.50	Ü
156-60-5	trans-1,2-Dichloroethene	0.50	Ü
1634-04-4	Methyl tert-butyl ether	0.50	บั
75-34-3	1,1-Dichloroethane	i 0.50	Ü
156-59-2	cis-1,2-Dichloroethene	0.50	Ŭ
78-93-3	2-Butanone	5.0	บั
74-97-5	Bromochloromethane	0.50	ប៊
67-66-3	Chloroform	0.50	Ü
71-55-6	1,1,1-Trichloroethane	0.50	Ü
110-82-7	Cyclohexane	0.50	ŭ
56-23-5		0.50	Ü
71-43-2	Benzene	0.50	Ü
107-06-2	1,2-Dichloroethane	0.50	Ü
		0.50	•
		l	

Report 1,4-Dioxane for Low-Medium VOA analysis only

SDG: 136458

EPA SAMPLE NO. TRIP BLANK

Lab Name: TESTAMERICA BURLINGTON

Contract: 29000

Lab Code: STLV Case No.: LASS

Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823384

Sample wt/vol: 25.0 (g/mL) mL Lab File ID: 823384

Level: (TRACE/LOW/MED) TRACE

Date Received: 03/23/2010

\* Moisture: not dec.

Date Analyzed: 03/26/2010

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

Soil Extract Volume:

(uL)

Soil Aliquot Volume:

(uL)

Purge Volume: 25.0

(mL)

1		CONCENTRATION UNITS:	
CAS NO.	COMPOUND	(ug/L or ug/kg) ug/L	Q
	44-460066666666666666666666666666666666	=======================================	
79-01-6	Trichloroethene	0.50	ט
108-87-2	Methylcyclohexane	0.50	ט
78-87-5	1,2-Dichloropropane	0.50	ן ט
	Bromodichloromethane	0.50	ט
10061-01-5	cis-1,3-Dichloropropene	0.50	ן ט
108-10-1	4-Methyl-2-pentanone	5.0	\ <b>U</b>
108-88-3	Toluene	0.50	ט
10061-02-6	trans-1,3-Dichloropropene	0.50	ן ס
79-00-5	1,1,2-Trichloroethane	0.50	ן ט
127-18-4	Tetrachloroethene	0.50	Ū
,		5.0	ן ס
124-48-1	Dibromochloromethane	0.50	U
	1,2-Dibromoethane	0.50	ט
	Chlorobenzene	0.50	0
100-41-4		0.50	ן ס
95-47-6	o-Xylene	0.50	U
179601-23-1	m,p-Xylene	0.50	ט
100-42-5	1 4	0.50	U
	Bromoform	0.50	ט ן
98-82-8	Isopropylbenzene	0.50	ן ט
	1,1,2,2-Tetrachloroethane	0.50	ם
	1,3-Dichlorobenzene	0.50	U
	1,4-Dichlorobenzene	0.50	U
	1,2-Dichlorobenzene	0.50	ן ט
	1,2-Dibromo-3-chloropropane	0.50	U
120-82-1	1,2,4-Trichlorobenzene	0.50	ט
87-61-6	1,2,3-Trichlorobenzene	0.50	Ųσ
l	<u> </u>	l	l

EPA SAMPLE NO. TRIP BLANK

Lab Name: TESTAMERICA BURLINGTON

CONCENTRATION UNITS: (ug/L or ug/kg) ug/L

Contract: 29000

Lab Code: STLV Case No.: LASS Mod. Ref No.:

SDG No.: 136458

Matrix: (SOIL/SED/WATER) Water

Lab Sample ID: 823384

Sample wt/vol: 25.0 (g/mL) mL

Lab File ID: 823384

Level: (TRACE or LOW/MED) TRACE

Date Received: 03/23/2010

% Moisture: not dec.

Date Analyzed: 03/26/2010

Soil Aliquot Volume:

Purge Volume: 25.0

GC Column: DB-624 ID: 0.53 (mm)

Dilution Factor: 1.0

(uL)

Soil Extract Volume:

(mL)

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=======================================	=======================================	=======	==========	====
	Unknown	7.02	3.1	JXB
		37 (107-27-0)		
	The second secon			
2 15-5-1				
	·			-
E966796(1) (1)EPA-designated	Total Alkanes	N/A		

(uL)

#### 1A-IN

# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D=5 CONTROL

ab Name:	TestAmeric	ca Burling	ton	_ Contract:	29000			
ab Code:	STLVT	Case No.:	LASS	NRAS No.:		SD	G NO.:	136458
Matrix (so	il/water):	WATER	_	Lab Sample ID:	823376			
evel (low	/med):	LOW		Date Received:	03/23/2	2010		
Solids:	0.0	<u></u>						
oncentrat	ion Units (u	g/L or mg/k	g dry weight)	: UG/L	_			_
	CAS No	. Aı	nalyte	Concentration	С	Q	м	
				10.0			l p	1

CAS No.	Analyte	Concentration	С	Q	М
7440-22-4	Silver	10.0	U		P
7429-90-5	Aluminum	20300			P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-39-3	Barium	85.7	J		P
7440-41-7	Beryllium	2.2	J		P
7440-70-2	Calcium	19000	-		P
7440-43-9	Cadmium	5.0	U		P
7440-48-4	Cobalt	46.8	J		P
7440-47-3	Chromium	20.3			P
7440-50-8	Copper	13.4	J		P
7439-89-6	Iron	6460			P
7439-95-4	Magnesium	8630			P
7439-97-6	Mercury	0.028	J		CV
7439-96-5	Manganese	2130			P
7440-23-5	Sodium	27900			P
7440-02-0	Nickel	212			P
7439-92-1	Lead	11.7			P
7440-09-7	Potassium	14000			P
7782-49-2	Selenium	35.0	U		P
7440-28-0	Thallium	25.0	U		P
7440-62-2	Vanadium	8.4	J		P
7440-66-6	Zinc	41.3	18	()	P

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	orange	Clarity After:	clear	Artifacts:	
Comments:					
_					

Form IA-IN

### 1A-IN

### INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D=5 1.5% HIGH

ab Name: Test	America Burli	ngton	Contract: 2	9000			
ab Code: STLVI	Case No	.: LASS	NRAS No.:		SDG	NO.:	136458
Matrix (soil/wate	er): WATER		Lab Sample ID:	8233	77	-	
evel (low/med):	LOW		Date Received:	03/23	3/2010	<u>-8</u> 1	
Solids:	0.0	3					
23-		/kg dry weight):	UG/L				
	CAS No.	Analyte	Concentration	С	Q	м	
17	440-22-4	Silver	10.0	U		P	
7	1429-90-5	Aluminum	14700			P	
17	1440-36-0	Antimony	60.0	U		P	
17	1440-38-2	Arsenic	10.0	U		P	
7	7440-39-3	Barium	57.9	J		P	
17	7440-41-7	Beryllium	2.0	J		P	
17	7440-70-2	Calcium	17600			P	
17	7440-43-9	Cadmium	5.0	U		P	
17	7440-48-4	Cobalt	3.0	J		P	1
17	7440-47-3	Chromium	85.2			P	1
1	7440-50-8	Copper	25.0	U		P	1
1-	7439-89-6	Iron	293			P	
15	7439-95-4	Magnesium	7720			P	
-	7439-97-6	Mercury	0.087	J		CV	1
1-	7439-96-5	Manganese	32600			P	1
\	7440-23-5	Sodium	25600			P	1
Ī	7440-02-0	Nickel	25.2	J		P	1
Ī-	7439-92-1	Lead	3.5	J		P	1
Į-	7440-09-7	Potassium	46200			P	1
į.	7782-49-2	Selenium	35.0	U		P	1
ļ-	7440-28-0	Thallium	24.6	J		P	
į.	7440-62-2	Vanadium	3.5	J		P	
1	7440-66-6	Zinc	6.4	8	V	P	1
-  -  -  -  -  -	7439-92-1 7440-09-7 7782-49-2 7440-28-0 7440-62-2	Lead Potassium Selenium Thallium Vanadium	3.5 46200 35.0 24.6 3.5	J	V	P P P	
Color Before:	colorless	Clarity Befo	re: clear		Texture:		
Color After:	orange	Clarity Afte	r: clear		Artifacts:	n	
Comments:							

#### IA-IN

# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D=5 1.5% MEDIUM

Lab Name:	TestAmerica B	urlington	Contract: 2	9000			
Lab Code:	STLVT Ca	Case No.: LASS	NRAS No.:			SDG NO.:	136458
Matrix (so		ER	Lab Sample ID:	823378			
Level (low			Date Received:	03/23/	2010		
% Solids: Concentrat	0.0	- or mg/kg dry weigh	nt): UG/L				7
	CAS No.	Analyte	Concentration	С	Q	м	╡
	7440-22-4	Silver	10.0	U		P	4
	7429-90-5		16100			P	_l

CAS No.	Analyte	Concentration	С	Q	М
7440-22-4	Silver	10.0	U		P
7429-90-5	Aluminum	16100			P
7440-36-0	Antimony	60.0	U		P
7440-38-2	Arsenic	10.0	U		P
7440-38-2	Barium	66.8	J		P
7440-39-3	Beryllium	2.0	J		P
	Calcium	17900			P
7440-70-2	Cadmium	5.0	U		P
7440-43-9	Cobalt	3.6	J		P
	Chromium	56.3			P
7440-47-3	Copper	7.0	J		P
	Iron	1350			P
7439-89-6	Magnesium	7980	-		P
7439-95-4		0.056	J		C
7439-97-6	Mercury	12200	-		P
7439-96-5	Manganese	26100	-		P
7440-23-5	Sodium	31.7	J		P
7440-02-0	Nickel	8.4	J	-	P
7439-92-1	Lead	29300	-	<del> </del>	F
7440-09-7	Potassium	35.0	U	<del> </del>	I
7782-49-2	Selenium	10.2	J	1	E
7440-28-0	Thallium	50.0	U	<b></b>	
7440-62-2	Vanadium	9.0	3	1.1	
7440-66-6	Zinc	9.0	10	U	

colorless	Clarity Before:	clear	Texture:	
orange	Clarity After:	clear	Artifacts:	
			Coloriess Claricy Section	coloriess Clarity Betole.

Form IA-IN

#### 1A-IN

# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D=5 1.75% HIGH

Lab Name: T	TestAmerica Burli	ngton	Contract: 2	9000			
		o.: LASS	NRAS No.:		SDG	NO.:	136458
Matrix (soil,			Lab Sample ID:	8233	80		
	(A-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1		Date Received:	03/2	3/2010		
Level (low/me	ed): LOW		Date Received.	03/2.	3,2010	-	
% Solids:	0.0						
Concentration	n Units (ug/L or mg	<pre>//kg dry weight):</pre>	UG/L	_			
	CAS No.	Analyte	Concentration	С	Q	М	
	7440-22-4	Silver	10.0	Ū		P	
	7429-90-5	Aluminum	15400			P	1
	7440-36-0	Antimony	60.0	U		P	1
	7440-38-2	Arsenic	10.0	U		P	
	7440-39-3	Barium	59.4	J		P	]
	7440-41-7	Beryllium	2.1	J		P	]
	7440-70-2	Calcium	18200			P	1
	7440-43-9	Cadmium	5.0	U		P	
	7440-48-4	Cobalt	3.0	J		P	
	7440-47-3	Chromium	90.2			P	
	7440-50-8	Copper	25.0	U		P	
	7439-89-6	Iron	458			P	]
	7439-95-4	Magnesium	7900			P	]
	7439-97-6	Mercury	0.056	J		CV	]
	7439-96-5	Manganese	33100			P	3
	7440-23-5	Sodium	26400			P	
	7440-02-0	Nickel	25.4	J		P	1
	7439-92-1	Lead	6.6	J		P	
	7440-09-7	Potassium	47200			P	
	7782-49-2	Selenium	35.0	U		P	
	7440-28-0	Thallium	21.7	J		P	3
	7440-62-2	Vanadium	1.9	J		P	
	7440-66-6	Zinc	7.6	18	U	P	]
							<del></del> -
Color Befo	ore: colorless	Clarity Befo	ore: clear		Texture:		
Color Afte	er: orange	Clarity Afte	or: clear		Artifacts:		
Comments:							

#### IA-IN

# INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

D=5 1.75% MEDIUM

erica Burlington	Contract:	29000		136458
Case No.: LASS	NRAS No.:		SDG NO.:	120420
: WATER	Lab Sample ID:	823381		
LOW	Date Received:	03/23/2010		
0.0				
	: WATER	Case No.: LASS NRAS No.:  : WATER Lab Sample ID:  LOW Date Received:	Case No.: LASS   NRAS No.:	Case No.: LASS NRAS No.: SDG NO.:  : WATER Lab Sample ID: 823381  LOW Date Received: 03/23/2010

M C Q Concentration Analyte CAS No. U 10.0 Silver 7440-22-4 P 14600 7429-90-5 Aluminum P U 60.0 7440-36-0 Antimony P 10.0 U Arsenic 7440-38-2 P J 54.4 7440-39-3 Barium P J 2.0 Beryllium 7440-41-7 P 16600 7440-70-2 Calcium P U 5.0 Cadmium 7440-43-9 P 3.5 J Cobalt 7440-48-4 P 52.5 Chromium 7440-47-3 P J 3.9 Copper 7440-50-8 P 1460 7439-89-6 Iron P 7480 7439-95-4 Magnesium CV J 0.074 Mercury 7439-97-6 P 10300 7439-96-5 Manganese P 25300 7440-23-5 Sodium P J 18.4 7440-02-0 Nickel P J 6.5 Lead 7439-92-1 P 27600 Potassium 7440-09-7 P U 35.0 Selenium 7782-49-2 P 9.7 J Thallium 7440-28-0 P J 3.2 Vanadium 7440-62-2 P 9.2 J 7440-66-6 Zinc

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	orange	Clarity After:	clear	Artifacts:	
Comments:					
-					U M05.4

Form IA-IN

### 1A-IN

### INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

ab Name: TestA ab Code: STLVT atrix (soil/wate	merica Burli						
and the state of t		ngton	Contract: 2	9000			
and the state of t	Case No	o.: LASS	NRAS No.:		SDG	NO.:	136458
			Lab Sample ID:	82			
evel (low/med):	LOW	"	Date Received:	03/2	3/2010		
Solids:	0.0	<del></del>				-	
		g/kg dry weight):	UG/L				
1	AS No.	Analyte	Concentration	С	Q	м	I
7.	440-22-4	Silver	10.0	U		P	
	429-90-5	Aluminum	14200			P	i
	440-36-0	Antimony	60.0	U		P	1
	440-38-2	Arsenic	10.0	U		P	1
7.	440-39-3	Barium	47.2	J		P	1
7.	440-41-7	Beryllium	1.8	J		P	1
7.	440-70-2	Calcium	16700			P	1
7.	440-43-9	Cadmium	5.0	U		P	i
7.	440-48-4	Cobalt	2.3	J		P	i
7.	440-47-3	Chromium	81.8			P	1
7.	440-50-8	Copper	25.0	U		P	1
7	439-89-6	Iron	585			P	1
7	439-95-4	Magnesium	7340			P	
7.	439-97-6	Mercury	0.034	J		CV	
7	439-96-5	Manganese	33100			P	1
7	440-23-5	Sodium	24700			P	1
7	440-02-0	Nickel	18.1	J		P	1
7	439-92-1	Lead	4.2	J		P	1
7	440-09-7	Potassium	46600			P	
7	782-49-2	Selenium	35.0	U		P	1
7	440-28-0	Thallium	23.4	J		P	1
	440-62-2	Vanadium	1.9	J		P	
17:	440-66-6	Zinc	7.1	18	U	P	

Form IA-IN

#### 1A-IN

# INORGANIC ANALYSIS DATA SHEET

EPA	SAMPLE	NO
-----	--------	----

D=5 2% MEDIUM

ab Name: TestAme	rica Burlington	Contract:	29000		
ab Code: STLVT	Case No.: LASS	NRAS No.:		SDG NO.:	136458
Matrix (soil/water):	WATER	Lab Sample ID:	823383		
Level (low/med):	LOW	Date Received:	03/23/2010		
	.0	h+): UG/L			

CAS No.	Analyte	Concentration	С	Q	М
	Silver	10.0	U		P
7440-22-4	Aluminum	15400			P
7429-90-5		60.0	U		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	62.7	J		P
7440-39-3	Barium	2.1	J		P
7440-41-7	Beryllium		Ü		P
7440-70-2	Calcium	17700			P
7440-43-9	Cadmium	5.0	U		P
7440-48-4	Cobalt	4.2	J		P
7440-47-3	Chromium	56.0			I P
7440-50-8	Copper	4.4	J		
7439-89-6	Iron	714			P
7439-95-4	Magnesium	7800			P
7439-97-6	Mercury	0.077	J		C
7439-96-5	Manganese	13000			P
7440-23-5	Sodium	25900			F
7440-02-0	Nickel	28.3	J		E
7439-92-1	Lead	10.0	U		E
7440-09-7	Potassium	30100			1
7782-49-2	Selenium	35.0	U		E
7440-28-0	Thallium	8.8	J		I
7440-62-2	Vanadium	50.0	U		1
7440-66-6	Zinc	8.3	8	U	1

Color Before:	colorless	Clarity Before:	clear	Texture:	
Color After:	orange	Clarity After:	clear	Artifacts:	
Comments:					
=					

Form IA-IN

# APPENDIX C

**Burlington** 30 Community Drive, Suite 11 South Burlington, VT 05403 Tel: 802 660 1990

#### **CHAIN OF CUSTODY RECORD**

Address: 2										ANALY			//		7	Med Sind			/	<i>T</i>	Ten wha	Use Only Date:	lers d (CT):	5
Phone:	Phone: 609 714 24 20 Phone:							YOA	PLETRIC		/	Called In		//	//	/		Inte Ser	ct eened Radioacti		/Y /Y ] _			
Proj. No. 30300 \ Matrix Date Time	Project Name	A   Intifying Marks of S.	ample(s)		No/T	A/G	ontain 250 ml			7			J/√		<u></u>				/	L.	ab/Sam	pie iD (La	b Use C	niy)
W 3/8 9:3	a /	D= 5 C	ontrol		3		1	2		1	<b>V</b>	1	1	0					$\perp$					
W 11 10:5	2 1	D= 5 _1	.5%	High	3		1	2		/	<b>V</b>	1	4	4	_	_			_			_	٠	
W 11 11:34	1 1.1	)=5 1	.5%	Medium	3	1	1	2		1	/	_	1	_					┙					
U 11 115	+ V	N=5 1	-75%	Hich	3	3	1	۲		1	~	1	/	4										
W 11 12:		D=5 1	-75%	Medium	3	ı	ι	Z		1	/		/	~										
W 11 2!5		D=5	2 % H	la	3	1	ì	٧		1	0	V	2	/										
W 11 36		D = 5	1.1/2 W	red 10 m	3	1	1	۷		7	V	~	7	~										
W 11		TRIP B	-LANY		186	<u> </u>								$\neg$		$\Box$			$\exists$					
""		ne sample		rise () one	,	in	ئىن	*	77	(	2)	12	zo.	٥	epa	77	Зe	_q	2	رمع)	4			
14th	5/					<u> </u>							لب											
Relinguished by: (Si	gnature)	Date 2 · 19/10	Time 10:10	Boood of Spignature)			3	P#23	ho	<i>1</i> 888		Re	marks									o V		പ്പി
Reinquished by: (Si	gnature)	Data	Time	Received by: (Signature)			'	Dale		Time				a-	-dl	<b>2</b> (0)	سا	M	cha	يم لا	عالإست	z hott	le.	
Relinquished by: (Si	ignature)	Date	Time	Received by: (Signature)			†	Date	$\dashv$	Time								the Pr	ice So	chedule.			aw	164.
*Matrix Wi *Container VO	W • Wastewater A • 40 ml vial	W - Water A/G - Amber /	S - Soil Or Glass 1 Liter		Air bag de mout	-		arcoat - Pi		or othe	SL -	Shidg	)6	0	- 0	<b>4</b>		Tos	Ame	loase fi	nnot e ax writ 802) 68	cept ver en chan 0-1919	bel che ges to	nges.