



Letter of Transmittal

To: Ian Hofmann
Environmental Assessment &
Remediations
225 Atlantic Avenue
Patchogue, NY 11772

From: Roberto Peraza

Date: 09-06-2012

Subject: Data Usability Summary Report for Project DEC-Uniondale1121

The Following Items Are Being Transmitted:

_____ Photographs	_____ Letter(s)
_____ Maps/ Plans	_____ Disk(s)
_____ Report(s)	_____ X Other: <u>Data Packages</u>

Originals	Copies	Description of Materials	Electronic/ Hard Copy
1		J40890-1 Ny_CatB_Package_Mini Final Report.pdf	Electronic
1		460-40890-1_EquNysdec.xls	Electronic

These Materials Are Transmitted:

_____ For your use	_____ Approved as submitted
_____ For your approval	_____ Approved as noted
_____ For your review and comment	_____ X Returned after loaned to us
	_____ Returned for revision

Please:

_____ Return original to us	_____ Retain for your files
_____ Submit after revision	_____ Other:

Remarks:

Returned upon completion of review, approval, and validation of data. Copy of the EDD was created and renamed: 460-40890-1_EquNysdec_Validated.xls. The following samples were part of the package: May 30, 2012: MW-4.

Additional Copies To:

Signature:



September 6, 2012

Mr. Ian Hofmann
Environmental Assessment & Remediations
225 Atlantic Avenue
Patchogue, NY 11772

Re: DEC-Uniondale1121 Data Usability Summary Report for May 30, 2012 Ground Water Sample

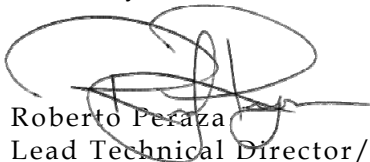
The following data package with Analytical Report Number J40890 for project DEC-Uniondale1121 has been reviewed against the following two criteria: Completeness and Compliance. Please refer to the Criteria section of this report.

In relation to completeness, the data package, as received, was complete for all supporting documentation. In relation to compliance, the data package, as received, is in compliance with proper analytical testing practices, proper methodology, and reported in accordance to the New York State Department of Environmental Conservation Analytical Service Protocol (NYSDEC ASP) Category B Data Deliverable requirements. No other criteria were submitted like a Quality Assurance Project Plan or other data validation guidelines. This analytical report is in compliance to the following points:

1. Holding Time and Analysis Time
2. Sample Analysis:
 - a. Tuning Instrument
 - b. Calibration of Instrument
 - c. Blank sample measurements
 - d. Sample analyses
 - e. Laboratory Control Samples and Continuing Calibration Samples
 - f. Matrix Spike and Matrix Spike Duplicate Samples (if any)
 - g. Duplication of sample results
 - h. Calculations pre-quant and post-quant
 - i. Proper integration practice
 - j. Method integrity
 - k. Overall system throughput in a logical timely manner

Enclosed is a summary of all the aforementioned points and the reasons for validating or rejecting parts or the entire data package. The provided EDD has also been validated such that it complies with the results reported and the NYSDEC EQUIS data format. If you have any questions, please feel free to contact us at ext. 146 or email LAB@enviro-asmnt.com.

Sincerely,



Roberto Peraza
Lead Technical Director/Chemist

Attachment(s)



Criteria for Data Usability Summary Report

Completeness:

A complete data package is one that has all relevant and related material packaged for distribution to its client in accordance to the Analytical Service Protocol (ASP) Category B Deliverables guidelines. Relevant and related material is as follows: Sample Chains of Custody forms, Case narrative and all sample summary forms, QA/QC summaries including supporting documentation, all calibration data and supporting documentation, instrument and method performance data including equipment and process blanks, method detection limits for all target analytes for required matrices, data report forms with examples of calculations and the way in which these calculations determine final concentrations, and all raw data used in identifying and quantifying the contract specific target compounds.

Compliant:

A compliant data package is one that is determined to have all work that pertains to the production of the laboratory data in a manner that is consistent with the Quality Assurance Program Plan. The package must meet QA/QC criteria, instrument tune and calibration requirements under the time frame during which the analysis was completed, data reporting forms and all sample information pre-calculation and post-calculation, and all, if any, problems encountered during the analytical process and any corrective action(s) initiated by the laboratory to correct these problems.

General Method Quality Control Criteria (Water):

EPA Method 8260:

BFB every 12 hour period (reference method for tune values)

ICAL %RSD is $\leq 20\%$ or has a coefficient of restitution (r^2) ≥ 0.99 ; depends on analyte.

ICV RRF is $\leq 25\%$

CCV %D is $\leq 30\%$ [approximately 3% of analytes list may fail or approximately 2 compounds]

MB is \leq RL (CRQL) or Not detected

LCS %R is between 70 to 130%

LCS/LCSD RPD is $\leq 30\%$

MS %R is variable for different analytes (reference ASP for values)

MS/MSD %RPD is variable for different analytes (reference ASP for values)

SMC %R is between 75 to 125%

EPA Method 8270:

DFTPP every 12-hour period (reference ASP for tune values)

ICAL %RSD is variable (≤ 20 and 40%); depends on analyte

ICV RRF is variable (≤ 25 and 40%); depends on analyte

CCV %D is variable (≤ 25 and 40%); depends on analyte [4 allowed failures or approximately 6% of analyte list]

MB is \leq RL or Not detected

LCS %R is variable; depends on analyte (reference ASP for values)

LCS/LCSD RPD is $\leq 50\%$

MS %R is variable for different analytes (reference ASP for values)

MS/MSD %RPD is variable for different analytes (reference ASP for values)

SMC %R is variable; depends on analyte (reference ASP for values)



EPA Method 6010:

ICAL %RSD is $\leq 20\%$ or has a coefficient of restitution (r^2) ≥ 0.99 ; depends on analyte.

ICV %R 90 to 110%

CCV %D is $\leq 20\%$ [approximately 3% of analytes list may fail or approximately 2 compounds]

MB is \leq RL (CRQL) or Not detected

ICS $\pm 2X$ CRQL and $\pm 20\%$ interferences true value

LCS %R is between 80 to 120%

LCS/LCSD RPD is $\leq 20\%$

MS %R 75 to 125%

MS/MSD RPD $\leq 20\%$

EPA Method 7470:

ICAL %RSD is $\leq 20\%$ or has a coefficient of restitution (r^2) ≥ 0.99 ; depends on analyte.

ICV %R 90 to 110%

CCV %D is $\leq 20\%$ [approximately 3% of analytes list may fail or approximately 2 compounds]

MB is \leq RL (CRQL) or Not detected

ICS $\pm 2X$ CRQL and $\pm 20\%$ interferences true value

LCS %R is between 80 to 120%

LCS/LCSD RPD is $\leq 20\%$

MS %R 75 to 125%

MS/MSD RPD $\leq 20\%$

EPA Method 608:

ICAL for 5 congener, for combined congener and for native toxics

ICAL %RSD is $\leq 20\%$ or has a coefficient of restitution (r^2) ≥ 0.99 ; depends on analyte.

ICV %R is 70 to 130%

CCV %D is $\leq 30\%$ [approximately 3% of analytes list may fail or approximately 2 compounds]

MB is \leq RL (CRQL) or Not detected

LCS %R is between 50 to 150%

LCS/LCSD RPD is $\leq 50\%$

MS %R is variable for different analytes (reference ASP for values)

MS/MSD %RPD is variable for different analytes (reference ASP for values)



Data Validation Acronyms

AA	Atomic Absorption, Flame Technique
BHC	Hexachlorocyclohexane
BFB	Bromofluorobenzene (Tune check analyte)
CCC	Continuing Calibration Check
CCV	Continuing Calibration Verification
CRDL	Contract Required Detection Limit
CRQL	Contract Required Quantitation Limit
CVAA	Atomic Absorption, Cold Vapor
DCAA	2,4-Dichlorophenylacetic acid
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenyl phosphine (Tune check analyte)
DL	Detection Limit
ECD	Electron Capture Detector
FAA	Atomic Absorption, Furnace Technique
FID	Flame Ionization Detector
FNP	1-Fluoronaphthalene
GC	Gas Chromatography
GC/MS	Gas Chromatography/ Mass Spectrometry
GPC	Gel Permeation Chromatography
ICB	Initial Calibration Blank
ICP-AES	Inductively Coupled Plasma - Atomic Emission Spectrometer
ICS	Interference Check Sample for ICP-AES
ICV	Initial Calibration Verification
IDL	Instrument Detection Limit
ICAL	Initial Calibration Curve
IS	Internal Standard
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LCS/LCSD	Laboratory Control Sample/ Laboratory Control Sample Duplicate
MB	Method Blank
MS	Matrix Spike
MSA	Method of Standard Additions
MSD	Matrix Spike Duplicate
MS/MSD	Matrix Spike/ Matrix Spike Duplicate
ND	Non-detected or Not Detected
PID	Photo Ionization Detector
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
PQL	Practical Quantitation Limit
QA	Quality Assurance
QA/QC	Quality Assurance/ Quality Control
QC	Quality Control
RF	Response Factor
RPD	Relative Percent Difference
RL	Reporting Limit



RRF	Relative Response Factor
RT	Retention Time
RRT	Relative Retention Time
SDG	Sample Delivery Group
SMC	System Monitoring Compounds/ Surrogates
SPCC	Sample Performance Check Compound
TCX	Tetrachloro-m-xylene
%D	Percent Drift
%R	Percent Recovery
%RSD	Percent Relative Standard Deviation



Data Validation Qualifiers

- U = Not detected. The associated number indicates the approximate sample concentration necessary to be detected which is significantly greater than the level of the highest associated blank or listed method detection limit.
- V = Analyte is present and reported value is valid and within the calibration range/control limits.
- E = Analyte is present, but result is unreliable. Analyte has a high level of uncertainty. Reported value exceeds calibration range.
- R = Unreliable result; data is rejected or unusable. Analyte may or may not be present in the sample. Supporting data or information is necessary to confirm the result.
- N = Tentative identification. Analyte is considered present. Special methods may be needed to confirm its presence or absence during future sampling efforts.
- J = Analyte is present. Reported value may be associated with a higher level of uncertainty than is normally expected with the analytical method.
- UJ = Not detected, quantitation limit may be inaccurate or imprecise.
- NT = Non-target compound. This analyte is not part of the requested list, but is part of the laboratory's calibration or quality control samples.

Note:

1. These qualifiers are used for data validation purposes. The data validation qualifiers may differ from the qualifiers that the laboratory assigns to the data. Refer to the laboratory analytical report for the definitions of the laboratory qualifiers.
2. The EDDs are assigned these data validation qualifiers and refer to the valid value list supplied by the specific agency or informational data system.



Data Usability Summary Report EPA Method 8260

Sample Receipt and Condition

The laboratory, Test America Laboratories Inc., with NYDOH laboratory ID: 10602 was contracted to provide the analysis for one (1) water samples. The samples were collected on May 30, 2012 and were delivered to the laboratory on June 1, 2012 via the laboratory's shipping courier. The laboratory received the samples June 1, 2012 at 16:10. The sample was named by the client as follows: MW-4.

The sample containers were maintained and received in good condition as indicated by the laboratory's Login Sample Receipt Checklist page 931 of the analytical report.

Holding Time and Analysis Time

The standard turnaround time to analyze samples for most laboratories is 10 business days from the date of receipt, unless otherwise noted (usually indicated/requested on the chain. Test America Laboratories Inc. has not exceeded this holding time. Holding times for water samples, collected with a preservative for EPA method 8260 is 14 days.

The lab analyzed has analyzed the samples within this time frame. Since the samples were analyzed within a reasonable time frame, sample integrity is not a concern and the laboratory is compliant.

Analysis and Quality Control

Instrument Performance Check:

An instrument performance sample (IPS) was analyzed in order to check the tune of the instrument "VOAMS1" on June 4, 2012 at 21:58. The tune covers the analysis of the calibration curve. Another IPS was analyzed on June 8, 2012 at 5:56. The tune covers the analysis of all quality control and client sample(s) (MW-4).

All method criteria pass as indicated on the test method and as indicated in NYSDEC ASP Exhibit E Table 1 page 165.

Calibration:

The initial calibration curve (ICAL) for instrument "VOAMS1" was obtained on June 5, 2012 at 00:53. The ICAL shows all target analytes under a 20% RSD. The laboratory has stricter passing criteria of $\leq 15\%$ RSD.

Initial Calibration Verification (ICV):

The laboratory has used an ICV to validate the ICAL for instrument "VOAMS1". The ICV was not submitted as it is not a NYSDEC ASP requirement for the Category B package. The guidelines use the CCV for providing a basis for approving or re-running the calibration curve. Please see ICAL section for noting passing criteria.

Continuing Calibration Verification (CCV):

A CCV sample was run on instrument "VOAMS1" and run on June 8, 2012 at 6:50. This batch contains sample(s) labeled as MW-4. The CCV has a general %D limit $\pm 30\%$. All target compounds pass.

All analytes for the CCV have been properly quantified and all raw data is reported properly and within control limits.



Method Blank (MB):

A MB was run on instrument "VOAMS1" on June 8, 2012 at 9:05. Samples that were batched with this quality control sample were MW-4. The MB should not contain target compounds above the laboratory limit (please see reference criteria). All target analytes were non-detect.

All raw data including results, chromatograms and mass spectra were properly issued. All analytes were properly integrated in all MBs.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/ LCSD):

A LCS was run on instrument "VOAMS1" on June 8, 2012 at 7:52. Samples MW-4 was batched with this quality control sample. All target analytes pass.

Limits for the method analytes are set by the laboratory and can have wide ranges. Typical % Recovery limits are between 70 to 130%. All raw data including results, chromatograms and mass spectra were properly issued. All analytes were properly integrated in all LCS.

Matrix Spike/ Matrix Spike Duplicate (MS/MSD):

The laboratory is required to run one (1) MS/MSD every batch. The MS/MSD data was not provided as the spike was not performed on the client's samples.

System Monitoring Compounds (SMC/Surrogates):

All SMC results are within control limits for all quality control samples and client samples. SMC retention times are also within acceptable limits. All raw data including results, chromatograms and mass spectra were properly issued.

Other Quality Assurance/Control:

Dilutions

No dilutions were performed on the client's samples. All raw data and integrations of the samples were properly performed and within the calibration range of the analytical instrument. All associated mass spectrums match reference mass spectral data for analytes that were reported as being present in the sample.

Tentatively Identified Compounds (TIC)

The following samples were reported to contain TIC: MW-4*(7). These compounds were identified using the laboratory's mass spectral database library. The compounds were qualified using the quality values provided in the search in comparison to the spectrum peak ratios and concentration. For analytes that could not be qualified the compounds were labeled as "Unknown".

All compounds that were tentatively identified were reported with a quantified result. It is important to note that these results are relative to the internal standards and do not pose a high level of certainty. These results are estimates based on a relative standard. In addition, results were properly flagged with a "J" to indicate such uncertainty. If the analyte was identified, then it was flagged with an "N" to indicate a tentative identification. A few analytes may be part of the laboratory's calibration compounds. These analyte results are not estimates as they do have a full calibration curve to properly quantify the analyte.

Conclusion

All samples and data quality control were analyzed in a timely, sequential manner. The chromatographic data and mass spectral data is representative of



properly integrated total ion chromatograms. All sample compound hits were properly identified in relation to their mass spectrum. The raw data and the representative data coincide to the extent that there are no discrepancies in the laboratory's reported results. All laboratory reporting limits have also been properly assigned.

In conclusion, the data reviewed in this report is usable and valid as it passes all stated criterion for completeness and compliance.



Data Usability Summary Report EPA Method 8270

Sample Receipt and Condition

The laboratory, Test America Laboratories Inc., with NYDOH laboratory ID: 10602 was contracted to provide the analysis for one (1) water samples. The samples were collected on May 30, 2012 and were delivered to the laboratory on June 1, 2012 via the laboratory's shipping courier. The laboratory received the samples June 1, 2012 at 16:10. The sample was named by the client as follows: MW-4.

The sample containers were maintained and received in good condition as indicated by the laboratory's Login Sample Receipt Checklist page 931 of the analytical report.

Holding Time and Analysis Time

The standard turnaround time to analyze samples for most laboratories is 10 business days from the date of receipt, unless otherwise noted (usually indicated/requested on the chain. Test America Laboratories Inc. has not exceeded this holding time. Holding times for water samples, collected without a preservative for EPA method 8270 is 5 to 7 days to extract and perform the preparation method EPA method 3510. After extraction the laboratory sample holding time is 40 days. The lab prepared the samples on June 4, 2012 which is within the holding time. The samples were then analyzed within the 10-day turn-around time frame.

Analysis and Quality Control

Instrument Performance Check:

An instrument performance sample (IPS) for EPA method 8270 is Decafluorotriphenyl phosphine (DFTPP) and it was analyzed in order to check the tune of the instrument "BNAMS5" on May 31, 2012 at 11:41. The tune covers the analysis of the calibration curve and other quality control.

Instrument "BNAMS5" analyzed an IPS on June 5, 2012 at 9:18. The tune covers the analysis of the calibration curve and other quality control.

An instrument performance sample (IPS) for EPA method 8270 is Decafluorotriphenyl phosphine (DFTPP) and it was analyzed in order to check the tune of the instrument "BNAMS5" on June 6, 2012 at 00:49. The tune covers the analysis of client samples MW-4.

All method criteria for performance check samples pass as indicated in the test method and as indicated in NYSDEC ASP Exhibit E Table 1 page 187.

Calibration:

The ICAL for instrument "BNAMS5" was obtained on May 31, 2012 at 14:03. The ICAL shows all target analytes under the respective RSD as outlined in NYSDEC ASP Exhibit E Table 16.

Initial Calibration Verification (ICV):

The ICV was not submitted as it is not a NYSDEC ASP requirement for the Category B package. The CCV will be used as a basis for determining the passing or the continued use of the calibration curve when samples are not analyzed immediately upon having a passing ICAL.



Continuing Calibration Verification (CCV):

A CCV sample was analyzed for instrument "BNAMS5" on June 5, 2012 at 9:37. The CCV has general %D limit of $\pm 30\%$ for most analytes. All target analytes pass. Another CCV sample was analyzed for instrument "BNAMS5" on June 6, 2012 at 1:44. All target analytes pass. All target analytes have been properly quantified and all raw data is reported properly and within control limits.

Method Blank (MB):

A MB was analyzed for batch 114702 on instrument "BNAMS5" on June 5, 2012 at 17:17. The MB should not contain target compounds above the laboratory limit (please see reference criteria). All target analytes were non-detect. All analytes have been properly quantified and all raw data is reported properly in relation to its reported value.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/ LCSD):

The LCS was analyzed for batch 114702 on instrument "BNAMS5" on June 6, 2012 at 11:16. The LCSD was analyzed on June 6, 2012 at 11:40. The LCS has variable % Recovery limits for different analytes that range from 10 to 125%. The LCS passes for all a target analytes. When comparing to the LCSD, the LCSD passes for all target analytes. The RPD between the LCS/LCSD is within range.

All analytes have been properly quantified and all raw data is reported properly and within control limits.

Matrix Spike/ Matrix Spike Duplicate (MS/MSD):

The laboratory is required to run one (1) MS/MSD every batch. The MS/MSD injection is performed on a random sample in a batched analysis. No client samples were spiked.

System Monitoring Compounds (SMC/Surrogates):

All SMC results are within control limits for all quality control samples and client samples. SMC retention times are within acceptable limits.

Other Quality Assurance/Control:

Dilutions

No dilutions were performed. Due to the nature of the analysis, particularly to the extraction method, the sample has an inherent dilution, which is calculated and taken into account. This section refers to samples that are diluted in addition or in excess of the method procedure. Such extractions due cause elevated reporting limits as reflected in the laboratory's SOP. The laboratory's method detection limits and reporting limits are sufficient for this project's goals.

All raw data and integrations of these analytes were properly performed. All associated mass spectrums match reference mass spectral data for analytes that were reported as being present in the sample. Calculations that were performed on diluted samples provided proper results as reported. No discrepancies were found from the raw data to the reported data.

Tentatively Identified Compounds (TIC)

The following samples were reported to contain TIC: MW-4*(10). These compounds were properly identified using the mass spectral database library and properly qualified using the values provided in the search. For analytes that could not be qualified the compounds were labeled "Unknown".



All compounds that were tentatively identified were reported with a quantified result. It is important to note that these results are relative to the internal standards and do not pose a high level of certainty. These results are estimates based on a relative standard. In addition, results were properly flagged with a "J" to indicate such uncertainty. If the analyte was identified, then it was flagged with an "N" to indicate a tentative identification. A few analytes may be part of the laboratory's calibration compounds. These analyte results are not estimates as they do have a full calibration curve to properly quantify the analyte.

Conclusion

All samples and data quality control were analyzed in a timely, sequential manner. The chromatographic data and mass spectral data is representative of properly integrated total ion chromatograms. All sample compound hits were properly identified in relation to their mass spectrum. The raw data and the representative data coincide to the extent that there are no discrepancies in the laboratory's reported results. All laboratory reporting limits have also been properly assigned.

In conclusion, the data reviewed in this report is usable and valid as it passes all stated criterion for completeness and compliance.



Data Usability Summary Report EPA Method 6010

Sample Receipt and Condition

The laboratory, Test America Laboratories Inc., with NYDOH laboratory ID: 10602 was contracted to provide the analysis for one (1) water samples. The samples were collected on May 30, 2012 and were delivered to the laboratory on June 1, 2012 via the laboratory's shipping courier. The laboratory received the samples June 1, 2012 at 16:10. The sample was named by the client as follows: MW-4.

The sample containers were maintained and received in good condition as indicated by the laboratory's Login Sample Receipt Checklist page 931 of the analytical report.

Holding Time and Analysis Time

The standard turnaround time to analyze samples for most laboratories is 10 business days from the date of receipt, unless otherwise noted (usually indicated/requested on the chain. Test America Laboratories Inc. has not exceeded this holding time. Holding times for water samples, collected without a preservative for EPA method 6010 is 180 days to extract and perform the preparation method EPA method 3010. After extraction the laboratory sample holding time is 360 days. The lab prepared the samples on June 6, 2012, which is within the holding time. The sample(s) were then analyzed within the 10-day turn-around time frame.

Analysis and Quality Control

Calibration:

The last known ICAL for instrument "ICP4" was obtained on June 7, 2012 at 10:23. The ICAL shows all target analytes at $r^2 \geq 0.99$.

Initial Calibration Verification (ICV):

The laboratory used an ICV to validate ICALs for instrument "ICP4". ICV %R is 90 to 110%. The ICV passes for all target metal analytes.

Initial Check Sample (ICS):

The laboratory used an ICS to check the %R of individual solutions in the advent of interference. ICS for solution A, which carries the most common interfering analytes should have a %R is 90 to 110%. The ICSA passes for all related target metal analytes. The ICS for solution mix A and B, noted AB, has a %R range of 90 to 110%. The ICSAB passes for all related target metal analytes.

Continuing Calibration Verification (CCV):

A CCV sample was analyzed for instrument "ICP4" on June 7, 2012 at 15:33. The CCV has general %D limit of $\pm 20\%$ for all analytes. All target compounds pass. Another CCV sample was analyzed on June 7, 2012 at 16:16. All target compounds pass. Another CCV sample was analyzed on June 7, 2012 at 17:00. These continued checks cover all client samples and related quality control.

All target analytes have been properly quantified and all raw data is reported properly and within control limits.

Calibration Blank (CB):

A CB was analyzed on instrument "ICP4" on June 7, 2012. The CB is used as part of the calibration for the zero-point concentration. All analytes have been



properly quantified and all raw data is reported properly in relation to its reported value.

Initial Calibration Blank (ICB):

An ICB was analyzed on instrument "ICP4" on June 7, 2012 at 10:30. The ICB is used to determine the system is free of analytes post analysis of the ICV. The ICB should not contain target compounds above the laboratory limit (please see reference criteria). All target analytes were non-detect. All analytes have been properly quantified and all raw data is reported properly in relation to its reported value.

Calibration Check Blank (CCB):

An CCB was analyzed on instrument "ICP4" on June 7, 2012 at 15:36. The CCB is used to determine that the instrument is free of contamination potential left from the CCV. The CCB should not contain target compounds above the laboratory limit (please see reference criteria). All target analytes were non-detect. Another CCB was analyzed on June 7, 2012 at 16:20. All analytes were non-detect. Another CCB was analyzed on June 7, 2012 at 17:02. All analytes were non-detect.

All analytes have been properly quantified and all raw data is reported properly in relation to its reported value.

Method Blank (MB):

A MB was analyzed for batch 115036 on instrument "ICP4" on June 7, 2012 at 16:23. The MB should not contain target compounds above the laboratory limit (please see reference criteria). All target analytes were non-detect. All analytes have been properly quantified and all raw data is reported properly in relation to its reported value.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/ LCSD):

The LCS was analyzed for batch 115036 on instrument "ICP4" on June 7, 2012 at 16:13. The LCS has variable % Recovery limits for different analytes that range from 80 to 120%. The LCS passes for all a target metal analytes.

All analytes have been properly quantified and all raw data is reported properly and within control limits.

Matrix Spike:

The laboratory is required to run one (1) MS every batch. The MS injection is performed on a random sample in a batched analysis. One (1) client sample was spiked: MW-4. The data result for the MS passes criteria, except for Iron (Fe). The analyte had a poor recovery. Potential reasons may stem from interfering ions including Iron, as it may be saturated. All analytes were properly quantified and all raw data was reported properly and within control limits.

Other Quality Assurance/Control:

Dilutions

A serial dilution was performed on sample MW-4. No discrepancies were found from the raw data to the reported data.

Conclusion

All samples and data quality control were analyzed in a timely, sequential manner. The raw data and the representative data coincide to the extent that there are



no discrepancies in the laboratory's reported results. All laboratory reporting limits have also been properly assigned.

In conclusion, the data reviewed in this report is usable and valid as it passes all stated criterion for completeness and compliance.



Data Usability Summary Report EPA Method 7470

Sample Receipt and Condition

The laboratory, Test America Laboratories Inc., with NYDOH laboratory ID: 10602 was contracted to provide the analysis for one (1) water samples. The samples were collected on May 30, 2012 and were delivered to the laboratory on June 1, 2012 via the laboratory's shipping courier. The laboratory received the samples June 1, 2012 at 16:10. The sample was named by the client as follows: MW-4.

The sample containers were maintained and received in good condition as indicated by the laboratory's Login Sample Receipt Checklist page 931 of the analytical report.

Holding Time and Analysis Time

The standard turnaround time to analyze samples for most laboratories is 10 business days from the date of receipt, unless otherwise noted (usually indicated/requested on the chain. Test America Laboratories Inc. has not exceeded this holding time. Holding times for water samples, collected without a preservative for EPA method 6010 is 26 days to extract and perform the preparation method EPA method 7470. After extraction the laboratory sample holding time is 26 days. The lab prepared the samples on June 7, 2012 which is within the holding time.

Analysis and Quality Control

Calibration:

The ICAL for instrument "LEEMAN5" was obtained on June 7, 2012 at 19:41. The ICAL shows the mercury analyte at $r^2 \geq 0.99$.

Initial Calibration Verification (ICV):

The laboratory used an ICV to validate ICALs for instrument "LEEMAN5" on June 7, 2012 at 19:43. ICV %R is 90 to 110%. The ICV passes for mercury analyte.

Continuing Calibration Verification (CCV):

A CCV sample was analyzed for instrument "LEEMAN5" on June 7, 2012 at 20:46. The CCV has general %D limit of $\pm 20\%$ or a %R of 90 to 110% for mercury. Mercury passes. Another CCV sample was analyzed on June 7, 2012 at 21:02. Mercury passes. Another CCV sample was analyzed on June 7, 2012 at 21:20. Mercury passes. These continued checks cover all client samples and related quality control.

Mercury has been properly quantified and all raw data is reported properly and within control limits.

Initial Calibration Blank (ICB):

An ICB was analyzed on instrument "LEEMAN5" on June 7, 2012 at 19:45. The ICB is used to determine the system is free of mercury post analysis of the ICV. The ICB should not contain mercury above the laboratory limit (please see reference criteria). Mercury was non-detect. All analytes have been properly quantified and all raw data is reported properly in relation to its reported value.

Calibration Check Blank (CCB):

An CCB was analyzed on instrument "LEEMAN5" on June 7, 2012 at 20:48. Mercury was non-detect. Another CCB was analyzed on June 7, 2012 at 21:04. Mercury



was non-detect. Another CCB was analyzed on June 7, 2012 at 21:23. Mercury was non-detect.

Mercury was properly quantified and all raw data is reported properly in relation to its reported value.

Method Blank (MB):

A MB was analyzed for batch 115295 on instrument "LEEMAN5" on June 7, 2012 at 20:49. The MB should not contain Mercury above the laboratory limit (please see reference criteria). Mercury was non-detect. Mercury was properly quantified and all raw data is reported properly in relation to its reported value.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/ LCSD):

The LCS was analyzed for batch 115295 on instrument "LEEMAN5" on June 7, 2012 at 20:51. The LCS has variable % Recovery limits for different analytes that range from 80 to 120%. The LCS passes for mercury.

Mercury has been properly quantified and all raw data is reported properly and within control limits.

Other Quality Assurance/Control:

Dilutions

No dilutions were performed. No discrepancies were found from the raw data to the reported data.

Conclusion

All samples and data quality control were analyzed in a timely, sequential manner. The raw data and the representative data coincide to the extent that there are no discrepancies in the laboratory's reported results. All laboratory reporting limits have also been properly assigned.

In conclusion, the data reviewed in this report is usable and valid as it passes all stated criterion for completeness and compliance.



Data Usability Summary Report EPA Method 608

Sample Receipt and Condition

The laboratory, Test America Laboratories Inc., with NYDOH laboratory ID: 10602 was contracted to provide the analysis for one (1) water samples. The samples were collected on May 30, 2012 and were delivered to the laboratory on June 1, 2012 via the laboratory's shipping courier. The laboratory received the samples June 1, 2012 at 16:10. The sample was named by the client as follows: MW-4.

The sample containers were maintained and received in good condition as indicated by the laboratory's Login Sample Receipt Checklist page 931 of the analytical report.

Holding Time and Analysis Time

The standard turnaround time to analyze samples for most laboratories is 10 business days from the date of receipt, unless otherwise noted (usually indicated/requested on the chain. Test America Laboratories Inc. has not exceeded this holding time. Holding times for water samples, collected without a preservative for EPA method 608 is 14 days to extract and perform the preparation method EPA method 608. After extraction the laboratory sample holding time is 40 days. The lab prepared the samples on June 4, 2012 which is within the holding time.

Analysis and Quality Control

Calibration:

The ICAL for instrument "PESTGC6" was divided into various times and dates due to the nature of the analyte analysis. There are eleven (11) unique calibrations. The first ten (10) are for specific compounds. The last calibration curve includes twenty-two (22) analytes calibrated at five (5) levels. All calibration curves were obtained and run on two (2) columns.

The first calibration curve was obtained on June 5 at 11:10 for Aroclor 1221. The compound has 8 peaks calibrated at 1000 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$). All the peaks are within the retention time control limits set by the laboratory for both columns.

The second calibration curve was obtained on June 5, 2012 at 11:26 for Aroclor 1232. The compound has 8 peaks calibrated at 1000 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$). All the peaks are within the retention time control limits set by the laboratory for both columns.

The third calibration curve was obtained on June 5, 2012 at 12:06 for Aroclor 1254. The compound has 8 peaks calibrated at 1000 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$). All the peaks are within the retention time control limits set by the laboratory for both columns.

The fourth calibration curve was obtained on June 5, 2012 at 12:18 for Aroclor 1262. The compound has 8 peaks calibrated at 1000 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$). All the peaks are within the retention time control limits set by the laboratory for both columns.

The fifth calibration curve was obtained on June 5, 2012 at 12:31 for Aroclor 1268. The compound has 8 peaks calibrated at 1000 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$). All the peaks are within the retention time control limits set by the laboratory for both columns.



The sixth calibration curve was obtained on June 5, 2012 at 11:53 for Aroclor 1248. The compound has 8 peaks calibrated at 5 levels: 100, 500, 1000, 1500 and 2500 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$) for all peaks. All the peaks are within the retention time control limits set by the laboratory for both columns.

The seventh calibration curve was obtained on June 5, 2012 at 12:44 for Toxaphene. The compound has 8 peaks calibrated at 5 levels: 200, 500, 1000, 1500 and 2500 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$) for all peaks. All the peaks are within the retention time control limits set by the laboratory for both columns.

The eighth calibration curve was obtained on June 5, 2012 at 12:57 for Chloradane. The compound has 8 peaks calibrated at 5 levels: 100, 500, 1000, 1500 and 2500 ug/L. The curve uses a weighted average whose %RSD generally be $\leq 20\%$. The laboratory has stricter limits set at $\leq 10\%$. All peaks are within limit. All the peaks are also within the retention time control limits set by the laboratory for both columns.

The ninth calibration curve was obtained on June 5, 2012 at 11:40 for Aroclor 1242. The compound has 8 peaks calibrated at 5 levels: 100, 500, 1000, 1500 and 2500 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$) for all peaks. All the peaks are within the retention time control limits set by the laboratory for both columns.

The tenth calibration curve was obtained on June 5, 2012 at 14:13 for Aroclor 1016 and Aroclor 1260. The compound has 8 peaks calibrated at 5 levels: 100, 500, 1000, 1500 and 2500 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$) for all peaks. All the peaks are within the retention time control limits set by the laboratory for both columns.

The eleventh calibration curve was obtained on June 5, 2012 at 15:30 for twenty-two (22) analytes. Each compound has 8 peaks calibrated at 5 levels: 4, 50, 100, 250 and 500 ug/L. The curve has a coefficient of restitution greater than or equal 0.99 ($r^2 \geq 0.99$) for peaks that have a quadratic or linear fit. For analytes that are not quadratic or linear and have a weighted average, the %RSD is below the laboratory's limit of 10% for all analytes. All the peaks are within the retention time control limits set by the laboratory for both columns.

Continuing Calibration Verification (CCV):

A CCV sample was analyzed for instrument "PESTGC6" on June 6, 2012 at 12:37. The CCV has general %D limit of $\pm 20\%$ for all target analytes. The laboratory has stricter %D limits set at $\pm 15\%$. All analytes pass. Another CCV sample was analyzed for the Aroclor 1016 and Aroclor 1260 mix on June 6, 2012 at 12:50. The laboratory has a %D limit $\pm 15\%$. All analytes pass.

The CCVs has been properly quantified and all raw data is reported properly and within control limits.

Performance Evaluation Mixture (PEM):

A PEM is used to evaluate the breakdown of certain compounds. The two (2) primary compounds that are analyzed and calculated for is Endrine and its derivatives and 4,4'-DDT and its derivatives. These compounds should have an allowable breakdown percentage of $\leq 20\%$. The PEM passes as both analytes and its derivative show less than 20% breakdown.



Method Blank (MB):

A MB was analyzed for batch 114701 on instrument "PESTGC6" on June 6, 2012 at 12:52. The MB should not contain analytes above the laboratory limit (please see reference criteria). All target analytes were non-detect. All analytes were properly quantified and all raw data is reported properly in relation to its reported value.

Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/ LCSD):

The LCS was analyzed for batch 114701 on instrument "PESTGC6" on June 6, 2012 at 16:05. The LCS has variable % Recovery limits for different analytes that range from 80 to 120%. The analytes injected in the control sample pertain to calibration curve twelve, which contains twenty-two (22) analytes. The LCS passes for all target analytes.

An LCSD was analyzed for batch 114701 on instrument "PESTGC6" on June 6, 2012 at 16:18. The LCSD has variable % Recovery limits for different analytes that range from 80 to 120%. The analytes injected in the control sample pertain to calibration curve twelve, which contains twenty-two (22) analytes. The LCSD passes for all target analytes.

In comparing the two control samples (LCS/LCSD) through the %RSD. The %RSD limit is $\leq 40\%$. The %RSD for these samples is below the limit and therefore passes.

All analytes have been properly quantified and all raw data is reported properly and within control limits.

Other Quality Assurance/Control Dilutions

No dilutions were performed. No discrepancies were found from the raw data to the reported data.

Conclusion

All samples and data quality control were analyzed in a timely, sequential manner. The raw data and the representative data coincide to the extent that there are no discrepancies in the laboratory's reported results. All laboratory reporting limits have also been properly assigned.

In conclusion, the data reviewed in this report is usable and valid as it passes all stated criterion for completeness and compliance

Site: DEC-Uniondale1121

Group#	Date Submitted	Date Analyzed	ASP Proto No.	Sample No.	Matrix	Test Method	Data Usable	In Compliance	Non-Compliance
J40890	05/30/12	06/06/12	NYSDEC ASP Category B	MW-4	Water	EPA 608	Yes	Yes	---

Group #: Refers to the sample deliverable group number provided by the laboratory to identify the group of samples submitted to them in the Chain of Custody form.

Date Submitted: It is the date the sample(s) were submitted for analysis.

Date Analyzed: It is the date the sample(s) were analyzed.

ASP Proto No.: Refers to the type of data package requested and reviewed by client

Sample No.: Refers to the laboratory sample ID given to the submitted samples

Matrix: Refers to the medium of the analyzed samples.

Test Method: The analysis that was performed on the sample as requested in the Chain of Custody form.

Data Usability: Determines whether the data is usable to the extent of the expressed accuracy and precision.

In Compliance: Yes or no answer determining whether the sample under the category and the analytes to which they belong were compliance to the criterion mentioned above.

Non-Compliance: Comment regarding the referenced violation when "In Compliance" field is "No". Commentary is placed in a referenced section.

Site: DEC-Uniondale1121

Group#	Date Submitted	Date Analyzed	ASP Proto No.	Sample No.	Matrix	Test Method	Data Usable	In Compliance	Non-Compliance
J40890	05/30/12	06/07/12	NYSDEC ASP Category B	MW-4	Water	EPA 6010B	Yes	Yes	---

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Site: DEC-Uniondale1121

Group#	Date Submitted	Date Analyzed	ASP Proto No.	Sample No.	Matrix	Test Method	Data Usable	In Compliance	Non-Compliance
J40890	05/30/12	06/07/12	NYSDEC ASP Category B	MW-4	Water	EPA 7074A	Yes	Yes	---

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Site: DEC-Uniondale1121

Group#	Date Submitted	Date Analyzed	ASP Proto No.	Sample No.	Matrix	Test Method	Data Usable	In Compliance	Non-Compliance
J40890	05/30/12	06/06/12	NYSDEC ASP Category B	MW-4	Water	EPA 8270C	Yes	Yes	---

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Sample No.: Refers to the laboratory sample ID given to the submitted samples

Matrix: Refers to the medium of the analyzed samples.

Test Method: The analysis that was performed on the sample as requested in the Chain of Custody form.

Data Usability: Determines whether the data is usable to the extent of the expressed accuracy and precision.

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Non-Compliance: Comment regarding the referenced violation when "In Compliance" field is "No". Commentary is placed in a referenced section.

Site: DEC-Uniondale1121

Group#	Date Submitted	Date Analyzed	ASP Proto No.	Matrix	Test Method	Data Usable	In Compliance	Non-Compliance
J40890	05/30/12	06/08/12	NYSDEC ASP Category B	Water	EPA 8260B	Yes	Yes	---

Group #: Refers to the sample deliverable group number provided by the laboratory to identify the group of samples submitted to them in the Chain of Custody form.

Date Submitted: It is the date the sample(s) were submitted for analysis.

Date Analyzed: It is the date the sample(s) were analyzed.

ASP Proto No.: Refers to the type of data package requested and reviewed by client

Sample No.: Refers to the laboratory sample ID given to the submitted samples

Matrix: Refers to the medium of the analyzed samples.

Test Method: The analysis that was performed on the sample as requested in the Chain of Custody form.

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