



March 31, 2011

Brad Davis  
Zia Engineering & Environmental  
755 S Telshor Blvd Ste F-201  
Las Cruces, NM 88011

Order No: 1103153

TEL: (575) 678-3397  
FAX: (575) 532-1587

RE: HELSFT TSA Groundwater Monitoring

Dear Brad Davis:

DHL Analytical received 4 sample(s) on 3/19/2011 for the analyses presented in the following report.

There were no problems with the analyses and all data met requirements of DoD QSM Ver 4.1 and NELAC except where noted in the Case Narrative. All non-NELAC methods will be identified accordingly in the case narrative and all estimated uncertainties of test results are within method or EPA specifications.

If you have any questions regarding these tests results, please feel free to call. This report shall not be reproduced except in full without the written approval of DHL Analytical, Inc. Thank you for using DHL Analytical.

Sincerely,

A handwritten signature in black ink that reads "John DuPont".

John DuPont  
General Manager

This report was performed under the accreditation of the State of Texas & DoD Laboratory Certification Number: T104704211-11-4 & DoD ELAP #ADE-1416 v2



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754 S. Tolson Blvd. Ste. F-201  
 Las Cruces, NM 88011  
 575-832-1626 n  
 575-832-1587 f

367

#1103153

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

PROJECT NO.		PROJECT NAME			NO. OF CONTAINERS	ANALYSIS REQUESTED						REMARKS
PROJECT NO.		PROJECT NAME				INTBE / STEX						
SAMPLER'S SIGNATURE		<i>Juan Padilla</i>										
DATE	TIME	SAMPLE ID	MATRIX	LAB NO.								
01	3-18-11	0948	HTSA-0197-HMW-050-0311	Water		3	X					
02	3-18-11	0948	HTSA-0197-HMW-150-0311	WATER		3	X					
03	3-18-11	1105	HTSA-0197-HMW-048-0211	WATER		3	X					
04	3-18-11	0948	HTSA-0197-TD-367-0311	WATER		3	X					
PROJECT INFORMATION		SAMPLES RECEIVED	yes	RELINQUISHED BY: (SIGNATURE)	2. RELINQUISHED BY: (SIGNATURE)		3. RECEIVED BY LAB: (SIGNATURE)					
PROJECT MANAGER		TOTAL NO. OF CONTAINERS		(PRINTED NAME)	(PRINTED NAME)		(PRINTED NAME)					
Brad Davis		CHAIN OF CUSTODY SEALS	yes	(SIGNATURE)	(SIGNATURE)		(COMPANY)					
SHIPPING ID NO.		GOOD CONDITION/CHECKED	yes	(TIME/DATE)	(TIME/DATE)		(TIME/DATE)					
VIC		CONFORMS TO RECORD	yes #57	SPECIAL INSTRUCTIONS / COMMENTS:								
FEDEX		PLEASE SEE ATTACHED ANALYTE LIST FOR DETAILS										

PLEASE USE BALL POINT PEN

DISTRIBUTION: WHITE - PROJECT FILES; YELLOW - LAB; PINK - FIELD COPY

FedEx Express

US Airbill

8705 3674 1150

1 From Date Sender's Name Company Address City State ZIP To Recipient's Name Company Address City State ZIP

2 Your Internal Billing Reference

3 To Recipient's Name Company Address City State ZIP

4a Express Package Service Packages up to 150 lbs. Packages over 150 lbs.

4b Express Freight Service Packages over 150 lbs.

5 Packaging

6 Special Handling and Delivery Signature Options

7 Payment \$166.00

Total Packages Total Weight Total Declared Value

554

Barcode

Recipient's Copy

Additional markings and labels

Sample Receipt Checklist

Client Name Zia Engineering & Environmental  
Work Order Number 1103153

Date Received: 3/19/2011  
Received by JB

Checklist completed by: [Signature] 3/21/11  
Signature Date

Reviewed by: SS 3-21-11  
Initials Date

Carrier name: FedEx 1day

- Shipping container/cooler in good condition? Yes  No  Not Present
- Custody seals intact on shipping container/cooler? Yes  No  Not Present
- Custody seals intact on sample bottles? Yes  No  Not Present
- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Samples in proper container/bottle? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No
- All samples received within holding time? Yes  No
- Container/Temp Blank temperature in compliance? Yes  No  5.6 °C
- Water - VOA vials have zero headspace? Yes  No  No VOA vials submitted
- Water - pH acceptable upon receipt? Yes  No  Not Applicable

Adjusted? \_\_\_\_\_ Checked by \_\_\_\_\_

Any No response must be detailed in the comments section below.

Client contacted \_\_\_\_\_ Date contacted: \_\_\_\_\_ Person contacted \_\_\_\_\_

Contacted by: \_\_\_\_\_ Regarding: \_\_\_\_\_

Comments: \_\_\_\_\_

Corrective Action \_\_\_\_\_

## Laboratory Data Package Signature Page

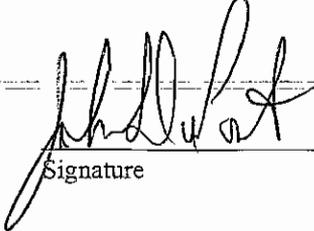
This data package consists of:

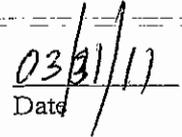
This signature page, the laboratory review checklist, and the following reportable data:

- R1 Field chain-of-custody documentation;
  - R2 Sample identification cross-reference;
  - R3 Test reports (analytical data sheets) for each environmental sample that includes:
    - a) Items consistent with NELAC 5.13
    - b) dilution factors,
    - c) preparation methods,
    - d) cleanup methods, and
    - e) if required for the project, tentatively identified compounds (TICs).
  - R4 Surrogate recovery data including:
    - a) Calculated recovery (%R), and
    - b) The laboratory's surrogate QC limits.
  - R5 Test reports/summary forms for blank samples;
  - R6 Test reports/summary forms for laboratory control samples (LCSs) including:
    - a) LCS spiking amounts,
    - b) Calculated %R for each analyte, and
    - c) The laboratory's LCS QC limits.
  - R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
    - a) Samples associated with the MS/MSD clearly identified,
    - b) MS/MSD spiking amounts,
    - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
    - d) Calculated %Rs and relative percent differences (RPDs), and
    - e) The laboratory's MS/MSD QC limits
  - R8 Laboratory analytical duplicate (if applicable) recovery and precision:
    - a) the amount of analyte measured in the duplicate,
    - b) the calculated RPD, and
    - c) the laboratory's QC limits for analytical duplicates.
  - R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
  - R10 Other problems or anomalies.
- The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

**Release Statement:** I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Scott Schroeder – Project Manager  
John DuPont – General / QA Manager

  
Signature

  
Date

DHL Analytical, Inc.							
Laboratory Review Checklist: Reportable Data							
Project Name: HELSTF TSA Groundwater Monitoring			Date: 3/31/11				
Reviewer Name: Carlos Castro			Laboratory Work Order: 1103153				
Prep Batch Number(s): See Prep Dates Report			Run Batch: See Analytical Dates Report				
# <sup>1</sup>	A <sup>2</sup>	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER#
		<b>Chain-of-Custody (C-O-C)</b>					
R1	OI	1) Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X				R1-01
		2) Were all departures from standard conditions described in an exception report?			X		
R2	OI	<b>Sample and Quality Control (QC) Identification</b>					
		1) Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X				
		2) Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X				
R3	OI	<b>Test Reports</b>					
		1) Were all samples prepared and analyzed within holding times?	X				
		2) Other than those results < MQL, were all other raw values bracketed by calibration standards?	X				
		3) Were calculations checked by a peer or supervisor?	X				
		4) Were all analyte identifications checked by a peer or supervisor?	X				
		5) Were sample quantitation limits reported for all analytes not detected?	X				
		6) Were all results for soil and sediment samples reported on a dry weight basis?			X		
		7) Were % moisture (or solids) reported for all soil and sediment samples?			X		
		8) If required for the project, TICs reported?			X		
R4	O	<b>Surrogate Recovery Data</b>					
		1) Were surrogates added prior to extraction?	X				
		2) Were surrogate percent recoveries in all samples within the laboratory QC limits?	X				
R5	OI	<b>Test Reports/Summary Forms for Blank Samples</b>					
		1) Were appropriate type(s) of blanks analyzed?	X				
		2) Were blanks analyzed at the appropriate frequency?	X				
		3) Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X				
		4) Were blank concentrations < MQL?	X				
R6	OI	<b>Laboratory Control Samples (LCS):</b>					
		1) Were all COCs included in the LCS?	X				
		2) Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X				
		3) Were LCSs analyzed at the required frequency?	X				
		4) Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?			X		R6-04
		5) Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X				
		6) Was the LCSD RPD within QC limits (if applicable)?	X				
R7	OI	<b>Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Data</b>					
		1) Were the project/method specified analytes included in the MS and MSD?	X				
		2) Were MS/MSD analyzed at the appropriate frequency?	X				
		3) Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	X				
		4) Were MS/MSD RPDs within laboratory QC limits?	X				
R8	OI	<b>Analytical Duplicate Data</b>					
		1) Were appropriate analytical duplicates analyzed for each matrix?			X		
		2) Were analytical duplicates analyzed at the appropriate frequency?			X		
		3) Were RPDs or relative standard deviations within the laboratory QC limits?			X		
R9	OI	<b>Method Quantitation Limits (MQLs):</b>					
		1) Are the MQLs for each method analyte included in the laboratory data package?	X				
		2) Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X				
		3) Are unadjusted MQLs included in the laboratory data package?	X				
R10	OI	<b>Other Problems/Anomalies</b>					
		1) Are all known problems/anomalies/special conditions noted in this LRC and ER?	X				
		2) Were all necessary corrective actions performed for the reported data?	X				
		3) Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X				

- 1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- 2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- 3 NA = Not applicable.
- 4 NR = Not Reviewed.
- 5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

**DHL Analytical, Inc.**

**Laboratory Review Checklist (continued): Supporting Data**

Project Name: HELSTF TSA Groundwater Monitoring

Date: 3/31/11

Reviewer Name: Carlos Castro

Laboratory Work Order: 1103153

#1	A2	Description	Yes	No	NA <sup>3</sup>	NR <sup>4</sup>	ER# <sup>5</sup>
S1	OI	<b>Initial Calibration (ICAL)</b>					
		1) Were response factors and/or relative response factors for each analyte within QC limits?	X				
		2) Were percent RSDs or correlation coefficient criteria met?	X				
		3) Was the number of standards recommended in the method used for all analytes?	X				
		4) Were all points generated between the lowest and highest standard used to calculate the curve?	X				
		5) Are ICAL data available for all instruments used?	X				
		6) Has the initial calibration curve been verified using an appropriate second source standard?	X				
S2	OI	<b>Initial and Continuing Calibration Verification (ICCV and CCV) and Continuing Calibration blank (CCB):</b>					
		1) Was the CCV analyzed at the method-required frequency?	X				
		2) Were percent differences for each analyte within the method-required QC limits?	X				
		3) Was the ICAL curve verified for each analyte?	X				
		4) Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X				
S3	O	<b>Mass Spectral Tuning:</b>					
		1) Was the appropriate compound for the method used for tuning?	X				
		2) Were ion abundance data within the method-required QC limits?	X				
S4	O	<b>Internal Standards (IS):</b>					
		1) Were IS area counts and retention times within the method-required QC limits?	X				
S5	OI	<b>Raw Data (NELAC section 1 appendix A glossary, and section 5.12)</b>					
		1) Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X				
		2) Were data associated with manual integrations flagged on the raw data?	X				
S6	O	<b>Dual Column Confirmation</b>					
		1) Did dual column confirmation results meet the method-required QC?			X		
S7	O	<b>Tentatively Identified Compounds (TICs):</b>					
		1) If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X		
S8	I	<b>Interference Check Sample (ICS) Results:</b>					
		1) Were percent recoveries within method QC limits?			X		
S9	I	<b>Serial Dilutions, Post Digestion Spikes, and Method of Standard Additions</b>					
		1) Were percent differences, recoveries, and the linearity within the QC limits specified in the method?			X		
S10	OI	<b>Method Detection Limit (MDL) Studies</b>					
		1) Was a MDL study performed for each reported analyte?	X				
		2) Is the MDL either adjusted or supported by the analysis of DCSs?	X				
S11	OI	<b>Proficiency Test Reports:</b>					
		1) Was the lab's performance acceptable on the applicable proficiency tests or evaluation studies?	X				
S12	OI	<b>Standards Documentation</b>					
		1) Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X				
S13	OI	<b>Compound/Analyte Identification Procedures</b>					
		1) Are the procedures for compound/analyte identification documented?	X				
S14	OI	<b>Demonstration of Analyst Competency (DOC)</b>					
		1) Was DOC conducted consistent with NELAC Chapter 5C?	X				
		2) Is documentation of the analyst's competency up-to-date and on file?	X				
S15	OI	<b>Verification/Validation Documentation for Methods (NELAC Chap 5)</b>					
		1) Are all the methods used to generate the data documented, verified, and validated, where applicable?	X				
S16	OI	<b>Laboratory Standard Operating Procedures (SOPs):</b>					
		1) Are laboratory SOPs current and on file for each method performed?	X				

p

1 Items identified by the letter "R" should be included in the laboratory data package submitted to the TCEQ in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2 O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).

3 NA = Not applicable.

4 NR = Not Reviewed.

5 ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

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CLIENT: Zia Engineering & Environmental  
Project: HELSFT TSA Groundwater Monitoring  
Lab Order: 1103153

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**CASE NARRATIVE**

This case narrative describes abnormalities and deviations that may affect the results and summarizes all known issues that need to be highlighted for the data user to assess the results. This case narrative and the report contents are compliant with DoD QSM Ver 4.1 and NELAC.

Samples were analyzed using the methods outlined in the following references:

Method SW8260C - Volatile Organics

Exception Report R1-01

Samples were received on and log-in performed on 3/19/11. A total of 4 samples were received and all were analyzed. The samples arrived in good condition and were properly packaged.

Exception Report R6-04

For Volatiles analysis performed on 3/23/11 the LCS recovery was slightly above control limits for o-xylene. This is flagged accordingly in the QC summary report. No further corrective actions were taken.

A summary of project communication follows:

DHL Analytical received the Project RFQ from the client on 12/29/09. Completed RFQ returned to client via email on 1/07/2010. Purchase Order/Terms and Conditions received and signed and approved by both parties on 01/25/2010.

Brad Davis of ZIA Requested a bottle kit from Jennifer Barker of DHL: via email on 2/22/11.

Kit sent on 2/22/11 via Lonestar Overnight, arrive by 2/23/11.

This sample delivery group arrived at DHL Analytical 3/19/11. Sample summary sent via email from Log-in to client on 3/21/11.

All hardcopies for the sample kit request, bill of lading for sample kit sent and login summary are kept in project folder.

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CLIENT: Zia Engineering & Environmental  
Project: HELSFT TSA Groundwater Monitoring  
Lab Order: 1103153

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**Work Order Sample Summary**

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Lab Smp ID	Client Sample ID	Tag Number	Date Collected	Date Recv'd
1103153-01	HTSA-0197-HMW-050-0311		03/18/11 09:48 AM	03/19/11
1103153-02	HTSA-0197-HMW-150-0311		03/18/11 09:48 AM	03/19/11
1103153-03	HTSA-0197-HMW-048-0311		03/18/11 11:05 AM	03/19/11
1103153-04	HTSA-0197-TB-367-0311		03/18/11 09:48 AM	03/19/11

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CLIENT: Zia Engineering & Environmental  
Project: HELSFT TSA Groundwater Monitoring  
Lab Order: 1103153

## PREP DATES REPORT

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Sample ID	Client Sample ID	Collection Date	Matrix	Test Number	Test Name	Prep Date	Batch ID
1103153-01A	HTSA-0197-HMW-050-0311	03/18/11 09:48 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/23/11 09:04 AM	45555
1103153-02A	HTSA-0197-HMW-150-0311	03/18/11 09:48 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/23/11 09:04 AM	45555
1103153-03A	HTSA-0197-HMW-048-0311	03/18/11 11:05 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/23/11 09:04 AM	45555
1103153-04A	HTSA-0197-TB-367-0311	03/18/11 09:48 AM	Aqueous	SW5030C	Purge and Trap Water GC/MS	03/23/11 09:04 AM	45555

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CLIENT: Zia Engineering & Environmental  
Project: HELSFT TSA Groundwater Monitoring  
Lab Order: 1103153

**ANALYTICAL DATES REPORT**

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Sample ID	Client Sample ID	Matrix	Test Number	Test Name	Batch ID	Dilution	Analysis Date	Run ID
1103153-01A	HTSA-0197-HMW-050-0311	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	45555	1	03/23/11 01:09 PM	GCMS5_110323A
1103153-02A	HTSA-0197-HMW-150-0311	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	45555	1	03/23/11 01:34 PM	GCMS5_110323A
1103153-03A	HTSA-0197-HMW-048-0311	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	45555	1	03/23/11 02:00 PM	GCMS5_110323A
1103153-04A	HTSA-0197-TB-367-0311	Aqueous	SW8260C	8260 Water Volatiles by GC/MS	45555	1	03/23/11 02:26 PM	GCMS5_110323A

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CLIENT: Zia Engineering & Environmental  
 Project: HELSFT TSA Groundwater Monitoring  
 Project No:  
 Lab Order: 1103153

Client Sample ID: HTSA-0197-HMW-050-0311  
 Lab ID: 1103153-01  
 Collection Date: 03/18/11 09:48 AM  
 Matrix: Aqueous

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 Water Volatiles by GC/MS		SW8260C					Analyst: KL
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 01:09 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/23/11 01:09 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 01:09 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 01:09 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 01:09 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 01:09 PM
Surr: 1,2-Dichloroethane-d4	101	0	70 - 120		%REC	1	03/23/11 01:09 PM
Surr: 4-Bromofluorobenzene	101	0	75 - 120		%REC	1	03/23/11 01:09 PM
Surr: Dibromofluoromethane	104	0	85 - 115		%REC	1	03/23/11 01:09 PM
Surr: Toluene-d8	96.6	0	85 - 120		%REC	1	03/23/11 01:09 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
	B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
	C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
	DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
	E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
			S	Spike Recovery outside control limits

CLIENT: Zia Engineering & Environmental  
 Project: HELSFT TSA Groundwater Monitoring  
 Project No:  
 Lab Order: 1103153

Client Sample ID: HTSA-0197-HMW-150-0311  
 Lab ID: 1103153-02  
 Collection Date: 03/18/11 09:48 AM  
 Matrix: Aqueous

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 Water Volatiles by GC/MS		SW8260C					Analyst: KL
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 01:34 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/23/11 01:34 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 01:34 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 01:34 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 01:34 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 01:34 PM
Surr: 1,2-Dichloroethane-d4	98.3	0	70 - 120		%REC	1	03/23/11 01:34 PM
Surr: 4-Bromofluorobenzene	103	0	75 - 120		%REC	1	03/23/11 01:34 PM
Surr: Dibromofluoromethane	99.7	0	85 - 115		%REC	1	03/23/11 01:34 PM
Surr: Toluene-d8	98.2	0	85 - 120		%REC	1	03/23/11 01:34 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
	B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
	C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
	DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
	E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
			S	Spike Recovery outside control limits

CLIENT: Zia Engineering & Environmental  
 Project: HELSFT TSA Groundwater Monitoring  
 Project No:  
 Lab Order: 1103153

Client Sample ID: HTSA-0197-HMW-048-0311  
 Lab ID: 1103153-03  
 Collection Date: 03/18/11 11:05 AM  
 Matrix: Aqueous

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 Water Volatiles by GC/MS		SW8260C					Analyst: KL
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 02:00 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/23/11 02:00 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 02:00 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 02:00 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 02:00 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 02:00 PM
Surr: 1,2-Dichloroethane-d4	100	0	70 - 120		%REC	1	03/23/11 02:00 PM
Surr: 4-Bromofluorobenzene	102	0	75 - 120		%REC	1	03/23/11 02:00 PM
Surr: Dibromofluoromethane	103	0	85 - 115		%REC	1	03/23/11 02:00 PM
Surr: Toluene-d8	97.4	0	85 - 120		%REC	1	03/23/11 02:00 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
	B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
	C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
	DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
	E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
			S	Spike Recovery outside control limits

CLIENT: Zia Engineering & Environmental  
 Project: HELSFT TSA Groundwater Monitoring  
 Project No:  
 Lab Order: 1103153

Client Sample ID: HTSA-0197-TB-367-0311  
 Lab ID: 1103153-04  
 Collection Date: 03/18/11 09:48 AM  
 Matrix: Aqueous

Analyses	Result	MDL	RL	Qual	Units	DF	Date Analyzed
8260 Water Volatiles by GC/MS		SW8260C					Analyst: KL
Methyl tert-butyl ether	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 02:26 PM
Benzene	<0.000200	0.000200	0.00100		mg/L	1	03/23/11 02:26 PM
Ethylbenzene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 02:26 PM
Toluene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 02:26 PM
m,p-Xylene	<0.000600	0.000600	0.00200		mg/L	1	03/23/11 02:26 PM
o-Xylene	<0.000300	0.000300	0.00100		mg/L	1	03/23/11 02:26 PM
Surr: 1,2-Dichloroethane-d4	100	0	70 - 120		%REC	1	03/23/11 02:26 PM
Surr: 4-Bromofluorobenzene	102	0	75 - 120		%REC	1	03/23/11 02:26 PM
Surr: Dibromofluoromethane	103	0	85 - 115		%REC	1	03/23/11 02:26 PM
Surr: Toluene-d8	97.7	0	85 - 120		%REC	1	03/23/11 02:26 PM

Qualifiers:	*	Value exceeds TCLP Maximum Concentration Level	J	Analyte detected between MDL and RL
	B	Analyte detected in the associated Method Blank	MDL	Method Detection Limit
	C	Sample Result or QC discussed in the Case Narrative	N	Parameter not NELAC certified
	DF	Dilution Factor	ND	Not Detected at the Method Detection Limit
	E	TPH pattern not Gas or Diesel Range Pattern	RL	Reporting Limit
			S	Spike Recovery outside control limits

CLIENT: Zia Engineering & Environmental  
 Work Order: 1103153  
 Project: HELSFT TSA Groundwater Monitoring

**ANALYTICAL QC SUMMARY REPORT**

RunID: GCMS5\_110323A

Sample ID:	LCS-45555	Batch ID:	45555	TestNo:	SW8260C	Units:	mg/L			
SampType:	LCS	Run ID:	GCMS5_110323A	Analysis Date:	03/23/11 11:52 AM	Prep Date:	03/23/11			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0.0276	0.00100	0.0232	0	119	80	120			
Ethylbenzene	0.0266	0.00100	0.0232	0	115	75	125			
m,p-Xylene	0.0546	0.00200	0.0464	0	118	75	130			
Methyl tert-butyl ether	0.0284	0.00100	0.0232	0	123	65	125			
o-Xylene	0.0280	0.00100	0.0232	0	121	80	120			S
Toluene	0.0276	0.00200	0.0232	0	119	75	120			
Surr: 1,2-Dichloroethane-d4	199		200.0		99.6	70	120			
Surr: 4-Bromofluorobenzene	202		200.0		101	75	120			
Surr: Dibromofluoromethane	203		200.0		101	85	115			
Surr: Toluene-d8	196		200.0		98.2	85	120			

Sample ID:	MB-45555	Batch ID:	45555	TestNo:	SW8260C	Units:	mg/L			
SampType:	MBLK	Run ID:	GCMS5_110323A	Analysis Date:	03/23/11 12:43 PM	Prep Date:	03/23/11			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	<0.000200	0.00100								
Ethylbenzene	<0.000300	0.00100								
m,p-Xylene	<0.000600	0.00200								
Methyl tert-butyl ether	<0.000300	0.00100								
o-Xylene	<0.000300	0.00100								
Toluene	<0.000600	0.00200								
Surr: 1,2-Dichloroethane-d4	196		200.0		98.0	70	120			
Surr: 4-Bromofluorobenzene	202		200.0		101	75	120			
Surr: Dibromofluoromethane	199		200.0		99.4	85	115			
Surr: Toluene-d8	196		200.0		98.0	85	120			

Sample ID:	1103165-01AMS	Batch ID:	45555	TestNo:	SW8260C	Units:	mg/L			
SampType:	MS	Run ID:	GCMS5_110323A	Analysis Date:	03/23/11 09:03 PM	Prep Date:	03/23/11			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0.0233	0.00100	0.0232	0	100	80	120			
Ethylbenzene	0.0223	0.00100	0.0232	0	95.9	75	125			
m,p-Xylene	0.0447	0.00200	0.0464	0	96.4	75	130			
Methyl tert-butyl ether	0.0227	0.00100	0.0232	0	97.8	65	125			
o-Xylene	0.0220	0.00100	0.0232	0	94.9	80	120			
Toluene	0.0236	0.00200	0.0232	0	102	75	120			
Surr: 1,2-Dichloroethane-d4	203		200.0		102	70	120			
Surr: 4-Bromofluorobenzene	199		200.0		99.5	75	120			
Surr: Dibromofluoromethane	200		200.0		100	85	115			
Surr: Toluene-d8	195		200.0		97.6	85	120			

Sample ID:	1103165-01AMSD	Batch ID:	45555	TestNo:	SW8260C	Units:	mg/L			
SampType:	MSD	Run ID:	GCMS5_110323A	Analysis Date:	03/23/11 09:29 PM	Prep Date:	03/23/11			
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0.0237	0.00100	0.0232	0	102	80	120	1.83	30	
Ethylbenzene	0.0225	0.00100	0.0232	0	96.8	75	125	0.894	30	

Qualifiers:	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental  
 Work Order: 1103153  
 Project: HELSFT TSA Groundwater Monitoring

**ANALYTICAL QC SUMMARY REPORT**

RunID: GCMS5\_110323A

m,p-Xylene	0.0444	0.00200	0.0464	0	95.6	75	130	0.786	30
Methyl tert-butyl ether	0.0229	0.00100	0.0232	0	98.5	65	125	0.702	30
o-Xylene	0.0220	0.00100	0.0232	0	94.6	80	120	0.318	30
Toluene	0.0236	0.00200	0.0232	0	102	75	120	0.084	30
Surr: 1,2-Dichloroethane-d4	203		200.0		102	70	120	0	0
Surr: 4-Bromofluorobenzene	201		200.0		100	75	120	0	0
Surr: Dibromofluoromethane	201		200.0		101	85	115	0	0
Surr: Toluene-d8	196		200.0		98.1	85	120	0	0

Qualifiers: B Analyte detected in the associated Method Blank  
 DF Dilution Factor  
 J Analyte detected between MDL and RL  
 MDL Method Detection Limit  
 ND Not Detected at the Method Detection Limit

R RPD outside accepted control limits  
 RL Reporting Limit  
 S Spike Recovery outside control limits  
 J Analyte detected between SDL and RL  
 N Parameter not NELAC certified

CLIENT: Zia Engineering & Environmental  
 Work Order: 1103153  
 Project: HELSFT TSA Groundwater Monitoring

**ANALYTICAL QC SUMMARY REPORT**

RunID: GCMS5\_110323A

Sample ID:	ICV-110323	Batch ID:	R54057	TestNo:	SW8260C	Units:	mg/L			
SampType:	ICV	Run ID:	GCMS5_110323A	Analysis Date:	03/23/11 10:59 AM	Prep Date:				
Analyte	Result	RL	SPK value	Ref Val	%REC	LowLimit	HighLimit	%RPD	RPD Limit	Qual
Benzene	0.0521	0.00100	0.0464	0	112	80	120			
Ethylbenzene	0.0509	0.00100	0.0464	0	110	80	120			
m,p-Xylene	0.105	0.00200	0.0928	0	113	80	120			
Methyl tert-butyl ether	0.0539	0.00100	0.0464	0	116	80	120			
o-Xylene	0.0542	0.00100	0.0464	0	117	80	120			
Toluene	0.0520	0.00200	0.0464	0	112	80	120			
Surr: 1,2-Dichloroethane-d4	198		200.0		99.0	70	120			
Surr: 4-Bromofluorobenzene	202		200.0		101	75	120			
Surr: Dibromofluoromethane	199		200.0		99.4	85	115			
Surr: Toluene-d8	199		200.0		99.5	85	120			

Qualifiers:	B	Analyte detected in the associated Method Blank	R	RPD outside accepted control limits
	DF	Dilution Factor	RL	Reporting Limit
	J	Analyte detected between MDL and RL	S	Spike Recovery outside control limits
	MDL	Method Detection Limit	J	Analyte detected between SDL and RL
	ND	Not Detected at the Method Detection Limit	N	Parameter not NELAC certified