

# **LONGHORN ARMY AMMUNITION PLANT KARNACK, TEXAS**

## **ADMINISTRATIVE RECORD**

**Volume 9 of 16**

**2011**

**Bate Stamp Numbers**

**00106290 – 00107065**

**Prepared for**

**Department of the Army  
Longhorn Army Ammunition Plant**

**1976 – 2011**

***LONGHORN ARMY AMMUNITION PLANT  
KARNACK, TEXAS  
ADMINISTRATIVE RECORD – CHRONOLOGICAL INDEX***

VOLUME 9 of 16

2011

- A. Title: Report (continued) – Final Feasibility Study LHAAP-47, Plant 3 Area,  
Group 4, Longhorn Army Ammunition Plant, Karnack, Texas  
Author(s): Shaw Environmental, Inc., Houston, Texas  
Recipient: All Stakeholders  
Date: July 27, 2011  
Bate Stamp: 00106290 - 00107065



158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

**Laboratory Report Number: L10090689**

Client: Jennifer Hoang, 1401 Enclave Parkway, Houston, TX, 77077  
Contract #: DACA56-94-D-0020

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

|                           |                                     |                                 |
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| <b>Annie Brown</b>        | <i>Client Services Specialist</i>   | Annie.Brown@microbac.com        |

This report was reviewed on October 06, 2010.

A handwritten signature in cursive script that reads "Stephanie Mossburg".

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on October 06, 2010.

A handwritten signature in cursive script that reads "David E. Vandenberg".

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac OVD

This report contains a total of 58 pages.

***Look closer. Go further. Do more.***



The Microbac logo consists of the word "Microbac" in a white serif font, centered within a dark teal rectangular box. The text is underlined with a thin white line.

Microbac Laboratories, Inc.  
Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750

Phone: 800.373.4071  
Fax: 740.373.4835

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**LOOK CLOSER, GO FURTHER, DO MORE.**

**Microbac REPORT L10090689**  
**PREPARED FOR Shaw E I, Inc.**  
**WORK ID:**

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# **1.0 Introduction**



**Login Number:** L10090689

**Department:** Login

**Analyst:** N/A

**Chain of Custody:**

**Shipment Conditions**

| COC #            | Cooler # | Temperature |
|------------------|----------|-------------|
| lhaap47-092210-3 | 0014405  | 3.0         |

**Sample Management:** All samples were received intact.

**Sample Identification**

| Lab ID       | Client ID      |
|--------------|----------------|
| L10090689-03 | 47SB-F07 (4-6) |

**Narrative ID:** 12183

**Approved By:** Stephanie Mossburg

*Stephanie Mossburg*



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10090689    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG344231     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-06   |                               |              |

## Laboratory Data Package Cover Page

|     |                                                                                                                                                                                                                                                                                                                                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Chapter 5, (b) dilution factors, (c) preparation methods, (d) cleanup methods, and (e) a. 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 compounds, (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) and detectability check sample results for each analyte for each method and matrix.                                                                                                                                                                                                                                          |
| R10 | Other problems or anomalies.                                                                                                                                                                                                                                                                                                                                           |

| Name (Printed) | Signature | Official Title (Printed)     | Date       |
|----------------|-----------|------------------------------|------------|
| Mike Cochran   |           | Semivolatiles Lab Supervisor | 10/06/2010 |





|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10090689    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG344231     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-06   |                               |              |

| Description                                                                                                                   | Yes | No | NA | NR | ER# |
|-------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Chain-of-custody (C-O-C)                                                                                                      |     |    |    |    |     |
| Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X   |    |    |    |     |
| Were all departures from standard conditions described in an exception report?                                                | X   |    |    |    |     |
| Sample and quality control (QC) identification                                                                                | X   |    |    |    |     |
| Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X   |    |    |    |     |
| Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X   |    |    |    |     |
| Test reports                                                                                                                  |     |    |    |    |     |
| Were all samples prepared and analyzed within holding times?                                                                  | X   |    |    |    |     |
| Other than those results < MQL, were all other raw values bracketed by calibration standards?                                 | X   |    |    |    |     |
| Were calculations checked by a peer or supervisor?                                                                            | X   |    |    |    |     |
| Were all analyte identifications checked by a peer or supervisor?                                                             | X   |    |    |    |     |
| Were sample detection limits reported for all analytes not detected?                                                          | X   |    |    |    |     |
| Were all results for soil and sediment samples reported on a dry weight basis?                                                | X   |    |    |    |     |
| Were % moisture (or solids) reported for all soil and sediment samples?                                                       | X   |    |    |    |     |
| Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?                           |     |    | X  |    |     |
| If required for the project, are TICs reported?                                                                               |     |    | X  |    |     |
| Surrogate recovery data                                                                                                       |     |    |    |    |     |
| Were surrogates added prior to extraction?                                                                                    |     |    | X  |    |     |
| Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             |     |    | X  |    |     |
| Test reports/summary forms for blank samples                                                                                  | X   |    |    |    |     |
| Were appropriate type(s) of blanks analyzed?                                                                                  | X   |    |    |    |     |
| Were blanks analyzed at the appropriate frequency?                                                                            | X   |    |    |    |     |
| Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X   |    |    |    |     |
| Were blank concentrations < MQL?                                                                                              | X   |    |    |    |     |
| Laboratory control samples (LCS):                                                                                             |     |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10090689    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG344231     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-06   |                               |              |

| Description                                                                                                                                                              | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were all COCs included in the LCS?                                                                                                                                       | X   |    |    |    |     |
| Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                                                            | X   |    |    |    |     |
| Were LCSs analyzed at the required frequency?                                                                                                                            | X   |    |    |    |     |
| Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                                                                  | X   |    |    |    |     |
| Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?                                  | X   |    |    |    |     |
| Was the LCSD RPD within QC limits?                                                                                                                                       |     |    | X  |    |     |
| Matrix spike (MS) and matrix spike duplicate (MSD) data                                                                                                                  |     |    |    |    |     |
| Were the project/method specified analytes included in the MS and MSD?                                                                                                   |     |    | X  |    |     |
| Were MS/MSD analyzed at the appropriate frequency?                                                                                                                       |     |    | X  |    |     |
| Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                                                                    |     |    | X  |    |     |
| Were MS/MSD RPDs within laboratory QC limits?                                                                                                                            |     |    | X  |    |     |
| Analytical duplicate data                                                                                                                                                |     |    |    |    |     |
| Were appropriate analytical duplicates analyzed for each matrix?                                                                                                         |     |    | X  |    |     |
| Were analytical duplicates analyzed at the appropriate frequency?                                                                                                        |     |    | X  |    |     |
| Were RPDs or relative standard deviations within the laboratory QC limits?                                                                                               |     |    | X  |    |     |
| Method quantitation limits (MQLs):                                                                                                                                       |     |    |    |    |     |
| Are the MQLs for each method analyte included in the laboratory data package?                                                                                            | X   |    |    |    |     |
| Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                                                                 | X   |    |    |    |     |
| Are unadjusted MQLs and DCSs included in the laboratory data package?                                                                                                    | X   |    |    |    |     |
| Other problems/anomalies                                                                                                                                                 |     |    |    |    |     |
| Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                                                            | X   |    |    |    |     |
| Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?                                         |     |    | X  |    |     |
| Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X   |    |    |    |     |
| Initial calibration (ICAL)                                                                                                                                               |     |    |    |    |     |
| Were response factors and/or relative response factors for each analyte within QC                                                                                        | X   |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10090689    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG344231     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-06   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| limits?                                                                                                |     |    |    |    |     |
| Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |    |    |     |
| Was the number of standards recommended in the method used for all analytes?                           | X   |    |    |    |     |
| Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |    |    |     |
| Are ICAL data available for all instruments used?                                                      | X   |    |    |    |     |
| Has the initial calibration curve been verified using an appropriate second source standard?           | X   |    |    |    |     |
| Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB): |     |    |    |    |     |
| Was the CCV analyzed at the method-required frequency?                                                 | X   |    |    |    |     |
| Were percent differences for each analyte within the method-required QC limits?                        | X   |    |    |    |     |
| Was the ICAL curve verified for each analyte?                                                          | X   |    |    |    |     |
| Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |    |    |     |
| Mass spectral tuning                                                                                   |     |    |    |    |     |
| Was the appropriate compound for the method used for tuning?                                           | X   |    |    |    |     |
| Were ion abundance data within the method-required QC limits?                                          | X   |    |    |    |     |
| Internal standards (IS)                                                                                |     |    |    |    |     |
| Were IS area counts and retention times within the method-required QC limits?                          | X   |    |    |    |     |
| Raw data (NELAC Section 5.5.10)                                                                        |     |    |    |    |     |
| Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |    |    |     |
| Were data associated with manual integrations flagged on the raw data?                                 | X   |    |    |    |     |
| Dual column confirmation                                                                               |     |    |    |    |     |
| Did dual column confirmation results meet the method-required QC?                                      |     |    | X  |    |     |
| Tentatively identified compounds (TICs)                                                                |     |    |    |    |     |
| If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?              |     |    | X  |    |     |
| Interference Check Sample (ICS) results                                                                |     |    |    |    |     |
| Were percent recoveries within method QC limits?                                                       |     |    | X  |    |     |
| Serial dilutions, post digestion spikes, and method of standard additions                              |     |    |    |    |     |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10090689    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG344231     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-06   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were percent differences, recoveries, and the linearity within the QC limits specified in the method?  |     |    | X  |    |     |
| Method detection limit (MDL) studies                                                                   |     |    |    |    |     |
| Was a MDL study performed for each reported analyte?                                                   | X   |    |    |    |     |
| Is the MDL either adjusted or supported by the analysis of DCSs?                                       | X   |    |    |    |     |
| Proficiency test reports                                                                               |     |    |    |    |     |
| Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |    |    |     |
| Standards documentation                                                                                |     |    |    |    |     |
| Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |    |    |     |
| Compound/analyte identification procedures                                                             |     |    |    |    |     |
| Are the procedures for compound/analyte identification documented?                                     | X   |    |    |    |     |
| Demonstration of analyst competency (DOC)                                                              |     |    |    |    |     |
| Was DOC conducted consistent with NELAC Chapter 5?                                                     | X   |    |    |    |     |
| Is documentation of the analyst's competency up-to-date and on file?                                   | X   |    |    |    |     |
| Verification/validation documentation for methods (NELAC Chapter 5)                                    |     |    |    |    |     |
| Are all the methods used to generate the data documented, verified, and validated, where applicable?   | X   |    |    |    |     |
| Laboratory standard operating procedures (SOPs)                                                        |     |    |    |    |     |
| Are laboratory SOPs current and on file for each method performed                                      | X   |    |    |    |     |

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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).

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte,



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10090689    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG344231     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-06   |                               |              |

matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

**Check, if applicable:** ☐ This laboratory meets an exception under 30 TAC §25.6 and was last inspection by ☐ TCEQ or ☐ \_\_\_\_\_ on **(enter date of last inspection)**. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

#### Exceptions Report

## **2.1 General Chromatography Data**

## **2.1.1 LC/MS Data (6850)**

## **2.1.1.1 Summary Data**



# LABORATORY REPORT

L10090689

00106304

10/06/10 15:12

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: Shaw E & I, Inc.  
1401 Enclave Parkway  
Suite 250  
Houston, TX 77077  
Attention: Jennifer Hoang

Project Number: 2773.025  
Project: Longhorn AAP  
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

## Sample Analysis Summary

| Client ID      | Lab ID       | Method | Dilution | Date Received |
|----------------|--------------|--------|----------|---------------|
| 47SB-F07 (4-6) | L10090689-03 | 6850   | 1        | 23-SEP-10     |



Report Number: **L10090689**Report Date : **October 6, 2010****00106305**

Sample Number: **L10090689-03**  
Client ID: **47SB-F07 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344231**  
Collect Date: **09/20/2010 14:10**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **09/30/2010 12:01**  
Cal Date: **10/01/2010 14:02**  
Run Date: **10/02/2010 05:27**  
File ID: **1LM.LM06352**  
Percent Solid: **84.8**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 1.70   | J    | 2.32 | 1.16 |

J The analyte was positively identified, but the quantitation was below the RL

1 of 1



## **2.1.1.2 QC Summary Data**

**Example Calculation 6850 - Perchlorate****Concentration from Linear Regression****Step 1: Retrieve Curve Data From Plot,  $y = mx + b$** 

$y$  = response ratio = response of analyte / response of internal standard (IS) =  $R_x/R_{istd}$

$x$  = amount ratio = concentration analyte/concentration internal standard (IS) =  $C_x / C_{istd}$

$m$  = slope from curve (1.45)

$b$  = intercept from curve (-0.00242)

$y = 1.45x + -0.00242$

**Step 2: Substitute the value for  $y$** 

where  $y = 12600/226000 = 0.055752$

**Step 3: Solve for  $x$** 

$x = (y - b)/m = 0.0040119$

**Step 4: Solve for analyte concentration  $C_x$** 

$C_x = (C_{is})(x) = (5 \text{ ug/L})(0.0040119) = 0.0200594 \text{ ug/L}$

**Example Calculation - Water:**

|                                             |          |
|---------------------------------------------|----------|
| Slope from curve, $m$ :                     | 1.45     |
| Intercept from curve, $b$ :                 | -0.00242 |
| Response of analyte, $R_x$ :                | 12600    |
| Response of Internal Standard, $R_{istd}$ : | 226000   |
| Concentration of IS, $C_{istd}$ (ug/L):     | 5.00     |
| Response Ratio:                             | 0.05575  |
| Amount Ratio:                               | 0.04012  |
| Analyte Concentration, $C_x$ (ug/L) :       | 0.200594 |

**Example Calculation - Soil:**

|                                      |          |
|--------------------------------------|----------|
| Analyte Concentration, $C_x$ (ug/L): | 0.20059  |
| Amount of soil extracted (g):        | 5.00     |
| Final volume of extract (mL):        | 50.00    |
| Percent solids (Pct wt.)             | 100      |
| Concentration in soil (ug/kg):       | 2.005938 |

**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100110\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100703

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344229, 344231

CCV Std: STD41363 LCS STD: STD41363  
 Internal STD: COA14815 Surrogate STD: NA Calibration STD: STD41363

Comments: WG344228-01 CCB was inadvertently omitted from the sequence table. The method blank for WG344229 was analyzed prior to sample analyses.

| Seq. | File ID     | Sample Information          | Mat | Dil | Reference | Date/Time      |
|------|-------------|-----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06310 | WG344227-01 CCB             | 1   | 1   |           | 10/01/10 10:56 |
| 2    | 1LM.LM06311 | WG344227-02 0.1ug/L STD     | 1   | 1   | STD41363  | 10/01/10 11:23 |
| 3    | 1LM.LM06312 | WG344227-03 0.2ug/L STD     | 1   | 1   | STD41363  | 10/01/10 11:49 |
| 4    | 1LM.LM06313 | WG344227-04 0.5ug/L STD     | 1   | 1   | STD41363  | 10/01/10 12:16 |
| 5    | 1LM.LM06314 | WG344227-05 1.0ug/L STD     | 1   | 1   | STD41363  | 10/01/10 12:42 |
| 6    | 1LM.LM06315 | WG344227-06 2.0ug/L STD     | 1   | 1   | STD41363  | 10/01/10 13:09 |
| 7    | 1LM.LM06316 | WG344227-07 5.0ug/L STD     | 1   | 1   | STD41363  | 10/01/10 13:35 |
| 8    | 1LM.LM06317 | WG344227-08 10ug/L STD      | 1   | 1   | STD41363  | 10/01/10 14:02 |
| 9    | 1LM.LM06318 | WG344227-09 1.0ug/L ALT SRC | 1   | 1   | STD41365  | 10/01/10 14:28 |
| 10   | 1LM.LM06319 | WG344228-02 1.0ug/L CCV     | 1   | 1   | STD41363  | 10/01/10 14:54 |
| 11   | 1LM.LM06320 | WG344229-05 0.2ug/L QCMRL   | 1   | 1   | STD41363  | 10/01/10 15:21 |
| 12   | 1LM.LM06321 | WG344229-01 0.2ug/L MCT     | 1   | 1   | STD41363  | 10/01/10 15:47 |
| 13   | 1LM.LM06322 | WG344229-02 MET BLANK       | 1   | 1   |           | 10/01/10 16:14 |
| 14   | 1LM.LM06323 | WG344229-03 0.2ug/L LCS     | 1   | 1   | STD41363  | 10/01/10 16:40 |
| 15   | 1LM.LM06324 | WG344229-04 0.2ug/L LCSD    | 1   | 1   | STD41363  | 10/01/10 17:07 |
| 16   | 1LM.LM06325 | L10090575-01                | 1   | 1   |           | 10/01/10 17:33 |
| 17   | 1LM.LM06326 | L10090575-02                | 1   | 1   |           | 10/01/10 18:00 |
| 18   | 1LM.LM06327 | L10090615-01                | 1   | 1   |           | 10/01/10 18:26 |
| 19   | 1LM.LM06328 | L10090786-04                | 1   | 1   | STD41363  | 10/01/10 18:52 |
| 20   | 1LM.LM06329 | WG344228-03 1.0ug/L CCV     | 1   | 1   | STD41363  | 10/01/10 19:19 |
| 47   | 1LM.LM06330 | WG344231-07 2.0ug/kg QCMRL  | 7   | 1   | STD41363  | 10/01/10 19:45 |
| 22   | 1LM.LM06331 | WG344228-04 CCB             | 1   | 1   |           | 10/01/10 20:12 |
| 23   | 1LM.LM06332 | WG344231-01 2.0ug/kg MCT    | 7   | 1   | STD41363  | 10/01/10 20:38 |
| 24   | 1LM.LM06333 | WG344231-02 MET BLANK       | 7   | 1   |           | 10/01/10 21:05 |
| 25   | 1LM.LM06334 | WG344231-03 2.0ug/kg LCS    | 7   | 1   | STD41363  | 10/01/10 21:31 |
| 26   | 1LM.LM06335 | L10090609-01                | 7   | 1   |           | 10/01/10 21:58 |
| 27   | 1LM.LM06336 | L10090609-02                | 7   | 1   |           | 10/01/10 22:24 |
| 28   | 1LM.LM06337 | L10090609-03                | 7   | 1   |           | 10/01/10 22:51 |
| 29   | 1LM.LM06338 | L10090609-04                | 7   | 1   |           | 10/01/10 23:17 |
| 30   | 1LM.LM06339 | L10090609-05                | 7   | 1   |           | 10/01/10 23:44 |
| 31   | 1LM.LM06340 | L10090609-06                | 7   | 1   |           | 10/02/10 00:10 |
| 32   | 1LM.LM06341 | L10090609-07 100X           | 7   | 100 |           | 10/02/10 00:36 |
| 33   | 1LM.LM06342 | WG344228-05 1.0ug/L CCV     | 1   | 1   | STD41363  | 10/02/10 01:03 |
| 34   | 1LM.LM06343 | WG344231-08 0.2ug/L QCMRL   | 7   | 1   | STD41363  | 10/02/10 01:29 |




**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100110\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100703

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344229, 344231

CCV Std: STD41363 LCS STD: STD41363  
 Internal STD: COA14815 Surrogate STD: NA STD41363

| Seq. | File ID     | Sample Information        | Mat | Dil  | Reference | Date/Time      |
|------|-------------|---------------------------|-----|------|-----------|----------------|
| 35   | 1LM.LM06344 | WG344228-06 CCB           | 1   | 1    |           | 10/02/10 01:56 |
| 36   | 1LM.LM06345 | L10090609-08              | 7   | 1    |           | 10/02/10 02:22 |
| 37   | 1LM.LM06346 | L10090609-09              | 7   | 1    |           | 10/02/10 02:49 |
| 38   | 1LM.LM06347 | L10090609-10              | 7   | 1    |           | 10/02/10 03:15 |
| 39   | 1LM.LM06348 | L10090609-11 1000X        | 7   | 1000 |           | 10/02/10 03:41 |
| 48   | 1LM.LM06349 | L10090609-12              | 7   | 1    |           | 10/02/10 04:08 |
| 49   | 1LM.LM06350 | L10090609-13              | 7   | 1    | STD41363  | 10/02/10 04:34 |
| 50   | 1LM.LM06351 | L10090609-14              | 7   | 1    | STD41363  | 10/02/10 05:01 |
| 43   | 1LM.LM06352 | L10090689-03              | 7   | 1    |           | 10/02/10 05:27 |
| 44   | 1LM.LM06353 | WG344228-07 1.0ug/L CCV   | 1   | 1    | STD41363  | 10/02/10 05:54 |
| 45   | 1LM.LM06354 | WG344231-09 0.2ug/L QCMRL | 7   | 1    | STD41363  | 10/02/10 06:20 |
| 46   | 1LM.LM06355 | WG344228-08 CCB           | 1   | 1    |           | 10/02/10 06:47 |

Comments

| Seq. | Rerun | Dil. | Reason | Analytes |
|------|-------|------|--------|----------|
|------|-------|------|--------|----------|




## Microbac Laboratories Inc.

## Data Checklist

Date: 01-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36727

Analytical Workgroups: 344229, 344231

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | X   |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | X   |
| Alternate source standard (ICV) % Difference                       | X   |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | X   |
| Recoveries                                                         | X   |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | X   |
| Recoveries                                                         | X   |
| %RPD                                                               | X   |
| Interference check sample (ICS) (LCMS)                             | X   |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | X   |
| Reruns                                                             | NA  |
| Manual integrations                                                | X   |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | MDC |

Primary Reviewer:  
04-OCT-2010

Secondary Reviewer:  
04-OCT-2010

*Wade D. [Signature]* *Michael [Signature]*

Analytical Method: 6850  
Login Number: L10090689

AAB#: WG344231

| Client ID      | ID | Date Collected | TCLP Date | Time Held | Max Hold | Q | Extract Date | Time Held | Max Hold | Q | Run Date | Time Held | Max Hold | Q |
|----------------|----|----------------|-----------|-----------|----------|---|--------------|-----------|----------|---|----------|-----------|----------|---|
| 47SB-F07 (4-6) | 03 | 09/20/10       |           |           |          |   | 09/30/10     | 9.9       | 28       |   | 10/02/10 | 1.7       | 28       |   |

\* = SEE PROJECT QAPP REQUIREMENTS



## METHOD BLANK SUMMARY

Login Number: L10090689  
Blank File ID: 1LM.LM06333  
Prep Date: 09/30/10 12:01  
Analyzed Date: 10/01/10 21:05  
Analyst: WTD

Work Group: WG344231  
Blank Sample ID: WG344231-02  
Instrument ID: LCMS1  
Method: 6850

This Method Blank Applies To The Following Samples:

| Client ID      | Lab Sample ID | Lab File ID | Time Analyzed  | TAG |
|----------------|---------------|-------------|----------------|-----|
| QCMRL          | WG344231-07   | 1LM.LM06330 | 10/01/10 19:45 | 01  |
| MCT            | WG344231-01   | 1LM.LM06332 | 10/01/10 20:38 | 01  |
| LCS            | WG344231-03   | 1LM.LM06334 | 10/01/10 21:31 | 01  |
| QCMRL          | WG344231-08   | 1LM.LM06343 | 10/02/10 01:29 | 01  |
| 47SB-F07 (4-6) | L10090689-03  | 1LM.LM06352 | 10/02/10 05:27 | 01  |
| QCMRL          | WG344231-09   | 1LM.LM06354 | 10/02/10 06:20 | 01  |

Login Number: L10090689 Prep Date: 09/30/10 12:01 Sample ID: WG344231-02  
Instrument ID: LCMS1 Run Date: 10/01/10 21:05 Prep Method: 6850  
File ID: 1LM.LM06333 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344231 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 01-OCT-10

| Analytes    | SDL   | PQL  | Concentration | Dilution | Qualifier |
|-------------|-------|------|---------------|----------|-----------|
| Perchlorate | 0.981 | 1.96 | 0.981         | 1        | U         |

SDL Method Detection Limit  
PQL Reporting/Practical Quantitation Limit  
ND Analyte Not detected at or above reporting limit  
\* |Analyte concentration| > RL

Report Name: BLANK  
PDF ID: 1796724  
05-OCT-2010 16:21



Login Number: L10090689 Run Date: 10/01/2010 Sample ID: WG344231-03  
Instrument ID: LCMS1 Run Time: 21:31 Prep Method: 6850  
File ID: 1LM.LM06334 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344231 Matrix: Soil Units: ug/kg  
QC Key: STD Lot#: STD41363 Cal ID: LCMS1 - 01-OCT-10

| Analytes    | Expected | Found | % Rec | LCS Limits | Q |
|-------------|----------|-------|-------|------------|---|
| Perchlorate | 1.98     | 1.73  | 87.5  | 80 - 120   |   |

Conductivity Probe  
 Calibration Check:  
1408 /1410  $\mu\text{S}/\text{cm}$

### Perchlorate Conductivity Check

Working MCT Level:  
10,000  $\mu\text{S}/\text{cm}$

| Sample           | Conductivity ( $\mu\text{S}/\text{cm}$ ) | Pretreatment or Dilution Needed |
|------------------|------------------------------------------|---------------------------------|
| WG-344231-01 MCT | 10,340                                   | N/A                             |
| -02 B16          | 7.7                                      | ↓                               |
| -03 LCS          | 6.6                                      |                                 |
| L10090609-01     | 2.4                                      |                                 |
| -02              | 4.9                                      |                                 |
| -03              | 5.0                                      |                                 |
| -04              | 4.1                                      |                                 |
| -05              | 18.8                                     |                                 |
| -06              | 12.3                                     |                                 |
| -07              | 7.5                                      |                                 |
| -08              | 3.9                                      |                                 |
| -09              | 4.6                                      |                                 |
| -10              | 5.2                                      |                                 |
| -11              | 18.4                                     |                                 |
| -12              | 3.0                                      |                                 |
| -13              | 3.5                                      |                                 |
| -14              | 3.4                                      |                                 |
| L10090689-03     | 6.5                                      | ↓                               |
|                  |                                          |                                 |
|                  |                                          |                                 |
|                  |                                          |                                 |

Wadei. DeLy  
 Analyst

9-30-10/ 16:35  
 Date/Time

DCN#84592



Login Number: L10090689  
Analytical Method: 6850  
ICAL Workgroup: WG344227

Instrument ID: LCMS1  
Initial Calibration Date: 01-OCT-10 14:02  
Column ID: F

| Analyte     |  | AVG RF | % RSD | LINEAR (R) | QUAD (R <sup>2</sup> ) |
|-------------|--|--------|-------|------------|------------------------|
| Perchlorate |  | 1.266  | 5.84  | 1.00000    |                        |

R = Correlation coefficient; 0.995 minimum  
R<sup>2</sup> = Coefficient of determination; 0.99 minimum

Login Number: L10090689  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 01-OCT-10 14:02  
Column ID: F

| Analyte     | WG344227-02 |            |       | WG344227-03 |            |       | WG344227-04 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 0.100       | 3420.00000 | 1.335 | 0.200       | 6950.00000 | 1.375 | 0.500       | 16300.0000 | 1.281 |

Login Number: L10090689  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 01-OCT-10 14:02  
Column ID: F

| Analyte     | WG344227-05 |            |       | WG344227-06 |            |       | WG344227-07 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 1.00        | 30900.0000 | 1.227 | 2.00        | 62800.0000 | 1.227 | 5.00        | 154000.000 | 1.222 |

Login Number: L10090689  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 01-OCT-10 14:02  
Column ID: F

| Analyte     | WG344227-08 |            |       |
|-------------|-------------|------------|-------|
|             | CONC        | RESP       | RF    |
| Perchlorate | 10.0        | 297000.000 | 1.192 |



Login Number: L10090689 Run Date: 10/01/2010 Sample ID: WG344227-09  
Instrument ID: LCMS1 Run Time: 14:28 Method: 6850  
File ID: 1LM.LM06318 Analyst: WTD QC Key: STD  
ICal Workgroup: WG344227 Cal ID: LCMS1 - 01-OCT-10

| Analyte     | Expected | Found | Units | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 0.987 | ug/L  | 1.21 | 1.30 | 15  |   |

\* Exceeds %D Limit

Login Number: L10090689 Run Date: 10/01/2010 Sample ID: WG344228-04  
Instrument ID: LCMS1 Run Time: 20:12 Method: 6850  
File ID: 1LM.LM06331 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344231 Cal ID: LCMS1 - 01-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10090689 Run Date: 10/02/2010 Sample ID: WG344228-06  
Instrument ID: LCMS1 Run Time: 01:56 Method: 6850  
File ID: 1LM.LM06344 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344231 Cal ID: LCMS1 - 01-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10090689 Run Date: 10/02/2010 Sample ID: WG344228-08  
Instrument ID: LCMS1 Run Time: 06:47 Method: 6850  
File ID: 1LM.LM06355 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344231 Cal ID: LCMS1 - 01-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10090689 Run Date: 10/01/2010 Sample ID: WG344228-03  
Instrument ID: LCMS1 Run Time: 19:19 Method: 6850  
File ID: 1LM.LM06329 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344231 Cal ID: LCMS1 - 01-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 0.977 | ug/L  | 1.20 | 2.30 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10090689 Run Date: 10/02/2010 Sample ID: WG344228-05  
Instrument ID: LCMS1 Run Time: 01:03 Method: 6850  
File ID: 1LM.LM06342 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344231 Cal ID: LCMS1 - 01-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.01  | ug/L  | 1.24 | 1.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10090689 Run Date: 10/02/2010 Sample ID: WG344228-07  
Instrument ID: LCMS1 Run Time: 05:54 Method: 6850  
File ID: 1LM.LM06353 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344231 Cal ID: LCMS1 - 01-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.01  | ug/L  | 1.24 | 1.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10090689 Run Date: 10/01/2010 Sample ID: WG344231-07  
Instrument ID: LCMS1 Run Time: 19:45 Prep Method: 6850  
File ID: 1LM.LM06330 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344231 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 01-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.34  | 117   | 70 - 130 |   |



Login Number: L10090689 Run Date: 10/02/2010 Sample ID: WG344231-08  
Instrument ID: LCMS1 Run Time: 01:29 Prep Method: 6850  
File ID: 1LM.LM06343 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344231 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 01-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.13  | 107   | 70 - 130 |   |

Login Number: L10090689 Run Date: 10/02/2010 Sample ID: WG344231-09  
Instrument ID: LCMS1 Run Time: 06:20 Prep Method: 6850  
File ID: 1LM.LM06354 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344231 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 01-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.34  | 117   | 70 - 130 |   |

Login Number: L10090689  
Instrument ID: LCMS1  
Workgroup (AAB#): WG344231

ICAL CCV Number: WG344227-05  
CAL ID: LCMS1 - 01-OCT-10  
Matrix: SOLID

| Sample Number | Dilution | Tag | IS-1   |
|---------------|----------|-----|--------|
| WG344227      | NA       | NA  | 127000 |
| Upper Limit   | NA       | NA  | 190500 |
| Lower Limit   | NA       | NA  | 63500  |
| L10090689-03  | 1.00     | 01  | 145000 |
| WG344231-02   | 1.00     | 01  | 135000 |
| WG344231-03   | 1.00     | 01  | 138000 |

IS-1 - 018LP

Underline = Response outside limits

## **2.2 General Chemistry Data**

## **2.2.1 Percent Solids Data**

## **2.2.1.1 Raw Data**

# LABORATORY REPORT

L10090689

00106334

10/06/10 15:12

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: Shaw E & I, Inc.  
1401 Enclave Parkway  
Suite 250  
Houston, TX 77077  
Attention: Jennifer Hoang

Project Number: 2773.025  
Project: Longhorn AAP  
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

## Sample Analysis Summary

| Client ID      | Lab ID       | Method   | Dilution | Date Received |
|----------------|--------------|----------|----------|---------------|
| 47SB-F07 (4-6) | L10090689-03 | D2216-90 | 1        | 23-SEP-10     |



Report Number: **L10090689**Report Date : **October 6, 2010**

00106335

Sample Number: **L10090689-03**  
Client ID: **47SB-F07 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **W6344445**  
Collect Date: **09/20/2010 14:10**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/04/2010 08:38**  
Cal Date:   
Run Date: **10/04/2010 08:38**  
File ID: **B1.344445-0101**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 84.8   |      | 1.00 | 1.00 |

1 of 1





**Example Percent Solids Calculations****1.0 Calculating the percent solids of a sample.**

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container

1.30 g

WT2 = Weight, in grams, of the container and wet sample

21.274 g

WT3 = Weight, in grams, of the container and dried sample

5.21 g

F = Factor to get units as percent weight

100

%Solids = Percent solids present in sample.

19.58%

**2.0 Calculating the percent moisture of a sample.**

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

Workgroup (AAB#): WG344445  
 Method: D2216-90  
 SOP: K0003 Rev: 10

Analyst: JDH  
 Instrument: BAL001

ADT(on): 10/01/2010 14:58  
 ADT(off): 10/04/2010 08:38

| SAMPLE NUMBER | EMPTY PAN WT 1 | WET WT 2 | DRY WT 3A | DRY WT 3B | DRY WT 3C | PERCENT SOLID | PERCENT MOISTURE |
|---------------|----------------|----------|-----------|-----------|-----------|---------------|------------------|
| L10090474-01  | 1.32           | 21.5     | 14.76     |           |           | 66.60         |                  |
| L10090474-02  | 1.31           | 24.76    | 17.43     |           |           | 68.74         |                  |
| L10090474-03  | 1.32           | 21.5     | 17.43     |           |           | 79.83         |                  |
| L10090474-04  | 1.32           | 21.5     | 17.43     |           |           | 79.83         |                  |
| L10090689-03  | 1.31           | 28.98    | 24.77     |           |           | 84.78         |                  |
| L10090748-01  | 1.32           | 32.05    | 30.34     |           |           | 94.44         |                  |
| L10090748-02  | 1.31           | 26.42    | 23.24     |           |           | 87.34         |                  |
| L10090748-03  | 1.32           | 11.11    | 10.03     |           |           | 88.97         |                  |
| L10090748-04  | 1.32           | 11.11    | 10.03     |           |           | 88.97         |                  |
| L10090748-05  | 1.32           | 11.11    | 10.03     |           |           | 88.97         |                  |
| L10090748-06  | 1.33           | 24.1     | 19.92     |           |           | 81.64         |                  |
| L10100011-01  | 1.31           | 17.3     | 13.83     |           |           | 78.30         |                  |
| L10100011-02  | 1.33           | 19.27    | 15.85     |           |           | 80.94         |                  |
| L10100012-01  | 1.32           | 20.98    | 20.49     |           |           | 97.51         |                  |
| L10100012-02  | 1.33           | 28.11    | 26.71     |           |           | 94.77         |                  |
| L10100012-03  | 1.34           | 28.39    | 26.64     |           |           | 93.53         |                  |
| L10100012-04  | 1.33           | 25.86    | 22.79     |           |           | 87.48         |                  |
| L10100012-05  | 1.34           | 27.91    | 26.01     |           |           | 92.85         |                  |
| L10100012-06  | 1.33           | 23.16    | 22.46     |           |           | 96.79         |                  |
| L10100012-07  | 1.31           | 39.59    | 38.44     |           |           | 97.00         |                  |
| L10100012-08  | 1.32           | 37.81    | 36.53     |           |           | 96.49         |                  |
| L10100012-09  | 1.32           | 32.11    | 30.78     |           |           | 95.68         |                  |
| L10100012-10  | 1.32           | 39.41    | 37.66     |           |           | 95.41         |                  |
| L10100012-11  | 1.3            | 32.03    | 30.5      |           |           | 95.02         |                  |
| L10100012-12  | 1.3            | 32.03    | 30.5      |           |           | 95.02         |                  |
| L10100012-13  | 1.3            | 32.03    | 30.5      |           |           | 95.02         |                  |
| L10100012-14  | 1.32           | 35.21    | 33.36     |           |           | 94.54         |                  |
| L10100012-15  | 1.3            | 32.49    | 30.88     |           |           | 94.84         |                  |
| L10100012-16  | 1.3            | 36.9     | 35.75     |           |           | 96.77         |                  |
| L10100012-17  | 1.32           | 26.37    | 25.38     |           |           | 96.05         |                  |
| L10100012-18  | 1.31           | 27.83    | 26.78     |           |           | 96.04         |                  |
| L10100012-19  | 1.3            | 30.18    | 28.97     |           |           | 95.81         |                  |
| L10100012-20  | 1.3            | 37.36    | 35.58     |           |           | 95.06         |                  |
| L10100012-21  | 1.32           | 31.85    | 28.39     |           |           | 88.67         |                  |
| L10100012-22  | 1.32           | 28.78    | 27.85     |           |           | 96.61         |                  |
| L10100012-23  | 1.34           | 33.74    | 33.04     |           |           | 97.84         |                  |
| L10100012-24  | 1.31           | 30.56    | 29.94     |           |           | 97.88         |                  |
| L10100012-25  | 1.32           | 27.51    | 26.82     |           |           | 97.37         |                  |
| L10100012-26  | 1.32           | 37.23    | 35.84     |           |           | 96.13         |                  |
| L10100012-27  | 1.31           | 35.76    | 34.61     |           |           | 96.66         |                  |
| L10100012-28  | 1.31           | 35.76    | 34.61     |           |           | 96.66         |                  |
| L10100012-29  | 1.31           | 35.76    | 34.61     |           |           | 96.66         |                  |

PERCENT SOLIDS - Modified 04/24/2008  
 PDF ID: 1796253  
 Report generated: 10/04/2010 08:45



Workgroup (AAB#): WG344445  
Method: D2216-90  
SOP: K0003 Rev: 10

Analyst: JDH  
Instrument: BAL001

ADT(on): 10/01/2010 14:58  
ADT(off): 10/04/2010 08:38

| SAMPLE NUMBER | EMPTY PAN WT 1 | WET WT 2 | DRY WT 3A | DRY WT 3B | DRY WT 3C | PERCENT SOLID | PERCENT MOISTURE |
|---------------|----------------|----------|-----------|-----------|-----------|---------------|------------------|
| L10100012-30  | 1.32           | 34.23    | 32.5      |           |           | 94.74         |                  |
| L10100012-31  | 1.31           | 32.61    | 30.54     |           |           | 93.39         |                  |
| WG344445-01   | 1.31           | 17.3     | 13.83     |           |           | 78.30         | 21.70            |
| WG344445-02   | 1.32           | 21.5     | 14.76     |           |           | 66.60         | 33.40            |
| WG344445-03   | 1.32           | 17.69    | 14.32     |           |           | 79.41         | 20.59            |
| WG344445-04   | 1.33           | 24.2     | 16.81     |           |           | 67.69         | 32.31            |

Analyst: \_\_\_\_\_

*Justin Anderson*

## **3.0 Attachments**

Microbac Laboratories Inc.  
Analyst Listing  
October 6, 2010

---

|                             |                           |                            |
|-----------------------------|---------------------------|----------------------------|
| ADC - ANTHONY D. CANTER     | AJF - AMANDA J. FICKIESEN | ALB - ANNIE L. BROWN       |
| ALV - AMY L. VALENTINE      | AML - TONY M. LONG        | AZH - AFTER HOURS          |
| BLG - BRENDA L. GREENWALT   | BRG - BRENDA R. GREGORY   | CAA - CASSIE A. AUGENSTEIN |
| CAF - CHERYL A. FLOWERS     | CEB - CHAD E. BARNES      | CLC - CHRYS L. CRAWFORD    |
| CLS - CARA L. STRICKLER     | CLW - CHARISSA L. WINTERS | CPD - CHAD P. DAVIS        |
| CSH - CHRIS S. HILL         | DDE - DEBRA D. ELLIOTT    | DEL - DON E. LIGHTFRITZ    |
| DEV - DAVID E. VANDENBERG   | DGB - DOUGLAS G. BUTCHER  | DIH - DEANNA I. HESSON     |
| DLB - DAVID L. BUMGARNER    | DLP - DOROTHY L. PAYNE    | DLR - DIANNA L. RAUCH      |
| ECL - ERIC C. LAWSON        | EDA - ERIN D. AGEE        | ERP - ERIN R. PORTER       |
| FJB - FRANCES J. BOLDEN     | HAV - HEMA VILASAGAR      | HJR - HOLLY J. REED        |
| JBK - JEREMY B. KINNEY      | JDH - JUSTIN D. HESSON    | JKT - JANE K. THOMPSON     |
| JWR - JOHN W. RICHARDS      | JWS - JACK W. SHEAVES     | JYH - JI Y. HU             |
| KEB - KATIE E. BARNES       | KHR - KIM H. RHODES       | KRA - KATHY R. ALBERTSON   |
| LKN - LINDA K. NEDEFF       | LSB - LESLIE S. BUCINA    | MDA - MIKE D. ALBERTSON    |
| MDC - MIKE D. COCHRAN       | MES - MARY E. SCHILLING   | MMB - MAREN M. BEERY       |
| MRT - MICHELLE R. TAYLOR    | MSW - MATT S. WILSON      | PDM - PIERCE D. MORRIS     |
| PWD - PAUL W. DENT          | RAH - ROY A. HALSTEAD     | RB - BOB BUCHANAN          |
| REK - BOB E. KYER           | RLK - ROBIN L. KLINGER    | RWC - RODNEY W. CAMPBELL   |
| SLM - STEPHANIE L. MOSSBURG | SLP - SHERI L. PFALZGRAF  | TIP - TAE I. PARRISH       |
| TMB - TIFFANY M. BAILEY     | TMM - TAMMY M. MORRIS     | VC - VICKI COLLIER         |
| WTD - WADE T. DELONG        |                           |                            |

## List of Valid Qualifiers

October 06, 2010

Qualkey: STD\_ND=U

| Qualifier | Description                                                                           |
|-----------|---------------------------------------------------------------------------------------|
| *         | Surrogate or spike compound out of range                                              |
| +         | Correlation coefficient for the MSA is less than 0.995                                |
| <         | Result is less than the associated numerical value.                                   |
| >         | Result is greater than the associated numerical value.                                |
| A         | See the report narrative                                                              |
| B         | Analyte present in method blank                                                       |
| B1        | Target analyte detected in method blank at or above the method reporting limit        |
| B3        | Target analyte detected in calibration blank at or above the method reporting limit   |
| C         | Confirmed by GC/MS                                                                    |
| CG        | Confluent growth                                                                      |
| DL        | Surrogate or spike compound was diluted out                                           |
| E         | Estimated concentration due to sample matrix interference                             |
| EDL       | Elevated sample reporting limits, presence of non-target analytes                     |
| EMPC      | Estimated Maximum Possible Concentration                                              |
| F, S      | Estimated result below quantitation limit; method of standard additions(MSA)          |
| FL        | Free Liquid                                                                           |
| H1        | Sample analysis performed past holding time.                                          |
| I         | Semiquantitative result (out of instrument calibration range)                         |
| J         | The analyte was positively identified, but the quantitation was below the RL          |
| J,B       | Analyte detected in both the method blank and sample above the MDL.                   |
| J,P       | Estimate; columns don't agree to within 40%                                           |
| J,S       | Estimated concentration; analyzed by method of standard addition (MSA)                |
| L         | Sample reporting limits elevated due to matrix interference                           |
| L1        | The associated blank spike (LCS) recovery was above the laboratory acceptance limits. |
| L2        | The associated blank spike (LCS) recovery was below the laboratory acceptance limits. |
| M         | Matrix effect; the concentration is an estimate due to matrix effect.                 |
| N         | Tentatively identified compound(TIC)                                                  |
| NA        | Not applicable                                                                        |
| ND, L     | Not detected; sample reporting limit (RL) elevated due to interference                |
| ND, S     | Not detected; analyzed by method of standard addition (MSA)                           |
| NF        | Not found by library search                                                           |
| NFL       | No free liquid                                                                        |
| NI        | Non-ignitable                                                                         |
| NR        | Analyte is not required to be analyzed                                                |
| NS        | Not spiked                                                                            |
| P         | Concentrations >40% difference between the two GC columns                             |
| Q         | One or more quality control criteria failed. See narrative.                           |
| QNS       | Quantity of sample not sufficient to perform analysis                                 |
| RA        | Reanalysis confirms reported results                                                  |
| RE        | Reanalysis confirms sample matrix interference                                        |
| S         | Analyzed by method of standard addition (MSA)                                         |
| SMI       | Sample matrix interference on surrogate                                               |
| SP        | Reported results are for spike compounds only                                         |
| TIC       | Library Search Compound                                                               |
| TNTC      | Too numerous to count                                                                 |
| U         | Not detected at or above adjusted sample detection limit                              |
| UJ        | Undetected; the MDL and RL are estimated due to quality control discrepancies.        |
| W         | Post-digestion spike for furnace AA out of control limits                             |
| X         | Exceeds regulatory limit                                                              |
| X, S      | Exceeds regulatory limit; method of standard additions (MSA)                          |
| Z         | Cannot be resolved from isomer - see below                                            |

## \*\*\*Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



**Lab Name: Environmental Waste Solutions C/O Microbac**  
**Address : 158 Starlite Drive, Marietta OH 45750**  
**Contact : Stephanie Mossburg**  
**Phone: 1-800-373-4071**

**COC NO. LH AAP47-092210-3**

[illegible]

## COOLER INSPECTION



Received: 09/23/2010 10:31  
 Delivery Method: UPS  
 Opened By: Robin Klinger  
 Comments:

Login(s): L10090689|

Cooler(s)

| Cooler # | Temp Gun | Temp | Tracking #         | COC #            | Comments |
|----------|----------|------|--------------------|------------------|----------|
| 0014405  | H        | 3.0  | 1Z66V7250192416060 | Ihaap47-092210-3 |          |

|    |     |                                                            |
|----|-----|------------------------------------------------------------|
| 1  | Yes | Were shipping coolers sealed?                              |
| 2  | Yes | Were custody seals intact?                                 |
| 3  | Yes | Were cooler temperatures in range of 0-6?                  |
| 4  | Yes | Was ice present?                                           |
| 5  | Yes | Were COC's received/information complete/signed and dated? |
| 6  | Yes | Were sample containers and labels intact and match COC?    |
| 7  | Yes | Were the correct containers and volumes received?          |
| 8  | Yes | Were samples received within EPA hold times?               |
| 9  | NA  | Were correct perservatives used? (water only)              |
| 10 | NA  | Were pH ranges acceptable? (voa's excluded)                |
| 11 | NA  | Were VOA samples free of headspace (less than 6mm)?        |

Discrepancies:

**Look closer. Go further. Do more.**

**Microbac - Ohio Valley Division**  
 158 Starlite Drive  
 Marietta, OH 45750  
 Tel: (740)373-4071 Fax: (740)373-4835



## Internal Chain of Custody Report

**Login:** L10090689**Account:** 2773**Project:** 2773.025**Samples:** 1**Due Date:** 04-OCT-2010

| <u>Samplenum</u> | <u>Container ID</u> | <u>Products</u> |
|------------------|---------------------|-----------------|
| L10090689-03     | 743863              | 6850 PCT-S      |

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 28-SEP-2010 10:34 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 29-SEP-2010 08:43 | WTD    | RLK        |
| 3    | STORE   | WET    | A1  | 04-OCT-2010 08:27 | JKT    | JDH        |

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login



## NELAP Addendum - May 28, 2010

### Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)  
 Total Halide by Bomb Combustion (TX)  
 Particle Sizing - 200 Mesh (PS200)  
 Sulfate (SO<sub>4</sub>)  
 Specific Gravity/Density (SPGRAV)  
 Total Residual Chlorine (CL-TRL)  
 Total Volatile Solids (all forms) (TVS)  
 Total Coliform Bacteria (all methods)  
 Fecal Coliform Bacteria (all methods)  
 Sulfite (SO<sub>3</sub>)  
 Perchlorate (6850 – LCMS)  
 Hexamethylphosphoramide (XMPA-LCMS)  
 Thiodiglycol (TDG-LCMS)  
 1,4-Dioxane – 8270C (827-DIOXANE)  
 Phosphorus – 6010B  
 Zirconium - 6010B

### NELAP Accreditation by Laboratory SOP

#### NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin  
 Nitroguanidine  
 Acetic acid  
 Butyric acid  
 Lactic acid  
 Propionic acid  
 Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine  
 1-Methylnaphthalene  
 2, 3, 4, 6-Tetrachlorophenol  
 2-Chloronaphthalene  
 Benzaldehyde  
 Biphenyl  
 Caprolactam  
 Hexamethylphosphoramide (HMPA)  
 Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine  
Bolstar (Sulprofos)  
Chlorpyrifos  
Diazinon  
Ethoprop  
Merphos  
Ronnol  
Tokuthion (Prothiophos)  
Trichloronate

OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane  
1,3-Butadiene  
alpha-Methylstyrene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Isopropyl ether  
Methylacetate  
Methylcyclohexane  
T-amylmethylether (TAME)  
Tetrahydrofuran (THF)

OVL RSK01/GC-FID\*\*

Isobutane  
n-Butane  
Propane  
Propylene  
Propyne

## **SOLID AND HAZARDOUS CHEMICALS**

OVL HPLCOS-HPLC-UV \*\*

Nitroguanidine

OVL KNITRO-C-S/UV-VIS\*\*

OVL MSS01/GC-MS

1,4-Phenylenediamine  
1-Methylnaphthalene

Benzaldehyde  
Biphenyl  
Caprolactam  
Pentachloroethane

## OVL MSS04/GC-MS

Atrazine  
Bolstar (Sulprofos)  
Chlorpyrifos  
Diazinon  
Ethoprop  
Merphos  
Ronnal  
Simazine  
Tokuthion (Prothiophos)  
Trichloronate

## OVL MSV01/GC-MS

1.3-Butadiene  
alpha-Methylstyrene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Isopropylether  
Methylacetate  
Methylcyclohexane  
n-Hexane  
T-amylmethylether (TAME)



158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

**Laboratory Report Number: L10100086**

Client: Jennifer Hoang, 1401 Enclave Parkway, Houston, TX, 77077

Contract #: DACA56-94-D-0020

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

|                           |                                     |                                 |
|---------------------------|-------------------------------------|---------------------------------|
| <b>Kathy Albertson</b>    | <i>Team Chemist/Data Specialist</i> | Kathy.Albertson@microbac.com    |
| <b>Stephanie Mossburg</b> | <i>Team Chemist/Data Specialist</i> | Stephanie.Mossburg@microbac.com |
| <b>Tony Long</b>          | <i>Team Chemist/Data Specialist</i> | Tony.Long@microbac.com          |
| <b>Amanda Fickiesen</b>   | <i>Client Services Specialist</i>   | Amanda.Fickiesen@microbac.com   |
| <b>Annie Brown</b>        | <i>Client Services Specialist</i>   | Annie.Brown@microbac.com        |

This report was reviewed on October 11, 2010.

A handwritten signature in cursive script that reads "Stephanie Mossburg".

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on October 11, 2010.

A handwritten signature in cursive script that reads "David E. Vandenberg".

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac OVD

This report contains a total of 90 pages.

***Look closer. Go further. Do more.***



The Microbac logo consists of the word "Microbac" in a white serif font, centered within a dark teal rectangular box. The text is underlined by a thin white line.

Microbac Laboratories, Inc.  
Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750

Phone: 800.373.4071  
Fax: 740.373.4835

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**Microbac REPORT L10100086**  
**PREPARED FOR for Shaw E I, Inc.**  
**WORK ID:**

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# **1.0 Introduction**





**Login Number:** L10100086

**Department:** Login

**Analyst:** N/A

**Chain of Custody:**

**Shipment Conditions**

| COC #            | Cooler # | Temperature |
|------------------|----------|-------------|
| lhaap47-092210-3 | 0014405  | 3.0         |
| LHAAP47-092210-4 | 0014405  | 3.0         |

**Sample Management:** All samples were received intact.

**Sample Identification**

| Lab ID       | Client ID      |
|--------------|----------------|
| L10100086-01 | 47SB-F04 (4-6) |
| L10100086-02 | 47SB-F06 (4-6) |
| L10100086-11 | 47SB-J03 (0-2) |
| L10100086-05 | 47SB-E06 (4-6) |
| L10100086-06 | 47SB-C02 (4-6) |
| L10100086-07 | 47SB-E02 (4-6) |
| L10100086-08 | 47SB-F03 (4-6) |
| L10100086-09 | 47SB-D08 (4-6) |
| L10100086-10 | 47SB-J06 (4-6) |
| L10100086-12 | 47SB-E09 (0-2) |
| L10100086-13 | 47SB-D09 (0-2) |

**Narrative ID:** 12517

**Approved By:** Stephanie Mossburg

*Stephanie Mossburg*



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100086    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG334700     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-08   |                               |              |

## Laboratory Data Package Cover Page

|     |                                                                                                                                                                                                                                                                                                                                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Chapter 5, (b) dilution factors, (c) preparation methods, (d) cleanup methods, and (e) a. 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 compounds, (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) and detectability check sample results for each analyte for each method and matrix.                                                                                                                                                                                                                                          |
| R10 | Other problems or anomalies.                                                                                                                                                                                                                                                                                                                                           |

| Name (Printed) | Signature | Official Title (Printed)     | Date       |
|----------------|-----------|------------------------------|------------|
| Mike Cochran   |           | Semivolatiles Lab Supervisor | 10/08/2010 |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100086    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG334700     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-08   |                               |              |

| Description                                                                                                                   | Yes | No | NA | NR | ER# |
|-------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Chain-of-custody (C-O-C)                                                                                                      |     |    |    |    |     |
| Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X   |    |    |    |     |
| Were all departures from standard conditions described in an exception report?                                                | X   |    |    |    |     |
| Sample and quality control (QC) identification                                                                                | X   |    |    |    |     |
| Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X   |    |    |    |     |
| Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X   |    |    |    |     |
| Test reports                                                                                                                  |     |    |    |    |     |
| Were all samples prepared and analyzed within holding times?                                                                  | X   |    |    |    |     |
| Other than those results < MQL, were all other raw values bracketed by calibration standards?                                 | X   |    |    |    |     |
| Were calculations checked by a peer or supervisor?                                                                            | X   |    |    |    |     |
| Were all analyte identifications checked by a peer or supervisor?                                                             | X   |    |    |    |     |
| Were sample detection limits reported for all analytes not detected?                                                          | X   |    |    |    |     |
| Were all results for soil and sediment samples reported on a dry weight basis?                                                | X   |    |    |    |     |
| Were % moisture (or solids) reported for all soil and sediment samples?                                                       | X   |    |    |    |     |
| Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?                           |     |    | X  |    |     |
| If required for the project, are TICs reported?                                                                               |     |    | X  |    |     |
| Surrogate recovery data                                                                                                       |     |    |    |    |     |
| Were surrogates added prior to extraction?                                                                                    |     |    | X  |    |     |
| Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             |     |    | X  |    |     |
| Test reports/summary forms for blank samples                                                                                  | X   |    |    |    |     |
| Were appropriate type(s) of blanks analyzed?                                                                                  | X   |    |    |    |     |
| Were blanks analyzed at the appropriate frequency?                                                                            | X   |    |    |    |     |
| Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X   |    |    |    |     |
| Were blank concentrations < MQL?                                                                                              | X   |    |    |    |     |
| Laboratory control samples (LCS):                                                                                             |     |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100086    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG334700     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-08   |                               |              |

| Description                                                                                                                                                              | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were all COCs included in the LCS?                                                                                                                                       | X   |    |    |    |     |
| Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                                                            | X   |    |    |    |     |
| Were LCSs analyzed at the required frequency?                                                                                                                            | X   |    |    |    |     |
| Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                                                                  | X   |    |    |    |     |
| Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?                                  | X   |    |    |    |     |
| Was the LCSD RPD within QC limits?                                                                                                                                       | X   |    |    |    |     |
| Matrix spike (MS) and matrix spike duplicate (MSD) data                                                                                                                  |     |    |    |    |     |
| Were the project/method specified analytes included in the MS and MSD?                                                                                                   |     |    | X  |    |     |
| Were MS/MSD analyzed at the appropriate frequency?                                                                                                                       |     |    | X  |    |     |
| Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                                                                    |     |    | X  |    |     |
| Were MS/MSD RPDs within laboratory QC limits?                                                                                                                            |     |    | X  |    |     |
| Analytical duplicate data                                                                                                                                                |     |    |    |    |     |
| Were appropriate analytical duplicates analyzed for each matrix?                                                                                                         |     |    | X  |    |     |
| Were analytical duplicates analyzed at the appropriate frequency?                                                                                                        |     |    | X  |    |     |
| Were RPDs or relative standard deviations within the laboratory QC limits?                                                                                               |     |    | X  |    |     |
| Method quantitation limits (MQLs):                                                                                                                                       |     |    |    |    |     |
| Are the MQLs for each method analyte included in the laboratory data package?                                                                                            | X   |    |    |    |     |
| Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                                                                 | X   |    |    |    |     |
| Are unadjusted MQLs and DCSs included in the laboratory data package?                                                                                                    | X   |    |    |    |     |
| Other problems/anomalies                                                                                                                                                 |     |    |    |    |     |
| Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                                                            | X   |    |    |    |     |
| Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?                                         |     |    | X  |    |     |
| Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X   |    |    |    |     |
| Initial calibration (ICAL)                                                                                                                                               |     |    |    |    |     |
| Were response factors and/or relative response factors for each analyte within QC                                                                                        | X   |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100086    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG334700     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-08   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| limits?                                                                                                |     |    |    |    |     |
| Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |    |    |     |
| Was the number of standards recommended in the method used for all analytes?                           | X   |    |    |    |     |
| Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |    |    |     |
| Are ICAL data available for all instruments used?                                                      | X   |    |    |    |     |
| Has the initial calibration curve been verified using an appropriate second source standard?           | X   |    |    |    |     |
| Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB): |     |    |    |    |     |
| Was the CCV analyzed at the method-required frequency?                                                 | X   |    |    |    |     |
| Were percent differences for each analyte within the method-required QC limits?                        | X   |    |    |    |     |
| Was the ICAL curve verified for each analyte?                                                          | X   |    |    |    |     |
| Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |    |    |     |
| Mass spectral tuning                                                                                   |     |    |    |    |     |
| Was the appropriate compound for the method used for tuning?                                           | X   |    |    |    |     |
| Were ion abundance data within the method-required QC limits?                                          | X   |    |    |    |     |
| Internal standards (IS)                                                                                |     |    |    |    |     |
| Were IS area counts and retention times within the method-required QC limits?                          | X   |    |    |    |     |
| Raw data (NELAC Section 5.5.10)                                                                        |     |    |    |    |     |
| Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |    |    |     |
| Were data associated with manual integrations flagged on the raw data?                                 | X   |    |    |    |     |
| Dual column confirmation                                                                               |     |    |    |    |     |
| Did dual column confirmation results meet the method-required QC?                                      |     |    | X  |    |     |
| Tentatively identified compounds (TICs)                                                                |     |    |    |    |     |
| If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?              |     |    | X  |    |     |
| Interference Check Sample (ICS) results                                                                |     |    |    |    |     |
| Were percent recoveries within method QC limits?                                                       |     |    | X  |    |     |
| Serial dilutions, post digestion spikes, and method of standard additions                              |     |    |    |    |     |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100086    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG334700     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-08   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were percent differences, recoveries, and the linearity within the QC limits specified in the method?  |     |    | X  |    |     |
| Method detection limit (MDL) studies                                                                   |     |    |    |    |     |
| Was a MDL study performed for each reported analyte?                                                   | X   |    |    |    |     |
| Is the MDL either adjusted or supported by the analysis of DCSs?                                       | X   |    |    |    |     |
| Proficiency test reports                                                                               |     |    |    |    |     |
| Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |    |    |     |
| Standards documentation                                                                                |     |    |    |    |     |
| Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |    |    |     |
| Compound/analyte identification procedures                                                             |     |    |    |    |     |
| Are the procedures for compound/analyte identification documented?                                     | X   |    |    |    |     |
| Demonstration of analyst competency (DOC)                                                              |     |    |    |    |     |
| Was DOC conducted consistent with NELAC Chapter 5?                                                     | X   |    |    |    |     |
| Is documentation of the analyst's competency up-to-date and on file?                                   | X   |    |    |    |     |
| Verification/validation documentation for methods (NELAC Chapter 5)                                    |     |    |    |    |     |
| Are all the methods used to generate the data documented, verified, and validated, where applicable?   | X   |    |    |    |     |
| Laboratory standard operating procedures (SOPs)                                                        |     |    |    |    |     |
| Are laboratory SOPs current and on file for each method performed                                      | X   |    |    |    |     |

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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).

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte,



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100086    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG334700     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-08   |                               |              |

matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

**Check, if applicable:** ☐ This laboratory meets an exception under 30 TAC §25.6 and was last inspection by ☐ TCEQ or ☐ \_\_\_\_\_ on **(enter date of last inspection)**. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

#### Exceptions Report

## **2.1 General Chromatography Data**



## **2.1.1 LC/MS Data (6850)**

## **2.1.1.1 Summary Data**

**LABORATORY REPORT****L10100086****00106362****10/11/10 11:59****Submitted By**

**Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071**

**For**

**Account Name: for Shaw E & I, Inc.**  
**1401 Enclave Parkway**  
**Suite 250**  
**Houston, TX 77077**  
**Attention: Jennifer Hoang**

**Project Number: 2773.025**  
**Project: Longhorn AAP**  
**Site: LONGHORN AAP KARNACK TX**

**P.O. Number: 557440**

**Sample Analysis Summary**

| <b>Client ID</b> | <b>Lab ID</b> | <b>Method</b> | <b>Dilution</b> | <b>Date Received</b> |
|------------------|---------------|---------------|-----------------|----------------------|
| 47SB-F04 (4-6)   | L10100086-01  | 6850          | 1000            | 23-SEP-10            |
| 47SB-F06 (4-6)   | L10100086-02  | 6850          | 1               | 23-SEP-10            |
| 47SB-E06 (4-6)   | L10100086-05  | 6850          | 1               | 23-SEP-10            |
| 47SB-C02 (4-6)   | L10100086-06  | 6850          | 1               | 23-SEP-10            |
| 47SB-E02 (4-6)   | L10100086-07  | 6850          | 1               | 23-SEP-10            |
| 47SB-F03 (4-6)   | L10100086-08  | 6850          | 1               | 23-SEP-10            |
| 47SB-D08 (4-6)   | L10100086-09  | 6850          | 1               | 23-SEP-10            |
| 47SB-J06 (4-6)   | L10100086-10  | 6850          | 1               | 23-SEP-10            |
| 47SB-J03 (0-2)   | L10100086-11  | 6850          | 1               | 23-SEP-10            |
| 47SB-E09 (0-2)   | L10100086-12  | 6850          | 1               | 23-SEP-10            |
| 47SB-D09 (0-2)   | L10100086-13  | 6850          | 1               | 23-SEP-10            |



Report Number: **L10100086**Report Date : **October 11, 2010****00106363**

Sample Number: **L10100086-01**  
Client ID: **47SB-F04 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 13:20**  
Sample Tag: **DL01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1000**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/06/2010 12:42**  
File ID: **1LM.LM06446**  
Percent Solid: **87.2**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 20900  |      | 2290 | 1150 |

Report Number: **L10100086**Report Date : **October 11, 2010**

00106364

Sample Number: **L10100086-02**  
Client ID: **47SB-F06 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 13:45**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 16:46**  
File ID: **1LM.LM06418**  
Percent Solid: **85.3**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 5.67   |      | 2.34 | 1.17 |

Report Number: **L10100086**Report Date : **October 11, 2010****00106365**

Sample Number: **L10100086-05**  
Client ID: **47SB-E06 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 14:45**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 17:13**  
File ID: **1LM.LM06419**  
Percent Solid: **86.4**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 1.77   | J    | 2.29 | 1.14 |

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L10100086**Report Date : **October 11, 2010**

00106366

Sample Number: **L10100086-06**  
Client ID: **47SB-C02 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 15:15**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 17:39**  
File ID: **1LM.LM06420**  
Percent Solid: **92.3**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 1.36   | J    | 2.13 | 1.06 |

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L10100086**Report Date : **October 11, 2010**

00106367

Sample Number: **L10100086-07**  
Client ID: **47SB-E02 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 15:35**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 18:06**  
File ID: **1LM.LM06421**  
Percent Solid: **79.5**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  |        | U    | 2.45 | 1.23 |

U Not detected at or above adjusted sample detection limit



Report Number: **L10100086**Report Date : **October 11, 2010**

00106368

Sample Number: **L10100086-08**  
Client ID: **47SB-F03 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/21/2010 08:40**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 18:32**  
File ID: **1LM.LM06422**  
Percent Solid: **86.5**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  |        | U    | 2.30 | 1.15 |

U Not detected at or above adjusted sample detection limit

Report Number: **L10100086**Report Date : **October 11, 2010**

00106369

Sample Number: **L10100086-09**  
Client ID: **47SB-D08 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/21/2010 09:40**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 20:18**  
File ID: **1LM.LM06426**  
Percent Solid: **91.1**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  |        | U    | 2.18 | 1.09 |

U Not detected at or above adjusted sample detection limit

Report Number: **L10100086**Report Date : **October 11, 2010****00106370**

Sample Number: **L10100086-10**  
Client ID: **47SB-J06 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/21/2010 10:45**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 20:45**  
File ID: **1LM.LM06427**  
Percent Solid: **84.3**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 3.89   |      | 2.37 | 1.18 |

Report Number: **L10100086**Report Date : **October 11, 2010****00106371**

Sample Number: **L10100086-11**  
Client ID: **47SB-J03 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 12:45**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 21:11**  
File ID: **1LM.LM06428**  
Percent Solid: **87.3**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 92.8   |      | 2.27 | 1.13 |

Report Number: **L10100086**Report Date : **October 11, 2010**

00106372

Sample Number: **L10100086-12**  
Client ID: **47SB-E09 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/20/2010 14:25**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 21:38**  
File ID: **1LM.LM06429**  
Percent Solid: **89.2**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  |        | U    | 2.20 | 1.10 |

U Not detected at or above adjusted sample detection limit

Report Number: **L10100086**Report Date : **October 11, 2010**

00106373

Sample Number: **L10100086-13**  
Client ID: **47SB-D09 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG344700**  
Collect Date: **09/21/2010 09:55**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/05/2010 13:15**  
Cal Date: **10/05/2010 01:59**  
Run Date: **10/05/2010 22:04**  
File ID: **1LM.LM06430**  
Percent Solid: **95.5**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  |        | U    | 2.07 | 1.04 |

U Not detected at or above adjusted sample detection limit

## **2.1.1.2 QC Summary Data**

**Example Calculation 6850 - Perchlorate****Concentration from Linear Regression****Step 1: Retrieve Curve Data From Plot,  $y = mx + b$** 

$y$  = response ratio = response of analyte / response of internal standard (IS) =  $R_x/R_{istd}$

$x$  = amount ratio = concentration analyte/concentration internal standard (IS) =  $C_x / C_{istd}$

$m$  = slope from curve (1.45)

$b$  = intercept from curve (-0.00242)

$y = 1.45x + -0.00242$

**Step 2: Substitute the value for  $y$** 

where  $y = 12600/226000 = 0.055752$

**Step 3: Solve for  $x$** 

$x = (y - b)/m = 0.0040119$

**Step 4: Solve for analyte concentration  $C_x$** 

$C_x = (C_{is})(x) = (5 \text{ ug/L})(0.0040119) = 0.0200594 \text{ ug/L}$

**Example Calculation - Water:**

|                                             |          |
|---------------------------------------------|----------|
| Slope from curve, $m$ :                     | 1.45     |
| Intercept from curve, $b$ :                 | -0.00242 |
| Response of analyte, $R_x$ :                | 12600    |
| Response of Internal Standard, $R_{istd}$ : | 226000   |
| Concentration of IS, $C_{istd}$ (ug/L):     | 5.00     |
| Response Ratio:                             | 0.05575  |
| Amount Ratio:                               | 0.04012  |
| Analyte Concentration, $C_x$ (ug/L) :       | 0.200594 |

**Example Calculation - Soil:**

|                                      |          |
|--------------------------------------|----------|
| Analyte Concentration, $C_x$ (ug/L): | 0.20059  |
| Amount of soil extracted (g):        | 5.00     |
| Final volume of extract (mL):        | 50.00    |
| Percent solids (Pct wt.)             | 100      |
| Concentration in soil (ug/kg):       | 2.005938 |



**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100410\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100703

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344614

CCV Std: STD41363 LCS STD: STD41363  
 Internal STD: COA14815 Surrogate STD: NA Calibration STD STD41363

Comments:

| Seq. | File ID     | Sample Information          | Mat | Dil | Reference | Date/Time      |
|------|-------------|-----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06385 | WG344609-01 CCB             | 1   | 1   |           | 10/04/10 22:53 |
| 2    | 1LM.LM06386 | WG344609-02 0.1ug/L STD     | 1   | 1   | STD41363  | 10/04/10 23:20 |
| 3    | 1LM.LM06387 | WG344609-03 0.2ug/L STD     | 1   | 1   | STD41363  | 10/04/10 23:46 |
| 4    | 1LM.LM06388 | WG344609-04 0.5ug/L STD     | 1   | 1   | STD41363  | 10/05/10 00:13 |
| 5    | 1LM.LM06389 | WG344609-05 1.0ug/L STD     | 1   | 1   | STD41363  | 10/05/10 00:39 |
| 6    | 1LM.LM06390 | WG344609-06 2.0ug/L STD     | 1   | 1   | STD41363  | 10/05/10 01:06 |
| 7    | 1LM.LM06391 | WG344609-07 5.0ug/L STD     | 1   | 1   | STD41363  | 10/05/10 01:32 |
| 8    | 1LM.LM06392 | WG344609-08 10ug/L STD      | 1   | 1   | STD41363  | 10/05/10 01:59 |
| 9    | 1LM.LM06393 | WG344609-09 1.0ug/L ALT SRC | 1   | 1   | STD41365  | 10/05/10 02:25 |
| 10   | 1LM.LM06394 | WG344611-01 CCB             | 1   | 1   |           | 10/05/10 02:51 |
| 11   | 1LM.LM06395 | WG344611-02 1.0ug/L CCV     | 1   | 1   | STD41363  | 10/05/10 03:18 |
| 12   | 1LM.LM06396 | WG344614-05 2.0ug/kg QCMRL  | 7   | 1   | STD41363  | 10/05/10 03:44 |
| 13   | 1LM.LM06397 | WG344614-01 2.0ug/kg MCT    | 7   | 1   | STD41363  | 10/05/10 04:11 |
| 14   | 1LM.LM06398 | WG344614-02 MET BLANK       | 7   | 1   |           | 10/05/10 04:37 |
| 15   | 1LM.LM06399 | WG344614-03 2.0ug/kg LCS    | 7   | 1   | STD41363  | 10/05/10 05:04 |
| 16   | 1LM.LM06400 | WG344614-04 2.0ug/kg LCSD   | 7   | 1   | STD41363  | 10/05/10 05:30 |
| 17   | 1LM.LM06401 | L10100011-01                | 7   | 1   |           | 10/05/10 05:57 |
| 18   | 1LM.LM06402 | L10100011-02                | 7   | 1   |           | 10/05/10 06:23 |
| 19   | 1LM.LM06403 | WG344611-03 1.0ug/L CCV     | 1   | 1   | STD41363  | 10/05/10 06:50 |
| 20   | 1LM.LM06404 | WG344614-06 2.0ug/kg QCMRL  | 7   | 1   | STD41363  | 10/05/10 07:16 |
| 21   | 1LM.LM06405 | WG344611-04 CCB             | 1   | 1   |           | 10/05/10 07:42 |
| 22   | 1LM.LM06406 | L10100011-01 2X             | 7   | 2   |           | 10/05/10 08:09 |
| 23   | 1LM.LM06407 | WG344611-05 1.0ug/L CCV     | 1   | 1   | STD41363  | 10/05/10 08:36 |
| 24   | 1LM.LM06408 | WG344614-07 2.0ug/kg QCMRL  | 7   | 1   | STD41363  | 10/05/10 09:03 |
| 25   | 1LM.LM06409 | WG344611-06 CCB             | 1   | 1   |           | 10/05/10 09:29 |

Comments

| Seq. | Rerun | Dil. | Reason                 | Analytes    |
|------|-------|------|------------------------|-------------|
| 17   | X     | 2    | Over Calibration Range | Perchlorate |
|      |       |      | L10100011-01           |             |

*Hema Velasquez*



**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100510\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344700

CCV Std: STD41363 LCS STD: STD41363  
 Internal STD: COA14815 Surrogate STD: NA Calibration STD STD41363

Comments:

| Seq. | File ID     | Sample Information         | Mat | Dil | Reference | Date/Time      |
|------|-------------|----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06410 | WG344701-01 CCB            | 1   | 1   |           | 10/05/10 13:15 |
| 2    | 1LM.LM06411 | WG344701-02 1.0ug/L CCV    | 1   | 1   | STD41363  | 10/05/10 13:41 |
| 3    | 1LM.LM06412 | WG344700-05 2.0ug/kg QCMRL | 7   | 1   | STD41363  | 10/05/10 14:08 |
| 4    | 1LM.LM06413 | WG344700-01 2.0ug/kg MCT   | 7   | 1   | STD41363  | 10/05/10 14:34 |
| 5    | 1LM.LM06414 | WG344700-02 MET BLANK      | 7   | 1   |           | 10/05/10 15:01 |
| 6    | 1LM.LM06415 | WG344700-03 2.0ug/kg LCS   | 7   | 1   | STD41363  | 10/05/10 15:27 |
| 7    | 1LM.LM06416 | WG344700-04 2.0ug/kg LCSD  | 7   | 1   | STD41363  | 10/05/10 15:54 |
| 8    | 1LM.LM06417 | L10100086-01               | 7   | 1   |           | 10/05/10 16:20 |
| 9    | 1LM.LM06418 | L10100086-02               | 7   | 1   |           | 10/05/10 16:46 |
| 10   | 1LM.LM06419 | L10100086-05               | 7   | 1   |           | 10/05/10 17:13 |
| 11   | 1LM.LM06420 | L10100086-06               | 7   | 1   |           | 10/05/10 17:39 |
| 12   | 1LM.LM06421 | L10100086-07               | 7   | 1   |           | 10/05/10 18:06 |
| 13   | 1LM.LM06422 | L10100086-08               | 7   | 1   |           | 10/05/10 18:32 |
| 14   | 1LM.LM06423 | WG344701-03 1.0ug/L CCV    | 1   | 1   | STD41363  | 10/05/10 18:59 |
| 15   | 1LM.LM06424 | WG344700-06 2.0ug/kg QCMRL | 7   | 1   | STD41363  | 10/05/10 19:25 |
| 16   | 1LM.LM06425 | WG344701-04 CCB            | 1   | 1   |           | 10/05/10 19:52 |
| 17   | 1LM.LM06426 | L10100086-09               | 7   | 1   |           | 10/05/10 20:18 |
| 18   | 1LM.LM06427 | L10100086-10               | 7   | 1   |           | 10/05/10 20:45 |
| 19   | 1LM.LM06428 | L10100086-11               | 7   | 1   |           | 10/05/10 21:11 |
| 20   | 1LM.LM06429 | L10100086-12               | 7   | 1   |           | 10/05/10 21:38 |
| 21   | 1LM.LM06430 | L10100086-13               | 7   | 1   |           | 10/05/10 22:04 |
| 22   | 1LM.LM06431 | WG344701-05 1.0ug/L CCV    | 1   | 1   | STD41363  | 10/05/10 22:30 |
| 23   | 1LM.LM06432 | WG344700-07 2.0ug/kg QCMRL | 7   | 1   | STD41363  | 10/05/10 22:57 |
| 24   | 1LM.LM06433 | WG344701-06 CCB            | 1   | 1   |           | 10/05/10 23:23 |

Comments

| Seq. | Rerun | Dil. | Reason                                                                                                                                        | Analytes    |
|------|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| 8    | X     | 1000 | Over Calibration Range                                                                                                                        | Perchlorate |
| 9    |       |      |                                                                                                                                               |             |
|      |       |      | Sample was re-analyzed due to suspected carry-over contamination. Carry-over contamination was not confirmed therefore this data is reported. |             |
| 10   |       |      |                                                                                                                                               |             |
|      |       |      | Sample was re-analyzed due to suspected carry-over contamination. Carry-over contamination was not confirmed therefore this data is reported. |             |

Page: 1

Approved: 07-OCT-10

*Michael Cohen*



**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100510\_WTD.TXT  
Analyst1: WTD Analyst2: NA  
Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344700

CCV Std: STD41363 LCS STD: STD41363  
Internal STD: COA14815 Surrogate STD: NA STD41363

**Comments**

| Seq. | Rerun | Dil. | Reason                                                                                                                                        | Analytes |
|------|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 11   |       |      |                                                                                                                                               |          |
|      |       |      | Sample was re-analyzed due to suspected carry-over contamination. Carry-over contamination was not confirmed therefore this data is reported. |          |



**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100610\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344700

CCV Std: STD41363 LCS STD: STD41363  
 Internal STD: COA14815 Surrogate STD: NA Calibration STD: STD41363

Comments:

| Seq. | File ID     | Sample Information         | Mat | Dil  | Reference | Date/Time      |
|------|-------------|----------------------------|-----|------|-----------|----------------|
| 1    | 1LM.LM06443 | WG344786-01 CCB            | 1   | 1    |           | 10/06/10 11:23 |
| 2    | 1LM.LM06444 | WG344786-02 1.0ug/L CCV    | 1   | 1    | STD41363  | 10/06/10 11:49 |
| 3    | 1LM.LM06445 | WG344700-08 2.0ug/kg QCMRL | 7   | 1    | STD41363  | 10/06/10 12:16 |
| 4    | 1LM.LM06446 | L10100086-01 1000X         | 7   | 1000 |           | 10/06/10 12:42 |
| 5    | 1LM.LM06447 | L10100086-02               | 7   | 1    |           | 10/06/10 13:09 |
| 6    | 1LM.LM06448 | L10100086-05               | 7   | 1    |           | 10/06/10 13:35 |
| 7    | 1LM.LM06449 | L10100086-06               | 7   | 1    |           | 10/06/10 14:01 |
| 8    | 1LM.LM06450 | WG344786-03 1.0ug/L CCV    | 1   | 1    | STD41363  | 10/06/10 14:28 |
| 9    | 1LM.LM06451 | WG344700-09 2.0ug/kg QCMRL | 7   | 1    | STD41363  | 10/06/10 14:54 |
| 10   | 1LM.LM06452 | WG344786-04 CCB            | 1   | 1    |           | 10/06/10 15:21 |

Comments

| Seq. | Rerun | Dil. | Reason                                                                                                                                                                                              | Analytes |
|------|-------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| 5    |       |      |                                                                                                                                                                                                     |          |
|      |       |      | This analysis performed to verify original result was not due to carry-over contamination. This result confirms original result was not due to carry-over contamination. Original results reported. |          |
| 6    |       |      |                                                                                                                                                                                                     |          |
|      |       |      | This analysis performed to verify original result was not due to carry-over contamination. This result confirms original result was not due to carry-over contamination. Original results reported. |          |
| 7    |       |      |                                                                                                                                                                                                     |          |
|      |       |      | This analysis performed to verify original result was not due to carry-over contamination. This result confirms original result was not due to carry-over contamination. Original results reported. |          |



## Microbac Laboratories Inc.

## Data Checklist

Date: 04-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36751

Analytical Workgroups: 344614

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | X   |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | X   |
| Alternate source standard (ICV) % Difference                       | X   |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | X   |
| Recoveries                                                         | X   |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | NA  |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | X   |
| Reruns                                                             | X   |
| Manual integrations                                                | X   |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | HAV |

Primary Reviewer:  
05-OCT-2010

*Wade D. [Signature]*

Secondary Reviewer:  
05-OCT-2010

*Hema Velasquez*

## Microbac Laboratories Inc.

## Data Checklist

Date: 05-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36776

Analytical Workgroups: 344700

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | NA  |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | NA  |
| Alternate source standard (ICV) % Difference                       | NA  |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | X   |
| Recoveries                                                         | X   |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | X   |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | X   |
| Reruns                                                             | X   |
| Manual integrations                                                | NA  |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | MDC |

Primary Reviewer:  
06-OCT-2010

Secondary Reviewer:  
07-OCT-2010

*Wade D. [Signature]* *Michael [Signature]*

## Microbac Laboratories Inc.

## Data Checklist

Date: 06-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36784

Analytical Workgroups: 344700

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | NA  |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | NA  |
| Alternate source standard (ICV) % Difference                       | NA  |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | NA  |
| TCL hits                                                           | NA  |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | NA  |
| Recoveries                                                         | NA  |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | NA  |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | NA  |
| Reruns                                                             | NA  |
| Manual integrations                                                | NA  |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | MDC |

Primary Reviewer:  
07-OCT-2010

Secondary Reviewer:  
07-OCT-2010

*Wade D. [Signature]* *Michael [Signature]*

Analytical Method: 6850

AAB#: WG344700

Login Number: L10100086

| Client ID      | ID | Date Collected | TCLP Date | Time Held | Max Hold | Q | Extract Date | Time Held | Max Hold | Q | Run Date | Time Held | Max Hold | Q |
|----------------|----|----------------|-----------|-----------|----------|---|--------------|-----------|----------|---|----------|-----------|----------|---|
| 47SB-F04 (4-6) | 01 | 09/20/10       |           |           |          |   | 10/05/10     | 15        | 28       |   | 10/06/10 | 1         | 28       |   |
| 47SB-F06 (4-6) | 02 | 09/20/10       |           |           |          |   | 10/05/10     | 15        | 28       |   | 10/05/10 | .1        | 28       |   |
| 47SB-E06 (4-6) | 05 | 09/20/10       |           |           |          |   | 10/05/10     | 14.9      | 28       |   | 10/05/10 | .2        | 28       |   |
| 47SB-C02 (4-6) | 06 | 09/20/10       |           |           |          |   | 10/05/10     | 14.9      | 28       |   | 10/05/10 | .2        | 28       |   |
| 47SB-E02 (4-6) | 07 | 09/20/10       |           |           |          |   | 10/05/10     | 14.9      | 28       |   | 10/05/10 | .2        | 28       |   |
| 47SB-F03 (4-6) | 08 | 09/21/10       |           |           |          |   | 10/05/10     | 14.2      | 28       |   | 10/05/10 | .2        | 28       |   |
| 47SB-D08 (4-6) | 09 | 09/21/10       |           |           |          |   | 10/05/10     | 14.1      | 28       |   | 10/05/10 | .3        | 28       |   |
| 47SB-J06 (4-6) | 10 | 09/21/10       |           |           |          |   | 10/05/10     | 14.1      | 28       |   | 10/05/10 | .3        | 28       |   |
| 47SB-J03 (0-2) | 11 | 09/20/10       |           |           |          |   | 10/05/10     | 15        | 28       |   | 10/05/10 | .3        | 28       |   |
| 47SB-E09 (0-2) | 12 | 09/20/10       |           |           |          |   | 10/05/10     | 15        | 28       |   | 10/05/10 | .3        | 28       |   |
| 47SB-D09 (0-2) | 13 | 09/21/10       |           |           |          |   | 10/05/10     | 14.1      | 28       |   | 10/05/10 | .4        | 28       |   |

\* = SEE PROJECT QAPP REQUIREMENTS



## METHOD BLANK SUMMARY

Login Number: L10100086  
 Blank File ID: 1LM.LM06414  
 Prep Date: 10/05/10 13:15  
 Analyzed Date: 10/05/10 15:01  
 Analyst: WTD

Work Group: WG344700  
 Blank Sample ID: WG344700-02  
 Instrument ID: LCMS1  
 Method: 6850

This Method Blank Applies To The Following Samples:

| Client ID      | Lab Sample ID | Lab File ID | Time Analyzed  | TAG  |
|----------------|---------------|-------------|----------------|------|
| QCMRL          | WG344700-05   | 1LM.LM06412 | 10/05/10 14:08 | 01   |
| MCT            | WG344700-01   | 1LM.LM06413 | 10/05/10 14:34 | 01   |
| LCS            | WG344700-03   | 1LM.LM06415 | 10/05/10 15:27 | 01   |
| LCS2           | WG344700-04   | 1LM.LM06416 | 10/05/10 15:54 | 01   |
| 47SB-F06 (4-6) | L10100086-02  | 1LM.LM06418 | 10/05/10 16:46 | 01   |
| 47SB-E06 (4-6) | L10100086-05  | 1LM.LM06419 | 10/05/10 17:13 | 01   |
| 47SB-C02 (4-6) | L10100086-06  | 1LM.LM06420 | 10/05/10 17:39 | 01   |
| 47SB-E02 (4-6) | L10100086-07  | 1LM.LM06421 | 10/05/10 18:06 | 01   |
| 47SB-F03 (4-6) | L10100086-08  | 1LM.LM06422 | 10/05/10 18:32 | 01   |
| QCMRL          | WG344700-06   | 1LM.LM06424 | 10/05/10 19:25 | 01   |
| 47SB-D08 (4-6) | L10100086-09  | 1LM.LM06426 | 10/05/10 20:18 | 01   |
| 47SB-J06 (4-6) | L10100086-10  | 1LM.LM06427 | 10/05/10 20:45 | 01   |
| 47SB-J03 (0-2) | L10100086-11  | 1LM.LM06428 | 10/05/10 21:11 | 01   |
| 47SB-E09 (0-2) | L10100086-12  | 1LM.LM06429 | 10/05/10 21:38 | 01   |
| 47SB-D09 (0-2) | L10100086-13  | 1LM.LM06430 | 10/05/10 22:04 | 01   |
| QCMRL          | WG344700-07   | 1LM.LM06432 | 10/05/10 22:57 | 01   |
| QCMRL          | WG344700-08   | 1LM.LM06445 | 10/06/10 12:16 | 01   |
| 47SB-F04 (4-6) | L10100086-01  | 1LM.LM06446 | 10/06/10 12:42 | DL01 |
| QCMRL          | WG344700-09   | 1LM.LM06451 | 10/06/10 14:54 | 01   |



Login Number: L10100086 Prep Date: 10/05/10 13:15 Sample ID: WG344700-02  
Instrument ID: LCMS1 Run Date: 10/05/10 15:01 Prep Method: 6850  
File ID: 1LM.LM06414 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344700 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 05-OCT-10

| Analytes    | SDL   | PQL  | Concentration | Dilution | Qualifier |
|-------------|-------|------|---------------|----------|-----------|
| Perchlorate | 0.996 | 1.99 | 0.996         | 1        | U         |

SDL Method Detection Limit  
PQL Reporting/Practical Quantitation Limit  
ND Analyte Not detected at or above reporting limit  
\* |Analyte concentration| > RL

Report Name: BLANK  
PDF ID: 1798949  
08-OCT-2010 08:57



Login Number: L10100086 Analyst: WTD Prep Method: 6850  
Instrument ID: LCMS1 Matrix: Soil Method: 6850  
Workgroup (AAB#): WG344700 Units: ug/kg  
QC Key: STD Lot #: STD41363  
Sample ID: WG344700-03 LCS File ID: 1LM.LM06415 Run Date: 10/05/2010 15:27  
Sample ID: WG344700-04 LCS2 File ID: 1LM.LM06416 Run Date: 10/05/2010 15:54

| Analytes    | LCS   |       |       | LCS2  |       |       | %RPD | %Rec Limits | RPD Lmt | Q |
|-------------|-------|-------|-------|-------|-------|-------|------|-------------|---------|---|
|             | Known | Found | % REC | Known | Found | % REC |      |             |         |   |
| Perchlorate | 1.98  | 1.88  | 95.0  | 1.97  | 2.05  | 104   | 8.81 | 80 - 120    | 15      |   |

Conductivity Probe  
Calibration Check:  
1391 / 1410  $\mu\text{S}/\text{cm}$

### Perchlorate Conductivity Check

Working MCT Level:  
10,000  $\mu\text{S}/\text{cm}$

| Sample            | Conductivity ( $\mu\text{S}/\text{cm}$ ) | Pretreatment or Dilution Needed |
|-------------------|------------------------------------------|---------------------------------|
| ING 344700-01 MCT | 10,220                                   | NA                              |
| -02 BIK           | 7.6                                      |                                 |
| -03 LCS           | 6.1                                      |                                 |
| -04 LCS2          | 7.0                                      |                                 |
| L10100086-01      | 459                                      |                                 |
| -02               | 5.9                                      |                                 |
| -05               | 14.2                                     |                                 |
| -06               | 141                                      |                                 |
| -07               | 6.7                                      |                                 |
| -08               | 4.0                                      |                                 |
| -09               | 1.7                                      |                                 |
| -10               | 3.4                                      |                                 |
| -11               | 7.0                                      |                                 |
| -12               | 7.7                                      |                                 |
| -13               | 5.3                                      |                                 |
|                   |                                          |                                 |
|                   |                                          |                                 |
|                   |                                          |                                 |
|                   |                                          |                                 |
|                   |                                          |                                 |
|                   |                                          |                                 |
|                   |                                          |                                 |

Wade T. DeLy  
Analyst

10-5-10 / 15:15  
Date/Time

DCN#84635



Login Number: L10100086  
Analytical Method: 6850  
ICAL Workgroup: WG344609

Instrument ID: LCMS1  
Initial Calibration Date: 05-OCT-10 01:59  
Column ID: F

| Analyte     |  | AVG RF | % RSD | LINEAR (R) | QUAD (R <sup>2</sup> ) |
|-------------|--|--------|-------|------------|------------------------|
| Perchlorate |  | 1.247  | 6.06  | 1.00000    |                        |

R = Correlation coefficient; 0.995 minimum  
R<sup>2</sup> = Coefficient of determination; 0.99 minimum

Login Number: L10100086  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 05-OCT-10 01:59  
Column ID: F

| Analyte     | WG344609-02 |            |       | WG344609-03 |            |       | WG344609-04 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 0.100       | 4640.00000 | 1.333 | 0.200       | 9360.00000 | 1.339 | 0.500       | 21500.0000 | 1.229 |

Login Number: L10100086  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 05-OCT-10 01:59  
Column ID: F

| Analyte     | WG344609-05 |            |       | WG344609-06 |            |       | WG344609-07 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 1.00        | 42200.0000 | 1.229 | 2.00        | 82000.0000 | 1.192 | 5.00        | 204000.000 | 1.198 |

Login Number: L10100086  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 05-OCT-10 01:59  
Column ID: F

| Analyte     | WG344609-08 |            |       |
|-------------|-------------|------------|-------|
|             | CONC        | RESP       | RF    |
| Perchlorate | 10.0        | 407000.000 | 1.208 |



Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344609-09  
Instrument ID: LCMS1 Run Time: 02:25 Method: 6850  
File ID: 1LM.LM06393 Analyst: WTD QC Key: STD  
ICal Workgroup: WG344609 Cal ID: LCMS1 - 05-OCT-10

| Analyte     |  | Expected | Found | Units | RF   | %D   | UCL | Q |
|-------------|--|----------|-------|-------|------|------|-----|---|
| Perchlorate |  | 1.00     | 1.05  | ug/L  | 1.28 | 5.00 | 15  |   |

\* Exceeds %D Limit

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344701-01  
Instrument ID: LCMS1 Run Time: 13:15 Method: 6850  
File ID: 1LM.LM06410 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344701-04  
Instrument ID: LCMS1 Run Time: 19:52 Method: 6850  
File ID: 1LM.LM06425 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344701-06  
Instrument ID: LCMS1 Run Time: 23:23 Method: 6850  
File ID: 1LM.LM06433 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100086 Run Date: 10/06/2010 Sample ID: WG344786-01  
Instrument ID: LCMS1 Run Time: 11:23 Method: 6850  
File ID: 1LM.LM06443 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100086 Run Date: 10/06/2010 Sample ID: WG344786-04  
Instrument ID: LCMS1 Run Time: 15:21 Method: 6850  
File ID: 1LM.LM06452 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344701-02  
Instrument ID: LCMS1 Run Time: 13:41 Method: 6850  
File ID: 1LM.LM06411 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.04  | ug/L  | 1.26 | 4.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344701-03  
Instrument ID: LCMS1 Run Time: 18:59 Method: 6850  
File ID: 1LM.LM06423 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.01  | ug/L  | 1.24 | 1.00 | 15  |   |

\* Exceeds %D Criteria



Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344701-05  
Instrument ID: LCMS1 Run Time: 22:30 Method: 6850  
File ID: 1LM.LM06431 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.04  | ug/L  | 1.26 | 4.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100086 Run Date: 10/06/2010 Sample ID: WG344786-02  
Instrument ID: LCMS1 Run Time: 11:49 Method: 6850  
File ID: 1LM.LM06444 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.03  | ug/L  | 1.25 | 3.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100086 Run Date: 10/06/2010 Sample ID: WG344786-03  
Instrument ID: LCMS1 Run Time: 14:28 Method: 6850  
File ID: 1LM.LM06450 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG344700 Cal ID: LCMS1 - 05-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.04  | ug/L  | 1.27 | 4.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344700-05  
Instrument ID: LCMS1 Run Time: 14:08 Prep Method: 6850  
File ID: 1LM.LM06412 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344700 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 05-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.34  | 117   | 70 - 130 |   |

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344700-06  
Instrument ID: LCMS1 Run Time: 19:25 Prep Method: 6850  
File ID: 1LM.LM06424 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344700 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 05-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.23  | 112   | 70 - 130 |   |

Login Number: L10100086 Run Date: 10/05/2010 Sample ID: WG344700-07  
Instrument ID: LCMS1 Run Time: 22:57 Prep Method: 6850  
File ID: 1LM.LM06432 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344700 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 05-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.38  | 119   | 70 - 130 |   |

Login Number: L10100086 Run Date: 10/06/2010 Sample ID: WG344700-08  
Instrument ID: LCMS1 Run Time: 12:16 Prep Method: 6850  
File ID: 1LM.LM06445 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344700 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 05-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.39  | 120   | 70 - 130 |   |

Login Number: L10100086 Run Date: 10/06/2010 Sample ID: WG344700-09  
Instrument ID: LCMS1 Run Time: 14:54 Prep Method: 6850  
File ID: 1LM.LM06451 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG344700 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 05-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.31  | 116   | 70 - 130 |   |



Login Number: L10100086  
Instrument ID: LCMS1  
Workgroup (AAB#): WG344700

ICAL CCV Number: WG344609-05  
CAL ID: LCMS1 - 05-OCT-10  
Matrix: SOLID

| Sample Number | Dilution | Tag  | IS-1   |
|---------------|----------|------|--------|
| WG344609      | NA       | NA   | 173000 |
| Upper Limit   | NA       | NA   | 259500 |
| Lower Limit   | NA       | NA   | 86500  |
| L10100086-01  | 1000     | DL01 | 187000 |
| L10100086-02  | 1.00     | 01   | 180000 |
| L10100086-05  | 1.00     | 01   | 181000 |
| L10100086-06  | 1.00     | 01   | 180000 |
| L10100086-07  | 1.00     | 01   | 185000 |
| L10100086-08  | 1.00     | 01   | 177000 |
| L10100086-09  | 1.00     | 01   | 173000 |
| L10100086-10  | 1.00     | 01   | 174000 |
| L10100086-11  | 1.00     | 01   | 177000 |
| L10100086-12  | 1.00     | 01   | 180000 |
| L10100086-13  | 1.00     | 01   | 174000 |
| WG344700-02   | 1.00     | 01   | 171000 |
| WG344700-03   | 1.00     | 01   | 173000 |
| WG344700-04   | 1.00     | 01   | 176000 |

IS-1 - 018LP

Underline = Response outside limits

## **2.2 General Chemistry Data**

## **2.2.1 Percent Solids Data**

## **2.2.1.1 Raw Data**

**LABORATORY REPORT****L10100086****00106412****10/11/10 11:59****Submitted By**

**Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071**

**For**

**Account Name: for Shaw E & I, Inc.**  
**1401 Enclave Parkway**  
**Suite 250**  
**Houston, TX 77077**  
**Attention: Jennifer Hoang**

**Project Number: 2773.025**  
**Project: Longhorn AAP**  
**Site: LONGHORN AAP KARNACK TX**

**P.O. Number: 557440**

**Sample Analysis Summary**

| <b>Client ID</b> | <b>Lab ID</b> | <b>Method</b> | <b>Dilution</b> | <b>Date Received</b> |
|------------------|---------------|---------------|-----------------|----------------------|
| 47SB-F04 (4-6)   | L10100086-01  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-F06 (4-6)   | L10100086-02  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-E06 (4-6)   | L10100086-05  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-C02 (4-6)   | L10100086-06  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-E02 (4-6)   | L10100086-07  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-F03 (4-6)   | L10100086-08  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-D08 (4-6)   | L10100086-09  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-J06 (4-6)   | L10100086-10  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-J03 (0-2)   | L10100086-11  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-E09 (0-2)   | L10100086-12  | D2216-90      | 1               | 23-SEP-10            |
| 47SB-D09 (0-2)   | L10100086-13  | D2216-90      | 1               | 23-SEP-10            |



Report Number: **L10100086**Report Date : **October 11, 2010**

00106413

Sample Number: **L10100086-01**  
Client ID: **47SB-F04 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG345061**  
Collect Date: **09/20/2010 13:20**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/11/2010 09:48**  
Cal Date:   
Run Date: **10/11/2010 09:48**  
File ID: **B1.345061-0117**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 87.2   |      | 1.00 | 1.00 |

Sample Number: **L10100086-02**  
 Client ID: **47SB-F06 (4-6)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345061**  
 Collect Date: **09/20/2010 13:45**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/11/2010 09:48**  
 Cal Date:   
 Run Date: **10/11/2010 09:48**  
 File ID: **B1.345061-0118**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 85.3   |      | 1.00 | 1.00 |



Report Number: **L10100086**Report Date : **October 11, 2010**

00106415

Sample Number: **L10100086-05**  
Client ID: **47SB-E06 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG345061**  
Collect Date: **09/20/2010 14:45**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/11/2010 09:48**  
Cal Date:   
Run Date: **10/11/2010 09:48**  
File ID: **B1.345061-0119**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 86.4   |      | 1.00 | 1.00 |

3 of 11





Sample Number: **L10100086-06**  
 Client ID: **47SB-C02 (4-6)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345061**  
 Collect Date: **09/20/2010 15:15**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/11/2010 09:48**  
 Cal Date:   
 Run Date: **10/11/2010 09:48**  
 File ID: **B1.345061-0120**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 92.3   |      | 1.00 | 1.00 |

Sample Number: **L10100086-07**  
 Client ID: **47SB-E02 (4-6)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345061**  
 Collect Date: **09/20/2010 15:35**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/11/2010 09:48**  
 Cal Date:   
 Run Date: **10/11/2010 09:48**  
 File ID: **B1.345061-0121**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 79.5   |      | 1.00 | 1.00 |

Report Number: **L10100086**Report Date : **October 11, 2010**

00106418

Sample Number: **L10100086-08**  
Client ID: **47SB-F03 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG345061**  
Collect Date: **09/21/2010 08:40**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/11/2010 09:48**  
Cal Date:   
Run Date: **10/11/2010 09:48**  
File ID: **B1.345061-0122**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 86.5   |      | 1.00 | 1.00 |

Report Number: **L10100086**Report Date : **October 11, 2010**

00106419

Sample Number: **L10100086-09**  
Client ID: **47SB-D08 (4-6)**  
Matrix: **Soil**  
Workgroup Number: **WG345061**  
Collect Date: **09/21/2010 09:40**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/11/2010 09:48**  
Cal Date:   
Run Date: **10/11/2010 09:48**  
File ID: **B1.345061-0123**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 91.1   |      | 1.00 | 1.00 |

Sample Number: **L10100086-10**  
 Client ID: **47SB-J06 (4-6)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345061**  
 Collect Date: **09/21/2010 10:45**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/11/2010 09:48**  
 Cal Date:   
 Run Date: **10/11/2010 09:48**  
 File ID: **B1.345061-0124**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 84.3   |      | 1.00 | 1.00 |



Sample Number: **L10100086-11**  
 Client ID: **47SB-J03 (0-2)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345061**  
 Collect Date: **09/20/2010 12:45**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/11/2010 09:48**  
 Cal Date:   
 Run Date: **10/11/2010 09:48**  
 File ID: **B1.345061-0125**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 87.3   |      | 1.00 | 1.00 |

Sample Number: **L10100086-12**  
 Client ID: **47SB-E09 (0-2)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345061**  
 Collect Date: **09/20/2010 14:25**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/11/2010 09:48**  
 Cal Date:   
 Run Date: **10/11/2010 09:48**  
 File ID: **B1.345061-0126**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 89.2   |      | 1.00 | 1.00 |

Report Number: **L10100086**Report Date : **October 11, 2010**

00106423

Sample Number: **L10100086-13**  
Client ID: **47SB-D09 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG345061**  
Collect Date: **09/21/2010 09:55**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/11/2010 09:48**  
Cal Date:   
Run Date: **10/11/2010 09:48**  
File ID: **B1.345061-0127**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 95.5   |      | 1.00 | 1.00 |

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**Example Percent Solids Calculations****1.0 Calculating the percent solids of a sample.**

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container

1.30 g

WT2 = Weight, in grams, of the container and wet sample

21.274 g

WT3 = Weight, in grams, of the container and dried sample

5.21 g

F = Factor to get units as percent weight

100

%Solids = Percent solids present in sample.

19.58%

**2.0 Calculating the percent moisture of a sample.**

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

Workgroup (AAB#): WG345061  
 Method: D2216-90  
 SOP: K0003 Rev: 10

Analyst: JDH  
 Instrument: BAL001

ADT(on): 10/08/2010 10:57  
 ADT(off): 10/11/2010 09:48

| SAMPLE NUMBER | EMPTY PAN WT 1 | WET WT 2 | DRY WT 3A | DRY WT 3B | DRY WT 3C | PERCENT SOLID | PERCENT MOISTURE |
|---------------|----------------|----------|-----------|-----------|-----------|---------------|------------------|
| L10090765-01  | 1.31           | 16.95    | 14.93     |           |           | 87.08         |                  |
| L10090765-02  | 1.32           | 17.19    | 16.56     |           |           | 96.03         |                  |
| L10090765-03  | 1.32           | 15.25    | 13.52     |           |           | 87.58         |                  |
| L10090765-04  | 1.32           | 15.25    | 14.92     |           |           | 97.63         |                  |
| L10090765-05  | 1.31           | 22.91    | 21.84     |           |           | 95.05         |                  |
| L10090765-06  | 1.33           | 25.73    | 25.1      |           |           | 97.42         |                  |
| L10090765-07  | 1.32           | 30.56    | 29.56     |           |           | 96.58         |                  |
| L10090765-08  | 1.31           | 25.68    | 24.64     |           |           | 95.73         |                  |
| L10100086-01  | 1.33           | 24.7     | 21.72     |           |           | 87.25         |                  |
| L10100086-02  | 1.32           | 23.94    | 20.62     |           |           | 85.32         |                  |
| L10100086-05  | 1.35           | 22.67    | 19.76     |           |           | 86.35         |                  |
| L10100086-06  | 1.33           | 20.2     | 18.74     |           |           | 92.26         |                  |
| L10100086-07  | 1.32           | 22.56    | 18.21     |           |           | 79.52         |                  |
| L10100086-08  | 1.33           | 27.4     | 23.87     |           |           | 86.46         |                  |
| L10100086-09  | 1.31           | 31.43    | 28.74     |           |           | 91.07         |                  |
| L10100086-10  | 1.31           | 22.82    | 19.44     |           |           | 84.29         |                  |
| L10100086-11  | 1.32           | 34.63    | 30.41     |           |           | 87.33         |                  |
| L10100086-12  | 1.32           | 28.85    | 25.89     |           |           | 89.25         |                  |
| L10100086-13  | 1.33           | 24.86    | 23.8      |           |           | 95.50         |                  |
| L10100181-01  | 1.33           | 39.46    | 34.37     |           |           | 86.65         |                  |
| L10100181-02  | 1.34           | 30.95    | 26.63     |           |           | 85.41         |                  |
| L10100181-03  | 1.29           | 27.76    | 24.02     |           |           | 85.87         |                  |
| L10100181-04  | 1.33           | 25.94    | 21.15     |           |           | 80.54         |                  |
| L10100181-05  | 1.32           | 21.71    | 18.89     |           |           | 86.17         |                  |
| L10100181-06  | 1.31           | 29.21    | 23.45     |           |           | 79.35         |                  |
| L10100181-07  | 1.32           | 28.3     | 23.37     |           |           | 81.73         |                  |
| L10100181-13  | 1.34           | 23.08    | 19.29     |           |           | 82.57         |                  |
| WG345061-01   | 1.34           | 23.08    | 19.29     |           |           | 82.57         | 17.43            |
| WG345061-02   | 1.33           | 24.86    | 23.8      |           |           | 95.50         | 4.505            |
| WG345061-03   | 1.31           | 30.25    | 25.78     |           |           | 84.55         | 15.45            |
| WG345061-04   | 1.31           | 29.28    | 27.95     |           |           | 95.24         | 4.755            |

Analyst: Justin Harrison

## **3.0 Attachments**

Microbac Laboratories Inc.  
Analyst Listing  
October 11, 2010

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|                             |                           |                            |
|-----------------------------|---------------------------|----------------------------|
| ADC - ANTHONY D. CANTER     | AJF - AMANDA J. FICKIESEN | ALB - ANNIE L. BROWN       |
| ALV - AMY L. VALENTINE      | AML - TONY M. LONG        | AZH - AFTER HOURS          |
| BLG - BRENDA L. GREENWALT   | BRG - BRENDA R. GREGORY   | CAA - CASSIE A. AUGENSTEIN |
| CAF - CHERYL A. FLOWERS     | CEB - CHAD E. BARNES      | CLC - CHRYS L. CRAWFORD    |
| CLS - CARA L. STRICKLER     | CLW - CHARISSA L. WINTERS | CPD - CHAD P. DAVIS        |
| CSH - CHRIS S. HILL         | DDE - DEBRA D. ELLIOTT    | DEL - DON E. LIGHTFRITZ    |
| DEV - DAVID E. VANDENBERG   | DGB - DOUGLAS G. BUTCHER  | DIH - DEANNA I. HESSON     |
| DLB - DAVID L. BUMGARNER    | DLP - DOROTHY L. PAYNE    | DLR - DIANNA L. RAUCH      |
| ECL - ERIC C. LAWSON        | EDA - ERIN D. AGEE        | ERP - ERIN R. PORTER       |
| FJB - FRANCES J. BOLDEN     | HAV - HEMA VILASAGAR      | HJR - HOLLY J. REED        |
| JBK - JEREMY B. KINNEY      | JDH - JUSTIN D. HESSON    | JKT - JANE K. THOMPSON     |
| JWR - JOHN W. RICHARDS      | JWS - JACK W. SHEAVES     | JYH - JI Y. HU             |
| KEB - KATIE E. BARNES       | KHR - KIM H. RHODES       | KRA - KATHY R. ALBERTSON   |
| LKN - LINDA K. NEDEFF       | LSB - LESLIE S. BUCINA    | MDA - MIKE D. ALBERTSON    |
| MDC - MIKE D. COCHRAN       | MES - MARY E. SCHILLING   | MMB - MAREN M. BEERY       |
| MRT - MICHELLE R. TAYLOR    | MSW - MATT S. WILSON      | PDM - PIERCE D. MORRIS     |
| PWD - PAUL W. DENT          | RAH - ROY A. HALSTEAD     | RB - BOB BUCHANAN          |
| REK - BOB E. KYER           | RLK - ROBIN L. KLINGER    | RWC - RODNEY W. CAMPBELL   |
| SLM - STEPHANIE L. MOSSBURG | SLP - SHERI L. PFALZGRAF  | TIP - TAE I. PARRISH       |
| TMB - TIFFANY M. BAILEY     | TMM - TAMMY M. MORRIS     | VC - VICKI COLLIER         |
| WTD - WADE T. DELONG        |                           |                            |

## List of Valid Qualifiers

October 11, 2010

Qualkey: STD\_ND=U

| Qualifier | Description                                                                           |
|-----------|---------------------------------------------------------------------------------------|
| *         | Surrogate or spike compound out of range                                              |
| +         | Correlation coefficient for the MSA is less than 0.995                                |
| <         | Result is less than the associated numerical value.                                   |
| >         | Result is greater than the associated numerical value.                                |
| A         | See the report narrative                                                              |
| B         | Analyte present in method blank                                                       |
| B1        | Target analyte detected in method blank at or above the method reporting limit        |
| B3        | Target analyte detected in calibration blank at or above the method reporting limit   |
| C         | Confirmed by GC/MS                                                                    |
| CG        | Confluent growth                                                                      |
| DL        | Surrogate or spike compound was diluted out                                           |
| E         | Estimated concentration due to sample matrix interference                             |
| EDL       | Elevated sample reporting limits, presence of non-target analytes                     |
| EMPC      | Estimated Maximum Possible Concentration                                              |
| F, S      | Estimated result below quantitation limit; method of standard additions(MSA)          |
| FL        | Free Liquid                                                                           |
| H1        | Sample analysis performed past holding time.                                          |
| I         | Semiquantitative result (out of instrument calibration range)                         |
| J         | The analyte was positively identified, but the quantitation was below the RL          |
| J,B       | Analyte detected in both the method blank and sample above the MDL.                   |
| J,P       | Estimate; columns don't agree to within 40%                                           |
| J,S       | Estimated concentration; analyzed by method of standard addition (MSA)                |
| L         | Sample reporting limits elevated due to matrix interference                           |
| L1        | The associated blank spike (LCS) recovery was above the laboratory acceptance limits. |
| L2        | The associated blank spike (LCS) recovery was below the laboratory acceptance limits. |
| M         | Matrix effect; the concentration is an estimate due to matrix effect.                 |
| N         | Tentatively identified compound(TIC)                                                  |
| NA        | Not applicable                                                                        |
| ND, L     | Not detected; sample reporting limit (RL) elevated due to interference                |
| ND, S     | Not detected; analyzed by method of standard addition (MSA)                           |
| NF        | Not found by library search                                                           |
| NFL       | No free liquid                                                                        |
| NI        | Non-ignitable                                                                         |
| NR        | Analyte is not required to be analyzed                                                |
| NS        | Not spiked                                                                            |
| P         | Concentrations >40% difference between the two GC columns                             |
| Q         | One or more quality control criteria failed. See narrative.                           |
| QNS       | Quantity of sample not sufficient to perform analysis                                 |
| RA        | Reanalysis confirms reported results                                                  |
| RE        | Reanalysis confirms sample matrix interference                                        |
| S         | Analyzed by method of standard addition (MSA)                                         |
| SMI       | Sample matrix interference on surrogate                                               |
| SP        | Reported results are for spike compounds only                                         |
| TIC       | Library Search Compound                                                               |
| TNTC      | Too numerous to count                                                                 |
| U         | Not detected at or above adjusted sample detection limit                              |
| UJ        | Undetected; the MDL and RL are estimated due to quality control discrepancies.        |
| W         | Post-digestion spike for furnace AA out of control limits                             |
| X         | Exceeds regulatory limit                                                              |
| X, S      | Exceeds regulatory limit; method of standard additions (MSA)                          |
| Z         | Cannot be resolved from isomer - see below                                            |

## \*\*\*Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



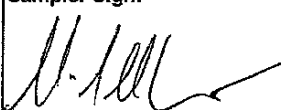
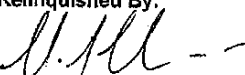
**Lab Name: Environmental Waste Solutions C/O Microbac**  
**Address : 158 Starlite Drive, Marietta OH 45750**  
**Contact : Stephanie Mossburg**  
**Phone: 1-800-373-4071**

**COC NO. LHAAP47-092210-3**

[illegible]

**Shaw Environmental & Infrastructure, Inc.**  
1401 Enclave Parkway, Suite 250  
Houston, TX 77077  
(281) 531-3100

**Lab Name: Environmental Waste Solutions C/O Microbac**  
**Address : 158 Starlite Drive, Marietta OH 45750**  
**Contact : Stephanie Mossburg**  
**Phone: 1-800-373-4071**

|                                                                                                         |   |                                                                                                    |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|---------------------------------------------------------------------------------------------------------|---|----------------------------------------------------------------------------------------------------|------|-----------------------------|---------------------------------------------------------|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|
| PM: Praveen Srivastav (281.531.3188)                                                                    |   | TAT: HOLD                                                                                          |      | Perchlorate (8850)-28day HT |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project Contact: Jen Hoang                                                                              |   | Phone No: 281-531-3108                                                                             |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project Name: LHAAP                                                                                     |   | Site: SITE 47                                                                                      |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Project #: 117591-009A130                                                                               |   | Location: Karnack, TX                                                                              |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sampler Print:<br>Allen Willmore<br>(713.247.9292)<br>Susan Oller<br>(281.989.3544)                     |   | Sampler Sign:<br> |      |                             | # Of Containers                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sample Number                                                                                           |   | Grab                                                                                               | Date | Time                        |                                                         | Matrix |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-J03(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1245 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-F04(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1315 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-F06(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1340 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-F07(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1405 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-E09(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1425 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-E06(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1440 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-C02(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1510 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-E02(0-2)                                                                                           | x | 09/20/2010                                                                                         | 1530 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-F03(0-2)                                                                                           | x | 09/21/2010                                                                                         | 835  | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-D08(0-2)                                                                                           | x | 09/21/2010                                                                                         | 935  | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-D09(0-2)                                                                                           | x | 09/21/2010                                                                                         | 955  | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-B10(0-2)                                                                                           | x | 09/21/2010                                                                                         | 1010 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 47SB-J06(0-2)                                                                                           | x | 09/21/2010                                                                                         | 1040 | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DUP01 - 100920                                                                                          | x | 9/20/2010                                                                                          | --   | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| DUP02 - 100920                                                                                          | x | 9/20/2010                                                                                          | --   | Soil                        | 1                                                       | X      |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Relinquished By:<br> |   | Received By:                                                                                       |      |                             | Special Instructions<br>HOLD FOR INTERVAL (4-6) RESULTS |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Date/Time 9/22/10 17:00                                                                                 |   | Date/Time                                                                                          |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Relinquished By:                                                                                        |   | Received for Laboratory By:                                                                        |      |                             | Remarks:                                                |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Date/Time                                                                                               |   | Date/Time                                                                                          |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |   | Microbac OVD                                                                                       |      |                             | 221000009348                                            |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |   | Received: 09/23/2010 10:31                                                                         |      |                             | Relog from                                              |        |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                                         |   | By: ROBIN K. TINGEL                                                                                |      |                             |                                                         |        |  |  |  |  |  |  |  |  |  |  |  |  |  |

A musical score for the song 'The Rose Tree'. It features a piano introduction and a vocal melody. The score is written on ten staves. The first staff is a piano introduction. The second staff is the vocal melody. The third staff is a piano accompaniment. The fourth staff is a vocal melody. The fifth staff is a piano accompaniment. The sixth staff is a vocal melody. The seventh staff is a piano accompaniment. The eighth staff is a vocal melody. The ninth staff is a piano accompaniment. The tenth staff is a vocal melody. The score is written in a simple, clear style.

**Microbac OVD**

221000009348

Received: 09/23/2010 10:31

By: ROBIN KLINGER

Relog from  
L#10090610

RLK

10-5-10

## COOLER INSPECTION



Received: 09/23/2010 10:31  
Delivery Method: UPS  
Opened By: Robin Klinger  
Comments:

Login(s): L10100086|

### Cooler(s)

| Cooler # | Temp Gun | Temp | Tracking #         | COC #                                | Comments |
|----------|----------|------|--------------------|--------------------------------------|----------|
| 0014405  | H        | 3.0  | 1Z66V7250192416060 | lhaap47-092210-3<br>LHAAP47-092210-4 |          |
| 0014405  | H        | 3.0  | 1Z66V7250192416060 | lhaap47-092210-3<br>LHAAP47-092210-4 |          |

- 1 Yes Were shipping coolers sealed?
- 2 Yes Were custody seals intact?
- 3 Yes Were cooler temperatures in range of 0-6?
- 4 Yes Was ice present?
- 5 Yes Were COC's received/information complete/signed and dated?
- 6 Yes Were sample containers and labels intact and match COC?
- 7 Yes Were the correct containers and volumes received?
- 8 Yes Were samples received within EPA hold times?
- 9 NA Were correct perservatives used? (water only)
- 10 NA Were pH ranges acceptable? (voa's excluded)
- 11 NA Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

**Look closer. Go further. Do more.**

Microbac - Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750  
Tel: (740)373-4071 Fax: (740)373-4835



## Internal Chain of Custody Report

Login: L10100086

Account: 2773

Project: 2773.025

Samples: 11

Due Date: 12-OCT-2010

**Samplenum**      **Container ID**      **Products**  
**L10100086-01**      746844      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:20 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-02**      746845      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:20 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-05**      746846      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:20 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-06**      746847      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:21 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login



## Internal Chain of Custody Report

Login: L10100086

Account: 2773

Project: 2773.025

Samples: 11

Due Date: 12-OCT-2010

**Samplenum**      **Container ID**      **Products**  
**L10100086-07**      746848      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:20 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-08**      746849      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:20 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-09**      746850      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:21 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-10**      746851      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:21 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login



## Internal Chain of Custody Report

Login: L10100086

Account: 2773

Project: 2773.025

Samples: 11

Due Date: 12-OCT-2010

**Samplenum**      **Container ID**      **Products**  
**L10100086-11**      746852      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:21 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-12**      746853      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:21 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100086-13**      746854      PCT-S 6850

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 05-OCT-2010 09:50 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 05-OCT-2010 10:42 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 05-OCT-2010 11:21 | JKT    | WTD        |
| 4    | ANALYZ  | WET    | A1  | 08-OCT-2010 13:57 | RLK    | JDH        |

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login



## NELAP Addendum - May 28, 2010

### Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)  
 Total Halide by Bomb Combustion (TX)  
 Particle Sizing - 200 Mesh (PS200)  
 Sulfate (SO<sub>4</sub>)  
 Specific Gravity/Density (SPGRAV)  
 Total Residual Chlorine (CL-TRL)  
 Total Volatile Solids (all forms) (TVS)  
 Total Coliform Bacteria (all methods)  
 Fecal Coliform Bacteria (all methods)  
 Sulfite (SO<sub>3</sub>)  
 Perchlorate (6850 – LCMS)  
 Hexamethylphosphoramide (XMPA-LCMS)  
 Thiodiglycol (TDG-LCMS)  
 1,4-Dioxane – 8270C (827-DIOXANE)  
 Phosphorus – 6010B  
 Zirconium - 6010B

### NELAP Accreditation by Laboratory SOP

#### NONPOTABLE WATER

OVL HPLC02/HPLC-UV

Nitroglycerin  
 Nitroguanidine  
 Acetic acid  
 Butyric acid  
 Lactic acid  
 Propionic acid  
 Pyruvic acid

OVL KNITRO-C-WUV-VIS

Nitrocellulose

OVL MSS01/GC-MS

1,4-Phenylenediamine  
 1-Methylnaphthalene  
 2, 3, 4, 6-Tetrachlorophenol  
 2-Chloronaphthalene  
 Benzaldehyde  
 Biphenyl  
 Caprolactam  
 Hexamethylphosphoramide (HMPA)  
 Pentachlorobenzene

Pentachloroethane

OVL MSSO4/GC-MS

Atrazine  
Bolstar (Sulprofos)  
Chlorpyrifos  
Diazinon  
Ethoprop  
Merphos  
Ronnel  
Tokuthion (Prothiophos)  
Trichloronate

OVL MSV0I/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane  
1,3-Butadiene  
alpha-Methylstyrene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Isopropyl ether  
Methylacetate  
Methylcyclohexane  
T-amylmethylether (TAME)  
Tetrahydrofuran (THF)

OVL RSKOI/GC-FID\*\*

Isobutane  
n-Butane  
Propane  
Propylene  
Propyne

## **SOLID AND HAZARDOUS CHEMICALS**

OVL HPLCOS-HPLC-UV \*\*

Nitroguanidine

OVL KNITRO-C-S/UV-VIS\*\*

OVL MSS0I/GC-MS

1,4-Phenylenediamine  
1-Methylnaphthalene

Benzaldehyde  
Biphenyl  
Caprolactam  
Pentachloroethane

## OVL MSS04/GC-MS

Atrazine  
Bolstar (Sulprofos)  
Chlorpyrifos  
Diazinon  
Ethoprop  
Merphos  
Ronnal  
Simazine  
Tokuthion (Prothiophos)  
Trichloronate

## OVL MSV01/GC-MS

1.3-Butadiene  
alpha-Methylstyrene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Isopropylether  
Methylacetate  
Methylcyclohexane  
n-Hexane  
T-amylmethylether (TAME)



158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

**Laboratory Report Number: L10100195**

Client: Jennifer Hoang, 1401 Enclave Parkway, Houston, TX, 77077

Contract #: DACA56-94-D-0020

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

|                           |                                     |                                 |
|---------------------------|-------------------------------------|---------------------------------|
| <b>Kathy Albertson</b>    | <i>Team Chemist/Data Specialist</i> | Kathy.Albertson@microbac.com    |
| <b>Stephanie Mossburg</b> | <i>Team Chemist/Data Specialist</i> | Stephanie.Mossburg@microbac.com |
| <b>Tony Long</b>          | <i>Team Chemist/Data Specialist</i> | Tony.Long@microbac.com          |
| <b>Amanda Fickiesen</b>   | <i>Client Services Specialist</i>   | Amanda.Fickiesen@microbac.com   |
| <b>Annie Brown</b>        | <i>Client Services Specialist</i>   | Annie.Brown@microbac.com        |

This report was reviewed on October 15, 2010.

A handwritten signature in cursive script that reads "Stephanie Mossburg".

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on October 15, 2010.

A handwritten signature in cursive script that reads "David E. Vandenberg".

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac OVD

This report contains a total of 61 pages.

***Look closer. Go further. Do more.***



The Microbac logo consists of the word "Microbac" in a white serif font, centered within a dark teal rectangular box.

Microbac Laboratories, Inc.  
Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750

Phone: 800.373.4071  
Fax: 740.373.4835

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Password: demo

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**Microbac REPORT L10100195**  
**PREPARED FOR Shaw E I, Inc.**  
**WORK ID:**

|                                       |    |
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| 1.0 Introduction .....                | 4  |
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# **1.0 Introduction**



**Login Number:** L10100195

**Department:** Login

**Analyst:** N/A

**Chain of Custody:**

**Shipment Conditions**

| COC #            | Cooler # | Temperature |
|------------------|----------|-------------|
| LHAAP47-092210-4 | 0014405  | 3.0         |

**Sample Management:** 47SB-E09(0-2) on chain of custody. Jar reads 47SB-E08(0-2), same time.

Received sample DUP03 not on Chain of Custody.

**Sample Identification**

| Lab ID       | Client ID      |
|--------------|----------------|
| L10100195-04 | 47SB-F07 (0-2) |

**Narrative ID:** 12691

**Approved By:** Stephanie Mossburg

*Stephanie Mossburg*



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100195    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345084     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-15   |                               |              |

## Laboratory Data Package Cover Page

|     |                                                                                                                                                                                                                                                                                                                                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Chapter 5, (b) dilution factors, (c) preparation methods, (d) cleanup methods, and (e) a. 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 compounds, (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) and detectability check sample results for each analyte for each method and matrix.                                                                                                                                                                                                                                          |
| R10 | Other problems or anomalies.                                                                                                                                                                                                                                                                                                                                           |

| Name (Printed) | Signature | Official Title (Printed)     | Date       |
|----------------|-----------|------------------------------|------------|
| Mike Cochran   |           | Semivolatiles Lab Supervisor | 10/15/2010 |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100195    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345084     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-15   |                               |              |

| Description                                                                                                                   | Yes | No | NA | NR | ER# |
|-------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Chain-of-custody (C-O-C)                                                                                                      |     |    |    |    |     |
| Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X   |    |    |    |     |
| Were all departures from standard conditions described in an exception report?                                                | X   |    |    |    |     |
| Sample and quality control (QC) identification                                                                                | X   |    |    |    |     |
| Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X   |    |    |    |     |
| Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X   |    |    |    |     |
| Test reports                                                                                                                  |     |    |    |    |     |
| Were all samples prepared and analyzed within holding times?                                                                  | X   |    |    |    |     |
| Other than those results < MQL, were all other raw values bracketed by calibration standards?                                 | X   |    |    |    |     |
| Were calculations checked by a peer or supervisor?                                                                            | X   |    |    |    |     |
| Were all analyte identifications checked by a peer or supervisor?                                                             | X   |    |    |    |     |
| Were sample detection limits reported for all analytes not detected?                                                          | X   |    |    |    |     |
| Were all results for soil and sediment samples reported on a dry weight basis?                                                | X   |    |    |    |     |
| Were % moisture (or solids) reported for all soil and sediment samples?                                                       | X   |    |    |    |     |
| Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?                           |     |    | X  |    |     |
| If required for the project, are TICs reported?                                                                               |     |    | X  |    |     |
| Surrogate recovery data                                                                                                       |     |    |    |    |     |
| Were surrogates added prior to extraction?                                                                                    |     |    | X  |    |     |
| Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             |     |    | X  |    |     |
| Test reports/summary forms for blank samples                                                                                  | X   |    |    |    |     |
| Were appropriate type(s) of blanks analyzed?                                                                                  | X   |    |    |    |     |
| Were blanks analyzed at the appropriate frequency?                                                                            | X   |    |    |    |     |
| Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X   |    |    |    |     |
| Were blank concentrations < MQL?                                                                                              | X   |    |    |    |     |
| Laboratory control samples (LCS):                                                                                             |     |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100195    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345084     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-15   |                               |              |

| Description                                                                                                                                                              | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were all COCs included in the LCS?                                                                                                                                       | X   |    |    |    |     |
| Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                                                            | X   |    |    |    |     |
| Were LCSs analyzed at the required frequency?                                                                                                                            | X   |    |    |    |     |
| Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                                                                  | X   |    |    |    |     |
| Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?                                  | X   |    |    |    |     |
| Was the LCSD RPD within QC limits?                                                                                                                                       | X   |    |    |    |     |
| Matrix spike (MS) and matrix spike duplicate (MSD) data                                                                                                                  |     |    |    |    |     |
| Were the project/method specified analytes included in the MS and MSD?                                                                                                   |     |    | X  |    |     |
| Were MS/MSD analyzed at the appropriate frequency?                                                                                                                       |     |    | X  |    |     |
| Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                                                                    |     |    | X  |    |     |
| Were MS/MSD RPDs within laboratory QC limits?                                                                                                                            |     |    | X  |    |     |
| Analytical duplicate data                                                                                                                                                |     |    |    |    |     |
| Were appropriate analytical duplicates analyzed for each matrix?                                                                                                         |     |    | X  |    |     |
| Were analytical duplicates analyzed at the appropriate frequency?                                                                                                        |     |    | X  |    |     |
| Were RPDs or relative standard deviations within the laboratory QC limits?                                                                                               |     |    | X  |    |     |
| Method quantitation limits (MQLs):                                                                                                                                       |     |    |    |    |     |
| Are the MQLs for each method analyte included in the laboratory data package?                                                                                            | X   |    |    |    |     |
| Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                                                                 | X   |    |    |    |     |
| Are unadjusted MQLs and DCSs included in the laboratory data package?                                                                                                    | X   |    |    |    |     |
| Other problems/anomalies                                                                                                                                                 |     |    |    |    |     |
| Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                                                            | X   |    |    |    |     |
| Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?                                         |     |    | X  |    |     |
| Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X   |    |    |    |     |
| Initial calibration (ICAL)                                                                                                                                               |     |    |    |    |     |
| Were response factors and/or relative response factors for each analyte within QC                                                                                        | X   |    |    |    |     |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100195    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345084     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-15   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| limits?                                                                                                |     |    |    |    |     |
| Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |    |    |     |
| Was the number of standards recommended in the method used for all analytes?                           | X   |    |    |    |     |
| Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |    |    |     |
| Are ICAL data available for all instruments used?                                                      | X   |    |    |    |     |
| Has the initial calibration curve been verified using an appropriate second source standard?           | X   |    |    |    |     |
| Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB): |     |    |    |    |     |
| Was the CCV analyzed at the method-required frequency?                                                 | X   |    |    |    |     |
| Were percent differences for each analyte within the method-required QC limits?                        | X   |    |    |    |     |
| Was the ICAL curve verified for each analyte?                                                          | X   |    |    |    |     |
| Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |    |    |     |
| Mass spectral tuning                                                                                   |     |    |    |    |     |
| Was the appropriate compound for the method used for tuning?                                           | X   |    |    |    |     |
| Were ion abundance data within the method-required QC limits?                                          | X   |    |    |    |     |
| Internal standards (IS)                                                                                |     |    |    |    |     |
| Were IS area counts and retention times within the method-required QC limits?                          | X   |    |    |    |     |
| Raw data (NELAC Section 5.5.10)                                                                        |     |    |    |    |     |
| Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |    |    |     |
| Were data associated with manual integrations flagged on the raw data?                                 | X   |    |    |    |     |
| Dual column confirmation                                                                               |     |    |    |    |     |
| Did dual column confirmation results meet the method-required QC?                                      |     |    | X  |    |     |
| Tentatively identified compounds (TICs)                                                                |     |    |    |    |     |
| If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?              |     |    | X  |    |     |
| Interference Check Sample (ICS) results                                                                |     |    |    |    |     |
| Were percent recoveries within method QC limits?                                                       |     |    | X  |    |     |
| Serial dilutions, post digestion spikes, and method of standard additions                              |     |    |    |    |     |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100195    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345084     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-15   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were percent differences, recoveries, and the linearity within the QC limits specified in the method?  |     |    | X  |    |     |
| Method detection limit (MDL) studies                                                                   |     |    |    |    |     |
| Was a MDL study performed for each reported analyte?                                                   | X   |    |    |    |     |
| Is the MDL either adjusted or supported by the analysis of DCSs?                                       | X   |    |    |    |     |
| Proficiency test reports                                                                               |     |    |    |    |     |
| Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |    |    |     |
| Standards documentation                                                                                |     |    |    |    |     |
| Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |    |    |     |
| Compound/analyte identification procedures                                                             |     |    |    |    |     |
| Are the procedures for compound/analyte identification documented?                                     | X   |    |    |    |     |
| Demonstration of analyst competency (DOC)                                                              |     |    |    |    |     |
| Was DOC conducted consistent with NELAC Chapter 5?                                                     | X   |    |    |    |     |
| Is documentation of the analyst's competency up-to-date and on file?                                   | X   |    |    |    |     |
| Verification/validation documentation for methods (NELAC Chapter 5)                                    |     |    |    |    |     |
| Are all the methods used to generate the data documented, verified, and validated, where applicable?   | X   |    |    |    |     |
| Laboratory standard operating procedures (SOPs)                                                        |     |    |    |    |     |
| Are laboratory SOPs current and on file for each method performed                                      | X   |    |    |    |     |

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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).

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte,





## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100195    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345084     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-15   |                               |              |

matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

**Check, if applicable:** ☐ This laboratory meets an exception under 30 TAC §25.6 and was last inspection by ☐ TCEQ or ☐ \_\_\_\_\_ on **(enter date of last inspection)**. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

#### Exceptions Report

## **2.1 General Chromatography Data**

## **2.1.1 LC/MS Data (6850)**

## **2.1.1.1 Summary Data**

# LABORATORY REPORT

00106452

L10100195

10/15/10 15:26

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: Shaw E & I, Inc.  
1401 Enclave Parkway  
Suite 250  
Houston, TX 77077  
Attention: Jennifer Hoang

Project Number: 2773.025  
Project: Longhorn AAP  
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

## Sample Analysis Summary

| Client ID      | Lab ID       | Method | Dilution | Date Received |
|----------------|--------------|--------|----------|---------------|
| 47SB-F07 (0-2) | L10100195-04 | 6850   | 1        | 23-SEP-10     |



Report Number: **L10100195**Report Date : **October 15, 2010**

00106453

Sample Number: **L10100195-04**  
Client ID: **47SB-F07 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG345084**  
Collect Date: **09/20/2010 14:05**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/08/2010 09:57**  
Cal Date: **10/07/2010 18:05**  
Run Date: **10/08/2010 21:01**  
File ID: **1LM.LM06543**  
Percent Solid: **87.8**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 2.67   |      | 2.26 | 1.13 |

## **2.1.1.2 QC Summary Data**

**Example Calculation 6850 - Perchlorate****Concentration from Linear Regression****Step 1: Retrieve Curve Data From Plot,  $y = mx + b$** 

$y$  = response ratio = response of analyte / response of internal standard (IS) =  $R_x/R_{istd}$

$x$  = amount ratio = concentration analyte/concentration internal standard (IS) =  $C_x / C_{istd}$

$m$  = slope from curve (1.45)

$b$  = intercept from curve (-0.00242)

$y = 1.45x + -0.00242$

**Step 2: Substitute the value for  $y$** 

where  $y = 12600/226000 = 0.055752$

**Step 3: Solve for  $x$** 

$x = (y - b)/m = 0.0040119$

**Step 4: Solve for analyte concentration  $C_x$** 

$C_x = (C_{is})(x) = (5 \text{ ug/L})(0.0040119) = 0.0200594 \text{ ug/L}$

**Example Calculation - Water:**

|                                             |          |
|---------------------------------------------|----------|
| Slope from curve, $m$ :                     | 1.45     |
| Intercept from curve, $b$ :                 | -0.00242 |
| Response of analyte, $R_x$ :                | 12600    |
| Response of Internal Standard, $R_{istd}$ : | 226000   |
| Concentration of IS, $C_{istd}$ (ug/L):     | 5.00     |
| Response Ratio:                             | 0.05575  |
| Amount Ratio:                               | 0.04012  |
| Analyte Concentration, $C_x$ (ug/L) :       | 0.200594 |

**Example Calculation - Soil:**

|                                      |          |
|--------------------------------------|----------|
| Analyte Concentration, $C_x$ (ug/L): | 0.20059  |
| Amount of soil extracted (g):        | 5.00     |
| Final volume of extract (mL):        | 50.00    |
| Percent solids (Pct wt.)             | 100      |
| Concentration in soil (ug/kg):       | 2.005938 |



**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100710\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 344929, 344933

CCV Std: STD41773 LCS STD: STD41773  
 Internal STD: COA14875 Surrogate STD: NA Calibration STD STD41773

Comments:

| Seq. | File ID     | Sample Information          | Mat | Dil | Reference | Date/Time      |
|------|-------------|-----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06480 | WG344926-01 CCB             | 1   | 1   |           | 10/07/10 15:00 |
| 2    | 1LM.LM06481 | WG344926-02 0.1ug/L STD     | 1   | 1   | STD41773  | 10/07/10 15:26 |
| 3    | 1LM.LM06482 | WG344926-03 0.2ug/L STD     | 1   | 1   | STD41773  | 10/07/10 15:53 |
| 4    | 1LM.LM06483 | WG344926-04 0.5ug/L STD     | 1   | 1   | STD41773  | 10/07/10 16:19 |
| 5    | 1LM.LM06484 | WG344926-05 1.0ug/L STD     | 1   | 1   | STD41773  | 10/07/10 16:45 |
| 6    | 1LM.LM06485 | WG344926-06 2.0ug/L STD     | 1   | 1   | STD41773  | 10/07/10 17:12 |
| 7    | 1LM.LM06486 | WG344926-07 5.0ug/L STD     | 1   | 1   | STD41773  | 10/07/10 17:38 |
| 8    | 1LM.LM06487 | WG344926-08 10ug/L STD      | 1   | 1   | STD41773  | 10/07/10 18:05 |
| 9    | 1LM.LM06488 | WG344926-09 1.0ug/L ALT SRC | 1   | 1   | STD41774  | 10/07/10 18:31 |
| 10   | 1LM.LM06489 | WG344928-01 CCB             | 1   | 1   |           | 10/07/10 18:58 |
| 11   | 1LM.LM06490 | WG344928-02 1.0ug/L CCV     | 1   | 1   | STD41773  | 10/07/10 19:24 |
| 12   | 1LM.LM06491 | WG344929-05 0.2ug/L QCMRL   | 1   | 1   | STD41773  | 10/07/10 19:51 |
| 13   | 1LM.LM06492 | WG344929-01 0.2ug/L MCT     | 1   | 1   | STD41773  | 10/07/10 20:17 |
| 14   | 1LM.LM06493 | WG344929-02 MET BLANK       | 1   | 1   |           | 10/07/10 20:44 |
| 15   | 1LM.LM06494 | WG344929-03 0.2ug/L LCS     | 1   | 1   | STD41773  | 10/07/10 21:10 |
| 16   | 1LM.LM06495 | WG344929-04 0.2ug/L LCSD    | 1   | 1   | STD41773  | 10/07/10 21:37 |
| 17   | 1LM.LM06496 | L10100001-01 0.1ug/L LOD    | 1   | 1   | STD41773  | 10/07/10 22:03 |
| 18   | 1LM.LM06497 | L10100003-01 0.2ug/L LOQ    | 1   | 1   | STD41773  | 10/07/10 22:29 |
| 19   | 1LM.LM06498 | WG344928-03 1.0ug/L CCV     | 1   | 1   | STD41773  | 10/07/10 22:56 |
| 31   | 1LM.LM06499 | WG344933-05 2.0ug/kg QCMRL  | 7   | 1   | STD41773  | 10/07/10 23:22 |
| 21   | 1LM.LM06500 | WG344928-04 CCB             | 1   | 1   |           | 10/07/10 23:49 |
| 22   | 1LM.LM06501 | WG344933-01 2.0ug/kg MCT    | 7   | 1   | STD41773  | 10/08/10 00:15 |
| 23   | 1LM.LM06502 | WG344933-02 MET BLANK       | 7   | 1   |           | 10/08/10 00:42 |
| 24   | 1LM.LM06503 | WG344933-03 0.2ug/kg LCS    | 7   | 1   | STD41773  | 10/08/10 01:08 |
| 25   | 1LM.LM06504 | WG344933-04 0.2ug/kg LCSD   | 7   | 1   | STD41773  | 10/08/10 01:35 |
| 26   | 1LM.LM06505 | L10100002-01 1.0ug/kg LOD   | 7   | 1   | STD41773  | 10/08/10 02:01 |
| 27   | 1LM.LM06506 | L10100004-01 2.0ug/kg LOQ   | 7   | 1   | STD41773  | 10/08/10 02:27 |
| 28   | 1LM.LM06507 | WG344928-05 1.0ug/L CCV     | 1   | 1   | STD41773  | 10/08/10 02:54 |
| 29   | 1LM.LM06508 | WG344933-06 2.0ug/kg QCMRL  | 7   | 1   | STD41773  | 10/08/10 03:20 |
| 30   | 1LM.LM06509 | WG344928-06 CCB             | 1   | 1   |           | 10/08/10 03:47 |

Comments

| Seq. | Rerun | Dil. | Reason | Analytes |
|------|-------|------|--------|----------|
|------|-------|------|--------|----------|




**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 100810\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 345081, 345084

CCV Std: STD41773 LCS STD: STD41773  
 Internal STD: COA14875 Surrogate STD: NA Calibration STD STD41773

Comments:

| Seq. | File ID     | Sample Information         | Mat | Dil | Reference | Date/Time      |
|------|-------------|----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06518 | WG345080-01 CCB            | 1   | 1   |           | 10/08/10 09:57 |
| 2    | 1LM.LM06519 | WG345080-02 1.0ug/L CCV    | 1   | 1   | STD41773  | 10/08/10 10:23 |
| 3    | 1LM.LM06520 | WG345081-05 0.2ug/L QCMRL  | 1   | 1   | STD41773  | 10/08/10 10:50 |
| 4    | 1LM.LM06521 | WG345081-01 0.2ug/L MCT    | 1   | 1   | STD41773  | 10/08/10 11:19 |
| 5    | 1LM.LM06522 | WG345081-02 MET BLANK      | 1   | 1   |           | 10/08/10 11:45 |
| 6    | 1LM.LM06523 | WG345081-03 0.2ug/L LCS    | 1   | 1   | STD41773  | 10/08/10 12:12 |
| 7    | 1LM.LM06524 | WG345081-04 0.2ug/L LCSD   | 1   | 1   | STD41773  | 10/08/10 12:38 |
| 8    | 1LM.LM06525 | L10100164-01               | 1   | 1   |           | 10/08/10 13:04 |
| 9    | 1LM.LM06526 | L10100164-02               | 1   | 1   |           | 10/08/10 13:31 |
| 10   | 1LM.LM06527 | WG345080-03 1.0ug/L CCV    | 1   | 1   | STD41773  | 10/08/10 13:57 |
| 30   | 1LM.LM06528 | WG345084-05 2.0ug/kg QCMRL | 7   | 1   | STD41773  | 10/08/10 14:24 |
| 12   | 1LM.LM06529 | WG345080-04 CCB            | 1   | 1   |           | 10/08/10 14:50 |
| 13   | 1LM.LM06530 | WG345084-01 2.0ug/kg MCT   | 7   | 1   | STD41773  | 10/08/10 15:17 |
| 14   | 1LM.LM06531 | WG345084-02 MET BLANK      | 7   | 1   |           | 10/08/10 15:43 |
| 15   | 1LM.LM06532 | WG345084-03 2.0ug/kg LCS   | 7   | 1   | STD41773  | 10/08/10 16:10 |
| 16   | 1LM.LM06533 | WG345084-04 2.0ug/kg LCSD  | 7   | 1   | STD41773  | 10/08/10 16:36 |
| 17   | 1LM.LM06534 | L10090498-01               | 7   | 1   |           | 10/08/10 17:03 |
| 18   | 1LM.LM06535 | L10090498-02               | 7   | 1   |           | 10/08/10 17:29 |
| 19   | 1LM.LM06536 | L10090498-03               | 7   | 1   |           | 10/08/10 17:55 |
| 20   | 1LM.LM06537 | L10090498-04               | 7   | 1   |           | 10/08/10 18:22 |
| 21   | 1LM.LM06538 | L10090498-05               | 7   | 1   |           | 10/08/10 18:48 |
| 22   | 1LM.LM06539 | WG345080-05 1.0ug/L CCV    | 1   | 1   | STD41773  | 10/08/10 19:15 |
| 23   | 1LM.LM06540 | WG345084-06 2.0ug/kg QCMRL | 7   | 1   | STD41773  | 10/08/10 19:41 |
| 24   | 1LM.LM06541 | WG345080-06 CCB            | 1   | 1   |           | 10/08/10 20:08 |
| 25   | 1LM.LM06542 | L10100194-01               | 7   | 1   |           | 10/08/10 20:34 |
| 26   | 1LM.LM06543 | L10100195-04               | 7   | 1   |           | 10/08/10 21:01 |
| 27   | 1LM.LM06544 | WG345080-07 1.0ug/L CCV    | 1   | 1   | STD41773  | 10/08/10 21:27 |
| 28   | 1LM.LM06545 | WG345084-07 2.0ug/kg QCMRL | 7   | 1   | STD41773  | 10/08/10 21:54 |
| 29   | 1LM.LM06546 | WG345080-08 CCB            | 1   | 1   |           | 10/08/10 22:20 |

Comments

| Seq. | Rerun | Dil. | Reason                 | Analytes    |
|------|-------|------|------------------------|-------------|
| 19   | X     | 10   | Over Calibration Range | Perchlorate |
|      |       |      | L10090498-03           |             |




**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 101110\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 345084

CCV Std: STD41773 LCS STD: STD41773  
 Internal STD: COA14875 Surrogate STD: NA Calibration STD STD41773

Comments:

| Seq. | File ID     | Sample Information         | Mat | Dil | Reference | Date/Time      |
|------|-------------|----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06553 | WG345245-01 CCB            | 1   | 1   |           | 10/11/10 10:23 |
| 2    | 1LM.LM06554 | WG345245-02 1.0ug/L CCV    | 1   | 1   | STD41773  | 10/11/10 10:49 |
| 3    | 1LM.LM06555 | WG345084-08 2.0ug/kg QCMRL | 7   | 1   | STD41773  | 10/11/10 11:15 |
| 4    | 1LM.LM06556 | L10090498-03 10X           | 7   | 10  |           | 10/11/10 11:45 |
| 5    | 1LM.LM06557 | WG345245-03 1.0ug/L CCV    | 1   | 1   | STD41773  | 10/11/10 12:12 |
| 6    | 1LM.LM06558 | WG345084-09 2.0ug/kg QCMRL | 7   | 1   | STD41773  | 10/11/10 12:38 |
| 7    | 1LM.LM06559 | WG345245-04 CCB            | 1   | 1   |           | 10/11/10 13:04 |

Comments

| Seq. | Rerun | Dil. | Reason | Analytes |
|------|-------|------|--------|----------|
|------|-------|------|--------|----------|



## Microbac Laboratories Inc.

## Data Checklist

Date: 07-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36818

Analytical Workgroups: 344929, 344933

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | X   |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | X   |
| Alternate source standard (ICV) % Difference                       | X   |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | X   |
| Recoveries                                                         | X   |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | X   |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | NA  |
| Reruns                                                             | NA  |
| Manual integrations                                                | NA  |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | MDC |

Primary Reviewer:  
08-OCT-2010

Secondary Reviewer:  
12-OCT-2010

*Wade D. [Signature]* *Michael [Signature]*

## Microbac Laboratories Inc.

## Data Checklist

Date: 08-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36846

Analytical Workgroups: 345081, 345084

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | NA  |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | NA  |
| Alternate source standard (ICV) % Difference                       | NA  |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | X   |
| Recoveries                                                         | X   |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | X   |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | X   |
| Reruns                                                             | X   |
| Manual integrations                                                | NA  |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | MDC |

Primary Reviewer:  
11-OCT-2010

Secondary Reviewer:  
12-OCT-2010

*Wade D. [Signature]* *Michael [Signature]*

## Microbac Laboratories Inc.

## Data Checklist

Date: 11-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36866

Analytical Workgroups: 345084

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | NA  |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | NA  |
| Alternate source standard (ICV) % Difference                       | NA  |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | NA  |
| Recoveries                                                         | NA  |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | NA  |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | NA  |
| Reruns                                                             | NA  |
| Manual integrations                                                | NA  |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | MDC |

Primary Reviewer:  
11-OCT-2010

Secondary Reviewer:  
12-OCT-2010

Analytical Method: 6850

AAB#: WG345084

Login Number: L10100195

| Client ID      | ID | Date Collected | TCLP Date | Time Held | Max Hold | Q | Extract Date | Time Held | Max Hold | Q | Run Date | Time Held | Max Hold | Q |
|----------------|----|----------------|-----------|-----------|----------|---|--------------|-----------|----------|---|----------|-----------|----------|---|
| 47SB-F07 (0-2) | 04 | 09/20/10       |           |           |          |   | 10/08/10     | 17.8      | 28       |   | 10/08/10 | .5        | 28       |   |

\* = SEE PROJECT QAPP REQUIREMENTS

## METHOD BLANK SUMMARY

Login Number: L10100195  
 Blank File ID: 1LM.LM06531  
 Prep Date: 10/08/10 09:57  
 Analyzed Date: 10/08/10 15:43  
 Analyst: WTD

Work Group: WG345084  
 Blank Sample ID: WG345084-02  
 Instrument ID: LCMS1  
 Method: 6850

This Method Blank Applies To The Following Samples:

| Client ID      | Lab Sample ID | Lab File ID | Time Analyzed  | TAG |
|----------------|---------------|-------------|----------------|-----|
| QCMRL          | WG345084-05   | 1LM.LM06528 | 10/08/10 14:24 | 01  |
| MCT            | WG345084-01   | 1LM.LM06530 | 10/08/10 15:17 | 01  |
| LCS            | WG345084-03   | 1LM.LM06532 | 10/08/10 16:10 | 01  |
| LCS2           | WG345084-04   | 1LM.LM06533 | 10/08/10 16:36 | 01  |
| QCMRL          | WG345084-06   | 1LM.LM06540 | 10/08/10 19:41 | 01  |
| 47SB-F07 (0-2) | L10100195-04  | 1LM.LM06543 | 10/08/10 21:01 | 01  |
| QCMRL          | WG345084-07   | 1LM.LM06545 | 10/08/10 21:54 | 01  |
| QCMRL          | WG345084-08   | 1LM.LM06555 | 10/11/10 11:15 | 01  |
| QCMRL          | WG345084-09   | 1LM.LM06558 | 10/11/10 12:38 | 01  |

Report Name: BLANK\_SUMMARY  
 PDF File ID: 1802663  
 Report generated 10/12/2010 10:44





Login Number: L10100195 Prep Date: 10/08/10 09:57 Sample ID: WG345084-02  
Instrument ID: LCMS1 Run Date: 10/08/10 15:43 Prep Method: 6850  
File ID: 1LM.LM06531 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345084 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 07-OCT-10

| Analytes    | SDL   | PQL  | Concentration | Dilution | Qualifier |
|-------------|-------|------|---------------|----------|-----------|
| Perchlorate | 0.984 | 1.97 | 0.984         | 1        | U         |

SDL Method Detection Limit  
PQL Reporting/Practical Quantitation Limit  
ND Analyte Not detected at or above reporting limit  
\* |Analyte concentration| > RL

Report Name: BLANK  
PDF ID: 1802664  
12-OCT-2010 10:44



Login Number: L10100195 Analyst: WTD Prep Method: 6850  
Instrument ID: LCMS1 Matrix: Soil Method: 6850  
Workgroup (AAB#): WG345084 Units: ug/kg  
QC Key: STD Lot #: STD41773  
Sample ID: WG345084-03 LCS File ID: 1LM.LM06532 Run Date: 10/08/2010 16:10  
Sample ID: WG345084-04 LCS2 File ID: 1LM.LM06533 Run Date: 10/08/2010 16:36

| Analytes    | LCS   |       |       | LCS2  |       |       | %RPD | %Rec Limits | RPD Lmt | Q |
|-------------|-------|-------|-------|-------|-------|-------|------|-------------|---------|---|
|             | Known | Found | % REC | Known | Found | % REC |      |             |         |   |
| Perchlorate | 1.98  | 1.99  | 101   | 1.98  | 2.08  | 106   | 4.60 | 80 - 120    | 15      |   |

Conductivity Probe  
Calibration Check:  
1402 /1410  $\mu$ S/cm

### Perchlorate Conductivity Check

Working MCT Level:  
10,000  $\mu$ S/cm

| Sample           | Conductivity ( $\mu$ S/cm) | Pretreatment or Dilution Needed |
|------------------|----------------------------|---------------------------------|
| ING 345084-01MCT | 9,780                      | NA                              |
| -02 B/L          | 7.9                        |                                 |
| -03 LCS          | 7.1                        |                                 |
| -04 LCS2         | 8.1                        |                                 |
| L10090498-01     | 7.6                        |                                 |
| -02              | 1.9                        |                                 |
| -03              | 12.7                       |                                 |
| -04              | 3.4                        |                                 |
| -05              | 5.2                        |                                 |
| L10100194-01     | 40.0                       |                                 |
| L10100195-04     | 10.7                       |                                 |
|                  |                            | ↓                               |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |
|                  |                            |                                 |

Wade D. De  
Analyst

10-8-10 / 1345  
Date/Time

DCN#84687



Login Number: L10100195  
Analytical Method: 6850  
ICAL Workgroup: WG344926

Instrument ID: LCMS1  
Initial Calibration Date: 07-OCT-10 18:05  
Column ID: F

| Analyte     |  | AVG RF | % RSD | LINEAR (R) | QUAD (R <sup>2</sup> ) |
|-------------|--|--------|-------|------------|------------------------|
| Perchlorate |  | 1.273  | 8.84  | 1.00000    |                        |

R = Correlation coefficient; 0.995 minimum  
R<sup>2</sup> = Coefficient of determination; 0.99 minimum

Login Number: L10100195  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 07-OCT-10 18:05  
Column ID: F

| Analyte     | WG344926-02 |            |       | WG344926-03 |            |       | WG344926-04 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 0.100       | 6330.00000 | 1.503 | 0.200       | 10900.0000 | 1.306 | 0.500       | 26900.0000 | 1.281 |

Login Number: L10100195  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 07-OCT-10 18:05  
Column ID: F

| Analyte     | WG344926-05 |            |       | WG344926-06 |            |       | WG344926-07 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 1.00        | 50500.0000 | 1.225 | 2.00        | 101000.000 | 1.188 | 5.00        | 252000.000 | 1.193 |

Login Number: L10100195  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 07-OCT-10 18:05  
Column ID: F

| Analyte     | WG344926-08 |            |       |
|-------------|-------------|------------|-------|
|             | CONC        | RESP       | RF    |
| Perchlorate | 10.0        | 505000.000 | 1.217 |

Login Number: L10100195 Run Date: 10/07/2010 Sample ID: WG344926-09  
Instrument ID: LCMS1 Run Time: 18:31 Method: 6850  
File ID: 1LM.LM06488 Analyst: WTD QC Key: STD  
ICal Workgroup: WG344926 Cal ID: LCMS1 - 07-OCT-10

| Analyte     | Expected | Found | Units | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 0.968 | ug/L  | 1.19 | 3.20 | 15  |   |

\* Exceeds %D Limit



Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345080-04  
Instrument ID: LCMS1 Run Time: 14:50 Method: 6850  
File ID: 1LM.LM06529 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG345084 Cal ID: LCMS1 - 07-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345080-06  
Instrument ID: LCMS1 Run Time: 20:08 Method: 6850  
File ID: 1LM.LM06541 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG345084 Cal ID: LCMS1 - 07-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345080-08  
Instrument ID: LCMS1 Run Time: 22:20 Method: 6850  
File ID: 1LM.LM06546 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG345084 Cal ID: LCMS1 - 07-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345080-03  
Instrument ID: LCMS1 Run Time: 13:57 Method: 6850  
File ID: 1LM.LM06527 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG345084 Cal ID: LCMS1 - 07-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D | UCL | Q |
|-------------|----------|-------|-------|------|----|-----|---|
| Perchlorate | 1.00     | 1.00  | ug/L  | 1.23 | 0  | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345080-05  
Instrument ID: LCMS1 Run Time: 19:15 Method: 6850  
File ID: 1LM.LM06539 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG345084 Cal ID: LCMS1 - 07-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 1.02  | ug/L  | 1.25 | 2.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345080-07  
Instrument ID: LCMS1 Run Time: 21:27 Method: 6850  
File ID: 1LM.LM06544 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG345084 Cal ID: LCMS1 - 07-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D | UCL | Q |
|-------------|----------|-------|-------|------|----|-----|---|
| Perchlorate | 1.00     | 1.00  | ug/L  | 1.23 | 0  | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345084-05  
Instrument ID: LCMS1 Run Time: 14:24 Prep Method: 6850  
File ID: 1LM.LM06528 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345084 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 07-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 1.87  | 93.5  | 70 - 130 |   |

Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345084-06  
Instrument ID: LCMS1 Run Time: 19:41 Prep Method: 6850  
File ID: 1LM.LM06540 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345084 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 07-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 2.08  | 104   | 70 - 130 |   |



Login Number: L10100195 Run Date: 10/08/2010 Sample ID: WG345084-07  
Instrument ID: LCMS1 Run Time: 21:54 Prep Method: 6850  
File ID: 1LM.LM06545 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345084 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 07-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 1.82  | 91.0  | 70 - 130 |   |

Login Number: L10100195  
Instrument ID: LCMS1  
Workgroup (AAB#): WG345084

ICAL CCV Number: WG344926-05  
CAL ID: LCMS1 - 07-OCT-10  
Matrix: SOLID

| Sample Number       | Dilution    | Tag       | IS-1          |
|---------------------|-------------|-----------|---------------|
| WG344926            | NA          | NA        | 210000        |
| Upper Limit         | NA          | NA        | 315000        |
| Lower Limit         | NA          | NA        | 105000        |
| <u>L10100195-04</u> | <u>1.00</u> | <u>01</u> | <u>249000</u> |
| WG345084-02         | 1.00        | 01        | 225000        |
| WG345084-03         | 1.00        | 01        | 220000        |
| WG345084-04         | 1.00        | 01        | 220000        |

IS-1 - 018LP

Underline = Response outside limits

## **2.2 General Chemistry Data**

## **2.2.1 Percent Solids Data**

## **2.2.1.1 Raw Data**

# LABORATORY REPORT

00106485

L10100195

10/15/10 15:25

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071

For

Account Name: Shaw E & I, Inc.  
1401 Enclave Parkway  
Suite 250  
Houston, TX 77077  
Attention: Jennifer Hoang

Project Number: 2773.025  
Project: Longhorn AAP  
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

## Sample Analysis Summary

| Client ID      | Lab ID       | Method   | Dilution | Date Received |
|----------------|--------------|----------|----------|---------------|
| 47SB-F07 (0-2) | L10100195-04 | D2216-90 | 1        | 23-SEP-10     |



Sample Number: **L10100195-04**  
 Client ID: **47SB-F07 (0-2)**  
 Matrix: **Soil**  
 Workgroup Number: **WG345415**  
 Collect Date: **09/20/2010 14:05**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/13/2010 08:42**  
 Cal Date:   
 Run Date: **10/13/2010 08:42**  
 File ID: **B1.345415-0149**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 87.8   |      | 1.00 | 1.00 |

**Example Percent Solids Calculations****1.0 Calculating the percent solids of a sample.**

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container

1.30 g

WT2 = Weight, in grams, of the container and wet sample

21.274 g

WT3 = Weight, in grams, of the container and dried sample

5.21 g

F = Factor to get units as percent weight

100

%Solids = Percent solids present in sample.

19.58%

**2.0 Calculating the percent moisture of a sample.**

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$



## PERCENT SOLIDS

00106488

Workgroup (AAB#):WG345415

Analyst:JDH

ADT(on):10/12/2010 14:20

Method:D2216-90

Instrument:BAL001

ADT(off):10/13/2010 08:42

SOP: K0003 Rev: 10

| SAMPLE NUMBER | EMPTY PAN WT 1 | WET WT 2 | DRY WT 3A | DRY WT 3B | DRY WT 3C | PERCENT SOLID | PERCENT MOISTURE |
|---------------|----------------|----------|-----------|-----------|-----------|---------------|------------------|
| L10100078-01  | 1.33           | 17.12    | 14.79     |           |           | 85.24         |                  |
| L10100078-02  | 1.33           | 9.47     | 7.61      |           |           | 77.15         |                  |
| L10100078-03  | 1.32           | 12.02    | 9.51      |           |           | 76.54         |                  |
| L10100078-04  | 1.34           | 13.91    | 11.78     |           |           | 83.05         |                  |
| L10100078-05  | 1.32           | 8.56     | 6.97      |           |           | 78.04         |                  |
| L10100078-06  | 1.33           | 14.44    | 12.32     |           |           | 83.83         |                  |
| L10100078-07  | 1.32           | 12.2     | 10.35     |           |           | 83.00         |                  |
| L10100092-01  | 1.33           | 15.98    | 1.61      |           |           | 1.911         |                  |
| L10100145-04  | 1.32           | 15.57    | 13.4      |           |           | 84.77         |                  |
| L10100145-05  | 1.32           | 21.54    | 19.89     |           |           | 91.84         |                  |
| L10100146-03  | 1.31           | 30.59    | 28.77     |           |           | 93.78         |                  |
| L10100149-01  | 1.33           | 23.44    | 11.35     |           |           | 45.32         |                  |
| L10100149-02  | 1.32           | 16.91    | 5.5       |           |           | 26.81         |                  |
| L10100149-03  | 1.34           | 27.25    | 14.38     |           |           | 50.33         |                  |
| L10100149-04  | 1.34           | 24.71    | 15.79     |           |           | 61.83         |                  |
| L10100149-05  | 1.33           | 25.04    | 18.6      |           |           | 72.84         |                  |
| L10100149-06  | 1.34           | 19.68    | 13.27     |           |           | 65.05         |                  |
| L10100149-07  | 1.32           | 20.38    | 8.13      |           |           | 35.73         |                  |
| L10100149-08  | 1.33           | 21.75    | 14.13     |           |           | 62.68         |                  |
| L10100149-09  | 1.3            | 30.11    | 19.49     |           |           | 63.14         |                  |
| L10100149-10  | 1.34           | 30.07    | 18.37     |           |           | 59.28         |                  |
| L10100194-01  | 1.34           | 33.96    | 27.41     |           |           | 79.92         |                  |
| L10100195-04  | 1.32           | 22.64    | 20.03     |           |           | 87.76         |                  |
| L10100223-01  | 1.31           | 27.66    | 25.34     |           |           | 91.20         |                  |
| L10100223-03  | 1.33           | 31.7     | 28.1      |           |           | 88.15         |                  |
| L10100223-05  | 1.34           | 18.75    | 16.69     |           |           | 88.17         |                  |
| L10100223-07  | 1.35           | 19.87    | 17.59     |           |           | 87.69         |                  |
| L10100223-09  | 1.34           | 15.28    | 13.46     |           |           | 86.94         |                  |
| L10100223-11  | 1.32           | 32.92    | 27.62     |           |           | 83.23         |                  |
| L10100223-13  | 1.35           | 31.38    | 26.33     |           |           | 83.18         |                  |
| L10100223-15  | 1.34           | 32.61    | 27.27     |           |           | 82.92         |                  |
| L10100223-17  | 1.33           | 28       | 23.15     |           |           | 81.81         |                  |
| L10100223-19  | 1.33           | 33.35    | 27.6      |           |           | 82.04         |                  |
| L10100223-21  | 1.34           | 27.78    | 22.81     |           |           | 81.20         |                  |
| L10100223-23  | 1.34           | 30.22    | 23.78     |           |           | 77.70         |                  |
| L10100251-01  | 1.32           | 30.54    | 25.47     |           |           | 82.65         |                  |
| L10100251-02  | 1.32           | 32.01    | 27.6      |           |           | 85.63         |                  |
| L10100251-03  | 1.32           | 32.71    | 27.34     |           |           | 82.89         |                  |
| L10100251-04  | 1.33           | 28.35    | 24.27     |           |           | 84.90         |                  |
| L10100251-05  | 1.33           | 29.2     | 25.15     |           |           | 85.47         |                  |
| L10100251-06  | 1.33           | 36.03    | 31.04     |           |           | 85.62         |                  |
| L10100251-07  | 1.33           | 39.08    | 33.35     |           |           | 84.82         |                  |

PERCENT SOLIDS - Modified 04/24/2008

PDF ID: 1805498

Report generated: 10/13/2010 08:49



Workgroup (AAB#): WG345415  
 Method: D2216-90  
 SOP: K0003 Rev: 10

Analyst: JDH  
 Instrument: BAL001

ADT(on): 10/12/2010 14:20  
 ADT(off): 10/13/2010 08:42

| SAMPLE NUMBER | EMPTY PAN WT 1 | WET WT 2 | DRY WT 3A | DRY WT 3B | DRY WT 3C | PERCENT SOLID | PERCENT MOISTURE |
|---------------|----------------|----------|-----------|-----------|-----------|---------------|------------------|
| L10100251-08  | 1.34           | 29.44    | 24.87     |           |           | 83.74         |                  |
| L10100251-09  | 1.33           | 20.78    | 17.77     |           |           | 84.52         |                  |
| L10100251-10  | 1.33           | 34.78    | 29.37     |           |           | 83.83         |                  |
| L10100251-11  | 1.33           | 17.24    | 15.12     |           |           | 86.68         |                  |
| L10100251-17  | 1.32           | 24.04    | 19.71     |           |           | 80.94         |                  |
| L10100291-01  | 1.32           | 29.25    | 27.03     |           |           | 92.05         |                  |
| L10100291-02  | 1.34           | 35.45    | 32.24     |           |           | 90.59         |                  |
| WG345415-01   | 1.33           | 34.78    | 29.37     |           |           | 83.83         | 16.17            |
| WG345415-02   | 1.31           | 27.66    | 25.34     |           |           | 91.20         | 8.805            |
| WG345415-03   | 1.34           | 30.07    | 18.37     |           |           | 59.28         | 40.72            |
| WG345415-04   | 1.32           | 33.33    | 28.16     |           |           | 83.85         | 16.15            |
| WG345415-05   | 1.27           | 23.4     | 21.58     |           |           | 91.78         | 8.224            |
| WG345415-06   | 1.29           | 33.13    | 20.11     |           |           | 59.11         | 40.89            |

Analyst: \_\_\_\_\_

*Justin Harrison*

## **3.0 Attachments**

Microbac Laboratories Inc.  
Analyst Listing  
October 15, 2010

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|                           |                             |                            |
|---------------------------|-----------------------------|----------------------------|
| ADC - ANTHONY D. CANTER   | AJF - AMANDA J. FICKIESEN   | ALB - ANNIE L. BROWN       |
| ALV - AMY L. VALENTINE    | AML - TONY M. LONG          | AZH - AFTER HOURS          |
| BLG - BRENDA L. GREENWALT | BRG - BRENDA R. GREGORY     | CAA - CASSIE A. AUGENSTEIN |
| CAF - CHERYL A. FLOWERS   | CEB - CHAD E. BARNES        | CLC - CHRYS L. CRAWFORD    |
| CLS - CARA L. STRICKLER   | CLW - CHARISSA L. WINTERS   | CPD - CHAD P. DAVIS        |
| CSH - CHRIS S. HILL       | DDE - DEBRA D. ELLIOTT      | DEL - DON E. LIGHTFRITZ    |
| DEV - DAVID E. VANDENBERG | DGB - DOUGLAS G. BUTCHER    | DIH - DEANNA I. HESSON     |
| DLB - DAVID L. BUMGARNER  | DLP - DOROTHY L. PAYNE      | DLR - DIANNA L. RAUCH      |
| ECL - ERIC C. LAWSON      | EDA - ERIN D. AGEE          | ERP - ERIN R. PORTER       |
| FJB - FRANCES J. BOLDEN   | HAV - HEMA VILASAGAR        | HJR - HOLLY J. REED        |
| JAL - JOHN A. LENT        | JBK - JEREMY B. KINNEY      | JDH - JUSTIN D. HESSON     |
| JKT - JANE K. THOMPSON    | JWR - JOHN W. RICHARDS      | JWS - JACK W. SHEAVES      |
| JYH - JI Y. HU            | KEB - KATIE E. BARNES       | KHR - KIM H. RHODES        |
| KRA - KATHY R. ALBERTSON  | LKN - LINDA K. NEDEFF       | LSB - LESLIE S. BUCINA     |
| MDA - MIKE D. ALBERTSON   | MDC - MIKE D. COCHRAN       | MES - MARY E. SCHILLING    |
| MMB - MAREN M. BEERY      | MRT - MICHELLE R. TAYLOR    | MSW - MATT S. WILSON       |
| PDM - PIERCE D. MORRIS    | PWD - PAUL W. DENT          | RAH - ROY A. HALSTEAD      |
| RB - BOB BUCHANAN         | REK - BOB E. KYER           | RLK - ROBIN L. KLINGER     |
| RWC - RODNEY W. CAMPBELL  | SLM - STEPHANIE L. MOSSBURG | SLP - SHERI L. PFALZGRAF   |
| TIP - TAE I. PARRISH      | TMB - TIFFANY M. BAILEY     | TMM - TAMMY M. MORRIS      |
| VC - VICKI COLLIER        | WJB - WILL J. BEASLEY       | WTD - WADE T. DELONG       |

## List of Valid Qualifiers

October 15, 2010

Qualkey: STD\_ND=U

| Qualifier | Description                                                                           |
|-----------|---------------------------------------------------------------------------------------|
| *         | Surrogate or spike compound out of range                                              |
| +         | Correlation coefficient for the MSA is less than 0.995                                |
| <         | Result is less than the associated numerical value.                                   |
| >         | Result is greater than the associated numerical value.                                |
| A         | See the report narrative                                                              |
| B         | Analyte present in method blank                                                       |
| B1        | Target analyte detected in method blank at or above the method reporting limit        |
| B3        | Target analyte detected in calibration blank at or above the method reporting limit   |
| C         | Confirmed by GC/MS                                                                    |
| CG        | Confluent growth                                                                      |
| DL        | Surrogate or spike compound was diluted out                                           |
| E         | Estimated concentration due to sample matrix interference                             |
| EDL       | Elevated sample reporting limits, presence of non-target analytes                     |
| EMPC      | Estimated Maximum Possible Concentration                                              |
| F, S      | Estimated result below quantitation limit; method of standard additions(MSA)          |
| FL        | Free Liquid                                                                           |
| H1        | Sample analysis performed past holding time.                                          |
| I         | Semiquantitative result (out of instrument calibration range)                         |
| J         | The analyte was positively identified, but the quantitation was below the RL          |
| J,B       | Analyte detected in both the method blank and sample above the MDL.                   |
| J,P       | Estimate; columns don't agree to within 40%                                           |
| J,S       | Estimated concentration; analyzed by method of standard addition (MSA)                |
| L         | Sample reporting limits elevated due to matrix interference                           |
| L1        | The associated blank spike (LCS) recovery was above the laboratory acceptance limits. |
| L2        | The associated blank spike (LCS) recovery was below the laboratory acceptance limits. |
| M         | Matrix effect; the concentration is an estimate due to matrix effect.                 |
| N         | Tentatively identified compound(TIC)                                                  |
| NA        | Not applicable                                                                        |
| ND, L     | Not detected; sample reporting limit (RL) elevated due to interference                |
| ND, S     | Not detected; analyzed by method of standard addition (MSA)                           |
| NF        | Not found by library search                                                           |
| NFL       | No free liquid                                                                        |
| NI        | Non-ignitable                                                                         |
| NR        | Analyte is not required to be analyzed                                                |
| NS        | Not spiked                                                                            |
| P         | Concentrations >40% difference between the two GC columns                             |
| Q         | One or more quality control criteria failed. See narrative.                           |
| QNS       | Quantity of sample not sufficient to perform analysis                                 |
| RA        | Reanalysis confirms reported results                                                  |
| RE        | Reanalysis confirms sample matrix interference                                        |
| S         | Analyzed by method of standard addition (MSA)                                         |
| SMI       | Sample matrix interference on surrogate                                               |
| SP        | Reported results are for spike compounds only                                         |
| TIC       | Library Search Compound                                                               |
| TNTC      | Too numerous to count                                                                 |
| U         | Not detected at or above adjusted sample detection limit                              |
| UJ        | Undetected; the MDL and RL are estimated due to quality control discrepancies.        |
| W         | Post-digestion spike for furnace AA out of control limits                             |
| X         | Exceeds regulatory limit                                                              |
| X, S      | Exceeds regulatory limit; method of standard additions (MSA)                          |
| Z         | Cannot be resolved from isomer - see below                                            |

## \*\*\*Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



COC NO. LHAAP47-092210-4

Shaw Environmental & Infrastructure, Inc.  
1401 Enclave Parkway, Suite 250  
Houston, TX 77077  
(281) 531-3100

Lab Name: Environmental Waste Solutions C/O Microbac  
Address : 158 Starlite Drive, Marietta OH 45750  
Contact : Stephanie Mossburg  
Phone: 1-800-373-4071

|                                                                                                         |      |                                                                                                    |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
|---------------------------------------------------------------------------------------------------------|------|----------------------------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|-----------------|-----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| PM: Praveen Srivastav (281.531.3188)                                                                    |      | TAT: HOLD                                                                                          |      |                                                                                                                                                                                                         |   | # Of Containers | Perchlorate (6850)-28day HT |  |  |  |  |  |  |  |  |  |  |  |  | Comments |
| Project Contact: Jen Hoang                                                                              |      | Phone No: 281-531-3108                                                                             |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Project Name: LHAAP                                                                                     |      | Site: SITE 47                                                                                      |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Project #: 117591-009A130                                                                               |      | Location: Karnack, TX                                                                              |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Sampler Print:<br>Allen Willmore<br>(713.247.9292)<br>Susan Oller<br>(281.989.3544)                     |      | Sampler Sign:<br> |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Sample Number                                                                                           | Grab | Date                                                                                               | Time | Matrix                                                                                                                                                                                                  |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-J03(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1245 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-F04(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1315 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-F06(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1340 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-F07(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1405 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-E09(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1425 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-E06(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1440 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-C02(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1510 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-E02(0-2)                                                                                           | X    | 09/20/2010                                                                                         | 1530 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-F03(0-2)                                                                                           | X    | 09/21/2010                                                                                         | 835  | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-D08(0-2)                                                                                           | X    | 09/21/2010                                                                                         | 935  | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-D09(0-2)                                                                                           | X    | 09/21/2010                                                                                         | 955  | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-B10(0-2)                                                                                           | X    | 09/21/2010                                                                                         | 1010 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| 47SB-J06(0-2)                                                                                           | X    | 09/21/2010                                                                                         | 1040 | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| DUP01 - 100920                                                                                          | X    | 9/20/2010                                                                                          | --   | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| DUP02 - 100920                                                                                          | X    | 9/20/2010                                                                                          | --   | Soil                                                                                                                                                                                                    | 1 | X               |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Relinquished By:<br> |      | Received By:                                                                                       |      | Special Instructions<br>HOLD FOR INTERVAL (4-6) RESULTS                                                                                                                                                 |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Date/Time 9/22/10 17:00                                                                                 |      | Date/Time                                                                                          |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Relinquished By:                                                                                        |      | Received for Laboratory By:                                                                        |      | Remarks:                                                                                                                                                                                                |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
|                                                                                                         |      |                 |      | Microbac OVD 221000009475<br>Received: 09/23/2010 10:31 Rolog from<br>By: ROBIN KLINGER L10090610-04<br> 10/8/10 RLK |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |
| Date/Time                                                                                               |      | Date/                                                                                              |      |                                                                                                                                                                                                         |   |                 |                             |  |  |  |  |  |  |  |  |  |  |  |  |          |



1000009475

00106494

## COOLER INSPECTION



Received: 09/23/2010 10:31  
Delivery Method: UPS  
Opened By: Robin Klinger  
Comments:

Login(s): L10100195|

## Cooler(s)

| Cooler # | Temp Gun | Temp | Tracking #         | COC #            | Comments |
|----------|----------|------|--------------------|------------------|----------|
| 0014405  | H        | 3.0  | 1Z66V7250192416060 | LHAAP47-092210-4 |          |

|    |     |                                                            |
|----|-----|------------------------------------------------------------|
| 1  | Yes | Were shipping coolers sealed?                              |
| 2  | Yes | Were custody seals intact?                                 |
| 3  | Yes | Were cooler temperatures in range of 0-6?                  |
| 4  | Yes | Was ice present?                                           |
| 5  | Yes | Were COC's received/information complete/signed and dated? |
| 6  | No  | Were sample containers and labels intact and match COC?    |
| 7  | Yes | Were the correct containers and volumes received?          |
| 8  | Yes | Were samples received within EPA hold times?               |
| 9  | NA  | Were correct preservatives used? (water only)              |
| 10 | NA  | Were pH ranges acceptable? (voa's excluded)                |
| 11 | NA  | Were VOA samples free of headspace (less than 6mm)?        |

## Discrepancies:

- 6 47SB-E09(0-2) on chain of custody. Jar reads 47SB-E08(0-2), same time.  
Received sample DUP03 not on Chain of Custody.

**Look closer. Go further. Do more.**

Microbac - Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750  
Tel: (740)373-4071 Fax: (740)373-4835

## Internal Chain of Custody Report

**Login:** L10100195**Account:** 2773**Project:** 2773.025**Samples:** 1**Due Date:** 15-OCT-2010

| <u>Samplenum</u> | <u>Container ID</u> | <u>Products</u> |
|------------------|---------------------|-----------------|
| L10100195-04     | 748076              | 6850 PCT-S      |

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 08-OCT-2010 08:48 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 08-OCT-2010 08:52 | WTD    | RLK        |
| 3    | STORE   | SEM    | W1  | 08-OCT-2010 09:13 | RLK    | WTD        |
| 4    | STORE   | WET    | A1  | 14-OCT-2010 15:42 | RLK    | JDH        |
| 5    | STORE   | WET    | A1  | 15-OCT-2010 08:21 | RLK    | JDH        |

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login





## NELAP Addendum - October 14, 2010

### Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)  
 Total Halide by Bomb Combustion (TX)  
 Particle Sizing - 200 Mesh (PS200)  
 Sulfate (SO<sub>4</sub>) - 9038  
 Specific Gravity/Density (SPGRAV)  
 Total Residual Chlorine (CL-TRL)  
 Total Volatile Solids (all forms) (TVS)  
 Total Coliform Bacteria (all methods)  
 Fecal Coliform Bacteria (all methods)  
 Sulfite (SO<sub>3</sub>)  
 Thiodiglycol (TDG-LCMS)

### NELAP Accreditation by Laboratory SOP

#### NONPOTABLE WATER

##### OVL HPLC02/HPLC-UV

Nitroglycerin  
 Nitroguanidine  
 Acetic acid  
 Butyric acid  
 Lactic acid  
 Propionic acid  
 Pyruvic acid

##### OVL KNITRO-C-WUV-VIS

Nitrocellulose

##### OVL MSS01/GC-MS

1,4-Phenylenediamine  
 1-Methylnaphthalene  
 1,4-Dioxane  
 Atrazine  
 Benzaldehyde  
 Biphenyl  
 Caprolactam  
 Hexamethylphosphoramide (HMPA)  
 Pentachlorobenzene  
 Pentachloroethane

**NELAP Accreditation by Laboratory SOP****NONPOTABLE WATER**OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane  
1,3-Butadiene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Methylacetate  
Methylcyclohexane  
T-amylmethylether (TAME)  
Tetrahydrofuran (THF)

OVL RSK01/GC-FID\*\*

Isobutane  
n-Butane  
Propane  
Propylene  
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

**SOLID AND HAZARDOUS CHEMICALS**OVL HPLCOS-HPLC-UV \*\*

Nitroguanidine

OVL KNITRO-C-S/UV-VIS\*\*

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene  
Benzaldehyde  
Biphenyl  
Caprolactam  
Pentachloroethane

**NELAP Accreditation by Laboratory SOP****SOLID AND HAZARDOUS CHEMICALS**OVL MSV01/GC-MS

1.3-Butadiene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Methylacetate  
Methylcyclohexane  
n-Hexane  
T-amylmethylether (TAME)



158 Starlite Drive, Marietta, OH 45750 • T:740-373-4071 • F:740-373-4835 • <http://www.microbac.com>

### Laboratory Report Number: L10100283

Client: Jennifer Hoang, 1401 Enclave Parkway, Houston, TX, 77077

Contract #: DACA56-94-D-0020

Please find enclosed the analytical results for the samples you submitted to Microbac Laboratories.

Review and compilation of your report was completed by Microbac's Sales and Service Team. If you have questions, comments or require further assistance regarding this report, please contact your team member noted in the reviewed box below at 800-373-4071. Team member e-mail addresses also appear here for your convenience.

|                           |                                     |                                 |
|---------------------------|-------------------------------------|---------------------------------|
| <b>Kathy Albertson</b>    | <i>Team Chemist/Data Specialist</i> | Kathy.Albertson@microbac.com    |
| <b>Stephanie Mossburg</b> | <i>Team Chemist/Data Specialist</i> | Stephanie.Mossburg@microbac.com |
| <b>Tony Long</b>          | <i>Team Chemist/Data Specialist</i> | Tony.Long@microbac.com          |
| <b>Amanda Fickiesen</b>   | <i>Client Services Specialist</i>   | Amanda.Fickiesen@microbac.com   |
| <b>Annie Brown</b>        | <i>Client Services Specialist</i>   | Annie.Brown@microbac.com        |

This report was reviewed on October 22, 2010.

Stephanie Mossburg - Team Chemist/Data Specialist

I certify that all test results meet all of the requirements of the accrediting authority listed below. All results for soil samples are reported on a 'dry-weight' basis unless specified otherwise. Analytical results for water and wastes are reported on a 'as received' basis unless specified otherwise. A statement of uncertainty for each analysis is available upon request. This laboratory report shall not be reproduced, except in full, without the written approval of Microbac Laboratories. The reported results are related only to the samples analyzed as received.

This report was certified on October 22, 2010.

David Vandenberg - Managing Director

State of origin: Texas

Accrediting authority: Texas Commission on Environmental Quality ID:T104704252-07-TX

QAPP: Microbac OVD

This report contains a total of 60 pages.

***Look closer. Go further. Do more.***



The Microbac logo consists of the word "Microbac" in a white serif font, centered within a dark teal rectangular box. The text is underlined by a thin white line.

Microbac Laboratories, Inc.  
Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750

Phone: 800.373.4071  
Fax: 740.373.4835

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**LOOK CLOSER, GO FURTHER, DO MORE.**

**Microbac REPORT L10100283**  
**PREPARED FOR Shaw E I, Inc.**  
**WORK ID:**

|                                       |    |
|---------------------------------------|----|
| 1.0 Introduction .....                | 4  |
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# **1.0 Introduction**



**Login Number:** L10100283

**Department:** Login

**Analyst:** N/A

**Chain of Custody:**

**Shipment Conditions**

| COC #            | Cooler # | Temperature |
|------------------|----------|-------------|
| lhaap47-091710-4 | 0014668  | 5.0         |

**Sample Management:** All samples were received intact.

**Sample Identification**

| Lab ID       | Client ID     |
|--------------|---------------|
| L10100283-01 | 47SB-J5 (0-2) |
| L10100283-02 | 47SB-H4 (0-2) |
| L10100283-04 | 47SB-H7 (0-2) |
| L10100283-05 | 47SB-H8 (0-2) |

**Narrative ID:** 12950

**Approved By:** Stephanie Mossburg

*Stephanie Mossburg*





|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100283    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345416     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-22   |                               |              |

## Laboratory Data Package Cover Page

|     |                                                                                                                                                                                                                                                                                                                                                                        |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 Chapter 5, (b) dilution factors, (c) preparation methods, (d) cleanup methods, and (e) a. 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 compounds, (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) and detectability check sample results for each analyte for each method and matrix.                                                                                                                                                                                                                                          |
| R10 | Other problems or anomalies.                                                                                                                                                                                                                                                                                                                                           |

| Name (Printed) | Signature | Official Title (Printed)     | Date       |
|----------------|-----------|------------------------------|------------|
| Mike Cochran   |           | Semivolatiles Lab Supervisor | 10/22/2010 |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100283    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345416     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-22   |                               |              |

| Description                                                                                                                   | Yes | No | NA | NR | ER# |
|-------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Chain-of-custody (C-O-C)                                                                                                      |     |    |    |    |     |
| Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X   |    |    |    |     |
| Were all departures from standard conditions described in an exception report?                                                | X   |    |    |    |     |
| Sample and quality control (QC) identification                                                                                | X   |    |    |    |     |
| Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X   |    |    |    |     |
| Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X   |    |    |    |     |
| Test reports                                                                                                                  |     |    |    |    |     |
| Were all samples prepared and analyzed within holding times?                                                                  | X   |    |    |    |     |
| Other than those results < MQL, were all other raw values bracketed by calibration standards?                                 | X   |    |    |    |     |
| Were calculations checked by a peer or supervisor?                                                                            | X   |    |    |    |     |
| Were all analyte identifications checked by a peer or supervisor?                                                             | X   |    |    |    |     |
| Were sample detection limits reported for all analytes not detected?                                                          | X   |    |    |    |     |
| Were all results for soil and sediment samples reported on a dry weight basis?                                                | X   |    |    |    |     |
| Were % moisture (or solids) reported for all soil and sediment samples?                                                       | X   |    |    |    |     |
| Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?                           |     |    | X  |    |     |
| If required for the project, are TICs reported?                                                                               |     |    | X  |    |     |
| Surrogate recovery data                                                                                                       |     |    |    |    |     |
| Were surrogates added prior to extraction?                                                                                    |     |    | X  |    |     |
| Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             |     |    | X  |    |     |
| Test reports/summary forms for blank samples                                                                                  | X   |    |    |    |     |
| Were appropriate type(s) of blanks analyzed?                                                                                  | X   |    |    |    |     |
| Were blanks analyzed at the appropriate frequency?                                                                            | X   |    |    |    |     |
| Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X   |    |    |    |     |
| Were blank concentrations < MQL?                                                                                              | X   |    |    |    |     |
| Laboratory control samples (LCS):                                                                                             |     |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100283    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345416     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-22   |                               |              |

| Description                                                                                                                                                              | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were all COCs included in the LCS?                                                                                                                                       | X   |    |    |    |     |
| Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                                                            | X   |    |    |    |     |
| Were LCSs analyzed at the required frequency?                                                                                                                            | X   |    |    |    |     |
| Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                                                                  | X   |    |    |    |     |
| Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?                                  | X   |    |    |    |     |
| Was the LCSD RPD within QC limits?                                                                                                                                       | X   |    |    |    |     |
| Matrix spike (MS) and matrix spike duplicate (MSD) data                                                                                                                  |     |    |    |    |     |
| Were the project/method specified analytes included in the MS and MSD?                                                                                                   |     |    | X  |    |     |
| Were MS/MSD analyzed at the appropriate frequency?                                                                                                                       |     |    | X  |    |     |
| Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                                                                    |     |    | X  |    |     |
| Were MS/MSD RPDs within laboratory QC limits?                                                                                                                            |     |    | X  |    |     |
| Analytical duplicate data                                                                                                                                                |     |    |    |    |     |
| Were appropriate analytical duplicates analyzed for each matrix?                                                                                                         |     |    | X  |    |     |
| Were analytical duplicates analyzed at the appropriate frequency?                                                                                                        |     |    | X  |    |     |
| Were RPDs or relative standard deviations within the laboratory QC limits?                                                                                               |     |    | X  |    |     |
| Method quantitation limits (MQLs):                                                                                                                                       |     |    |    |    |     |
| Are the MQLs for each method analyte included in the laboratory data package?                                                                                            | X   |    |    |    |     |
| Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                                                                 | X   |    |    |    |     |
| Are unadjusted MQLs and DCSs included in the laboratory data package?                                                                                                    | X   |    |    |    |     |
| Other problems/anomalies                                                                                                                                                 |     |    |    |    |     |
| Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                                                            | X   |    |    |    |     |
| Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?                                         |     |    | X  |    |     |
| Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package? | X   |    |    |    |     |
| Initial calibration (ICAL)                                                                                                                                               |     |    |    |    |     |
| Were response factors and/or relative response factors for each analyte within QC                                                                                        | X   |    |    |    |     |



|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100283    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345416     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-22   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| limits?                                                                                                |     |    |    |    |     |
| Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |    |    |     |
| Was the number of standards recommended in the method used for all analytes?                           | X   |    |    |    |     |
| Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |    |    |     |
| Are ICAL data available for all instruments used?                                                      | X   |    |    |    |     |
| Has the initial calibration curve been verified using an appropriate second source standard?           | X   |    |    |    |     |
| Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB): |     |    |    |    |     |
| Was the CCV analyzed at the method-required frequency?                                                 | X   |    |    |    |     |
| Were percent differences for each analyte within the method-required QC limits?                        | X   |    |    |    |     |
| Was the ICAL curve verified for each analyte?                                                          | X   |    |    |    |     |
| Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |    |    |     |
| Mass spectral tuning                                                                                   |     |    |    |    |     |
| Was the appropriate compound for the method used for tuning?                                           | X   |    |    |    |     |
| Were ion abundance data within the method-required QC limits?                                          | X   |    |    |    |     |
| Internal standards (IS)                                                                                |     |    |    |    |     |
| Were IS area counts and retention times within the method-required QC limits?                          | X   |    |    |    |     |
| Raw data (NELAC Section 5.5.10)                                                                        |     |    |    |    |     |
| Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |    |    |     |
| Were data associated with manual integrations flagged on the raw data?                                 | X   |    |    |    |     |
| Dual column confirmation                                                                               |     |    |    |    |     |
| Did dual column confirmation results meet the method-required QC?                                      |     |    | X  |    |     |
| Tentatively identified compounds (TICs)                                                                |     |    |    |    |     |
| If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?              |     |    | X  |    |     |
| Interference Check Sample (ICS) results                                                                |     |    |    |    |     |
| Were percent recoveries within method QC limits?                                                       |     |    | X  |    |     |
| Serial dilutions, post digestion spikes, and method of standard additions                              |     |    |    |    |     |



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100283    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345416     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-22   |                               |              |

| Description                                                                                            | Yes | No | NA | NR | ER# |
|--------------------------------------------------------------------------------------------------------|-----|----|----|----|-----|
| Were percent differences, recoveries, and the linearity within the QC limits specified in the method?  |     |    | X  |    |     |
| Method detection limit (MDL) studies                                                                   |     |    |    |    |     |
| Was a MDL study performed for each reported analyte?                                                   | X   |    |    |    |     |
| Is the MDL either adjusted or supported by the analysis of DCSs?                                       | X   |    |    |    |     |
| Proficiency test reports                                                                               |     |    |    |    |     |
| Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |    |    |     |
| Standards documentation                                                                                |     |    |    |    |     |
| Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |    |    |     |
| Compound/analyte identification procedures                                                             |     |    |    |    |     |
| Are the procedures for compound/analyte identification documented?                                     | X   |    |    |    |     |
| Demonstration of analyst competency (DOC)                                                              |     |    |    |    |     |
| Was DOC conducted consistent with NELAC Chapter 5?                                                     | X   |    |    |    |     |
| Is documentation of the analyst's competency up-to-date and on file?                                   | X   |    |    |    |     |
| Verification/validation documentation for methods (NELAC Chapter 5)                                    |     |    |    |    |     |
| Are all the methods used to generate the data documented, verified, and validated, where applicable?   | X   |    |    |    |     |
| Laboratory standard operating procedures (SOPs)                                                        |     |    |    |    |     |
| Are laboratory SOPs current and on file for each method performed                                      | X   |    |    |    |     |

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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).

The Exception Report for each "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte,



## Texas Risk Reduction Program (TRRP) Checklist

|                              |              |                               |              |
|------------------------------|--------------|-------------------------------|--------------|
| <b>Laboratory Name:</b>      | Microbac OVD | <b>Laboratory Log Number:</b> | L10100283    |
| <b>Project Name:</b>         | 798-LONGHORN | <b>Method:</b>                | 6850         |
| <b>Prep Batch Number(s):</b> | WG345416     | <b>Reviewer Name:</b>         | Mike Cochran |
| <b>LRC Date:</b>             | 2010-10-22   |                               |              |

matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

**Release Statement:** I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

**Check, if applicable:** ☐ This laboratory meets an exception under 30 TAC §25.6 and was last inspection by ☐ TCEQ or ☐ \_\_\_\_\_ on **(enter date of last inspection)**. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

#### Exceptions Report

## **2.1 General Chromatography Data**

## **2.1.1 LC/MS Data (6850)**



## **2.1.1.1 Summary Data**

**LABORATORY REPORT****L10100283****00106513****10/22/10 13:12****Submitted By**

**Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta , OH 45750  
( 740 ) 373 - 4071**

**For**

**Account Name: Shaw E & I, Inc.**  
**1401 Enclave Parkway**  
**Suite 250**  
**Houston, TX 77077**  
**Attention: Jennifer Hoang**

**Project Number: 2773.025**  
**Project: Longhorn AAP**  
**Site: LONGHORN AAP KARNACK TX**

**P.O. Number: 557440**

**Sample Analysis Summary**

| <b>Client ID</b>     | <b>Lab ID</b>       | <b>Method</b> | <b>Dilution</b> | <b>Date Received</b> |
|----------------------|---------------------|---------------|-----------------|----------------------|
| <b>47SB-J5 (0-2)</b> | <b>L10100283-01</b> | <b>6850</b>   | <b>1</b>        | <b>21-SEP-10</b>     |
| <b>47SB-H4 (0-2)</b> | <b>L10100283-02</b> | <b>6850</b>   | <b>1</b>        | <b>21-SEP-10</b>     |
| <b>47SB-H7 (0-2)</b> | <b>L10100283-04</b> | <b>6850</b>   | <b>1</b>        | <b>21-SEP-10</b>     |
| <b>47SB-H8 (0-2)</b> | <b>L10100283-05</b> | <b>6850</b>   | <b>1</b>        | <b>21-SEP-10</b>     |



Report Number: **L10100283**Report Date : **October 22, 2010**

00106514

Sample Number: **L10100283-01**  
Client ID: **47SB-J5 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG345416**  
Collect Date: **09/17/2010 08:35**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/12/2010 15:27**  
Cal Date: **10/12/2010 16:46**  
Run Date: **10/12/2010 22:30**  
File ID: **1LM.LM06595**  
Percent Solid: **92.4**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 21.2   |      | 2.09 | 1.05 |

Report Number: **L10100283**Report Date : **October 22, 2010**

00106515

Sample Number: **L10100283-02**  
Client ID: **47SB-H4 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG345416**  
Collect Date: **09/17/2010 09:25**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/12/2010 15:27**  
Cal Date: **10/12/2010 16:46**  
Run Date: **10/12/2010 22:57**  
File ID: **1LM.LM06596**  
Percent Solid: **95.1**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 13.3   |      | 2.08 | 1.04 |

Report Number: **L10100283**Report Date : **October 22, 2010**

00106516

Sample Number: **L10100283-04**  
Client ID: **47SB-H7 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG345416**  
Collect Date: **09/17/2010 10:40**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/12/2010 15:27**  
Cal Date: **10/12/2010 17:39**  
Run Date: **10/12/2010 23:23**  
File ID: **1LM.LM06597**  
Percent Solid: **87.9**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  | 1.19   | J    | 2.27 | 1.13 |

J The analyte was positively identified, but the quantitation was below the RL

Report Number: **L10100283**Report Date : **October 22, 2010**

00106517

Sample Number: **L10100283-05**  
Client ID: **47SB-H8 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **WG345416**  
Collect Date: **09/17/2010 11:30**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **6850**  
Analytical Method: **6850**  
Analyst: **WTD**  
Dilution: **1**  
Units: **ug/kg**

Instrument: **LCMS1**  
Prep Date: **10/12/2010 15:27**  
Cal Date: **10/12/2010 17:39**  
Run Date: **10/12/2010 23:49**  
File ID: **1LM.LM06598**  
Percent Solid: **86.0**

| Analyte     | CAS. Number | Result | Qual | PQL  | SDL  |
|-------------|-------------|--------|------|------|------|
| Perchlorate | 14797-73-0  |        | U    | 2.31 | 1.15 |

U Not detected at or above adjusted sample detection limit

## **2.1.1.2 QC Summary Data**

**Example Calculation 6850 - Perchlorate****Concentration from Linear Regression****Step 1: Retrieve Curve Data From Plot,  $y = mx + b$** 

$y$  = response ratio = response of analyte / response of internal standard (IS) =  $R_x/R_{istd}$

$x$  = amount ratio = concentration analyte/concentration internal standard (IS) =  $C_x / C_{istd}$

$m$  = slope from curve (1.45)

$b$  = intercept from curve (-0.00242)

$y = 1.45x + -0.00242$

**Step 2: Substitute the value for  $y$** 

where  $y = 12600/226000 = 0.055752$

**Step 3: Solve for  $x$** 

$x = (y - b)/m = 0.0040119$

**Step 4: Solve for analyte concentration  $C_x$** 

$C_x = (C_{is})(x) = (5 \text{ ug/L})(0.0040119) = 0.0200594 \text{ ug/L}$

**Example Calculation - Water:**

|                                             |          |
|---------------------------------------------|----------|
| Slope from curve, $m$ :                     | 1.45     |
| Intercept from curve, $b$ :                 | -0.00242 |
| Response of analyte, $R_x$ :                | 12600    |
| Response of Internal Standard, $R_{istd}$ : | 226000   |
| Concentration of IS, $C_{istd}$ (ug/L):     | 5.00     |
| Response Ratio:                             | 0.05575  |
| Amount Ratio:                               | 0.04012  |
| Analyte Concentration, $C_x$ (ug/L) :       | 0.200594 |

**Example Calculation - Soil:**

|                                      |          |
|--------------------------------------|----------|
| Analyte Concentration, $C_x$ (ug/L): | 0.20059  |
| Amount of soil extracted (g):        | 5.00     |
| Final volume of extract (mL):        | 50.00    |
| Percent solids (Pct wt.)             | 100      |
| Concentration in soil (ug/kg):       | 2.005938 |



**Microbac Laboratories Inc.**  
Instrument Run Log

Instrument: LCMS1 Dataset: 101210\_WTD.TXT  
 Analyst1: WTD Analyst2: NA  
 Method: 6850 SOP: HPLC06 Rev: 2

Maintenance Log ID: \_\_\_\_\_ Syringe Filter Lot#: T0407100704

Column 1 ID: KP-RPPX250 Column 2 ID: NA

Workgroups: 345416

CCV Std: STD41773 LCS STD: STD41773  
 Internal STD: COA14875 Surrogate STD: NA Calibration STD STD41773

Comments:

| Seq. | File ID     | Sample Information          | Mat | Dil | Reference | Date/Time      |
|------|-------------|-----------------------------|-----|-----|-----------|----------------|
| 1    | 1LM.LM06579 | WG345440-01 CCB             | 1   | 1   |           | 10/12/10 15:27 |
| 2    | 1LM.LM06580 | WG345440-02 0.1ug/L STD     | 1   | 1   | STD41773  | 10/12/10 15:53 |
| 3    | 1LM.LM06581 | WG345440-03 0.2ug/L STD     | 1   | 1   | STD41773  | 10/12/10 16:20 |
| 4    | 1LM.LM06582 | WG345440-04 0.5ug/L STD     | 1   | 1   | STD41773  | 10/12/10 16:46 |
| 5    | 1LM.LM06583 | WG345440-05 1.0ug/L STD     | 1   | 1   | STD41773  | 10/12/10 17:13 |
| 6    | 1LM.LM06584 | WG345440-06 2.0ug/L STD     | 1   | 1   | STD41773  | 10/12/10 17:39 |
| 7    | 1LM.LM06585 | WG345440-07 5.0ug/L STD     | 1   | 1   | STD41773  | 10/12/10 18:06 |
| 8    | 1LM.LM06586 | WG345440-08 10ug/L STD      | 1   | 1   | STD41773  | 10/12/10 18:32 |
| 9    | 1LM.LM06587 | WG345440-09 1.0ug/L ALT SRC | 1   | 1   | STD41774  | 10/12/10 18:58 |
| 10   | 1LM.LM06588 | WG345413-01 CCB             | 1   | 1   |           | 10/12/10 19:25 |
| 11   | 1LM.LM06589 | WG345413-02 1.0ug/L CCV     | 1   | 1   | STD41773  | 10/12/10 19:51 |
| 12   | 1LM.LM06590 | WG345416-05 2.0ug/kg QCMRL  | 7   | 1   | STD41773  | 10/12/10 20:18 |
| 13   | 1LM.LM06591 | WG345416-01 2.0ug/kg MCT    | 7   | 1   | STD41773  | 10/12/10 20:44 |
| 14   | 1LM.LM06592 | WG345416-02 MET BLANK       | 7   | 1   |           | 10/12/10 21:11 |
| 15   | 1LM.LM06593 | WG345416-03 2.0ug/kg LCS    | 7   | 1   | STD41773  | 10/12/10 21:37 |
| 16   | 1LM.LM06594 | WG345416-04 2.0ug/kg LCSD   | 7   | 1   | STD41773  | 10/12/10 22:04 |
| 17   | 1LM.LM06595 | L10100283-01                | 7   | 1   |           | 10/12/10 22:30 |
| 18   | 1LM.LM06596 | L10100283-02                | 7   | 1   |           | 10/12/10 22:57 |
| 19   | 1LM.LM06597 | L10100283-04                | 7   | 1   |           | 10/12/10 23:23 |
| 20   | 1LM.LM06598 | L10100283-05                | 7   | 1   |           | 10/12/10 23:49 |
| 21   | 1LM.LM06599 | WG345413-03 1.0ug/L CCV     | 1   | 1   | STD41773  | 10/13/10 00:16 |
| 22   | 1LM.LM06600 | WG345416-06 2.0ug/kg QCMRL  | 7   | 1   | STD41773  | 10/13/10 00:42 |
| 23   | 1LM.LM06601 | WG345413-04 CCB             | 1   | 1   |           | 10/13/10 01:09 |

Comments

| Seq. | Rerun | Dil. | Reason | Analytes |
|------|-------|------|--------|----------|
|------|-------|------|--------|----------|

*Eiv C. Zimm*



## Microbac Laboratories Inc.

## Data Checklist

Date: 12-OCT-2010

Analyst: WTD

Analyst: NA

Method: 6850

Instrument: LCMS1

Curve Workgroup: NA

Runlog ID: 36907

Analytical Workgroups: L10100283

|                                                                    |     |
|--------------------------------------------------------------------|-----|
| ANALYTICAL                                                         |     |
| System Performance Check                                           | NA  |
| DFTPP (GCMS)                                                       | NA  |
| Endrin/DDT breakdown (8081/GCMS)                                   | NA  |
| Pentachlorophenol/benzidine tailing (GCMS)                         | NA  |
| Eluent check (IC)/system pressure (HPLC)                           | NA  |
| Window standard (FID)                                              | NA  |
| Initial Calibration                                                | X   |
| Average RF                                                         | NA  |
| Linear regression or higher order curve                            | X   |
| Alternate source standard (ICV) % Difference                       | X   |
| Continuing Calibration (CCV)                                       | X   |
| % D/% Drift                                                        | X   |
| Minimum response factors (GCMS)                                    | X   |
| Continuing calibration blank (CCB) (IC/LCMS)                       | X   |
| Limit of quantitation verification (LOQV) (LCMS)                   | X   |
| Special standards                                                  | NA  |
| Blanks                                                             | X   |
| TCL hits                                                           | X   |
| Surrogate recoveries                                               | NA  |
| LCS/LCSD (Laboratory Control Sample)                               | X   |
| Recoveries                                                         | X   |
| Surrogate recoveries                                               | NA  |
| MS/MSD/Sample duplicates                                           | NA  |
| Recoveries                                                         | NA  |
| %RPD                                                               | NA  |
| Interference check sample (ICS) (LCMS)                             | X   |
| Samples                                                            | X   |
| TCL hits                                                           | X   |
| Mass spectra (MS/HPLC)/2nd column confirmations (ECD/FID/HPLC)     | NA  |
| Surrogate recoveries                                               | NA  |
| Internal standard areas (MS)                                       | X   |
| Library searches (GCMS)                                            | NA  |
| Calculations & correct factors                                     | X   |
| Compounds above calibration range                                  | NA  |
| Reruns                                                             | NA  |
| Manual integrations                                                | NA  |
| Project/client specific requirements                               | X   |
| REPORTING                                                          |     |
| Upload batch form                                                  | X   |
| KOBRA workgroup data/forms/bench sheets                            | X   |
| Case narratives                                                    | NA  |
| Check for completeness                                             | X   |
| Primary Reviewer                                                   | WTD |
| SUPERVISORY/SECONDARY REVIEW                                       |     |
| Check for compliance with method and project specific requirements | X   |
| Check the completeness/accuracy of reported information            | X   |
| Data qualifiers                                                    | X   |
| Secondary Reviewer                                                 | ECL |

Primary Reviewer:  
13-OCT-2010

Secondary Reviewer:  
15-OCT-2010

Analytical Method: 6850  
Login Number: L10100283

AAB#: WG345416

| Client ID     | ID | Date Collected | TCLP Date | Time Held | Max Hold | Q | Extract Date | Time Held | Max Hold | Q | Run Date | Time Held | Max Hold | Q |
|---------------|----|----------------|-----------|-----------|----------|---|--------------|-----------|----------|---|----------|-----------|----------|---|
| 47SB-J5 (0-2) | 01 | 09/17/10       |           |           |          |   | 10/12/10     | 25.3      | 28       |   | 10/12/10 | .3        | 28       |   |
| 47SB-H4 (0-2) | 02 | 09/17/10       |           |           |          |   | 10/12/10     | 25.3      | 28       |   | 10/12/10 | .3        | 28       |   |
| 47SB-H7 (0-2) | 04 | 09/17/10       |           |           |          |   | 10/12/10     | 25.2      | 28       |   | 10/12/10 | .3        | 28       |   |
| 47SB-H8 (0-2) | 05 | 09/17/10       |           |           |          |   | 10/12/10     | 25.2      | 28       |   | 10/12/10 | .3        | 28       |   |

\* = SEE PROJECT QAPP REQUIREMENTS

## METHOD BLANK SUMMARY

Login Number: L10100283  
Blank File ID: 1LM.LM06592  
Prep Date: 10/12/10 15:27  
Analyzed Date: 10/12/10 21:11  
Analyst: WTD

Work Group: WG345416  
Blank Sample ID: WG345416-02  
Instrument ID: LCMS1  
Method: 6850

This Method Blank Applies To The Following Samples:

| Client ID     | Lab Sample ID | Lab File ID | Time Analyzed  | TAG |
|---------------|---------------|-------------|----------------|-----|
| QCMRL         | WG345416-05   | 1LM.LM06590 | 10/12/10 20:18 | 01  |
| MCT           | WG345416-01   | 1LM.LM06591 | 10/12/10 20:44 | 01  |
| LCS           | WG345416-03   | 1LM.LM06593 | 10/12/10 21:37 | 01  |
| LCS2          | WG345416-04   | 1LM.LM06594 | 10/12/10 22:04 | 01  |
| 47SB-J5 (0-2) | L10100283-01  | 1LM.LM06595 | 10/12/10 22:30 | 01  |
| 47SB-H4 (0-2) | L10100283-02  | 1LM.LM06596 | 10/12/10 22:57 | 01  |
| 47SB-H7 (0-2) | L10100283-04  | 1LM.LM06597 | 10/12/10 23:23 | 01  |
| 47SB-H8 (0-2) | L10100283-05  | 1LM.LM06598 | 10/12/10 23:49 | 01  |
| QCMRL         | WG345416-06   | 1LM.LM06600 | 10/13/10 00:42 | 01  |

Report Name: BLANK\_SUMMARY  
PDF File ID: 1805481  
Report generated 10/22/2010 08:12



Login Number: L10100283 Prep Date: 10/12/10 15:27 Sample ID: WG345416-02  
Instrument ID: LCMS1 Run Date: 10/12/10 21:11 Prep Method: 6850  
File ID: 1LM.LM06592 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345416 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 12-OCT-10

| Analytes    | SDL   | PQL  | Concentration | Dilution | Qualifier |
|-------------|-------|------|---------------|----------|-----------|
| Perchlorate | 0.995 | 1.99 | 0.995         | 1        | U         |

SDL Method Detection Limit  
PQL Reporting/Practical Quantitation Limit  
ND Analyte Not detected at or above reporting limit  
\* |Analyte concentration| > RL

Report Name: BLANK  
PDF ID: 1805482  
22-OCT-2010 08:12



Login Number: L10100283 Analyst: WTD Prep Method: 6850  
Instrument ID: LCMS1 Matrix: Soil Method: 6850  
Workgroup (AAB#): WG345416 Units: ug/kg  
QC Key: STD Lot #: STD41773  
Sample ID: WG345416-03 LCS File ID: 1LM.LM06593 Run Date: 10/12/2010 21:37  
Sample ID: WG345416-04 LCS2 File ID: 1LM.LM06594 Run Date: 10/12/2010 22:04

| Analytes    | LCS   |       |       | LCS2  |       |       | %RPD | %Rec Limits | RPD Lmt | Q |
|-------------|-------|-------|-------|-------|-------|-------|------|-------------|---------|---|
|             | Known | Found | % REC | Known | Found | % REC |      |             |         |   |
| Perchlorate | 1.97  | 1.94  | 98.5  | 1.95  | 1.90  | 97.0  | 2.14 | 80 - 120    | 15      |   |

Conductivity Probe  
Calibration Check:  
1403/1410  $\mu\text{S}/\text{cm}$

## Perchlorate Conductivity Check

Working MCT Level:  
10,000  $\mu\text{s}/\text{cm}$

[illegible]

Wade T. DeZ  
Analyst

10-12-10 / 15:35  
Date/Time

DCN#84722



Login Number: L10100283  
Analytical Method: 6850  
ICAL Workgroup: WG345440

Instrument ID: LCMS1  
Initial Calibration Date: 12-OCT-10 18:32  
Column ID: F

| Analyte     |  | AVG RF | % RSD | LINEAR (R) | QUAD (R <sup>2</sup> ) |
|-------------|--|--------|-------|------------|------------------------|
| Perchlorate |  | 1.453  | 7.42  | 1.00000    |                        |

R = Correlation coefficient; 0.995 minimum  
R<sup>2</sup> = Coefficient of determination; 0.99 minimum



Login Number: L10100283  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 12-OCT-10 18:32  
Column ID: F

| Analyte     | WG345440-02 |            |       | WG345440-03 |            |       | WG345440-04 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 0.100       | 6500.00000 | 1.688 | 0.200       | 12100.0000 | 1.490 | 0.500       | 26800.0000 | 1.349 |

INT\_CAL - Modified 03/06/2008  
PDF File ID: 1805485  
Report generated 10/22/2010 08:13



Login Number: L10100283  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 12-OCT-10 18:32  
Column ID: F

| Analyte     | WG345440-05 |            |       | WG345440-06 |            |       | WG345440-07 |            |       |
|-------------|-------------|------------|-------|-------------|------------|-------|-------------|------------|-------|
|             | CONC        | RESP       | RF    | CONC        | RESP       | RF    | CONC        | RESP       | RF    |
| Perchlorate | 1.00        | 55100.0000 | 1.393 | 2.00        | 109000.000 | 1.413 | 5.00        | 274000.000 | 1.424 |

Login Number: L10100283  
Analytical Method: 6850

Instrument ID: LCMS1  
Initial Calibration Date: 12-OCT-10 18:32  
Column ID: F

| Analyte     | WG345440-08 |            |       |
|-------------|-------------|------------|-------|
|             | CONC        | RESP       | RF    |
| Perchlorate | 10.0        | 549000.000 | 1.415 |

Login Number: L10100283 Run Date: 10/12/2010 Sample ID: WG345440-09  
Instrument ID: LCMS1 Run Time: 18:58 Method: 6850  
File ID: 1LM.LM06587 Analyst: WTD QC Key: STD  
ICal Workgroup: WG345440 Cal ID: LCMS1 - 12-OCT-10

| Analyte     | Expected | Found | Units | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 0.970 | ug/L  | 1.38 | 3.00 | 15  |   |

\* Exceeds %D Limit

Login Number: L10100283 Run Date: 10/12/2010 Sample ID: WG345413-01  
Instrument ID: LCMS1 Run Time: 19:25 Method: 6850  
File ID: 1LM.LM06588 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG345416 Cal ID: LCMS1 - 12-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100283 Run Date: 10/13/2010 Sample ID: WG345413-04  
Instrument ID: LCMS1 Run Time: 01:09 Method: 6850  
File ID: 1LM.LM06601 Analyst: WTD Units: ug/L  
Workgroup (AAB#): WG345416 Cal ID: LCMS1 - 12-OCT-10  
Matrix: SOIL QAPP: STD

| Analytes    | MDL   | RDL   | Concentration | Qualifier |
|-------------|-------|-------|---------------|-----------|
| Perchlorate | 0.100 | 0.200 | 0.100         | U         |

U = Result is less than MDL.  
F = Result is between MDL and RL.  
\* = Result is above RL.

Login Number: L10100283 Run Date: 10/12/2010 Sample ID: WG345413-02  
Instrument ID: LCMS1 Run Time: 19:51 Method: 6850  
File ID: 1LM.LM06589 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG345416 Cal ID: LCMS1 - 12-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 0.970 | ug/L  | 1.39 | 3.00 | 15  |   |

\* Exceeds %D Criteria

Login Number: L10100283 Run Date: 10/13/2010 Sample ID: WG345413-03  
Instrument ID: LCMS1 Run Time: 00:16 Method: 6850  
File ID: 1LM.LM06599 Analyst: WTD QC Key: STD  
Workgroup (AAB#): WG345416 Cal ID: LCMS1 - 12-OCT-10  
Matrix: SOIL

| Analyte     | Expected | Found | UNITS | RF   | %D   | UCL | Q |
|-------------|----------|-------|-------|------|------|-----|---|
| Perchlorate | 1.00     | 0.986 | ug/L  | 1.41 | 1.40 | 15  |   |

\* Exceeds %D Criteria



Login Number: L10100283 Run Date: 10/12/2010 Sample ID: WG345416-05  
Instrument ID: LCMS1 Run Time: 20:18 Prep Method: 6850  
File ID: 1LM.LM06590 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345416 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 12-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 1.97  | 98.5  | 70 - 130 |   |

Login Number: L10100283 Run Date: 10/13/2010 Sample ID: WG345416-06  
Instrument ID: LCMS1 Run Time: 00:42 Prep Method: 6850  
File ID: 1LM.LM06600 Analyst: WTD Method: 6850  
Workgroup (AAB#): WG345416 Matrix: Soil Units: ug/kg  
Contract #: DACA56-94-D-0020 Cal ID: LCMS1 - 12-OCT-10

| Analytes    | Expected | Found | % Rec | Limits   | Q |
|-------------|----------|-------|-------|----------|---|
| Perchlorate | 2.00     | 1.94  | 97.0  | 70 - 130 |   |

Login Number: L10100283  
Instrument ID: LCMS1  
Workgroup (AAB#): WG345416

ICAL CCV Number: WG345440-05  
CAL ID: LCMS1 - 12-OCT-10  
Matrix: SOLID

| Sample Number | Dilution | Tag | IS-1   |
|---------------|----------|-----|--------|
| WG345440      | NA       | NA  | 196000 |
| Upper Limit   | NA       | NA  | 294000 |
| Lower Limit   | NA       | NA  | 98000  |
| L10100283-01  | 1.00     | 01  | 214000 |
| L10100283-02  | 1.00     | 01  | 210000 |

IS-1 - 018LP

Underline = Response outside limits

Login Number: L10100283  
Instrument ID: LCMS1  
Workgroup (AAB#): WG345416

ICAL CCV Number: WG345440-05  
CAL ID: LCMS1 - 12-OCT-10  
Matrix: SOLID

| Sample Number | Dilution | Tag | IS-1   |
|---------------|----------|-----|--------|
| WG345440      | NA       | NA  | 196000 |
| Upper Limit   | NA       | NA  | 294000 |
| Lower Limit   | NA       | NA  | 98000  |
| L10100283-04  | 1.00     | 01  | 210000 |
| L10100283-05  | 1.00     | 01  | 214000 |
| WG345416-02   | 1.00     | 01  | 197000 |
| WG345416-03   | 1.00     | 01  | 189000 |
| WG345416-04   | 1.00     | 01  | 196000 |

IS-1 - 018LP

Underline = Response outside limits

## **2.2 General Chemistry Data**

## **2.2.1 Percent Solids Data**

## **2.2.1.1 Raw Data**

# LABORATORY REPORT

L10100283

00106543

10/22/10 13:12

Submitted By

Microbac Laboratories Inc.  
158 Starlite Drive  
Marietta, OH 45750  
(740) 373-4071

For

Account Name: Shaw E & I, Inc.  
1401 Enclave Parkway  
Suite 250  
Houston, TX 77077  
Attention: Jennifer Hoang

Project Number: 2773.025  
Project: Longhorn AAP  
Site: LONGHORN AAP KARNACK TX

P.O. Number: 557440

## Sample Analysis Summary

| Client ID     | Lab ID       | Method   | Dilution | Date Received |
|---------------|--------------|----------|----------|---------------|
| 47SB-J5 (0-2) | L10100283-01 | D2216-90 | 1        | 21-SEP-10     |
| 47SB-H4 (0-2) | L10100283-02 | D2216-90 | 1        | 21-SEP-10     |
| 47SB-H7 (0-2) | L10100283-04 | D2216-90 | 1        | 21-SEP-10     |
| 47SB-H8 (0-2) | L10100283-05 | D2216-90 | 1        | 21-SEP-10     |





Sample Number: **L10100283-01**  
 Client ID: **47SB-J5 (0-2)**  
 Matrix: **Soil**  
 Workgroup Number: **W6345704**  
 Collect Date: **09/17/2010 08:35**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/15/2010 08:46**  
 Cal Date:   
 Run Date: **10/15/2010 08:46**  
 File ID: **B1.345704-0115**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 92.4   |      | 1.00 | 1.00 |



Sample Number: **L10100283-02**  
Client ID: **47SB-H4 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **W6345704**  
Collect Date: **09/17/2010 09:25**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/15/2010 08:46**  
Cal Date:   
Run Date: **10/15/2010 08:46**  
File ID: **B1.345704-0116**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 95.1   |      | 1.00 | 1.00 |

Sample Number: **L10100283-04**  
 Client ID: **47SB-H7 (0-2)**  
 Matrix: **Soil**  
 Workgroup Number: **W6345704**  
 Collect Date: **09/17/2010 10:40**  
 Sample Tag: **01**

PrePrep Method: **NONE**  
 Prep Method: **D2216-90**  
 Analytical Method: **D2216-90**  
 Analyst: **JDH**  
 Dilution: **1**  
 Units: **weight %**

Instrument: **BAL001**  
 Prep Date: **10/15/2010 08:46**  
 Cal Date:   
 Run Date: **10/15/2010 08:46**  
 File ID: **B1.345704-0117**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 87.9   |      | 1.00 | 1.00 |

Sample Number: **L10100283-05**  
Client ID: **47SB-H8 (0-2)**  
Matrix: **Soil**  
Workgroup Number: **W6345704**  
Collect Date: **09/17/2010 11:30**  
Sample Tag: **01**

PrePrep Method: **NONE**  
Prep Method: **D2216-90**  
Analytical Method: **D2216-90**  
Analyst: **JDH**  
Dilution: **1**  
Units: **weight %**

Instrument: **BAL001**  
Prep Date: **10/15/2010 08:46**  
Cal Date:   
Run Date: **10/15/2010 08:46**  
File ID: **B1.345704-0118**

| Analyte        | CAS. Number | Result | Qual | PQL  | SDL  |
|----------------|-------------|--------|------|------|------|
| Percent Solids | 10-02-6     | 86.0   |      | 1.00 | 1.00 |

**Example Percent Solids Calculations****1.0 Calculating the percent solids of a sample.**

$$\%Solids = \frac{WT3 - WT1}{WT2 - WT1} \times F$$

Where:

WT1 = Weight, in grams, of the empty container

1.30 g

WT2 = Weight, in grams, of the container and wet sample

21.274 g

WT3 = Weight, in grams, of the container and dried sample

5.21 g

F = Factor to get units as percent weight

100

%Solids = Percent solids present in sample.

19.58%

**2.0 Calculating the percent moisture of a sample.**

$$\% \text{ Moisture} = 100 - \% \text{ Solids from 1.0 calculation}$$

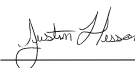
## PERCENT SOLIDS

00106549

Workgroup (AAB#): WG345704Analyst: JDHADT(on): 10/14/2010 18:50Method: D2216-90Instrument: BAL001ADT(off): 10/15/2010 08:46SOP: K0003 Rev: 10

| SAMPLE NUMBER | EMPTY PAN WT 1 | WET WT 2 | DRY WT 3A | DRY WT 3B | DRY WT 3C | PERCENT SOLID | PERCENT MOISTURE |
|---------------|----------------|----------|-----------|-----------|-----------|---------------|------------------|
| L10100246-01  | 1.34           | 29.86    | 28.06     |           |           | 93.69         |                  |
| L10100246-02  | 1.34           | 30.33    | 28.17     |           |           | 92.55         |                  |
| L10100246-03  | 1.34           | 30.71    | 28.57     |           |           | 92.71         |                  |
| L10100246-04  | 1.33           | 29.75    | 27.73     |           |           | 92.89         |                  |
| L10100246-05  | 1.34           | 38.11    | 36.76     |           |           | 96.33         |                  |
| L10100246-06  | 1.35           | 32.95    | 29.55     |           |           | 89.24         |                  |
| L10100246-07  | 1.34           | 35.12    | 33.77     |           |           | 96.00         |                  |
| L10100283-01  | 1.33           | 13.13    | 12.23     |           |           | 92.37         |                  |
| L10100283-02  | 1.34           | 30.8     | 29.36     |           |           | 95.11         |                  |
| L10100283-04  | 1.37           | 26.42    | 23.39     |           |           | 87.90         |                  |
| L10100283-05  | 1.35           | 19.12    | 16.63     |           |           | 85.99         |                  |
| L10100329-01  | 1.34           | 41.23    | 35.98     |           |           | 86.84         |                  |
| L10100329-02  | 1.33           | 33.67    | 28.85     |           |           | 85.10         |                  |
| L10100329-03  | 1.33           | 27.59    | 23.73     |           |           | 85.30         |                  |
| L10100329-04  | 1.35           | 45.72    | 40.06     |           |           | 87.24         |                  |
| L10100329-05  | 1.31           | 40.82    | 35.46     |           |           | 86.43         |                  |
| L10100329-06  | 1.33           | 28.41    | 24.96     |           |           | 87.26         |                  |
| L10100329-07  | 1.32           | 21.21    | 16.18     |           |           | 74.71         |                  |
| L10100329-08  | 1.32           | 35.09    | 26.82     |           |           | 75.51         |                  |
| L10100329-09  | 1.33           | 32.42    | 29.18     |           |           | 89.58         |                  |
| L10100329-10  | 1.34           | 33.85    | 30.18     |           |           | 88.71         |                  |
| L10100329-11  | 1.34           | 33.85    | 30.18     |           |           | 88.71         |                  |
| L10100329-12  | 1.34           | 33.85    | 30.18     |           |           | 88.71         |                  |
| L10100329-13  | 1.34           | 31.02    | 27.43     |           |           | 87.90         |                  |
| L10100329-14  | 1.35           | 19.27    | 16.68     |           |           | 85.55         |                  |
| L10100329-15  | 1.33           | 32.56    | 30.17     |           |           | 92.35         |                  |
| L10100329-16  | 1.33           | 33.35    | 28.42     |           |           | 84.60         |                  |
| WG345704-01   | 1.34           | 35.15    | 33.77     |           |           | 95.92         | 4.082            |
| WG345704-02   | 1.35           | 19.12    | 16.63     |           |           | 85.99         | 14.01            |
| WG345704-03   | 1.35           | 31.61    | 30.22     |           |           | 95.41         | 4.594            |
| WG345704-04   | 1.35           | 21.83    | 18.96     |           |           | 85.99         | 14.01            |

Analyst: \_\_\_\_\_



PERCENT SOLIDS - Modified 04/24/2008

PDF ID: 1808386

Report generated: 10/15/2010 08:50



## **3.0 Attachments**

Microbac Laboratories Inc.  
Analyst Listing  
October 22, 2010

---

|                           |                             |                            |
|---------------------------|-----------------------------|----------------------------|
| ADC - ANTHONY D. CANTER   | AJF - AMANDA J. FICKIESEN   | ALB - ANNIE L. BROWN       |
| ALV - AMY L. VALENTINE    | AML - TONY M. LONG          | AZH - AFTER HOURS          |
| BLG - BRENDA L. GREENWALT | BRG - BRENDA R. GREGORY     | CAA - CASSIE A. AUGENSTEIN |
| CAF - CHERYL A. FLOWERS   | CEB - CHAD E. BARNES        | CLC - CHRYS L. CRAWFORD    |
| CLS - CARA L. STRICKLER   | CLW - CHARISSA L. WINTERS   | CPD - CHAD P. DAVIS        |
| CSH - CHRIS S. HILL       | DDE - DEBRA D. ELLIOTT      | DEL - DON E. LIGHTFRITZ    |
| DEV - DAVID E. VANDENBERG | DGB - DOUGLAS G. BUTCHER    | DIH - DEANNA I. HESSON     |
| DLB - DAVID L. BUMGARNER  | DLP - DOROTHY L. PAYNE      | DLR - DIANNA L. RAUCH      |
| ECL - ERIC C. LAWSON      | EDA - ERIN D. AGEE          | ERP - ERIN R. PORTER       |
| FJB - FRANCES J. BOLDEN   | HAV - HEMA VILASAGAR        | HJR - HOLLY J. REED        |
| JAL - JOHN A. LENT        | JBK - JEREMY B. KINNEY      | JDH - JUSTIN D. HESSON     |
| JKT - JANE K. THOMPSON    | JWR - JOHN W. RICHARDS      | JWS - JACK W. SHEAVES      |
| JYH - JI Y. HU            | KEB - KATIE E. BARNES       | KHR - KIM H. RHODES        |
| KRA - KATHY R. ALBERTSON  | LKN - LINDA K. NEDEFF       | LSB - LESLIE S. BUCINA     |
| MDA - MIKE D. ALBERTSON   | MDC - MIKE D. COCHRAN       | MES - MARY E. SCHILLING    |
| MMB - MAREN M. BEERY      | MRT - MICHELLE R. TAYLOR    | MSW - MATT S. WILSON       |
| PDM - PIERCE D. MORRIS    | PWD - PAUL W. DENT          | RAH - ROY A. HALSTEAD      |
| RB - BOB BUCHANAN         | REK - BOB E. KYER           | RLK - ROBIN L. KLINGER     |
| RWC - RODNEY W. CAMPBELL  | SLM - STEPHANIE L. MOSSBURG | SLP - SHERI L. PFALZGRAF   |
| TIP - TAE I. PARRISH      | TMB - TIFFANY M. BAILEY     | TMM - TAMMY M. MORRIS      |
| VC - VICKI COLLIER        | WJB - WILL J. BEASLEY       | WTD - WADE T. DELONG       |



## List of Valid Qualifiers

October 22, 2010

Qualkey: STD\_ND=U

| Qualifier | Description                                                                           |
|-----------|---------------------------------------------------------------------------------------|
| *         | Surrogate or spike compound out of range                                              |
| +         | Correlation coefficient for the MSA is less than 0.995                                |
| <         | Result is less than the associated numerical value.                                   |
| >         | Result is greater than the associated numerical value.                                |
| A         | See the report narrative                                                              |
| B         | Analyte present in method blank                                                       |
| B1        | Target analyte detected in method blank at or above the method reporting limit        |
| B3        | Target analyte detected in calibration blank at or above the method reporting limit   |
| C         | Confirmed by GC/MS                                                                    |
| CG        | Confluent growth                                                                      |
| DL        | Surrogate or spike compound was diluted out                                           |
| E         | Estimated concentration due to sample matrix interference                             |
| EDL       | Elevated sample reporting limits, presence of non-target analytes                     |
| EMPC      | Estimated Maximum Possible Concentration                                              |
| F, S      | Estimated result below quantitation limit; method of standard additions(MSA)          |
| FL        | Free Liquid                                                                           |
| H1        | Sample analysis performed past holding time.                                          |
| I         | Semiquantitative result (out of instrument calibration range)                         |
| J         | The analyte was positively identified, but the quantitation was below the RL          |
| J,B       | Analyte detected in both the method blank and sample above the MDL.                   |
| J,P       | Estimate; columns don't agree to within 40%                                           |
| J,S       | Estimated concentration; analyzed by method of standard addition (MSA)                |
| L         | Sample reporting limits elevated due to matrix interference                           |
| L1        | The associated blank spike (LCS) recovery was above the laboratory acceptance limits. |
| L2        | The associated blank spike (LCS) recovery was below the laboratory acceptance limits. |
| M         | Matrix effect; the concentration is an estimate due to matrix effect.                 |
| N         | Tentatively identified compound(TIC)                                                  |
| NA        | Not applicable                                                                        |
| ND, L     | Not detected; sample reporting limit (RL) elevated due to interference                |
| ND, S     | Not detected; analyzed by method of standard addition (MSA)                           |
| NF        | Not found by library search                                                           |
| NFL       | No free liquid                                                                        |
| NI        | Non-ignitable                                                                         |
| NR        | Analyte is not required to be analyzed                                                |
| NS        | Not spiked                                                                            |
| P         | Concentrations >40% difference between the two GC columns                             |
| Q         | One or more quality control criteria failed. See narrative.                           |
| QNS       | Quantity of sample not sufficient to perform analysis                                 |
| RA        | Reanalysis confirms reported results                                                  |
| RE        | Reanalysis confirms sample matrix interference                                        |
| S         | Analyzed by method of standard addition (MSA)                                         |
| SMI       | Sample matrix interference on surrogate                                               |
| SP        | Reported results are for spike compounds only                                         |
| TIC       | Library Search Compound                                                               |
| TNTC      | Too numerous to count                                                                 |
| U         | Not detected at or above adjusted sample detection limit                              |
| UJ        | Undetected; the MDL and RL are estimated due to quality control discrepancies.        |
| W         | Post-digestion spike for furnace AA out of control limits                             |
| X         | Exceeds regulatory limit                                                              |
| X, S      | Exceeds regulatory limit; method of standard additions (MSA)                          |
| Z         | Cannot be resolved from isomer - see below                                            |

## \*\*\*Special Notes for Organic Analytes

1. Acrolein and acrylonitrile by method 624 are semi-quantitative screens only.
2. 1,2-Diphenylhydrazine is unstable and is reported as azobenzene.
3. N-nitrosodiphenylamine cannot be separated from diphenylamine.
4. 3-Methylphenol and 4-Methylphenol are unresolvable compounds.
5. m-Xylene and p-Xylene are unresolvable compounds.
6. The reporting limits for Appendix II/IX compounds by method 8270 are based on EPA estimated PQLs referenced in 40 CFR Part 264, Appendix IX. They are not always achievable for every compound and are matrix dependent.



**Lab Name: Environmental Waste Solutions C/O Microbac**  
**Address : 158 Starlite Drive, Marietta OH 45750**  
**Contact : Stephanie Mossburg**  
**Phone: 1-800-373-4071**

[illegible]

221000009541

Relog from

By: CARA STRICKLER

Cara Struckler RLK 10/12/10

## COOLER INSPECTION



Received: 09/21/2010 10:24  
Delivery Method: UPS  
Opened By: Cara Strickler  
Comments:

Login(s): L10100283|

### Cooler(s)

| Cooler # | Temp Gun | Temp | Tracking #         | COC #            | Comments |
|----------|----------|------|--------------------|------------------|----------|
| 0014668  | G        | 5.0  | 1Z66V7250191026573 | Ihaap47-091710-4 |          |

- 1 Yes Were shipping coolers sealed?
- 2 Yes Were custody seals intact?
- 3 Yes Were cooler temperatures in range of 0-6?
- 4 Yes Was ice present?
- 5 Yes Were COC's received/information complete/signed and dated?
- 6 Yes Were sample containers and labels intact and match COC?
- 7 Yes Were the correct containers and volumes received?
- 8 Yes Were samples received within EPA hold times?
- 9 NA Were correct perservatives used? (water only)
- 10 NA Were pH ranges acceptable? (voa's excluded)
- 11 NA Were VOA samples free of headspace (less than 6mm)?

Discrepancies:

**Look closer. Go further. Do more.**

Microbac - Ohio Valley Division  
158 Starlite Drive  
Marietta, OH 45750  
Tel: (740)373-4071 Fax: (740)373-4835

## Internal Chain of Custody Report

Login: L10100283

Account: 2773

Project: 2773.025

Samples: 4

Due Date: 22-OCT-2010

**Samplenum**      **Container ID**      **Products**  
**L10100283-01**      749625      6850 PCT-S

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 12-OCT-2010 11:48 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 12-OCT-2010 13:09 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 13-OCT-2010 08:36 | RLK    | WTD        |
| 4    | STORE   | WET    | A1  | 15-OCT-2010 08:21 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100283-02**      749626      6850 PCT-S

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 12-OCT-2010 11:48 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 12-OCT-2010 13:09 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 13-OCT-2010 08:36 | RLK    | WTD        |
| 4    | STORE   | WET    | A1  | 15-OCT-2010 08:21 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100283-04**      749627      6850 PCT-S

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 12-OCT-2010 11:48 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 12-OCT-2010 13:09 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 13-OCT-2010 08:36 | RLK    | WTD        |
| 4    | STORE   | WET    | A1  | 15-OCT-2010 08:21 | RLK    | JDH        |

**Samplenum**      **Container ID**      **Products**  
**L10100283-05**      749628      6850 PCT-S

Bottle: 1

| Seq. | Purpose | From   | To  | Date/Time         | Accept | Relinquish |
|------|---------|--------|-----|-------------------|--------|------------|
| 1    | LOGIN   | COOLER | W1  | 12-OCT-2010 11:48 | RLK    |            |
| 2    | ANALYZ  | W1     | SEM | 12-OCT-2010 13:09 | WTD    | JKT        |
| 3    | STORE   | SEM    | W1  | 13-OCT-2010 08:36 | RLK    | WTD        |
| 4    | STORE   | WET    | A1  | 15-OCT-2010 08:21 | RLK    | JDH        |

A1 - Sample Archive (COLD)  
A2 - Sample Archive (AMBIENT)  
F1 - Volatiles Freezer in Login  
V1 - Volatiles Refrigerator in Login  
W1 - Walkin Cooler in Login



## NELAP Addendum - October 14, 2010

### Non-NELAP LIMS Product and Description

The following is a list of those tests that are not included in the Microbac – OVL NELAP Scope of Accreditation:

Heat of Combustion (BTU)  
 Total Halide by Bomb Combustion (TX)  
 Particle Sizing - 200 Mesh (PS200)  
 Sulfate (SO<sub>4</sub>) - 9038  
 Specific Gravity/Density (SPGRAV)  
 Total Residual Chlorine (CL-TRL)  
 Total Volatile Solids (all forms) (TVS)  
 Total Coliform Bacteria (all methods)  
 Fecal Coliform Bacteria (all methods)  
 Sulfite (SO<sub>3</sub>)  
 Thiodiglycol (TDG-LCMS)

### NELAP Accreditation by Laboratory SOP

#### NONPOTABLE WATER

##### OVL HPLC02/HPLC-UV

Nitroglycerin  
 Nitroguanidine  
 Acetic acid  
 Butyric acid  
 Lactic acid  
 Propionic acid  
 Pyruvic acid

##### OVL KNITRO-C-WUV-VIS

Nitrocellulose

##### OVL MSS01/GC-MS

1,4-Phenylenediamine  
 1-Methylnaphthalene  
 1,4-Dioxane  
 Atrazine  
 Benzaldehyde  
 Biphenyl  
 Caprolactam  
 Hexamethylphosphoramide (HMPA)  
 Pentachlorobenzene  
 Pentachloroethane

**NELAP Accreditation by Laboratory SOP****NONPOTABLE WATER**OVL MSV01/GC-MS

1, 1, 2-Trichloro-1,2,2-trifluoroethane  
1,3-Butadiene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Methylacetate  
Methylcyclohexane  
T-amylmethylether (TAME)  
Tetrahydrofuran (THF)

OVL RSK01/GC-FID\*\*

Isobutane  
n-Butane  
Propane  
Propylene  
Propyne

OVL HPLC07/HPLC-MS-MS

Hexamethylphosphoramide (XMPA-LCMS)

**SOLID AND HAZARDOUS CHEMICALS**OVL HPLCOS-HPLC-UV \*\*

Nitroguanidine

OVL KNITRO-C-S/UV-VIS\*\*

Nitrocellulose

OVL MSS01/GC-MS

1-Methylnaphthalene  
Benzaldehyde  
Biphenyl  
Caprolactam  
Pentachloroethane

**NELAP Accreditation by Laboratory SOP****SOLID AND HAZARDOUS CHEMICALS**OVL MSV01/GC-MS

1.3-Butadiene  
Cyclohexane  
Cyclohexanone  
Dimethyl disulfide  
Dimethylsulfide  
Ethyl-t-butylether (ETBE)  
Isoprene  
Methylacetate  
Methylcyclohexane  
n-Hexane  
T-amylmethylether (TAME)



04/14/10



## Technical Report for

Shaw E & I, Inc.

Longhorn Army Ammunition Plant

PROJECT #117591

Accutest Job Number: T16411

Sampling Date: 02/20/07

Report to:

Shaw E & I, Inc.

jennifer.hoang@shawgrp.com

ATTN: Jennifer Hoang

Total number of pages in report: 175



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

*Paul K Canevaro*

Paul Canevaro  
Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.



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## Sample Summary

Shaw E &amp; I, Inc.

Job No: T16411

Longhorn Army Ammunition Plant  
Project No: PROJECT #117591

| Sample Number | Collected Date | Time By  | Received | Matrix Code | Type               | Client Sample ID  |
|---------------|----------------|----------|----------|-------------|--------------------|-------------------|
| T16411-1      | 02/20/07       | 08:50 SO | 02/22/07 | AQ          | Ground Water       | LHSMW22-FEB2007   |
| T16411-2      | 02/20/07       | 15:10 SO | 02/22/07 | AQ          | Ground Water       | 17WW01-FEB2007    |
| T16411-3      | 02/20/07       | 15:10 SO | 02/22/07 | AQ          | Ground Water       | 17WW01-FEB2007-FD |
| T16411-4      | 02/20/07       | 09:51 SO | 02/22/07 | AQ          | Ground Water       | LHSMW19-FEB2007   |
| T16411-5      | 02/20/07       | 09:34 SO | 02/22/07 | AQ          | Ground Water       | 46WW02-FEB2007    |
| T16411-6      | 02/20/07       | 12:23 SO | 02/22/07 | AQ          | Ground Water       | 47WW14-FEB2007    |
| T16411-7      | 02/20/07       | 12:23 SO | 02/22/07 | AQ          | Ground Water       | 47WW14-FEB2007-FD |
| T16411-8      | 02/20/07       | 15:54 SO | 02/22/07 | AQ          | Ground Water       | 47WW13-FEB2007    |
| T16411-9      | 02/20/07       | 15:30 SO | 02/22/07 | AQ          | Ground Water       | LHSMW04-FEB2007   |
| T16411-10     | 02/20/07       | 00:00 SO | 02/22/07 | AQ          | Ground Water       | LHSMW18-FEB2007   |
| T16411-10D    | 02/20/07       | 00:00 SO | 02/22/07 | AQ          | Water Dup/MSD      | LHSMW18-FEB2007   |
| T16411-10S    | 02/20/07       | 00:00 SO | 02/22/07 | AQ          | Water Matrix Spike | LHSMW18-FEB2007   |
| T16411-11     | 02/20/07       | 00:00 SO | 02/22/07 | AQ          | Trip Blank Water   | TRIP BLANK        |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Shaw E & I, Inc.

**Job No** T16411

**Site:** Longhorn Army Ammunition Plant

**Report Date** 3/14/2007 4:06:05 PM

10 Samples and 1 Trip Blank were collected on 02/20/2007 and were received at Accutest on 02/22/2007 properly preserved, at 5.8 Deg. C and intact. These Samples received an Accutest job number of T16411. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2305 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- Sample(s) T16395-2MS, T16395-2MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2306 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- Sample(s) T16411-10MS, T16411-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Styrene are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Styrene are outside control limits. Probable cause due to matrix interference.

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2307 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16431-22MS, T16431-22MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for Styrene are outside control limits. Probable cause due to matrix interference.

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2309 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16440-7MS, T16440-7MSD were used as the QC samples indicated.

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2311 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- Sample(s) T16440-12MS, T16440-12MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.

### Volatiles by GC By Method RSKSOP-147/175

|                  |                           |
|------------------|---------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> F:GXY991 |
|------------------|---------------------------|

- Analysis performed at Accutest Laboratories, Orlando, FL.

**Wet Chemistry By Method EPA 120.1****Matrix** AQ**Batch ID:** F:R17941

- Specific Conductivity Analysis performed at Accutest Laboratories, Orlando, FL.

**Matrix** AQ**Batch ID:** GN11341

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP were used as the QC samples for Specific Conductivity.

**Wet Chemistry By Method EPA 150.1/9040****Matrix** AQ**Batch ID:** GN11285

- Sample(s) T16411-10DUP were used as the QC samples for pH.

**Wet Chemistry By Method EPA 310.1****Matrix** AQ**Batch ID:** GN11336

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

**Wet Chemistry By Method EPA 314****Matrix** AQ**Batch ID:** F:GP9043

- Perchlorate Analysis performed at Accutest Laboratories, Orlando, FL.

**Wet Chemistry By Method EPA 325.3****Matrix** AQ**Batch ID:** GN11331

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

**Wet Chemistry By Method EPA 353.2****Matrix** AQ**Batch ID:** GN11283

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Nitrogen, Nitrite.

**Matrix** AQ**Batch ID:** GN11291

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

**Wet Chemistry By Method EPA 375.3****Matrix** AQ**Batch ID:** GN11356

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Sulfate.

**Wet Chemistry By Method EPA 376.1****Matrix** AQ**Batch ID:** GN11286

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP were used as the QC samples for Sulfide.

**Wet Chemistry By Method EPA 415.1/9060****Matrix** AQ**Batch ID:** GN11296

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Total Organic Carbon.

**Matrix** AQ**Batch ID:** GN11304

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-18DUP, T16445-18MS were used as the QC samples for Total Organic Carbon.

**Wet Chemistry By Method SM18 4500NO3E/NO2B****Matrix** AQ**Batch ID:** R15439

- Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T16411

**Site:** ITTXHO: Longhorn Army Ammunition Plant

**Report Date:** 3/13/2007 11:33:51

10 Samples were collected on 02/20/2007 and were received at Accutest SE on 02/23/2007 properly preserved, at 3.0 Deg. C and intact. These Samples had an Accutest job number of T16411. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC by Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GXY991

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples T16411-10DUP, T16411-10MS were used as the QC samples indicated.

### Extractables by GC by Method SW846 8330A

**Matrix:** AQ

**Batch ID:** OP19630

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F47423-3MS, F47423-3MSD were used as the QC samples indicated.

Matrix Spike Duplicate Recovery for RDX is outside control limits. Probable cause: due to matrix interference.

### Wet Chemistry by Method EPA 314

**Matrix:** AQ

**Batch ID:** GP9043

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples T16411-10DUP, T16411-10MS, T16411-1DUP, T16411-1MS were used as the QC samples for Perchlorate.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Ellen Pampel, Inorganic QA (signature on file)

Date: March 13, 2007

**Tuesday, March 13, 2007**



IT'S ALL IN THE CHEMISTRY

## Section 3



## Sample Results

## Report of Analysis



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW22-FEB2007                | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-1                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0078982.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2305           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 4.3    | 50  | 2.8  | ug/l  | J |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** LHSMW22-FEB2007**Lab Sample ID:** T16411-1**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 112%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 130%   |        | 84-150% |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW22-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16411-1                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025235.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 2.56   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: LHSMW22-FEB2007

Lab Sample ID: T16411-1

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|--------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |        |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U  | 10    | 4.0    | ug/l     | 1  | 03/01/07 16:06 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 218    | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 1380   | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1530   | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.35   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.40   | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.050  | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 7580   | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 3020   | 100   | 2.6    | mg/l     | 10 | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U      | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 13.0   | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 5.5    |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW01-FEB2007                 | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-2                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 | F0078983.D | 1   | 03/01/07 | LJ | n/a       | n/a        | VF2305           |
| Run #2 | F0079008.D | 100 | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 1.6               | 2.0 | 0.23 | ug/l  | J |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 9.7               | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 32.6              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 44.9              | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 17.4              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 6.5               | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.89              | 2.0 | 0.66 | ug/l  | J |
| 127-18-4   | Tetrachloroethylene        | 0.74 U            | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 5970 <sup>a</sup> | 200 | 63   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW01-FEB2007**Lab Sample ID:** T16411-2**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   | 101%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100%   | 95%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 109%   | 108%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 132%   | 131%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW01-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16411-2                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025236.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 9.73   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW01-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16411-2                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | SW846 8330A SW846 3535A        | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020170.D | 1  | 02/28/07 | AFL | 02/26/07  | F:OP19630  | F:GGG904         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 990 ml         | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.061 U | 0.20 | 0.061 | ug/l  |   |
| 121-82-4   | RDX                        | 0.076 U | 0.20 | 0.076 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.071 U | 0.20 | 0.071 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.066 U | 0.20 | 0.066 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.076 U | 0.20 | 0.076 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.071 U | 0.20 | 0.071 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.081 U | 0.20 | 0.081 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.061 U | 0.20 | 0.061 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.061 U | 0.20 | 0.061 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.076 U | 0.20 | 0.076 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.076 U | 0.20 | 0.076 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.076 U | 0.20 | 0.076 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.096 U | 0.20 | 0.096 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.081 U | 0.20 | 0.081 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 98%    |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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



## Report of Analysis

Client Sample ID: 17WW01-FEB2007

Lab Sample ID: T16411-2

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result  | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|---------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |         |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U   | 10    | 4.0    | ug/l     | 1  | 03/01/07 16:21 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 145     | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 375     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1250    | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.38    | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.40    | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.020 B | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 3930    | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate <sup>c</sup>                   | 89.0    | 3.0   | 0.66   | mg/l     | 1  | 04/03/07 07:15 | RM  | EPA 375.2          |
| Sulfide                                | U       | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 4.0     | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 5.9     |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(c) Confirmation analysis. Sample analyzed outside of the analytical holding time.

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW01-FEB2007-FD              | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-3                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 | F0078984.D | 1   | 03/01/07 | LJ | n/a       | n/a        | VF2305           |
| Run #2 | F0079009.D | 100 | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 1.5               | 2.0 | 0.23 | ug/l  | J |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 9.3               | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 31.8              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 44.0              | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 16.9              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 6.6               | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 1.0               | 2.0 | 0.66 | ug/l  | J |
| 127-18-4   | Tetrachloroethylene        | 0.74 U            | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 6240 <sup>a</sup> | 200 | 63   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW01-FEB2007-FD  
**Lab Sample ID:** T16411-3  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8260B  
**Project:** Longhorn Army Ammunition Plant

**Date Sampled:** 02/20/07  
**Date Received:** 02/22/07  
**Percent Solids:** n/a

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   | 107%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96%    | 101%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 109%   | 112%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 134%   | 125%   | 84-150% |

(a) Result is from Run# 2

U = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

MDL - Method Detection Limit

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

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW01-FEB2007-FD              |                        |          |
| <b>Lab Sample ID:</b>    | T16411-3                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025237.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 10.1   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW01-FEB2007-FD              | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-3                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020171.D | 1  | 02/28/07 | AFL | 02/26/07  | F:OP19630  | F:GGG904         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.065 U | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.080 U | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.095 U | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.080 U | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 96%    |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW01-FEB2007-FD

Lab Sample ID: T16411-3

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result  | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|---------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |         |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U   | 10    | 4.0    | ug/l     | 1  | 03/01/07 16:35 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 149     | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 380     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1310    | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10  | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.10    | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.020 B | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 4000    | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 107     | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U       | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 5.0     | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 5.9     |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW19-FEB2007                | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-4                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079001.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 85.5   | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** LHSMW19-FEB2007**Lab Sample ID:** T16411-4**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 101%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 110%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 127%   |        | 84-150% |

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

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



## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW19-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16411-4                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025238.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.30 U | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: LHSMW19-FEB2007

Lab Sample ID: T16411-4

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result  | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|---------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |         |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U   | 10    | 4.0    | ug/l     | 1  | 03/01/07 17:18 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 138     | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 110     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 161     | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10  | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.010 B | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.010 B | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1360    | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 309     | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U       | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 5.0     | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 6.4     |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 46WW02-FEB2007                 | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-5                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079002.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 1.3    | 2.0 | 0.68 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 1.4    | 2.0 | 0.83 | ug/l  | J |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 28.9   | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 46WW02-FEB2007**Lab Sample ID:** T16411-5**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 100%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 108%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 126%   |        | 84-150% |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 46WW02-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16411-5                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025245.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.42   | 0.50 | 0.30 | ug/l  | J |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 46WW02-FEB2007

Lab Sample ID: T16411-5

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result  | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|---------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |         |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U   | 10    | 4.0    | ug/l     | 1  | 03/01/07 17:33 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 7.0     | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 175     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 30.0    | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.19    | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.20    | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.010 B | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 558     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 238     | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U       | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 9.0     | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 4.9     |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW14-FEB2007                 | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-6                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079006.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| Run #2 | F0079007.D | 5  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 2.2              | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 3.6              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U           | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 334 <sup>a</sup> | 10  | 4.2  | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 31.1             | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 346 <sup>a</sup> | 10  | 3.2  | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW14-FEB2007                 | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-6                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 28.1   | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   | 101%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94%    | 95%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 106%   | 109%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 129%   | 132%   | 84-150% |

(a) Result is from Run# 2

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

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



## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW14-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16411-6                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025241.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 44.8   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 47WW14-FEB2007

Lab Sample ID: T16411-6

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 17:47 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 315      | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 40.0     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 190      | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.20     | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.20     | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1410     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 178      | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 3.0      | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 7.2      |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW14-FEB2007-FD              | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-7                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079060.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| Run #2 | F0079061.D | 50 | 03/03/07 | RR | n/a       | n/a        | VF2309           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 2.0              | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 3.2              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U           | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 359 <sup>a</sup> | 100 | 42   | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 24.4             | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 378 <sup>a</sup> | 100 | 32   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 47WW14-FEB2007-FD**Lab Sample ID:** T16411-7**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 20.5   | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   | 107%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 90%    | 88%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 108%   | 114%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 128%   | 138%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW14-FEB2007-FD              |                        |          |
| <b>Lab Sample ID:</b>    | T16411-7                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025242.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 42.7   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 47WW14-FEB2007-FD

Lab Sample ID: T16411-7

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 18:02 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 258      | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 26.0     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 200      | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.20     | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.20     | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1460     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 160      | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 2.0      | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 7.3      |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW13-FEB2007                 | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-8                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079035.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |
| Run #2 | F0079109.D | 50 | 03/05/07 | LJ | n/a       | n/a        | VF2311           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  | J |
| 71-43-2    | Benzene                    | 0.37              | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 3.4               | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 4.2               | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U            | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 1160 <sup>a</sup> | 100 | 42   | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 14.5              | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U            | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 565 <sup>a</sup>  | 100 | 32   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 47WW13-FEB2007**Lab Sample ID:** T16411-8**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 36.0   | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%    | 104%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 85%    | 102%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 107%   | 105%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 136%   | 112%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW13-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16411-8                       | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025243.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 20.6   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                                                |                                |
|------------------------------------------------|--------------------------------|
| <b>Client Sample ID:</b> 47WW13-FEB2007        | <b>Date Sampled:</b> 02/20/07  |
| <b>Lab Sample ID:</b> T16411-8                 | <b>Date Received:</b> 02/22/07 |
| <b>Matrix:</b> AQ - Ground Water               | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Longhorn Army Ammunition Plant |                                |

## General Chemistry

| Analyte                                | Result  | RL   | MDL    | Units    | DF  | Analyzed       | By  | Method             |
|----------------------------------------|---------|------|--------|----------|-----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |         |      |        |          |     |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U   | 10   | 4.0    | ug/l     | 1   | 03/01/07 18:16 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 67.0    | 5.0  | 0.30   | mg/l     | 1   | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 110     | 5.0  |        | mg/l     | 1   | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 13.0    | 1.0  | 0.57   | mg/l     | 1   | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.98    | 0.30 | 0.0050 | mg/l     | 1   | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 1.0     | 0.20 | 0.0050 | mg/l     | 4   | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.020 B | 0.10 | 0.0030 | mg/l     | 2   | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 143     | 0.50 | 0.50   | umhos/cm | 1   | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 1440    | 1000 | 2.6    | mg/l     | 100 | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U       | 0.20 |        | mg/l     | 1   | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 5.0     | 1.0  | 0.092  | mg/l     | 1   | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.1     |      |        | su       | 1   | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW04-FEB2007                | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-9                       | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079063.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.60   | 2.0 | 0.52 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 6.4    | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 4.6    | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** LHSMW04-FEB2007**Lab Sample ID:** T16411-9**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 108%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 91%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 116%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 145%   |        | 84-150% |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | LHSMW04-FEB2007                |                                |
| <b>Lab Sample ID:</b>    | T16411-9                       | <b>Date Sampled:</b> 02/20/07  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                                |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025244.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 7.75   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: LHSMW04-FEB2007

Lab Sample ID: T16411-9

Matrix: AQ - Ground Water

Date Sampled: 02/20/07

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 18:30 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 54       | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 170      | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1530     | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.020 B  | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 5530     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 316      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 11.0     | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 5.8      |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW18-FEB2007                | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-10                      | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079014.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 1.5    | 2.0 | 0.83 | ug/l  | J |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 4.8    | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** LHSMW18-FEB2007**Lab Sample ID:** T16411-10**Date Sampled:** 02/20/07**Matrix:** AQ - Ground Water**Date Received:** 02/22/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 107%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 119%   |        | 84-150% |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW18-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16411-10                      | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/22/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025246.D | 1  | 02/26/07 | AFL | n/a       | n/a        | F:GXY991         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.30 U | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: LHSMW18-FEB2007

Lab Sample ID: T16411-10

Date Sampled: 02/20/07

Matrix: AQ - Ground Water

Date Received: 02/22/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result  | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|---------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |         |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U   | 10    | 4.0    | ug/l     | 1  | 03/01/07 18:45 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 158     | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 100     | 5.0   |        | mg/l     | 1  | 03/06/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 410     | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.19    | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.20    | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.010 B | 0.050 | 0.0030 | mg/l     | 1  | 02/22/07 12:22 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 3300    | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 1260    | 100   | 2.6    | mg/l     | 10 | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U       | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 18.0    | 1.0   | 0.092  | mg/l     | 1  | 02/26/07 07:46 | LN  | EPA 415.1/9060     |
| pH                                     | 6.5     |       |        | su       | 1  | 02/23/07 08:15 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                     | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-11                      | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Trip Blank Water          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079059.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                     | <b>Date Sampled:</b>   | 02/20/07 |
| <b>Lab Sample ID:</b>    | T16411-11                      | <b>Date Received:</b>  | 02/22/07 |
| <b>Matrix:</b>           | AQ - Trip Blank Water          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 89%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 110%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 134%   |        | 84-150% |

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

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



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- LRC Form

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 Houston, TX 77042 (713) 996-4400

Team 3-02B

No. 10931

## CHAIN-OF-CUSTODY

| Laboratory Name: <u>Accutest</u>                                                                              |                   | Address: <u>10165 Harwin #150</u><br><u>Hou, TX 77036</u>                      |       | Contact: <u>Agnes (713) 271-4700</u>                                                                                    |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
|---------------------------------------------------------------------------------------------------------------|-------------------|--------------------------------------------------------------------------------|-------|-------------------------------------------------------------------------------------------------------------------------|------|-----------------|------------------------------|------------------------------------------------------------------|-----|------|-------|-----|----------|-------|-------------|-----|-------|-----|------------|-------|-----|-------|------------|------|
| Project Name: <u>LHAAP</u>                                                                                    |                   | Project Location: <u>Karnack, TX</u>                                           |       | Analysis and Method Desired<br>(Indicate separate containers)                                                           |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| Project No.: <u>117591</u>                                                                                    |                   | Project Contact: <u>K. Everette</u>                                            |       | Project Telephone No.: <u>(713) 996-4421</u>                                                                            |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| Point of contact: <u>D. Meyers</u>                                                                            |                   | Project Manager/Supervisor: <u>P. Srivastav</u>                                |       | Remarks                                                                                                                 |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| Telephone No.: <u>(713) 996-4408</u>                                                                          |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| Item No.                                                                                                      | Sample Number     | Date                                                                           | Time  | Comp                                                                                                                    | Grab | Matrix          | Sample Description, Location | Number of Containers                                             | NOC | 8260 | Anion | 300 | Sulfides | 376.2 | Perchlorate | 314 | Cases | 175 | Alkalinity | 310.1 | TOC | 415.1 | EXPLOSIVES | 8330 |
| 1                                                                                                             | LHSMW22-Febr 2007 | 2/21/07                                                                        | 8:50  |                                                                                                                         | X    | W               | Groundwater                  | 13                                                               | ✓   | ✓    | ✓     | ✓   | ✓        | ✓     | ✓           | ✓   | ✓     | ✓   | ✓          | ✓     | ✓   | ✓     | ✓          | ✓    |
| 2                                                                                                             | 17 WWO1-Febr 2007 | 2/21/07                                                                        | 15:10 |                                                                                                                         | X    | W               | Groundwater                  | 13                                                               | ✓   | ✓    | ✓     | ✓   | ✓        | ✓     | ✓           | ✓   | ✓     | ✓   | ✓          | ✓     | ✓   | ✓     | ✓          | ✓    |
| 3                                                                                                             | 17 WWO1-Febr 2007 | 2/21/07                                                                        | 15:10 |                                                                                                                         | X    | W               | Groundwater                  | 14                                                               | ✓   | ✓    | ✓     | ✓   | ✓        | ✓     | ✓           | ✓   | ✓     | ✓   | ✓          | ✓     | ✓   | ✓     | ✓          | ✓    |
| 4                                                                                                             |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| 5                                                                                                             |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| 6                                                                                                             |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| 7                                                                                                             |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| 8                                                                                                             |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| 9                                                                                                             |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| 10                                                                                                            |                   |                                                                                |       |                                                                                                                         |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| Transfers Relinquished By (Signature)                                                                         |                   | Date/Time                                                                      |       | Transfers Accepted By (Signature)                                                                                       |      | Date/Time       |                              | Special Instructions                                             |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| <u>Jason Allen</u>                                                                                            |                   | 02/21/07                                                                       |       | <u>Scott Beesinger</u>                                                                                                  |      | 2-21-07 08:10   |                              | Do Sample for Alkalinity in 17 WWO1-Febr 2007. CO2 for 211005CS. |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| <u>Scott Beesinger</u>                                                                                        |                   | 2-21-07 08:30                                                                  |       |                                                                                                                         |      |                 |                              | Federal ID No.: <u>1246V7250192598203</u>                        |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
|                                                                                                               |                   |                                                                                |       | Laboratory                                                                                                              |      | <u>A. Rodin</u> |                              | Sample Signature <u>Jason Allen</u>                              |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |
| TAT: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush Due: <input type="checkbox"/> |                   | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |       | Received Good Condition: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Cold |      |                 |                              |                                                                  |     |      |       |     |          |       |             |     |       |     |            |       |     |       |            |      |

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T16411

00106614



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## CHAIN-OF-CUSTODY

No. 10949

| Laboratory Name: <b>Accutest</b>                    |                 |         |      | Address: <b>10165 Harwin Dr. #150</b>                                          |      |                                                                                                                                   |                              | Contact: <b>Agnes</b>                                         |           |              |                |                                            |                    |                  |           |
|-----------------------------------------------------|-----------------|---------|------|--------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------|-----------|--------------|----------------|--------------------------------------------|--------------------|------------------|-----------|
| Project Name: <b>Longhorn Army Ammunition Plant</b> |                 |         |      | Project Location: <b>KARWACK, TX</b>                                           |      |                                                                                                                                   |                              | Analysis and Method Desired<br>(Indicate separate containers) |           |              |                |                                            |                    |                  |           |
| Project No.: <b>117591</b>                          |                 |         |      | Project Contact: <b>Kay Everette</b>                                           |      |                                                                                                                                   |                              | Project Telephone No.: <b>713-996-4421</b>                    |           |              |                |                                            |                    |                  |           |
| Point of contact: <b>Diane Meyer</b>                |                 |         |      | Project Manager/Supervisor: <b>Raveen Srivastava</b>                           |      |                                                                                                                                   |                              | Remarks                                                       |           |              |                |                                            |                    |                  |           |
| Telephone No.: <b>713-996-4408</b>                  |                 |         |      |                                                                                |      |                                                                                                                                   |                              |                                                               |           |              |                |                                            |                    |                  |           |
| Item No.                                            | Sample Number   | Date    | Time | Comp                                                                           | Grab | Matrix                                                                                                                            | Sample Description, Location | Number of Containers                                          | VOC-8260B | ANIONS 300.0 | 376.2 Sulfides | 314.0 Perchlorate                          | Gases 602-RSK50P12 | 310.1 ALKALINITY | TOL 415.1 |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 3                                                             | ✓         |              |                |                                            |                    |                  |           |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 3                                                             |           |              |                |                                            | ✓                  |                  |           |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 3                                                             |           |              |                |                                            |                    |                  | ✓         |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 1                                                             |           |              |                | ✓                                          |                    |                  |           |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 1                                                             |           |              | ✓              |                                            |                    |                  |           |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 1                                                             |           | ✓            |                |                                            |                    |                  |           |
| 4                                                   | LHSMW19-Feb2007 | 2/20/07 | 0950 |                                                                                | ✓    | GW                                                                                                                                | GW-Site 46                   | 1                                                             |           |              |                |                                            |                    | ✓                |           |
| 8                                                   |                 |         |      |                                                                                |      |                                                                                                                                   |                              |                                                               |           |              |                |                                            |                    |                  |           |
| 9                                                   |                 |         |      |                                                                                |      |                                                                                                                                   |                              |                                                               |           |              |                |                                            |                    |                  |           |
| 10                                                  |                 |         |      |                                                                                |      |                                                                                                                                   |                              |                                                               |           |              |                |                                            |                    |                  |           |
| Transfers Relinquished By (Signature)               |                 |         |      | Date/Time                                                                      |      | Transfers Accepted By (Signature)                                                                                                 |                              |                                                               |           | Date/Time    |                | Special Instructions                       |                    |                  |           |
| <i>Sherry M. Padoa</i>                              |                 |         |      | 2-20-07 1630                                                                   |      | <i>Scott Blesinger</i>                                                                                                            |                              |                                                               |           | 2/21/07 0810 |                | UPS                                        |                    |                  |           |
| <i>Scott Blesinger</i>                              |                 |         |      | 2-21-07 08130                                                                  |      |                                                                                                                                   |                              |                                                               |           |              |                | FedEx Airbill No.: 1ZU6EV7850190598203     |                    |                  |           |
|                                                     |                 |         |      |                                                                                |      | <i>J. Rodney</i>                                                                                                                  |                              |                                                               |           | 2/21/07      |                | Sampler's Signature <i>Sherry M. Padoa</i> |                    |                  |           |
| TAT: _____ Standard _____ Rush Due: _____           |                 |         |      | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |      | Received Good Condition <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Cold |                              |                                                               |           |              |                |                                            |                    |                  |           |

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T16411



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## CHAIN-OF-CUSTODY

No. 10914

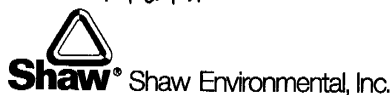
| Laboratory Name: <u>Accutest</u>                          |                    | Address: <u>10165 Harwin DR #150</u><br><u>Houston, TX 77036</u> |      | Contact: <u>Agnes - 713-271-4700</u>                          |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
|-----------------------------------------------------------|--------------------|------------------------------------------------------------------|------|---------------------------------------------------------------|------|------------------------------------|------------------------------|-----------------------------------------|--------------|------------|----------------|-------------|-------|------------|-----------|-------------------|
| Project Name: <u>Longhorn Army Ammunition Plant</u>       |                    | Project Location: <u>Karnack, TX</u>                             |      | Analysis and Method Desired<br>(Indicate separate containers) |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
| Project No.: <u>117591</u>                                |                    | Project Contact: <u>Ken Everest</u>                              |      | Project Telephone No.: <u>713-996-4401</u>                    |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
| Point of contact: <u>Diane Meyer</u>                      |                    | Project Manager/Supervisor:<br><u>PRAVEEN SRIVASTAV</u>          |      | Remarks                                                       |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
| Telephone No.: <u>713-996-4408</u>                        |                    |                                                                  |      |                                                               |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
| Item No.                                                  | Sample Number      | Date                                                             | Time | Comp                                                          | Grab | Matrix                             | Sample Description, Location | Number of Containers                    | Vols by 8000 | ANIONS 300 | Sulfides 376.2 | Grasses 175 | 310.1 | ALKALINITY | TDC 415.1 | Perchlorate 217.0 |
| 5                                                         | 46WW02-FEB 2007    | 2/20/07                                                          | 0937 |                                                               | X    | W                                  | 46WW02                       | 13                                      | X            | X          | X              | X           | X     | X          | X         | X                 |
| 6                                                         | 47WW14-FEB 2007    | 2/20/07                                                          | 1223 |                                                               | X    | W                                  | 47WW14                       | 13                                      | X            | X          | X              | X           | X     | X          | X         | X                 |
| 7                                                         | 47WW14-FEB 2007-FD | 2/20/07                                                          | 1223 |                                                               | X    | W                                  | 47WW14-FD                    | 13                                      | X            | X          | X              | X           | X     | X          | X         | X                 |
| 8                                                         | 47WW13-FEB 2007    | 2/20/07                                                          | 1554 |                                                               | X    | W                                  | 47WW13                       | 13                                      | X            | X          | X              | X           | X     | X          | X         | X                 |
| 9                                                         |                    |                                                                  |      |                                                               |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
| 10                                                        |                    |                                                                  |      |                                                               |      |                                    |                              |                                         |              |            |                |             |       |            |           |                   |
| Transfers Relinquished By (Signature): <u>[Signature]</u> |                    | Date/Time: <u>2-21-07 08:30</u>                                  |      | Transfers Accepted By (Signature): <u>[Signature]</u>         |      | Date/Time: <u>2-21-07 08:10</u>    |                              | Special Instructions: <u>HB</u>         |              |            |                |             |       |            |           |                   |
| FBI Bill No.: <u>1266V 7250192598203</u>                  |                    |                                                                  |      | Laboratory: <u>[Signature]</u>                                |      | Date/Time: <u>2/20/07</u>          |                              | Sampler's Signature: <u>[Signature]</u> |              |            |                |             |       |            |           |                   |
| TAT: <u>X</u> Standard <u>3</u> Rush Due: <u>    </u>     |                    | Seals Intact? <u>Y</u> <u>    </u> <u>N</u>                      |      | Received Good Condition <u>Y</u> <u>    </u> <u>N</u>         |      | Cold <u>Y</u> <u>    </u> <u>N</u> |                              |                                         |              |            |                |             |       |            |           |                   |

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3010 Briarpark Drive, Suite 4N  
Houston, TX 77042 (713) 996-4400

## CHAIN-OF-CUSTODY

No. 10948

| Laboratory Name: <b>Accutest</b>                    |                 | Address: <b>10145 HARWIN DR. #150</b>                                          |      | Contact: <b>Agnes</b>                                                                                                                       |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
|-----------------------------------------------------|-----------------|--------------------------------------------------------------------------------|------|---------------------------------------------------------------------------------------------------------------------------------------------|------|------------------|------------------------------|-------------------------------------------|------------|---------------------|-------|------------------------|-------|-------------|-------------|---------------|-------|------------|-----------|---------|--|
| Project Name: <b>Longhorn Army Ammunition Plant</b> |                 | Project Location: <b>KARNACK, TX</b>                                           |      | Project Telephone No.: <b>713-996-4421</b>                                                                                                  |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| Project No.: <b>117591</b>                          |                 | Project Contact: <b>Kay Everett</b>                                            |      | Contact: <b>713-271-4700</b>                                                                                                                |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| Point of contact: <b>Diane Meyer</b>                |                 | Project Manager/Supervisor: <b>TRAVEN SRAIVASTAV</b>                           |      | Analysis and Method Desired (Indicate separate containers)                                                                                  |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| Telephone No.: <b>713-996-4408</b>                  |                 |                                                                                |      | VOC-8260 B<br>ANIONS 360.9<br>376.2<br>Sulfides<br>314.0<br>Perchlorate<br>Gases (PSK)<br>CO2 (601.175)<br>310.1<br>Alkalinity<br>TOC 415.1 |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| Item No.                                            | Sample Number   | Date                                                                           | Time | Comp                                                                                                                                        | Grab | Matrix           | Sample Description, Location | Number of Containers                      | VOC-8260 B | ANIONS 360.9        | 376.2 | Sulfides               | 314.0 | Perchlorate | Gases (PSK) | CO2 (601.175) | 310.1 | Alkalinity | TOC 415.1 | Remarks |  |
| 1                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 3                                         | ✓          |                     |       |                        |       |             |             |               |       |            |           |         |  |
| 2                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 3                                         |            |                     |       |                        |       |             | ✓           |               |       |            |           |         |  |
| 3                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 3                                         |            |                     |       |                        |       |             |             |               |       | ✓          |           |         |  |
| 4                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 1                                         |            | ✓                   |       |                        |       |             |             |               |       |            |           |         |  |
| 5                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 1                                         |            |                     | ✓     |                        |       |             |             |               |       |            |           |         |  |
| 6                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 1                                         |            |                     |       |                        |       |             |             |               | ✓     |            |           |         |  |
| 7                                                   | LHSMW04-Feb2007 | 2/20/07                                                                        | 1530 |                                                                                                                                             | ✓    | W                | GW, Site 35A                 | 1                                         |            |                     |       | ✓                      |       |             |             |               |       |            |           |         |  |
| 8                                                   |                 |                                                                                |      |                                                                                                                                             |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| 9                                                   |                 |                                                                                |      |                                                                                                                                             |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| 10                                                  |                 |                                                                                |      |                                                                                                                                             |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| Transfers Relinquished By (Signature)               |                 | Date/Time                                                                      |      | Transfers Accepted By (Signature)                                                                                                           |      | Date/Time        |                              | Special Instructions                      |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| <i>Sherry M. Peden</i>                              |                 | 2-20-07 16:30                                                                  |      | <i>Scott Bessinger</i>                                                                                                                      |      | 2-21-07 08:10    |                              | US                                        |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
| <i>Scott Bessinger</i>                              |                 | 2-21-07 08:30                                                                  |      |                                                                                                                                             |      |                  |                              | FedEx Airbill No.: 1Z WLV 72501 9759 8205 |            |                     |       |                        |       |             |             |               |       |            |           |         |  |
|                                                     |                 |                                                                                |      | Laboratory                                                                                                                                  |      | <i>A. Reding</i> |                              | 2/21/07 9:58                              |            | Sampler's Signature |       | <i>Sherry M. Peden</i> |       |             |             |               |       |            |           |         |  |
| TAT: _____ Standard _____ Rush Due: _____           |                 | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |      | Received Good Condition <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Cold                      |      |                  |                              |                                           |            |                     |       |                        |       |             |             |               |       |            |           |         |  |

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## CHAIN-OF-CUSTODY

No. 10952

|                                           |                  |         |      |                                                                   |      |        |                              |                                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
|-------------------------------------------|------------------|---------|------|-------------------------------------------------------------------|------|--------|------------------------------|-----------------------------------------------------------------------------|---------------|----------|------|----------------------------------------|-----------|-------|------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------|--|--|
| Houston, TX 77052 (713) 590-4400          |                  |         |      | Houston, TX 77036                                                 |      |        |                              | Houston, TX 77036                                                           |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Laboratory Name: Accutest                 |                  |         |      | Address: 10165 Harwin Dr. #150<br>Houston, TX 77036               |      |        |                              | Agnes<br>Contact: 713-271-4700                                              |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Longhorn Army Ammunition Plant            |                  |         |      | Project Location: KARNACK, TX                                     |      |        |                              | Analysis and Method Desired<br>(Indicate separate containers)               |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Project No. 117591                        |                  |         |      | Project Contact: Kay Everett                                      |      |        |                              | Project Telephone No. 713-996-4421                                          |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Point of contact: DIANE MEYER             |                  |         |      | Project Manager/Supervisor: PRAVEEN SRIVASTAV                     |      |        |                              | Remarks: ms/msd                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Telephone No. 713-996-4408                |                  |         |      |                                                                   |      |        |                              |                                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Item No.                                  | Sample Number    | Date    | Time | Comp                                                              | Grab | Matrix | Sample Description, Location | Number of Containers                                                        | ANIONS: 300.0 | Sulfides | 34.0 | Perchlorate                            | Gases/RSK | 310.1 | Alkalinity | TOC                                                                                                                                          | VOC    |  |  |
| 1                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           |               |          |      |                                        |           |       |            |                                                                                                                                              | ms/msd |  |  |
| 2                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           |               |          |      |                                        | ✓         |       |            |                                                                                                                                              | ms/msd |  |  |
| 3                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           |               |          |      |                                        |           |       | ✓          |                                                                                                                                              | ms/msd |  |  |
| 4                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           | ✓             |          |      |                                        |           |       |            |                                                                                                                                              | ms/msd |  |  |
| 5                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           |               | ✓        |      |                                        |           |       |            |                                                                                                                                              | ms/msd |  |  |
| 6                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           |               |          | ✓    |                                        |           |       |            |                                                                                                                                              | ms/msd |  |  |
| 7                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   | ✓    | W      | GW Site 46                   | 3                                                                           |               |          |      |                                        |           | ✓     |            |                                                                                                                                              | ms/msd |  |  |
| 8                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   |      |        |                              |                                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| 9                                         | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   |      |        |                              |                                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| 10                                        | LHSMW18-Feb-2007 | 2/20/07 |      |                                                                   |      |        |                              |                                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Sub Inhibited By (Signature)              |                  |         |      | Date/Time                                                         |      |        |                              | Transfers Accepted By (Signature)                                           |               |          |      | Date/Time                              |           |       |            | Special Instructions                                                                                                                         |        |  |  |
| Sherry M. Padon                           |                  |         |      | 2-20-07 16:30                                                     |      |        |                              | Scott Beesinger                                                             |               |          |      | 2-21-07 08:10                          |           |       |            | If need be, please lab needs more sample volume for a parameter from your sample. Please take from a vial labeled for a different parameter. |        |  |  |
| Scott Beesinger                           |                  |         |      | 2-21-07 08:30                                                     |      |        |                              |                                                                             |               |          |      |                                        |           |       |            |                                                                                                                                              |        |  |  |
| Laboratory                                |                  |         |      | A. Padon                                                          |      |        |                              | HMS                                                                         |               |          |      | Federal Airbill No. 1700V7250192598203 |           |       |            | Sampler's Signature Sherry M. Padon                                                                                                          |        |  |  |
| TAT: _____ Standard _____ Rush Due: _____ |                  |         |      | Seals Intact? <input checked="" type="checkbox"/> Y _____ N _____ |      |        |                              | Received Good Condition <input checked="" type="checkbox"/> Y _____ N _____ |               |          |      | Cold _____                             |           |       |            |                                                                                                                                              |        |  |  |

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**ACCUTEST.**
**VARIANCE MEMO  
SAMPLE LOG-IN**

SAMPLE(S) various  
PROJECT CHAP  
FILED BY AR

DATE 2/22/07

LAB NO. T16411

**VARIANCE - Check applicable item(s):**

- ☐ Insufficient sample sent for proper analysis; received approx. \_\_\_\_\_  
☐ Sample bottle received broken and/or cap not intact.  
☐ Samples received without paperwork; paperwork received without samples.  
☐ Samples received without proper refrigeration, when it has been deemed necessary. Temperature at receipt: \_\_\_\_\_  
☐ Illegible sample number or label missing from bottle.  
☐ Numbers on sample not the same as numbers on paper work.  
☐ Incomplete instructions received with sample(s) ie., no request for analysis, no chain of custody, incomplete billing instructions, no due date, etc. Temperature at receipt: \_\_\_\_\_  
☐ Samples received in improper container or lacking proper preservation.  
☐ Physical characteristics different than those on sampling sheets; Describe: \_\_\_\_\_  
☐ Rush samples on hold because of incomplete paperwork.  
☐ Other (specify) Sample numbers 1, 4, and 5 were all received exceeding hold times.

**CORRECTIVE ACTION TAKEN**

Diane M. Person Contacted By phone.  
☐ Client informed verbally. ☐ Samples processed for information only and noted on report.  
☒ Client informed by ~~memo letter~~ email. ☐ Samples processed with higher detection limits accepted.  
☐ Samples processed as is. ☐ Samples rejected.  
☐ Samples preserved by lab.  
☐ Client will resample and resubmit.  
 Notes: Proceed w/ Analysis

**ROUTING**

| TITLE            | DATE           | INITIALS  | CORRECTED? |
|------------------|----------------|-----------|------------|
| Sample Manager:  |                |           |            |
| Login:           |                |           |            |
| Project Manager: | <u>2/22/07</u> | <u>AS</u> |            |
| Comments:        |                |           |            |

Form: SM006

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**ACCUTEST.**
**SAMPLE RECEIPT LOG**

 JOB #: T16411

 DATE/TIME RECEIVED: 2/22/07/09:58

 CLIENT: Snaw

 INITIALS: AR

- Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):
- 1. ☒ N Sample received in undamaged condition.
  - 2. ☒ N Samples received within temp. range.
  - 3. ☒ N Sample received with proper pH.
  - 4. ☒ N Sample received in proper containers.
  - 5. ☒ N Sample volume sufficient for analysis.
  - 6. ☒ N Sample received with chain of custody.
  - 7. ☒ N Chain of Custody matches sample IDs and analysis on containers.
  - 8. ☒ N Samples Headspace acceptable
  - 9. ☒ N NA Custody seal received intact and tamper not evident on cooler.
  - 10. ☒ Y N (NA) Custody seal received intact and tamper not evident on bottles.

| SAMPLE or FIELD ID                                         | BOTTLE # | DATE SAMPLED | MATRIX | VOLUME | LOCATION | PRESERV.    | PH             |
|------------------------------------------------------------|----------|--------------|--------|--------|----------|-------------|----------------|
| 1-9                                                        | 1-6      | 2/20         | AR     | 40 ml. | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 7-9      |              |        | L      | 2H       | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 10       |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 11       |              |        | P500   |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 12-13    |              |        | L      |          | 1,2,3,4,5,6 | U, <2, >12, NA |
| 2,3                                                        | 14       |              |        | A1000  | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
| 10                                                         | 1-18     |              |        | 40 ml  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 19-27    |              |        | L      | 2H       | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 28-30    |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 31-33    |              |        | P500   |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            | 34-39    |              |        | L      |          | 1,2,3,4,5,6 | U, <2, >12, NA |
| (+b) 11, 12                                                | 1-2      | N/A          |        | 40 ml. | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
| <div style="text-align: center;"> <p>AR 2-22-07</p> </div> |          |              |        |        |          |             |                |
|                                                            |          |              |        |        |          |             |                |
|                                                            |          |              |        |        |          |             |                |
|                                                            |          |              |        |        |          |             |                |
|                                                            |          |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            |          |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            |          |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                                                            |          |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |

LOCATION: WL: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

 pH of waters checked excluding volatiles  
 pH of soils N/A

 Delivery method: Courier: UPS

 COOLER TEMP: 2.2 COOLER TEMP: 2.1  
 COOLER TEMP: 3.6 COOLER TEMP: 5.8  
 Form: SM012, Rev.07/28/06, QAO

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## Appendix A Laboratory Data Package Cover Page

4.2  
4

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 or ISO/IEC 17025 Section 5.10
  - 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 me 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.

**Check, if applicable:** [ ] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Ron Martino



Lab Director

3/14/2007

Name (Printed)

Signature

Official Title (printed)

Date

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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.

| Appendix A (cont'd): Laboratory Review Checklist: Reportable Data |                |                                                                                                                               |                               |    |                 |                 |                  |
|-------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----|-----------------|-----------------|------------------|
| Laboratory Name: Accutest Laboratories Gulf Coast                 |                |                                                                                                                               | LRC Date: 3/14/2007           |    |                 |                 |                  |
| Project Name: Longhorn                                            |                |                                                                                                                               | Laboratory Job Number: T16411 |    |                 |                 |                  |
| Reviewer Name: Ron Martino                                        |                |                                                                                                                               | Prep Batch Number(s):         |    |                 |                 |                  |
| # <sup>1</sup>                                                    | A <sup>2</sup> | Description                                                                                                                   | Yes                           | No | NA <sup>3</sup> | NR <sup>4</sup> | ER# <sup>5</sup> |
|                                                                   |                | <b>Chain-of-custody (C-O-C)</b>                                                                                               |                               |    |                 |                 |                  |
| R1                                                                | OI             | Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X                             |    |                 |                 |                  |
|                                                                   |                | Were all departures from standard conditions described in an exception report?                                                | X                             |    |                 |                 |                  |
| R2                                                                | OI             | <b>Sample and quality control (QC) identification</b>                                                                         |                               |    |                 |                 |                  |
|                                                                   |                | Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X                             |    |                 |                 |                  |
|                                                                   |                | Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X                             |    |                 |                 |                  |
| R3                                                                | OI             | <b>Test reports</b>                                                                                                           |                               |    |                 |                 |                  |
|                                                                   |                | Were all samples prepared and analyzed within holding times?                                                                  | X                             |    |                 |                 |                  |
|                                                                   |                | Other than those results < MQL, were all other raw values bracketed by calibration standards?                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were calculations checked by a peer or supervisor?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were all analyte identifications checked by a peer or supervisor?                                                             | X                             |    |                 |                 |                  |
|                                                                   |                | Were sample quantitation limits reported for all analytes not detected?                                                       | X                             |    |                 |                 |                  |
|                                                                   |                | Were all results for soil and sediment samples reported on a dry weight basis?                                                |                               |    | X               |                 |                  |
|                                                                   |                | Were % moisture (or solids) reported for all soil and sediment samples?                                                       |                               |    | X               |                 |                  |
|                                                                   |                | If required for the project, TICs reported?                                                                                   |                               |    | X               |                 |                  |
| R4                                                                | O              | <b>Surrogate recovery data</b>                                                                                                |                               |    |                 |                 |                  |
|                                                                   |                | Were surrogates added prior to extraction?                                                                                    | X                             |    |                 |                 |                  |
|                                                                   |                | Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             | X                             |    |                 |                 |                  |
| R5                                                                | OI             | <b>Test reports/summary forms for blank samples</b>                                                                           |                               |    |                 |                 |                  |
|                                                                   |                | Were appropriate type(s) of blanks analyzed?                                                                                  | X                             |    |                 |                 |                  |
|                                                                   |                | Were blanks analyzed at the appropriate frequency?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X                             |    |                 |                 |                  |
|                                                                   |                | Were blank concentrations < MQL?                                                                                              | X                             |    |                 |                 |                  |
| R6                                                                | OI             | <b>Laboratory control samples (LCS):</b>                                                                                      |                               |    |                 |                 |                  |
|                                                                   |                | Were all COCs included in the LCS?                                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were LCSs analyzed at the required frequency?                                                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                       | X                             |    |                 |                 |                  |
|                                                                   |                | Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?    | X                             |    |                 |                 |                  |
|                                                                   |                | Was the LCSD RPD within QC limits?                                                                                            |                               |    | X               |                 |                  |
| R7                                                                | OI             | <b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>                                                                |                               |    |                 |                 |                  |
|                                                                   |                | Were the project/method specified analytes included in the MS and MSD?                                                        | X                             |    |                 |                 |                  |
|                                                                   |                | Were MS/MSD analyzed at the appropriate frequency?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                         |                               | X  |                 |                 | 2                |
|                                                                   |                | Were MS/MSD RPDs within laboratory QC limits?                                                                                 | X                             |    |                 |                 |                  |
| R8                                                                | OI             | <b>Analytical duplicate data</b>                                                                                              |                               |    |                 |                 |                  |
|                                                                   |                | Were appropriate analytical duplicates analyzed for each matrix?                                                              | X                             |    |                 |                 |                  |
|                                                                   |                | Were analytical duplicates analyzed at the appropriate frequency?                                                             | X                             |    |                 |                 |                  |
|                                                                   |                | Were RPDs or relative standard deviations within the laboratory QC limits?                                                    | X                             |    |                 |                 |                  |
| R9                                                                | OI             | <b>Method quantitation limits (MQLs):</b>                                                                                     |                               |    |                 |                 |                  |
|                                                                   |                | Are the MQLs for each method analyte included in the laboratory data package?                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                      | X                             |    |                 |                 |                  |
|                                                                   |                | Are unadjusted MQLs included in the laboratory data package?                                                                  | X                             |    |                 |                 |                  |
| R10                                                               | OI             | <b>Other problems/anomalies</b>                                                                                               |                               |    |                 |                 |                  |
|                                                                   |                | Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were all necessary corrective actions performed for the reported data?                                                        | X                             |    |                 |                 |                  |

2. = 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).

**Appendix A (cont'd): Laboratory Review Checklist: Reportable Data**

Laboratory Name: Accutest Laboratories Gulf Coast

LRC Date: 3/14/2007

Project Name: Longhom

Laboratory Job Number: T16411

Reviewer Name: Ron Martino

Prep Batch Number(s):

| # <sup>1</sup> | A <sup>2</sup> | Description                                                                                            | Yes | No | NA <sup>3</sup> | NR <sup>4</sup> | ER# <sup>5</sup> |
|----------------|----------------|--------------------------------------------------------------------------------------------------------|-----|----|-----------------|-----------------|------------------|
| S1             | OI             | <b>Initial calibration (ICAL)</b>                                                                      |     |    |                 |                 |                  |
|                |                | Were response factors and/or relative response factors for each analyte within QC limits?              | X   |    |                 |                 |                  |
|                |                | Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |                 |                 |                  |
|                |                | Was the number of standards recommended in the method used for all analytes?                           | X   |    |                 |                 |                  |
|                |                | Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |                 |                 |                  |
|                |                | Are ICAL data available for all instruments used?                                                      | X   |    |                 |                 |                  |
|                |                | 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</b>       |     |    |                 |                 |                  |
|                |                | Was the CCV analyzed at the method-required frequency?                                                 | X   |    |                 |                 |                  |
|                |                | Were percent differences for each analyte within the method-required QC limits?                        | X   |    |                 |                 |                  |
|                |                | Was the ICAL curve verified for each analyte?                                                          | X   |    |                 |                 |                  |
|                |                | Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |                 |                 |                  |
| S3             | O              | <b>Mass spectral tuning:</b>                                                                           |     |    |                 |                 |                  |
|                |                | Was the appropriate compound for the method used for tuning?                                           | X   |    |                 |                 |                  |
|                |                | Were ion abundance data within the method-required QC limits?                                          | X   |    |                 |                 |                  |
| S4             | O              | <b>Internal standards (IS):</b>                                                                        |     |    |                 |                 |                  |
|                |                | 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 or ISO/IEC 17025 section</b>        |     |    |                 |                 |                  |
|                |                | Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |                 |                 |                  |
|                |                | Were data associated with manual integrations flagged on the raw data?                                 | X   |    |                 |                 |                  |
| S6             | O              | <b>Dual column confirmation</b>                                                                        |     |    |                 |                 |                  |
|                |                | Did dual column confirmation results meet the method-required QC?                                      | X   |    |                 |                 |                  |
| S7             | O              | <b>Tentatively identified compounds (TICs):</b>                                                        |     |    |                 |                 |                  |
|                |                | 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>                                                        |     |    |                 |                 |                  |
|                |                | Were percent recoveries within method QC limits?                                                       |     |    | X               |                 |                  |
|                | I              | <b>Serial dilutions, post digestion spikes, and method of standard additions</b>                       |     |    |                 |                 |                  |
|                |                | 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>                                                            |     |    |                 |                 |                  |
|                |                | Was a MDL study performed for each reported analyte?                                                   | X   |    |                 |                 |                  |
|                |                | Is the MDL either adjusted or supported by the analysis of DCCs?                                       | X   |    |                 |                 |                  |
| S11            | OI             | <b>Proficiency test reports:</b>                                                                       |     |    |                 |                 |                  |
|                |                | Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |                 |                 |                  |
| S12            | OI             | <b>Standards documentation</b>                                                                         |     |    |                 |                 |                  |
|                |                | Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |                 |                 |                  |
| S13            | OI             | <b>Compound/analyte identification procedures</b>                                                      |     |    |                 |                 |                  |
|                |                | Are the procedures for compound/analyte identification documented?                                     | X   |    |                 |                 |                  |
| S14            | OI             | <b>Demonstration of analyst competency (DOC)</b>                                                       |     |    |                 |                 |                  |
|                |                | Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?                                       | X   |    |                 |                 |                  |
|                |                | 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 or ISO/IEC 17025 Section 5)</b>     |     |    |                 |                 |                  |
|                |                | 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>                                                |     |    |                 |                 |                  |
|                |                | Are laboratory SOPs current and on file for each method performed?                                     | X   |    |                 |                 |                  |

- 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.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- NA = Not applicable.
- NR = Not Reviewed.
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

|                                                   |                                                                                                                                                                             |                               |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Laboratory Name: Accutest Laboratories Gulf Coast |                                                                                                                                                                             | LRC Date: 3/14/2007           |
| Project Name: Longhorn                            |                                                                                                                                                                             | Laboratory Job Number: T16411 |
| Reviewer Name: Ron Martino                        |                                                                                                                                                                             | Prep Batch Number(s):         |
| <b>ER #<sup>1</sup></b>                           | <b>DESCRIPTION</b>                                                                                                                                                          |                               |
| 1                                                 | For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SQL/MDL is defined in the report as the MDL. |                               |
| 2                                                 | All anomalies are discussed in the case narrative.                                                                                                                          |                               |

ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)





## GC/MS Volatiles

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2305-MB | F0078974.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-1, T16411-2, T16411-3

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2305-MB | F0078974.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-1, T16411-2, T16411-3

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 100% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93% 66-139%  |
| 2037-26-5  | Toluene-D8            | 106% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 113% 84-150% |

5.1.1  
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**Method Blank Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2306-MB | F0078999.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-10

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2306-MB | F0078999.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-10

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 101% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94% 66-139%  |
| 2037-26-5  | Toluene-D8            | 110% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 119% 84-150% |

5.1.2  
5

**Method Blank Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2307-MB | F0079026.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-8

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2307-MB | F0079026.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-8

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 101% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 96% 66-139%  |
| 2037-26-5  | Toluene-D8            | 107% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 129% 84-150% |

5.1.3  
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**Method Blank Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2309-MB | F0079058.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-7, T16411-9, T16411-11

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |



Method Blank Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2309-MB | F0079058.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16411-7, T16411-9, T16411-11

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 105% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 88% 66-139%  |
| 2037-26-5  | Toluene-D8            | 109% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 126% 84-150% |

5.1.4  
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**Method Blank Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2311-MB | F0079093.D | 1  | 03/05/07 | LJ | n/a       | n/a        | VF2311           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-8

| CAS No.  | Compound                 | Result | RL  | MDL  | Units | Q |
|----------|--------------------------|--------|-----|------|-------|---|
| 156-59-2 | cis-1,2-Dichloroethylene | ND     | 2.0 | 0.83 | ug/l  |   |
| 79-01-6  | Trichloroethylene        | ND     | 2.0 | 0.63 | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 104% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98% 66-139%  |
| 2037-26-5  | Toluene-D8            | 107% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 120% 84-150% |

**Blank Spike Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2305-BS | F0078972.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-1, T16411-2, T16411-3

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 93.3        | 75       | 31-158 |
| 71-43-2    | Benzene                    | 25            | 22.5        | 90       | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 20.4        | 82       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 21.2        | 85       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 21.9        | 88       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 25.0        | 100      | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 22.7        | 91       | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 21.6        | 86       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 25.2        | 101      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 22.7        | 91       | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 23.2        | 93       | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 21.9        | 88       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 21.8        | 87       | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 20.9        | 84       | 67-117 |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 21.3        | 85       | 65-116 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 21.6        | 86       | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 23.0        | 92       | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 22.4        | 90       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 22.2        | 89       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 99.1        | 79       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 101         | 81       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 21.6        | 86       | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 21.3        | 85       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 19.5        | 78       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 96.9        | 78       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 18.8        | 75       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 23.6        | 94       | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 20.8        | 83       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 21.7        | 87       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 24.5        | 98       | 72-128 |
| 108-88-3   | Toluene                    | 25            | 22.5        | 90       | 70-121 |
| 79-01-6    | Trichloroethylene          | 25            | 23.6        | 94       | 69-120 |
| 75-01-4    | Vinyl chloride             | 25            | 23.0        | 92       | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 67.4        | 90       | 72-120 |

Blank Spike Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2305-BS | F0078972.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-1, T16411-2, T16411-3

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%  | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94%  | 66-139% |
| 2037-26-5  | Toluene-D8            | 102% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% | 84-150% |

5.2.1  
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Blank Spike Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| VF2306-BS2 | F0078998.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-10

| CAS No. | Compound | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
|---------|----------|---------------|-------------|----------|--------|

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%  | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93%  | 66-139% |
| 2037-26-5  | Toluene-D8            | 103% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 106% | 84-150% |

**Blank Spike Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2307-BS | F0079025.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-8

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 99.0        | 79       | 31-158 |
| 71-43-2    | Benzene                    | 25            | 23.6        | 94       | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 22.3        | 89       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 21.2        | 85       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 22.9        | 92       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 25.6        | 102      | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 24.3        | 97       | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 22.4        | 90       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 26.9        | 108      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 24.8        | 99       | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 25.3        | 101      | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 24.6        | 98       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 23.9        | 96       | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 21.3        | 85       | 67-117 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 22.6        | 90       | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 24.0        | 96       | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 22.8        | 91       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 23.0        | 92       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 104         | 83       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 110         | 88       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 23.1        | 92       | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 23.8        | 95       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 22.4        | 90       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 104         | 83       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 19.0        | 76       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 26.0        | 104      | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 20.1        | 80       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 21.4        | 86       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 25.2        | 101      | 72-128 |
| 108-88-3   | Toluene                    | 25            | 23.5        | 94       | 70-121 |
| 75-01-4    | Vinyl chloride             | 25            | 25.7        | 103      | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 69.3        | 92       | 72-120 |

Blank Spike Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2307-BS | F0079025.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16411-8

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%  | 66-139% |
| 2037-26-5  | Toluene-D8            | 102% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 84-150% |

**Blank Spike Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2309-BS | F0079056.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-7, T16411-9, T16411-11

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 72.4        | 58       | 31-158 |
| 71-43-2    | Benzene                    | 25            | 23.9        | 96       | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 21.6        | 86       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 20.5        | 82       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 24.4        | 98       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 23.6        | 94       | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 24.5        | 98       | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 20.4        | 82       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 27.5        | 110      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 23.9        | 96       | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 22.5        | 90       | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 21.3        | 85       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 23.3        | 93       | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 21.1        | 84       | 67-117 |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 23.1        | 92       | 65-116 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 23.2        | 93       | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 22.8        | 91       | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 22.0        | 88       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 24.4        | 98       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 78.5        | 63       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 83.3        | 67       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 19.8        | 79       | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 18.5        | 74       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 19.5        | 78       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 75.7        | 61       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 20.0        | 80       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 26.6        | 106      | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 18.9        | 76       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 20.6        | 82       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 28.1        | 112      | 72-128 |
| 108-88-3   | Toluene                    | 25            | 24.7        | 99       | 70-121 |
| 79-01-6    | Trichloroethylene          | 25            | 25.1        | 100      | 69-120 |
| 75-01-4    | Vinyl chloride             | 25            | 19.7        | 79       | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 74.6        | 99       | 72-120 |



Blank Spike Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2309-BS | F0079056.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-7, T16411-9, T16411-11

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 92%  | 66-139% |
| 2037-26-5  | Toluene-D8            | 106% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 106% | 84-150% |

Blank Spike Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2311-BS | F0079092.D | 1  | 03/05/07 | LJ | n/a       | n/a        | VF2311           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16411-8

| CAS No.  | Compound                 | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|----------|--------------------------|---------------|-------------|----------|--------|
| 156-59-2 | cis-1,2-Dichloroethylene | 25            | 22.9        | 92       | 65-116 |
| 79-01-6  | Trichloroethylene        | 25            | 24.3        | 97       | 69-120 |

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105% | 66-139% |
| 2037-26-5  | Toluene-D8            | 105% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 104% | 84-150% |

**Matrix Spike/Matrix Spike Duplicate Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16395-2MS  | F0078979.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |
| T16395-2MSD | F0078980.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |
| T16395-2    | F0078978.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-1, T16411-2, T16411-3

| CAS No.    | Compound                   | T16395-2<br>ug/l | Q | Spike<br>ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|---|---------------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | 50 U             |   | 125           | 107        | 86      | 97.6        | 78       | 9   | 39-130/26         |
| 71-43-2    | Benzene                    | 2.0 U            |   | 25            | 24.7       | 99      | 25.2        | 101      | 2   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | 2.0 U            |   | 25            | 22.6       | 90      | 23.2        | 93       | 3   | 64-119/22         |
| 75-25-2    | Bromoform                  | 2.0 U            |   | 25            | 23.9       | 96      | 22.7        | 91       | 5   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | 2.0 U            |   | 25            | 24.3       | 97      | 25.0        | 100      | 3   | 72-118/20         |
| 75-00-3    | Chloroethane               | 2.0 U            |   | 25            | 25.7       | 103     | 25.4        | 102      | 1   | 60-136/25         |
| 67-66-3    | Chloroform                 | 2.0 U            |   | 25            | 25.0       | 100     | 25.3        | 101      | 1   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | 2.0 U            |   | 25            | 23.8       | 95      | 24.2        | 97       | 2   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | 2.0 U            |   | 25            | 27.6       | 110     | 28.0        | 112      | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 2.0 U            |   | 25            | 25.8       | 103     | 26.6        | 106      | 3   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 2.0 U            |   | 25            | 25.8       | 103     | 25.6        | 102      | 1   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | 2.0 U            |   | 25            | 25.4       | 102     | 24.2        | 97       | 5   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | 2.0 U            |   | 25            | 24.6       | 98      | 25.0        | 100      | 2   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | 2.0 U            |   | 25            | 23.1       | 92      | 22.8        | 91       | 1   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 2.0 U            |   | 25            | 23.6       | 94      | 24.2        | 97       | 3   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 2.0 U            |   | 25            | 23.3       | 93      | 24.0        | 96       | 3   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.0 U            |   | 25            | 25.0       | 100     | 25.5        | 102      | 2   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 2.0 U            |   | 25            | 24.4       | 98      | 24.8        | 99       | 2   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | 2.0 U            |   | 25            | 24.3       | 97      | 24.9        | 100      | 2   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | 10 U             |   | 125           | 119        | 95      | 111         | 89       | 7   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | 10 U             |   | 125           | 124        | 99      | 115         | 92       | 8   | 41-133/22         |
| 74-83-9    | Methyl bromide             | 2.0 U            |   | 25            | 23.7       | 95      | 22.6        | 90       | 5   | 47-129/27         |
| 74-87-3    | Methyl chloride            | 2.0 U            |   | 25            | 24.1       | 96      | 22.2        | 89       | 8   | 45-133/24         |
| 75-09-2    | Methylene chloride         | 5.0 U            |   | 25            | 23.4       | 94      | 23.2        | 93       | 1   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | 10 U             |   | 125           | 114        | 91      | 105         | 84       | 8   | 43-125/29         |
| 100-42-5   | Styrene                    | 2.0 U            |   | 25            | 20.3       | 81      | 20.7        | 83       | 2   | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 2.0 U            |   | 25            | 26.5       | 106     | 27.2        | 109      | 3   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 2.0 U            |   | 25            | 22.6       | 90      | 21.1        | 84       | 7   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | 2.0 U            |   | 25            | 23.7       | 95      | 23.5        | 94       | 1   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | 2.0 U            |   | 25            | 26.6       | 106     | 27.4        | 110      | 3   | 69-132/21         |
| 108-88-3   | Toluene                    | 2.0 U            |   | 25            | 24.6       | 98      | 25.5        | 102      | 4   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 2.0 U            |   | 25            | 25.0       | 100     | 25.4        | 102      | 2   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | 2.0 U            |   | 25            | 25.7       | 103     | 24.0        | 96       | 7   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | 6.0 U            |   | 75            | 74.5       | 99      | 76.1        | 101      | 2   | 71-122/16         |

**Matrix Spike/Matrix Spike Duplicate Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16395-2MS  | F0078979.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |
| T16395-2MSD | F0078980.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |
| T16395-2    | F0078978.D | 1  | 02/28/07 | LJ | n/a       | n/a        | VF2305           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-1, T16411-2, T16411-3

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16395-2 | Limits  |
|------------|-----------------------|------|------|----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 99%  | 104% | 102%     | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%  | 97%  | 101%     | 66-139% |
| 2037-26-5  | Toluene-D8            | 103% | 107% | 109%     | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 100% | 118%     | 84-150% |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| T16411-10MS  | F0079015.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10MSD | F0079016.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10    | F0079014.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-10

| CAS No.    | Compound                   | T16411-10<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|-------------------|------------|------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | 50 U              |            | 125  | 96.7       | 77      | 84.7        | 68       | 13  | 39-130/26         |
| 71-43-2    | Benzene                    | 2.0 U             |            | 25   | 24.3       | 97      | 24.5        | 98       | 1   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | 2.0 U             |            | 25   | 22.3       | 89      | 22.3        | 89       | 0   | 64-119/22         |
| 75-25-2    | Bromoform                  | 2.0 U             |            | 25   | 20.9       | 84      | 19.9        | 80       | 5   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | 2.0 U             |            | 25   | 23.5       | 94      | 23.6        | 94       | 0   | 72-118/20         |
| 75-00-3    | Chloroethane               | 2.0 U             |            | 25   | 26.6       | 106     | 25.2        | 101      | 5   | 60-136/25         |
| 67-66-3    | Chloroform                 | 2.0 U             |            | 25   | 24.8       | 99      | 24.9        | 100      | 0   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | 2.0 U             |            | 25   | 22.6       | 90      | 22.7        | 91       | 0   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | 2.0 U             |            | 25   | 27.1       | 108     | 27.3        | 109      | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 2.0 U             |            | 25   | 25.5       | 102     | 25.1        | 100      | 2   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 2.0 U             |            | 25   | 25.6       | 102     | 24.8        | 99       | 3   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | 2.0 U             |            | 25   | 24.2       | 97      | 22.4        | 90       | 8   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | 2.0 U             |            | 25   | 23.9       | 96      | 23.7        | 95       | 1   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | 2.0 U             |            | 25   | 21.6       | 86      | 21.0        | 84       | 3   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 1.5               | J          | 25   | 23.8       | 89      | 24.4        | 92       | 2   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 2.0 U             |            | 25   | 19.7       | 79      | 20.0        | 80       | 2   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.0 U             |            | 25   | 24.2       | 97      | 24.2        | 97       | 0   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 2.0 U             |            | 25   | 19.8       | 79      | 19.5        | 78       | 2   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | 2.0 U             |            | 25   | 22.8       | 91      | 22.9        | 92       | 0   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | 10 U              |            | 125  | 102        | 82      | 97.3        | 78       | 5   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | 10 U              |            | 125  | 109        | 87      | 103         | 82       | 6   | 41-133/22         |
| 74-83-9    | Methyl bromide             | 2.0 U             |            | 25   | 23.4       | 94      | 21.9        | 88       | 7   | 47-129/27         |
| 74-87-3    | Methyl chloride            | 2.0 U             |            | 25   | 25.8       | 103     | 23.3        | 93       | 10  | 45-133/24         |
| 75-09-2    | Methylene chloride         | 5.0 U             |            | 25   | 22.7       | 91      | 22.2        | 89       | 2   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | 10 U              |            | 125  | 98.2       | 79      | 90.5        | 72       | 8   | 43-125/29         |
| 100-42-5   | Styrene                    | 2.0 U             |            | 25   | 1.8        | 7*      | 2.0         | 8*       | 11  | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 2.0 U             |            | 25   | 27.0       | 108     | 27.0        | 108      | 0   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 2.0 U             |            | 25   | 19.8       | 79      | 19.0        | 76       | 4   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | 2.0 U             |            | 25   | 21.3       | 85      | 20.8        | 83       | 2   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | 2.0 U             |            | 25   | 24.8       | 99      | 25.2        | 101      | 2   | 69-132/21         |
| 108-88-3   | Toluene                    | 2.0 U             |            | 25   | 23.3       | 93      | 23.9        | 96       | 3   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 4.8               |            | 25   | 29.4       | 98      | 29.6        | 99       | 1   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | 2.0 U             |            | 25   | 26.8       | 107     | 24.9        | 100      | 7   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | 6.0 U             |            | 75   | 69.9       | 93      | 69.3        | 92       | 1   | 71-122/16         |

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| T16411-10MS  | F0079015.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10MSD | F0079016.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10    | F0079014.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-10

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16411-10 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 104% | 102%      | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%  | 97%  | 97%       | 66-139% |
| 2037-26-5  | Toluene-D8            | 105% | 103% | 107%      | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 101% | 119%      | 84-150% |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample                 | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|------------|----|----------|----|-----------|------------|------------------|
| T16431-22MS            | F0079032.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |
| T16431-22MSD           | F0079033.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |
| T16431-22 <sup>a</sup> | F0079031.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-8

| CAS No.    | Compound                   | T16431-22<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|-------------------|------------|------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | 4.8               | J          | 125  | 87.9       | 66      | 83.2        | 63       | 5   | 39-130/26         |
| 71-43-2    | Benzene                    | ND                |            | 25   | 22.1       | 88      | 19.7        | 79       | 11  | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | ND                |            | 25   | 20.6       | 82      | 18.8        | 75       | 9   | 64-119/22         |
| 75-25-2    | Bromoform                  | ND                |            | 25   | 18.9       | 76      | 17.1        | 68       | 10  | 50-123/28         |
| 108-90-7   | Chlorobenzene              | ND                |            | 25   | 21.3       | 85      | 19.0        | 76       | 11  | 72-118/20         |
| 75-00-3    | Chloroethane               | ND                |            | 25   | 26.8       | 107     | 23.2        | 93       | 14  | 60-136/25         |
| 67-66-3    | Chloroform                 | ND                |            | 25   | 22.9       | 92      | 20.3        | 81       | 12  | 65-120/20         |
| 75-15-0    | Carbon disulfide           | ND                |            | 25   | 20.7       | 83      | 17.4        | 70       | 17  | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | ND                |            | 25   | 25.0       | 100     | 20.1        | 80       | 22  | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | ND                |            | 25   | 23.7       | 95      | 21.2        | 85       | 11  | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | ND                |            | 25   | 23.0       | 92      | 18.9        | 76       | 20  | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | ND                |            | 25   | 22.3       | 89      | 19.9        | 80       | 11  | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | ND                |            | 25   | 22.5       | 90      | 21.0        | 84       | 7   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | ND                |            | 25   | 18.8       | 75      | 17.8        | 71       | 5   | 60-123/23         |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND                |            | 25   | 20.4       | 82      | 18.3        | 73       | 11  | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | ND                |            | 25   | 21.7       | 87      | 19.1        | 76       | 13  | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND                |            | 25   | 20.1       | 80      | 18.0        | 72       | 11  | 65-129/23         |
| 100-41-4   | Ethylbenzene               | ND                |            | 25   | 21.4       | 86      | 18.5        | 74       | 15  | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | ND                |            | 125  | 89.2       | 71      | 83.2        | 67       | 7   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | ND                |            | 125  | 99.1       | 79      | 90.4        | 72       | 9   | 41-133/22         |
| 74-83-9    | Methyl bromide             | ND                |            | 25   | 23.8       | 95      | 21.9        | 88       | 8   | 47-129/27         |
| 74-87-3    | Methyl chloride            | ND                |            | 25   | 26.1       | 104     | 23.1        | 92       | 12  | 45-133/24         |
| 75-09-2    | Methylene chloride         | ND                |            | 25   | 21.6       | 86      | 20.0        | 80       | 8   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | ND                |            | 125  | 91.4       | 73      | 84.5        | 68       | 8   | 43-125/29         |
| 100-42-5   | Styrene                    | ND                |            | 25   | 16.4       | 66      | 14.2        | 57*      | 14  | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | ND                |            | 25   | 24.5       | 98      | 19.8        | 79       | 21  | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND                |            | 25   | 19.4       | 78      | 18.7        | 75       | 4   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | ND                |            | 25   | 19.3       | 77      | 18.3        | 73       | 5   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | ND                |            | 25   | 22.5       | 90      | 18.9        | 76       | 17  | 69-132/21         |
| 108-88-3   | Toluene                    | ND                |            | 25   | 21.9       | 88      | 19.7        | 79       | 11  | 70-123/18         |
| 75-01-4    | Vinyl chloride             | ND                |            | 25   | 27.1       | 108     | 21.9        | 88       | 21  | 51-147/24         |
| 1330-20-7  | Xylene (total)             | ND                |            | 75   | 64.8       | 86      | 56.0        | 75       | 15  | 71-122/16         |

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T16411  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample                 | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------------------|------------|----|----------|----|-----------|------------|------------------|
| T16431-22MS            | F0079032.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |
| T16431-22MSD           | F0079033.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |
| T16431-22 <sup>a</sup> | F0079031.D | 1  | 03/02/07 | LJ | n/a       | n/a        | VF2307           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16411-8

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16431-22 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 98%  | 103%      | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%  | 89%  | 96%       | 66-139% |
| 2037-26-5  | Toluene-D8            | 106% | 106% | 109%      | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 110% | 113% | 129%      | 84-150% |

(a) Suspected laboratory contaminant.



**Matrix Spike/Matrix Spike Duplicate Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16440-7MS  | F0079071.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| T16440-7MSD | F0079072.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| T16440-7    | F0079070.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-7, T16411-9, T16411-11

| CAS No.    | Compound                   | T16440-7<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|------------|------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | ND               |            | 125  | 62.7       | 50      | 57.7        | 46       | 8   | 39-130/26         |
| 71-43-2    | Benzene                    | ND               |            | 25   | 23.6       | 94      | 23.5        | 94       | 0   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | ND               |            | 25   | 20.8       | 83      | 20.3        | 81       | 2   | 64-119/22         |
| 75-25-2    | Bromoform                  | ND               |            | 25   | 15.9       | 64      | 17.1        | 68       | 7   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | ND               |            | 25   | 23.3       | 93      | 23.5        | 94       | 1   | 72-118/20         |
| 75-00-3    | Chloroethane               | ND               |            | 25   | 24.4       | 98      | 24.3        | 97       | 0   | 60-136/25         |
| 67-66-3    | Chloroform                 | ND               |            | 25   | 23.8       | 95      | 24.1        | 96       | 1   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | ND               |            | 25   | 20.9       | 84      | 21.3        | 85       | 2   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | ND               |            | 25   | 26.5       | 106     | 26.9        | 108      | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 4.2              |            | 25   | 28.2       | 96      | 28.4        | 97       | 1   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 6.4              |            | 25   | 28.2       | 87      | 28.0        | 86       | 1   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | ND               |            | 25   | 19.9       | 80      | 19.6        | 78       | 2   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | ND               |            | 25   | 22.7       | 91      | 22.7        | 91       | 0   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | ND               |            | 25   | 18.5       | 74      | 18.0        | 72       | 3   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 31.9             |            | 25   | 53.1       | 85      | 53.6        | 87       | 1   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND               |            | 25   | 20.3       | 81      | 20.8        | 83       | 2   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.97             | J          | 25   | 23.6       | 91      | 24.0        | 92       | 2   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND               |            | 25   | 19.5       | 78      | 19.3        | 77       | 1   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | ND               |            | 25   | 23.7       | 95      | 23.6        | 94       | 0   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | ND               |            | 125  | 63.9       | 51      | 64.5        | 52       | 1   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | ND               |            | 125  | 73.5       | 59      | 71.9        | 58       | 2   | 41-133/22         |
| 74-83-9    | Methyl bromide             | ND               |            | 25   | 21.2       | 85      | 20.3        | 81       | 4   | 47-129/27         |
| 74-87-3    | Methyl chloride            | ND               |            | 25   | 21.1       | 84      | 20.0        | 80       | 5   | 45-133/24         |
| 75-09-2    | Methylene chloride         | ND               |            | 25   | 20.7       | 83      | 20.6        | 82       | 0   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | ND               |            | 125  | 66.3       | 53      | 64.8        | 52       | 2   | 43-125/29         |
| 100-42-5   | Styrene                    | ND               |            | 25   | 17.8       | 71      | 17.6        | 70       | 1   | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | ND               |            | 25   | 25.6       | 102     | 26.3        | 105      | 3   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND               |            | 25   | 16.9       | 68      | 17.1        | 68       | 1   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | ND               |            | 25   | 18.1       | 72      | 17.9        | 72       | 1   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | ND               |            | 25   | 26.4       | 106     | 26.4        | 106      | 0   | 69-132/21         |
| 108-88-3   | Toluene                    | ND               |            | 25   | 24.1       | 96      | 24.1        | 96       | 0   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 35.2             |            | 25   | 59.0       | 95      | 58.8        | 94       | 0   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | ND               |            | 25   | 22.8       | 91      | 21.7        | 87       | 5   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | ND               |            | 75   | 71.6       | 95      | 71.9        | 96       | 0   | 71-122/16         |

**Matrix Spike/Matrix Spike Duplicate Summary**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16440-7MS  | F0079071.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| T16440-7MSD | F0079072.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |
| T16440-7    | F0079070.D | 1  | 03/03/07 | RR | n/a       | n/a        | VF2309           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-7, T16411-9, T16411-11

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16440-7 | Limits  |
|------------|-----------------------|------|------|----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 103% | 101% | 103%     | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 85%  | 84%  | 86%      | 66-139% |
| 2037-26-5  | Toluene-D8            | 107% | 106% | 113%     | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 109% | 106% | 143%     | 84-150% |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 1

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| T16440-12MS  | F0079096.D | 1  | 03/05/07 | LJ | n/a       | n/a        | VF2311           |
| T16440-12MSD | F0079097.D | 1  | 03/05/07 | LJ | n/a       | n/a        | VF2311           |
| T16440-12    | F0079095.D | 1  | 03/05/07 | LJ | n/a       | n/a        | VF2311           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16411-8

| CAS No.  | Compound                 | T16440-12<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|----------|--------------------------|-------------------|------------|------------|---------|-------------|----------|-----|-------------------|
| 156-59-2 | cis-1,2-Dichloroethylene | ND                | 25         | 23.7       | 95      | 22.8        | 91       | 4   | 62-120/24         |
| 79-01-6  | Trichloroethylene        | ND                | 25         | 25.1       | 100     | 23.7        | 95       | 6   | 70-120/19         |

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16440-12 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 110% | 106% | 110%      | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 105% | 105%      | 66-139% |
| 2037-26-5  | Toluene-D8            | 105% | 103% | 111%      | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 100% | 123%      | 84-150% |

**Instrument Performance Check (BFB)**

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**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant**Sample:** VF2276-BFB**Injection Date:** 02/12/07**Lab File ID:** F0078488.D**Injection Time:** 17:39**Instrument ID:** GCMSF

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 10313         | 15.8                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 24771         | 38.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 65123         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4343          | 6.7                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 344           | 0.53 (0.67) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 51261         | 78.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3763          | 5.8 (7.3) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 49896         | 76.6 (97.3) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3355          | 5.2 (6.7) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID  |
|----------------|-------------|---------------|---------------|--------------|-------------------|
| VF2276-IC2276  | F0078490.D  | 02/12/07      | 18:42         | 01:03        | Initial cal 200   |
| VF2276-IC2276  | F0078491.D  | 02/12/07      | 19:14         | 01:35        | Initial cal 400   |
| VF2276-ICC2276 | F0078492.D  | 02/12/07      | 19:46         | 02:07        | Initial cal 1000  |
| VF2276-IC2276  | F0078493.D  | 02/12/07      | 20:18         | 02:39        | Initial cal 2000  |
| VF2276-IC2276  | F0078494.D  | 02/12/07      | 20:49         | 03:10        | Initial cal 4000  |
| VF2276-IC2276  | F0078495.D  | 02/12/07      | 21:21         | 03:42        | Initial cal 10000 |

**Instrument Performance Check (BFB)**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VF2305-BFB      | <b>Injection Date:</b> 02/28/07 |
| <b>Lab File ID:</b> F0078963.D | <b>Injection Time:</b> 14:36    |
| <b>Instrument ID:</b> GCMSF    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 7281          | 16.0                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 18364         | 40.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 45541         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2793          | 6.1                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 107           | 0.23 (0.27) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 39123         | 85.9                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3023          | 6.6 (7.7) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 37355         | 82.0 (95.5) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2802          | 6.2 (7.5) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|----------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2305-IC2305  | F0078964.D  | 02/28/07      | 15:10         | 00:34        | Initial cal 2                              |
| VF2305-IC2305  | F0078965.D  | 02/28/07      | 15:41         | 01:05        | Initial cal 5                              |
| VF2305-IC2305  | F0078966.D  | 02/28/07      | 16:12         | 01:36        | Initial cal 20                             |
| VF2305-ICC2305 | F0078967.D  | 02/28/07      | 16:44         | 02:08        | Initial cal 40                             |
| VF2305-IC2305  | F0078968.D  | 02/28/07      | 17:16         | 02:40        | Initial cal 70                             |
| VF2305-IC2305  | F0078969.D  | 02/28/07      | 17:46         | 03:10        | Initial cal 100                            |
| VF2305-IC2305  | F0078970.D  | 02/28/07      | 18:18         | 03:42        | Initial cal 200                            |
| VF2305-BS      | F0078972.D  | 02/28/07      | 19:21         | 04:45        | Blank Spike                                |
| VF2305-MB      | F0078974.D  | 02/28/07      | 20:24         | 05:48        | Method Blank                               |
| ZZZZZZ         | F0078975.D  | 02/28/07      | 20:55         | 06:19        | (unrelated sample)                         |
| ZZZZZZ         | F0078976.D  | 02/28/07      | 21:26         | 06:50        | (unrelated sample)                         |
| ZZZZZZ         | F0078977.D  | 02/28/07      | 21:58         | 07:22        | (unrelated sample)                         |
| T16395-2       | F0078978.D  | 02/28/07      | 22:30         | 07:54        | (used for QC only; not part of job T16411) |
| T16395-2MS     | F0078979.D  | 02/28/07      | 23:00         | 08:24        | Matrix Spike                               |
| T16395-2MSD    | F0078980.D  | 02/28/07      | 23:32         | 08:56        | Matrix Spike Duplicate                     |
| ZZZZZZ         | F0078981.D  | 03/01/07      | 00:03         | 09:27        | (unrelated sample)                         |
| T16411-1       | F0078982.D  | 03/01/07      | 00:35         | 09:59        | LHSMW22-FEB2007                            |
| T16411-2       | F0078983.D  | 03/01/07      | 01:06         | 10:30        | 17WW01-FEB2007                             |
| T16411-3       | F0078984.D  | 03/01/07      | 01:38         | 11:02        | 17WW01-FEB2007-FD                          |
| ZZZZZZ         | F0078989.D  | 03/01/07      | 04:15         | 13:39        | (unrelated sample)                         |
| ZZZZZZ         | F0078990.D  | 03/01/07      | 04:47         | 14:11        | (unrelated sample)                         |
| ZZZZZZ         | F0078991.D  | 03/01/07      | 05:19         | 14:43        | (unrelated sample)                         |
| ZZZZZZ         | F0078992.D  | 03/01/07      | 05:50         | 15:14        | (unrelated sample)                         |

**Instrument Performance Check (BFB)**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2306-BFB  
**Lab File ID:** F0078994.D  
**Instrument ID:** GCMSF  
**Injection Date:** 03/01/07  
**Injection Time:** 07:50

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 6679          | 18.1                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 15417         | 41.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 36917         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2620          | 7.1                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.0 (0.0) <sup>a</sup>   | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 32187         | 87.2                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2345          | 6.4 (7.3) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 31168         | 84.4 (96.8) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2163          | 5.9 (6.9) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|---------------|-------------|---------------|---------------|--------------|------------------------|
| VF2306-CC2305 | F0078995.D  | 03/01/07      | 08:23         | 00:33        | Continuing cal 20      |
| VF2306-CC2276 | F0078996.D  | 03/01/07      | 08:55         | 01:05        | Continuing cal 1000    |
| VF2306-BS1    | F0078997.D  | 03/01/07      | 09:31         | 01:41        | Blank Spike            |
| VF2306-BS2    | F0078998.D  | 03/01/07      | 10:02         | 02:12        | Blank Spike            |
| VF2306-MB     | F0078999.D  | 03/01/07      | 10:34         | 02:44        | Method Blank           |
| ZZZZZZ        | F0079000.D  | 03/01/07      | 11:06         | 03:16        | (unrelated sample)     |
| T16411-4      | F0079001.D  | 03/01/07      | 11:37         | 03:47        | LHSMW19-FEB2007        |
| T16411-5      | F0079002.D  | 03/01/07      | 12:09         | 04:19        | 46WW02-FEB2007         |
| ZZZZZZ        | F0079003.D  | 03/01/07      | 12:41         | 04:51        | (unrelated sample)     |
| ZZZZZZ        | F0079004.D  | 03/01/07      | 13:12         | 05:22        | (unrelated sample)     |
| ZZZZZZ        | F0079005.D  | 03/01/07      | 13:44         | 05:54        | (unrelated sample)     |
| T16411-6      | F0079006.D  | 03/01/07      | 14:16         | 06:26        | 47WW14-FEB2007         |
| T16411-6      | F0079007.D  | 03/01/07      | 14:47         | 06:57        | 47WW14-FEB2007         |
| T16411-2      | F0079008.D  | 03/01/07      | 15:18         | 07:28        | 17WW01-FEB2007         |
| T16411-3      | F0079009.D  | 03/01/07      | 15:50         | 08:00        | 17WW01-FEB2007-FD      |
| ZZZZZZ        | F0079010.D  | 03/01/07      | 16:22         | 08:32        | (unrelated sample)     |
| ZZZZZZ        | F0079011.D  | 03/01/07      | 16:54         | 09:04        | (unrelated sample)     |
| ZZZZZZ        | F0079012.D  | 03/01/07      | 17:26         | 09:36        | (unrelated sample)     |
| ZZZZZZ        | F0079013.D  | 03/01/07      | 17:57         | 10:07        | (unrelated sample)     |
| T16411-10     | F0079014.D  | 03/01/07      | 18:28         | 10:38        | LHSMW18-FEB2007        |
| T16411-10MS   | F0079015.D  | 03/01/07      | 19:01         | 11:11        | Matrix Spike           |
| T16411-10MSD  | F0079016.D  | 03/01/07      | 19:33         | 11:43        | Matrix Spike Duplicate |
| ZZZZZZ        | F0079020.D  | 03/01/07      | 21:39         | 13:49        | (unrelated sample)     |
| ZZZZZZ        | F0079021.D  | 03/01/07      | 22:12         | 14:22        | (unrelated sample)     |

**Instrument Performance Check (BFB)**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2307-BFB  
**Lab File ID:** F0079023.D  
**Instrument ID:** GCMSF  
**Injection Date:** 03/01/07  
**Injection Time:** 23:15

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 6479          | 18.5                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 14099         | 40.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 34960         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2866          | 8.2                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.0 (0.0) <sup>a</sup>   | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 29845         | 85.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 1962          | 5.6 (6.6) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 28971         | 82.9 (97.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 1954          | 5.6 (6.7) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|---------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2307-CC2305 | F0079024.D  | 03/01/07      | 23:47         | 00:32        | Continuing cal 20                          |
| VF2307-BS     | F0079025.D  | 03/02/07      | 00:19         | 01:04        | Blank Spike                                |
| VF2307-MB     | F0079026.D  | 03/02/07      | 00:51         | 01:36        | Method Blank                               |
| ZZZZZZ        | F0079027.D  | 03/02/07      | 01:23         | 02:08        | (unrelated sample)                         |
| ZZZZZZ        | F0079028.D  | 03/02/07      | 01:54         | 02:39        | (unrelated sample)                         |
| ZZZZZZ        | F0079029.D  | 03/02/07      | 02:26         | 03:11        | (unrelated sample)                         |
| ZZZZZZ        | F0079030.D  | 03/02/07      | 02:57         | 03:42        | (unrelated sample)                         |
| T16431-22     | F0079031.D  | 03/02/07      | 03:29         | 04:14        | (used for QC only; not part of job T16411) |
| T16431-22MS   | F0079032.D  | 03/02/07      | 04:00         | 04:45        | Matrix Spike                               |
| T16431-22MSD  | F0079033.D  | 03/02/07      | 07:41         | 08:26        | Matrix Spike Duplicate                     |
| T16411-8      | F0079035.D  | 03/02/07      | 08:46         | 09:31        | 47WW13-FEB2007                             |

**Instrument Performance Check (BFB)**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VF2309-BFB      | <b>Injection Date:</b> 03/03/07 |
| <b>Lab File ID:</b> F0079054.D | <b>Injection Time:</b> 08:32    |
| <b>Instrument ID:</b> GCMSF    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 7788          | 16.9                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 18301         | 39.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 45997         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3005          | 6.5                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.0 (0.0) <sup>a</sup>   | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 38365         | 83.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2849          | 6.2 (7.4) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 37640         | 81.8 (98.1) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2468          | 5.4 (6.6) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|---------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2309-CC2305 | F0079055.D  | 03/03/07      | 09:18         | 00:46        | Continuing cal 40                          |
| VF2309-BS     | F0079056.D  | 03/03/07      | 10:03         | 01:31        | Blank Spike                                |
| VF2309-MB     | F0079058.D  | 03/03/07      | 11:19         | 02:47        | Method Blank                               |
| T16411-11     | F0079059.D  | 03/03/07      | 11:50         | 03:18        | TRIP BLANK                                 |
| T16411-7      | F0079060.D  | 03/03/07      | 12:22         | 03:50        | 47WW14-FEB2007-FD                          |
| T16411-7      | F0079061.D  | 03/03/07      | 12:53         | 04:21        | 47WW14-FEB2007-FD                          |
| T16411-9      | F0079063.D  | 03/03/07      | 13:57         | 05:25        | LHSMW04-FEB2007                            |
| ZZZZZZ        | F0079064.D  | 03/03/07      | 14:29         | 05:57        | (unrelated sample)                         |
| ZZZZZZ        | F0079065.D  | 03/03/07      | 15:01         | 06:29        | (unrelated sample)                         |
| ZZZZZZ        | F0079066.D  | 03/03/07      | 15:32         | 07:00        | (unrelated sample)                         |
| ZZZZZZ        | F0079067.D  | 03/03/07      | 16:04         | 07:32        | (unrelated sample)                         |
| ZZZZZZ        | F0079069.D  | 03/03/07      | 17:08         | 08:36        | (unrelated sample)                         |
| T16440-7      | F0079070.D  | 03/03/07      | 17:39         | 09:07        | (used for QC only; not part of job T16411) |
| T16440-7MS    | F0079071.D  | 03/03/07      | 18:10         | 09:38        | Matrix Spike                               |
| T16440-7MSD   | F0079072.D  | 03/03/07      | 18:42         | 10:10        | Matrix Spike Duplicate                     |
| ZZZZZZ        | F0079073.D  | 03/03/07      | 19:14         | 10:42        | (unrelated sample)                         |
| ZZZZZZ        | F0079074.D  | 03/03/07      | 19:46         | 11:14        | (unrelated sample)                         |
| ZZZZZZ        | F0079075.D  | 03/03/07      | 20:18         | 11:46        | (unrelated sample)                         |



**Instrument Performance Check (BFB)**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2311-BFB  
**Lab File ID:** F0079089.D  
**Instrument ID:** GCMSF

**Injection Date:** 03/05/07  
**Injection Time:** 12:14

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 8160          | 15.5                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 19856         | 37.7                     | Pass      |
| 95  | Base peak, 100% relative abundance | 52613         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 3596          | 6.8                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 204           | 0.39 (0.45) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 45728         | 86.9                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2949          | 5.6 (6.4) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 43893         | 83.4 (96.0) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2888          | 5.5 (6.6) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|---------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2311-CC2305 | F0079091.D  | 03/05/07      | 13:28         | 01:14        | Continuing cal 40                          |
| VF2311-BS     | F0079092.D  | 03/05/07      | 14:00         | 01:46        | Blank Spike                                |
| VF2311-MB     | F0079093.D  | 03/05/07      | 14:31         | 02:17        | Method Blank                               |
| ZZZZZZ        | F0079094.D  | 03/05/07      | 15:16         | 03:02        | (unrelated sample)                         |
| T16440-12     | F0079095.D  | 03/05/07      | 15:47         | 03:33        | (used for QC only; not part of job T16411) |
| T16440-12MS   | F0079096.D  | 03/05/07      | 16:18         | 04:04        | Matrix Spike                               |
| T16440-12MSD  | F0079097.D  | 03/05/07      | 16:48         | 04:34        | Matrix Spike Duplicate                     |
| ZZZZZZ        | F0079098.D  | 03/05/07      | 17:19         | 05:05        | (unrelated sample)                         |
| ZZZZZZ        | F0079099.D  | 03/05/07      | 17:51         | 05:37        | (unrelated sample)                         |
| ZZZZZZ        | F0079100.D  | 03/05/07      | 18:22         | 06:08        | (unrelated sample)                         |
| ZZZZZZ        | F0079104.D  | 03/05/07      | 20:27         | 08:13        | (unrelated sample)                         |
| ZZZZZZ        | F0079105.D  | 03/05/07      | 20:59         | 08:45        | (unrelated sample)                         |
| ZZZZZZ        | F0079106.D  | 03/05/07      | 21:30         | 09:16        | (unrelated sample)                         |
| ZZZZZZ        | F0079107.D  | 03/05/07      | 22:01         | 09:47        | (unrelated sample)                         |
| ZZZZZZ        | F0079108.D  | 03/05/07      | 22:32         | 10:18        | (unrelated sample)                         |
| T16411-8      | F0079109.D  | 03/05/07      | 23:03         | 10:49        | 47WW13-FEB2007                             |
| ZZZZZZ        | F0079110.D  | 03/05/07      | 23:35         | 11:21        | (unrelated sample)                         |
| ZZZZZZ        | F0079111.D  | 03/06/07      | 00:06         | 11:52        | (unrelated sample)                         |

**Volatile Internal Standard Area Summary**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> VF2305-ICC2305 | <b>Injection Date:</b> 02/28/07 |
| <b>Lab File ID:</b> F0078967.D   | <b>Injection Time:</b> 16:44    |
| <b>Instrument ID:</b> GCMSF      | <b>Method:</b> SW846 8260B      |

|                          | IS 1    |       | IS 2    |       | IS 3   |       |
|--------------------------|---------|-------|---------|-------|--------|-------|
|                          | AREA    | RT    | AREA    | RT    | AREA   | RT    |
| Check Std                | 813923  | 11.95 | 609604  | 16.02 | 248865 | 19.30 |
| Upper Limit <sup>a</sup> | 1627846 | 12.45 | 1219208 | 16.52 | 497730 | 19.80 |
| Lower Limit <sup>b</sup> | 406962  | 11.45 | 304802  | 15.52 | 124433 | 18.80 |

| Lab Sample ID | IS 1 AREA | RT    | IS 2 AREA | RT    | IS 3 AREA | RT    |
|---------------|-----------|-------|-----------|-------|-----------|-------|
| VF2305-BS     | 933349    | 11.95 | 693096    | 16.03 | 262848    | 19.30 |
| VF2305-MB     | 854827    | 11.95 | 606091    | 16.03 | 192974    | 19.31 |
| ZZZZZZ        | 838395    | 11.96 | 594327    | 16.03 | 175579    | 19.31 |
| ZZZZZZ        | 800333    | 11.95 | 570162    | 16.03 | 179344    | 19.31 |
| ZZZZZZ        | 787212    | 11.95 | 565898    | 16.03 | 182794    | 19.30 |
| T16395-2      | 744997    | 11.95 | 527050    | 16.03 | 160154    | 19.30 |
| T16395-2MS    | 776605    | 11.96 | 577525    | 16.04 | 224433    | 19.31 |
| T16395-2MSD   | 784273    | 11.95 | 577802    | 16.03 | 226133    | 19.30 |
| ZZZZZZ        | 804224    | 11.96 | 558124    | 16.03 | 150968    | 19.31 |
| T16411-1      | 737116    | 11.96 | 512441    | 16.04 | 137912    | 19.31 |
| T16411-2      | 744233    | 11.95 | 534298    | 16.03 | 142004    | 19.32 |
| T16411-3      | 741736    | 11.95 | 529029    | 16.04 | 136149    | 19.31 |
| ZZZZZZ        | 712319    | 11.96 | 491313    | 16.04 | 123437*   | 19.31 |
| ZZZZZZ        | 669573    | 11.96 | 465362    | 16.04 | 116108*   | 19.32 |
| ZZZZZZ        | 694687    | 11.96 | 481226    | 16.03 | 122927*   | 19.31 |
| ZZZZZZ        | 687951    | 11.95 | 478773    | 16.04 | 125041    | 19.31 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2306-CC2305 | <b>Injection Date:</b> 03/01/07 |
| <b>Lab File ID:</b> F0078995.D  | <b>Injection Time:</b> 08:23    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|--------------------------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 699201       | 11.94 | 525986       | 16.02 | 192418       | 19.30 |
| Upper Limit <sup>a</sup> | 1398402      | 12.44 | 1051972      | 16.52 | 384836       | 19.80 |
| Lower Limit <sup>b</sup> | 349601       | 11.44 | 262993       | 15.52 | 96209        | 18.80 |

| Lab<br>Sample ID | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|------------------|--------------|-------|--------------|-------|--------------|-------|
| VF2306-BS1       | 777387       | 11.94 | 579705       | 16.01 | 219016       | 19.30 |
| VF2306-BS2       | 816000       | 11.93 | 591535       | 16.01 | 206818       | 19.28 |
| VF2306-MB        | 806821       | 11.93 | 553209       | 16.02 | 163421       | 19.28 |
| ZZZZZZ           | 782363       | 11.93 | 537014       | 16.01 | 147308       | 19.28 |
| T16411-4         | 758389       | 11.93 | 519002       | 16.01 | 140295       | 19.27 |
| T16411-5         | 730503       | 11.92 | 505963       | 16.01 | 133214       | 19.28 |
| ZZZZZZ           | 713902       | 11.93 | 493376       | 16.00 | 130066       | 19.28 |
| ZZZZZZ           | 709648       | 11.93 | 489247       | 16.02 | 126540       | 19.28 |
| ZZZZZZ           | 697001       | 11.93 | 477711       | 16.00 | 126547       | 19.28 |
| T16411-6         | 693179       | 11.93 | 488543       | 16.01 | 121877       | 19.29 |
| T16411-6         | 684656       | 11.93 | 471501       | 16.01 | 114404       | 19.28 |
| T16411-2         | 670434       | 11.93 | 467470       | 16.00 | 117612       | 19.28 |
| T16411-3         | 610736       | 11.91 | 425298       | 16.00 | 114844       | 19.26 |
| ZZZZZZ           | 638047       | 11.92 | 449783       | 15.99 | 118479       | 19.26 |
| ZZZZZZ           | 598577       | 11.91 | 425000       | 16.00 | 114851       | 19.27 |
| ZZZZZZ           | 618266       | 11.91 | 428138       | 16.00 | 108080       | 19.26 |
| ZZZZZZ           | 597863       | 11.91 | 425430       | 15.99 | 116121       | 19.25 |
| T16411-10        | 617663       | 11.91 | 436613       | 15.99 | 122528       | 19.25 |
| T16411-10MS      | 620696       | 11.90 | 469833       | 15.98 | 178265       | 19.24 |
| T16411-10MSD     | 655046       | 11.90 | 491723       | 15.97 | 183495       | 19.25 |
| ZZZZZZ           | 625983       | 11.89 | 448435       | 15.97 | 117429       | 19.24 |
| ZZZZZZ           | 617306       | 11.89 | 441010       | 15.97 | 117597       | 19.24 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2307-CC2305 | <b>Injection Date:</b> 03/01/07 |
| <b>Lab File ID:</b> F0079024.D  | <b>Injection Time:</b> 23:47    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|--------------------------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 653774       | 11.90 | 495815       | 15.97 | 181399       | 19.25 |
| Upper Limit <sup>a</sup> | 1307548      | 12.40 | 991630       | 16.47 | 362798       | 19.75 |
| Lower Limit <sup>b</sup> | 326887       | 11.40 | 247908       | 15.47 | 90700        | 18.75 |

| Lab<br>Sample ID | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|------------------|--------------|-------|--------------|-------|--------------|-------|
| VF2307-BS        | 690510       | 11.91 | 521367       | 15.98 | 194408       | 19.25 |
| VF2307-MB        | 694833       | 11.90 | 485269       | 15.98 | 127001       | 19.25 |
| ZZZZZZ           | 677005       | 11.90 | 476761       | 15.98 | 127977       | 19.25 |
| ZZZZZZ           | 654215       | 11.90 | 460526       | 15.97 | 120232       | 19.25 |
| ZZZZZZ           | 642432       | 11.90 | 448048       | 15.98 | 115949       | 19.25 |
| ZZZZZZ           | 664112       | 11.90 | 457185       | 15.98 | 118763       | 19.24 |
| T16431-22        | 660969       | 11.90 | 462517       | 15.98 | 117947       | 19.25 |
| T16431-22MS      | 668468       | 11.90 | 497979       | 15.98 | 171406       | 19.25 |
| T16431-22MSD     | 796527       | 11.90 | 575274       | 15.98 | 184297       | 19.25 |
| T16411-8         | 751685       | 11.89 | 528008       | 15.96 | 123192       | 19.23 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2309-CC2305 | <b>Injection Date:</b> 03/03/07 |
| <b>Lab File ID:</b> F0079055.D  | <b>Injection Time:</b> 09:18    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1    |       | IS 2    |       | IS 3   |       |
|--------------------------|---------|-------|---------|-------|--------|-------|
|                          | AREA    | RT    | AREA    | RT    | AREA   | RT    |
| Check Std                | 856065  | 11.86 | 647343  | 15.95 | 243630 | 19.21 |
| Upper Limit <sup>a</sup> | 1712130 | 12.36 | 1294686 | 16.45 | 487260 | 19.71 |
| Lower Limit <sup>b</sup> | 428033  | 11.36 | 323672  | 15.45 | 121815 | 18.71 |

| Lab Sample ID | IS 1 AREA | RT    | IS 2 AREA | RT    | IS 3 AREA | RT    |
|---------------|-----------|-------|-----------|-------|-----------|-------|
| VF2309-BS     | 850094    | 11.87 | 644670    | 15.95 | 227453    | 19.22 |
| VF2309-MB     | 789590    | 11.86 | 562372    | 15.94 | 142145    | 19.20 |
| T16411-11     | 820057    | 11.87 | 579683    | 15.94 | 137048    | 19.21 |
| T16411-7      | 767835    | 11.86 | 555857    | 15.94 | 136452    | 19.20 |
| T16411-7      | 757674    | 11.87 | 529581    | 15.95 | 121676*   | 19.21 |
| T16411-9      | 733284    | 11.87 | 511411    | 15.94 | 113906*   | 19.21 |
| ZZZZZZ        | 777911    | 11.87 | 544746    | 15.95 | 119440*   | 19.21 |
| ZZZZZZ        | 752118    | 11.87 | 536590    | 15.95 | 121221*   | 19.21 |
| ZZZZZZ        | 738953    | 11.87 | 510669    | 15.95 | 108449*   | 19.21 |
| ZZZZZZ        | 751492    | 11.86 | 525891    | 15.95 | 110744*   | 19.21 |
| ZZZZZZ        | 737938    | 11.87 | 505327    | 15.94 | 102412*   | 19.20 |
| T16440-7      | 724119    | 11.86 | 498319    | 15.95 | 103801*   | 19.20 |
| T16440-7MS    | 747145    | 11.86 | 556580    | 15.93 | 179743    | 19.20 |
| T16440-7MSD   | 739001    | 11.86 | 549609    | 15.93 | 179404    | 19.19 |
| ZZZZZZ        | 741787    | 11.86 | 522075    | 15.93 | 116359*   | 19.20 |
| ZZZZZZ        | 748904    | 11.85 | 530486    | 15.92 | 119956*   | 19.18 |
| ZZZZZZ        | 741037    | 11.85 | 511621    | 15.92 | 104181*   | 19.19 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

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**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2311-CC2305 | <b>Injection Date:</b> 03/05/07 |
| <b>Lab File ID:</b> F0079091.D  | <b>Injection Time:</b> 13:28    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|--------------------------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 883433       | 11.84 | 684892       | 15.91 | 274132       | 19.18 |
| Upper Limit <sup>a</sup> | 1766866      | 12.34 | 1369784      | 16.41 | 548264       | 19.68 |
| Lower Limit <sup>b</sup> | 441717       | 11.34 | 342446       | 15.41 | 137066       | 18.68 |

| Lab<br>Sample ID | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|------------------|--------------|-------|--------------|-------|--------------|-------|
| VF2311-BS        | 922896       | 11.85 | 704898       | 15.92 | 266538       | 19.18 |
| VF2311-MB        | 908467       | 11.85 | 659603       | 15.92 | 188680       | 19.19 |
| ZZZZZZ           | 880440       | 11.84 | 650126       | 15.91 | 201227       | 19.18 |
| T16440-12        | 816522       | 11.86 | 600592       | 15.93 | 179209       | 19.19 |
| T16440-12MS      | 836970       | 11.85 | 650900       | 15.93 | 253396       | 19.18 |
| T16440-12MSD     | 875382       | 11.85 | 676070       | 15.93 | 260377       | 19.18 |
| ZZZZZZ           | 874022       | 11.85 | 643153       | 15.93 | 195970       | 19.18 |
| ZZZZZZ           | 836383       | 11.85 | 615621       | 15.93 | 185917       | 19.18 |
| ZZZZZZ           | 827669       | 11.85 | 609833       | 15.92 | 179587       | 19.18 |
| ZZZZZZ           | 772734       | 11.85 | 573293       | 15.92 | 174293       | 19.18 |
| ZZZZZZ           | 758882       | 11.85 | 559207       | 15.92 | 170192       | 19.19 |
| ZZZZZZ           | 766389       | 11.84 | 555443       | 15.92 | 167777       | 19.18 |
| ZZZZZZ           | 775040       | 11.86 | 570653       | 15.93 | 170057       | 19.19 |
| ZZZZZZ           | 766991       | 11.85 | 579545       | 15.92 | 178449       | 19.18 |
| T16411-8         | 756328       | 11.85 | 557341       | 15.92 | 174801       | 19.18 |
| ZZZZZZ           | 735049       | 11.84 | 537155       | 15.92 | 167476       | 19.18 |
| ZZZZZZ           | 711087       | 11.84 | 519531       | 15.92 | 156748       | 19.19 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Surrogate Recovery Summary**

Page 1 of 2

**Job Number:** T16411**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant**Method:** SW846 8260B**Matrix:** AQ**Samples and QC shown here apply to the above method**

| Lab<br>Sample ID | Lab<br>File ID | S1    | S2    | S3    | S4    |
|------------------|----------------|-------|-------|-------|-------|
| T16411-1         | F0078982.D     | 104.0 | 99.0  | 112.0 | 130.0 |
| T16411-2         | F0079008.D     | 101.0 | 95.0  | 108.0 | 131.0 |
| T16411-2         | F0078983.D     | 105.0 | 100.0 | 109.0 | 132.0 |
| T16411-3         | F0079009.D     | 107.0 | 101.0 | 112.0 | 125.0 |
| T16411-3         | F0078984.D     | 104.0 | 96.0  | 109.0 | 134.0 |
| T16411-4         | F0079001.D     | 101.0 | 94.0  | 110.0 | 127.0 |
| T16411-5         | F0079002.D     | 100.0 | 92.0  | 108.0 | 126.0 |
| T16411-6         | F0079007.D     | 101.0 | 95.0  | 109.0 | 132.0 |
| T16411-6         | F0079006.D     | 102.0 | 94.0  | 106.0 | 129.0 |
| T16411-7         | F0079061.D     | 107.0 | 88.0  | 114.0 | 138.0 |
| T16411-7         | F0079060.D     | 105.0 | 90.0  | 108.0 | 128.0 |
| T16411-8         | F0079109.D     | 104.0 | 102.0 | 105.0 | 112.0 |
| T16411-8         | F0079035.D     | 99.0  | 85.0  | 107.0 | 136.0 |
| T16411-9         | F0079063.D     | 108.0 | 91.0  | 116.0 | 145.0 |
| T16411-10        | F0079014.D     | 102.0 | 97.0  | 107.0 | 119.0 |
| T16411-11        | F0079059.D     | 104.0 | 89.0  | 110.0 | 134.0 |
| T16395-2MS       | F0078979.D     | 99.0  | 98.0  | 103.0 | 100.0 |
| T16395-2MSD      | F0078980.D     | 104.0 | 97.0  | 107.0 | 100.0 |
| T16411-10MS      | F0079015.D     | 104.0 | 99.0  | 105.0 | 100.0 |
| T16411-10MSD     | F0079016.D     | 104.0 | 97.0  | 103.0 | 101.0 |
| T16431-22MS      | F0079032.D     | 104.0 | 99.0  | 106.0 | 110.0 |
| T16431-22MSD     | F0079033.D     | 98.0  | 89.0  | 106.0 | 113.0 |
| T16440-12MS      | F0079096.D     | 110.0 | 106.0 | 105.0 | 100.0 |
| T16440-12MSD     | F0079097.D     | 106.0 | 105.0 | 103.0 | 100.0 |
| T16440-7MS       | F0079071.D     | 103.0 | 85.0  | 107.0 | 109.0 |
| T16440-7MSD      | F0079072.D     | 101.0 | 84.0  | 106.0 | 106.0 |
| VF2305-BS        | F0078972.D     | 99.0  | 94.0  | 102.0 | 102.0 |
| VF2305-MB        | F0078974.D     | 100.0 | 93.0  | 106.0 | 113.0 |
| VF2306-BS2       | F0078998.D     | 98.0  | 93.0  | 103.0 | 106.0 |
| VF2306-MB        | F0078999.D     | 101.0 | 94.0  | 110.0 | 119.0 |
| VF2307-BS        | F0079025.D     | 103.0 | 97.0  | 102.0 | 99.0  |
| VF2307-MB        | F0079026.D     | 101.0 | 96.0  | 107.0 | 129.0 |
| VF2309-BS        | F0079056.D     | 105.0 | 92.0  | 106.0 | 106.0 |
| VF2309-MB        | F0079058.D     | 105.0 | 88.0  | 109.0 | 126.0 |
| VF2311-BS        | F0079092.D     | 106.0 | 105.0 | 105.0 | 104.0 |
| VF2311-MB        | F0079093.D     | 104.0 | 98.0  | 107.0 | 120.0 |

**Surrogate  
Compounds****Recovery  
Limits**

5.6.1

5

**Volatile Surrogate Recovery Summary**

**Job Number:** T16411

**Account:** ITTXHO Shaw E & I, Inc.

**Project:** Longhorn Army Ammunition Plant

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8260B | <b>Matrix:</b> AQ |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

| Surrogate Compounds        | Recovery Limits |
|----------------------------|-----------------|
| S1 = Dibromofluoromethane  | 73-139%         |
| S2 = 1,2-Dichloroethane-D4 | 66-139%         |
| S3 = Toluene-D8            | 77-148%         |
| S4 = 4-Bromofluorobenzene  | 84-150%         |

5.6.1  
5



**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2276-ICC2276  
**Lab FileID:** F0078492.D

**Response Factor Report GC/MS F**

**Method** : C:\HPCHEM\1\METHODS\VF2276GW.M (RTE Integrator)  
**Title** : SW846 8260B and EPA 624  
**Last Update** : Tue Feb 13 07:54:50 2007  
**Response via** : Initial Calibration

**Calibration Files**

200 =F0078490.D 400 =F0078491.D 1000 =F0078492.D  
 2000 =F0078493.D 4000 =F0078494.D 9000 =F0078495.D

|                                        | Compound              | 200                  | 400   | 1000  | 2000  | 4000  | 9000  | Avg   | %RSD     |
|----------------------------------------|-----------------------|----------------------|-------|-------|-------|-------|-------|-------|----------|
| 1) I                                   | Fluorobenzene         | -----ISTD-----       |       |       |       |       |       |       |          |
| 2) S                                   | Dibromofluoromethan   | 0.287                | 0.281 | 0.280 | 0.278 | 0.270 | 0.256 | 0.275 | 4.06     |
| 3) S                                   | 1,2-Dichloroethane-   | 0.212                | 0.207 | 0.211 | 0.211 | 0.212 | 0.209 | 0.210 | 0.87     |
| 4) I                                   | Chlorobenzene-d5      | -----ISTD-----       |       |       |       |       |       |       |          |
| 5) S                                   | Toluene-d8            | 1.047                | 1.037 | 1.041 | 1.022 | 1.035 | 1.039 | 1.037 | 0.83     |
| 6) I                                   | 1,4-Dichlorobenzene-d | -----ISTD-----       |       |       |       |       |       |       |          |
| 7) S                                   | 4-Bromofluorobenzen   | 0.808                | 0.807 | 0.790 | 0.802 | 0.804 | 0.865 | 0.813 | 3.25     |
| 8) I                                   | 1,4-Dichlorobenzene-d | -----ISTD-----       |       |       |       |       |       |       |          |
| 9) H                                   | TPH-GRO (C6-C10)      | 1.214                | 0.770 | 0.582 | 0.475 | 0.429 | 0.392 | 0.644 | E1 48.27 |
| ----- Linear regression -----          |                       | Coefficient = 0.9997 |       |       |       |       |       |       |          |
| Response Ratio = 37.35716 + 3.74928 *A |                       |                      |       |       |       |       |       |       |          |

-----  
 (#) = Out of Range

VF2276GW.M

Tue Feb 13 09:27:02 2007

5.7.1

5

## Initial Calibration Summary

Job Number: T16411  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2305-ICC2305  
 Lab FileID: F0078967.D

## Response Factor Report GC/MS F

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Initial Calibration

## Calibration Files

1 =F0078964.D 2 =F0078965.D 3 =F0078966.D  
 4 =F0078967.D 5 =F0078968.D 6 =F0078969.D 7 =F0078970.D

| Compound                                           | 1              | 2     | 3     | 4     | 5     | 6     | 7     | Avg   | %RSD  |
|----------------------------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Fluorobenzene                                 | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) Dichlorodifluorom                               | 0.157          | 0.162 | 0.153 | 0.171 | 0.181 | 0.178 | 0.196 | 0.171 | 8.89  |
| 3)P Chloromethane                                  | 0.353          | 0.368 | 0.326 | 0.309 | 0.319 | 0.297 | 0.331 | 0.329 | 7.50  |
| 4)C Vinyl Chloride                                 | 0.279          | 0.316 | 0.268 | 0.280 | 0.287 | 0.269 | 0.300 | 0.286 | 6.01  |
| 5) Bromomethane                                    | 0.275          | 0.253 | 0.223 | 0.215 | 0.216 | 0.204 | 0.190 | 0.225 | 12.95 |
| 6) Chloroethane                                    | 0.203          | 0.232 | 0.219 | 0.222 | 0.222 | 0.210 | 0.211 | 0.217 | 4.37  |
| 7) Trichlorofluorome                               | 0.137          | 0.154 | 0.142 | 0.159 | 0.166 | 0.162 | 0.164 | 0.155 | 7.23  |
| 8) Acrolein                                        | 0.030          | 0.030 | 0.031 | 0.036 | 0.036 | 0.033 | 0.033 | 0.033 | 8.00  |
| 9)C 1,1-Dichloroethen                              | 0.287          | 0.299 | 0.298 | 0.320 | 0.322 | 0.306 | 0.312 | 0.306 | 4.04  |
| 10) Freon 113                                      | 0.174          | 0.190 | 0.191 | 0.225 | 0.225 | 0.213 | 0.216 | 0.205 | 9.65  |
| 11) Acetone                                        | 0.065          | 0.062 | 0.057 | 0.052 | 0.053 | 0.053 | 0.052 | 0.056 | 9.61  |
| 12) Iodomethane                                    | 0.405          | 0.432 | 0.438 | 0.436 | 0.447 | 0.434 | 0.445 | 0.434 | 3.22  |
| 13) Methyl acetate                                 | 0.199          | 0.203 | 0.197 | 0.179 | 0.188 | 0.186 | 0.185 | 0.191 | 4.56  |
| 14) Carbon Disulfide                               | 0.833          | 0.878 | 0.869 | 0.908 | 0.930 | 0.885 | 0.918 | 0.889 | 3.74  |
| 15) Methylene Chlorid                              | 0.410          | 0.424 | 0.407 | 0.404 | 0.396 | 0.378 | 0.376 | 0.399 | 4.34  |
| 16) Tert Butyl Alchoh                              | 0.015          | 0.018 | 0.018 | 0.015 | 0.017 | 0.018 | 0.018 | 0.017 | 8.14  |
| 17) trans-1,2-Dichlor                              | 0.328          | 0.340 | 0.340 | 0.344 | 0.351 | 0.337 | 0.344 | 0.341 | 2.11  |
| 18) Acrylonitrile                                  | 0.086          | 0.099 | 0.097 | 0.091 | 0.097 | 0.098 | 0.097 | 0.095 | 4.82  |
| 19) Methyl Tert Butyl                              | 0.577          | 0.603 | 0.572 | 0.555 | 0.578 | 0.587 | 0.594 | 0.581 | 2.70  |
| 20) Hexane                                         | 0.300          | 0.281 | 0.283 | 0.341 | 0.346 | 0.320 | 0.315 | 0.312 | 8.32  |
| 21)P 1,1-Dichloroethan                             | 0.428          | 0.457 | 0.436 | 0.445 | 0.450 | 0.430 | 0.435 | 0.440 | 2.44  |
| 22) Vinyl acetate                                  | 0.513          | 0.554 | 0.582 | 0.564 | 0.569 | 0.552 | 0.517 | 0.550 | 4.74  |
| 23) Di-isopropyl ethe                              | 0.944          | 1.012 | 0.992 | 0.981 | 0.988 | 0.943 | 0.934 | 0.971 | 3.09  |
| 24) Ethyl tert-butyl                               | 0.721          | 0.735 | 0.733 | 0.737 | 0.753 | 0.739 | 0.749 | 0.738 | 1.43  |
| 25) 2,2-Dichloropropa                              | 0.208          | 0.200 | 0.197 | 0.210 | 0.209 | 0.202 | 0.195 | 0.203 | 2.91  |
| 26) cis-1,2-Dichloroe                              | 0.282          | 0.305 | 0.302 | 0.308 | 0.307 | 0.302 | 0.307 | 0.302 | 3.03  |
| 27) 2-Butanone                                     | 0.113          | 0.118 | 0.120 | 0.105 | 0.111 | 0.112 | 0.109 | 0.113 | 4.48  |
| 28) Bromochloromethan                              | 0.124          | 0.142 | 0.145 | 0.146 | 0.147 | 0.149 | 0.150 | 0.143 | 6.13  |
| 29)C Chloroform                                    | 0.343          | 0.363 | 0.358 | 0.362 | 0.364 | 0.353 | 0.362 | 0.358 | 2.09  |
| 30) Tetrahydrofuran                                | 0.048          | 0.035 | 0.033 | 0.030 | 0.031 | 0.031 | 0.029 | 0.034 | 19.44 |
| ----- Linear regression ----- Coefficient = 0.9988 |                |       |       |       |       |       |       |       |       |
| Response Ratio = 0.00148 + 0.02898 *A              |                |       |       |       |       |       |       |       |       |
| 31) 1,1,1-Trichloroet                              | 0.196          | 0.201 | 0.204 | 0.213 | 0.218 | 0.210 | 0.215 | 0.208 | 3.79  |
| 32)S Dibromofluorometh                             | 0.211          | 0.221 | 0.210 | 0.217 | 0.221 | 0.221 | 0.226 | 0.218 | 2.61  |
| 33) Cyclohexane                                    | 0.390          | 0.405 | 0.413 | 0.479 | 0.485 | 0.453 | 0.447 | 0.439 | 8.43  |
| 34) 1,1-Dichloropropo                              | 0.283          | 0.279 | 0.292 | 0.313 | 0.321 | 0.312 | 0.316 | 0.302 | 5.61  |
| 35) Carbon Tetrachlor                              | 0.142          | 0.161 | 0.164 | 0.176 | 0.181 | 0.177 | 0.183 | 0.169 | 8.57  |
| 36)S 1,2-Dichloroethan                             | 0.159          | 0.173 | 0.166 | 0.161 | 0.165 | 0.162 | 0.166 | 0.165 | 2.76  |
| 37) Benzene                                        | 1.089          | 1.108 | 1.092 | 1.113 | 1.134 | 1.098 | 1.119 | 1.108 | 1.43  |
| 38) 1,2-Dichloroethan                              | 0.181          | 0.193 | 0.200 | 0.205 | 0.200 | 0.204 | 0.201 | 0.198 | 4.13  |
| 39) tert-amyl methyl                               | 0.712          | 0.774 | 0.759 | 0.736 | 0.767 | 0.769 | 0.782 | 0.757 | 3.26  |
| 40) Trichloroethene                                | 0.212          | 0.223 | 0.218 | 0.229 | 0.233 | 0.229 | 0.236 | 0.226 | 3.78  |
| 41) Methylcyclohexane                              | 0.318          | 0.332 | 0.335 | 0.391 | 0.401 | 0.384 | 0.388 | 0.364 | 9.38  |
| 42)C 1,2-Dichloropropa                             | 0.320          | 0.304 | 0.310 | 0.316 | 0.320 | 0.310 | 0.318 | 0.314 | 1.90  |
| 43) Dibromomethane                                 | 0.129          | 0.147 | 0.169 | 0.160 | 0.166 | 0.165 | 0.170 | 0.158 | 9.61  |

## Initial Calibration Summary

Job Number: T16411  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2305-ICC2305  
 Lab FileID: F0078967.D

|     |                               |                       |       |       |       |       |       |       |       |       |
|-----|-------------------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44) | 1,4-Dioxane                   | 0.002                 | 0.002 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.002 | 17.15 |
|     | ----- Linear regression ----- | Coefficient = 0.9989  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.00341 + 0.00271 *A |       |       |       |       |       |       |       |       |
| 45) | Bromodichlorometh             | 0.287                 | 0.300 | 0.298 | 0.307 | 0.311 | 0.306 | 0.317 | 0.304 | 3.19  |
| 46) | 2-Nitropropane                | 0.046                 | 0.042 | 0.041 | 0.037 | 0.038 | 0.039 | 0.038 | 0.040 | 7.95  |
| 47) | 2-Chloroethyl vin             | 0.094                 | 0.104 | 0.122 | 0.125 | 0.136 | 0.143 | 0.152 | 0.125 | 16.72 |
|     | ----- Linear regression ----- | Coefficient = 0.9983  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.06248 + 0.15260 *A |       |       |       |       |       |       |       |       |
| 48) | 4-Methyl-2-pentan             | 0.229                 | 0.239 | 0.249 | 0.234 | 0.246 | 0.246 | 0.237 | 0.240 | 3.06  |
| 49) | cis-1,3-Dichlorop             | 0.369                 | 0.397 | 0.420 | 0.427 | 0.443 | 0.439 | 0.454 | 0.421 | 6.95  |
| 50) | I Chlorobenzene-d5            | -----ISTD-----        |       |       |       |       |       |       |       |       |
| 51) | S Toluene-d8                  | 1.147                 | 1.122 | 1.060 | 1.073 | 1.083 | 1.079 | 1.120 | 1.098 | 2.89  |
| 52) | C Toluene                     | 1.382                 | 1.408 | 1.358 | 1.387 | 1.384 | 1.367 | 1.417 | 1.386 | 1.51  |
| 53) | trans-1,3-Dichlor             | 0.340                 | 0.364 | 0.391 | 0.402 | 0.406 | 0.409 | 0.428 | 0.391 | 7.65  |
| 54) | 1,1,2-Trichloroet             | 0.263                 | 0.295 | 0.289 | 0.279 | 0.283 | 0.284 | 0.289 | 0.283 | 3.62  |
| 55) | Tetrachloroethene             | 0.272                 | 0.280 | 0.293 | 0.302 | 0.309 | 0.299 | 0.307 | 0.294 | 4.70  |
| 56) | 2-hexanone                    | 0.170                 | 0.180 | 0.203 | 0.194 | 0.206 | 0.211 | 0.208 | 0.196 | 8.04  |
| 57) | 1,3-Dichloropropa             | 0.605                 | 0.605 | 0.602 | 0.593 | 0.592 | 0.591 | 0.602 | 0.599 | 1.05  |
| 58) | Dibromochlorometh             | 0.254                 | 0.312 | 0.303 | 0.296 | 0.299 | 0.304 | 0.315 | 0.298 | 6.92  |
| 59) | 1,2-Dibromoethane             | 0.283                 | 0.310 | 0.305 | 0.302 | 0.314 | 0.320 | 0.331 | 0.309 | 4.87  |
| 60) | 1-Chlorohexane                | 0.464                 | 0.467 | 0.465 | 0.505 | 0.517 | 0.509 | 0.535 | 0.495 | 5.83  |
| 61) | P Chlorobenzene               | 0.877                 | 0.857 | 0.851 | 0.870 | 0.877 | 0.867 | 0.897 | 0.871 | 1.73  |
| 62) | 1,1,1,2-Tetrachlo             | 0.264                 | 0.284 | 0.283 | 0.282 | 0.281 | 0.279 | 0.288 | 0.280 | 2.74  |
| 63) | C Ethylbenzene                | 1.475                 | 1.458 | 1.433 | 1.493 | 1.499 | 1.470 | 1.518 | 1.478 | 1.90  |
| 64) | m,p-Xylene                    | 0.970                 | 0.990 | 1.008 | 1.040 | 1.057 | 1.039 | 1.067 | 1.025 | 3.51  |
| 65) | o-Xylene                      | 1.021                 | 1.033 | 1.058 | 1.084 | 1.107 | 1.077 | 1.111 | 1.070 | 3.23  |
| 66) | Styrene                       | 0.796                 | 0.855 | 0.910 | 0.960 | 0.983 | 0.978 | 1.013 | 0.928 | 8.44  |
| 67) | P Bromoform                   | 0.142                 | 0.077 | 0.184 | 0.179 | 0.195 | 0.199 | 0.205 | 0.169 | 26.85 |
|     | ----- Linear regression ----- | Coefficient = 0.9995  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.01246 + 0.20679 *A |       |       |       |       |       |       |       |       |
| 68) | I 1,4-Dichlorobenze           | -----ISTD-----        |       |       |       |       |       |       |       |       |
| 69) | Isopropylbenzene              | 3.394                 | 3.422 | 2.803 | 2.838 | 2.780 | 2.731 | 2.618 | 2.941 | 11.11 |
| 70) | Cyclohexanone                 | 0.023                 | 0.030 | 0.027 | 0.025 | 0.026 | 0.029 | 0.027 | 0.027 | 8.23  |
| 71) | S 4-Bromofluorobenz           | 1.169                 | 1.004 | 0.864 | 0.853 | 0.853 | 0.860 | 0.845 | 0.921 | 13.32 |
| 72) | Bromobenzene                  | 0.997                 | 0.963 | 0.842 | 0.837 | 0.823 | 0.822 | 0.788 | 0.867 | 9.15  |
| 73) | P 1,1,2,2-Tetrachlo           | 1.339                 | 1.320 | 1.146 | 1.011 | 1.011 | 1.030 | 0.983 | 1.120 | 13.59 |
| 74) | Trans-1,4-Dichlor             | 0.143                 | 0.182 | 0.177 | 0.182 | 0.188 | 0.192 | 0.192 | 0.179 | 9.42  |
| 75) | 1,2,3-Trichloropr             | 0.257                 | 0.296 | 0.253 | 0.232 | 0.230 | 0.236 | 0.225 | 0.247 | 10.10 |
| 76) | n-Propylbenzene               | 4.567                 | 4.426 | 4.010 | 4.105 | 4.023 | 3.954 | 3.865 | 4.136 | 6.29  |
| 77) | 2-Chlorotoluene               | 3.164                 | 2.888 | 2.531 | 2.500 | 2.416 | 2.351 | 2.285 | 2.591 | 12.31 |
| 78) | 4-Chlorotoluene               | 2.569                 | 2.376 | 2.183 | 2.187 | 2.133 | 2.116 | 2.076 | 2.234 | 7.90  |
| 79) | 1,3,5-Trimethylbe             | 2.668                 | 2.535 | 2.320 | 2.351 | 2.287 | 2.250 | 2.168 | 2.368 | 7.33  |
| 80) | sec-Butylbenzene              | 3.329                 | 3.252 | 3.038 | 3.232 | 3.150 | 3.042 | 2.937 | 3.140 | 4.47  |
| 81) | 1,3-Dichlorobenze             | 1.316                 | 1.426 | 1.364 | 1.413 | 1.441 | 1.419 | 1.422 | 1.400 | 3.16  |
| 82) | 4-Isopropyltoluen             | 2.408                 | 2.304 | 2.224 | 2.403 | 2.346 | 2.277 | 2.220 | 2.312 | 3.37  |
| 83) | 1,4-Dichlorobenze             | 1.528                 | 1.430 | 1.389 | 1.429 | 1.420 | 1.423 | 1.424 | 1.435 | 3.04  |
| 84) | tert-Butylbenzene             | 0.533                 | 0.438 | 0.430 | 0.445 | 0.436 | 0.429 | 0.410 | 0.446 | 8.90  |
| 85) | n-Butylbenzene                | 1.465                 | 1.572 | 1.892 | 2.173 | 2.149 | 2.132 | 2.214 | 1.942 | 15.91 |
|     | ----- Linear regression ----- | Coefficient = 0.9997  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.08322 + 2.22219 *A |       |       |       |       |       |       |       |       |
| 86) | 1,2-Dichlorobenze             | 1.206                 | 1.332 | 1.314 | 1.336 | 1.345 | 1.359 | 1.369 | 1.323 | 4.14  |
| 87) | 1,2,4-Trimethylbe             | 2.566                 | 2.449 | 2.311 | 2.410 | 2.354 | 2.310 | 2.242 | 2.377 | 4.53  |
| 88) | 1,2-Dibromo-3-Chl             | 0.068                 | 0.106 | 0.082 | 0.072 | 0.077 | 0.089 | 0.088 | 0.083 | 15.22 |
|     | ----- Linear regression ----- | Coefficient = 0.9968  |       |       |       |       |       |       |       |       |

**Initial Calibration Summary**

Page 3 of 3

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2305-ICC2305  
**Lab FileID:** F0078967.D

---

Response Ratio =  $-0.00467 + 0.08863 * A$

89) 1,2,4-Trichlorobe 0.166 0.135 0.302 0.403 0.468 0.530 0.585 0.370 47.33

----- Linear regression ----- Coefficient = 0.9944

Response Ratio =  $-0.09820 + 0.59565 * A$

90) Hexachlorobutadie 0.058 0.088 0.170 0.207 0.204 0.208 0.202 0.162 38.83

----- Linear regression ----- Coefficient = 0.9993

Response Ratio =  $-0.00579 + 0.20548 * A$

91) Naphthalene 0.526 0.280 0.475 0.606 0.781 0.975 1.125 0.681 43.48

----- Quadratic regression ----- Coefficient = 0.9974

Response Ratio =  $-0.07686 + 0.74236 * A + 0.10172 * A^2$

92) 1,2,3-Trichlorobe 0.167 0.113 0.217 0.276 0.334 0.389 0.421 0.274 41.95

----- Linear regression ----- Coefficient = 0.9938

Response Ratio =  $-0.07169 + 0.43007 * A$

-----  
 (#) = Out of Range

VF2305C.M

Thu Mar 01 07:44:03 2007

5.7.2

5

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2306-CC2305  
**Lab FileID:** F0078995.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2306\F0078995.D Vial: 3  
 Acq On : 1 Mar 2007 8:23 am Operator: lydiaj  
 Sample : cc2305-20 Inst : GC/MS F  
 Misc : ms3868,vf2306,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305CG.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 11:28:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|--------------------------|-------|-------|------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0  | 88    | -0.01    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.152 | 11.1 | 88    | 0.00     |
| 3 P  | Chloromethane            | 0.329 | 0.325 | 1.2  | 88    | 0.00     |
| 4 C  | Vinyl Chloride           | 0.286 | 0.274 | 4.2  | 90    | -0.01    |
| 5    | Bromomethane             | 0.225 | 0.219 | 2.7  | 86    | -0.01    |
| 6    | Chloroethane             | 0.217 | 0.214 | 1.4  | 86    | 0.00     |
| 7    | Trichlorofluoromethane   | 0.155 | 0.152 | 1.9  | 94    | 0.00     |
| 8    | Acrolein                 | 0.033 | 0.032 | 3.0  | 92    | -0.01    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.283 | 7.5  | 83    | 0.00     |
| 10   | Freon 113                | 0.205 | 0.189 | 7.8  | 87    | 0.00     |
| 11   | Acetone                  | 0.056 | 0.048 | 14.3 | 74    | 0.00     |
| 12   | Iodomethane              | 0.434 | 0.403 | 7.1  | 81    | 0.00     |
| 13   | Methyl acetate           | 0.191 | 0.170 | 11.0 | 76    | 0.00     |
| 14   | Carbon Disulfide         | 0.889 | 0.799 | 10.1 | 81    | 0.00     |
| 15   | Methylene Chloride       | 0.399 | 0.393 | 1.5  | 85    | 0.00     |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.014 | 17.6 | 67    | -0.01    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.314 | 7.9  | 81    | -0.01    |
| 18   | Acrylonitrile            | 0.095 | 0.081 | 14.7 | 73    | 0.00     |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.533 | 8.3  | 82    | 0.00     |
| 20   | Hexane                   | 0.312 | 0.302 | 3.2  | 94    | -0.01    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.438 | 0.5  | 88    | 0.00     |
| 22   | Vinyl acetate            | 0.550 | 0.534 | 2.9  | 81    | 0.00     |
| 23   | Di-isopropyl ether       | 0.971 | 0.992 | -2.2 | 88    | 0.00     |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.716 | 3.0  | 86    | 0.00     |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.207 | -2.0 | 92    | 0.00     |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.289 | 4.3  | 84    | -0.01    |
| 27   | 2-Butanone               | 0.113 | 0.098 | 13.3 | 72    | -0.01    |
| 28   | Bromochloromethane       | 0.143 | 0.139 | 2.8  | 84    | 0.00     |
| 29 C | Chloroform               | 0.358 | 0.357 | 0.3  | 88    | -0.01    |
| 30   | Tetrahydrofuran          | 0.034 | 0.031 | 8.8  | 84    | 0.00     |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.200 | 3.8  | 86    | 0.00     |
| 32 S | Dibromofluoromethane     | 0.218 | 0.214 | 1.8  | 90    | 0.00     |
| 33   | Cyclohexane              | 0.439 | 0.415 | 5.5  | 88    | 0.00     |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.283 | 6.3  | 85    | -0.01    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.164 | 3.0  | 88    | 0.00     |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.162 | 1.8  | 86    | -0.01    |
| 37   | Benzene                  | 1.108 | 1.070 | 3.4  | 86    | 0.00     |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.207 | -4.5 | 91    | 0.00     |
| 39   | tert-amyl methyl ether   | 0.757 | 0.696 | 8.1  | 81    | 0.00     |
| 40   | Trichloroethene          | 0.226 | 0.213 | 5.8  | 86    | 0.00     |
| 41   | Methylcyclohexane        | 0.364 | 0.329 | 9.6  | 87    | 0.00     |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.306 | 2.5  | 87    | 0.00     |

## Continuing Calibration Summary

Page 2 of 2

Job Number: T16411  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2306-CC2305  
 Lab FileID: F0078995.D

|      |                             |       |       |        |     |       |
|------|-----------------------------|-------|-------|--------|-----|-------|
| 43   | Dibromomethane              | 0.158 | 0.161 | -1.9   | 84  | -0.01 |
| 44   | 1,4-Dioxane                 | 0.002 | 0.002 | 0.0    | 79  | -0.02 |
| 45   | Bromodichloromethane        | 0.304 | 0.296 | 2.6    | 87  | 0.00  |
| 46   | 2-Nitropropane              | 0.040 | 0.035 | 12.5   | 75  | 0.00  |
| 47   | 2-Chloroethyl vinyl ether   | 0.125 | 0.095 | 24.0#  | 69  | 0.00  |
| 48   | 4-Methyl-2-pentanone        | 0.240 | 0.215 | 10.4   | 76  | -0.01 |
| 49   | cis-1,3-Dichloropropene     | 0.421 | 0.416 | 1.2    | 87  | 0.00  |
| 50 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 90  | 0.00  |
| 51 S | Toluene-d8                  | 1.098 | 1.054 | 4.0    | 90  | 0.00  |
| 52 C | Toluene                     | 1.386 | 1.315 | 5.1    | 87  | 0.00  |
| 53   | trans-1,3-Dichloropropene   | 0.391 | 0.366 | 6.4    | 85  | 0.00  |
| 54   | 1,1,2-Trichloroethane       | 0.283 | 0.265 | 6.4    | 83  | 0.00  |
| 55   | Tetrachloroethene           | 0.294 | 0.285 | 3.1    | 88  | -0.01 |
| 56   | 2-hexanone                  | 0.196 | 0.165 | 15.8   | 73  | 0.00  |
| 57   | 1,3-Dichloropropane         | 0.599 | 0.560 | 6.5    | 84  | 0.00  |
| 58   | Dibromochloromethane        | 0.298 | 0.283 | 5.0    | 84  | 0.00  |
| 59   | 1,2-Dibromoethane           | 0.309 | 0.278 | 10.0   | 82  | 0.00  |
| 60   | 1-Chlorohexane              | 0.495 | 0.444 | 10.3   | 86  | -0.01 |
| 61 P | Chlorobenzene               | 0.871 | 0.844 | 3.1    | 90  | -0.01 |
| 62   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.275 | 1.8    | 88  | -0.01 |
| 63 C | Ethylbenzene                | 1.478 | 1.399 | 5.3    | 88  | -0.01 |
| 64   | m,p-Xylene                  | 1.025 | 0.993 | 3.1    | 89  | -0.01 |
| 65   | o-Xylene                    | 1.070 | 1.039 | 2.9    | 89  | -0.01 |
| 66   | Styrene                     | 0.928 | 0.889 | 4.2    | 88  | 0.00  |
| 67 P | Bromoform                   | 0.169 | 0.154 | 8.9    | 76  | -0.01 |
| 68 I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0    | 85  | 0.00  |
| 69   | Isopropylbenzene            | 2.941 | 2.895 | 1.6    | 88  | 0.00  |
| 70   | Cyclohexanone               | 0.027 | 0.049 | -81.5# | 155 | -0.02 |
| 71 S | 4-Bromofluorobenzene        | 0.921 | 0.906 | 1.6    | 89  | 0.00  |
| 72   | Bromobenzene                | 0.867 | 0.893 | -3.0   | 90  | 0.00  |
| 73 P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.016 | 9.3    | 75  | 0.00  |
| 74   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.156 | 12.8   | 75  | -0.01 |
| 75   | 1,2,3-Trichloropropane      | 0.247 | 0.237 | 4.0    | 80  | -0.01 |
| 76   | n-Propylbenzene             | 4.136 | 4.044 | 2.2    | 86  | 0.00  |
| 77   | 2-Chlorotoluene             | 2.591 | 2.595 | -0.2   | 87  | 0.00  |
| 78   | 4-Chlorotoluene             | 2.234 | 2.210 | 1.1    | 86  | -0.01 |
| 79   | 1,3,5-Trimethylbenzene      | 2.368 | 2.371 | -0.1   | 87  | 0.00  |
| 80   | sec-Butylbenzene            | 3.140 | 3.061 | 2.5    | 86  | 0.00  |
| 81   | 1,3-Dichlorobenzene         | 1.400 | 1.423 | -1.6   | 89  | 0.00  |
| 82   | 4-Isopropyltoluene          | 2.312 | 2.227 | 3.7    | 85  | 0.00  |
| 83   | 1,4-Dichlorobenzene         | 1.435 | 1.395 | 2.8    | 85  | 0.00  |
| 84   | tert-Butylbenzene           | 0.446 | 0.416 | 6.7    | 82  | -0.01 |
| 85   | n-Butylbenzene              | 1.942 | 1.782 | 8.2    | 80  | 0.00  |
| 86   | 1,2-Dichlorobenzene         | 1.323 | 1.297 | 2.0    | 84  | -0.01 |
| 87   | 1,2,4-Trimethylbenzene      | 2.377 | 2.379 | -0.1   | 88  | 0.00  |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.069 | 16.9   | 71  | -0.02 |
| 89   | 1,2,4-Trichlorobenzene      | 0.370 | 0.253 | 31.6#  | 71  | 0.00  |
| 90   | Hexachlorobutadiene         | 0.162 | 0.147 | 9.3    | 74  | -0.02 |
| 91   | Naphthalene                 | 0.681 | 0.379 | 44.3#  | 68  | 0.00  |
| 92   | 1,2,3-Trichlorobenzene      | 0.274 | 0.174 | 36.5#  | 68  | 0.00  |

-----  
 Average % D = 7.6  
 -----

(#) = Out of Range  
 F0078966.D VF2305CG.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 02 07:49:36 2007

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2306-CC2276  
**Lab FileID:** F0078996.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2306\F0078996.D Vial: 4  
 Acq On : 1 Mar 2007 8:55 am Operator: lydiaj  
 Sample : cc2276-1000 Inst : GC/MS F  
 Misc : ms3868,vf2306,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305CG.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 11:28:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                | AvgRF | CCRF  | %Dev    | Area% | Dev(min) |
|------|-------------------------|-------|-------|---------|-------|----------|
| 1 I  | Fluorobenzene           | 1.000 | 1.000 | 0.0     | 92    | -0.01    |
| 32 S | Dibromofluoromethane    | 0.218 | 0.547 | -150.9# | 239#  | 0.00     |
| 36 S | 1,2-Dichloroethane-d4   | 0.165 | 0.404 | -144.8# | 223#  | -0.01    |
| 50 I | Chlorobenzene-d5        | 1.000 | 1.000 | 0.0     | 92    | 0.00     |
| 51 S | Toluene-d8              | 1.098 | 2.827 | -157.5# | 244#  | 0.00     |
| 68 I | 1,4-Dichlorobenzene-d4  | 1.000 | 1.000 | 0.0     | 85    | 0.00     |
| 71 S | 4-Bromofluorobenzene    | 0.921 | 2.369 | -157.2# | 233#  | -0.01    |
| 93 I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0     | 60    | 0.02     |
| 94 H | TPH-GRO (C6-C10)        | 6.436 | 7.083 | -10.1   | 73    | 0.49     |

Average % D = 87.6

(#) = Out of Range  
 F0078996.D VF2305CG.M

SPCC's out = 5 CCC's out = 5  
 Fri Mar 02 07:49:41 2007



**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2307-CC2305  
**Lab FileID:** F0079024.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2306\F0079024.D Vial: 32  
 Acq On : 1 Mar 2007 11:47 pm Operator: lydiaj  
 Sample : cc2305-20 Inst : GC/MS F  
 Misc : ms3874,vf2307,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:29:02 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|------|--------------------------|-------|-------|-------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0   | 82    | -0.05    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.156 | 8.8   | 84    | -0.03    |
| 3 P  | Chloromethane            | 0.329 | 0.359 | -9.1  | 91    | -0.04    |
| 4 C  | Vinyl Chloride           | 0.286 | 0.302 | -5.6  | 93    | -0.05    |
| 5    | Bromomethane             | 0.225 | 0.241 | -7.1  | 89    | -0.05    |
| 6    | Chloroethane             | 0.217 | 0.226 | -4.1  | 85    | -0.04    |
| 7    | Trichlorofluoromethane   | 0.155 | 0.165 | -6.5  | 96    | -0.05    |
| 8    | Acrolein                 | 0.033 | 0.029 | 12.1  | 78    | -0.05    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.299 | 2.3   | 82    | -0.05    |
| 10   | Freon 113                | 0.205 | 0.193 | 5.9   | 83    | -0.05    |
| 11   | Acetone                  | 0.056 | 0.050 | 10.7  | 71    | -0.04    |
| 12   | Iodomethane              | 0.434 | 0.434 | 0.0   | 81    | -0.05    |
| 13   | Methyl acetate           | 0.191 | 0.186 | 2.6   | 78    | -0.05    |
| 14   | Carbon Disulfide         | 0.889 | 0.858 | 3.5   | 81    | -0.05    |
| 15   | Methylene Chloride       | 0.399 | 0.413 | -3.5  | 83    | -0.05    |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.016 | 5.9   | 73    | -0.05    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.345 | -1.2  | 84    | -0.05    |
| 18   | Acrylonitrile            | 0.095 | 0.086 | 9.5   | 73    | -0.04    |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.573 | 1.4   | 82    | -0.04    |
| 20   | Hexane                   | 0.312 | 0.281 | 9.9   | 82    | -0.05    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.457 | -3.9  | 86    | -0.05    |
| 22   | Vinyl acetate            | 0.550 | 0.554 | -0.7  | 78    | -0.05    |
| 23   | Di-isopropyl ether       | 0.971 | 1.076 | -10.8 | 89    | -0.04    |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.769 | -4.2  | 86    | -0.04    |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.176 | 13.3  | 73    | -0.04    |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.309 | -2.3  | 84    | -0.06    |
| 27   | 2-Butanone               | 0.113 | 0.107 | 5.3   | 74    | -0.05    |
| 28   | Bromochloromethane       | 0.143 | 0.144 | -0.7  | 81    | -0.05    |
| 29 C | Chloroform               | 0.358 | 0.366 | -2.2  | 84    | -0.05    |
| 30   | Tetrahydrofuran          | 0.034 | 0.033 | 2.9   | 84    | -0.05    |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.215 | -3.4  | 87    | -0.05    |
| 32 S | Dibromofluoromethane     | 0.218 | 0.235 | -7.8  | 92    | -0.05    |
| 33   | Cyclohexane              | 0.439 | 0.440 | -0.2  | 88    | -0.05    |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.299 | 1.0   | 84    | -0.05    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.171 | -1.2  | 86    | -0.04    |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.171 | -3.6  | 85    | -0.05    |
| 37   | Benzene                  | 1.108 | 1.138 | -2.7  | 86    | -0.04    |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.208 | -5.1  | 86    | -0.05    |
| 39   | tert-amyl methyl ether   | 0.757 | 0.761 | -0.5  | 82    | -0.05    |
| 40   | Trichloroethene          | 0.226 | 0.226 | 0.0   | 85    | -0.05    |
| 41   | Methylcyclohexane        | 0.364 | 0.348 | 4.4   | 86    | -0.05    |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.324 | -3.2  | 86    | -0.05    |



## Continuing Calibration Summary

Page 2 of 2

Job Number: T16411  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2307-CC2305  
 Lab FileID: F0079024.D

|       |   |                             |       |       |        |     |       |
|-------|---|-----------------------------|-------|-------|--------|-----|-------|
| 43    |   | Dibromomethane              | 0.158 | 0.159 | -0.6   | 78  | -0.05 |
| 44    |   | 1,4-Dioxane                 | 0.002 | 0.002 | 0.0    | 77  | -0.06 |
| 45    |   | Bromodichloromethane        | 0.304 | 0.315 | -3.6   | 87  | -0.04 |
| 46    |   | 2-Nitropropane              | 0.040 | 0.037 | 7.5    | 76  | -0.05 |
| 47    |   | 2-Chloroethyl vinyl ether   | 0.125 | 0.100 | 20.0   | 68  | -0.05 |
| 48    |   | 4-Methyl-2-pentanone        | 0.240 | 0.240 | 0.0    | 79  | -0.05 |
| 49    |   | cis-1,3-Dichloropropene     | 0.421 | 0.422 | -0.2   | 83  | -0.05 |
| <hr/> |   |                             |       |       |        |     |       |
| 50    | I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 85  | -0.05 |
| 51    | S | Toluene-d8                  | 1.098 | 1.097 | 0.1    | 88  | -0.05 |
| 52    | C | Toluene                     | 1.386 | 1.387 | -0.1   | 87  | -0.05 |
| 53    |   | trans-1,3-Dichloropropene   | 0.391 | 0.368 | 5.9    | 80  | -0.04 |
| 54    |   | 1,1,2-Trichloroethane       | 0.283 | 0.281 | 0.7    | 83  | -0.05 |
| 55    |   | Tetrachloroethene           | 0.294 | 0.293 | 0.3    | 85  | -0.06 |
| 56    |   | 2-hexanone                  | 0.196 | 0.178 | 9.2    | 75  | -0.05 |
| 57    |   | 1,3-Dichloropropane         | 0.599 | 0.577 | 3.7    | 82  | -0.05 |
| 58    |   | Dibromochloromethane        | 0.298 | 0.299 | -0.3   | 84  | -0.05 |
| 59    |   | 1,2-Dibromoethane           | 0.309 | 0.286 | 7.4    | 80  | -0.05 |
| 60    |   | 1-Chlorohexane              | 0.495 | 0.467 | 5.7    | 85  | -0.05 |
| 61    | P | Chlorobenzene               | 0.871 | 0.873 | -0.2   | 87  | -0.05 |
| 62    |   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.284 | -1.4   | 85  | -0.05 |
| 63    | C | Ethylbenzene                | 1.478 | 1.474 | 0.3    | 88  | -0.05 |
| 64    |   | m,p-Xylene                  | 1.025 | 1.000 | 2.4    | 84  | -0.05 |
| 65    |   | o-Xylene                    | 1.070 | 1.073 | -0.3   | 86  | -0.05 |
| 66    |   | Styrene                     | 0.928 | 0.907 | 2.3    | 85  | -0.05 |
| 67    | P | Bromoform                   | 0.169 | 0.156 | 7.7    | 72  | -0.05 |
| <hr/> |   |                             |       |       |        |     |       |
| 68    | I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0    | 80  | -0.05 |
| 69    |   | Isopropylbenzene            | 2.941 | 2.954 | -0.4   | 85  | -0.05 |
| 70    |   | Cyclohexanone               | 0.027 | 0.043 | -59.3# | 126 | -0.05 |
| 71    | S | 4-Bromofluorobenzene        | 0.921 | 0.929 | -0.9   | 86  | -0.06 |
| 72    |   | Bromobenzene                | 0.867 | 0.917 | -5.8   | 87  | -0.06 |
| 73    | P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.066 | 4.8    | 75  | -0.05 |
| 74    |   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.153 | 14.5   | 70  | -0.06 |
| 75    |   | 1,2,3-Trichloropropane      | 0.247 | 0.238 | 3.6    | 75  | -0.06 |
| 76    |   | n-Propylbenzene             | 4.136 | 4.222 | -2.1   | 84  | -0.06 |
| 77    |   | 2-Chlorotoluene             | 2.591 | 2.718 | -4.9   | 86  | -0.05 |
| 78    |   | 4-Chlorotoluene             | 2.234 | 2.258 | -1.1   | 83  | -0.06 |
| 79    |   | 1,3,5-Trimethylbenzene      | 2.368 | 2.402 | -1.4   | 83  | -0.05 |
| 80    |   | sec-Butylbenzene            | 3.140 | 3.138 | 0.1    | 83  | -0.05 |
| 81    |   | 1,3-Dichlorobenzene         | 1.400 | 1.441 | -2.9   | 85  | -0.06 |
| 82    |   | 4-Isopropyltoluene          | 2.312 | 2.241 | 3.1    | 81  | -0.05 |
| 83    |   | 1,4-Dichlorobenzene         | 1.435 | 1.376 | 4.1    | 79  | -0.06 |
| 84    |   | tert-Butylbenzene           | 0.446 | 0.445 | 0.2    | 83  | -0.06 |
| 85    |   | n-Butylbenzene              | 1.942 | 1.808 | 6.9    | 77  | -0.06 |
| 86    |   | 1,2-Dichlorobenzene         | 1.323 | 1.301 | 1.7    | 79  | -0.06 |
| 87    |   | 1,2,4-Trimethylbenzene      | 2.377 | 2.423 | -1.9   | 84  | -0.05 |
| 88    |   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.068 | 18.1   | 66  | -0.05 |
| 89    |   | 1,2,4-Trichlorobenzene      | 0.370 | 0.235 | 36.5#  | 62  | -0.06 |
| 90    |   | Hexachlorobutadiene         | 0.162 | 0.081 | 50.0#  | 38# | -0.06 |
| 91    |   | Naphthalene                 | 0.681 | 0.366 | 46.3#  | 62  | -0.06 |
| 92    |   | 1,2,3-Trichlorobenzene      | 0.274 | 0.175 | 36.1#  | 65  | -0.06 |

Average % D = 6.5

(#) = Out of Range  
 F0078966.D VF2305C.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 02 08:30:25 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2309-CC2305  
**Lab FileID:** F0079055.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2309\F0079055.D Vial: 2  
 Acq On : 3 Mar 2007 9:18 am Operator: richardr  
 Sample : cc2305-40 Inst : GC/MS F  
 Misc : ms3874,vf2309,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|------|--------------------------|-------|-------|-------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0   | 105   | -0.09    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.158 | 7.6   | 97    | -0.05    |
| 3 P  | Chloromethane            | 0.329 | 0.286 | 13.1  | 97    | -0.05    |
| 4 C  | Vinyl Chloride           | 0.286 | 0.252 | 11.9  | 95    | -0.07    |
| 5    | Bromomethane             | 0.225 | 0.200 | 11.1  | 98    | -0.07    |
| 6    | Chloroethane             | 0.217 | 0.212 | 2.3   | 101   | -0.06    |
| 7    | Trichlorofluoromethane   | 0.155 | 0.159 | -2.6  | 105   | -0.07    |
| 8    | Acrolein                 | 0.033 | 0.033 | 0.0   | 99    | -0.08    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.286 | 6.5   | 94    | -0.07    |
| 10   | Freon 113                | 0.205 | 0.208 | -1.5  | 97    | -0.07    |
| 11   | Acetone                  | 0.056 | 0.036 | 35.7# | 73    | -0.07    |
| 12   | Iodomethane              | 0.434 | 0.425 | 2.1   | 103   | -0.08    |
| 13   | Methyl acetate           | 0.191 | 0.126 | 34.0# | 74    | -0.08    |
| 14   | Carbon Disulfide         | 0.889 | 0.880 | 1.0   | 102   | -0.09    |
| 15   | Methylene Chloride       | 0.399 | 0.363 | 9.0   | 94    | -0.08    |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.012 | 29.4# | 82    | -0.08    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.320 | 6.2   | 98    | -0.08    |
| 18   | Acrylonitrile            | 0.095 | 0.064 | 32.6# | 73    | -0.08    |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.478 | 17.7  | 91    | -0.08    |
| 20   | Hexane                   | 0.312 | 0.322 | -3.2  | 99    | -0.08    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.433 | 1.6   | 102   | -0.08    |
| 22   | Vinyl acetate            | 0.550 | 0.430 | 21.8# | 80    | -0.08    |
| 23   | Di-isopropyl ether       | 0.971 | 0.931 | 4.1   | 100   | -0.07    |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.686 | 7.0   | 98    | -0.07    |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.232 | -14.3 | 116   | -0.08    |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.303 | -0.3  | 103   | -0.09    |
| 27   | 2-Butanone               | 0.113 | 0.075 | 33.6# | 75    | -0.08    |
| 28   | Bromochloromethane       | 0.143 | 0.136 | 4.9   | 98    | -0.08    |
| 29 C | Chloroform               | 0.358 | 0.356 | 0.6   | 104   | -0.08    |
| 30   | Tetrahydrofuran          | 0.034 | 0.023 | 32.4# | 83    | -0.09    |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.213 | -2.4  | 105   | -0.08    |
| 32 S | Dibromofluoromethane     | 0.218 | 0.226 | -3.7  | 110   | -0.08    |
| 33   | Cyclohexane              | 0.439 | 0.449 | -2.3  | 99    | -0.08    |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.310 | -2.6  | 104   | -0.09    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.173 | -2.4  | 103   | -0.08    |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.148 | 10.3  | 97    | -0.09    |
| 37   | Benzene                  | 1.108 | 1.097 | 1.0   | 104   | -0.08    |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.180 | 9.1   | 92    | -0.08    |
| 39   | tert-amyl methyl ether   | 0.757 | 0.674 | 11.0  | 96    | -0.08    |
| 40   | Trichloroethene          | 0.226 | 0.229 | -1.3  | 105   | -0.09    |
| 41   | Methylcyclohexane        | 0.364 | 0.374 | -2.7  | 100   | -0.08    |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.307 | 2.2   | 102   | -0.09    |

## Continuing Calibration Summary

Page 2 of 2

Job Number: T16411  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2309-CC2305  
 Lab FileID: F0079055.D

|       |   |                             |       |       |         |      |       |
|-------|---|-----------------------------|-------|-------|---------|------|-------|
| 43    |   | Dibromomethane              | 0.158 | 0.136 | 13.9    | 89   | -0.09 |
| 44    |   | 1,4-Dioxane                 | 0.002 | 0.002 | 0.0     | 81   | -0.09 |
| 45    |   | Bromodichloromethane        | 0.304 | 0.295 | 3.0     | 101  | -0.08 |
| 46    |   | 2-Nitropropane              | 0.040 | 0.026 | 35.0#   | 73   | -0.08 |
| 47    |   | 2-Chloroethyl vinyl ether   | 0.125 | 0.084 | 32.8#   | 71   | -0.08 |
| 48    |   | 4-Methyl-2-pentanone        | 0.240 | 0.173 | 27.9#   | 78   | -0.09 |
| 49    |   | cis-1,3-Dichloropropene     | 0.421 | 0.416 | 1.2     | 102  | -0.08 |
| <hr/> |   |                             |       |       |         |      |       |
| 50    | I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0     | 106  | -0.08 |
| 51    | S | Toluene-d8                  | 1.098 | 1.115 | -1.5    | 110  | -0.08 |
| 52    | C | Toluene                     | 1.386 | 1.388 | -0.1    | 106  | -0.09 |
| 53    |   | trans-1,3-Dichloropropene   | 0.391 | 0.354 | 9.5     | 94   | -0.08 |
| 54    |   | 1,1,2-Trichloroethane       | 0.283 | 0.238 | 15.9    | 91   | -0.09 |
| 55    |   | Tetrachloroethene           | 0.294 | 0.307 | -4.4    | 108  | -0.09 |
| 56    |   | 2-hexanone                  | 0.196 | 0.135 | 31.1#   | 74   | -0.08 |
| 57    |   | 1,3-Dichloropropane         | 0.599 | 0.499 | 16.7    | 89   | -0.08 |
| 58    |   | Dibromochloromethane        | 0.298 | 0.267 | 10.4    | 96   | -0.09 |
| 59    |   | 1,2-Dibromoethane           | 0.309 | 0.246 | 20.4#   | 87   | -0.09 |
| 60    |   | 1-Chlorohexane              | 0.495 | 0.507 | -2.4    | 107  | -0.09 |
| 61    | P | Chlorobenzene               | 0.871 | 0.862 | 1.0     | 105  | -0.09 |
| 62    |   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.275 | 1.8     | 104  | -0.09 |
| 63    | C | Ethylbenzene                | 1.478 | 1.482 | -0.3    | 105  | -0.09 |
| 64    |   | m,p-Xylene                  | 1.025 | 1.035 | -1.0    | 106  | -0.09 |
| 65    |   | o-Xylene                    | 1.070 | 1.092 | -2.1    | 107  | -0.09 |
| 66    |   | Styrene                     | 0.928 | 0.918 | 1.1     | 102  | -0.08 |
| 67    | P | Bromoform                   | 0.169 | 0.154 | 8.9     | 91   | -0.09 |
| <hr/> |   |                             |       |       |         |      |       |
| 68    | I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0     | 98   | -0.09 |
| 69    |   | Isopropylbenzene            | 2.941 | 3.034 | -3.2    | 105  | -0.08 |
| 70    |   | Cyclohexanone               | 0.027 | 0.059 | -118.5# | 229# | -0.10 |
| 71    | S | 4-Bromofluorobenzene        | 0.921 | 0.928 | -0.8    | 106  | -0.09 |
| 72    |   | Bromobenzene                | 0.867 | 0.876 | -1.0    | 102  | -0.10 |
| 73    | P | 1,1,2,2-Tetrachloroethane   | 1.120 | 0.827 | 26.2#   | 80   | -0.09 |
| 74    |   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.141 | 21.2#   | 76   | -0.10 |
| 75    |   | 1,2,3-Trichloropropane      | 0.247 | 0.190 | 23.1#   | 80   | -0.10 |
| 76    |   | n-Propylbenzene             | 4.136 | 4.329 | -4.7    | 103  | -0.09 |
| 77    |   | 2-Chlorotoluene             | 2.591 | 2.651 | -2.3    | 104  | -0.09 |
| 78    |   | 4-Chlorotoluene             | 2.234 | 2.272 | -1.7    | 102  | -0.10 |
| 79    |   | 1,3,5-Trimethylbenzene      | 2.368 | 2.468 | -4.2    | 103  | -0.09 |
| 80    |   | sec-Butylbenzene            | 3.140 | 3.262 | -3.9    | 99   | -0.09 |
| 81    |   | 1,3-Dichlorobenzene         | 1.400 | 1.421 | -1.5    | 98   | -0.10 |
| 82    |   | 4-Isopropyltoluene          | 2.312 | 2.390 | -3.4    | 97   | -0.09 |
| 83    |   | 1,4-Dichlorobenzene         | 1.435 | 1.372 | 4.4     | 94   | -0.10 |
| 84    |   | tert-Butylbenzene           | 0.446 | 0.438 | 1.8     | 96   | -0.10 |
| 85    |   | n-Butylbenzene              | 1.942 | 2.042 | -5.1    | 92   | -0.10 |
| 86    |   | 1,2-Dichlorobenzene         | 1.323 | 1.241 | 6.2     | 91   | -0.09 |
| 87    |   | 1,2,4-Trimethylbenzene      | 2.377 | 2.449 | -3.0    | 100  | -0.09 |
| 88    |   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.046 | 44.6#   | 62   | -0.09 |
| 89    |   | 1,2,4-Trichlorobenzene      | 0.370 | 0.230 | 37.8#   | 56   | -0.10 |
| 90    |   | Hexachlorobutadiene         | 0.162 | 0.184 | -13.6   | 87   | -0.10 |
| 91    |   | Naphthalene                 | 0.681 | 0.268 | 60.6#   | 43#  | -0.12 |
| 92    |   | 1,2,3-Trichlorobenzene      | 0.274 | 0.133 | 51.5#   | 47#  | -0.12 |

Average % D = 12.2

(#) = Out of Range  
 F0078967.D VF2305C.M

SPCC's out = 0 CCC's out = 0  
 Mon Mar 05 09:22:40 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2311-CC2305  
**Lab FileID:** F0079091.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2311\F0079091.D Vial: 3  
 Acq On : 5 Mar 2007 1:28 pm Operator: lydiaj  
 Sample : cc2305-40 Inst : GC/MS F  
 Misc : ms3876,vf2311,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|------|--------------------------|-------|-------|-------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0   | 109   | -0.11    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.156 | 8.8   | 99    | -0.07    |
| 3 P  | Chloromethane            | 0.329 | 0.269 | 18.2  | 94    | -0.07    |
| 4 C  | Vinyl Chloride           | 0.286 | 0.234 | 18.2  | 91    | -0.09    |
| 5    | Bromomethane             | 0.225 | 0.198 | 12.0  | 100   | -0.10    |
| 6    | Chloroethane             | 0.217 | 0.218 | -0.5  | 107   | -0.09    |
| 7    | Trichlorofluoromethane   | 0.155 | 0.171 | -10.3 | 117   | -0.09    |
| 8    | Acrolein                 | 0.033 | 0.033 | 0.0   | 100   | -0.11    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.299 | 2.3   | 102   | -0.10    |
| 10   | Freon 113                | 0.205 | 0.214 | -4.4  | 103   | -0.10    |
| 11   | Acetone                  | 0.056 | 0.048 | 14.3  | 101   | -0.10    |
| 12   | Iodomethane              | 0.434 | 0.444 | -2.3  | 110   | -0.11    |
| 13   | Methyl acetate           | 0.191 | 0.163 | 14.7  | 99    | -0.10    |
| 14   | Carbon Disulfide         | 0.889 | 0.884 | 0.6   | 106   | -0.10    |
| 15   | Methylene Chloride       | 0.399 | 0.376 | 5.8   | 101   | -0.11    |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.016 | 5.9   | 110   | -0.11    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.337 | 1.2   | 106   | -0.10    |
| 18   | Acrylonitrile            | 0.095 | 0.089 | 6.3   | 106   | -0.10    |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.559 | 3.8   | 109   | -0.11    |
| 20   | Hexane                   | 0.312 | 0.310 | 0.6   | 99    | -0.11    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.425 | 3.4   | 104   | -0.11    |
| 22   | Vinyl acetate            | 0.550 | 0.508 | 7.6   | 98    | -0.11    |
| 23   | Di-isopropyl ether       | 0.971 | 0.910 | 6.3   | 101   | -0.10    |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.722 | 2.2   | 106   | -0.10    |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.208 | -2.5  | 108   | -0.11    |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.309 | -2.3  | 109   | -0.11    |
| 27   | 2-Butanone               | 0.113 | 0.096 | 15.0  | 99    | -0.11    |
| 28   | Bromochloromethane       | 0.143 | 0.148 | -3.5  | 110   | -0.11    |
| 29 C | Chloroform               | 0.358 | 0.363 | -1.4  | 109   | -0.11    |
| 30   | Tetrahydrofuran          | 0.034 | 0.029 | 14.7  | 106   | -0.10    |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.214 | -2.9  | 109   | -0.11    |
| 32 S | Dibromofluoromethane     | 0.218 | 0.232 | -6.4  | 116   | -0.11    |
| 33   | Cyclohexane              | 0.439 | 0.449 | -2.3  | 102   | -0.11    |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.309 | -2.3  | 107   | -0.11    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.173 | -2.4  | 107   | -0.11    |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.169 | -2.4  | 114   | -0.11    |
| 37   | Benzene                  | 1.108 | 1.109 | -0.1  | 108   | -0.11    |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.201 | -1.5  | 106   | -0.11    |
| 39   | tert-amyl methyl ether   | 0.757 | 0.756 | 0.1   | 112   | -0.11    |
| 40   | Trichloroethene          | 0.226 | 0.232 | -2.7  | 110   | -0.11    |
| 41   | Methylcyclohexane        | 0.364 | 0.381 | -4.7  | 106   | -0.11    |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.311 | 1.0   | 107   | -0.11    |

## Continuing Calibration Summary

Page 2 of 2

Job Number: T16411  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2311-CC2305  
 Lab FileID: F0079091.D

|      |                             |       |       |         |      |       |
|------|-----------------------------|-------|-------|---------|------|-------|
| 43   | Dibromomethane              | 0.158 | 0.162 | -2.5    | 110  | -0.11 |
| 44   | 1,4-Dioxane                 | 0.002 | 0.002 | 0.0     | 120  | -0.11 |
| 45   | Bromodichloromethane        | 0.304 | 0.305 | -0.3    | 108  | -0.11 |
| 46   | 2-Nitropropane              | 0.040 | 0.034 | 15.0    | 100  | -0.11 |
| 47   | 2-Chloroethyl vinyl ether   | 0.125 | 0.114 | 8.8     | 100  | -0.11 |
| 48   | 4-Methyl-2-pentanone        | 0.240 | 0.215 | 10.4    | 100  | -0.11 |
| 49   | cis-1,3-Dichloropropene     | 0.421 | 0.443 | -5.2    | 113  | -0.11 |
| 50 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0     | 112  | -0.11 |
| 51 S | Toluene-d8                  | 1.098 | 1.122 | -2.2    | 117  | -0.11 |
| 52 C | Toluene                     | 1.386 | 1.362 | 1.7     | 110  | -0.11 |
| 53   | trans-1,3-Dichloropropene   | 0.391 | 0.391 | 0.0     | 109  | -0.11 |
| 54   | 1,1,2-Trichloroethane       | 0.283 | 0.274 | 3.2     | 110  | -0.11 |
| 55   | Tetrachloroethene           | 0.294 | 0.299 | -1.7    | 111  | -0.12 |
| 56   | 2-hexanone                  | 0.196 | 0.170 | 13.3    | 99   | -0.11 |
| 57   | 1,3-Dichloropropene         | 0.599 | 0.566 | 5.5     | 107  | -0.11 |
| 58   | Dibromochloromethane        | 0.298 | 0.295 | 1.0     | 112  | -0.11 |
| 59   | 1,2-Dibromoethane           | 0.309 | 0.301 | 2.6     | 112  | -0.11 |
| 60   | 1-Chlorohexane              | 0.495 | 0.508 | -2.6    | 113  | -0.11 |
| 61 P | Chlorobenzene               | 0.871 | 0.878 | -0.8    | 113  | -0.11 |
| 62   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.277 | 1.1     | 111  | -0.11 |
| 63 C | Ethylbenzene                | 1.478 | 1.468 | 0.7     | 110  | -0.11 |
| 64   | m,p-Xylene                  | 1.025 | 1.025 | 0.0     | 111  | -0.11 |
| 65   | o-Xylene                    | 1.070 | 1.076 | -0.6    | 111  | -0.11 |
| 66   | Styrene                     | 0.928 | 0.938 | -1.1    | 110  | -0.11 |
| 67 P | Bromoform                   | 0.169 | 0.182 | -7.7    | 115  | -0.12 |
| 68 I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0     | 110  | -0.12 |
| 69   | Isopropylbenzene            | 2.941 | 2.831 | 3.7     | 110  | -0.11 |
| 70   | Cyclohexanone               | 0.027 | 0.068 | -151.9# | 297# | -0.13 |
| 71 S | 4-Bromofluorobenzene        | 0.921 | 0.921 | 0.0     | 119  | -0.12 |
| 72   | Bromobenzene                | 0.867 | 0.834 | 3.8     | 110  | -0.13 |
| 73 P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.003 | 10.4    | 109  | -0.12 |
| 74   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.172 | 3.9     | 104  | -0.13 |
| 75   | 1,2,3-Trichloropropane      | 0.247 | 0.232 | 6.1     | 110  | -0.13 |
| 76   | n-Propylbenzene             | 4.136 | 4.135 | 0.0     | 111  | -0.12 |
| 77   | 2-Chlorotoluene             | 2.591 | 2.507 | 3.2     | 110  | -0.12 |
| 78   | 4-Chlorotoluene             | 2.234 | 2.173 | 2.7     | 109  | -0.12 |
| 79   | 1,3,5-Trimethylbenzene      | 2.368 | 2.349 | 0.8     | 110  | -0.11 |
| 80   | sec-Butylbenzene            | 3.140 | 3.184 | -1.4    | 109  | -0.12 |
| 81   | 1,3-Dichlorobenzene         | 1.400 | 1.409 | -0.6    | 110  | -0.13 |
| 82   | 4-Isopropyltoluene          | 2.312 | 2.378 | -2.9    | 109  | -0.12 |
| 83   | 1,4-Dichlorobenzene         | 1.435 | 1.404 | 2.2     | 108  | -0.12 |
| 84   | tert-Butylbenzene           | 0.446 | 0.446 | 0.0     | 110  | -0.13 |
| 85   | n-Butylbenzene              | 1.942 | 2.118 | -9.1    | 107  | -0.13 |
| 86   | 1,2-Dichlorobenzene         | 1.323 | 1.313 | 0.8     | 108  | -0.12 |
| 87   | 1,2,4-Trimethylbenzene      | 2.377 | 2.385 | -0.3    | 109  | -0.12 |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.069 | 16.9    | 105  | -0.12 |
| 89   | 1,2,4-Trichlorobenzene      | 0.370 | 0.377 | -1.9    | 103  | -0.13 |
| 90   | Hexachlorobutadiene         | 0.162 | 0.218 | -34.6#  | 116  | -0.14 |
| 91   | Naphthalene                 | 0.681 | 0.547 | 19.7    | 100  | -0.15 |
| 92   | 1,2,3-Trichlorobenzene      | 0.274 | 0.270 | 1.5     | 108  | -0.14 |

Average % D = 6.6

(#) = Out of Range  
 F0078967.D VF2305C.M

SPCC's out = 0 CCC's out = 0  
 Tue Mar 06 07:56:28 2007



## General Chemistry

### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ITTXHO - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                                | Batch ID | RL    | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|----------------------------------------|----------|-------|-----------|-------|--------------|------------|------------|-----------|
| Alkalinity, Total as CaCO <sub>3</sub> | GN11336  | 5.0   | <5.0      | mg/l  | xxxxxxx      | 2500       | 100.0      | 80-120%   |
| Chloride                               | GN11331  | 1.0   | <1.0      | mg/l  | xxxxxxx      | 1030       | 103.0      | 92-107%   |
| Nitrogen, Nitrate + Nitrite            | GN11291  | 0.050 | <0.050    | mg/l  | 0.500        | 0.51       | 102.0      | 89-112%   |
| Nitrogen, Nitrite                      | GN11283  | 0.050 | <0.050    | mg/l  | 0.500        | 0.52       | 104.0      | 89-117%   |
| Sulfate                                | GN11356  |       |           | mg/l  | 100          | 95.0       | 95.0       | 80-120%   |
| Sulfate                                | GN11356  | 10    | <10       | mg/l  | xxxxxxx      |            | *          | 80-120%   |
| Sulfate                                | GN11528  | 3.0   | <3.0      | mg/l  | xxxxxxx      | 88.0       | 88.0       | 80-120%   |
| Sulfide                                | GN11286  | 0.20  | <0.20     | mg/l  | 1600         | 1370       | 86.0       | 80-120%   |
| Total Organic Carbon                   | GN11296  | 1.0   | <1.0      | mg/l  | 25.0         | 25.0       | 100.0      | 83-110%   |
| Total Organic Carbon                   | GN11304  | 1.0   | <1.0      | mg/l  | 25.0         | 26.0       | 104.0      | 83-110%   |

Associated Samples:

Batch GN11283: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11286: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11291: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11296: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7

Batch GN11304: T16411-8, T16411-9

Batch GN11331: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11336: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11356: T16411-1, T16411-10, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11528: T16411-2

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ITTXHO - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                                | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD  | QC Limits |
|----------------------------------------|----------|-----------|-------|-----------------|------------|------|-----------|
| Alkalinity, Total as CaCO <sub>3</sub> | GN11336  | T16411-10 | mg/l  | 158             | 165        | 4.3  | 0-10%     |
| Nitrogen, Nitrate + Nitrite            | GN11291  | T16411-10 | mg/l  | 0.20            | 0.20       | 0.0  | 0-10%     |
| Nitrogen, Nitrite                      | GN11283  | T16411-10 | mg/l  | 0.010 B         | <0.050     | 0.0  | 0-10%     |
| Sulfate                                | GN11356  | T16411-10 | mg/l  | 1260            | 1200       | 4.7  | 0-20%     |
| Sulfate                                | GN11528  | T16728-2  | mg/l  | 23.0            | 23.0       | 11.0 | 0-20%     |
| Sulfide                                | GN11286  | T16411-10 | mg/l  | U               | <0.20      | 0.0  | 0-20%     |
| Total Organic Carbon                   | GN11296  | T16411-10 | mg/l  | 18.0            | 18.0       | 0.0  | 0-11%     |
| Total Organic Carbon                   | GN11304  | T16445-18 | mg/l  | 6.0             | 6.0        | 0.0  | 0-11%     |
| pH                                     | GN11285  | T16411-10 | su    | 6.5             | 6.5        | 0.0  | 0-6.8%    |

Associated Samples:

Batch GN11283: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11285: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11286: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11291: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11296: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7

Batch GN11304: T16411-8, T16411-9

Batch GN11331: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11336: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11356: T16411-1, T16411-10, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11528: T16411-2

(\*) Outside of QC limits



MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ITTXHO - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                     | Batch ID | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|-----------------------------|----------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Alkalinity, Total as CaCO3  | GN11336  | T16411-10 | mg/l  | 158             | xxxxxxx      | 215       | 116.0 | 79-122%   |
| Nitrogen, Nitrate + Nitrite | GN11291  | T16411-10 | mg/l  | 0.20            | 0.100        | 0.30      | 100.0 | 80-119%   |
| Nitrogen, Nitrate + Nitrite | GN11291  | T16411-10 | mg/l  | 0.20            | 0.100        | 0.30      | 100.0 | 80-119%   |
| Nitrogen, Nitrite           | GN11283  | T16411-10 | mg/l  | 0.010 B         | 0.100        | 0.11      | 109.0 | 75-134%   |
| Nitrogen, Nitrite           | GN11283  | T16411-10 | mg/l  | 0.010 B         | 0.100        | 0.11      | 109.0 | 75-134%   |
| Sulfate                     | GN11356  | T16411-10 | mg/l  | 1260            | 250          | 1470      | 87.0  | 75-125%   |
| Sulfate                     | GN11356  | T16411-10 | mg/l  | 1260            | xxxxxxx      |           | *     | 75-125%   |
| Sulfate                     | GN11528  | T16728-2  | mg/l  | 23.0            | xxxxxxx      | 50.0      | 96.0* | 75-125%   |
| Total Organic Carbon        | GN11296  | T16411-10 | mg/l  | 18.0            | 10.0         | 28.0      | 100.0 | 74-121%   |
| Total Organic Carbon        | GN11296  | T16411-10 | mg/l  | 18.0            | 10.0         | 27.0      | 90.0  | 74-121%   |
| Total Organic Carbon        | GN11304  | T16445-18 | mg/l  | 6.0             | 10.0         | 16.0      | 100.0 | 74-121%   |

Associated Samples:

Batch GN11283: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11291: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11296: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7

Batch GN11304: T16411-8, T16411-9

Batch GN11331: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11336: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11356: T16411-1, T16411-10, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9

Batch GN11528: T16411-2

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ITTXH0 - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte | Batch ID | QC Sample | Units | Original Result | Spike Amount | MSD Result | RPD | QC Limit |
|---------|----------|-----------|-------|-----------------|--------------|------------|-----|----------|
|---------|----------|-----------|-------|-----------------|--------------|------------|-----|----------|

Associated Samples:  
Batch GN11336: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9  
(\*) Outside of QC limits

6.4  
6



## Misc. Forms

### Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Chain of Custody



## CHAIN OF CUSTODY

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

Page 1 of 1

| Subcontract Information                                                                                                                                                                                                                                                                                 |  |         |  | Project Information                                                       |      |                                  |              | Requested Analyses                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |    |    |                                                                                                              |    |    |    |            |    |    |    | Matrix Codes |       |    |     |    |    |     |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------|--|---------------------------------------------------------------------------|------|----------------------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|----|----|--------------------------------------------------------------------------------------------------------------|----|----|----|------------|----|----|----|--------------|-------|----|-----|----|----|-----|--|
| Company Name<br><b>ALSE-ORLANDO</b>                                                                                                                                                                                                                                                                     |  |         |  | Send Report to:<br>Agnesev@accutest.com                                   |      |                                  |              | <div style="display: flex; justify-content: space-between;"> <div>           Methane, Ethane, Ethene (RSK47)<br/>           Perchlorates<br/>           Explosives<br/>           ...         </div> <div>           DW - Drinking Water<br/>           GW - Ground Water<br/>           WW - Wastewater<br/>           SO - Soil<br/>           SL - Sludge<br/>           OL - Oil<br/>           LIQ - Other Liquid<br/>           SOL - Other Solid         </div> </div> |    |    |    |                                                                                                              |    |    |    |            |    |    |    | LAB USE ONLY |       |    |     |    |    |     |  |
| Project Contact                                                                                                                                                                                                                                                                                         |  |         |  | Bill to<br>Accutest Laboratories                                          |      |                                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| Address                                                                                                                                                                                                                                                                                                 |  |         |  | Address<br>10165 Harwin Drive, Suite 160                                  |      |                                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| City<br><b>ORLANDO</b>                                                                                                                                                                                                                                                                                  |  | State   |  | Zip                                                                       |      | City<br><b>Houston, TX 77036</b> |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              | State |    | Zip |    |    |     |  |
| Phone No.                                                                                                                                                                                                                                                                                               |  | Fax No. |  | Phone No.                                                                 |      | Fax No.                          |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| Accutest Purchase Order #                                                                                                                                                                                                                                                                               |  |         |  | 714-7000 / 713-271-4770                                                   |      |                                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| Accutest Sample ID                                                                                                                                                                                                                                                                                      |  |         |  | Collection                                                                |      |                                  |              | Number of preserved bottles                                                                                                                                                                                                                                                                                                                                                                                                                                                   |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
|                                                                                                                                                                                                                                                                                                         |  |         |  | Date                                                                      | Time | Matrix                           | # of bottles | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 15 | 20 | 25 | 30                                                                                                           | 35 | 40 | 45 | 50         | 55 | 60 | 65 | 70           | 75    | 80 | 85  | 90 | 95 | 100 |  |
| T16411-1                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 850  | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-2                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 1510 | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-3                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 1510 | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-4                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 851  | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-5                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 934  | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-6                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 1223 | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-7                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 1223 | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-8                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 1654 | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-9                                                                                                                                                                                                                                                                                                |  |         |  | 2/20/2007                                                                 | 1630 | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| T16411-10 +MS/MSD                                                                                                                                                                                                                                                                                       |  |         |  | 2/20/2007                                                                 | 0    | GW                               | 5            | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| Turnaround Time ( Business days)                                                                                                                                                                                                                                                                        |  |         |  | Data Deliverable Information                                              |      |                                  |              | Comments / Remarks                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| <input checked="" type="checkbox"/> 10 Day STANDARD<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 4 Day RUSH<br><input type="checkbox"/> 3 Day EMERGENCY<br><input type="checkbox"/> 2 Day EMERGENCY<br><input type="checkbox"/> 1 Day EMERGENCY<br><input type="checkbox"/> Other |  |         |  | Approved By / Date:<br>_____<br>_____<br>_____<br>_____<br>_____<br>_____ |      |                                  |              | <input type="checkbox"/> Commercial "A"<br><input type="checkbox"/> Commercial "B"<br><input checked="" type="checkbox"/> TRRP 13<br><input checked="" type="checkbox"/> Reduced Tier1<br><br>Commercial "A" = Results Only<br>Commercial "B" = Results & Standard QC                                                                                                                                                                                                         |    |    |    | <input type="checkbox"/> State Form<br><input type="checkbox"/> EDO Format<br><input type="checkbox"/> Other |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY                                                                                                                                                                                                 |  |         |  |                                                                           |      |                                  |              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |    |    |    |                                                                                                              |    |    |    |            |    |    |    |              |       |    |     |    |    |     |  |
| Relinquished by Sampler:                                                                                                                                                                                                                                                                                |  |         |  | Date Time:                                                                |      |                                  |              | Received By:                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |    |    | Relinquished By:                                                                                             |    |    |    | Date Time: |    |    |    | Received By: |       |    |     |    |    |     |  |
| 1                                                                                                                                                                                                                                                                                                       |  |         |  |                                                                           |      |                                  |              | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    | 2                                                                                                            |    |    |    | 2          |    |    |    |              |       |    |     |    |    |     |  |
| Relinquished by:                                                                                                                                                                                                                                                                                        |  |         |  | Date Time:                                                                |      |                                  |              | Received By:                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |    |    | Relinquished By:                                                                                             |    |    |    | Date Time: |    |    |    | Received By: |       |    |     |    |    |     |  |
| 3                                                                                                                                                                                                                                                                                                       |  |         |  |                                                                           |      |                                  |              | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |    |    |    | 4                                                                                                            |    |    |    | 4          |    |    |    |              |       |    |     |    |    |     |  |
| Relinquished by:                                                                                                                                                                                                                                                                                        |  |         |  | Date Time:                                                                |      |                                  |              | Received By:                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |    |    |    | Relinquished By:                                                                                             |    |    |    | Date Time: |    |    |    | Received By: |       |    |     |    |    |     |  |
| 5                                                                                                                                                                                                                                                                                                       |  |         |  | 09-23-07                                                                  |      |                                  |              | WF-d Vm                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |    |    |    | F-x                                                                                                          |    |    |    | F-x        |    |    |    | 3.0°         |       |    |     |    |    |     |  |

## 7.1

## T16411: Chain of Custody

Page 1 of 2

**Accutest Laboratories Southeast, Inc.**

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: T16411 CLIENT: ALSC PROJECT: T16411  
 DATE/TIME RECEIVED: 02-23-07 09:00 # OF COOLERS RECEIVED: 1 COOLER TEMPS: 3.0  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 7986 1382 4380

## COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT  
☐ CHAIN OF CUSTODY NOT RECEIVED (COC)  
☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING  
☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING  
☐ TEMPERATURE CRITERIA NOT MET

## TRIP BLANK INFORMATION

- ☐ TRIP BLANK PROVIDED  
☒ TRIP BLANK NOT PROVIDED  
☒ TRIP BLANK NOT ON COC  
☐ TRIP BLANK INTACT  
☐ TRIP BLANK NOT INTACT  
☐ RECEIVED WATER TRIP BLANK  
☐ RECEIVED SOIL TRIP BLANK

## MISC. INFORMATION

NUMBER OF ENCORES ? 0  
 NUMBER OF 5035 FIELD KITS ? 0  
 NUMBER OF LAB FILTERED METALS ? 0

## SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES  
☐ CORRECT NUMBER OF CONTAINERS USED  
☐ SAMPLE RECEIVED IMPROPERLY PRESERVED  
☐ INSUFFICIENT VOLUME FOR ANALYSIS  
☐ TIMES ON COC DOES NOT MATCH LABEL(S)  
☐ ID'S ON COC DOES NOT MATCH LABEL(S)  
☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)  
☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED  
☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED  
☐ UNCLEAR FILTERING INSTRUCTIONS  
☐ UNCLEAR COMPOSITING INSTRUCTIONS  
☐ SAMPLE CONTAINER(S) RECEIVED BROKEN  
☐ % SOLIDS JAR NOT RECEIVED  
☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOURS  
☐ RESIDUAL CHLORINE PRESENT  
 (APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: # OF BOTTLES DO NOT MATCH WITH WHAT WE RECEIVED

\* SAMPLES: #1, #4-#9 RECEIVED THREE HCL VIALS AND ONE UNPRESERVED BOTTLE

\* SAMPLES: #2, #3 RECEIVED THREE HCL VIALS, ONE UNPRESERVED AMBER AND ONE UNP. BOTTLE

\* SAMPLE: #10 RECEIVED 6 HCL VIALS AND 2 UNPRESERVED BOTTLES

TECHNICIAN SIGNATURE/DATE W. J. V. 02-23-07 TECHNICIAN SIGNATURE/DATE \_\_\_\_\_ ASBD 10/03/06

T16411: Chain of Custody

Page 2 of 2



## GC Volatiles

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

∞

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| GXY991-MB | XY025230.D | 1  | 02/26/07 | TD | n/a       | n/a        | GXY991           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16411-1, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9, T16411-10

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | ND     | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | ND     | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | ND     | 1.0  | 0.80 | ug/l  |   |

8.1.1  
8

Blank Spike Summary

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| GXY991-BS | XY025231.D | 1  | 02/26/07 | TD | n/a       | n/a        | GXY991           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16411-1, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9, T16411-10

| CAS No. | Compound | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
| 74-82-8 | Methane  | 108           | 99.2        | 92       | 54-149 |
| 74-84-0 | Ethane   | 219           | 217         | 99       | 57-143 |
| 74-85-1 | Ethene   | 290           | 276         | 95       | 57-143 |

82.1  
8



Matrix Spike Summary

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16411-10MS | XY025248.D | 1  | 02/26/07 | TD | n/a       | n/a        | GXY991           |
| T16411-10   | XY025246.D | 1  | 02/26/07 | TD | n/a       | n/a        | GXY991           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16411-1, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9, T16411-10

| CAS No. | Compound | T16411-10<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Limits |
|---------|----------|-------------------|--------------------|------------|---------|--------|
| 74-82-8 | Methane  | 0.50 U            | 108                | 103        | 95      | 54-149 |
| 74-84-0 | Ethane   | 1.0 U             | 219                | 226        | 103     | 57-143 |
| 74-85-1 | Ethene   | 1.0 U             | 290                | 290        | 100     | 57-143 |

8.3.1  
8

Duplicate Summary

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| T16411-10DUP | XY025247.D | 1  | 02/26/07 | TD | n/a       | n/a        | GXY991           |
| T16411-10    | XY025246.D | 1  | 02/26/07 | TD | n/a       | n/a        | GXY991           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16411-1, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9, T16411-10

| CAS No. | Compound | T16411-10<br>ug/l | DUP<br>Q ug/l | Q | RPD | Limits |
|---------|----------|-------------------|---------------|---|-----|--------|
| 74-82-8 | Methane  | 0.50 U            | ND            |   | nc  | 24     |
| 74-84-0 | Ethane   | 1.0 U             | ND            |   | nc  | 23     |
| 74-85-1 | Ethene   | 1.0 U             | ND            |   | nc  | 10     |

8.4.1  
8

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY989-ICC989  
**Lab FileID:** XY025202.D

**Response Factor Report VOA5**

**Method** : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
**Title** : Dissolved Gases in Water  
**Last Update** : Thu Feb 22 15:36:18 2007  
**Response via** : Initial Calibration

**Calibration Files**

1 =XY025194.D 2 =XY025195.D 3 =XY025201.D 4 =XY025197.D  
 5 =XY025202.D 6 =XY025199.D 7 =XY025200.D

| Compound     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | Avg   | %RSD     |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)c Methane  | 1.442 | 0.904 | 1.128 | 1.220 | 0.672 | 0.793 | 0.957 | 1.017 | E4 26.02 |
| 2)c Ethylene | 2.415 | 1.896 | 1.964 | 2.128 | 1.306 | 1.522 | 1.817 | 1.864 | E4 19.76 |
| 3)c Ethane   | 2.311 | 1.873 | 1.880 | 2.068 | 1.280 | 1.499 | 1.798 | 1.816 | E4 18.87 |

(#) = Out of Range

RSK147XY.M

Thu Feb 22 15:38:10 2007

8.5.1  
8

**Initial Calibration Verification**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY989-ICV989  
**Lab FileID:** XY025203.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\022207\XY025203.D Vial: 100  
 Acq On : 22 Feb 2007 1:27 pm Operator: Trangd  
 Sample : ICV989-1000 Inst : VOA5  
 Misc : gc7062,gxy989,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Feb 22 15:36:18 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|----------|----------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 1000.000 | 1154.410 | -15.4  | 175   | 0.20     | 0.88- | 1.48   |
| 2 c | Ethylene | 1000.000 | 1202.152 | -20.2  | 172   | 0.31     | 2.54- | 3.34   |
| 3 c | Ethane   | 1000.000 | 1245.774 | -24.6  | 177   | 0.32     | 3.14- | 3.94   |

(#) = Out of Range  
 XY025202.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Thu Feb 22 15:37:53 2007

8.5.2  
8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY991-CC989  
**Lab FileID:** XY025228.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\022607\XY025228.D Vial: 100  
 Acq On : 26 Feb 2007 9:27 am Operator: Trangd  
 Sample : CC989-1000 Inst : VOA5  
 Misc : gc7062,gxy991,,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Feb 27 13:37:21 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|----------|----------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 1000.000 | 935.186  | 6.5    | 141   | 0.07     | 1.13- | 1.73   |
| 2 c | Ethylene | 1000.000 | 1013.727 | -1.4   | 145   | 0.09     | 2.94- | 3.74   |
| 3 c | Ethane   | 1000.000 | 1028.150 | -2.8   | 146   | 0.09     | 3.57- | 4.37   |

(#) = Out of Range  
 XY025202.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Tue Feb 27 14:33:55 2007

8.5.3

8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY991-CC989  
**Lab FileID:** XY025239.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\022607\XY025239.D Vial: 100  
 Acq On : 26 Feb 2007 12:29 pm Operator: Trangd  
 Sample : CC989-500 Inst : VOA5  
 Misc : gc7062,gxy991,,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Feb 27 13:37:21 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|---------|---------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 500.000 | 499.976 | 0.0    | 83    | -0.02    | 1.13- | 1.73   |
| 2 c | Ethylene | 500.000 | 546.961 | -9.4   | 96    | 0.00     | 2.94- | 3.74   |
| 3 c | Ethane   | 500.000 | 553.481 | -10.7  | 97    | 0.00     | 3.57- | 4.37   |

(#) = Out of Range  
 XY025197.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Tue Feb 27 14:33:29 2007

8.5.4

8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY991-ECC989  
**Lab FileID:** XY025249.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\022607\XY025249.D Vial: 100  
 Acq On : 26 Feb 2007 3:23 pm Operator: Trangd  
 Sample : ECC989-1000 Inst : VOA5  
 Misc : gc7062,gxy991,,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Tue Feb 27 13:37:21 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|----------|----------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 1000.000 | 1134.333 | -13.4  | 172   | 0.01     | 1.13- | 1.73   |
| 2 c | Ethylene | 1000.000 | 1229.780 | -23.0  | 175   | 0.00     | 2.94- | 3.74   |
| 3 c | Ethane   | 1000.000 | 1245.098 | -24.5  | 177   | 0.00     | 3.57- | 4.37   |

(#) = Out of Range  
 XY025202.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Tue Feb 27 14:33:55 2007

8.5.5

8



## GC Semi-volatiles

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries



**Method Blank Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19630-MB | GG020114.D1 |    | 02/27/07 | MRE | 02/26/07  | OP19630    | GGG904           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16411-2, T16411-3

| CAS No.    | Compound                   | Result | RL   | MDL   | Units | Q |
|------------|----------------------------|--------|------|-------|-------|---|
| 2691-41-0  | HMX                        | ND     | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | ND     | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | ND     | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | ND     | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND     | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND     | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | ND     | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | ND     | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND     | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND     | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 610-39-9 | 3,4-Dinitrotoluene   | 117% 70-136% |

**Method Blank Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19630-MB | GG020188.D1 |    | 03/01/07 | MRE | 02/26/07  | OP19630    | GGG905           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16411-2, T16411-3

| CAS No.    | Compound                   | Result | RL   | MDL   | Units | Q |
|------------|----------------------------|--------|------|-------|-------|---|
| 2691-41-0  | HMX                        | ND     | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | ND     | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | ND     | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | ND     | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND     | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND     | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | ND     | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | ND     | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND     | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND     | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Limits      |
|----------|----------------------|-------------|
| 610-39-9 | 3,4-Dinitrotoluene   | 98% 70-136% |

**Blank Spike Summary**

Page 1 of 1

**Job Number:** T16411**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19630-BS | GG020113.D1 |    | 02/27/07 | MRE | 02/26/07  | OP19630    | GGG904           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16411-2, T16411-3

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 2691-41-0  | HMX                        | 5             | 5.4         | 108      | 74-152 |
| 121-82-4   | RDX                        | 5             | 5.4         | 108      | 80-124 |
| 99-65-0    | 1,3-Dinitrobenzene         | 5             | 5.4         | 108      | 84-123 |
| 606-20-2   | 2,6-Dinitrotoluene         | 5             | 5.1         | 102      | 84-133 |
| 121-14-2   | 2,4-Dinitrotoluene         | 5             | 5.3         | 106      | 77-116 |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 5             | 5.4         | 108      | 78-117 |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 5             | 5.3         | 106      | 84-123 |
| 98-95-3    | Nitrobenzene               | 5             | 5.6         | 112      | 76-128 |
| 88-72-2    | o-Nitrotoluene             | 5             | 5.0         | 100      | 76-120 |
| 99-08-1    | m-Nitrotoluene             | 5             | 5.1         | 102      | 74-124 |
| 99-99-0    | p-Nitrotoluene             | 5             | 5.3         | 106      | 81-125 |
| 479-45-8   | Tetryl                     | 5             | 4.7         | 94       | 62-117 |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 5             | 5.4         | 108      | 85-127 |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 5             | 5.5         | 110      | 71-128 |

| CAS No.  | Surrogate Recoveries | BSP  | Limits  |
|----------|----------------------|------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 128% | 70-136% |

**Blank Spike Summary**

Page 1 of 1

**Job Number:** T16411**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19630-BS | GG020187.D1 |    | 03/01/07 | MRE | 02/26/07  | OP19630    | GGG905           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16411-2, T16411-3

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 2691-41-0  | HMX                        | 5             | 6.1         | 122      | 74-152 |
| 121-82-4   | RDX                        | 5             | 5.6         | 112      | 80-124 |
| 99-65-0    | 1,3-Dinitrobenzene         | 5             | 5.4         | 108      | 84-123 |
| 606-20-2   | 2,6-Dinitrotoluene         | 5             | 5.2         | 104      | 84-133 |
| 121-14-2   | 2,4-Dinitrotoluene         | 5             | 5.3         | 106      | 77-116 |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 5             | 5.4         | 108      | 78-117 |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 5             | 5.2         | 104      | 84-123 |
| 98-95-3    | Nitrobenzene               | 5             | 6.2         | 124      | 76-128 |
| 88-72-2    | o-Nitrotoluene             | 5             | 5.1         | 102      | 76-120 |
| 99-08-1    | m-Nitrotoluene             | 5             | 5.4         | 108      | 74-124 |
| 99-99-0    | p-Nitrotoluene             | 5             | 5.4         | 108      | 81-125 |
| 479-45-8   | Tetryl                     | 5             | 4.8         | 96       | 62-117 |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 5             | 5.7         | 114      | 85-127 |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 5             | 5.9         | 118      | 71-128 |

| CAS No.  | Surrogate Recoveries | BSP  | Limits  |
|----------|----------------------|------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 112% | 70-136% |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 1

**Job Number:** T16411**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample                | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19630-MS            | GG020118.D 1 |    | 02/27/07 | MRE | 02/26/07  | OP19630    | GGG904           |
| OP19630-MSD           | GG020119.D 1 |    | 02/27/07 | MRE | 02/26/07  | OP19630    | GGG904           |
| F47423-3 <sup>a</sup> | GG020168.D 1 |    | 02/28/07 | MRE | 02/26/07  | OP19630    | GGG904           |
| F47423-3 <sup>b</sup> | GG020190.D 1 |    | 03/01/07 | MRE | 02/26/07  | OP19630    | GGG905           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16411-2, T16411-3

| CAS No.    | Compound                   | F47423-3<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|--------------------|------------|---------|-------------|----------|-----|-------------------|
| 2691-41-0  | HMX                        | 1.2              | 9.62               | 10.9       | 101     | 11.3        | 105      | 4   | 74-152/21         |
| 121-82-4   | RDX                        | 14.5             | 9.62               | 25.3       | 112     | 26.9        | 129*     | 6   | 80-124/20         |
| 99-65-0    | 1,3-Dinitrobenzene         | ND               | 9.62               | 9.8        | 102     | 10.2        | 106      | 4   | 84-123/23         |
| 606-20-2   | 2,6-Dinitrotoluene         | ND               | 9.62               | 9.3        | 97      | 9.7         | 101      | 4   | 84-133/23         |
| 121-14-2   | 2,4-Dinitrotoluene         | ND               | 9.62               | 9.5        | 99      | 9.8         | 102      | 3   | 77-116/26         |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND               | 9.62               | 9.3        | 97      | 9.8         | 102      | 5   | 78-117/28         |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND               | 9.62               | 9.0        | 94      | 9.5         | 99       | 5   | 84-123/27         |
| 98-95-3    | Nitrobenzene               | ND               | 9.62               | 10.1       | 105     | 10.5        | 109      | 4   | 76-128/28         |
| 88-72-2    | o-Nitrotoluene             | ND               | 9.62               | 8.9        | 93      | 9.5         | 99       | 7   | 76-120/30         |
| 99-08-1    | m-Nitrotoluene             | ND               | 9.62               | 9.1        | 95      | 9.8         | 102      | 7   | 74-124/32         |
| 99-99-0    | p-Nitrotoluene             | ND               | 9.62               | 9.4        | 98      | 10.1        | 105      | 7   | 81-125/34         |
| 479-45-8   | Tetryl                     | ND               | 9.62               | 7.4        | 77      | 7.8         | 81       | 5   | 62-117/28         |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND               | 9.62               | 9.9        | 103     | 10.3        | 107      | 4   | 85-127/21         |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND               | 9.62               | 9.6        | 100     | 10          | 104      | 4   | 71-128/21         |

| CAS No.  | Surrogate Recoveries | MS  | MSD | F47423-3 | F47423-3 | Limits  |
|----------|----------------------|-----|-----|----------|----------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 94% | 94% | 103%     | 105%     | 70-136% |

(a) All hits confirmed by reanalysis on a dissimilar column.

(b) Confirmation run.

Semivolatile Surrogate Recovery Summary

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

|                     |            |
|---------------------|------------|
| Method: SW846 8330A | Matrix: AQ |
|---------------------|------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> |
|---------------|-------------|-----------------|
| T16411-2      | GG020170.D  | 98.0            |
| T16411-3      | GG020171.D  | 96.0            |
| OP19630-BS    | GG020113.D  | 128.0           |
| OP19630-BS    | GG020187.D  | 112.0           |
| OP19630-MB    | GG020114.D  | 117.0           |
| OP19630-MB    | GG020188.D  | 98.0            |
| OP19630-MS    | GG020118.D  | 94.0            |
| OP19630-MSD   | GG020119.D  | 94.0            |

| Surrogate Compounds     | Recovery Limits |
|-------------------------|-----------------|
| S1 = 3,4-Dinitrotoluene | 70-136%         |

(a) Recovery from GC signal #1

9.4.1  
9

**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> GGG904-CC825 | <b>Injection Date:</b> 02/27/07 |
| <b>Lab File ID:</b> GG020112.D | <b>Injection Time:</b> 15:07    |
| <b>Instrument ID:</b> GCGG     | <b>Method:</b> SW846 8330A      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 13.47 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| OP19630-BS    | GG020113.D  | 02/27/07      | 15:34         | 13.47              |
| OP19630-MB    | GG020114.D  | 02/27/07      | 16:02         | 13.49              |
| ZZZZZZ        | GG020115.D  | 02/27/07      | 16:29         | 13.51              |
| ZZZZZZ        | GG020116.D  | 02/27/07      | 16:57         | 13.52              |
| OP19630-MS    | GG020118.D  | 02/27/07      | 17:52         | 13.51              |
| OP19630-MSD   | GG020119.D  | 02/27/07      | 18:20         | 13.51              |
| ZZZZZZ        | GG020120.D  | 02/27/07      | 18:47         | 13.51              |
| ZZZZZZ        | GG020122.D  | 02/27/07      | 19:43         | 13.50              |

**Surrogate  
Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

9.5.1  
9

**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16411**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

|                       |              |                        |             |
|-----------------------|--------------|------------------------|-------------|
| <b>Check Std:</b>     | GGG904-CC825 | <b>Injection Date:</b> | 02/28/07    |
| <b>Lab File ID:</b>   | GG020166.D   | <b>Injection Time:</b> | 16:02       |
| <b>Instrument ID:</b> | GCGG         | <b>Method:</b>         | SW846 8330A |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 13.44 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| F47423-3      | GG020168.D  | 02/28/07      | 16:57         | 13.44              |
| ZZZZZZ        | GG020169.D  | 02/28/07      | 17:25         | 13.44              |
| T16411-2      | GG020170.D  | 02/28/07      | 17:52         | 13.45              |
| T16411-3      | GG020171.D  | 02/28/07      | 18:20         | 13.44              |
| ZZZZZZ        | GG020172.D  | 02/28/07      | 18:47         | 13.47              |
| OP19656-BS    | GG020173.D  | 02/28/07      | 19:15         | 13.39              |
| OP19656-MB    | GG020174.D  | 02/28/07      | 19:43         | 13.38              |
| F47412-1      | GG020175.D  | 02/28/07      | 20:10         | 13.38              |
| OP19656-MS    | GG020176.D  | 02/28/07      | 20:38         | 13.38              |
| OP19656-MSD   | GG020177.D  | 02/28/07      | 21:06         | 13.37              |

**Surrogate Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1



**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16411**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant**Check Std:** GGG905-CC827**Injection Date:** 03/01/07**Lab File ID:** GG020186.D**Injection Time:** 10:47**Instrument ID:** GCGG**Method:** SW846 8330A

|                       |                       |
|-----------------------|-----------------------|
| <b>S1<sup>a</sup></b> | <b>S1<sup>b</sup></b> |
| <b>RT</b>             | <b>RT</b>             |

|           |       |       |
|-----------|-------|-------|
| Check Std | 10.70 | 10.70 |
|-----------|-------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP19630-BS    | GG020187.D  | 03/01/07      | 11:07         | 10.69              |                    |
| OP19630-MB    | GG020188.D  | 03/01/07      | 11:26         | 10.70              |                    |
| ZZZZZZ        | GG020189.D  | 03/01/07      | 11:46         | 10.69              |                    |
| F47423-3      | GG020190.D  | 03/01/07      | 12:05         | 10.70              |                    |
| ZZZZZZ        | GG020191.D  | 03/01/07      | 12:25         | 10.69              |                    |
| OP19656-BS    | GG020193.D  | 03/01/07      | 13:04         | 10.66              |                    |
| OP19656-MB    | GG020194.D  | 03/01/07      | 13:24         | 10.67              |                    |
| ZZZZZZ        | GG020195.D  | 03/01/07      | 13:43         | 10.67              |                    |
| GGG905-ECC827 | GG020197.D  | 03/01/07      | 14:22         | 10.72              | 10.72              |

**Surrogate Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

9.5.3  
6

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG825-ICC825  
**Lab FileID:** GG018282.D

**Response Factor Report G1315B**

**Method** : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
**Title** : Explosives by 8330  
**Last Update** : Thu Oct 19 11:32:41 2006  
**Response via** : Initial Calibration

**Calibration Files**

20 =GG018279.D 100 =GG018280.D 250 =GG018281.D 500 =GG018282.D  
 750 =GG018283.D 1000=GG018284.D 2000=GG018285.D ICV =GG018286.D

| Compound         | 20    | 100   | 250   | 500   | 750   | 1000  | 2000  | ICV | Avg   | %RSD    |
|------------------|-------|-------|-------|-------|-------|-------|-------|-----|-------|---------|
| 1) HMX           | 2.870 | 2.789 | 2.757 | 2.694 | 2.719 | 2.735 | 2.786 |     | 2.764 | E3 2.09 |
| 2) TNX           | 5.916 | 6.424 | 6.486 | 6.331 | 6.453 | 6.468 | 6.587 |     | 6.381 | E3 3.43 |
| 3) DNX           | 4.900 | 5.156 | 5.125 | 4.986 | 5.037 | 5.057 | 5.155 |     | 5.059 | E3 1.88 |
| 4) MNX           | 4.909 | 4.991 | 4.972 | 4.807 | 4.886 | 4.901 | 4.995 |     | 4.923 | E3 1.38 |
| 5) RDX           | 3.185 | 3.565 | 3.625 | 3.500 | 3.554 | 3.547 | 3.609 |     | 3.512 | E3 4.27 |
| 6) 1,3,5-Trinit  | 7.763 | 7.813 | 7.689 | 7.436 | 7.595 | 7.612 | 7.763 |     | 7.667 | E3 1.70 |
| 7) 1,3-Dinitrob  | 1.069 | 1.070 | 1.060 | 1.029 | 1.047 | 1.051 | 1.071 |     | 1.057 | E4 1.49 |
| 8) Tetryl        | 6.130 | 6.168 | 6.180 | 6.004 | 6.091 | 6.096 | 6.221 |     | 6.127 | E3 1.17 |
| 9) Nitrobenzene  | 7.057 | 7.032 | 7.019 | 6.708 | 6.915 | 6.920 | 7.082 |     | 6.962 | E3 1.85 |
| 10) 3,4-Dinitrot | 4.667 | 4.752 | 4.687 | 4.537 | 4.621 | 4.631 | 4.731 |     | 4.661 | E3 1.56 |
| 11) 2,4,6-Trinit | 7.275 | 7.409 | 7.373 | 7.143 | 7.282 | 7.301 | 7.456 |     | 7.320 | E3 1.42 |
| 12) 4-Amino-2,6- | 5.266 | 5.304 | 5.264 | 5.117 | 5.194 | 5.220 | 5.330 |     | 5.242 | E3 1.37 |
| 13) 2-Amino-4,6- | 7.249 | 7.203 | 7.187 | 7.006 | 7.130 | 7.155 | 7.311 |     | 7.177 | E3 1.35 |
| 14) 2,6-Dinitrot | 5.524 | 5.133 | 5.010 | 4.844 | 4.942 | 4.954 | 5.071 |     | 5.068 | E3 4.37 |
| 15) 2,4-Dinitrot | 1.149 | 1.009 | 0.992 | 0.958 | 0.976 | 0.978 | 0.999 |     | 1.009 | E4 6.36 |
| 16) o-Nitrotolue | 5.044 | 4.558 | 4.542 | 4.244 | 4.403 | 4.414 | 4.516 |     | 4.532 | E3 5.53 |
| 17) p-Nitrotolue | 4.102 | 3.815 | 3.790 | 3.596 | 3.734 | 3.734 | 3.831 |     | 3.800 | E3 4.06 |
| 18) m-Nitrotolue | 4.959 | 4.808 | 4.856 | 4.629 | 4.803 | 4.812 | 4.942 |     | 4.830 | E3 2.26 |

**Signal #2**

|                  |       |       |       |       |       |       |       |  |       |         |
|------------------|-------|-------|-------|-------|-------|-------|-------|--|-------|---------|
| 1) HMX           | 8.151 | 8.148 | 8.190 | 8.012 | 8.090 | 8.092 | 8.238 |  | 8.132 | E3 0.91 |
| 2) TNX           | 0.956 | 0.980 | 0.995 | 0.969 | 0.984 | 0.985 | 1.001 |  | 0.981 | E4 1.55 |
| 3) DNX           | 7.525 | 8.044 | 8.332 | 7.974 | 7.996 | 7.991 | 8.136 |  | 8.000 | E3 3.05 |
| 4) MNX           | 7.756 | 7.781 | 7.940 | 7.696 | 7.742 | 7.746 | 7.895 |  | 7.794 | E3 1.14 |
| 5) RDX           | 4.720 | 5.727 | 5.947 | 5.855 | 5.997 | 5.944 | 6.042 |  | 5.748 | E3 8.08 |
| 6) 1,3,5-Trinit  | 1.479 | 1.619 | 1.553 | 1.513 | 1.538 | 1.540 | 1.572 |  | 1.545 | E4 2.85 |
| 7) 1,3-Dinitrob  | 1.225 | 1.286 | 1.279 | 1.246 | 1.265 | 1.272 | 1.295 |  | 1.267 | E4 1.91 |
| 8) Tetryl        | 1.037 | 1.106 | 1.123 | 1.092 | 1.106 | 1.105 | 1.129 |  | 1.100 | E4 2.76 |
| 9) Nitrobenzene  | 3.263 | 3.394 | 3.343 | 3.176 | 3.205 | 3.190 | 3.274 |  | 3.264 | E3 2.50 |
| 10) 3,4-Dinitrot | 6.324 | 6.522 | 6.468 | 6.218 | 6.242 | 6.243 | 6.394 |  | 6.344 | E3 1.89 |
| 11) 2,4,6-Trinit | 1.070 | 1.106 | 1.085 | 1.048 | 1.060 | 1.064 | 1.089 |  | 1.075 | E4 1.85 |
| 12) 4-Amino-2,6- | 1.430 | 1.457 | 1.434 | 1.391 | 1.407 | 1.413 | 1.444 |  | 1.425 | E4 1.62 |
| 13) 2-Amino-4,6- | 1.240 | 1.240 | 1.201 | 1.171 | 1.189 | 1.194 | 1.223 |  | 1.208 | E4 2.20 |
| 14) 2,6-Dinitrot | 8.005 | 7.244 | 6.878 | 6.645 | 6.758 | 6.778 | 6.958 |  | 7.038 | E3 6.64 |
| 15) 2,4-Dinitrot | 1.102 | 0.930 | 0.906 | 0.880 | 0.888 | 0.892 | 0.911 |  | 0.930 | E4 8.36 |
| 16) o-Nitrotolue | 5.194 | 4.804 | 4.848 | 4.493 | 4.691 | 4.697 | 4.799 |  | 4.789 | E3 4.46 |
| 17) p-Nitrotolue | 7.934 | 7.544 | 7.631 | 7.143 | 7.472 | 7.477 | 7.640 |  | 7.549 | E3 3.15 |
| 18) m-Nitrotolue | 6.835 | 7.097 | 7.192 | 6.782 | 7.103 | 7.117 | 7.290 |  | 7.060 | E3 2.62 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

8330\_EX.M

Fri Oct 20 16:25:52 2006

9.6.1  
9

## Initial Calibration Verification

Page 1 of 2

Job Number: T16411  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG825-ICV825  
 Lab FileID: GG018286.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\10180DS\GG018286.D\dad1B.ch Vial: 10  
 Signal #2 : G:\HPCHEM\1\DATA\10180DS\GG018286.D\dad1A.ch  
 Acq On : 18-Oct-2006, 17:39:03 Operator: MIKEE  
 Sample : ICV825-500 Inst : G1315B  
 Misc : OP18202,ggg825,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Oct 19 11:32:41 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | HMX                    | 500.000 | 531.119 | -6.2         | 0     | 0.00     | 3.83-  | 4.83   |
| 2    | TNX                    |         |         | -----NA----- |       |          |        |        |
| 3    | DNX                    |         |         | -----NA----- |       |          |        |        |
| 4    | MXN                    |         |         | -----NA----- |       |          |        |        |
| 5    | RDX                    | 500.000 | 507.091 | -1.4         | 0     | 0.00     | 6.10-  | 7.10   |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 533.853 | -6.8         | 0     | 0.00     | 8.41-  | 9.41   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 523.924 | -4.8         | 0     | 0.00     | 10.38- | 11.38  |
| 8    | Tetryl                 | 500.000 | 484.365 | 3.1          | 0     | 0.00     | 11.18- | 12.18  |
| 9    | Nitrobenzene           | 500.000 | 531.046 | -6.2         | 0     | 0.00     | 11.86- | 12.86  |
| 10 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 507.486 | -1.5         | 0     | 0.00     | 13.56- | 14.56  |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 515.885 | -3.2         | 0     | 0.00     | 14.25- | 15.25  |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 480.846 | 3.8          | 0     | 0.00     | 15.03- | 16.03  |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 496.634 | 0.7          | 0     | 0.00     | 16.01- | 17.01  |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 502.401 | -0.5         | 0     | 0.00     | 16.52- | 17.52  |
| 16   | o-Nitrotoluene         | 500.000 | 501.204 | -0.2         | 0     | 0.00     | 19.59- | 20.59  |
| 17   | p-Nitrotoluene         | 500.000 | 520.375 | -4.1         | 0     | 0.00     | 20.92- | 21.92  |
| 18   | m-Nitrotoluene         | 500.000 | 509.118 | -1.8         | 0     | 0.00     | 22.61- | 23.61  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |   |      |        |       |
|------|------------------------|---------|---------|--------------|---|------|--------|-------|
| 1    | HMX                    | 500.000 | 537.899 | -7.6         | 0 | 0.00 | 3.83-  | 4.83  |
| 2    | TNX                    |         |         | -----NA----- |   |      |        |       |
| 3    | DNX                    |         |         | -----NA----- |   |      |        |       |
| 4    | MXN                    |         |         | -----NA----- |   |      |        |       |
| 5    | RDX                    | 500.000 | 525.299 | -5.1         | 0 | 0.00 | 6.10-  | 7.10  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 533.889 | -6.8         | 0 | 0.00 | 8.41-  | 9.41  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 529.524 | -5.9         | 0 | 0.00 | 10.38- | 11.38 |
| 8    | Tetryl                 | 500.000 | 489.295 | 2.1          | 0 | 0.00 | 11.18- | 12.18 |
| 9    | Nitrobenzene           | 500.000 | 531.782 | -6.4         | 0 | 0.00 | 11.86- | 12.86 |
| 10 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |   |      |        |       |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 505.844 | -1.2         | 0 | 0.00 | 13.56- | 14.56 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 516.203 | -3.2         | 0 | 0.00 | 14.25- | 15.25 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 480.458 | 3.9          | 0 | 0.00 | 15.03- | 16.03 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 493.423 | 1.3          | 0 | 0.00 | 16.01- | 17.01 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 499.987 | 0.0          | 0 | 0.00 | 16.52- | 17.52 |
| 16   | o-Nitrotoluene         | 500.000 | 503.639 | -0.7         | 0 | 0.00 | 19.59- | 20.59 |
| 17   | p-Nitrotoluene         | 500.000 | 523.730 | -4.7         | 0 | 0.00 | 20.92- | 21.92 |
| 18   | m-Nitrotoluene         | 500.000 | 512.492 | -2.5         | 0 | 0.00 | 22.61- | 23.61 |

9.62  
9

Initial Calibration Verification

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG825-ICV825  
**Lab FileID:** GG018286.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018286.D 8330\_EX.M                  Fri Oct 20 16:26:22 2006

**Initial Calibration Verification**

Page 1 of 2

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG826-ICV825  
**Lab FileID:** GG018300.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\HPCHEM\1\DATA\10190DS\GG018300.D\dad1B.ch Vial: 4  
 Signal #2 : G:\HPCHEM\1\DATA\10190DS\GG018300.D\dad1A.ch  
 Acq On : 19-Oct-2006, 13:44:13 Operator: MIKEE  
 Sample : ICV825-500 Inst : G1315B  
 Misc : OP18222,ggg826,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Oct 19 11:32:41 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound                  | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT    | Window |
|------|---------------------------|---------|---------|--------|-------|----------|-------|--------|
| 1    | HMX                       |         |         |        | NA    |          |       |        |
| 2    | TNX                       | 500.000 | 514.364 | -2.9   | 0     | 0.00     | 4.15- | 5.15   |
| 3    | DNX                       | 500.000 | 511.166 | -2.2   | 0     | 0.00     | 4.58- | 5.58   |
| 4    | MXN                       | 500.000 | 518.059 | -3.6   | 0     | -0.01    | 5.34- | 6.34   |
| 5    | RDX                       |         |         |        | NA    |          |       |        |
| 6    | 1,3,5-Trinitrobenzene     |         |         |        | NA    |          |       |        |
| 7    | 1,3-Dinitrobenzene        |         |         |        | NA    |          |       |        |
| 8    | Tetryl                    |         |         |        | NA    |          |       |        |
| 9    | Nitrobenzene              |         |         |        | NA    |          |       |        |
| 10 S | 3,4-Dinitrotoluene        |         |         |        | NA    |          |       |        |
| 11   | 2,4,6-Trinitrotoluene     |         |         |        | NA    |          |       |        |
| 12   | 4-Amino-2,6-Dinitrotoluen |         |         |        | NA    |          |       |        |
| 13   | 2-Amino-4,6-Dinitrotoluen |         |         |        | NA    |          |       |        |
| 14   | 2,6-Dinitrotoluene        |         |         |        | NA    |          |       |        |
| 15   | 2,4-Dinitrotoluene        |         |         |        | NA    |          |       |        |
| 16   | o-Nitrotoluene            |         |         |        | NA    |          |       |        |
| 17   | p-Nitrotoluene            |         |         |        | NA    |          |       |        |
| 18   | m-Nitrotoluene            |         |         |        | NA    |          |       |        |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                           |         |         |      |    |       |       |      |
|------|---------------------------|---------|---------|------|----|-------|-------|------|
| 1    | HMX                       |         |         |      | NA |       |       |      |
| 2    | TNX                       | 500.000 | 509.991 | -2.0 | 0  | 0.00  | 4.15- | 5.15 |
| 3    | DNX                       | 500.000 | 523.209 | -4.6 | 0  | 0.00  | 4.58- | 5.58 |
| 4    | MXN                       | 500.000 | 527.451 | -5.5 | 0  | -0.01 | 5.34- | 6.34 |
| 5    | RDX                       |         |         |      | NA |       |       |      |
| 6    | 1,3,5-Trinitrobenzene     |         |         |      | NA |       |       |      |
| 7    | 1,3-Dinitrobenzene        |         |         |      | NA |       |       |      |
| 8    | Tetryl                    |         |         |      | NA |       |       |      |
| 9    | Nitrobenzene              |         |         |      | NA |       |       |      |
| 10 S | 3,4-Dinitrotoluene        |         |         |      | NA |       |       |      |
| 11   | 2,4,6-Trinitrotoluene     |         |         |      | NA |       |       |      |
| 12   | 4-Amino-2,6-Dinitrotoluen |         |         |      | NA |       |       |      |
| 13   | 2-Amino-4,6-Dinitrotoluen |         |         |      | NA |       |       |      |
| 14   | 2,6-Dinitrotoluene        |         |         |      | NA |       |       |      |
| 15   | 2,4-Dinitrotoluene        |         |         |      | NA |       |       |      |
| 16   | o-Nitrotoluene            |         |         |      | NA |       |       |      |
| 17   | p-Nitrotoluene            |         |         |      | NA |       |       |      |
| 18   | m-Nitrotoluene            |         |         |      | NA |       |       |      |

9.6.3

9

Initial Calibration Verification

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG826-ICV825  
Lab FileID: GG018300.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018286.D 8330\_EX.M                  Fri Oct 20 16:54:56 2006

9.6.3  
6

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG827-ICC827  
**Lab FileID:** GG018316.D

**Response Factor Report G1315B**

**Method** : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
**Title** : Explosives by 8330  
**Last Update** : Fri Oct 20 14:03:32 2006  
**Response via** : Initial Calibration

**Calibration Files**

20 =GG018313.D 100 =GG018314.D 250 =GG018315.D 500 =GG018316.D  
 750 =GG018317.D 1000=GG018318.D 2000=GG018319.D

|     | Compound            | 20    | 100   | 250   | 500   | 750   | 1000  | 2000  | Avg   | %RSD    |
|-----|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1)  | TNX                 | 6.022 | 6.861 | 7.022 | 6.686 | 6.915 | 6.925 | 7.121 | 6.793 | E3 5.38 |
| 2)  | HMX                 | 2.976 | 2.856 | 2.642 | 2.478 | 2.489 | 2.481 | 2.586 | 2.644 | E3 7.51 |
| 3)  | DNX                 | 5.820 | 5.904 | 5.816 | 5.437 | 5.628 | 5.545 | 5.823 | 5.710 | E3 3.05 |
| 4)  | MXN                 | 4.717 | 4.981 | 5.224 | 5.007 | 5.063 | 4.976 | 5.294 | 5.037 | E3 3.73 |
| 5)  | 1,3,5-Trinitroben   | 7.302 | 7.899 | 8.123 | 7.797 | 7.946 | 7.847 | 8.236 | 7.879 | E3 3.78 |
| 6)  | RDX                 | 3.327 | 3.935 | 3.881 | 3.729 | 3.710 | 3.686 | 3.841 | 3.730 | E3 5.39 |
| 7)  | 1,3-Dinitrobenzen   | 1.122 | 1.117 | 1.144 | 1.096 | 1.117 | 1.113 | 1.146 | 1.122 | E4 1.56 |
| 8)  | Nitrobenzene        | 6.720 | 7.206 | 7.440 | 7.104 | 7.286 | 7.290 | 7.513 | 7.223 | E3 3.61 |
| 9)  | 2,4,6-Trinitrotol   | 7.126 | 7.674 | 7.812 | 7.517 | 7.651 | 7.587 | 7.941 | 7.615 | E3 3.39 |
| 10) | Tetryl              | 5.119 | 5.755 | 6.124 | 6.105 | 6.006 | 5.862 | 6.470 | 5.920 | E3 7.10 |
| 11) | S 3,4-Dinitrotoluen | 4.973 | 4.941 | 4.969 | 4.829 | 4.912 | 4.883 | 5.055 | 4.938 | E3 1.46 |
| 12) | 2,6-Dinitrotoluen   | 6.023 | 5.649 | 5.657 | 5.415 | 5.544 | 5.538 | 5.672 | 5.643 | E3 3.38 |
| 13) | 2,4-Dinitrotoluen   | 1.200 | 1.036 | 1.034 | 0.995 | 1.012 | 1.007 | 1.038 | 1.046 | E4 6.68 |
| 14) | o-Nitrotoluene      | 5.021 | 4.648 | 4.729 | 4.526 | 4.679 | 4.666 | 4.837 | 4.729 | E3 3.36 |
| 15) | p-Nitrotoluene      | 4.036 | 3.890 | 3.967 | 3.762 | 3.919 | 3.914 | 4.051 | 3.934 | E3 2.49 |
| 16) | 4-Amino-2,6-Dinit   | 5.109 | 5.368 | 5.518 | 5.300 | 5.406 | 5.380 | 5.621 | 5.386 | E3 3.01 |
| 17) | m-Nitrotoluene      | 4.743 | 4.946 | 5.173 | 4.937 | 5.131 | 5.119 | 5.324 | 5.053 | E3 3.79 |
| 18) | 2-Amino-4,6-Dinit   | 7.249 | 7.503 | 7.692 | 7.547 | 7.548 | 7.525 | 7.845 | 7.558 | E3 2.42 |

**Signal #2**

|     |                     |       |       |       |       |       |       |       |       |          |
|-----|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)  | TNX                 | 0.828 | 1.032 | 1.066 | 1.024 | 1.037 | 1.032 | 1.073 | 1.013 | E4 8.25  |
| 2)  | HMX                 | 8.967 | 9.716 | 9.270 | 8.345 | 8.192 | 8.095 | 8.326 | 8.702 | E3 7.15  |
| 3)  | DNX                 | 0.786 | 1.108 | 1.019 | 0.937 | 0.919 | 0.897 | 0.935 | 0.943 | E4 10.65 |
| 4)  | MXN                 | 7.457 | 8.346 | 8.580 | 8.147 | 8.087 | 7.895 | 8.399 | 8.130 | E3 4.58  |
| 5)  | 1,3,5-Trinitroben   | 1.449 | 1.617 | 1.667 | 1.594 | 1.616 | 1.593 | 1.673 | 1.601 | E4 4.64  |
| 6)  | RDX                 | 6.077 | 6.386 | 6.563 | 6.283 | 6.229 | 6.181 | 6.460 | 6.311 | E3 2.67  |
| 7)  | 1,3-Dinitrobenzen   | 1.294 | 1.326 | 1.427 | 1.333 | 1.365 | 1.364 | 1.397 | 1.358 | E4 3.31  |
| 8)  | Nitrobenzene        | 3.190 | 3.096 | 3.823 | 3.281 | 3.391 | 3.385 | 3.476 | 3.378 | E3 6.96  |
| 9)  | 2,4,6-Trinitrotol   | 1.098 | 1.109 | 1.152 | 1.104 | 1.122 | 1.113 | 1.169 | 1.124 | E4 2.37  |
| 10) | Tetryl              | 0.953 | 1.028 | 1.114 | 1.113 | 1.085 | 1.059 | 1.177 | 1.075 | E4 6.67  |
| 11) | S 3,4-Dinitrotoluen | 6.832 | 6.775 | 6.813 | 6.648 | 6.692 | 6.629 | 6.906 | 6.756 | E3 1.53  |
| 12) | 2,6-Dinitrotoluen   | 8.344 | 7.760 | 7.758 | 7.423 | 7.578 | 7.556 | 7.765 | 7.740 | E3 3.83  |
| 13) | 2,4-Dinitrotoluen   | 1.104 | 0.941 | 0.942 | 0.911 | 0.927 | 0.919 | 0.952 | 0.957 | E4 6.94  |
| 14) | o-Nitrotoluene      | 3.189 | 2.755 | 2.867 | 2.791 | 2.895 | 2.880 | 3.025 | 2.915 | E3 5.09  |
| 15) | p-Nitrotoluene      | 2.114 | 1.879 | 1.907 | 1.825 | 1.916 | 1.926 | 1.998 | 1.938 | E3 4.82  |
| 16) | 4-Amino-2,6-Dinit   | 1.431 | 1.486 | 1.522 | 1.459 | 1.490 | 1.484 | 1.552 | 1.489 | E4 2.66  |
| 17) | m-Nitrotoluene      | 2.353 | 2.391 | 2.516 | 2.444 | 2.546 | 2.567 | 2.681 | 2.500 | E3 4.52  |
| 18) | 2-Amino-4,6-Dinit   | 1.233 | 1.258 | 1.276 | 1.258 | 1.253 | 1.255 | 1.311 | 1.263 | E4 1.92  |

(#) = Out of Range

8330\_RP.M

Mon Oct 23 13:34:29 2006

## Initial Calibration Verification

Page 1 of 2

Job Number: T16411  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
 Lab FileID: GG018320.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\1020RP\GG018320.D\dad1B.ch Vial: 10  
 Signal #2 : G:\HPCHEM\1\DATA\1020RP\GG018320.D\dad1A.ch  
 Acq On : 20-Oct-2006, 14:03:23 Operator: MIKEE  
 Sample : ICV827-250 Inst : G1315B  
 Misc : OP18202,ggg827,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Oct 20 14:03:32 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | TNX                    | 250.000 | 258.384 | -3.4         | 100   | 0.00     | 4.21-  | 5.21   |
| 2    | HMX                    | 250.000 | 260.989 | -4.4         | 104   | 0.00     | 4.69-  | 5.69   |
| 3    | DNX                    | 250.000 | 254.013 | -1.6         | 100   | 0.00     | 4.83-  | 5.83   |
| 4    | MXN                    | 250.000 | 255.142 | -2.1         | 98    | 0.00     | 5.66-  | 6.66   |
| 5    | 1,3,5-Trinitrobenzene  | 250.000 | 264.789 | -5.9         | 103   | 0.00     | 6.12-  | 7.12   |
| 6    | RDX                    | 250.000 | 252.023 | -0.8         | 97    | 0.00     | 6.51-  | 7.51   |
| 7    | 1,3-Dinitrobenzene     | 250.000 | 257.308 | -2.9         | 101   | 0.00     | 7.70-  | 8.70   |
| 8    | Nitrobenzene           | 250.000 | 266.121 | -6.4         | 103   | 0.00     | 8.24-  | 9.24   |
| 9    | 2,4,6-Trinitrotoluene  | 250.000 | 268.228 | -7.3         | 105   | 0.00     | 8.71-  | 9.71   |
| 10   | Tetryl                 | 250.000 | 205.504 | 17.8#        | 79    | 0.00     | 9.41-  | 10.41  |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 12   | 2,6-Dinitrotoluene     | 250.000 | 254.196 | -1.7         | 101   | 0.00     | 10.49- | 11.49  |
| 13   | 2,4-Dinitrotoluene     | 250.000 | 244.946 | 2.0          | 99    | 0.00     | 10.95- | 11.95  |
| 14   | o-Nitrotoluene         | 250.000 | 248.278 | 0.7          | 99    | 0.00     | 11.79- | 12.79  |
| 15   | p-Nitrotoluene         | 250.000 | 258.872 | -3.5         | 103   | 0.00     | 12.45- | 13.45  |
| 16   | 4-Amino-2,6-Dinitrotol | 250.000 | 255.921 | -2.4         | 100   | 0.00     | 12.83- | 13.83  |
| 17   | m-Nitrotoluene         | 250.000 | 252.478 | -1.0         | 99    | 0.00     | 13.29- | 14.29  |
| 18   | 2-Amino-4,6-Dinitrotol | 250.000 | 236.039 | 5.6          | 93    | 0.00     | 14.31- | 15.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |     |      |        |       |
|------|------------------------|---------|---------|--------------|-----|------|--------|-------|
| 1    | TNX                    | 250.000 | 262.147 | -4.9         | 100 | 0.00 | 4.22-  | 5.22  |
| 2    | HMX                    | 250.000 | 276.033 | -10.4        | 104 | 0.00 | 4.69-  | 5.69  |
| 3    | DNX                    | 250.000 | 263.149 | -5.3         | 97  | 0.00 | 4.83-  | 5.83  |
| 4    | MXN                    | 250.000 | 255.967 | -2.4         | 97  | 0.00 | 5.66-  | 6.66  |
| 5    | 1,3,5-Trinitrobenzene  | 250.000 | 265.613 | -6.2         | 102 | 0.00 | 6.12-  | 7.12  |
| 6    | RDX                    | 250.000 | 248.723 | 0.5          | 96  | 0.00 | 6.51-  | 7.51  |
| 7    | 1,3-Dinitrobenzene     | 250.000 | 276.649 | -10.7        | 105 | 0.00 | 7.70-  | 8.70  |
| 8    | Nitrobenzene           | 250.000 | 301.148 | -20.5#       | 106 | 0.00 | 8.24-  | 9.24  |
| 9    | 2,4,6-Trinitrotoluene  | 250.000 | 269.121 | -7.6         | 105 | 0.00 | 8.71-  | 9.71  |
| 10   | Tetryl                 | 250.000 | 203.173 | 18.7#        | 78  | 0.00 | 9.41-  | 10.41 |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |     |      |        |       |
| 12   | 2,6-Dinitrotoluene     | 250.000 | 252.008 | -0.8         | 101 | 0.00 | 10.49- | 11.49 |
| 13   | 2,4-Dinitrotoluene     | 250.000 | 241.694 | 3.3          | 98  | 0.00 | 10.95- | 11.95 |
| 14   | o-Nitrotoluene         | 250.000 | 241.466 | 3.4          | 98  | 0.00 | 11.79- | 12.79 |
| 15   | p-Nitrotoluene         | 250.000 | 250.555 | -0.2         | 102 | 0.00 | 12.46- | 13.46 |
| 16   | 4-Amino-2,6-Dinitrotol | 250.000 | 255.253 | -2.1         | 100 | 0.00 | 12.83- | 13.83 |
| 17   | m-Nitrotoluene         | 250.000 | 250.572 | -0.2         | 100 | 0.00 | 13.28- | 14.28 |
| 18   | 2-Amino-4,6-Dinitrotol | 250.000 | 234.881 | 6.0          | 93  | 0.00 | 14.31- | 15.31 |



Initial Calibration Verification

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
Lab FileID: GG018320.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018315.D 8330\_RP.M                  Mon Oct 23 13:35:35 2006

9.6.5  
9

**Initial Calibration Verification**

Page 1 of 2

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG827-ICV827  
**Lab FileID:** GG018321.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\HPCHEM\1\DATA\1020RP\GG018321.D\dad1B.ch Vial: 100  
 Signal #2 : G:\HPCHEM\1\DATA\1020RP\GG018321.D\dad1A.ch  
 Acq On : 20-Oct-2006, 15:10:45 Operator: MIKEE  
 Sample : ICV827-500 Inst : G1315B  
 Misc : OP18202,ggg827,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Oct 20 14:03:32 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | TNX                    | 500.000 | 565.302 | -13.1        | 115   | 0.00     | 4.21-  | 5.21   |
| 2    | HMX                    | 500.000 | 543.872 | -8.8         | 116   | 0.00     | 4.69-  | 5.69   |
| 3    | DNX                    | 500.000 | 551.643 | -10.3        | 116   | -0.01    | 4.83-  | 5.83   |
| 4    | MXN                    | 500.000 | 572.618 | -14.5        | 115   | 0.00     | 5.66-  | 6.66   |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 538.163 | -7.6         | 109   | 0.00     | 6.12-  | 7.12   |
| 6    | RDX                    | 500.000 | 498.936 | 0.2          | 100   | 0.00     | 6.51-  | 7.51   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 510.060 | -2.0         | 104   | 0.00     | 7.70-  | 8.70   |
| 8    | Nitrobenzene           | 500.000 | 533.993 | -6.8         | 109   | 0.00     | 8.24-  | 9.24   |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 549.178 | -9.8         | 111   | 0.00     | 8.71-  | 9.71   |
| 10   | Tetryl                 | 500.000 | 475.586 | 4.9          | 92    | 0.00     | 9.41-  | 10.41  |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 498.834 | 0.2          | 104   | 0.00     | 10.49- | 11.49  |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 493.011 | 1.4          | 104   | 0.00     | 10.95- | 11.95  |
| 14   | o-Nitrotoluene         | 500.000 | 510.083 | -2.0         | 107   | 0.00     | 11.79- | 12.79  |
| 15   | p-Nitrotoluene         | 500.000 | 530.499 | -6.1         | 111   | 0.00     | 12.45- | 13.45  |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 518.182 | -3.6         | 105   | -0.01    | 12.83- | 13.83  |
| 17   | m-Nitrotoluene         | 500.000 | 521.475 | -4.3         | 107   | 0.00     | 13.29- | 14.29  |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 479.808 | 4.0          | 96    | -0.01    | 14.31- | 15.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |     |       |        |       |
|------|------------------------|---------|---------|--------------|-----|-------|--------|-------|
| 1    | TNX                    | 500.000 | 637.256 | -27.5#       | 126 | -0.01 | 4.22-  | 5.22  |
| 2    | HMX                    | 500.000 | 581.600 | -16.3#       | 121 | 0.00  | 4.69-  | 5.69  |
| 3    | DNX                    | 500.000 | 552.258 | -10.5        | 111 | -0.01 | 4.83-  | 5.83  |
| 4    | MXN                    | 500.000 | 573.858 | -14.8        | 115 | 0.00  | 5.66-  | 6.66  |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 539.558 | -7.9         | 108 | 0.00  | 6.12-  | 7.12  |
| 6    | RDX                    | 500.000 | 495.496 | 0.9          | 100 | 0.00  | 6.51-  | 7.51  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 512.019 | -2.4         | 104 | 0.00  | 7.70-  | 8.70  |
| 8    | Nitrobenzene           | 500.000 | 545.924 | -9.2         | 112 | 0.00  | 8.24-  | 9.24  |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 549.800 | -10.0        | 112 | 0.00  | 8.71-  | 9.71  |
| 10   | Tetryl                 | 500.000 | 472.605 | 5.5          | 91  | 0.00  | 9.41-  | 10.41 |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |     |       |        |       |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 496.402 | 0.7          | 104 | 0.00  | 10.49- | 11.49 |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 494.458 | 1.1          | 104 | 0.00  | 10.95- | 11.95 |
| 14   | o-Nitrotoluene         | 500.000 | 518.803 | -3.8         | 108 | 0.00  | 11.79- | 12.79 |
| 15   | p-Nitrotoluene         | 500.000 | 534.408 | -6.9         | 114 | 0.00  | 12.46- | 13.46 |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 519.292 | -3.9         | 106 | -0.01 | 12.83- | 13.83 |
| 17   | m-Nitrotoluene         | 500.000 | 532.272 | -6.5         | 109 | 0.00  | 13.28- | 14.28 |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 479.037 | 4.2          | 96  | -0.01 | 14.31- | 15.31 |

Initial Calibration Verification

Job Number: T16411  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
Lab FileID: GG018321.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018316.D 8330\_RP.M                  Mon Oct 23 13:35:18 2006

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG904-CC825  
**Lab FileID:** GG020112.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\02270DS\GG020112.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\02270DS\GG020112.D\dad1A.ch  
 Acq On : 27-Feb-2007, 15:07:27 Operator: MIKEE  
 Sample : CC825-500 Inst : G1315B  
 Misc : OP19630,ggg904,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | HMX                    | 500.000 | 861.245 | -72.2# | 177   | 0.00     | 3.86-  | 4.86   |
| 2    | TNX                    | 500.000 | 510.794 | -2.2   | 103   | -0.02    | 4.20-  | 5.20   |
| 3    | DNX                    | 500.000 | 506.900 | -1.4   | 103   | 0.00     | 4.60-  | 5.60   |
| 4    | MXN                    | 500.000 | 503.878 | -0.8   | 103   | 0.00     | 5.37-  | 6.37   |
| 5    | RDX                    | 500.000 | 552.400 | -10.5  | 111   | 0.00     | 6.15-  | 7.15   |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 490.330 | 1.9    | 101   | 0.00     | 8.43-  | 9.43   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 492.556 | 1.5    | 101   | 0.00     | 10.43- | 11.43  |
| 8    | Tetryl                 | 500.000 | 492.314 | 1.5    | 100   | 0.02     | 11.21- | 12.21  |
| 9    | Nitrobenzene           | 500.000 | 500.074 | -0.0   | 104   | 0.00     | 11.93- | 12.93  |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 486.630 | 2.7    | 100   | 0.02     | 12.95- | 13.95  |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 498.410 | 0.3    | 102   | 0.02     | 13.60- | 14.60  |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 490.908 | 1.8    | 101   | 0.03     | 14.37- | 15.37  |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 498.514 | 0.3    | 102   | 0.03     | 15.14- | 16.14  |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 480.354 | 3.9    | 101   | 0.02     | 16.10- | 17.10  |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 487.505 | 2.5    | 103   | 0.02     | 16.60- | 17.60  |
| 16   | o-Nitrotoluene         | 500.000 | 485.983 | 2.8    | 104   | 0.00     | 19.73- | 20.73  |
| 17   | p-Nitrotoluene         | 500.000 | 496.713 | 0.7    | 105   | 0.00     | 21.06- | 22.06  |
| 18   | m-Nitrotoluene         | 500.000 | 498.379 | 0.3    | 104   | 0.00     | 22.76- | 23.76  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |        |     |      |        |       |
|------|------------------------|---------|---------|--------|-----|------|--------|-------|
| 1    | HMX                    | 500.000 | 880.230 | -76.0# | 179 | 0.00 | 3.86-  | 4.86  |
| 2    | TNX                    | 500.000 | 507.955 | -1.6   | 103 | 0.00 | 4.18-  | 5.18  |
| 3    | DNX                    | 500.000 | 513.506 | -2.7   | 103 | 0.00 | 4.60-  | 5.60  |
| 4    | MXN                    | 500.000 | 515.058 | -3.0   | 104 | 0.00 | 5.37-  | 6.37  |
| 5    | RDX                    | 500.000 | 571.879 | -14.4  | 112 | 0.00 | 6.15-  | 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 497.471 | 0.5    | 102 | 0.00 | 8.43-  | 9.43  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 494.537 | 1.1    | 101 | 0.00 | 10.43- | 11.43 |
| 8    | Tetryl                 | 500.000 | 498.021 | 0.4    | 100 | 0.02 | 11.21- | 12.21 |
| 9    | Nitrobenzene           | 500.000 | 491.840 | 1.6    | 101 | 0.00 | 11.93- | 12.93 |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 483.141 | 3.4    | 99  | 0.01 | 12.95- | 13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 496.140 | 0.8    | 102 | 0.02 | 13.60- | 14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 491.387 | 1.7    | 101 | 0.03 | 14.37- | 15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 499.381 | 0.1    | 103 | 0.03 | 15.14- | 16.14 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 484.237 | 3.2    | 103 | 0.02 | 16.10- | 17.10 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 477.289 | 4.5    | 101 | 0.01 | 16.60- | 17.60 |
| 16   | o-Nitrotoluene         | 500.000 | 485.916 | 2.8    | 104 | 0.00 | 19.73- | 20.73 |
| 17   | p-Nitrotoluene         | 500.000 | 495.972 | 0.8    | 105 | 0.00 | 21.06- | 22.06 |
| 18   | m-Nitrotoluene         | 500.000 | 505.343 | -1.1   | 105 | 0.00 | 22.77- | 23.77 |

Continuing Calibration Summary

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG904-CC825  
**Lab FileID:** GG020112.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018282.D 8330\_EX.M              Thu Mar 01 13:07:14 2007

## Continuing Calibration Summary

Page 1 of 2

Job Number: T16411  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG904-CC825  
 Lab FileID: GG020123.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\02270DS\GG020123.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\02270DS\GG020123.D\dad1A.ch  
 Acq On : 27-Feb-2007, 20:10:35 Operator: MIKEE  
 Sample : CC825-500 Inst : G1315B  
 Misc : OP19630,ggg904,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | HMX                    | 500.000 | 863.172 | -72.6# | 177   | 0.00     | 3.86-  | 4.86   |
| 2    | TNX                    | 500.000 | 510.727 | -2.1   | 103   | -0.01    | 4.20-  | 5.20   |
| 3    | DNX                    | 500.000 | 510.916 | -2.2   | 104   | 0.01     | 4.60-  | 5.60   |
| 4    | MXN                    | 500.000 | 506.368 | -1.3   | 104   | 0.01     | 5.37-  | 6.37   |
| 5    | RDX                    | 500.000 | 552.024 | -10.4  | 111   | 0.00     | 6.15-  | 7.15   |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 492.210 | 1.6    | 102   | 0.03     | 8.43-  | 9.43   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 490.970 | 1.8    | 101   | 0.03     | 10.43- | 11.43  |
| 8    | Tetryl                 | 500.000 | 492.506 | 1.5    | 101   | 0.05     | 11.21- | 12.21  |
| 9    | Nitrobenzene           | 500.000 | 495.993 | 0.8    | 103   | 0.03     | 11.93- | 12.93  |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 483.655 | 3.3    | 99    | 0.05     | 12.95- | 13.95  |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 499.260 | 0.1    | 102   | 0.05     | 13.60- | 14.60  |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 490.118 | 2.0    | 100   | 0.08     | 14.37- | 15.37  |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 498.867 | 0.2    | 102   | 0.08     | 15.14- | 16.14  |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 483.943 | 3.2    | 101   | 0.07     | 16.10- | 17.10  |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 483.189 | 3.4    | 102   | 0.07     | 16.60- | 17.60  |
| 16   | o-Nitrotoluene         | 500.000 | 480.057 | 4.0    | 103   | 0.06     | 19.73- | 20.73  |
| 17   | p-Nitrotoluene         | 500.000 | 486.687 | 2.7    | 103   | 0.07     | 21.06- | 22.06  |
| 18   | m-Nitrotoluene         | 500.000 | 499.963 | 0.0    | 104   | 0.08     | 22.76- | 23.76  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |        |     |      |        |       |
|------|------------------------|---------|---------|--------|-----|------|--------|-------|
| 1    | HMX                    | 500.000 | 878.981 | -75.8# | 178 | 0.00 | 3.86-  | 4.86  |
| 2    | TNX                    | 500.000 | 507.479 | -1.5   | 103 | 0.00 | 4.18-  | 5.18  |
| 3    | DNX                    | 500.000 | 515.325 | -3.1   | 103 | 0.01 | 4.60-  | 5.60  |
| 4    | MXN                    | 500.000 | 517.495 | -3.5   | 105 | 0.01 | 5.37-  | 6.37  |
| 5    | RDX                    | 500.000 | 573.980 | -14.8  | 113 | 0.00 | 6.15-  | 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 498.212 | 0.4    | 102 | 0.03 | 8.43-  | 9.43  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 493.984 | 1.2    | 100 | 0.03 | 10.43- | 11.43 |
| 8    | Tetryl                 | 500.000 | 498.348 | 0.3    | 100 | 0.05 | 11.21- | 12.21 |
| 9    | Nitrobenzene           | 500.000 | 485.381 | 2.9    | 100 | 0.03 | 11.93- | 12.93 |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 477.388 | 4.5    | 97  | 0.05 | 12.95- | 13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 495.190 | 1.0    | 102 | 0.05 | 13.60- | 14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 490.438 | 1.9    | 101 | 0.07 | 14.37- | 15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 498.460 | 0.3    | 103 | 0.08 | 15.14- | 16.14 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 482.315 | 3.5    | 102 | 0.07 | 16.10- | 17.10 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 479.653 | 4.1    | 101 | 0.07 | 16.60- | 17.60 |
| 16   | o-Nitrotoluene         | 500.000 | 487.394 | 2.5    | 104 | 0.06 | 19.73- | 20.73 |
| 17   | p-Nitrotoluene         | 500.000 | 491.569 | 1.7    | 104 | 0.07 | 21.06- | 22.06 |
| 18   | m-Nitrotoluene         | 500.000 | 501.875 | -0.4   | 104 | 0.08 | 22.77- | 23.77 |

Continuing Calibration Summary

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG904-CC825  
**Lab FileID:** GG020123.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018282.D 8330\_EX.M                      Thu Mar 01 13:07:14 2007

## Continuing Calibration Summary

Page 1 of 2

Job Number: T16411  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG904-CC825  
 Lab FileID: GG020166.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\02270DS\GG020166.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\02270DS\GG020166.D\dad1A.ch  
 Acq On : 28-Feb-2007, 16:02:03 Operator: MIKEE  
 Sample : CC825-1000 Inst : G1315B  
 Misc : OP19589,ggg904,2.00,,,20,,soil Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT Window   |
|------|------------------------|----------|----------|--------|-------|----------|-------------|
| 1    | HMX                    | 1000.000 | 976.886  | 2.3    | 99    | -0.01    | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1020.161 | -2.0   | 101   | -0.02    | 4.20- 5.20  |
| 3    | DNX                    | 1000.000 | 1010.898 | -1.1   | 101   | 0.00     | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1001.672 | -0.2   | 101   | -0.01    | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1005.151 | -0.5   | 100   | -0.03    | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 983.375  | 1.7    | 99    | -0.01    | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 985.892  | 1.4    | 99    | -0.02    | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 978.411  | 2.2    | 98    | -0.03    | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 981.508  | 1.8    | 99    | -0.01    | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 960.214  | 4.0    | 97    | -0.02    | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 994.844  | 0.5    | 100   | -0.01    | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 982.608  | 1.7    | 99    | -0.02    | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1000.306 | -0.0   | 100   | -0.02    | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 981.502  | 1.8    | 100   | -0.01    | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 969.833  | 3.0    | 100   | -0.02    | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 976.020  | 2.4    | 100   | -0.02    | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 998.363  | 0.2    | 102   | -0.02    | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1003.931 | -0.4   | 101   | -0.01    | 22.76-23.76 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |             |
|------|------------------------|----------|----------|------|-----|-------|-------------|
| 1    | HMX                    | 1000.000 | 993.340  | 0.7  | 100 | -0.01 | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1013.254 | -1.3 | 101 | 0.00  | 4.18- 5.18  |
| 3    | DNX                    | 1000.000 | 1027.579 | -2.8 | 103 | 0.00  | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1028.482 | -2.8 | 103 | -0.01 | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1079.137 | -7.9 | 104 | -0.03 | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 1005.009 | -0.5 | 101 | -0.01 | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 993.035  | 0.7  | 99  | -0.02 | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 1000.774 | -0.1 | 100 | -0.03 | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 967.926  | 3.2  | 99  | -0.01 | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 961.248  | 3.9  | 98  | -0.02 | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 991.046  | 0.9  | 100 | -0.01 | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 985.363  | 1.5  | 99  | -0.02 | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 996.347  | 0.4  | 101 | -0.02 | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 970.579  | 2.9  | 101 | -0.01 | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 960.647  | 3.9  | 100 | -0.02 | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 974.674  | 2.5  | 99  | -0.02 | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 992.075  | 0.8  | 100 | -0.02 | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1006.058 | -0.6 | 100 | -0.02 | 22.77-23.77 |



Continuing Calibration Summary

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG904-CC825  
**Lab FileID:** GG020166.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018284.D 8330\_EX.M              Thu Mar 01 11:49:46 2007

## Continuing Calibration Summary

Page 1 of 2

Job Number: T16411  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG904-CC825  
 Lab FileID: GG020178.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\02270DS\GG020178.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\02270DS\GG020178.D\dad1A.ch  
 Acq On : 28-Feb-2007, 21:33:36 Operator: MIKEE  
 Sample : CC825-1000 Inst : G1315B  
 Misc : OP19656,ggg904,2.00,,,20,,soil Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT Window   |
|------|------------------------|----------|----------|--------|-------|----------|-------------|
| 1    | HMx                    | 1000.000 | 979.852  | 2.0    | 99    | -0.01    | 3.86- 4.86  |
| 2    | TNx                    | 1000.000 | 1020.353 | -2.0   | 101   | -0.02    | 4.20- 5.20  |
| 3    | DNx                    | 1000.000 | 1021.165 | -2.1   | 102   | 0.00     | 4.60- 5.60  |
| 4    | MNx                    | 1000.000 | 1009.347 | -0.9   | 101   | -0.01    | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1010.783 | -1.1   | 100   | -0.03    | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 992.569  | 0.7    | 100   | -0.01    | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 987.520  | 1.2    | 99    | -0.02    | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 991.603  | 0.8    | 100   | -0.04    | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 988.345  | 1.2    | 99    | -0.01    | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 967.313  | 3.3    | 97    | -0.03    | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 998.111  | 0.2    | 100   | -0.03    | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 979.912  | 2.0    | 98    | -0.04    | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1002.882 | -0.3   | 101   | -0.04    | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 993.848  | 0.6    | 102   | -0.03    | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 973.356  | 2.7    | 100   | -0.03    | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 991.316  | 0.9    | 102   | -0.03    | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 1006.330 | -0.6   | 102   | -0.03    | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1006.337 | -0.6   | 101   | -0.03    | 22.76-23.76 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |             |
|------|------------------------|----------|----------|------|-----|-------|-------------|
| 1    | HMx                    | 1000.000 | 993.457  | 0.7  | 100 | -0.01 | 3.86- 4.86  |
| 2    | TNx                    | 1000.000 | 1013.005 | -1.3 | 101 | 0.00  | 4.18- 5.18  |
| 3    | DNx                    | 1000.000 | 1028.970 | -2.9 | 103 | 0.00  | 4.60- 5.60  |
| 4    | MNx                    | 1000.000 | 1021.470 | -2.1 | 103 | -0.01 | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1069.147 | -6.9 | 103 | -0.03 | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 999.211  | 0.1  | 100 | -0.01 | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 993.686  | 0.6  | 99  | -0.02 | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 1004.494 | -0.4 | 100 | -0.04 | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 958.453  | 4.2  | 98  | -0.01 | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 955.621  | 4.4  | 97  | -0.03 | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 988.837  | 1.1  | 100 | -0.03 | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 980.065  | 2.0  | 99  | -0.04 | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 997.096  | 0.3  | 101 | -0.04 | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 976.669  | 2.3  | 101 | -0.03 | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 959.581  | 4.0  | 100 | -0.03 | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 993.323  | 0.7  | 101 | -0.03 | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 1004.376 | -0.4 | 101 | -0.03 | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1016.726 | -1.7 | 101 | -0.03 | 22.77-23.77 |

9.6.10

9

Continuing Calibration Summary

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG904-CC825  
**Lab FileID:** GG020178.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018284.D 8330\_EX.M              Thu Mar 01 11:49:46 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG905-CC827  
**Lab FileID:** GG020186.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\0301RP\GG020186.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\0301RP\GG020186.D\dad1A.ch  
 Acq On : 01-Mar-2007, 10:47:39 Operator: MIKEE  
 Sample : CC827-500 Inst : G1315B  
 Misc : OP19630,ggg905,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Jan 26 08:35:20 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | TNX                    | 500.000 | 500.367 | -0.1   | 102   | 0.02     | 4.24-  | 5.24   |
| 2    | HMX                    | 500.000 | 496.427 | 0.7    | 106   | 0.00     | 4.75-  | 5.75   |
| 3    | DNX                    | 500.000 | 482.515 | 3.5    | 101   | 0.00     | 4.87-  | 5.87   |
| 4    | MXN                    | 500.000 | 515.963 | -3.2   | 104   | 0.00     | 5.72-  | 6.72   |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 503.148 | -0.6   | 102   | 0.00     | 6.17-  | 7.17   |
| 6    | RDX                    | 500.000 | 499.191 | 0.2    | 100   | 0.01     | 6.56-  | 7.56   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 491.887 | 1.6    | 101   | -0.02    | 7.78-  | 8.78   |
| 8    | Nitrobenzene           | 500.000 | 506.416 | -1.3   | 103   | 0.00     | 8.29-  | 9.29   |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 500.527 | -0.1   | 101   | -0.03    | 8.80-  | 9.80   |
| 10   | Tetryl                 | 500.000 | 530.339 | -6.1   | 103   | -0.01    | 9.52-  | 10.52  |
| 11 S | 3,4-Dinitrotoluene     | 500.000 | 486.902 | 2.6    | 100   | 0.00     | 10.21- | 11.21  |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 481.130 | 3.8    | 100   | -0.03    | 10.59- | 11.59  |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 477.442 | 4.5    | 100   | -0.04    | 11.06- | 12.06  |
| 14   | o-Nitrotoluene         | 500.000 | 496.217 | 0.8    | 104   | -0.03    | 11.86- | 12.86  |
| 15   | p-Nitrotoluene         | 500.000 | 501.970 | -0.4   | 105   | -0.03    | 12.53- | 13.53  |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 493.489 | 1.3    | 100   | -0.02    | 12.95- | 13.95  |
| 17   | m-Nitrotoluene         | 500.000 | 518.753 | -3.8   | 106   | -0.04    | 13.38- | 14.38  |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 499.837 | 0.0    | 100   | -0.03    | 14.45- | 15.45  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |      |     |       |        |       |
|------|------------------------|---------|---------|------|-----|-------|--------|-------|
| 1    | TNX                    | 500.000 | 516.090 | -3.2 | 102 | 0.02  | 4.24-  | 5.24  |
| 2    | HMX                    | 500.000 | 476.869 | 4.6  | 99  | 0.00  | 4.75-  | 5.75  |
| 3    | DNX                    | 500.000 | 503.539 | -0.7 | 101 | 0.00  | 4.87-  | 5.87  |
| 4    | MXN                    | 500.000 | 507.399 | -1.5 | 101 | 0.00  | 5.72-  | 6.72  |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 502.762 | -0.6 | 101 | 0.00  | 6.17-  | 7.17  |
| 6    | RDX                    | 500.000 | 515.962 | -3.2 | 104 | 0.01  | 6.56-  | 7.56  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 491.883 | 1.6  | 100 | -0.02 | 7.78-  | 8.78  |
| 8    | Nitrobenzene           | 500.000 | 487.140 | 2.6  | 100 | 0.00  | 8.29-  | 9.29  |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 493.768 | 1.2  | 101 | -0.03 | 8.80-  | 9.80  |
| 10   | Tetryl                 | 500.000 | 525.509 | -5.1 | 102 | -0.01 | 9.52-  | 10.52 |
| 11 S | 3,4-Dinitrotoluene     | 500.000 | 478.913 | 4.2  | 97  | 0.00  | 10.21- | 11.21 |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 476.400 | 4.7  | 99  | -0.03 | 10.59- | 11.59 |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 471.636 | 5.7  | 99  | -0.04 | 11.06- | 12.06 |
| 14   | o-Nitrotoluene         | 500.000 | 479.488 | 4.1  | 100 | -0.03 | 11.86- | 12.86 |
| 15   | p-Nitrotoluene         | 500.000 | 499.073 | 0.2  | 106 | -0.02 | 12.54- | 13.54 |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 493.318 | 1.3  | 101 | -0.02 | 12.95- | 13.95 |
| 17   | m-Nitrotoluene         | 500.000 | 512.966 | -2.6 | 105 | -0.04 | 13.37- | 14.37 |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 496.978 | 0.6  | 100 | -0.03 | 14.45- | 15.45 |

9.6.11

9

Continuing Calibration Summary

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG905-CC827  
**Lab FileID:** GG020186.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018316.D 8330\_RP.M                  Fri Mar 02 08:20:28 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG905-ECC827  
**Lab FileID:** GG020197.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\0301RP\GG020197.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\0301RP\GG020197.D\dad1A.ch  
 Acq On : 01-Mar-2007, 14:22:52 Operator: MIKEE  
 Sample : ECC827-1000 Inst : G1315B  
 Misc : OP19656,ggg905,2.00,,,20,,soil Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Jan 26 08:35:20 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|----------|----------|--------|-------|----------|--------|--------|
| 1    | TNX                    | 1000.000 | 1004.955 | -0.5   | 99    | 0.02     | 4.24-  | 5.24   |
| 2    | HMX                    | 1000.000 | 917.636  | 8.2    | 98    | 0.00     | 4.75-  | 5.75   |
| 3    | DNX                    | 1000.000 | 1011.140 | -1.1   | 104   | 0.01     | 4.87-  | 5.87   |
| 4    | MXN                    | 1000.000 | 1039.196 | -3.9   | 105   | 0.00     | 5.72-  | 6.72   |
| 5    | 1,3,5-Trinitrobenzene  | 1000.000 | 1013.030 | -1.3   | 102   | 0.00     | 6.17-  | 7.17   |
| 6    | RDX                    | 1000.000 | 995.726  | 0.4    | 101   | 0.02     | 6.56-  | 7.56   |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 993.807  | 0.6    | 100   | 0.00     | 7.78-  | 8.78   |
| 8    | Nitrobenzene           | 1000.000 | 1041.178 | -4.1   | 103   | 0.00     | 8.29-  | 9.29   |
| 9    | 2,4,6-Trinitrotoluene  | 1000.000 | 1069.475 | -6.9   | 107   | -0.01    | 8.80-  | 9.80   |
| 10   | Tetryl                 | 1000.000 | 1115.023 | -11.5  | 113   | 0.00     | 9.52-  | 10.52  |
| 11 S | 3,4-Dinitrotoluene     | 1000.000 | 985.365  | 1.5    | 100   | 0.01     | 10.21- | 11.21  |
| 12   | 2,6-Dinitrotoluene     | 1000.000 | 971.945  | 2.8    | 99    | -0.01    | 10.59- | 11.59  |
| 13   | 2,4-Dinitrotoluene     | 1000.000 | 961.600  | 3.8    | 100   | -0.02    | 11.06- | 12.06  |
| 14   | o-Nitrotoluene         | 1000.000 | 992.619  | 0.7    | 101   | 0.00     | 11.86- | 12.86  |
| 15   | p-Nitrotoluene         | 1000.000 | 1003.275 | -0.3   | 101   | 0.00     | 12.53- | 13.53  |
| 16   | 4-Amino-2,6-Dinitrotol | 1000.000 | 995.204  | 0.5    | 100   | 0.00     | 12.95- | 13.95  |
| 17   | m-Nitrotoluene         | 1000.000 | 1036.245 | -3.6   | 102   | -0.02    | 13.38- | 14.38  |
| 18   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1004.422 | -0.4   | 101   | 0.00     | 14.45- | 15.45  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |        |       |
|------|------------------------|----------|----------|------|-----|-------|--------|-------|
| 1    | TNX                    | 1000.000 | 1021.114 | -2.1 | 100 | 0.02  | 4.24-  | 5.24  |
| 2    | HMX                    | 1000.000 | 925.142  | 7.5  | 99  | 0.00  | 4.75-  | 5.75  |
| 3    | DNX                    | 1000.000 | 985.766  | 1.4  | 104 | 0.01  | 4.87-  | 5.87  |
| 4    | MXN                    | 1000.000 | 1019.924 | -2.0 | 105 | 0.00  | 5.72-  | 6.72  |
| 5    | 1,3,5-Trinitrobenzene  | 1000.000 | 1011.841 | -1.2 | 102 | 0.00  | 6.17-  | 7.17  |
| 6    | RDX                    | 1000.000 | 998.846  | 0.1  | 102 | 0.02  | 6.56-  | 7.56  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 995.060  | 0.5  | 99  | 0.00  | 7.78-  | 8.78  |
| 8    | Nitrobenzene           | 1000.000 | 1010.144 | -1.0 | 101 | 0.00  | 8.29-  | 9.29  |
| 9    | 2,4,6-Trinitrotoluene  | 1000.000 | 1019.746 | -2.0 | 103 | -0.01 | 8.80-  | 9.80  |
| 10   | Tetryl                 | 1000.000 | 1078.605 | -7.9 | 110 | 0.00  | 9.52-  | 10.52 |
| 11 S | 3,4-Dinitrotoluene     | 1000.000 | 972.193  | 2.8  | 99  | 0.01  | 10.21- | 11.21 |
| 12   | 2,6-Dinitrotoluene     | 1000.000 | 967.138  | 3.3  | 99  | -0.01 | 10.59- | 11.59 |
| 13   | 2,4-Dinitrotoluene     | 1000.000 | 960.105  | 4.0  | 100 | -0.02 | 11.06- | 12.06 |
| 14   | o-Nitrotoluene         | 1000.000 | 991.930  | 0.8  | 100 | 0.00  | 11.86- | 12.86 |
| 15   | p-Nitrotoluene         | 1000.000 | 1038.399 | -3.8 | 104 | 0.00  | 12.54- | 13.54 |
| 16   | 4-Amino-2,6-Dinitrotol | 1000.000 | 998.474  | 0.2  | 100 | 0.00  | 12.95- | 13.95 |
| 17   | m-Nitrotoluene         | 1000.000 | 1059.730 | -6.0 | 103 | -0.02 | 13.37- | 14.37 |
| 18   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1004.726 | -0.5 | 101 | 0.00  | 14.45- | 15.45 |

9.6.12

9

Continuing Calibration Summary

**Job Number:** T16411  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG905-ECC827  
**Lab FileID:** GG020197.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018318.D 8330\_RP.M                  Fri Mar 02 08:20:14 2007



## General Chemistry

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC



METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|-------------|----------------|----|-----------|-------|--------------|------------|------------|-----------|
| Perchlorate | GP9043/GN24390 | 10 | <10       | ug/l  | 50           | 48.0       | 96.0       | 85-115%   |

Associated Samples:  
Batch GP9043: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9  
(\*) Outside of QC limits

10.1  
10

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|-------------|----------------|-----------|-------|-----------------|------------|-----|-----------|
| Perchlorate | GP9043/GN24390 | T16411-10 | ug/l  | 4.0 U           | <10        | 0.0 | 0-15%     |
| Perchlorate | GP9043/GN24390 | T16411-1  | ug/l  | 4.0 U           | <10        | 0.0 | 0-15%     |

Associated Samples:  
Batch GP9043: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9  
(\*) Outside of QC limits

10.2  
10

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16411  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec | QC Limits |
|-------------|----------------|-----------|-------|-----------------|--------------|-----------|------|-----------|
| Perchlorate | GP9043/GN24390 | T16411-10 | ug/l  | 4.0 U           | 50           | 48.4      | 96.8 | 80-120%   |
| Perchlorate | GP9043/GN24390 | T16411-1  | ug/l  | 4.0 U           | 50           | 48.7      | 97.4 | 80-120%   |

Associated Samples:  
Batch GP9043: T16411-1, T16411-10, T16411-2, T16411-3, T16411-4, T16411-5, T16411-6, T16411-7, T16411-8, T16411-9  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits

10.3  
10

Accutest Laboratories Instrument Runlog  
Inorganics Analyses

Login Number: T16411  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030101.TXT  
Analyst: MP  
Parameters: Perchlorate

Date Analyzed: 03/01/07      Methods: EPA 314  
Run ID: GN24390

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 13:57 | GN24390-CCV1       | 1               |          |          |
| 14:11 | GN24390-CCB1       | 1               |          |          |
| 14:25 | GP9043-MB1         | 1               |          |          |
| 14:40 | GP9043-B1          | 1               |          |          |
| 14:54 | GN24390-CRI1       | 1               |          |          |
| 15:09 | GN24390-IPC1       | 1               |          |          |
| 15:23 | ZZZZZZ             | 1               |          |          |
| 15:37 | ZZZZZZ             | 1               |          |          |
| 15:52 | ZZZZZZ             | 1               |          |          |
| 16:06 | T16411-1           | 1               |          |          |
| 16:21 | T16411-2           | 1               |          |          |
| 16:35 | T16411-3           | 1               |          |          |
| 16:50 | GN24390-CCV2       | 1               |          |          |
| 17:04 | GN24390-CCB2       | 1               |          |          |
| 17:18 | T16411-4           | 1               |          |          |
| 17:33 | T16411-5           | 1               |          |          |
| 17:47 | T16411-6           | 1               |          |          |
| 18:02 | T16411-7           | 1               |          |          |
| 18:16 | T16411-8           | 1               |          |          |
| 18:30 | T16411-9           | 1               |          |          |
| 18:45 | T16411-10          | 1               |          |          |
| 18:59 | ZZZZZZ             | 1               |          |          |
| 19:14 | ZZZZZZ             | 1               |          |          |
| 19:28 | ZZZZZZ             | 1               |          |          |
| 19:42 | GN24390-CCV3       | 1               |          |          |
| 19:57 | GN24390-CCB3       | 1               |          |          |
| 20:11 | ZZZZZZ             | 1               |          |          |
| 20:26 | ZZZZZZ             | 1               |          |          |
| 20:40 | ZZZZZZ             | 1               |          |          |
| 20:54 | GP9043-D1          | 1               |          |          |
| 21:09 | GP9043-S1          | 1               |          |          |
| 21:23 | GP9043-D2          | 1               |          |          |
| 21:38 | GP9043-S2          | 1               |          |          |

Accutest Laboratories Instrument Runlog  
Inorganics Analyses

Login Number: T16411

Account: ALGC - Accutest Laboratories Gulf Coast, Inc.

Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030101.TXT

Date Analyzed: 03/01/07

Methods: EPA 314

Analyst: MP

Run ID: GN24390

Parameters: Perchlorate

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|------|--------------------|-----------------|----------|----------|
|------|--------------------|-----------------|----------|----------|

21:52 GN24390-CCV4 1

22:06 GN24390-CCB4 1

Refer to raw data for calibration curve and standards.

Instrument QC Summary  
Inorganics Analyses

Login Number: T16411  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030101.TXT

Date Analyzed: 03/01/07  
Run ID: GN24390

Methods: EPA 314  
Units: ug/l

| Sample Number | Parameter   | Result | RL | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-------------|--------|----|---------|------------|----------|-----------|
| GN24390-CCV1  | Perchlorate | 48.0   | 10 | 4.0     | 50         | 96.0     | 85-115    |
| GN24390-CCB1  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24390-CRI1  | Perchlorate | 4.0 U  | 10 | 4.0     | 3          | 100.0    | 75-125    |
| GN24390-IPC1  | Perchlorate | 22.0   | 10 | 4.0     | 25         | 88.0     | 80-120    |
| GN24390-CCV2  | Perchlorate | 51.3   | 10 | 4.0     | 50         | 103.0    | 85-115    |
| GN24390-CCB2  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24390-CCV3  | Perchlorate | 53.1   | 10 | 4.0     | 50         | 106.0    | 85-115    |
| GN24390-CCB3  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24390-CCV4  | Perchlorate | 51.6   | 10 | 4.0     | 50         | 103.0    | 85-115    |
| GN24390-CCB4  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |

(!) Outside of QC limits

10.4  
10



04/14/10

## Technical Report for

Shaw E & I, Inc.

Longhorn Army Ammunition Plant

117591

Accutest Job Number: T16432

Sampling Date: 02/21/07

Report to:

Shaw E & I, Inc.

jennifer.hoang@shawgrp.com

ATTN: Jennifer Hoang

Total number of pages in report: 143



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

*Paul K Canevaro*

Paul Canevaro  
Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103) UT(7132714700)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.  
Test results relate only to samples analyzed.

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Accutest LabLink@42591 11:51 14-Apr-2010

## Sample Summary

Shaw E &amp; I, Inc.

Job No: T16432

Longhorn Army Ammunition Plant

Project No: 117591

| Sample<br>Number | Collected |          | Received | Matrix |                  | Client<br>Sample ID |
|------------------|-----------|----------|----------|--------|------------------|---------------------|
|                  | Date      | Time By  |          | Code   | Type             |                     |
| T16432-1         | 02/21/07  | 10:20 SM | 02/23/07 | AQ     | Ground Water     | LHSMW06-FEB2007     |
| T16432-2         | 02/21/07  | 14:58 SM | 02/23/07 | AQ     | Ground Water     | 17WW10-FEB2007      |
| T16432-3         | 02/21/07  | 11:05 SM | 02/23/07 | AQ     | Ground Water     | 17WW12-FEB2007      |
| T16432-4         | 02/21/07  | 13:15 SM | 02/23/07 | AQ     | Ground Water     | LHSM07-FEB2007      |
| T16432-5         | 02/21/07  | 14:22 SM | 02/23/07 | AQ     | Ground Water     | 47WW09-FEB2007      |
| T16432-6         | 02/21/07  | 15:15 SM | 02/23/07 | AQ     | Ground Water     | 29WW36-FEB2007      |
| T16432-7         | 02/21/07  | 00:00 SM | 02/23/07 | AQ     | Trip Blank Water | TRIP BLANK          |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Shaw E & I, Inc.

**Job No** T16432

**Site:** Longhorn Army Ammunition Plant

**Report Date** 3/9/2007 4:18:09 PM

6 Samples and 1 Trip Blank were collected on 02/21/2007 and were received at Accutest on 02/23/2007 properly preserved, at 4.8 Deg. C and intact. These Samples received an Accutest job number of T16432. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

**Matrix** AQ

**Batch ID:** VF2306

- All samples were analyzed within the recommended method holding time.
- Sample(s) T16411-10MS, T16411-10MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- Matrix Spike Recovery(s) for Styrene are outside control limits. Probable cause due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for Styrene are outside control limits. Probable cause due to matrix interference.

**Matrix** AQ

**Batch ID:** VY1139

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- T16432-1 for 4-Bromofluorobenzene: Outside of control limits biased high. There were no target compounds associated with this surrogate.
- T16432-7 for 4-Bromofluorobenzene: Outside of control limits biased high. There were no target compounds associated with this surrogate.
- VY1139-MB for 4-Bromofluorobenzene: Outside control limits biased high. There are no target compounds associated with this surrogate.

**Matrix** AQ

**Batch ID:** VY1140

- All samples were analyzed within the recommended method holding time.
- Sample(s) T16437-6MS, T16437-6MSD were used as the QC samples indicated.
- All method blanks for this batch meet method specific criteria.
- T16432-2 for 4-Bromofluorobenzene: Outside of control limits biased high. There were no target compounds associated with this surrogate.
- T16432-3 for 4-Bromofluorobenzene: Outside of control limits biased high. There were no target compounds associated with this surrogate.

### Volatiles by GC By Method RSKSOP-147/175

**Matrix** AQ

**Batch ID:** F:GXY995

- Gasses Analysis performed at Accutest Laboratories, Orlando, FL.

### Extractables by GC By Method SW846 8330A

**Matrix** AQ

**Batch ID:** F:OP19677

- T16432-2: Sample extracted beyond hold time. Analysis performed at Accutest Laboratories, Orlando, FL.
- T16432-3: Sample extracted beyond hold time. Analysis performed at Accutest Laboratories, Orlando, FL.

Friday, March 09, 2007

Page 1 of 3

**Wet Chemistry By Method EPA 120.1****Matrix** AQ**Batch ID:** F:R17941

- Specific Conductivity: Analysis performed at Accutest Laboratories, Orlando, FL.

**Matrix** AQ**Batch ID:** GN11341

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP were used as the QC samples for Specific Conductivity.

**Wet Chemistry By Method EPA 150.1/9040****Matrix** AQ**Batch ID:** GN11306

- Sample(s) T16432-4DUP were used as the QC samples for pH.

**Wet Chemistry By Method EPA 310.1****Matrix** AQ**Batch ID:** GN11336

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

**Wet Chemistry By Method EPA 314****Matrix** AQ**Batch ID:** F:GP9043

- Perchlorate Analysis performed at Accutest Laboratories, Orlando, FL.

**Wet Chemistry By Method EPA 325.3****Matrix** AQ**Batch ID:** GN11331

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

**Wet Chemistry By Method EPA 353.2****Matrix** AQ**Batch ID:** GN11288

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16432-1DUP, T16432-1MS were used as the QC samples for Nitrogen, Nitrite.

**Matrix** AQ**Batch ID:** GN11291

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

**Wet Chemistry By Method EPA 375.3****Matrix** AQ**Batch ID:** GN11356

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16411-10DUP, T16411-10MS were used as the QC samples for Sulfate.

**Wet Chemistry By Method EPA 376.1****Matrix** AQ**Batch ID:** GN11286

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16432-6DUP were used as the QC samples for Sulfide.

**Wet Chemistry By Method EPA 415.1/9060****Matrix** AQ**Batch ID:** GN11304

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-18DUP, T16445-18MS were used as the QC samples for Total Organic Carbon.

**Wet Chemistry By Method SM18 4500CO2D****Matrix** AQ**Batch ID:** GN11382

- Co2 was calculated from the pH and Alkalinity results.

**Wet Chemistry By Method SM18 4500NO3E/NO2B****Matrix** AQ**Batch ID:** R15449

- Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T16432

**Site:** ITTXHO: Longhorn Army Ammunition Plant

**Report Date:** 3/9/2007 10:35:36 AM

6 Samples were collected on 02/21/2007 and were received at Accutest SE on 02/28/2007 properly preserved, at 1.8 Deg. C and intact. These Samples received an Accutest job number of T16432. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC by Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GXY995

All method blanks for this batch meet method specific criteria.

Samples T16432-4DUP, T16432-6MS were used as the QC samples indicated.

The following samples were run outside of holding time for method RSKSOP-147/175: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6.

### Extractables by GC by Method SW846 8330A

**Matrix:** AQ

**Batch ID:** OP19677

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F47539-3MS, F47539-3MSD were used as the QC samples indicated.

The following samples were extracted outside of holding time for method SW846 8330A: T16432-2, T16432-3. Samples extracted beyond hold time.

T16432-2, T16432-3: Sample extracted beyond hold time.

### Wet Chemistry by Method EPA 314

**Matrix:** AQ

**Batch ID:** GP9043

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples T16411-10DUP, T16411-10MS were used as the QC samples for Perchlorate.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

\_\_\_\_\_  
Ellen Pampel, Inorganic QA (signature on file)

Date: March 9, 2007

**Friday, March 09, 2007**



IT'S ALL IN THE CHEMISTRY

## Section 3



## Sample Results

## Report of Analysis

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW06-FEB2007                | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-1                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | Y0010444.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 1.7    | 2.0 | 0.52 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 5.1    | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.77   | 2.0 | 0.63 | ug/l  | J |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** LHSMW06-FEB2007**Lab Sample ID:** T16432-1**Date Sampled:** 02/21/07**Matrix:** AQ - Ground Water**Date Received:** 02/23/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1            | Run# 2 | Limits  |
|------------|-----------------------|-------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 121%              |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 117%              |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 133%              |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 158% <sup>a</sup> |        | 84-150% |

(a) Outside of control limits biased high. There were no target compounds associated with this surrogate.

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | LHSMW06-FEB2007                |                                |
| <b>Lab Sample ID:</b>    | T16432-1                       | <b>Date Sampled:</b> 02/21/07  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 02/23/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                                |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025312.D | 1  | 03/07/07 | AFL | n/a       | n/a        | F:GXY995         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 17.0   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: LHSMW06-FEB2007

Lab Sample ID: T16432-1

Matrix: AQ - Ground Water

Date Sampled: 02/21/07

Date Received: 02/23/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 18:59 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 407      | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 510      | 5.0   |        | mg/l     | 1  | 03/09/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 513      | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.020 B  | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/23/07 11:30 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 2800     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 398      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 5.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.2      |       |        | su       | 1  | 02/27/07 10:30 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW10-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-2                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | Y0010452.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

**Client Sample ID:** 17WW10-FEB2007**Lab Sample ID:** T16432-2**Date Sampled:** 02/21/07**Matrix:** AQ - Ground Water**Date Received:** 02/23/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1            | Run# 2 | Limits  |
|------------|-----------------------|-------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 124%              |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 122%              |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 129%              |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 153% <sup>a</sup> |        | 84-150% |

(a) Outside of control limits biased high. There were no target compounds associated with this surrogate.

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW10-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16432-2                       | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/23/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025313.D | 1  | 03/07/07 | AFL | n/a       | n/a        | F:GXY995         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 20.9   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW10-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-2                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020210.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.065 U | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.080 U | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.095 U | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.080 U | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 95%    |        | 70-136% |

(a) Sample extracted beyond hold time. Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW10-FEB2007

Lab Sample ID: T16432-2

Matrix: AQ - Ground Water

Date Sampled: 02/21/07

Date Received: 02/23/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 19:14 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 140      | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 280      | 5.0   |        | mg/l     | 1  | 03/09/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1030     | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.30     | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.30     | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/23/07 11:30 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 2670     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 142      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 4.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.0      |       |        | su       | 1  | 02/27/07 10:30 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW12-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-3                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | Y0010453.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW12-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-3                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1            | Run# 2 | Limits  |
|------------|-----------------------|-------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 121%              |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 118%              |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 132%              |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 154% <sup>a</sup> |        | 84-150% |

(a) Outside of control limits biased high. There were no target compounds associated with this surrogate.

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW12-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16432-3                       | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/23/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025314.D | 1  | 03/07/07 | AFL | n/a       | n/a        | F:GXY995         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 57.1   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW12-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-3                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020211.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1010 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.059 U | 0.20 | 0.059 | ug/l  |   |
| 121-82-4   | RDX                        | 0.074 U | 0.20 | 0.074 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.069 U | 0.20 | 0.069 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.064 U | 0.20 | 0.064 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.074 U | 0.20 | 0.074 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.069 U | 0.20 | 0.069 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.079 U | 0.20 | 0.079 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.059 U | 0.20 | 0.059 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.059 U | 0.20 | 0.059 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.074 U | 0.20 | 0.074 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.074 U | 0.20 | 0.074 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.074 U | 0.20 | 0.074 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.094 U | 0.20 | 0.094 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.079 U | 0.20 | 0.079 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 97%    |        | 70-136% |

(a) Sample extracted beyond hold time. Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW12-FEB2007

Lab Sample ID: T16432-3

Matrix: AQ - Ground Water

Date Sampled: 02/21/07

Date Received: 02/23/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|--------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |        |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U  | 10    | 4.0    | ug/l     | 1  | 03/01/07 19:28 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 34.0   | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 170    | 5.0   |        | mg/l     | 1  | 03/09/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 305    | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10 | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.20   | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.20   | 0.050 | 0.0030 | mg/l     | 1  | 02/23/07 11:30 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1240   | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 144    | 10    | 2.6    | mg/l     | 1  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U      | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 4.0    | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 5.6    |       |        | su       | 1  | 02/27/07 10:30 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSM07-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-4                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | Y0010454.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| Run #2 | F0079010.D | 10 | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 40.9             | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 394 <sup>a</sup> | 20  | 6.8  | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U           | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 3.6              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U           | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 1.1              | 2.0 | 0.66 | ug/l  | J |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 15.8             | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** LHSM07-FEB2007**Lab Sample ID:** T16432-4**Date Sampled:** 02/21/07**Matrix:** AQ - Ground Water**Date Received:** 02/23/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 3.0    | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 127%   | 102%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 117%   | 96%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 128%   | 106%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 150%   | 125%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | LHSM07-FEB2007                 |                                |
| <b>Lab Sample ID:</b>    | T16432-4                       | <b>Date Sampled:</b> 02/21/07  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 02/23/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                                |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025315.D | 1  | 03/07/07 | AFL | n/a       | n/a        | F:GXY995         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 2.88   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSM07-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-4                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 20:11 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 619      | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 620      | 5.0   |        | mg/l     | 1  | 03/09/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 2750     | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/23/07 11:30 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 10600    | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 2070     | 200   | 2.6    | mg/l     | 20 | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 6.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.3      |       |        | su       | 1  | 02/27/07 10:30 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW09-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-5                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 | Y0010455.D | 1   | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| Run #2 | F0079011.D | 100 | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U            | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 4.6               | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U            | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 144               | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U            | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 12.2              | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 2230 <sup>a</sup> | 200 | 63   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 47WW09-FEB2007**Lab Sample ID:** T16432-5**Date Sampled:** 02/21/07**Matrix:** AQ - Ground Water**Date Received:** 02/23/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 125%   | 104%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 122%   | 98%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 129%   | 106%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 146%   | 123%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW09-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16432-5                       | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/23/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025316.D | 1  | 03/07/07 | AFL | n/a       | n/a        | F:GXY995         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.30 U | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 47WW09-FEB2007

Lab Sample ID: T16432-5

Matrix: AQ - Ground Water

Date Sampled: 02/21/07

Date Received: 02/23/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 20:26 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 459      | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 73.0     | 5.0   |        | mg/l     | 1  | 03/09/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 585      | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/23/07 11:30 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 3750     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 946      | 100   | 2.6    | mg/l     | 10 | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 6.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 7.1      |       |        | su       | 1  | 02/27/07 10:30 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW36-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-6                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079005.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 29WW36-FEB2007**Lab Sample ID:** T16432-6**Date Sampled:** 02/21/07**Matrix:** AQ - Ground Water**Date Received:** 02/23/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 95%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 109%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 127%   |        | 84-150% |

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW36-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16432-6                       | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/23/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025318.D | 1  | 03/07/07 | AFL | n/a       | n/a        | F:GXY995         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.94   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW36-FEB2007                 | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-6                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/01/07 20:40 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 1040     | 5.0   | 0.30   | mg/l     | 1  | 03/03/07 08:15 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 830      | 5.0   |        | mg/l     | 1  | 03/09/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 565      | 1.0   | 0.57   | mg/l     | 1  | 03/02/07 12:30 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.30     | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.30     | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/23/07 11:30 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 4150     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 1000     | 100   | 2.6    | mg/l     | 10 | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | U        | 0.20  |        | mg/l     | 1  | 02/24/07 10:00 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 10.0     | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.4      |       |        | su       | 1  | 02/27/07 10:30 | EB  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                     | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-7                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Trip Blank Water          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | Y0010443.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                     | <b>Date Sampled:</b>   | 02/21/07 |
| <b>Lab Sample ID:</b>    | T16432-7                       | <b>Date Received:</b>  | 02/23/07 |
| <b>Matrix:</b>           | AQ - Trip Blank Water          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1            | Run# 2 | Limits  |
|------------|-----------------------|-------------------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 117%              |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 114%              |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 130%              |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 151% <sup>a</sup> |        | 84-150% |

(a) Outside of control limits biased high. There were no target compounds associated with this surrogate.

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

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



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- LRC Form



Shaw Environmental, Inc.

3010 Briarpark Drive, Suite 4N  
Houston, TX 77042 (713) 996-4400

## CHAIN-OF-CUSTODY

No. 10497

|                                                     |                 |                                                                                |      |                                                                                                                                   |      |               |                              |                                                    |     |        |          |             |           |            |     |
|-----------------------------------------------------|-----------------|--------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------|------|---------------|------------------------------|----------------------------------------------------|-----|--------|----------|-------------|-----------|------------|-----|
| Laboratory Name: <b>Accutest</b>                    |                 | Address: <b>10165 HARWIN DR. #150</b>                                          |      | Contact: <b>Agnes</b>                                                                                                             |      |               |                              |                                                    |     |        |          |             |           |            |     |
|                                                     |                 | <b>Houston, TX 77036</b>                                                       |      | <b>713-271-4700</b>                                                                                                               |      |               |                              |                                                    |     |        |          |             |           |            |     |
| Project Name: <b>Longhorn Army Ammunition Plant</b> |                 | Project Location: <b>KARNACK, TX</b>                                           |      | Analysis and Method Desired (Indicate separate containers)                                                                        |      |               |                              |                                                    |     |        |          |             |           |            |     |
| Project No. <b>117591</b>                           |                 | Project Contact: <b>Kay Everett</b>                                            |      | Project Telephone No. <b>713-996-4421</b>                                                                                         |      |               |                              |                                                    |     |        |          |             |           |            |     |
| Point of contact: <b>Diane Meyer</b>                |                 | Project Manager/Supervisor: <b>Praveen Srivastava</b>                          |      | Remarks                                                                                                                           |      |               |                              |                                                    |     |        |          |             |           |            |     |
| Telephone No. <b>713-996-4408</b>                   |                 |                                                                                |      |                                                                                                                                   |      |               |                              |                                                    |     |        |          |             |           |            |     |
| Item No.                                            | Sample Number   | Date                                                                           | Time | Comp                                                                                                                              | Grab | Matrix        | Sample Description, Location | Number of Containers                               | VOC | Anions | Sulfides | Perchlorate | Gases-G02 | Alkalinity | TOC |
| 1                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 3                                                  | ✓   |        |          |             |           |            |     |
| 2                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 3                                                  |     |        |          |             | ✓         |            |     |
| 3                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 3                                                  |     |        |          |             |           |            | ✓   |
| 4                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 1                                                  |     | ✓      |          |             |           |            |     |
| 5                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 1                                                  |     |        | ✓        |             |           |            |     |
| 6                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 1                                                  |     |        |          |             |           | ✓          |     |
| 7                                                   | LHSMW06-Feb2007 | 2-21-07                                                                        | 1020 |                                                                                                                                   | ✓    | W             | Site 35A, GW                 | 1                                                  |     |        |          | ✓           |           |            |     |
| 8                                                   |                 |                                                                                |      |                                                                                                                                   |      |               |                              |                                                    |     |        |          |             |           |            |     |
| 9                                                   |                 |                                                                                |      |                                                                                                                                   |      |               |                              |                                                    |     |        |          |             |           |            |     |
| 10                                                  |                 |                                                                                |      |                                                                                                                                   |      |               |                              |                                                    |     |        |          |             |           |            |     |
| Transfers Relinquished By (Signature)               |                 | Date/Time                                                                      |      | Transfers Accepted By (Signature)                                                                                                 |      | Date/Time     |                              | Special Instructions                               |     |        |          |             |           |            |     |
| <i>Sherry McPhee</i>                                |                 | 2-21-07                                                                        |      | <i>Scott Belsing</i>                                                                                                              |      | 2/22/07       |                              | UPS<br>FedEx Airbill No.: <b>12606725019281688</b> |     |        |          |             |           |            |     |
| <i>Scott Belsing</i>                                |                 | 2/22/07 0830                                                                   |      |                                                                                                                                   |      |               |                              |                                                    |     |        |          |             |           |            |     |
|                                                     |                 |                                                                                |      | Laboratory <i>A. Rodriguez</i>                                                                                                    |      | 2/23/07 10:00 |                              | Sampler's Signature <i>Sherry McPhee</i>           |     |        |          |             |           |            |     |
| TAT: _____ Standard _____ Rush Due: _____           |                 | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |      | Received Good Condition <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Cold |      |               |                              |                                                    |     |        |          |             |           |            |     |

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T16432: Chain of Custody

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**Shaw**® Shaw Environmental, Inc.

3010 Briarpark Drive, Suite 4N  
Houston, TX 77042 (713) 996-4400

# CHAIN-OF-CUSTODY

No. 10942

**Laboratory Name:** Accutest **Address:** 10165 Harwin #150 Houston TX 77036 **Contact:** Agnes (713) 271 4700

**Project Name:** LHAAP **Project Location:** Karnack, TX

**Project No.:** 117591 **Project Contact:** K. Everette **Project Telephone No.:** (713) 996 4421

**Point of contact:** Diane Meyer **Project Manager/Supervisor:** P. Srivastav

**Telephone No.:** (713) 996-4408

| Item No. | Sample Number   | Date    | Time  | Comp | Grab | Matrix | Sample Description, Location | Number of Containers | Analysis and Method Desired (Indicate separate containers) |            |              |                  |           |                  |           |                |  |  | Remarks |
|----------|-----------------|---------|-------|------|------|--------|------------------------------|----------------------|------------------------------------------------------------|------------|--------------|------------------|-----------|------------------|-----------|----------------|--|--|---------|
|          |                 |         |       |      |      |        |                              |                      | NOC                                                        | Anions 300 | Sulfides 316 | Perchlorates 314 | Gases 175 | Alkalinity 310.1 | TOC 415.1 | Explosives 833 |  |  |         |
| 2        | 17WW10-Feb 2007 | 2/21/07 | 14:58 |      | X    |        | Groundwater                  | 15                   | 3                                                          | 1          | 1            | 1                | 3         | 1                | 3         | 2              |  |  |         |
| 3        | 17WW12-Feb 2007 | 2/21/07 | 11:05 |      | X    |        | Groundwater                  | 15                   | 3                                                          | 1          | 1            | 1                | 3         | 1                | 3         | 2              |  |  |         |
| 3        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 4        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 5        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 6        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 7        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 8        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 9        |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |
| 10       |                 |         |       |      |      |        |                              |                      |                                                            |            |              |                  |           |                  |           |                |  |  |         |

**Transfers Relinquished By (Signature):** Susan Oller **Date/Time:** 2/21/07 17:00  
**Transfers Accepted By (Signature):** Scott Bessinger **Date/Time:** 2/22/07 08:30

**Special Instructions:** Need CO<sub>2</sub> for gases.  
 UPS

**FedEx Airbill No.:** 12162V 39501 9988 1685

**Laboratory:** A. Rodriguez **Sample's Signature:** Susan Oller

TAT: \_\_\_\_\_ Standard \_\_\_\_\_ Rush Due: \_\_\_\_\_  
 Seals Intact? ☒ Y ☐ N Received Good Condition ☒ Y ☐ N ☐ Cold

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T16432: Chain of Custody

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## CHAIN-OF-CUSTODY

No. 10496

| Laboratory Name: <b>Accutest</b>                    |                 | Address: <b>10165 HARWIN DR. # 150</b>                |      | Contact: <b>Agnes</b>                                         |      |             |                              |                                          |     |        |          |             |            |            |     |
|-----------------------------------------------------|-----------------|-------------------------------------------------------|------|---------------------------------------------------------------|------|-------------|------------------------------|------------------------------------------|-----|--------|----------|-------------|------------|------------|-----|
|                                                     |                 | <b>Houston, TX 77036</b>                              |      | <b>713-271-4700</b>                                           |      |             |                              |                                          |     |        |          |             |            |            |     |
| Project Name: <b>Longhorn Army Ammunition Plant</b> |                 | Project Location: <b>KARNACK, TX</b>                  |      | Analysis and Method Desired<br>(Indicate separate containers) |      |             |                              |                                          |     |        |          |             |            |            |     |
| Project No.: <b>117591</b>                          |                 | Project Contact: <b>KAY EVERETT</b>                   |      | Project Telephone No.: <b>713-996-4421</b>                    |      |             |                              |                                          |     |        |          |             |            |            |     |
| Point of contact: <b>Diane Meyer</b>                |                 | Project Manager/Supervisor: <b>Praveen Srivastava</b> |      | Remarks                                                       |      |             |                              |                                          |     |        |          |             |            |            |     |
| Telephone No.: <b>713-996-4408</b>                  |                 |                                                       |      |                                                               |      |             |                              |                                          |     |        |          |             |            |            |     |
| Item No.                                            | Sample Number   | Date                                                  | Time | Comp                                                          | Grab | Matrix      | Sample Description, Location | Number of Containers                     | VOC | ANIONS | SULFIDES | PERCHLORATE | GASES, CO2 | ALKALINITY | TOC |
| 4                                                   | LHSMW07-Feb2007 | 2-21-07                                               | 1315 |                                                               | ✓    | W           | GW, Site 35A                 | 3                                        | ✓   |        |          |             |            |            |     |
| 5                                                   | LHSMW07-Feb2007 | 2-21-07                                               | 1315 |                                                               | ✓    | W           | GW, Site 35A                 | 3                                        |     |        |          |             | ✓          |            |     |
| 6                                                   | LHSMW07-Feb2007 | 2-21-07                                               | 1315 |                                                               | ✓    | W           | GW, Site 35A                 | 3                                        |     |        |          |             |            |            | ✓   |
| 7                                                   | LHSMW07-Feb2007 | 2-21-07                                               | 1315 |                                                               | ✓    | W           | GW, Site 35A                 | 1                                        |     | ✓      |          |             |            |            |     |
| 8                                                   | LHSMW07-Feb2007 | 2-21-07                                               | 1315 |                                                               | ✓    | W           | GW, Site 35A                 | 1                                        |     |        | ✓        |             |            |            |     |
| 9                                                   | LHSMW07-Feb2007 | 2-21-07                                               | 1315 |                                                               | ✓    | W           | GW, Site 35A                 | 1                                        |     |        |          | ✓           |            |            |     |
| 10                                                  |                 |                                                       |      |                                                               |      |             |                              |                                          |     |        |          |             |            |            |     |
| Transfers Relinquished By (Signature)               |                 | Date/Time                                             |      | Transfers Accepted By (Signature)                             |      | Date/Time   |                              | Special Instructions                     |     |        |          |             |            |            |     |
| <i>Sherry McAdoo</i>                                |                 | 2-21-07                                               |      | <i>Scott Brannen</i>                                          |      | 2/22/07     |                              | UPS                                      |     |        |          |             |            |            |     |
| <i>Scott Brannen</i>                                |                 | 2/22/07 0830                                          |      |                                                               |      |             |                              | FedEx Airbill No.: 1Z16V7250199281685    |     |        |          |             |            |            |     |
|                                                     |                 |                                                       |      | Laboratory <i>A. Rodriguez</i>                                |      | 2/23/07/100 |                              | Sampler's Signature <i>Sherry McAdoo</i> |     |        |          |             |            |            |     |
| TAT: _____ Standard _____ Rush Due: _____           |                 | Seals Intact? <i>X</i> Y _____ N _____                |      | Received Good Condition <i>X</i> Y _____ N _____ Cold _____   |      |             |                              |                                          |     |        |          |             |            |            |     |

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## CHAIN-OF-CUSTODY

No. 10916

|                                                 |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
|-------------------------------------------------|----------------|--------------------------------------------------------------------------------|------|-----------------------------------------------------------------------------------------------------------------------------------|------|---------------|------------------------------|---------------------------------------|-----------|----------|----------------|----------------|-----------|------------------|-----------|-----------|
| Laboratory Name: Accutest                       |                | Address: 10165 Harwin Dr. #150<br>Houston, TX 77036                            |      | Contact: Agnes: 713-271-4700                                                                                                      |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| Project Name: Longhorn Army<br>Ammunition Plant |                | Project Location: Karnack, TX                                                  |      | Analysis and Method Desired<br>(Indicate separate containers)                                                                     |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| Project No. 17591                               |                | Project Contact: Kay EVERETTE                                                  |      | Project Telephone No. 713-996-4421                                                                                                |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| Point of contact: Diane Meyer                   |                | Project Manager/Supervisor: PRADEN SRIVASTAV                                   |      | Remarks                                                                                                                           |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| Telephone No. 713-996-4408                      |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| Item No.                                        | Sample Number  | Date                                                                           | Time | Comp                                                                                                                              | Grab | Matrix        | Sample Description, Location | Number of Containers                  | VOCs 8260 | PAHs 300 | Sulfides 376.2 | Pachlorate 314 | Gases 175 | Alkalinity 310.1 | TOC 415.1 | VOCs 8260 |
| 5                                               | 47WW09-FEB2007 | 2/21/07                                                                        | 1422 |                                                                                                                                   | X    | W             | 47WW09                       | 13                                    | X         | X        | X              | X              | X         | X                | X         | X         |
| 2                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 3                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 4                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 5                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 6                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 7                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 8                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 9                                               |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| 10                                              |                |                                                                                |      |                                                                                                                                   |      |               |                              |                                       |           |          |                |                |           |                  |           |           |
| Transfers Relinquished By (Signature)           |                | Date/Time                                                                      |      | Transfers Accepted By (Signature)                                                                                                 |      | Date/Time     |                              | Special Instructions                  |           |          |                |                |           |                  |           |           |
| [Signature]                                     |                | 2/21/07 1800                                                                   |      | [Signature]                                                                                                                       |      | 2/22/07 07:50 |                              | WBS                                   |           |          |                |                |           |                  |           |           |
| [Signature]                                     |                | 2/22/07 0830                                                                   |      |                                                                                                                                   |      |               |                              | FedEx Airbill No. 1266V72501992811685 |           |          |                |                |           |                  |           |           |
|                                                 |                |                                                                                |      | Laboratory: A. Rodriguez                                                                                                          |      | 2/22/07 10:00 |                              | Sampler's Signature                   |           |          |                |                |           |                  |           |           |
| TAT: _____ Standard _____ Rush Due: _____       |                | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |      | Received Good Condition <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Cold |      |               |                              |                                       |           |          |                |                |           |                  |           |           |

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Shaw Environmental, Inc.

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Houston, TX 77042 (713) 996-4400

## CHAIN-OF-CUSTODY

No. 10495

| Laboratory Name: <b>Accutest</b>                                                                                                                                                                                      |                | Address: <b>10165 HARWIN DR. #150</b>               |      | Contact: <b>Agnes</b>                                      |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------------------------------------|------|------------------------------------------------------------|------|---------------|------------------------------|----------------------------------------------|-----|--------|----------|-------------|------------------------|------------|-----|------------|
|                                                                                                                                                                                                                       |                | <b>HOUSTON, TX 77036</b>                            |      | <b>713-271-4700</b>                                        |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Project Name: <b>Loughorn Army Ammunition Plant</b>                                                                                                                                                                   |                | Project Location: <b>KARNACK, TX</b>                |      | Analysis and Method Desired (Indicate separate containers) |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Project No.: <b>117591</b>                                                                                                                                                                                            |                | Project Contact: <b>KAY EVERETTE</b>                |      | Project Telephone No.: <b>713-996-4421</b>                 |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Point of contact: <b>DIANE MEYER</b>                                                                                                                                                                                  |                | Project Manager/Supervisor: <b>RAVEEN SRIVASTAV</b> |      | Remarks                                                    |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Telephone No.: <b>713-996-4408</b>                                                                                                                                                                                    |                |                                                     |      |                                                            |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Item No.                                                                                                                                                                                                              | Sample Number  | Date                                                | Time | Comp                                                       | Grab | Matrix        | Sample Description, Location | Number of Containers                         | VOC | ANIONS | SULFIDES | PERCHLORATE | GASES, CO <sub>2</sub> | ALKALINITY | TOC | EXPLOSIVES |
| 1                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 3                                            | ✓   |        |          |             |                        |            |     |            |
| 2                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 3                                            |     |        |          |             | ✓                      |            |     |            |
| 3                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 3                                            |     |        |          |             |                        |            | ✓   |            |
| 4                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 1                                            |     | ✓      |          |             |                        |            |     |            |
| 5                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 1                                            |     |        | ✓        |             |                        |            |     |            |
| 6                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 1                                            |     |        |          | ✓           |                        |            |     |            |
| 7                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 1                                            |     |        |          |             |                        | ✓          |     |            |
| 8                                                                                                                                                                                                                     | 29WW36-Feb2007 | 2-21-07                                             | 1515 |                                                            | ✓    | W             | Site 29, GW                  | 2                                            |     |        |          |             |                        |            |     | ✓          |
| 9                                                                                                                                                                                                                     | t.p. AR-223-07 |                                                     |      |                                                            |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| 10                                                                                                                                                                                                                    | I              |                                                     |      |                                                            |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Transfers Relinquished By (Signature)                                                                                                                                                                                 |                | Date/Time                                           |      | Transfers Accepted By (Signature)                          |      | Date/Time     |                              | Special Instructions                         |     |        |          |             |                        |            |     |            |
| <i>Sherry McAdoo</i>                                                                                                                                                                                                  |                | 2-21-07                                             |      | <i>Scott Belsinger</i>                                     |      | 2/22/07 07:50 |                              | UPS<br>FedEx Airbill No. <b>750199281085</b> |     |        |          |             |                        |            |     |            |
| <i>Scott Belsinger</i>                                                                                                                                                                                                |                | 2/22/07 0830                                        |      |                                                            |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
|                                                                                                                                                                                                                       |                |                                                     |      | Laboratory                                                 |      | Date/Time     |                              | Sampler's Signature                          |     |        |          |             |                        |            |     |            |
|                                                                                                                                                                                                                       |                |                                                     |      | <i>A. Rodney</i>                                           |      | 2/23/07 10:00 |                              | <i>Sherry McAdoo</i>                         |     |        |          |             |                        |            |     |            |
| TAT: _____ Standard _____ Rush Due: _____                                                                                                                                                                             |                |                                                     |      |                                                            |      |               |                              |                                              |     |        |          |             |                        |            |     |            |
| Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N      Received Good Condition <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> Cold |                |                                                     |      |                                                            |      |               |                              |                                              |     |        |          |             |                        |            |     |            |

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**ACCUTEST.**

**VARIANCE MEMO**  
**SAMPLE LOG-IN**

SAMPLE(S) Various

PROJECT HAAP

FILED BY AR

DATE 2/23/07

LAB NO. T16432

**VARIANCE - Check applicable item(s):**

|                                                                                                                                                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <input type="checkbox"/> Insufficient sample sent for proper analysis; received approx. _____                                                                                                                |
| <input type="checkbox"/> Sample bottle received broken and/or cap not intact.                                                                                                                                |
| <input type="checkbox"/> Samples received without paperwork; paperwork received without samples.                                                                                                             |
| <input type="checkbox"/> Samples received without proper refrigeration, when it has been deemed necessary. Temperature at receipt: _____                                                                     |
| <input type="checkbox"/> Illegible sample number or label missing from bottle.                                                                                                                               |
| <input type="checkbox"/> Numbers on sample not the same as numbers on paper work.                                                                                                                            |
| <input type="checkbox"/> Incomplete instructions received with sample(s) ie., no request for analysis, no chain of custody, incomplete billing instructions, no due date, etc. Temperature at receipt: _____ |
| <input type="checkbox"/> Samples received in improper container or lacking proper preservation.                                                                                                              |
| <input type="checkbox"/> Physical characteristics different than those on sampling sheets; Describe: _____                                                                                                   |
| <input type="checkbox"/> Rush samples on hold because of incomplete paperwork.                                                                                                                               |
| <input type="checkbox"/> Other (specify) <u>SX #2 - was rec'd. w/ 14 Containers, not 15.</u>                                                                                                                 |
| <u>SX #6 - was rec'd. without any containers for explosives.</u>                                                                                                                                             |
| <u>SX #1 and #3 - Rec'd. Samples too close to holding times.</u>                                                                                                                                             |

**CORRECTIVE ACTION TAKEN**

|                                                                                 |                                                                                      |
|---------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> <u>DRAVE &amp; MEYER</u> Person Contacted   | <input type="checkbox"/> By phone.                                                   |
| <input type="checkbox"/> Client informed verbally.                              | <input type="checkbox"/> Samples processed for information only and noted on report. |
| <input type="checkbox"/> Client informed by <del>memo</del> letter <u>EMAIL</u> | <input type="checkbox"/> Samples processed with higher detection limits accepted.    |
| <input type="checkbox"/> Samples processed as is.                               | <input type="checkbox"/> Samples rejected.                                           |
| <input type="checkbox"/> Samples preserved by lab.                              |                                                                                      |
| <input type="checkbox"/> Client will resample and resubmit.                     |                                                                                      |

Notes: \_\_\_\_\_

**ROUTING**

| TITLE            | DATE           | INITIALS  | CORRECTED? |
|------------------|----------------|-----------|------------|
| Sample Manager:  |                |           |            |
| Login:           |                |           |            |
| Project Manager: | <u>2/23/07</u> | <u>AS</u> |            |
| Comments:        |                |           |            |

Form: SM006

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ACCUTEST.

## SAMPLE RECEIPT LOG

JOB #: T16432

DATE/TIME RECEIVED: 2/23/07/10:00

CLIENT: Shaw Env.

INITIALS: AR

Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):

1. ☒ N Sample received in undamaged condition. 2. ☒ N Samples received within temp. range.  
 3. ☒ N Sample received with proper pH. 4. ☒ N Sample received in proper containers.  
 5. ☒ N Sample volume sufficient for analysis. 6. ☒ N Sample received with chain of custody.  
 7. ☒ N Chain of Custody matches sample IDs and analysis on containers.  
 8. ☒ N Samples Headspace acceptable  
 9. ☒ N NA Custody seal received intact and tamper not evident on cooler.  
 10. ☒ Y N NA Custody seal received intact and tamper not evident on bottles.

| SAMPLE or FIELD ID | BOTTLE #   | DATE SAMPLED | MATRIX | VOLUME | LOCATION | PRESERV.    | PH             |
|--------------------|------------|--------------|--------|--------|----------|-------------|----------------|
| 1,4,5,6            | 1-3        | 2/21         | AQ     | 40ml.  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 4-6        |              |        |        | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 7-9        |              |        |        | 2J       | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 10-12      |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 13         |              |        | P500   |          | 1,2,3,4,5,6 | U, <2, >12, NA |
| 2,3                | 1-3        |              |        | 40ml.  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 4-6        |              |        |        | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 7-9        |              |        |        | 2J       | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 10-11      |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 12         |              |        | P500   |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 13-14      |              |        | P1000  | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
| 3                  | 12         |              |        | P500   | 2J       | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 13         |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | 14-15      |              |        | A1000  | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
| (+b) 7,8           | 1-2        | N/A          |        | 40ml.  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                    | AR 2-23-07 |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

pH of waters checked excluding volatiles

pH of soils N/A

Delivery method: Courier: UPS

COOLER TEMP: 3.6

COOLER TEMP: 3.0

COOLER TEMP: 4.8

COOLER TEMP: 4.8

Form: SM012, Rev.07/28/06, QAO

T16432: Chain of Custody  
 Page 7 of 7

## Appendix A Laboratory Data Package Cover Page

4.2  
4

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 or ISO/IEC 17025 Section 5.10
  - 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 me 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.

**Check, if applicable:** [ ] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Ron Martino



Lab Director

3/9/2007

Name (Printed)

Signature

Official Title (printed)

Date

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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.

| Appendix A (cont'd): Laboratory Review Checklist: Reportable Data |                |                                                                                                                               |                               |    |                 |                 |                  |
|-------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----|-----------------|-----------------|------------------|
| Laboratory Name: Accutest Laboratories Gulf Coast                 |                |                                                                                                                               | LRC Date: 3/9/2007            |    |                 |                 |                  |
| Project Name: Longhorn Army Ammunition Plant                      |                |                                                                                                                               | Laboratory Job Number: T16432 |    |                 |                 |                  |
| Reviewer Name: Ron Martino                                        |                |                                                                                                                               | Prep Batch Number(s):         |    |                 |                 |                  |
| # <sup>1</sup>                                                    | A <sup>2</sup> | Description                                                                                                                   | Yes                           | No | NA <sup>3</sup> | NR <sup>4</sup> | ER# <sup>5</sup> |
|                                                                   |                | <b>Chain-of-custody (C-O-C)</b>                                                                                               |                               |    |                 |                 |                  |
| R1                                                                | OI             | Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X                             |    |                 |                 |                  |
|                                                                   |                | Were all departures from standard conditions described in an exception report?                                                | X                             |    |                 |                 |                  |
| R2                                                                | OI             | <b>Sample and quality control (QC) identification</b>                                                                         |                               |    |                 |                 |                  |
|                                                                   |                | Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X                             |    |                 |                 |                  |
|                                                                   |                | Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X                             |    |                 |                 |                  |
| R3                                                                | OI             | <b>Test reports</b>                                                                                                           |                               |    |                 |                 |                  |
|                                                                   |                | 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                             |    |                 |                 |                  |
|                                                                   |                | Were calculations checked by a peer or supervisor?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were all analyte identifications checked by a peer or supervisor?                                                             | X                             |    |                 |                 |                  |
|                                                                   |                | Were sample quantitation limits reported for all analytes not detected?                                                       | X                             |    |                 |                 |                  |
|                                                                   |                | Were all results for soil and sediment samples reported on a dry weight basis?                                                |                               |    | X               |                 |                  |
|                                                                   |                | Were % moisture (or solids) reported for all soil and sediment samples?                                                       |                               |    | X               |                 |                  |
|                                                                   |                | If required for the project, TICs reported?                                                                                   |                               |    | X               |                 |                  |
| R4                                                                | O              | <b>Surrogate recovery data</b>                                                                                                |                               |    |                 |                 |                  |
|                                                                   |                | Were surrogates added prior to extraction?                                                                                    | X                             |    |                 |                 |                  |
|                                                                   |                | Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             |                               | X  |                 |                 | 2                |
| R5                                                                | OI             | <b>Test reports/summary forms for blank samples</b>                                                                           |                               |    |                 |                 |                  |
|                                                                   |                | Were appropriate type(s) of blanks analyzed?                                                                                  | X                             |    |                 |                 |                  |
|                                                                   |                | Were blanks analyzed at the appropriate frequency?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X                             |    |                 |                 |                  |
|                                                                   |                | Were blank concentrations < MQL?                                                                                              | X                             |    |                 |                 |                  |
| R6                                                                | OI             | <b>Laboratory control samples (LCS):</b>                                                                                      |                               |    |                 |                 |                  |
|                                                                   |                | Were all COCs included in the LCS?                                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were LCSs analyzed at the required frequency?                                                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                       | X                             |    |                 |                 |                  |
|                                                                   |                | Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?    | X                             |    |                 |                 |                  |
|                                                                   |                | Was the LCSD RPD within QC limits?                                                                                            |                               |    | X               |                 |                  |
| R7                                                                | OI             | <b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>                                                                |                               |    |                 |                 |                  |
|                                                                   |                | Were the project/method specified analytes included in the MS and MSD?                                                        | X                             |    |                 |                 |                  |
|                                                                   |                | Were MS/MSD analyzed at the appropriate frequency?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                         |                               | X  |                 |                 | 2                |
|                                                                   |                | Were MS/MSD RPDs within laboratory QC limits?                                                                                 | X                             |    |                 |                 |                  |
| R8                                                                | OI             | <b>Analytical duplicate data</b>                                                                                              |                               |    |                 |                 |                  |
|                                                                   |                | Were appropriate analytical duplicates analyzed for each matrix?                                                              | X                             |    |                 |                 |                  |
|                                                                   |                | Were analytical duplicates analyzed at the appropriate frequency?                                                             | X                             |    |                 |                 |                  |
|                                                                   |                | Were RPDs or relative standard deviations within the laboratory QC limits?                                                    | X                             |    |                 |                 |                  |
| R9                                                                | OI             | <b>Method quantitation limits (MQLs):</b>                                                                                     |                               |    |                 |                 |                  |
|                                                                   |                | Are the MQLs for each method analyte included in the laboratory data package?                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                      | X                             |    |                 |                 |                  |
|                                                                   |                | Are unadjusted MQLs included in the laboratory data package?                                                                  | X                             |    |                 |                 |                  |
| R10                                                               | OI             | <b>Other problems/anomalies</b>                                                                                               |                               |    |                 |                 |                  |
|                                                                   |                | Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were all necessary corrective actions performed for the reported data?                                                        | X                             |    |                 |                 |                  |

2. = 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).

**Appendix A (cont'd): Laboratory Review Checklist: Reportable Data**

Laboratory Name: Accutest Laboratories Gulf Coast

LRC Date: 3/9/2007

Project Name: Longhorn Army Ammunition Plant

Laboratory Job Number: T16432

Reviewer Name: Ron Martino

Prep Batch Number(s):

| # <sup>1</sup> | A <sup>2</sup> | Description                                                                                            | Yes | No | NA <sup>3</sup> | NR <sup>4</sup> | ER# <sup>5</sup> |
|----------------|----------------|--------------------------------------------------------------------------------------------------------|-----|----|-----------------|-----------------|------------------|
| S1             | OI             | <b>Initial calibration (ICAL)</b>                                                                      |     |    |                 |                 |                  |
|                |                | Were response factors and/or relative response factors for each analyte within QC limits?              | X   |    |                 |                 |                  |
|                |                | Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |                 |                 |                  |
|                |                | Was the number of standards recommended in the method used for all analytes?                           | X   |    |                 |                 |                  |
|                |                | Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |                 |                 |                  |
|                |                | Are ICAL data available for all instruments used?                                                      | X   |    |                 |                 |                  |
|                |                | 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</b>       |     |    |                 |                 |                  |
|                |                | Was the CCV analyzed at the method-required frequency?                                                 | X   |    |                 |                 |                  |
|                |                | Were percent differences for each analyte within the method-required QC limits?                        | X   |    |                 |                 |                  |
|                |                | Was the ICAL curve verified for each analyte?                                                          | X   |    |                 |                 |                  |
|                |                | Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |                 |                 |                  |
| S3             | O              | <b>Mass spectral tuning:</b>                                                                           |     |    |                 |                 |                  |
|                |                | Was the appropriate compound for the method used for tuning?                                           | X   |    |                 |                 |                  |
|                |                | Were ion abundance data within the method-required QC limits?                                          | X   |    |                 |                 |                  |
| S4             | O              | <b>Internal standards (IS):</b>                                                                        |     |    |                 |                 |                  |
|                |                | 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 or ISO/IEC 17025 section</b>        |     |    |                 |                 |                  |
|                |                | Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |                 |                 |                  |
|                |                | Were data associated with manual integrations flagged on the raw data?                                 | X   |    |                 |                 |                  |
| S6             | O              | <b>Dual column confirmation</b>                                                                        |     |    |                 |                 |                  |
|                |                | Did dual column confirmation results meet the method-required QC?                                      | X   |    |                 |                 |                  |
| S7             | O              | <b>Tentatively identified compounds (TICs):</b>                                                        |     |    |                 |                 |                  |
|                |                | 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>                                                        |     |    |                 |                 |                  |
|                |                | Were percent recoveries within method QC limits?                                                       |     |    | X               |                 |                  |
|                | I              | <b>Serial dilutions, post digestion spikes, and method of standard additions</b>                       |     |    |                 |                 |                  |
|                |                | 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>                                                            |     |    |                 |                 |                  |
|                |                | Was a MDL study performed for each reported analyte?                                                   | X   |    |                 |                 |                  |
|                |                | Is the MDL either adjusted or supported by the analysis of DCCs?                                       | X   |    |                 |                 |                  |
| S11            | OI             | <b>Proficiency test reports:</b>                                                                       |     |    |                 |                 |                  |
|                |                | Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |                 |                 |                  |
| S12            | OI             | <b>Standards documentation</b>                                                                         |     |    |                 |                 |                  |
|                |                | Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |                 |                 |                  |
| S13            | OI             | <b>Compound/analyte identification procedures</b>                                                      |     |    |                 |                 |                  |
|                |                | Are the procedures for compound/analyte identification documented?                                     | X   |    |                 |                 |                  |
| S14            | OI             | <b>Demonstration of analyst competency (DOC)</b>                                                       |     |    |                 |                 |                  |
|                |                | Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?                                       | X   |    |                 |                 |                  |
|                |                | 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 or ISO/IEC 17025 Section 5)</b>     |     |    |                 |                 |                  |
|                |                | 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>                                                |     |    |                 |                 |                  |
|                |                | Are laboratory SOPs current and on file for each method performed?                                     | X   |    |                 |                 |                  |

- 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.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable).
- NA = Not applicable.
- NR = Not Reviewed.
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

|                                                   |                                                                                                                                                                             |                               |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Laboratory Name: Accutest Laboratories Gulf Coast |                                                                                                                                                                             | LRC Date: 3/9/2007            |
| Project Name: Longhorn Army Ammunition Plant      |                                                                                                                                                                             | Laboratory Job Number: T16432 |
| Reviewer Name: Ron Martino                        |                                                                                                                                                                             | Prep Batch Number(s):         |
| <b>ER #<sup>1</sup></b>                           | <b>DESCRIPTION</b>                                                                                                                                                          |                               |
| 1                                                 | For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SQL/MDL is defined in the report as the MDL. |                               |
| 2                                                 | All anomalies are discussed in the case narrative.                                                                                                                          |                               |

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**ACCUTEST.**  
T16432 Laboratories



IT'S ALL IN THE CHEMISTRY

**Section 5****GC/MS Volatiles**

5

**QC Data Summaries**

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries



**Method Blank Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VY1139-MB | Y0010442.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-1, T16432-7

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VY1139-MB | Y0010442.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-1, T16432-7

| CAS No.    | Surrogate Recoveries  | Limits          |
|------------|-----------------------|-----------------|
| 1868-53-7  | Dibromofluoromethane  | 118% 73-139%    |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 119% 66-139%    |
| 2037-26-5  | Toluene-D8            | 131% 77-148%    |
| 460-00-4   | 4-Bromofluorobenzene  | 154%* a 84-150% |

(a) Outside control limits biased high. There are no target compounds associated with this surrogate.

**Method Blank Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VY1140-MB | Y0010450.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-2, T16432-3, T16432-4, T16432-5

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VY1140-MB | Y0010450.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16432-2, T16432-3, T16432-4, T16432-5

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 124% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 119% 66-139% |
| 2037-26-5  | Toluene-D8            | 130% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 150% 84-150% |

**Method Blank Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2306-MB | F0078999.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-4, T16432-5, T16432-6

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2306-MB | F0078999.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-4, T16432-5, T16432-6

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 101% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94% 66-139%  |
| 2037-26-5  | Toluene-D8            | 110% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 119% 84-150% |

**Blank Spike Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VY1140-BS | Y0010448.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-2, T16432-3, T16432-4, T16432-5

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 136         | 109      | 31-158 |
| 71-43-2    | Benzene                    | 25            | 24.0        | 96       | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 22.7        | 91       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 22.1        | 88       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 22.8        | 91       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 26.4        | 106      | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 24.3        | 97       | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 23.2        | 93       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 27.4        | 110      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 25.0        | 100      | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 24.3        | 97       | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 24.7        | 99       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 22.5        | 90       | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 22.7        | 91       | 67-117 |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 23.4        | 94       | 65-116 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 23.8        | 95       | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 23.7        | 95       | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 24.7        | 99       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 24.0        | 96       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 115         | 92       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 113         | 90       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 25.1        | 100      | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 24.1        | 96       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 21.0        | 84       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 122         | 98       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 18.7        | 75       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 26.4        | 106      | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 23.4        | 94       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 22.2        | 89       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 25.5        | 102      | 72-128 |
| 108-88-3   | Toluene                    | 25            | 23.9        | 96       | 70-121 |
| 79-01-6    | Trichloroethylene          | 25            | 24.3        | 97       | 69-120 |
| 75-01-4    | Vinyl chloride             | 25            | 24.1        | 96       | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 71.4        | 95       | 72-120 |

Blank Spike Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VY1140-BS | Y0010448.D | 1  | 02/28/07 | JH | n/a       | n/a        | VY1140           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-2, T16432-3, T16432-4, T16432-5

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 124% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 119% | 66-139% |
| 2037-26-5  | Toluene-D8            | 128% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 130% | 84-150% |



Blank Spike Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| VF2306-BS2 | F0078998.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16432-4, T16432-5, T16432-6

| CAS No. | Compound | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
|---------|----------|---------------|-------------|----------|--------|

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 98%  | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 93%  | 66-139% |
| 2037-26-5  | Toluene-D8            | 103% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 106% | 84-150% |

**Blank Spike/Blank Spike Duplicate Summary**

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**Job Number:** T16432**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| VY1139-BS  | Y0010439.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |
| VY1139-BSD | Y0010440.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16432-1, T16432-7

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | BSD<br>ug/l | BSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|---------------|-------------|----------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | 125           | 121         | 97       | 139         | 111      | 14  | 31-158/30         |
| 71-43-2    | Benzene                    | 25            | 24.3        | 97       | 24.9        | 100      | 2   | 67-118/30         |
| 75-27-4    | Bromodichloromethane       | 25            | 22.4        | 90       | 22.3        | 89       | 0   | 66-115/30         |
| 75-25-2    | Bromoform                  | 25            | 22.0        | 88       | 22.2        | 89       | 1   | 57-119/30         |
| 108-90-7   | Chlorobenzene              | 25            | 22.3        | 89       | 23.3        | 93       | 4   | 72-116/30         |
| 75-00-3    | Chloroethane               | 25            | 23.6        | 94       | 22.7        | 91       | 4   | 61-135/30         |
| 67-66-3    | Chloroform                 | 25            | 25.3        | 101      | 24.6        | 98       | 3   | 66-117/30         |
| 75-15-0    | Carbon disulfide           | 25            | 23.7        | 95       | 24.3        | 97       | 3   | 39-136/30         |
| 56-23-5    | Carbon tetrachloride       | 25            | 27.6        | 110      | 26.9        | 108      | 3   | 67-131/30         |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 25.3        | 101      | 25.9        | 104      | 2   | 63-125/30         |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 25.8        | 103      | 25.8        | 103      | 0   | 52-143/30         |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 25.0        | 100      | 25.0        | 100      | 0   | 61-120/30         |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 23.4        | 94       | 23.6        | 94       | 1   | 64-118/30         |
| 124-48-1   | Dibromochloromethane       | 25            | 22.0        | 88       | 23.0        | 92       | 4   | 67-117/30         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 23.0        | 92       | 24.0        | 96       | 4   | 65-116/30         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 24.1        | 96       | 24.7        | 99       | 2   | 67-118/30         |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 25.5        | 102      | 24.4        | 98       | 4   | 66-128/30         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 25.0        | 100      | 25.0        | 100      | 0   | 73-126/30         |
| 100-41-4   | Ethylbenzene               | 25            | 23.6        | 94       | 24.1        | 96       | 2   | 71-119/30         |
| 591-78-6   | 2-Hexanone                 | 125           | 109         | 87       | 126         | 101      | 14  | 45-132/30         |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 114         | 91       | 123         | 98       | 8   | 46-127/30         |
| 74-83-9    | Methyl bromide             | 25            | 21.1        | 84       | 20.7        | 83       | 2   | 51-126/30         |
| 74-87-3    | Methyl chloride            | 25            | 23.1        | 92       | 23.6        | 94       | 2   | 47-130/30         |
| 75-09-2    | Methylene chloride         | 25            | 22.1        | 88       | 22.2        | 89       | 0   | 53-130/30         |
| 78-93-3    | Methyl ethyl ketone        | 125           | 125         | 100      | 131         | 105      | 5   | 47-128/30         |
| 100-42-5   | Styrene                    | 25            | 19.0        | 76       | 19.7        | 79       | 4   | 69-115/30         |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 25.1        | 100      | 26.0        | 104      | 4   | 67-128/30         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 23.1        | 92       | 23.5        | 94       | 2   | 57-121/30         |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 22.9        | 92       | 23.7        | 95       | 3   | 62-117/30         |
| 127-18-4   | Tetrachloroethylene        | 25            | 25.2        | 101      | 26.4        | 106      | 5   | 72-128/30         |
| 108-88-3   | Toluene                    | 25            | 24.5        | 98       | 25.4        | 102      | 4   | 70-121/30         |
| 79-01-6    | Trichloroethylene          | 25            | 24.2        | 97       | 25.0        | 100      | 3   | 69-120/30         |
| 75-01-4    | Vinyl chloride             | 25            | 24.6        | 98       | 25.1        | 100      | 2   | 59-145/30         |
| 1330-20-7  | Xylene (total)             | 75            | 71.5        | 95       | 74.3        | 99       | 4   | 72-120/30         |

Blank Spike/Blank Spike Duplicate Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| VY1139-BS  | Y0010439.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |
| VY1139-BSD | Y0010440.D | 1  | 02/27/07 | JH | n/a       | n/a        | VY1139           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16432-1, T16432-7

| CAS No.    | Surrogate Recoveries  | BSP  | BSD  | Limits  |
|------------|-----------------------|------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 121% | 120% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 117% | 120% | 66-139% |
| 2037-26-5  | Toluene-D8            | 122% | 129% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 132% | 136% | 84-150% |

5.3.1  
5

**Matrix Spike/Matrix Spike Duplicate Summary**

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**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16437-6MS  | Y0010469.D | 50 | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| T16437-6MSD | Y0010470.D | 50 | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| T16437-6    | Y0010467.D | 5  | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| T16437-6    | Y0010468.D | 50 | 02/28/07 | JH | n/a       | n/a        | VY1140           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16432-2, T16432-3, T16432-4, T16432-5

| CAS No.    | Compound                   | T16437-6<br>ug/l  | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|-------------------|------------|------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | ND                |            | 6250 | 7100       | 114     | 6910        | 111      | 3   | 39-130/26         |
| 71-43-2    | Benzene                    | ND                |            | 1250 | 1350       | 108     | 1370        | 110      | 1   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | ND                |            | 1250 | 1210       | 97      | 1270        | 102      | 5   | 64-119/22         |
| 75-25-2    | Bromoform                  | ND                |            | 1250 | 1100       | 88      | 1160        | 93       | 5   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | ND                |            | 1250 | 1090       | 87      | 1190        | 95       | 9   | 72-118/20         |
| 75-00-3    | Chloroethane               | ND                |            | 1250 | 1460       | 117     | 1280        | 102      | 13  | 60-136/25         |
| 67-66-3    | Chloroform                 | ND                |            | 1250 | 1370       | 110     | 1420        | 114      | 4   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | ND                |            | 1250 | 1350       | 108     | 1370        | 110      | 1   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | ND                |            | 1250 | 1480       | 118     | 1520        | 122      | 3   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 46.8              |            | 1250 | 1450       | 112     | 1510        | 117      | 4   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 3760 <sup>a</sup> |            | 1250 | 5190       | 114     | 5080        | 106      | 2   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | ND                |            | 1250 | 1370       | 110     | 1440        | 115      | 5   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | ND                |            | 1250 | 1250       | 100     | 1300        | 104      | 4   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | ND                |            | 1250 | 1070       | 86      | 1160        | 93       | 8   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND                |            | 1250 | 1230       | 98      | 1260        | 101      | 2   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND                |            | 1250 | 1090       | 87      | 1200        | 96       | 10  | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | ND                |            | 1250 | 1330       | 106     | 1370        | 110      | 3   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND                |            | 1250 | 1100       | 88      | 1210        | 97       | 10  | 65-129/23         |
| 100-41-4   | Ethylbenzene               | ND                |            | 1250 | 1130       | 90      | 1290        | 103      | 13  | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | ND                |            | 6250 | 5090       | 81      | 5330        | 85       | 5   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | ND                |            | 6250 | 5280       | 84      | 5260        | 84       | 0   | 41-133/22         |
| 74-83-9    | Methyl bromide             | ND                |            | 1250 | 1340       | 107     | 1170        | 94       | 14  | 47-129/27         |
| 74-87-3    | Methyl chloride            | ND                |            | 1250 | 1100       | 88      | 1200        | 96       | 9   | 45-133/24         |
| 75-09-2    | Methylene chloride         | ND                |            | 1250 | 1250       | 100     | 1270        | 102      | 2   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | ND                |            | 6250 | 5420       | 87      | 5510        | 88       | 2   | 43-125/29         |
| 100-42-5   | Styrene                    | ND                |            | 1250 | 921        | 74      | 1040        | 83       | 12  | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 5.8               | J          | 1250 | 1400       | 112     | 1380        | 110      | 1   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND                |            | 1250 | 1100       | 88      | 1220        | 98       | 10  | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | ND                |            | 1250 | 1120       | 90      | 1210        | 97       | 8   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | ND                |            | 1250 | 1260       | 101     | 1320        | 106      | 5   | 69-132/21         |
| 108-88-3   | Toluene                    | ND                |            | 1250 | 1200       | 96      | 1310        | 105      | 9   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 8.7               | J          | 1250 | 1230       | 98      | 1310        | 104      | 6   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | ND                |            | 1250 | 1220       | 98      | 1270        | 102      | 4   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | ND                |            | 3750 | 3530       | 94      | 3850        | 103      | 9   | 71-122/16         |

**Matrix Spike/Matrix Spike Duplicate Summary**

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**Job Number:** T16432**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16437-6MS  | Y0010469.D | 50 | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| T16437-6MSD | Y0010470.D | 50 | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| T16437-6    | Y0010467.D | 5  | 02/28/07 | JH | n/a       | n/a        | VY1140           |
| T16437-6    | Y0010468.D | 50 | 02/28/07 | JH | n/a       | n/a        | VY1140           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16432-2, T16432-3, T16432-4, T16432-5

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16437-6 | T16437-6           | Limits  |
|------------|-----------------------|------|------|----------|--------------------|---------|
| 1868-53-7  | Dibromofluoromethane  | 124% | 122% | 129%     | 128%               | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 126% | 117% | 125%     | 126%               | 66-139% |
| 2037-26-5  | Toluene-D8            | 120% | 119% | 129%     | 128%               | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 123% | 129% | 142%     | 155%* <sup>b</sup> | 84-150% |

(a) Result is from Run #2.

(b) Outside of control limits biased high. There were no target compounds associated with this surrogate

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 2

**Job Number:** T16432**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| T16411-10MS  | F0079015.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10MSD | F0079016.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10    | F0079014.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16432-4, T16432-5, T16432-6

| CAS No.    | Compound                   | T16411-10<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|-------------------|------------|------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | 50 U              |            | 125  | 96.7       | 77      | 84.7        | 68       | 13  | 39-130/26         |
| 71-43-2    | Benzene                    | 2.0 U             |            | 25   | 24.3       | 97      | 24.5        | 98       | 1   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | 2.0 U             |            | 25   | 22.3       | 89      | 22.3        | 89       | 0   | 64-119/22         |
| 75-25-2    | Bromoform                  | 2.0 U             |            | 25   | 20.9       | 84      | 19.9        | 80       | 5   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | 2.0 U             |            | 25   | 23.5       | 94      | 23.6        | 94       | 0   | 72-118/20         |
| 75-00-3    | Chloroethane               | 2.0 U             |            | 25   | 26.6       | 106     | 25.2        | 101      | 5   | 60-136/25         |
| 67-66-3    | Chloroform                 | 2.0 U             |            | 25   | 24.8       | 99      | 24.9        | 100      | 0   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | 2.0 U             |            | 25   | 22.6       | 90      | 22.7        | 91       | 0   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | 2.0 U             |            | 25   | 27.1       | 108     | 27.3        | 109      | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 2.0 U             |            | 25   | 25.5       | 102     | 25.1        | 100      | 2   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 2.0 U             |            | 25   | 25.6       | 102     | 24.8        | 99       | 3   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | 2.0 U             |            | 25   | 24.2       | 97      | 22.4        | 90       | 8   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | 2.0 U             |            | 25   | 23.9       | 96      | 23.7        | 95       | 1   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | 2.0 U             |            | 25   | 21.6       | 86      | 21.0        | 84       | 3   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 1.5               | J          | 25   | 23.8       | 89      | 24.4        | 92       | 2   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 2.0 U             |            | 25   | 19.7       | 79      | 20.0        | 80       | 2   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.0 U             |            | 25   | 24.2       | 97      | 24.2        | 97       | 0   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 2.0 U             |            | 25   | 19.8       | 79      | 19.5        | 78       | 2   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | 2.0 U             |            | 25   | 22.8       | 91      | 22.9        | 92       | 0   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | 10 U              |            | 125  | 102        | 82      | 97.3        | 78       | 5   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | 10 U              |            | 125  | 109        | 87      | 103         | 82       | 6   | 41-133/22         |
| 74-83-9    | Methyl bromide             | 2.0 U             |            | 25   | 23.4       | 94      | 21.9        | 88       | 7   | 47-129/27         |
| 74-87-3    | Methyl chloride            | 2.0 U             |            | 25   | 25.8       | 103     | 23.3        | 93       | 10  | 45-133/24         |
| 75-09-2    | Methylene chloride         | 5.0 U             |            | 25   | 22.7       | 91      | 22.2        | 89       | 2   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | 10 U              |            | 125  | 98.2       | 79      | 90.5        | 72       | 8   | 43-125/29         |
| 100-42-5   | Styrene                    | 2.0 U             |            | 25   | 1.8        | 7*      | 2.0         | 8*       | 11  | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 2.0 U             |            | 25   | 27.0       | 108     | 27.0        | 108      | 0   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 2.0 U             |            | 25   | 19.8       | 79      | 19.0        | 76       | 4   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | 2.0 U             |            | 25   | 21.3       | 85      | 20.8        | 83       | 2   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | 2.0 U             |            | 25   | 24.8       | 99      | 25.2        | 101      | 2   | 69-132/21         |
| 108-88-3   | Toluene                    | 2.0 U             |            | 25   | 23.3       | 93      | 23.9        | 96       | 3   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 4.8               |            | 25   | 29.4       | 98      | 29.6        | 99       | 1   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | 2.0 U             |            | 25   | 26.8       | 107     | 24.9        | 100      | 7   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | 6.0 U             |            | 75   | 69.9       | 93      | 69.3        | 92       | 1   | 71-122/16         |

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T16432  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample       | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------------|------------|----|----------|----|-----------|------------|------------------|
| T16411-10MS  | F0079015.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10MSD | F0079016.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |
| T16411-10    | F0079014.D | 1  | 03/01/07 | LJ | n/a       | n/a        | VF2306           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16432-4, T16432-5, T16432-6

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16411-10 | Limits  |
|------------|-----------------------|------|------|-----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 104% | 102%      | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%  | 97%  | 97%       | 66-139% |
| 2037-26-5  | Toluene-D8            | 105% | 103% | 107%      | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 100% | 101% | 119%      | 84-150% |

**Instrument Performance Check (BFB)**

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**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VF2276-BFB      | <b>Injection Date:</b> 02/12/07 |
| <b>Lab File ID:</b> F0078488.D | <b>Injection Time:</b> 17:39    |
| <b>Instrument ID:</b> GCMSF    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 10313         | 15.8                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 24771         | 38.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 65123         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 4343          | 6.7                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 344           | 0.53 (0.67) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 51261         | 78.7                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3763          | 5.8 (7.3) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 49896         | 76.6 (97.3) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3355          | 5.2 (6.7) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID  |
|----------------|-------------|---------------|---------------|--------------|-------------------|
| VF2276-IC2276  | F0078490.D  | 02/12/07      | 18:42         | 01:03        | Initial cal 200   |
| VF2276-IC2276  | F0078491.D  | 02/12/07      | 19:14         | 01:35        | Initial cal 400   |
| VF2276-ICC2276 | F0078492.D  | 02/12/07      | 19:46         | 02:07        | Initial cal 1000  |
| VF2276-IC2276  | F0078493.D  | 02/12/07      | 20:18         | 02:39        | Initial cal 2000  |
| VF2276-IC2276  | F0078494.D  | 02/12/07      | 20:49         | 03:10        | Initial cal 4000  |
| VF2276-IC2276  | F0078495.D  | 02/12/07      | 21:21         | 03:42        | Initial cal 10000 |



**Instrument Performance Check (BFB)**

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**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VF2305-BFB      | <b>Injection Date:</b> 02/28/07 |
| <b>Lab File ID:</b> F0078963.D | <b>Injection Time:</b> 14:36    |
| <b>Instrument ID:</b> GCMSF    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 7281          | 16.0                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 18364         | 40.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 45541         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2793          | 6.1                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 107           | 0.23 (0.27) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 39123         | 85.9                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3023          | 6.6 (7.7) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 37355         | 82.0 (95.5) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2802          | 6.2 (7.5) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|----------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2305-IC2305  | F0078964.D  | 02/28/07      | 15:10         | 00:34        | Initial cal 2                              |
| VF2305-IC2305  | F0078965.D  | 02/28/07      | 15:41         | 01:05        | Initial cal 5                              |
| VF2305-IC2305  | F0078966.D  | 02/28/07      | 16:12         | 01:36        | Initial cal 20                             |
| VF2305-ICC2305 | F0078967.D  | 02/28/07      | 16:44         | 02:08        | Initial cal 40                             |
| VF2305-IC2305  | F0078968.D  | 02/28/07      | 17:16         | 02:40        | Initial cal 70                             |
| VF2305-IC2305  | F0078969.D  | 02/28/07      | 17:46         | 03:10        | Initial cal 100                            |
| VF2305-IC2305  | F0078970.D  | 02/28/07      | 18:18         | 03:42        | Initial cal 200                            |
| VF2305-BS      | F0078972.D  | 02/28/07      | 19:21         | 04:45        | Blank Spike                                |
| VF2305-MB      | F0078974.D  | 02/28/07      | 20:24         | 05:48        | Method Blank                               |
| ZZZZZZ         | F0078975.D  | 02/28/07      | 20:55         | 06:19        | (unrelated sample)                         |
| ZZZZZZ         | F0078976.D  | 02/28/07      | 21:26         | 06:50        | (unrelated sample)                         |
| ZZZZZZ         | F0078977.D  | 02/28/07      | 21:58         | 07:22        | (unrelated sample)                         |
| T16395-2       | F0078978.D  | 02/28/07      | 22:30         | 07:54        | (used for QC only; not part of job T16432) |
| T16395-2MS     | F0078979.D  | 02/28/07      | 23:00         | 08:24        | Matrix Spike                               |
| T16395-2MSD    | F0078980.D  | 02/28/07      | 23:32         | 08:56        | Matrix Spike Duplicate                     |
| ZZZZZZ         | F0078981.D  | 03/01/07      | 00:03         | 09:27        | (unrelated sample)                         |
| ZZZZZZ         | F0078982.D  | 03/01/07      | 00:35         | 09:59        | (unrelated sample)                         |
| ZZZZZZ         | F0078983.D  | 03/01/07      | 01:06         | 10:30        | (unrelated sample)                         |
| ZZZZZZ         | F0078984.D  | 03/01/07      | 01:38         | 11:02        | (unrelated sample)                         |
| ZZZZZZ         | F0078989.D  | 03/01/07      | 04:15         | 13:39        | (unrelated sample)                         |
| ZZZZZZ         | F0078990.D  | 03/01/07      | 04:47         | 14:11        | (unrelated sample)                         |
| ZZZZZZ         | F0078991.D  | 03/01/07      | 05:19         | 14:43        | (unrelated sample)                         |
| ZZZZZZ         | F0078992.D  | 03/01/07      | 05:50         | 15:14        | (unrelated sample)                         |

**Instrument Performance Check (BFB)**

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**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2306-BFB  
**Lab File ID:** F0078994.D  
**Instrument ID:** GCMSF  
**Injection Date:** 03/01/07  
**Injection Time:** 07:50

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 6679          | 18.1                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 15417         | 41.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 36917         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2620          | 7.1                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.0 (0.0) <sup>a</sup>   | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 32187         | 87.2                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2345          | 6.4 (7.3) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 31168         | 84.4 (96.8) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2163          | 5.9 (6.9) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|---------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2306-CC2305 | F0078995.D  | 03/01/07      | 08:23         | 00:33        | Continuing cal 20                          |
| VF2306-CC2276 | F0078996.D  | 03/01/07      | 08:55         | 01:05        | Continuing cal 1000                        |
| VF2306-BS1    | F0078997.D  | 03/01/07      | 09:31         | 01:41        | Blank Spike                                |
| VF2306-BS2    | F0078998.D  | 03/01/07      | 10:02         | 02:12        | Blank Spike                                |
| VF2306-MB     | F0078999.D  | 03/01/07      | 10:34         | 02:44        | Method Blank                               |
| ZZZZZZ        | F0079000.D  | 03/01/07      | 11:06         | 03:16        | (unrelated sample)                         |
| ZZZZZZ        | F0079001.D  | 03/01/07      | 11:37         | 03:47        | (unrelated sample)                         |
| ZZZZZZ        | F0079002.D  | 03/01/07      | 12:09         | 04:19        | (unrelated sample)                         |
| ZZZZZZ        | F0079003.D  | 03/01/07      | 12:41         | 04:51        | (unrelated sample)                         |
| ZZZZZZ        | F0079004.D  | 03/01/07      | 13:12         | 05:22        | (unrelated sample)                         |
| T16432-6      | F0079005.D  | 03/01/07      | 13:44         | 05:54        | 29WW36-FEB2007                             |
| ZZZZZZ        | F0079006.D  | 03/01/07      | 14:16         | 06:26        | (unrelated sample)                         |
| ZZZZZZ        | F0079007.D  | 03/01/07      | 14:47         | 06:57        | (unrelated sample)                         |
| ZZZZZZ        | F0079008.D  | 03/01/07      | 15:18         | 07:28        | (unrelated sample)                         |
| ZZZZZZ        | F0079009.D  | 03/01/07      | 15:50         | 08:00        | (unrelated sample)                         |
| T16432-4      | F0079010.D  | 03/01/07      | 16:22         | 08:32        | LHSM07-FEB2007                             |
| T16432-5      | F0079011.D  | 03/01/07      | 16:54         | 09:04        | 47WW09-FEB2007                             |
| ZZZZZZ        | F0079012.D  | 03/01/07      | 17:26         | 09:36        | (unrelated sample)                         |
| ZZZZZZ        | F0079013.D  | 03/01/07      | 17:57         | 10:07        | (unrelated sample)                         |
| T16411-10     | F0079014.D  | 03/01/07      | 18:28         | 10:38        | (used for QC only; not part of job T16432) |
| T16411-10MS   | F0079015.D  | 03/01/07      | 19:01         | 11:11        | Matrix Spike                               |
| T16411-10MSD  | F0079016.D  | 03/01/07      | 19:33         | 11:43        | Matrix Spike Duplicate                     |
| ZZZZZZ        | F0079020.D  | 03/01/07      | 21:39         | 13:49        | (unrelated sample)                         |
| ZZZZZZ        | F0079021.D  | 03/01/07      | 22:12         | 14:22        | (unrelated sample)                         |

**Instrument Performance Check (BFB)**

Page 1 of 1

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VY1139-BFB  
**Lab File ID:** Y0010427.D  
**Instrument ID:** GCMSY

**Injection Date:** 02/27/07  
**Injection Time:** 12:39

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 18328         | 22.3                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 48184         | 58.6                     | Pass      |
| 95  | Base peak, 100% relative abundance | 82280         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 5435          | 6.6                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.0 (0.0) <sup>a</sup>   | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 66136         | 80.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 5281          | 6.4 (8.0) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 63408         | 77.1 (95.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 3916          | 4.8 (6.2) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID      |
|----------------|-------------|---------------|---------------|--------------|-----------------------|
| VY1139-IC1139  | Y0010431.D  | 02/27/07      | 14:37         | 01:58        | Initial cal 20        |
| VY1139-ICC1139 | Y0010432.D  | 02/27/07      | 15:06         | 02:27        | Initial cal 40        |
| VY1139-IC1139  | Y0010433.D  | 02/27/07      | 15:36         | 02:57        | Initial cal 70        |
| VY1139-IC1139  | Y0010434.D  | 02/27/07      | 16:05         | 03:26        | Initial cal 100       |
| VY1139-IC1139  | Y0010435.D  | 02/27/07      | 16:35         | 03:56        | Initial cal 200       |
| VY1139-IC1139  | Y0010437.D  | 02/27/07      | 17:33         | 04:54        | Initial cal 5         |
| VY1139-IC1139  | Y0010438.D  | 02/27/07      | 18:03         | 05:24        | Initial cal 2         |
| VY1139-BS      | Y0010439.D  | 02/27/07      | 18:32         | 05:53        | Blank Spike           |
| VY1139-BSD     | Y0010440.D  | 02/27/07      | 19:02         | 06:23        | Blank Spike Duplicate |
| VY1139-MB      | Y0010442.D  | 02/27/07      | 20:01         | 07:22        | Method Blank          |
| T16432-7       | Y0010443.D  | 02/27/07      | 20:30         | 07:51        | TRIP BLANK            |
| T16432-1       | Y0010444.D  | 02/27/07      | 21:00         | 08:21        | LHSMW06-FEB2007       |

**Instrument Performance Check (BFB)**

Page 1 of 1

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VY1140-BFB      | <b>Injection Date:</b> 02/28/07 |
| <b>Lab File ID:</b> Y0010446.D | <b>Injection Time:</b> 10:30    |
| <b>Instrument ID:</b> GCMSY    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 22976         | 24.0                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 54920         | 57.5                     | Pass      |
| 95  | Base peak, 100% relative abundance | 95552         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 5753          | 6.0                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 0             | 0.0 (0.0) <sup>a</sup>   | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 67168         | 70.3                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 5842          | 6.1 (8.7) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 66456         | 69.5 (98.9) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 5395          | 5.6 (8.1) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|----------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VY1140-CC1139  | Y0010447.D  | 02/28/07      | 10:57         | 00:27        | Continuing cal 20                          |
| VY1140-BS      | Y0010448.D  | 02/28/07      | 11:25         | 00:55        | Blank Spike                                |
| VY1140-MB      | Y0010450.D  | 02/28/07      | 12:20         | 01:50        | Method Blank                               |
| ZZZZZZ         | Y0010451.D  | 02/28/07      | 12:47         | 02:17        | (unrelated sample)                         |
| T16432-2       | Y0010452.D  | 02/28/07      | 13:15         | 02:45        | 17WW10-FEB2007                             |
| T16432-3       | Y0010453.D  | 02/28/07      | 13:42         | 03:12        | 17WW12-FEB2007                             |
| T16432-4       | Y0010454.D  | 02/28/07      | 14:09         | 03:39        | LHSM07-FEB2007                             |
| T16432-5       | Y0010455.D  | 02/28/07      | 14:35         | 04:05        | 47WW09-FEB2007                             |
| ZZZZZZ         | Y0010457.D  | 02/28/07      | 15:32         | 05:02        | (unrelated sample)                         |
| ZZZZZZ         | Y0010458.D  | 02/28/07      | 16:00         | 05:30        | (unrelated sample)                         |
| ZZZZZZ         | Y0010459.D  | 02/28/07      | 16:27         | 05:57        | (unrelated sample)                         |
| ZZZZZZ         | Y0010460.D  | 02/28/07      | 16:54         | 06:24        | (unrelated sample)                         |
| ZZZZZZ         | Y0010461.D  | 02/28/07      | 17:22         | 06:52        | (unrelated sample)                         |
| ZZZZZZ         | Y0010462.D  | 02/28/07      | 17:49         | 07:19        | (unrelated sample)                         |
| ZZZZZZ         | Y0010463.D  | 02/28/07      | 18:17         | 07:47        | (unrelated sample)                         |
| ZZZZZZ         | Y0010464.D  | 02/28/07      | 18:44         | 08:14        | (unrelated sample)                         |
| ZZZZZZ         | Y0010465.D  | 02/28/07      | 19:12         | 08:42        | (unrelated sample)                         |
| ZZZZZZ         | Y0010466.D  | 02/28/07      | 19:39         | 09:09        | (unrelated sample)                         |
| T16437-6       | Y0010467.D  | 02/28/07      | 20:07         | 09:37        | (used for QC only; not part of job T16432) |
| T16437-6       | Y0010468.D  | 02/28/07      | 20:35         | 10:05        | (used for QC only; not part of job T16432) |
| T16437-6MS     | Y0010469.D  | 02/28/07      | 21:02         | 10:32        | Matrix Spike                               |
| T16437-6MSD    | Y0010470.D  | 02/28/07      | 21:29         | 10:59        | Matrix Spike Duplicate                     |
| VY1140-ECC1139 | Y0010472.D  | 02/28/07      | 22:24         | 11:54        | Ending cal 20                              |

**Volatile Internal Standard Area Summary**

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2306-CC2305 | <b>Injection Date:</b> 03/01/07 |
| <b>Lab File ID:</b> F0078995.D  | <b>Injection Time:</b> 08:23    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1    |       | IS 2    |       | IS 3   |       |
|--------------------------|---------|-------|---------|-------|--------|-------|
|                          | AREA    | RT    | AREA    | RT    | AREA   | RT    |
| Check Std                | 699201  | 11.94 | 525986  | 16.02 | 192418 | 19.30 |
| Upper Limit <sup>a</sup> | 1398402 | 12.44 | 1051972 | 16.52 | 384836 | 19.80 |
| Lower Limit <sup>b</sup> | 349601  | 11.44 | 262993  | 15.52 | 96209  | 18.80 |

| Lab Sample ID | IS 1 AREA | RT    | IS 2 AREA | RT    | IS 3 AREA | RT    |
|---------------|-----------|-------|-----------|-------|-----------|-------|
| VF2306-BS1    | 777387    | 11.94 | 579705    | 16.01 | 219016    | 19.30 |
| VF2306-BS2    | 816000    | 11.93 | 591535    | 16.01 | 206818    | 19.28 |
| VF2306-MB     | 806821    | 11.93 | 553209    | 16.02 | 163421    | 19.28 |
| ZZZZZZ        | 782363    | 11.93 | 537014    | 16.01 | 147308    | 19.28 |
| ZZZZZZ        | 758389    | 11.93 | 519002    | 16.01 | 140295    | 19.27 |
| ZZZZZZ        | 730503    | 11.92 | 505963    | 16.01 | 133214    | 19.28 |
| ZZZZZZ        | 713902    | 11.93 | 493376    | 16.00 | 130066    | 19.28 |
| ZZZZZZ        | 709648    | 11.93 | 489247    | 16.02 | 126540    | 19.28 |
| T16432-6      | 697001    | 11.93 | 477711    | 16.00 | 126547    | 19.28 |
| ZZZZZZ        | 693179    | 11.93 | 488543    | 16.01 | 121877    | 19.29 |
| ZZZZZZ        | 684656    | 11.93 | 471501    | 16.01 | 114404    | 19.28 |
| ZZZZZZ        | 670434    | 11.93 | 467470    | 16.00 | 117612    | 19.28 |
| ZZZZZZ        | 610736    | 11.91 | 425298    | 16.00 | 114844    | 19.26 |
| T16432-4      | 638047    | 11.92 | 449783    | 15.99 | 118479    | 19.26 |
| T16432-5      | 598577    | 11.91 | 425000    | 16.00 | 114851    | 19.27 |
| ZZZZZZ        | 618266    | 11.91 | 428138    | 16.00 | 108080    | 19.26 |
| ZZZZZZ        | 597863    | 11.91 | 425430    | 15.99 | 116121    | 19.25 |
| T16411-10     | 617663    | 11.91 | 436613    | 15.99 | 122528    | 19.25 |
| T16411-10MS   | 620696    | 11.90 | 469833    | 15.98 | 178265    | 19.24 |
| T16411-10MSD  | 655046    | 11.90 | 491723    | 15.97 | 183495    | 19.25 |
| ZZZZZZ        | 625983    | 11.89 | 448435    | 15.97 | 117429    | 19.24 |
| ZZZZZZ        | 617306    | 11.89 | 441010    | 15.97 | 117597    | 19.24 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                  |                                 |
|----------------------------------|---------------------------------|
| <b>Check Std:</b> VY1139-ICC1139 | <b>Injection Date:</b> 02/27/07 |
| <b>Lab File ID:</b> Y0010432.D   | <b>Injection Time:</b> 15:06    |
| <b>Instrument ID:</b> GCMSY      | <b>Method:</b> SW846 8260B      |

|                          | IS 1    |       | IS 2   |       | IS 3   |       |
|--------------------------|---------|-------|--------|-------|--------|-------|
|                          | AREA    | RT    | AREA   | RT    | AREA   | RT    |
| Check Std                | 528585  | 9.58  | 416756 | 12.71 | 213134 | 15.11 |
| Upper Limit <sup>a</sup> | 1057170 | 10.08 | 833512 | 13.21 | 426268 | 15.61 |
| Lower Limit <sup>b</sup> | 264293  | 9.08  | 208378 | 12.21 | 106567 | 14.61 |

| Lab Sample ID | IS 1   |      | IS 2   |       | IS 3   |       |
|---------------|--------|------|--------|-------|--------|-------|
|               | AREA   | RT   | AREA   | RT    | AREA   | RT    |
| VY1139-BS     | 598294 | 9.58 | 460129 | 12.71 | 231226 | 15.11 |
| VY1139-BSD    | 610038 | 9.58 | 454509 | 12.71 | 235602 | 15.11 |
| VY1139-MB     | 535914 | 9.58 | 377022 | 12.71 | 139892 | 15.11 |
| T16432-7      | 529138 | 9.58 | 362047 | 12.71 | 130297 | 15.11 |
| T16432-1      | 516276 | 9.58 | 349440 | 12.71 | 123643 | 15.11 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VY1140-CC1139 | <b>Injection Date:</b> 02/28/07 |
| <b>Lab File ID:</b> Y0010447.D  | <b>Injection Time:</b> 10:57    |
| <b>Instrument ID:</b> GCMSY     | <b>Method:</b> SW846 8260B      |

|                          | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|--------------------------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 514168       | 9.58  | 390760       | 12.71 | 197760       | 15.11 |
| Upper Limit <sup>a</sup> | 1028336      | 10.08 | 781520       | 13.21 | 395520       | 15.61 |
| Lower Limit <sup>b</sup> | 257084       | 9.08  | 195380       | 12.21 | 98880        | 14.61 |

| Lab<br>Sample ID | IS 1<br>AREA | RT   | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|------------------|--------------|------|--------------|-------|--------------|-------|
| VY1140-BS        | 528114       | 9.58 | 398199       | 12.71 | 212159       | 15.11 |
| VY1140-MB        | 477732       | 9.58 | 342871       | 12.71 | 132949       | 15.11 |
| ZZZZZZ           | 464413       | 9.58 | 327103       | 12.71 | 124680       | 15.11 |
| T16432-2         | 464350       | 9.58 | 318565       | 12.71 | 120370       | 15.11 |
| T16432-3         | 470453       | 9.58 | 315840       | 12.71 | 112791       | 15.11 |
| T16432-4         | 461116       | 9.58 | 314727       | 12.71 | 113535       | 15.11 |
| T16432-5         | 431337       | 9.59 | 309610       | 12.71 | 127372       | 15.11 |
| ZZZZZZ           | 405017       | 9.58 | 275190       | 12.71 | 102766       | 15.11 |
| ZZZZZZ           | 407320       | 9.58 | 285074       | 12.71 | 101688       | 15.11 |
| ZZZZZZ           | 403367       | 9.58 | 270362       | 12.71 | 98390*       | 15.11 |
| ZZZZZZ           | 392945       | 9.58 | 270524       | 12.71 | 97126*       | 15.11 |
| ZZZZZZ           | 408609       | 9.58 | 279258       | 12.71 | 99061        | 15.11 |
| ZZZZZZ           | 402576       | 9.58 | 276931       | 12.71 | 102897       | 15.11 |
| ZZZZZZ           | 405732       | 9.58 | 280078       | 12.71 | 95538*       | 15.11 |
| ZZZZZZ           | 416787       | 9.58 | 275004       | 12.71 | 99665        | 15.11 |
| ZZZZZZ           | 393479       | 9.58 | 274001       | 12.71 | 99599        | 15.11 |
| ZZZZZZ           | 391388       | 9.58 | 271169       | 12.71 | 102103       | 15.11 |
| T16437-6         | 392973       | 9.58 | 275722       | 12.71 | 106578       | 15.11 |
| T16437-6         | 396432       | 9.58 | 280504       | 12.71 | 96800*       | 15.11 |
| T16437-6MS       | 418911       | 9.58 | 340300       | 12.71 | 177835       | 15.11 |
| T16437-6MSD      | 471794       | 9.58 | 366048       | 12.71 | 183943       | 15.11 |
| VY1140-ECC1139   | 442011       | 9.58 | 342239       | 12.71 | 177981       | 15.11 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Surrogate Recovery Summary**

Page 1 of 1

**Job Number:** T16432**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant**Method:** SW846 8260B**Matrix:** AQ**Samples and QC shown here apply to the above method**

| Lab<br>Sample ID | Lab<br>File ID | S1    | S2    | S3    | S4                  |
|------------------|----------------|-------|-------|-------|---------------------|
| T16432-1         | Y0010444.D     | 121.0 | 117.0 | 133.0 | 158.0* <sup>a</sup> |
| T16432-2         | Y0010452.D     | 124.0 | 122.0 | 129.0 | 153.0* <sup>a</sup> |
| T16432-3         | Y0010453.D     | 121.0 | 118.0 | 132.0 | 154.0* <sup>a</sup> |
| T16432-4         | F0079010.D     | 102.0 | 96.0  | 106.0 | 125.0               |
| T16432-4         | Y0010454.D     | 127.0 | 117.0 | 128.0 | 150.0               |
| T16432-5         | F0079011.D     | 104.0 | 98.0  | 106.0 | 123.0               |
| T16432-5         | Y0010455.D     | 125.0 | 122.0 | 129.0 | 146.0               |
| T16432-6         | F0079005.D     | 102.0 | 95.0  | 109.0 | 127.0               |
| T16432-7         | Y0010443.D     | 117.0 | 114.0 | 130.0 | 151.0* <sup>a</sup> |
| T16411-10MS      | F0079015.D     | 104.0 | 99.0  | 105.0 | 100.0               |
| T16411-10MSD     | F0079016.D     | 104.0 | 97.0  | 103.0 | 101.0               |
| T16437-6MS       | Y0010469.D     | 124.0 | 126.0 | 120.0 | 123.0               |
| T16437-6MSD      | Y0010470.D     | 122.0 | 117.0 | 119.0 | 129.0               |
| VF2306-BS2       | F0078998.D     | 98.0  | 93.0  | 103.0 | 106.0               |
| VF2306-MB        | F0078999.D     | 101.0 | 94.0  | 110.0 | 119.0               |
| VY1139-BS        | Y0010439.D     | 121.0 | 117.0 | 122.0 | 132.0               |
| VY1139-BSD       | Y0010440.D     | 120.0 | 120.0 | 129.0 | 136.0               |
| VY1139-MB        | Y0010442.D     | 118.0 | 119.0 | 131.0 | 154.0* <sup>b</sup> |
| VY1140-BS        | Y0010448.D     | 124.0 | 119.0 | 128.0 | 130.0               |
| VY1140-MB        | Y0010450.D     | 124.0 | 119.0 | 130.0 | 150.0               |

**Surrogate  
Compounds****Recovery  
Limits**

|                                   |         |
|-----------------------------------|---------|
| <b>S1</b> = Dibromofluoromethane  | 73-139% |
| <b>S2</b> = 1,2-Dichloroethane-D4 | 66-139% |
| <b>S3</b> = Toluene-D8            | 77-148% |
| <b>S4</b> = 4-Bromofluorobenzene  | 84-150% |

(a) Outside of control limits biased high. There were no target compounds associated with this surrogate.

(b) Outside control limits biased high. There are no target compounds associated with this surrogate.



**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2276-ICC2276  
**Lab FileID:** F0078492.D

## Response Factor Report GC/MS F

Method : C:\HPCHEM\1\METHODS\VF2276GW.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Tue Feb 13 07:54:50 2007  
 Response via : Initial Calibration

## Calibration Files

200 =F0078490.D 400 =F0078491.D 1000 =F0078492.D  
 2000 =F0078493.D 4000 =F0078494.D 9000 =F0078495.D

|                                        | Compound              | 200                  | 400   | 1000  | 2000  | 4000  | 9000  | Avg   | %RSD     |
|----------------------------------------|-----------------------|----------------------|-------|-------|-------|-------|-------|-------|----------|
| 1) I                                   | Fluorobenzene         | -----ISTD-----       |       |       |       |       |       |       |          |
| 2) S                                   | Dibromofluoromethan   | 0.287                | 0.281 | 0.280 | 0.278 | 0.270 | 0.256 | 0.275 | 4.06     |
| 3) S                                   | 1,2-Dichloroethane-   | 0.212                | 0.207 | 0.211 | 0.211 | 0.212 | 0.209 | 0.210 | 0.87     |
| 4) I                                   | Chlorobenzene-d5      | -----ISTD-----       |       |       |       |       |       |       |          |
| 5) S                                   | Toluene-d8            | 1.047                | 1.037 | 1.041 | 1.022 | 1.035 | 1.039 | 1.037 | 0.83     |
| 6) I                                   | 1,4-Dichlorobenzene-d | -----ISTD-----       |       |       |       |       |       |       |          |
| 7) S                                   | 4-Bromofluorobenzen   | 0.808                | 0.807 | 0.790 | 0.802 | 0.804 | 0.865 | 0.813 | 3.25     |
| 8) I                                   | 1,4-Dichlorobenzene-d | -----ISTD-----       |       |       |       |       |       |       |          |
| 9) H                                   | TPH-GRO (C6-C10)      | 1.214                | 0.770 | 0.582 | 0.475 | 0.429 | 0.392 | 0.644 | E1 48.27 |
| ----- Linear regression -----          |                       | Coefficient = 0.9997 |       |       |       |       |       |       |          |
| Response Ratio = 37.35716 + 3.74928 *A |                       |                      |       |       |       |       |       |       |          |

-----  
 (#) = Out of Range

VF2276GW.M

Tue Feb 13 09:27:02 2007

5.8.1

5

## Initial Calibration Summary

Page 1 of 3

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2305-ICC2305  
 Lab FileID: F0078967.D

## Response Factor Report GC/MS F

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Initial Calibration

## Calibration Files

1 =F0078964.D 2 =F0078965.D 3 =F0078966.D  
 4 =F0078967.D 5 =F0078968.D 6 =F0078969.D 7 =F0078970.D

| Compound                                           | 1              | 2     | 3     | 4     | 5     | 6     | 7     | Avg   | %RSD  |
|----------------------------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Fluorobenzene                                 | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) Dichlorodifluorom                               | 0.157          | 0.162 | 0.153 | 0.171 | 0.181 | 0.178 | 0.196 | 0.171 | 8.89  |
| 3)P Chloromethane                                  | 0.353          | 0.368 | 0.326 | 0.309 | 0.319 | 0.297 | 0.331 | 0.329 | 7.50  |
| 4)C Vinyl Chloride                                 | 0.279          | 0.316 | 0.268 | 0.280 | 0.287 | 0.269 | 0.300 | 0.286 | 6.01  |
| 5) Bromomethane                                    | 0.275          | 0.253 | 0.223 | 0.215 | 0.216 | 0.204 | 0.190 | 0.225 | 12.95 |
| 6) Chloroethane                                    | 0.203          | 0.232 | 0.219 | 0.222 | 0.222 | 0.210 | 0.211 | 0.217 | 4.37  |
| 7) Trichlorofluorome                               | 0.137          | 0.154 | 0.142 | 0.159 | 0.166 | 0.162 | 0.164 | 0.155 | 7.23  |
| 8) Acrolein                                        | 0.030          | 0.030 | 0.031 | 0.036 | 0.036 | 0.033 | 0.033 | 0.033 | 8.00  |
| 9)C 1,1-Dichloroethen                              | 0.287          | 0.299 | 0.298 | 0.320 | 0.322 | 0.306 | 0.312 | 0.306 | 4.04  |
| 10) Freon 113                                      | 0.174          | 0.190 | 0.191 | 0.225 | 0.225 | 0.213 | 0.216 | 0.205 | 9.65  |
| 11) Acetone                                        | 0.065          | 0.062 | 0.057 | 0.052 | 0.053 | 0.053 | 0.052 | 0.056 | 9.61  |
| 12) Iodomethane                                    | 0.405          | 0.432 | 0.438 | 0.436 | 0.447 | 0.434 | 0.445 | 0.434 | 3.22  |
| 13) Methyl acetate                                 | 0.199          | 0.203 | 0.197 | 0.179 | 0.188 | 0.186 | 0.185 | 0.191 | 4.56  |
| 14) Carbon Disulfide                               | 0.833          | 0.878 | 0.869 | 0.908 | 0.930 | 0.885 | 0.918 | 0.889 | 3.74  |
| 15) Methylene Chlorid                              | 0.410          | 0.424 | 0.407 | 0.404 | 0.396 | 0.378 | 0.376 | 0.399 | 4.34  |
| 16) Tert Butyl Alcoho                              | 0.015          | 0.018 | 0.018 | 0.015 | 0.017 | 0.018 | 0.018 | 0.017 | 8.14  |
| 17) trans-1,2-Dichlor                              | 0.328          | 0.340 | 0.340 | 0.344 | 0.351 | 0.337 | 0.344 | 0.341 | 2.11  |
| 18) Acrylonitrile                                  | 0.086          | 0.099 | 0.097 | 0.091 | 0.097 | 0.098 | 0.097 | 0.095 | 4.82  |
| 19) Methyl Tert Butyl                              | 0.577          | 0.603 | 0.572 | 0.555 | 0.578 | 0.587 | 0.594 | 0.581 | 2.70  |
| 20) Hexane                                         | 0.300          | 0.281 | 0.283 | 0.341 | 0.346 | 0.320 | 0.315 | 0.312 | 8.32  |
| 21)P 1,1-Dichloroethan                             | 0.428          | 0.457 | 0.436 | 0.445 | 0.450 | 0.430 | 0.435 | 0.440 | 2.44  |
| 22) Vinyl acetate                                  | 0.513          | 0.554 | 0.582 | 0.564 | 0.569 | 0.552 | 0.517 | 0.550 | 4.74  |
| 23) Di-isopropyl ethe                              | 0.944          | 1.012 | 0.992 | 0.981 | 0.988 | 0.943 | 0.934 | 0.971 | 3.09  |
| 24) Ethyl tert-butyl                               | 0.721          | 0.735 | 0.733 | 0.737 | 0.753 | 0.739 | 0.749 | 0.738 | 1.43  |
| 25) 2,2-Dichloropropa                              | 0.208          | 0.200 | 0.197 | 0.210 | 0.209 | 0.202 | 0.195 | 0.203 | 2.91  |
| 26) cis-1,2-Dichloroe                              | 0.282          | 0.305 | 0.302 | 0.308 | 0.307 | 0.302 | 0.307 | 0.302 | 3.03  |
| 27) 2-Butanone                                     | 0.113          | 0.118 | 0.120 | 0.105 | 0.111 | 0.112 | 0.109 | 0.113 | 4.48  |
| 28) Bromochloromethan                              | 0.124          | 0.142 | 0.145 | 0.146 | 0.147 | 0.149 | 0.150 | 0.143 | 6.13  |
| 29)C Chloroform                                    | 0.343          | 0.363 | 0.358 | 0.362 | 0.364 | 0.353 | 0.362 | 0.358 | 2.09  |
| 30) Tetrahydrofuran                                | 0.048          | 0.035 | 0.033 | 0.030 | 0.031 | 0.031 | 0.029 | 0.034 | 19.44 |
| ----- Linear regression ----- Coefficient = 0.9988 |                |       |       |       |       |       |       |       |       |
| Response Ratio = 0.00148 + 0.02898 *A              |                |       |       |       |       |       |       |       |       |
| 31) 1,1,1-Trichloroet                              | 0.196          | 0.201 | 0.204 | 0.213 | 0.218 | 0.210 | 0.215 | 0.208 | 3.79  |
| 32)S Dibromofluorometh                             | 0.211          | 0.221 | 0.210 | 0.217 | 0.221 | 0.221 | 0.226 | 0.218 | 2.61  |
| 33) Cyclohexane                                    | 0.390          | 0.405 | 0.413 | 0.479 | 0.485 | 0.453 | 0.447 | 0.439 | 8.43  |
| 34) 1,1-Dichloropropo                              | 0.283          | 0.279 | 0.292 | 0.313 | 0.321 | 0.312 | 0.316 | 0.302 | 5.61  |
| 35) Carbon Tetrachlor                              | 0.142          | 0.161 | 0.164 | 0.176 | 0.181 | 0.177 | 0.183 | 0.169 | 8.57  |
| 36)S 1,2-Dichloroethan                             | 0.159          | 0.173 | 0.166 | 0.161 | 0.165 | 0.162 | 0.166 | 0.165 | 2.76  |
| 37) Benzene                                        | 1.089          | 1.108 | 1.092 | 1.113 | 1.134 | 1.098 | 1.119 | 1.108 | 1.43  |
| 38) 1,2-Dichloroethan                              | 0.181          | 0.193 | 0.200 | 0.205 | 0.200 | 0.204 | 0.201 | 0.198 | 4.13  |
| 39) tert-amyl methyl                               | 0.712          | 0.774 | 0.759 | 0.736 | 0.767 | 0.769 | 0.782 | 0.757 | 3.26  |
| 40) Trichloroethene                                | 0.212          | 0.223 | 0.218 | 0.229 | 0.233 | 0.229 | 0.236 | 0.226 | 3.78  |
| 41) Methylcyclohexane                              | 0.318          | 0.332 | 0.335 | 0.391 | 0.401 | 0.384 | 0.388 | 0.364 | 9.38  |
| 42)C 1,2-Dichloropropa                             | 0.320          | 0.304 | 0.310 | 0.316 | 0.320 | 0.310 | 0.318 | 0.314 | 1.90  |
| 43) Dibromomethane                                 | 0.129          | 0.147 | 0.169 | 0.160 | 0.166 | 0.165 | 0.170 | 0.158 | 9.61  |

## Initial Calibration Summary

Page 2 of 3

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2305-ICC2305  
 Lab FileID: F0078967.D

|     |                                        |                      |       |       |       |       |       |       |       |       |
|-----|----------------------------------------|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44) | 1,4-Dioxane                            | 0.002                | 0.002 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.002 | 17.15 |
|     | ----- Linear regression -----          | Coefficient = 0.9989 |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.00341 + 0.00271 *A |                      |       |       |       |       |       |       |       |       |
| 45) | Bromodichlorometh                      | 0.287                | 0.300 | 0.298 | 0.307 | 0.311 | 0.306 | 0.317 | 0.304 | 3.19  |
| 46) | 2-Nitropropane                         | 0.046                | 0.042 | 0.041 | 0.037 | 0.038 | 0.039 | 0.038 | 0.040 | 7.95  |
| 47) | 2-Chloroethyl vin                      | 0.094                | 0.104 | 0.122 | 0.125 | 0.136 | 0.143 | 0.152 | 0.125 | 16.72 |
|     | ----- Linear regression -----          | Coefficient = 0.9983 |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.06248 + 0.15260 *A |                      |       |       |       |       |       |       |       |       |
| 48) | 4-Methyl-2-pentan                      | 0.229                | 0.239 | 0.249 | 0.234 | 0.246 | 0.246 | 0.237 | 0.240 | 3.06  |
| 49) | cis-1,3-Dichlorop                      | 0.369                | 0.397 | 0.420 | 0.427 | 0.443 | 0.439 | 0.454 | 0.421 | 6.95  |
| 50) | I Chlorobenzene-d5                     | -----ISTD-----       |       |       |       |       |       |       |       |       |
| 51) | S Toluene-d8                           | 1.147                | 1.122 | 1.060 | 1.073 | 1.083 | 1.079 | 1.120 | 1.098 | 2.89  |
| 52) | C Toluene                              | 1.382                | 1.408 | 1.358 | 1.387 | 1.384 | 1.367 | 1.417 | 1.386 | 1.51  |
| 53) | trans-1,3-Dichlor                      | 0.340                | 0.364 | 0.391 | 0.402 | 0.406 | 0.409 | 0.428 | 0.391 | 7.65  |
| 54) | 1,1,2-Trichloroet                      | 0.263                | 0.295 | 0.289 | 0.279 | 0.283 | 0.284 | 0.289 | 0.283 | 3.62  |
| 55) | Tetrachloroethene                      | 0.272                | 0.280 | 0.293 | 0.302 | 0.309 | 0.299 | 0.307 | 0.294 | 4.70  |
| 56) | 2-hexanone                             | 0.170                | 0.180 | 0.203 | 0.194 | 0.206 | 0.211 | 0.208 | 0.196 | 8.04  |
| 57) | 1,3-Dichloropropa                      | 0.605                | 0.605 | 0.602 | 0.593 | 0.592 | 0.591 | 0.602 | 0.599 | 1.05  |
| 58) | Dibromochlorometh                      | 0.254                | 0.312 | 0.303 | 0.296 | 0.299 | 0.304 | 0.315 | 0.298 | 6.92  |
| 59) | 1,2-Dibromoethane                      | 0.283                | 0.310 | 0.305 | 0.302 | 0.314 | 0.320 | 0.331 | 0.309 | 4.87  |
| 60) | 1-Chlorohexane                         | 0.464                | 0.467 | 0.465 | 0.505 | 0.517 | 0.509 | 0.535 | 0.495 | 5.83  |
| 61) | P Chlorobenzene                        | 0.877                | 0.857 | 0.851 | 0.870 | 0.877 | 0.867 | 0.897 | 0.871 | 1.73  |
| 62) | 1,1,1,2-Tetrachlo                      | 0.264                | 0.284 | 0.283 | 0.282 | 0.281 | 0.279 | 0.288 | 0.280 | 2.74  |
| 63) | C Ethylbenzene                         | 1.475                | 1.458 | 1.433 | 1.493 | 1.499 | 1.470 | 1.518 | 1.478 | 1.90  |
| 64) | m,p-Xylene                             | 0.970                | 0.990 | 1.008 | 1.040 | 1.057 | 1.039 | 1.067 | 1.025 | 3.51  |
| 65) | o-Xylene                               | 1.021                | 1.033 | 1.058 | 1.084 | 1.107 | 1.077 | 1.111 | 1.070 | 3.23  |
| 66) | Styrene                                | 0.796                | 0.855 | 0.910 | 0.960 | 0.983 | 0.978 | 1.013 | 0.928 | 8.44  |
| 67) | P Bromoform                            | 0.142                | 0.077 | 0.184 | 0.179 | 0.195 | 0.199 | 0.205 | 0.169 | 26.85 |
|     | ----- Linear regression -----          | Coefficient = 0.9995 |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.01246 + 0.20679 *A |                      |       |       |       |       |       |       |       |       |
| 68) | I 1,4-Dichlorobenze                    | -----ISTD-----       |       |       |       |       |       |       |       |       |
| 69) | Isopropylbenzene                       | 3.394                | 3.422 | 2.803 | 2.838 | 2.780 | 2.731 | 2.618 | 2.941 | 11.11 |
| 70) | Cyclohexanone                          | 0.023                | 0.030 | 0.027 | 0.025 | 0.026 | 0.029 | 0.027 | 0.027 | 8.23  |
| 71) | S 4-Bromofluorobenz                    | 1.169                | 1.004 | 0.864 | 0.853 | 0.853 | 0.860 | 0.845 | 0.921 | 13.32 |
| 72) | Bromobenzene                           | 0.997                | 0.963 | 0.842 | 0.837 | 0.823 | 0.822 | 0.788 | 0.867 | 9.15  |
| 73) | P 1,1,2,2-Tetrachlo                    | 1.339                | 1.320 | 1.146 | 1.011 | 1.011 | 1.030 | 0.983 | 1.120 | 13.59 |
| 74) | Trans-1,4-Dichlor                      | 0.143                | 0.182 | 0.177 | 0.182 | 0.188 | 0.192 | 0.192 | 0.179 | 9.42  |
| 75) | 1,2,3-Trichloropr                      | 0.257                | 0.296 | 0.253 | 0.232 | 0.230 | 0.236 | 0.225 | 0.247 | 10.10 |
| 76) | n-Propylbenzene                        | 4.567                | 4.426 | 4.010 | 4.105 | 4.023 | 3.954 | 3.865 | 4.136 | 6.29  |
| 77) | 2-Chlorotoluene                        | 3.164                | 2.888 | 2.531 | 2.500 | 2.416 | 2.351 | 2.285 | 2.591 | 12.31 |
| 78) | 4-Chlorotoluene                        | 2.569                | 2.376 | 2.183 | 2.187 | 2.133 | 2.116 | 2.076 | 2.234 | 7.90  |
| 79) | 1,3,5-Trimethylbe                      | 2.668                | 2.535 | 2.320 | 2.351 | 2.287 | 2.250 | 2.168 | 2.368 | 7.33  |
| 80) | sec-Butylbenzene                       | 3.329                | 3.252 | 3.038 | 3.232 | 3.150 | 3.042 | 2.937 | 3.140 | 4.47  |
| 81) | 1,3-Dichlorobenze                      | 1.316                | 1.426 | 1.364 | 1.413 | 1.441 | 1.419 | 1.422 | 1.400 | 3.16  |
| 82) | 4-Isopropyltoluen                      | 2.408                | 2.304 | 2.224 | 2.403 | 2.346 | 2.277 | 2.220 | 2.312 | 3.37  |
| 83) | 1,4-Dichlorobenze                      | 1.528                | 1.430 | 1.389 | 1.429 | 1.420 | 1.423 | 1.424 | 1.435 | 3.04  |
| 84) | tert-Butylbenzene                      | 0.533                | 0.438 | 0.430 | 0.445 | 0.436 | 0.429 | 0.410 | 0.446 | 8.90  |
| 85) | n-Butylbenzene                         | 1.465                | 1.572 | 1.892 | 2.173 | 2.149 | 2.132 | 2.214 | 1.942 | 15.91 |
|     | ----- Linear regression -----          | Coefficient = 0.9997 |       |       |       |       |       |       |       |       |
|     | Response Ratio = -0.08322 + 2.22219 *A |                      |       |       |       |       |       |       |       |       |
| 86) | 1,2-Dichlorobenze                      | 1.206                | 1.332 | 1.314 | 1.336 | 1.345 | 1.359 | 1.369 | 1.323 | 4.14  |
| 87) | 1,2,4-Trimethylbe                      | 2.566                | 2.449 | 2.311 | 2.410 | 2.354 | 2.310 | 2.242 | 2.377 | 4.53  |
| 88) | 1,2-Dibromo-3-Chl                      | 0.068                | 0.106 | 0.082 | 0.072 | 0.077 | 0.089 | 0.088 | 0.083 | 15.22 |
|     | ----- Linear regression -----          | Coefficient = 0.9968 |       |       |       |       |       |       |       |       |

**Initial Calibration Summary**

Page 3 of 3

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2305-ICC2305  
**Lab FileID:** F0078967.D

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Response Ratio =  $-0.00467 + 0.08863 * A$

89) 1,2,4-Trichlorobe 0.166 0.135 0.302 0.403 0.468 0.530 0.585 0.370 47.33  
 ----- Linear regression ----- Coefficient = 0.9944  
 Response Ratio =  $-0.09820 + 0.59565 * A$

90) Hexachlorobutadie 0.058 0.088 0.170 0.207 0.204 0.208 0.202 0.162 38.83  
 ----- Linear regression ----- Coefficient = 0.9993  
 Response Ratio =  $-0.00579 + 0.20548 * A$

91) Naphthalene 0.526 0.280 0.475 0.606 0.781 0.975 1.125 0.681 43.48  
 ----- Quadratic regression ----- Coefficient = 0.9974  
 Response Ratio =  $-0.07686 + 0.74236 * A + 0.10172 * A^2$

92) 1,2,3-Trichlorobe 0.167 0.113 0.217 0.276 0.334 0.389 0.421 0.274 41.95  
 ----- Linear regression ----- Coefficient = 0.9938  
 Response Ratio =  $-0.07169 + 0.43007 * A$

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 (#) = Out of Range

VF2305C.M

Thu Mar 01 07:44:03 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2306-CC2305  
**Lab FileID:** F0078995.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2306\F0078995.D Vial: 3  
 Acq On : 1 Mar 2007 8:23 am Operator: lydiaj  
 Sample : cc2305-20 Inst : GC/MS F  
 Misc : ms3868,vf2306,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305CG.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 11:28:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev | Area% | Dev(min) |
|------|--------------------------|-------|-------|------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0  | 88    | -0.01    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.152 | 11.1 | 88    | 0.00     |
| 3 P  | Chloromethane            | 0.329 | 0.325 | 1.2  | 88    | 0.00     |
| 4 C  | Vinyl Chloride           | 0.286 | 0.274 | 4.2  | 90    | -0.01    |
| 5    | Bromomethane             | 0.225 | 0.219 | 2.7  | 86    | -0.01    |
| 6    | Chloroethane             | 0.217 | 0.214 | 1.4  | 86    | 0.00     |
| 7    | Trichlorofluoromethane   | 0.155 | 0.152 | 1.9  | 94    | 0.00     |
| 8    | Acrolein                 | 0.033 | 0.032 | 3.0  | 92    | -0.01    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.283 | 7.5  | 83    | 0.00     |
| 10   | Freon 113                | 0.205 | 0.189 | 7.8  | 87    | 0.00     |
| 11   | Acetone                  | 0.056 | 0.048 | 14.3 | 74    | 0.00     |
| 12   | Iodomethane              | 0.434 | 0.403 | 7.1  | 81    | 0.00     |
| 13   | Methyl acetate           | 0.191 | 0.170 | 11.0 | 76    | 0.00     |
| 14   | Carbon Disulfide         | 0.889 | 0.799 | 10.1 | 81    | 0.00     |
| 15   | Methylene Chloride       | 0.399 | 0.393 | 1.5  | 85    | 0.00     |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.014 | 17.6 | 67    | -0.01    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.314 | 7.9  | 81    | -0.01    |
| 18   | Acrylonitrile            | 0.095 | 0.081 | 14.7 | 73    | 0.00     |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.533 | 8.3  | 82    | 0.00     |
| 20   | Hexane                   | 0.312 | 0.302 | 3.2  | 94    | -0.01    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.438 | 0.5  | 88    | 0.00     |
| 22   | Vinyl acetate            | 0.550 | 0.534 | 2.9  | 81    | 0.00     |
| 23   | Di-isopropyl ether       | 0.971 | 0.992 | -2.2 | 88    | 0.00     |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.716 | 3.0  | 86    | 0.00     |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.207 | -2.0 | 92    | 0.00     |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.289 | 4.3  | 84    | -0.01    |
| 27   | 2-Butanone               | 0.113 | 0.098 | 13.3 | 72    | -0.01    |
| 28   | Bromochloromethane       | 0.143 | 0.139 | 2.8  | 84    | 0.00     |
| 29 C | Chloroform               | 0.358 | 0.357 | 0.3  | 88    | -0.01    |
| 30   | Tetrahydrofuran          | 0.034 | 0.031 | 8.8  | 84    | 0.00     |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.200 | 3.8  | 86    | 0.00     |
| 32 S | Dibromofluoromethane     | 0.218 | 0.214 | 1.8  | 90    | 0.00     |
| 33   | Cyclohexane              | 0.439 | 0.415 | 5.5  | 88    | 0.00     |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.283 | 6.3  | 85    | -0.01    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.164 | 3.0  | 88    | 0.00     |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.162 | 1.8  | 86    | -0.01    |
| 37   | Benzene                  | 1.108 | 1.070 | 3.4  | 86    | 0.00     |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.207 | -4.5 | 91    | 0.00     |
| 39   | tert-amyl methyl ether   | 0.757 | 0.696 | 8.1  | 81    | 0.00     |
| 40   | Trichloroethene          | 0.226 | 0.213 | 5.8  | 86    | 0.00     |
| 41   | Methylcyclohexane        | 0.364 | 0.329 | 9.6  | 87    | 0.00     |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.306 | 2.5  | 87    | 0.00     |

## Continuing Calibration Summary

Page 2 of 2

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2306-CC2305  
 Lab FileID: F0078995.D

|      |                             |       |       |        |     |       |
|------|-----------------------------|-------|-------|--------|-----|-------|
| 43   | Dibromomethane              | 0.158 | 0.161 | -1.9   | 84  | -0.01 |
| 44   | 1,4-Dioxane                 | 0.002 | 0.002 | 0.0    | 79  | -0.02 |
| 45   | Bromodichloromethane        | 0.304 | 0.296 | 2.6    | 87  | 0.00  |
| 46   | 2-Nitropropane              | 0.040 | 0.035 | 12.5   | 75  | 0.00  |
| 47   | 2-Chloroethyl vinyl ether   | 0.125 | 0.095 | 24.0#  | 69  | 0.00  |
| 48   | 4-Methyl-2-pentanone        | 0.240 | 0.215 | 10.4   | 76  | -0.01 |
| 49   | cis-1,3-Dichloropropene     | 0.421 | 0.416 | 1.2    | 87  | 0.00  |
| 50 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 90  | 0.00  |
| 51 S | Toluene-d8                  | 1.098 | 1.054 | 4.0    | 90  | 0.00  |
| 52 C | Toluene                     | 1.386 | 1.315 | 5.1    | 87  | 0.00  |
| 53   | trans-1,3-Dichloropropene   | 0.391 | 0.366 | 6.4    | 85  | 0.00  |
| 54   | 1,1,2-Trichloroethane       | 0.283 | 0.265 | 6.4    | 83  | 0.00  |
| 55   | Tetrachloroethene           | 0.294 | 0.285 | 3.1    | 88  | -0.01 |
| 56   | 2-hexanone                  | 0.196 | 0.165 | 15.8   | 73  | 0.00  |
| 57   | 1,3-Dichloropropane         | 0.599 | 0.560 | 6.5    | 84  | 0.00  |
| 58   | Dibromochloromethane        | 0.298 | 0.283 | 5.0    | 84  | 0.00  |
| 59   | 1,2-Dibromoethane           | 0.309 | 0.278 | 10.0   | 82  | 0.00  |
| 60   | 1-Chlorohexane              | 0.495 | 0.444 | 10.3   | 86  | -0.01 |
| 61 P | Chlorobenzene               | 0.871 | 0.844 | 3.1    | 90  | -0.01 |
| 62   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.275 | 1.8    | 88  | -0.01 |
| 63 C | Ethylbenzene                | 1.478 | 1.399 | 5.3    | 88  | -0.01 |
| 64   | m,p-Xylene                  | 1.025 | 0.993 | 3.1    | 89  | -0.01 |
| 65   | o-Xylene                    | 1.070 | 1.039 | 2.9    | 89  | -0.01 |
| 66   | Styrene                     | 0.928 | 0.889 | 4.2    | 88  | 0.00  |
| 67 P | Bromoform                   | 0.169 | 0.154 | 8.9    | 76  | -0.01 |
| 68 I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0    | 85  | 0.00  |
| 69   | Isopropylbenzene            | 2.941 | 2.895 | 1.6    | 88  | 0.00  |
| 70   | Cyclohexanone               | 0.027 | 0.049 | -81.5# | 155 | -0.02 |
| 71 S | 4-Bromofluorobenzene        | 0.921 | 0.906 | 1.6    | 89  | 0.00  |
| 72   | Bromobenzene                | 0.867 | 0.893 | -3.0   | 90  | 0.00  |
| 73 P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.016 | 9.3    | 75  | 0.00  |
| 74   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.156 | 12.8   | 75  | -0.01 |
| 75   | 1,2,3-Trichloropropane      | 0.247 | 0.237 | 4.0    | 80  | -0.01 |
| 76   | n-Propylbenzene             | 4.136 | 4.044 | 2.2    | 86  | 0.00  |
| 77   | 2-Chlorotoluene             | 2.591 | 2.595 | -0.2   | 87  | 0.00  |
| 78   | 4-Chlorotoluene             | 2.234 | 2.210 | 1.1    | 86  | -0.01 |
| 79   | 1,3,5-Trimethylbenzene      | 2.368 | 2.371 | -0.1   | 87  | 0.00  |
| 80   | sec-Butylbenzene            | 3.140 | 3.061 | 2.5    | 86  | 0.00  |
| 81   | 1,3-Dichlorobenzene         | 1.400 | 1.423 | -1.6   | 89  | 0.00  |
| 82   | 4-Isopropyltoluene          | 2.312 | 2.227 | 3.7    | 85  | 0.00  |
| 83   | 1,4-Dichlorobenzene         | 1.435 | 1.395 | 2.8    | 85  | 0.00  |
| 84   | tert-Butylbenzene           | 0.446 | 0.416 | 6.7    | 82  | -0.01 |
| 85   | n-Butylbenzene              | 1.942 | 1.782 | 8.2    | 80  | 0.00  |
| 86   | 1,2-Dichlorobenzene         | 1.323 | 1.297 | 2.0    | 84  | -0.01 |
| 87   | 1,2,4-Trimethylbenzene      | 2.377 | 2.379 | -0.1   | 88  | 0.00  |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.069 | 16.9   | 71  | -0.02 |
| 89   | 1,2,4-Trichlorobenzene      | 0.370 | 0.253 | 31.6#  | 71  | 0.00  |
| 90   | Hexachlorobutadiene         | 0.162 | 0.147 | 9.3    | 74  | -0.02 |
| 91   | Naphthalene                 | 0.681 | 0.379 | 44.3#  | 68  | 0.00  |
| 92   | 1,2,3-Trichlorobenzene      | 0.274 | 0.174 | 36.5#  | 68  | 0.00  |

-----  
 Average % D = 7.6  
 -----

(#) = Out of Range  
 F0078966.D VF2305CG.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 02 07:49:36 2007

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2306-CC2276  
**Lab FileID:** F0078996.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2306\F0078996.D Vial: 4  
 Acq On : 1 Mar 2007 8:55 am Operator: lydiaj  
 Sample : cc2276-1000 Inst : GC/MS F  
 Misc : ms3868,vf2306,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305CG.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 11:28:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                | AvgRF | CCRF  | %Dev    | Area% | Dev(min) |
|------|-------------------------|-------|-------|---------|-------|----------|
| 1 I  | Fluorobenzene           | 1.000 | 1.000 | 0.0     | 92    | -0.01    |
| 32 S | Dibromofluoromethane    | 0.218 | 0.547 | -150.9# | 239#  | 0.00     |
| 36 S | 1,2-Dichloroethane-d4   | 0.165 | 0.404 | -144.8# | 223#  | -0.01    |
| 50 I | Chlorobenzene-d5        | 1.000 | 1.000 | 0.0     | 92    | 0.00     |
| 51 S | Toluene-d8              | 1.098 | 2.827 | -157.5# | 244#  | 0.00     |
| 68 I | 1,4-Dichlorobenzene-d4  | 1.000 | 1.000 | 0.0     | 85    | 0.00     |
| 71 S | 4-Bromofluorobenzene    | 0.921 | 2.369 | -157.2# | 233#  | -0.01    |
| 93 I | 1,4-Dichlorobenzene-d4a | 1.000 | 1.000 | 0.0     | 60    | 0.02     |
| 94 H | TPH-GRO (C6-C10)        | 6.436 | 7.083 | -10.1   | 73    | 0.49     |

Average % D = 87.6

(#) = Out of Range  
 F0078996.D VF2305CG.M

SPCC's out = 5 CCC's out = 5  
 Fri Mar 02 07:49:41 2007



**Initial Calibration Summary**

Page 1 of 4

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VY1139-ICC1139  
**Lab FileID:** Y0010432.D

**Response Factor Report GCMS\_Y**

Method : C:\MSDCHEM\1\METHODS\VY1139.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Wed Feb 28 14:32:23 2007  
 Response via : Initial Calibration

**Calibration Files**

1 =Y0010438.D 2 =Y0010437.D 3 =Y0010431.D 4 =Y0010432.D  
 5 =Y0010433.D 6 =Y0010434.D 7 =Y0010435.D

| Compound                    | 1                     | 2     | 3     | 4     | 5     | 6     | 7     | Avg   | %RSD  |
|-----------------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| -----                       |                       |       |       |       |       |       |       |       |       |
| 1) I Fluorobenzene          | -----ISTD-----        |       |       |       |       |       |       |       |       |
| 2) Dichlorodifluorom        | 0.204                 | 0.236 | 0.383 | 0.364 | 0.360 | 0.388 | 0.328 | 0.323 | 22.77 |
| ---- Linear regression ---- | Coefficient = 0.9916  |       |       |       |       |       |       |       |       |
| Response Ratio =            | 0.02002 + 0.33494 *A  |       |       |       |       |       |       |       |       |
| 3)P Chloromethane           | 0.539                 | 0.497 | 0.538 | 0.515 | 0.513 | 0.509 | 0.415 | 0.504 | 8.32  |
| 4)C Vinyl Chloride          | 0.627                 | 0.675 | 0.721 | 0.674 | 0.643 | 0.666 | 0.565 | 0.653 | 7.45  |
| 5) Bromomethane             | 0.308                 | 0.292 | 0.384 | 0.357 | 0.315 | 0.304 | 0.279 | 0.320 | 11.68 |
| 6) Chloroethane             | 0.303                 | 0.322 | 0.415 | 0.371 | 0.333 | 0.315 | 0.281 | 0.334 | 13.50 |
| 7) Trichlorofluorome        | 0.242                 | 0.308 | 0.449 | 0.428 | 0.405 | 0.403 | 0.372 | 0.373 | 19.60 |
| ---- Linear regression ---- | Coefficient = 0.9972  |       |       |       |       |       |       |       |       |
| Response Ratio =            | 0.02213 + 0.37411 *A  |       |       |       |       |       |       |       |       |
| 8) Acrolein                 | 0.010                 | 0.014 | 0.015 | 0.014 | 0.013 | 0.012 | 0.013 | 14.38 |       |
| 9)C 1,1-Dichloroethen       | 0.229                 | 0.179 | 0.220 | 0.245 | 0.240 | 0.257 | 0.250 | 0.231 | 11.45 |
| 10) Freon 113               | 0.258                 | 0.174 | 0.278 | 0.279 | 0.255 | 0.260 | 0.249 | 0.250 | 14.18 |
| 11) Acetone                 | 0.056                 | 0.061 | 0.075 | 0.074 | 0.067 | 0.062 | 0.058 | 0.065 | 11.57 |
| 12) Iodomethane             | 0.343                 | 0.342 | 0.340 | 0.353 | 0.352 | 0.376 | 0.374 | 0.354 | 4.28  |
| 13) Methyl acetate          | 0.174                 | 0.150 | 0.198 | 0.200 | 0.183 | 0.178 | 0.168 | 0.179 | 9.73  |
| 14) Carbon Disulfide        | 1.107                 | 0.951 | 1.065 | 1.058 | 1.002 | 1.050 | 1.031 | 1.038 | 4.80  |
| 15) Methylene Chlorid       | 0.414                 | 0.352 | 0.381 | 0.348 | 0.358 | 0.343 | 0.354 | 0.364 | 6.93  |
| 16) Tert Butyl Alchoh       | 0.017                 | 0.018 | 0.023 | 0.023 | 0.023 | 0.024 | 0.024 | 0.022 | 13.25 |
| 17) trans-1,2-Dichlor       | 0.324                 | 0.256 | 0.287 | 0.293 | 0.293 | 0.300 | 0.293 | 0.292 | 6.81  |
| 18) Acrylonitrile           | 0.089                 | 0.092 | 0.121 | 0.121 | 0.113 | 0.113 | 0.108 | 0.108 | 11.97 |
| 19) Hexane                  | 0.234                 | 0.239 | 0.353 | 0.398 | 0.397 | 0.427 | 0.411 | 0.351 | 23.24 |
| ---- Linear regression ---- | Coefficient = 0.9992  |       |       |       |       |       |       |       |       |
| Response Ratio =            | -0.01439 + 0.41738 *A |       |       |       |       |       |       |       |       |
| 20) Methyl Tert Butyl       | 0.524                 | 0.568 | 0.647 | 0.736 | 0.761 | 0.779 | 0.797 | 0.688 | 15.78 |
| ---- Linear regression ---- | Coefficient = 0.9997  |       |       |       |       |       |       |       |       |
| Response Ratio =            | -0.04096 + 0.80371 *A |       |       |       |       |       |       |       |       |
| 21)P 1,1-Dichloroethan      | 0.751                 | 0.627 | 0.754 | 0.726 | 0.726 | 0.726 | 0.708 | 0.717 | 5.98  |
| 22) Vinyl acetate           | 0.376                 | 0.420 | 0.585 | 0.622 | 0.611 | 0.576 | 0.551 | 0.534 | 18.14 |
| ---- Linear regression ---- | Coefficient = 0.9977  |       |       |       |       |       |       |       |       |
| Response Ratio =            | 0.11344 + 0.55357 *A  |       |       |       |       |       |       |       |       |
| 23) Di-isopropyl ethe       | 0.648                 | 0.660 | 0.830 | 0.899 | 0.933 | 0.921 | 0.916 | 0.829 | 15.03 |
| ---- Linear regression ---- | Coefficient = 0.9998  |       |       |       |       |       |       |       |       |
| Response Ratio =            | -0.01640 + 0.92309 *A |       |       |       |       |       |       |       |       |
| 24) Ethyl tert-butyl        | 0.795                 | 0.827 | 0.961 | 1.072 | 1.153 | 1.190 | 1.233 | 1.033 | 16.98 |
| ---- Linear regression ---- | Coefficient = 0.9992  |       |       |       |       |       |       |       |       |
| Response Ratio =            | -0.08463 + 1.24409 *A |       |       |       |       |       |       |       |       |
| 25) 2,2-Dichloropropa       | 0.358                 | 0.369 | 0.384 | 0.403 | 0.399 | 0.384 | 0.382 | 0.383 | 4.08  |



## Initial Calibration Summary

Page 2 of 4

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1139-ICC1139  
 Lab FileID: Y0010432.D

|                                                  |                   |                |       |       |       |       |       |       |       |       |
|--------------------------------------------------|-------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 26)                                              | cis-1,2-Dichloroe | 0.298          | 0.323 | 0.338 | 0.347 | 0.361 | 0.353 | 0.345 | 0.338 | 6.26  |
| 27)                                              | 2-Butanone        | 0.020          | 0.022 | 0.030 | 0.032 | 0.032 | 0.030 | 0.031 | 0.028 | 18.27 |
| ---- Linear regression ---- Coefficient = 0.9988 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.00264 + 0.03144 *A           |                   |                |       |       |       |       |       |       |       |       |
| 28)                                              | Bromochloromethan | 0.133          | 0.119 | 0.136 | 0.143 | 0.138 | 0.135 | 0.137 | 0.134 | 5.57  |
| 29)C                                             | Chloroform        | 0.603          | 0.533 | 0.596 | 0.583 | 0.587 | 0.576 | 0.576 | 0.579 | 3.91  |
| 30)                                              | Tetrahydrofuran   | 0.049          | 0.033 | 0.054 | 0.056 | 0.063 | 0.060 | 0.059 | 0.053 | 18.67 |
| ---- Linear regression ---- Coefficient = 0.9990 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.00105 + 0.05985 *A           |                   |                |       |       |       |       |       |       |       |       |
| 31)                                              | 1,1,1-Trichloroet | 0.444          | 0.358 | 0.434 | 0.443 | 0.432 | 0.443 | 0.434 | 0.427 | 7.20  |
| 32)S                                             | Dibromofluorometh | 0.229          | 0.249 | 0.281 | 0.278 | 0.268 | 0.269 | 0.268 | 0.263 | 6.90  |
| 33)                                              | Cyclohexane       | 0.357          | 0.295 | 0.503 | 0.600 | 0.602 | 0.627 | 0.617 | 0.515 | 26.44 |
| ---- Linear regression ---- Coefficient = 0.9996 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.02592 + 0.62605 *A           |                   |                |       |       |       |       |       |       |       |       |
| 34)                                              | 1,1-Dichloroprope | 0.276          | 0.320 | 0.386 | 0.417 | 0.417 | 0.430 | 0.433 | 0.383 | 16.00 |
| ---- Linear regression ---- Coefficient = 0.9999 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01460 + 0.43570 *A           |                   |                |       |       |       |       |       |       |       |       |
| 35)                                              | Carbon Tetrachlor | 0.290          | 0.239 | 0.314 | 0.329 | 0.322 | 0.324 | 0.321 | 0.305 | 10.51 |
| 36)S                                             | 1,2-Dichloroethan | 0.410          | 0.388 | 0.478 | 0.474 | 0.459 | 0.457 | 0.460 | 0.446 | 7.60  |
| 37)                                              | Benzene           | 1.384          | 1.212 | 1.407 | 1.445 | 1.410 | 1.460 | 1.406 | 1.389 | 5.92  |
| 38)                                              | 1,2-Dichloroethan | 0.545          | 0.453 | 0.591 | 0.568 | 0.563 | 0.540 | 0.525 | 0.541 | 8.20  |
| 39)                                              | tert-amyl methyl  | 0.560          | 0.595 | 0.755 | 0.873 | 0.896 | 0.927 | 0.958 | 0.795 | 20.38 |
| ---- Linear regression ---- Coefficient = 0.9995 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.06051 + 0.96643 *A           |                   |                |       |       |       |       |       |       |       |       |
| 40)                                              | Trichloroethene   | 0.273          | 0.242 | 0.256 | 0.278 | 0.299 | 0.296 | 0.310 | 0.279 | 8.75  |
| 41)                                              | Methylcyclohexane | 0.255          | 0.209 | 0.345 | 0.410 | 0.411 | 0.423 | 0.440 | 0.356 | 25.50 |
| ---- Linear regression ---- Coefficient = 0.9995 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.02902 + 0.44428 *A           |                   |                |       |       |       |       |       |       |       |       |
| 42)C                                             | 1,2-Dichloropropa | 0.435          | 0.382 | 0.437 | 0.441 | 0.440 | 0.443 | 0.441 | 0.431 | 5.09  |
| 43)                                              | Dibromomethane    | 0.169          | 0.187 | 0.216 | 0.219 | 0.206 | 0.204 | 0.207 | 0.201 | 8.75  |
| 44)                                              | 1,4-Dioxane       | 0.002          | 0.002 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.003 | 11.60 |
| 45)                                              | Bromodichlorometh | 0.399          | 0.380 | 0.463 | 0.473 | 0.479 | 0.484 | 0.487 | 0.452 | 9.67  |
| 46)                                              | 2-Nitropropane    | 0.042          | 0.044 | 0.073 | 0.075 | 0.069 | 0.066 | 0.061 | 0.062 | 21.81 |
| ---- Linear regression ---- Coefficient = 0.9957 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = 0.02259 + 0.06144 *A            |                   |                |       |       |       |       |       |       |       |       |
| 47)                                              | 2-Chloroethyl vin | 0.076          | 0.097 | 0.167 | 0.187 | 0.190 | 0.201 | 0.217 | 0.162 | 33.39 |
| ---- Linear regression ---- Coefficient = 0.9982 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.10189 + 0.21830 *A           |                   |                |       |       |       |       |       |       |       |       |
| 48)                                              | 4-Methyl-2-pentan | 0.018          | 0.021 | 0.031 | 0.032 | 0.032 | 0.031 | 0.032 | 0.028 | 21.39 |
| ---- Linear regression ---- Coefficient = 0.9998 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.00272 + 0.03194 *A           |                   |                |       |       |       |       |       |       |       |       |
| 49)                                              | cis-1,3-Dichlorop | 0.407          | 0.398 | 0.460 | 0.523 | 0.536 | 0.561 | 0.578 | 0.495 | 14.74 |
| 50) I                                            | Chlorobenzene-d5  | -----ISTD----- |       |       |       |       |       |       |       |       |
| 51)S                                             | Toluene-d8        | 1.210          | 1.311 | 1.388 | 1.414 | 1.434 | 1.481 | 1.463 | 1.386 | 6.89  |
| 52)C                                             | Toluene           | 0.907          | 0.873 | 1.001 | 1.075 | 1.081 | 1.094 | 1.055 | 1.012 | 8.81  |
| 53)                                              | trans-1,3-Dichlor | 0.436          | 0.431 | 0.481 | 0.549 | 0.592 | 0.607 | 0.626 | 0.532 | 15.42 |
| ---- Linear regression ---- Coefficient = 0.9993 |                   |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.04063 + 0.63175 *A           |                   |                |       |       |       |       |       |       |       |       |
| 54)                                              | 1,1,2-Trichloroet | 0.393          | 0.358 | 0.361 | 0.374 | 0.373 | 0.374 | 0.369 | 0.372 | 3.04  |

## Initial Calibration Summary

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1139-ICC1139  
 Lab FileID: Y0010432.D

|                                                  |                       |                |       |       |       |       |       |       |       |       |
|--------------------------------------------------|-----------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 55)                                              | Tetrachloroethene     | 0.227          | 0.242 | 0.260 | 0.251 | 0.262 | 0.261 | 0.254 | 0.251 | 5.07  |
| 56)                                              | 2-hexanone            | 0.097          | 0.105 | 0.192 | 0.197 | 0.190 | 0.189 | 0.177 | 0.164 | 26.38 |
| ---- Linear regression ---- Coefficient = 0.9979 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = 0.02704 + 0.17877 *A            |                       |                |       |       |       |       |       |       |       |       |
| 57)                                              | 1,3-Dichloropropa     | 0.725          | 0.670 | 0.758 | 0.736 | 0.738 | 0.728 | 0.706 | 0.723 | 3.89  |
| 58)                                              | Dibromochlorometh     | 0.336          | 0.293 | 0.334 | 0.346 | 0.376 | 0.378 | 0.388 | 0.350 | 9.46  |
| 59)                                              | 1,2-Dibromoethane     | 0.323          | 0.287 | 0.336 | 0.352 | 0.372 | 0.377 | 0.385 | 0.348 | 10.07 |
| 60)                                              | 1-Chlorohexane        | 0.272          | 0.253 | 0.352 | 0.440 | 0.486 | 0.540 | 0.532 | 0.411 | 29.02 |
| ---- Linear regression ---- Coefficient = 0.9981 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.04776 + 0.54357 *A           |                       |                |       |       |       |       |       |       |       |       |
| 61)P                                             | Chlorobenzene         | 1.306          | 1.011 | 1.106 | 1.061 | 1.107 | 1.140 | 1.086 | 1.117 | 8.32  |
| 62)                                              | 1,1,1,2-Tetrachlo     | 0.354          | 0.299 | 0.359 | 0.344 | 0.347 | 0.352 | 0.347 | 0.343 | 5.86  |
| 63)C                                             | Ethylbenzene          | 1.601          | 1.566 | 1.867 | 1.931 | 1.953 | 2.100 | 2.042 | 1.866 | 11.11 |
| 64)                                              | m,p-Xylene            | 0.614          | 0.585 | 0.748 | 0.773 | 0.788 | 0.829 | 0.751 | 0.727 | 12.58 |
| 65)                                              | o-Xylene              | 0.512          | 0.499 | 0.624 | 0.743 | 0.752 | 0.831 | 0.785 | 0.678 | 19.68 |
| ---- Linear regression ---- Coefficient = 0.9983 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.03174 + 0.79995 *A           |                       |                |       |       |       |       |       |       |       |       |
| 66)                                              | Styrene               | 0.660          | 0.682 | 0.998 | 1.210 | 1.272 | 1.345 | 1.319 | 1.069 | 27.55 |
| ---- Linear regression ---- Coefficient = 0.9993 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.07570 + 1.34311 *A           |                       |                |       |       |       |       |       |       |       |       |
| 67)P                                             | Bromoform             | 0.163          | 0.156 | 0.211 | 0.219 | 0.224 | 0.235 | 0.247 | 0.208 | 16.93 |
| ---- Linear regression ---- Coefficient = 0.9989 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01623 + 0.24771 *A           |                       |                |       |       |       |       |       |       |       |       |
| 68) I                                            | 1,4-Dichlorobenzene-d | -----ISTD----- |       |       |       |       |       |       |       |       |
| 69)                                              | Isopropylbenzene      | 2.181          | 2.307 | 2.489 | 2.886 | 2.996 | 3.118 | 3.352 | 2.761 | 15.95 |
| ---- Linear regression ---- Coefficient = 0.9981 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.28399 + 3.36931 *A           |                       |                |       |       |       |       |       |       |       |       |
| 70)                                              | Cyclohexanone         | 0.023          | 0.048 | 0.060 | 0.056 | 0.056 | 0.057 | 0.056 | 0.051 | 25.05 |
| ---- Linear regression ---- Coefficient = 0.9997 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = 0.00045 + 0.05573 *A            |                       |                |       |       |       |       |       |       |       |       |
| 71)S                                             | 4-Bromofluorobenz     | 0.877          | 0.910 | 0.980 | 1.034 | 0.983 | 1.042 | 1.108 | 0.991 | 8.02  |
| 72)                                              | Bromobenzene          | 1.003          | 0.949 | 0.921 | 0.890 | 0.871 | 0.886 | 0.846 | 0.910 | 5.85  |
| 73)P                                             | 1,1,2,2-Tetrachlo     | 1.328          | 1.049 | 1.200 | 1.203 | 1.097 | 1.080 | 1.133 | 1.156 | 8.28  |
| 74)                                              | Trans-1,4-Dichlor     | 0.100          | 0.193 | 0.299 | 0.288 | 0.294 | 0.301 | 0.319 | 0.256 | 31.35 |
| ---- Linear regression ---- Coefficient = 0.9990 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.01901 + 0.31993 *A           |                       |                |       |       |       |       |       |       |       |       |
| 75)                                              | 1,2,3-Trichloropr     | 1.420          | 1.301 | 1.448 | 1.377 | 1.333 | 1.348 | 1.370 | 1.371 | 3.67  |
| 76)                                              | n-Propylbenzene       | 3.107          | 3.260 | 3.892 | 4.230 | 4.372 | 4.568 | 4.785 | 4.030 | 15.95 |
| ---- Linear regression ---- Coefficient = 0.9990 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.32667 + 4.81397 *A           |                       |                |       |       |       |       |       |       |       |       |
| 77)                                              | 2-Chlorotoluene       | 2.740          | 2.773 | 2.961 | 2.975 | 3.071 | 3.124 | 3.255 | 2.986 | 6.19  |
| 78)                                              | 4-Chlorotoluene       | 2.055          | 2.184 | 2.316 | 2.585 | 2.638 | 2.713 | 2.910 | 2.486 | 12.40 |
| 79)                                              | 1,3,5-Trimethylbe     | 2.086          | 2.075 | 2.537 | 2.701 | 2.910 | 2.956 | 3.085 | 2.621 | 15.65 |
| ---- Linear regression ---- Coefficient = 0.9993 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.19399 + 3.10648 *A           |                       |                |       |       |       |       |       |       |       |       |
| 80)                                              | sec-Butylbenzene      | 2.181          | 2.435 | 2.953 | 3.271 | 3.422 | 3.667 | 3.805 | 3.105 | 19.77 |
| ---- Linear regression ---- Coefficient = 0.9988 |                       |                |       |       |       |       |       |       |       |       |
| Response Ratio = -0.29966 + 3.84128 *A           |                       |                |       |       |       |       |       |       |       |       |

5.8.5

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**Initial Calibration Summary**

Page 4 of 4

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VY1139-ICC1139  
**Lab FileID:** Y0010432.D

|                     |                                |                                      |       |       |       |       |       |       |       |       |
|---------------------|--------------------------------|--------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 81)                 | 1,3-Dichlorobenze              | 1.432                                | 1.437 | 1.513 | 1.523 | 1.578 | 1.565 | 1.596 | 1.521 | 4.32  |
| 82)                 | 4-Isopropyltoluen              | 1.210                                | 1.571 | 1.959 | 2.247 | 2.406 | 2.567 | 2.617 | 2.082 | 25.49 |
|                     | ---- Linear regression ----    | Coefficient = 0.9991                 |       |       |       |       |       |       |       |       |
|                     | Response Ratio =               | -0.20374 + 2.65246 *A                |       |       |       |       |       |       |       |       |
| 83)                 | 1,4-Dichlorobenze              | 1.888                                | 1.480 | 1.591 | 1.609 | 1.596 | 1.547 | 1.577 | 1.613 | 8.00  |
| 84)                 | tert-Butylbenzene              | 1.067                                | 1.098 | 1.349 | 1.428 | 1.495 | 1.587 | 1.697 | 1.389 | 17.06 |
|                     | ---- Linear regression ----    | Coefficient = 0.9980                 |       |       |       |       |       |       |       |       |
|                     | Response Ratio =               | -0.14547 + 1.70580 *A                |       |       |       |       |       |       |       |       |
| 85)                 | n-Butylbenzene                 | 1.383                                | 1.578 | 2.013 | 2.356 | 2.578 | 2.650 | 2.871 | 2.204 | 25.59 |
|                     | ---- Linear regression ----    | Coefficient = 0.9980                 |       |       |       |       |       |       |       |       |
|                     | Response Ratio =               | -0.28821 + 2.89630 *A                |       |       |       |       |       |       |       |       |
| 86)                 | 1,2-Dichlorobenze              | 1.434                                | 1.299 | 1.465 | 1.486 | 1.483 | 1.527 | 1.566 | 1.466 | 5.78  |
| 87)                 | 1,2,4-Trimethylbe              | 1.871                                | 2.205 | 2.648 | 2.818 | 3.001 | 3.097 | 3.255 | 2.699 | 18.55 |
|                     | ---- Linear regression ----    | Coefficient = 0.9990                 |       |       |       |       |       |       |       |       |
|                     | Response Ratio =               | -0.23086 + 3.27702 *A                |       |       |       |       |       |       |       |       |
| 88)                 | 1,2-Dibromo-3-Chl              | 0.092                                | 0.120 | 0.118 | 0.124 | 0.118 | 0.128 | 0.117 |       | 10.75 |
| 89)                 | 1,2,4-Trichlorobe              | 0.475                                | 0.475 | 0.477 | 0.544 | 0.637 | 0.664 | 0.749 | 0.574 | 19.13 |
|                     | ---- Linear regression ----    | Coefficient = 0.9949                 |       |       |       |       |       |       |       |       |
|                     | Response Ratio =               | -0.09714 + 0.75368 *A                |       |       |       |       |       |       |       |       |
| 90)                 | Hexachlorobutadie              | 0.266                                | 0.228 | 0.238 | 0.269 | 0.264 | 0.278 | 0.288 | 0.262 | 8.16  |
| 91)                 | Naphthalene                    | 0.925                                | 0.827 | 0.817 | 1.050 | 1.250 | 1.404 | 1.653 | 1.132 | 27.97 |
|                     | ---- Quadratic regression ---- | Coefficient = 0.9993                 |       |       |       |       |       |       |       |       |
|                     | Response Ratio =               | -0.06789 + 1.11655 *A + 0.13943 *A^2 |       |       |       |       |       |       |       |       |
| 92)                 | 1,2,3-Trichlorobe              | 0.421                                | 0.427 | 0.446 | 0.469 | 0.526 | 0.532 | 0.605 | 0.489 | 13.81 |
| -----               |                                |                                      |       |       |       |       |       |       |       |       |
| (# ) = Out of Range |                                |                                      |       |       |       |       |       |       |       |       |

VY1139.M

Wed Feb 28 15:59:16 2007

**Continuing Calibration Summary**

Page 1 of 4

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VY1140-CC1139  
**Lab FileID:** Y0010447.D

**Evaluate Continuing Calibration Report**

Data File : C:\MSDCHEM\1\DATA\VY1140\Y0010447.D Vial: 2  
 Acq On : 28 Feb 2007 10:57 am Operator: jennifer  
 Sample : cc1139-20 Inst : GCMS\_Y  
 Misc : ms3870,vy1140,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\VY1139.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Wed Feb 28 14:32:23 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF   | CCRF    | %Dev   | Area% | Dev(min) | R.T. |
|------|--------------------------|---------|---------|--------|-------|----------|------|
| 1 I  | Fluorobenzene            | 1.000   | 1.000   | 0.0    | 106   | 0.00     | 9.58 |
| 2    | Dichlorodifluoromethane  | 20.000  | 18.794  | 6.0    | 101   | 0.00     | 3.82 |
| 3 P  | Chloromethane            | 0.504   | 0.569   | -12.9  | 113   | 0.00     | 4.18 |
| 4 C  | Vinyl Chloride           | 0.653   | 0.773   | -18.4  | 114   | 0.00     | 4.40 |
| 5    | Bromomethane             | 0.320   | 0.405   | -26.6# | 112   | 0.00     | 4.98 |
| 6    | Chloroethane             | 0.334   | 0.427   | -27.8# | 109   | 0.00     | 5.14 |
| 7    | Trichlorofluoromethane   | 20.000  | 24.290  | -21.4# | 121   | 0.00     | 5.49 |
| 8    | Acrolein                 | 0.013   | 0.015   | -15.4  | 115   | 0.00     | 6.16 |
| 9 C  | 1,1-Dichloroethene       | 0.231   | 0.256   | -10.8  | 124   | 0.00     | 6.25 |
| 10   | Freon 113                | 0.250   | 0.274   | -9.6   | 105   | 0.01     | 6.18 |
| 11   | Acetone                  | 0.065   | 0.071   | -9.2   | 100   | 0.00     | 6.34 |
| 12   | Iodomethane              | 0.354   | 0.348   | 1.7    | 109   | 0.00     | 6.51 |
| 13   | Methyl acetate           | 0.179   | 0.199   | -11.2  | 107   | 0.00     | 6.70 |
| 14   | Carbon Disulfide         | 1.038   | 1.100   | -6.0   | 110   | 0.00     | 6.59 |
| 15   | Methylene Chloride       | 0.364   | 0.371   | -1.9   | 103   | 0.00     | 6.91 |
| 16   | Tert Butyl Alcohol       | 0.022   | 0.024   | -9.1   | 110   | 0.00     | 6.93 |
| 17   | trans-1,2-Dichloroethene | 0.292   | 0.300   | -2.7   | 111   | 0.00     | 7.19 |
| 18   | Acrylonitrile            | 0.108   | 0.117   | -8.3   | 102   | 0.00     | 7.25 |
| 19   | Hexane                   | 20.000  | 20.438  | -2.2   | 118   | 0.00     | 7.41 |
| 20   | Methyl Tert Butyl Ether  | 20.000  | 20.038  | -0.2   | 116   | 0.00     | 7.13 |
| 21 P | 1,1-Dichloroethane       | 0.717   | 0.750   | -4.6   | 106   | 0.00     | 7.74 |
| 22   | Vinyl acetate            | 100.000 | 101.221 | -1.2   | 112   | 0.00     | 7.70 |
| 23   | Di-isopropyl ether       | 20.000  | 20.175  | -0.9   | 114   | 0.00     | 7.64 |
| 24   | Ethyl tert-butyl ether   | 20.000  | 20.339  | -1.7   | 117   | 0.00     | 8.05 |
| 25   | 2,2-Dichloropropane      | 0.383   | 0.405   | -5.7   | 112   | 0.00     | 8.36 |
| 26   | cis-1,2-Dichloroethene   | 0.338   | 0.355   | -5.0   | 111   | 0.00     | 8.38 |

## Continuing Calibration Summary

Page 2 of 4

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1140-CC1139  
 Lab FileID: Y0010447.D

|      |                           | Amount  | Calc.   | %Drift |     |       |       |
|------|---------------------------|---------|---------|--------|-----|-------|-------|
| 27   | 2-Butanone                | 100.000 | 99.629  | 0.4    | 107 | 0.00  | 8.35  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 28   | Bromochloromethane        | 0.134   | 0.139   | -3.7   | 109 | 0.00  | 8.65  |
| 29 C | Chloroform                | 0.579   | 0.611   | -5.5   | 109 | 0.00  | 8.70  |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |
| 30   | Tetrahydrofuran           | 20.000  | 21.464  | -7.3   | 122 | 0.00  | 8.66  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 31   | 1,1,1-Trichloroethane     | 0.427   | 0.456   | -6.8   | 112 | 0.00  | 8.90  |
| 32 S | Dibromofluoromethane      | 0.263   | 0.309   | -17.5  | 117 | 0.00  | 8.87  |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |
| 33   | Cyclohexane               | 20.000  | 20.267  | -1.3   | 121 | 0.00  | 8.92  |
| 34   | 1,1-Dichloropropene       | 20.000  | 19.942  | 0.3    | 110 | 0.00  | 9.07  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 35   | Carbon Tetrachloride      | 0.305   | 0.343   | -12.5  | 116 | -0.01 | 9.05  |
| 36 S | 1,2-Dichloroethane-d4     | 0.446   | 0.544   | -22.0# | 121 | 0.00  | 9.28  |
| 37   | Benzene                   | 1.389   | 1.520   | -9.4   | 115 | 0.00  | 9.30  |
| 38   | 1,2-Dichloroethane        | 0.541   | 0.601   | -11.1  | 108 | 0.00  | 9.37  |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |
| 39   | tert-amyl methyl ether    | 20.000  | 20.501  | -2.5   | 118 | 0.00  | 9.30  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 40   | Trichloroethene           | 0.279   | 0.276   | 1.1    | 115 | 0.00  | 9.95  |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |
| 41   | Methylcyclohexane         | 20.000  | 19.084  | 4.6    | 108 | 0.00  | 10.11 |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 42 C | 1,2-Dichloropropane       | 0.431   | 0.443   | -2.8   | 108 | 0.00  | 10.24 |
| 43   | Dibromomethane            | 0.201   | 0.215   | -7.0   | 106 | 0.00  | 10.37 |
| 44   | 1,4-Dioxane               | 0.003   | 0.002   | 33.3#  | 118 | 0.00  | 10.31 |
| 45   | Bromodichloromethane      | 0.452   | 0.483   | -6.9   | 111 | 0.00  | 10.48 |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |
| 46   | 2-Nitropropane            | 100.000 | 97.454  | 2.5    | 104 | 0.00  | 10.75 |
| 47   | 2-Chloroethyl vinyl ether | 100.000 | 99.196  | 0.8    | 106 | 0.00  | 10.72 |
| 48   | 4-Methyl-2-pentanone      | 100.000 | 103.359 | -3.4   | 108 | 0.00  | 11.02 |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 49   | cis-1,3-Dichloropropene   | 0.495   | 0.493   | 0.4    | 114 | 0.00  | 10.93 |
| 50 I | Chlorobenzene-d5          | 1.000   | 1.000   | 0.0    | 107 | 0.00  | 12.71 |
| 51 S | Toluene-d8                | 1.386   | 1.568   | -13.1  | 121 | 0.00  | 11.18 |
| 52 C | Toluene                   | 1.012   | 1.057   | -4.4   | 113 | 0.00  | 11.25 |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |
| 53   | trans-1,3-Dichloropropene | 20.000  | 20.042  | -0.2   | 118 | 0.00  | 11.49 |
|      |                           | AvgRF   | CCRF    | %Dev   |     |       |       |
| 54   | 1,1,2-Trichloroethane     | 0.372   | 0.370   | 0.5    | 109 | 0.00  | 11.70 |
| 55   | Tetrachloroethene         | 0.251   | 0.255   | -1.6   | 104 | 0.00  | 11.81 |
|      |                           | Amount  | Calc.   | %Drift |     |       |       |

5.8.6

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## Continuing Calibration Summary

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1140-CC1139  
 Lab FileID: Y0010447.D

|      |                           |         |         |       |     |      |       |
|------|---------------------------|---------|---------|-------|-----|------|-------|
| 56   | 2-hexanone                | 100.000 | 96.252  | 3.7   | 103 | 0.00 | 11.86 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 57   | 1,3-Dichloropropane       | 0.723   | 0.771   | -6.6  | 108 | 0.00 | 11.89 |
| 58   | Dibromochloromethane      | 0.350   | 0.355   | -1.4  | 113 | 0.00 | 12.12 |
| 59   | 1,2-Dibromoethane         | 0.348   | 0.345   | 0.9   | 109 | 0.00 | 12.29 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 60   | 1-Chlorohexane            | 20.000  | 18.439  | 7.8   | 116 | 0.00 | 12.60 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 61 P | Chlorobenzene             | 1.117   | 1.080   | 3.3   | 104 | 0.00 | 12.74 |
| 62   | 1,1,1,2-Tetrachloroethane | 0.343   | 0.355   | -3.5  | 106 | 0.00 | 12.80 |
| 63 C | Ethylbenzene              | 1.866   | 1.890   | -1.3  | 108 | 0.00 | 12.77 |
| 64   | m,p-Xylene                | 0.727   | 0.755   | -3.9  | 108 | 0.00 | 12.89 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 65   | o-Xylene                  | 20.000  | 18.731  | 6.3   | 114 | 0.00 | 13.32 |
| 66   | Styrene                   | 20.000  | 19.452  | 2.7   | 119 | 0.00 | 13.34 |
| 67 P | Bromoform                 | 20.000  | 19.980  | 0.1   | 104 | 0.00 | 13.61 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 68 I | 1,4-Dichlorobenzene-d4    | 1.000   | 1.000   | 0.0   | 110 | 0.00 | 15.11 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 69   | Isopropylbenzene          | 20.000  | 20.248  | -1.2  | 120 | 0.00 | 13.66 |
| 70   | Cyclohexanone             | 100.000 | 115.407 | -15.4 | 118 | 0.00 | 13.89 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 71 S | 4-Bromofluorobenzene      | 0.991   | 1.121   | -13.1 | 126 | 0.00 | 13.90 |
| 72   | Bromobenzene              | 0.910   | 0.923   | -1.4  | 110 | 0.00 | 14.10 |
| 73 P | 1,1,2,2-Tetrachloroethane | 1.156   | 1.151   | 0.4   | 106 | 0.00 | 14.02 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 74   | Trans-1,4-Dichloro-2-Bute | 20.000  | 21.874  | -9.4  | 111 | 0.00 | 14.08 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 75   | 1,2,3-Trichloropropane    | 1.371   | 1.379   | -0.6  | 105 | 0.00 | 14.11 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 76   | n-Propylbenzene           | 20.000  | 19.755  | 1.2   | 112 | 0.00 | 14.08 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 77   | 2-Chlorotoluene           | 2.986   | 2.940   | 1.5   | 109 | 0.00 | 14.25 |
| 78   | 4-Chlorotoluene           | 2.486   | 2.390   | 3.9   | 114 | 0.00 | 14.37 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 79   | 1,3,5-Trimethylbenzene    | 20.000  | 19.461  | 2.7   | 110 | 0.00 | 14.25 |
| 80   | sec-Butylbenzene          | 20.000  | 19.267  | 3.7   | 110 | 0.00 | 14.82 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 81   | 1,3-Dichlorobenzene       | 1.521   | 1.465   | 3.7   | 107 | 0.00 | 15.04 |
|      | ----- Amount              | Calc.   | %Drift  | ----- |     |      |       |
| 82   | 4-Isopropyltoluene        | 20.000  | 18.548  | 7.3   | 110 | 0.00 | 14.95 |
|      | ----- AvgRF               | CCRF    | %Dev    | ----- |     |      |       |
| 83   | 1,4-Dichlorobenzene       | 1.613   | 1.513   | 6.2   | 105 | 0.00 | 15.14 |

58.6

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**Continuing Calibration Summary**

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**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VY1140-CC1139  
**Lab FileID:** Y0010447.D

|    |                           | Amount | Calc.  | %Drift |     |      |       |
|----|---------------------------|--------|--------|--------|-----|------|-------|
| 84 | tert-Butylbenzene         | 20.000 | 20.118 | -0.6   | 110 | 0.00 | 14.60 |
| 85 | n-Butylbenzene            | 20.000 | 19.118 | 4.4    | 112 | 0.00 | 15.38 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 86 | 1,2-Dichlorobenzene       | 1.466  | 1.489  | -1.6   | 112 | 0.00 | 15.53 |
|    |                           | Amount | Calc.  | %Drift |     |      |       |
| 87 | 1,2,4-Trimethylbenzene    | 20.000 | 19.202 | 4.0    | 107 | 0.00 | 14.66 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 88 | 1,2-Dibromo-3-Chloropropa | 0.117  | 0.132  | -12.8  | 122 | 0.00 | 16.33 |
|    |                           | Amount | Calc.  | %Drift |     |      |       |
| 89 | 1,2,4-Trichlorobenzene    | 20.000 | 20.887 | -4.4   | 126 | 0.00 | 17.16 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 90 | Hexachlorobutadiene       | 0.262  | 0.238  | 9.2    | 110 | 0.00 | 17.24 |
|    |                           | Amount | Calc.  | %Drift |     |      |       |
| 91 | Naphthalene               | 20.000 | 19.286 | 3.6    | 129 | 0.00 | 17.46 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 92 | 1,2,3-Trichlorobenzene    | 0.489  | 0.458  | 6.3    | 113 | 0.00 | 17.73 |

(#) = Out of Range  
Y0010431.D VY1139.M

SPCC's out = 0 CCC's out = 0  
Wed Feb 28 16:30:54 2007

58.6

5

## Continuing Calibration Summary

Page 1 of 4

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1140-ECC1139  
 Lab FileID: Y0010472.D

## Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\VY1140\Y0010472.D Vial: 27  
 Acq On : 28 Feb 2007 10:24 pm Operator: jennifer  
 Sample : ecc1139-20 Inst : GCMS\_Y  
 Misc : ms3870,vy1140,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\VY1139.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Wed Feb 28 07:50:18 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF   | CCRF    | %Dev   | Area% | Dev(min) | R.T. |
|------|--------------------------|---------|---------|--------|-------|----------|------|
| 1 I  | Fluorobenzene            | 1.000   | 1.000   | 0.0    | 91    | 0.00     | 9.58 |
|      | ----- Amount             | Calc.   | %Drift  | -----  |       |          |      |
| 2    | Dichlorodifluoromethane  | 20.000  | 21.824  | -9.1   | 99    | 0.00     | 3.82 |
|      | ----- AvgRF              | CCRF    | %Dev    | -----  |       |          |      |
| 3 P  | Chloromethane            | 0.504   | 0.509   | -1.0   | 86    | 0.00     | 4.18 |
| 4 C  | Vinyl Chloride           | 0.653   | 0.677   | -3.7   | 86    | 0.00     | 4.39 |
| 5    | Bromomethane             | 0.320   | 0.354   | -10.6  | 84    | 0.00     | 4.98 |
| 6    | Chloroethane             | 0.334   | 0.352   | -5.4   | 78    | 0.00     | 5.14 |
|      | ----- Amount             | Calc.   | %Drift  | -----  |       |          |      |
| 7    | Trichlorofluoromethane   | 20.000  | 20.202  | -1.0   | 88    | 0.00     | 5.49 |
|      | ----- AvgRF              | CCRF    | %Dev    | -----  |       |          |      |
| 8    | Acrolein                 | 0.013   | 0.011   | 15.4   | 73    | 0.01     | 6.16 |
| 9 C  | 1,1-Dichloroethene       | 0.231   | 0.271   | -17.3  | 113   | 0.00     | 6.25 |
| 10   | Freon 113                | 0.250   | 0.324   | -29.6# | 107   | 0.01     | 6.18 |
| 11   | Acetone                  | 0.065   | 0.078   | -20.0  | 94    | 0.00     | 6.33 |
| 12   | Iodomethane              | 0.354   | 0.388   | -9.6   | 104   | 0.00     | 6.50 |
| 13   | Methyl acetate           | 0.179   | 0.219   | -22.3# | 101   | 0.00     | 6.70 |
| 14   | Carbon Disulfide         | 1.038   | 1.253   | -20.7# | 108   | 0.00     | 6.60 |
| 15   | Methylene Chloride       | 0.364   | 0.418   | -14.8  | 100   | 0.00     | 6.91 |
| 16   | Tert Butyl Alcohol       | 0.022   | 0.024   | -9.1   | 96    | 0.00     | 6.93 |
| 17   | trans-1,2-Dichloroethene | 0.292   | 0.320   | -9.6   | 102   | 0.00     | 7.19 |
| 18   | Acrylonitrile            | 0.108   | 0.131   | -21.3# | 99    | 0.00     | 7.26 |
|      | ----- Amount             | Calc.   | %Drift  | -----  |       |          |      |
| 19   | Hexane                   | 20.000  | 23.081  | -15.4  | 115   | 0.00     | 7.40 |
| 20   | Methyl Tert Butyl Ether  | 20.000  | 21.092  | -5.5   | 105   | 0.00     | 7.13 |
|      | ----- AvgRF              | CCRF    | %Dev    | -----  |       |          |      |
| 21 P | 1,1-Dichloroethane       | 0.717   | 0.837   | -16.7  | 102   | 0.00     | 7.73 |
|      | ----- Amount             | Calc.   | %Drift  | -----  |       |          |      |
| 22   | Vinyl acetate            | 100.000 | 107.570 | -7.6   | 102   | 0.00     | 7.70 |
| 23   | Di-isopropyl ether       | 20.000  | 21.514  | -7.6   | 105   | 0.00     | 7.64 |
| 24   | Ethyl tert-butyl ether   | 20.000  | 21.374  | -6.9   | 106   | 0.00     | 8.05 |
|      | ----- AvgRF              | CCRF    | %Dev    | -----  |       |          |      |
| 25   | 2,2-Dichloropropane      | 0.383   | 0.424   | -10.7  | 101   | 0.00     | 8.37 |
| 26   | cis-1,2-Dichloroethene   | 0.338   | 0.392   | -16.0  | 106   | 0.00     | 8.38 |



## Continuing Calibration Summary

Page 2 of 4

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1140-ECC1139  
 Lab FileID: Y0010472.D

|      |                           | Amount  | Calc.   | %Drift |     |      |       |
|------|---------------------------|---------|---------|--------|-----|------|-------|
| 27   | 2-Butanone                | 100.000 | 99.920  | 0.1    | 92  | 0.00 | 8.36  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 28   | Bromochloromethane        | 0.134   | 0.149   | -11.2  | 100 | 0.00 | 8.67  |
| 29 C | Chloroform                | 0.579   | 0.677   | -16.9  | 104 | 0.00 | 8.70  |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |
| 30   | Tetrahydrofuran           | 20.000  | 21.564  | -7.8   | 106 | 0.00 | 8.67  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 31   | 1,1,1-Trichloroethane     | 0.427   | 0.496   | -16.2  | 105 | 0.00 | 8.91  |
| 32 S | Dibromofluoromethane      | 0.263   | 0.273   | -3.8   | 89  | 0.00 | 8.87  |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |
| 33   | Cyclohexane               | 20.000  | 22.378  | -11.9  | 116 | 0.00 | 8.92  |
| 34   | 1,1-Dichloropropene       | 20.000  | 21.222  | -6.1   | 101 | 0.00 | 9.07  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 35   | Carbon Tetrachloride      | 0.305   | 0.362   | -18.7  | 106 | 0.00 | 9.06  |
| 36 S | 1,2-Dichloroethane-d4     | 0.446   | 0.464   | -4.0   | 89  | 0.00 | 9.28  |
| 37   | Benzene                   | 1.389   | 1.627   | -17.1  | 106 | 0.00 | 9.29  |
| 38   | 1,2-Dichloroethane        | 0.541   | 0.626   | -15.7  | 97  | 0.00 | 9.37  |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |
| 39   | tert-amyl methyl ether    | 20.000  | 21.494  | -7.5   | 108 | 0.00 | 9.30  |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 40   | Trichloroethene           | 0.279   | 0.301   | -7.9   | 108 | 0.00 | 9.94  |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |
| 41   | Methylcyclohexane         | 20.000  | 21.726  | -8.6   | 109 | 0.00 | 10.11 |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 42 C | 1,2-Dichloropropane       | 0.431   | 0.477   | -10.7  | 100 | 0.00 | 10.23 |
| 43   | Dibromomethane            | 0.201   | 0.239   | -18.9  | 101 | 0.00 | 10.37 |
| 44   | 1,4-Dioxane               | 0.003   | 0.002   | 33.3#  | 100 | 0.00 | 10.31 |
| 45   | Bromodichloromethane      | 0.452   | 0.516   | -14.2  | 102 | 0.00 | 10.48 |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |
| 46   | 2-Nitropropane            | 100.000 | 111.492 | -11.5  | 100 | 0.00 | 10.75 |
| 47   | 2-Chloroethyl vinyl ether | 100.000 | 117.053 | -17.1  | 112 | 0.00 | 10.72 |
| 48   | 4-Methyl-2-pentanone      | 100.000 | 103.926 | -3.9   | 93  | 0.00 | 11.02 |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 49   | cis-1,3-Dichloropropene   | 0.495   | 0.542   | -9.5   | 108 | 0.00 | 10.93 |
| 50 I | Chlorobenzene-d5          | 1.000   | 1.000   | 0.0    | 93  | 0.00 | 12.71 |
| 51 S | Toluene-d8                | 1.386   | 1.298   | 6.3    | 87  | 0.00 | 11.18 |
| 52 C | Toluene                   | 1.012   | 1.153   | -13.9  | 108 | 0.00 | 11.25 |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |
| 53   | trans-1,3-Dichloropropene | 20.000  | 20.492  | -2.5   | 106 | 0.00 | 11.49 |
|      |                           | AvgRF   | CCRF    | %Dev   |     |      |       |
| 54   | 1,1,2-Trichloroethane     | 0.372   | 0.402   | -8.1   | 104 | 0.00 | 11.70 |
| 55   | Tetrachloroethene         | 0.251   | 0.265   | -5.6   | 95  | 0.00 | 11.80 |
|      |                           | Amount  | Calc.   | %Drift |     |      |       |

5.8.7

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## Continuing Calibration Summary

Job Number: T16432  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VY1140-ECC1139  
 Lab FileID: Y0010472.D

|      |                           |         |        |        |     |      |       |
|------|---------------------------|---------|--------|--------|-----|------|-------|
| 56   | 2-hexanone                | 100.000 | 98.090 | 1.9    | 92  | 0.00 | 11.86 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 57   | 1,3-Dichloropropane       | 0.723   | 0.825  | -14.1  | 102 | 0.00 | 11.89 |
| 58   | Dibromochloromethane      | 0.350   | 0.363  | -3.7   | 102 | 0.00 | 12.12 |
| 59   | 1,2-Dibromoethane         | 0.348   | 0.354  | -1.7   | 98  | 0.00 | 12.29 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 60   | 1-Chlorohexane            | 20.000  | 19.912 | 0.4    | 112 | 0.00 | 12.60 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 61 P | Chlorobenzene             | 1.117   | 1.132  | -1.3   | 96  | 0.00 | 12.74 |
| 62   | 1,1,1,2-Tetrachloroethane | 0.343   | 0.396  | -15.5  | 103 | 0.00 | 12.80 |
| 63 C | Ethylbenzene              | 1.866   | 1.980  | -6.1   | 99  | 0.00 | 12.77 |
| 64   | m,p-Xylene                | 0.727   | 0.805  | -10.7  | 100 | 0.00 | 12.88 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 65   | o-Xylene                  | 20.000  | 20.021 | -0.1   | 108 | 0.00 | 13.31 |
| 66   | Styrene                   | 20.000  | 20.943 | -4.7   | 114 | 0.00 | 13.34 |
| 67 P | Bromoform                 | 20.000  | 21.538 | -7.7   | 100 | 0.00 | 13.61 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 68 I | 1,4-Dichlorobenzene-d4    | 1.000   | 1.000  | 0.0    | 99  | 0.00 | 15.11 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 69   | Isopropylbenzene          | 20.000  | 20.957 | -4.8   | 112 | 0.00 | 13.66 |
| 70   | Cyclohexanone             | 100.000 | 46.375 | 53.6#  | 43  | 0.00 | 13.88 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 71 S | 4-Bromofluorobenzene      | 0.991   | 0.838  | 15.4   | 85  | 0.00 | 13.91 |
| 72   | Bromobenzene              | 0.910   | 0.987  | -8.5   | 106 | 0.00 | 14.10 |
| 73 P | 1,1,2,2-Tetrachloroethane | 1.156   | 1.270  | -9.9   | 105 | 0.00 | 14.02 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 74   | Trans-1,4-Dichloro-2-Bute | 20.000  | 21.516 | -7.6   | 98  | 0.00 | 14.08 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 75   | 1,2,3-Trichloropropane    | 1.371   | 1.514  | -10.4  | 104 | 0.00 | 14.11 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 76   | n-Propylbenzene           | 20.000  | 20.935 | -4.7   | 108 | 0.00 | 14.08 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 77   | 2-Chlorotoluene           | 2.986   | 3.165  | -6.0   | 106 | 0.00 | 14.25 |
| 78   | 4-Chlorotoluene           | 2.486   | 2.523  | -1.5   | 108 | 0.00 | 14.37 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 79   | 1,3,5-Trimethylbenzene    | 20.000  | 20.204 | -1.0   | 104 | 0.00 | 14.25 |
| 80   | sec-Butylbenzene          | 20.000  | 19.667 | 1.7    | 102 | 0.00 | 14.82 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 81   | 1,3-Dichlorobenzene       | 1.521   | 1.565  | -2.9   | 103 | 0.00 | 15.04 |
|      |                           | Amount  | Calc.  | %Drift |     |      |       |
| 82   | 4-Isopropyltoluene        | 20.000  | 19.629 | 1.9    | 106 | 0.00 | 14.95 |
|      |                           | AvgRF   | CCRF   | %Dev   |     |      |       |
| 83   | 1,4-Dichlorobenzene       | 1.613   | 1.661  | -3.0   | 104 | 0.00 | 15.14 |

**Continuing Calibration Summary**

Page 4 of 4

**Job Number:** T16432  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VY1140-ECC1139  
**Lab FileID:** Y0010472.D

|    |                           | Amount | Calc.  | %Drift |     |      |       |
|----|---------------------------|--------|--------|--------|-----|------|-------|
| 84 | tert-Butylbenzene         | 20.000 | 20.328 | -1.6   | 101 | 0.00 | 14.59 |
| 85 | n-Butylbenzene            | 20.000 | 19.781 | 1.1    | 106 | 0.00 | 15.38 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 86 | 1,2-Dichlorobenzene       | 1.466  | 1.586  | -8.2   | 107 | 0.00 | 15.54 |
|    |                           | Amount | Calc.  | %Drift |     |      |       |
| 87 | 1,2,4-Trimethylbenzene    | 20.000 | 20.433 | -2.2   | 104 | 0.00 | 14.66 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 88 | 1,2-Dibromo-3-Chloropropa | 0.117  | 0.123  | -5.1   | 102 | 0.00 | 16.33 |
|    |                           | Amount | Calc.  | %Drift |     |      |       |
| 89 | 1,2,4-Trichlorobenzene    | 20.000 | 20.041 | -0.2   | 106 | 0.00 | 17.15 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 90 | Hexachlorobutadiene       | 0.262  | 0.281  | -7.3   | 117 | 0.00 | 17.24 |
|    |                           | Amount | Calc.  | %Drift |     |      |       |
| 91 | Naphthalene               | 20.000 | 20.017 | -0.1   | 122 | 0.00 | 17.46 |
|    |                           | AvgRF  | CCRF   | %Dev   |     |      |       |
| 92 | 1,2,3-Trichlorobenzene    | 0.489  | 0.466  | 4.7    | 104 | 0.00 | 17.73 |

(#) = Out of Range  
Y0010431.D VY1139.M

SPCC's out = 0 CCC's out = 0  
Thu Mar 01 09:40:04 2007

5.8.7

5



## General Chemistry

### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ITTXHO - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                                | Batch ID | RL    | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|----------------------------------------|----------|-------|-----------|-------|--------------|------------|------------|-----------|
| Alkalinity, Total as CaCO <sub>3</sub> | GN11336  | 5.0   | <5.0      | mg/l  | xxxxxxx      | 2500       | 100.0      | 80-120%   |
| Chloride                               | GN11331  | 1.0   | <1.0      | mg/l  | xxxxxxx      | 1030       | 103.0      | 92-107%   |
| Nitrogen, Nitrate + Nitrite            | GN11291  | 0.050 | <0.050    | mg/l  | 0.500        | 0.51       | 102.0      | 89-112%   |
| Nitrogen, Nitrite                      | GN11288  | 0.050 | <0.050    | mg/l  | 0.500        | 0.54       | 108.0      | 89-117%   |
| Sulfate                                | GN11356  | 10    | <10       | mg/l  | 100          | 95.0       | 95.0       | 80-120%   |
| Sulfate                                | GN11356  |       |           | mg/l  | xxxxxxx      |            | *          | 80-120%   |
| Sulfide                                | GN11286  | 0.20  | <0.20     | mg/l  | 1600         | 1370       | 86.0       | 80-120%   |
| Total Organic Carbon                   | GN11304  | 1.0   | <1.0      | mg/l  | 25.0         | 26.0       | 104.0      | 83-110%   |

Associated Samples:

Batch GN11286: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11288: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11291: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11304: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11331: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11336: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11356: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

(\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ITTXH0 - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                                | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|----------------------------------------|----------|-----------|-------|-----------------|------------|-----|-----------|
| Alkalinity, Total as CaCO <sub>3</sub> | GN11336  | T16411-10 | mg/l  | 158             | 165        | 4.3 | 0-10%     |
| Nitrogen, Nitrate + Nitrite            | GN11291  | T16411-10 | mg/l  | 0.20            | 0.20       | 0.0 | 0-10%     |
| Nitrogen, Nitrite                      | GN11288  | T16432-1  | mg/l  | 0.0030 U        | <0.050     | 0.0 | 0-10%     |
| Sulfate                                | GN11356  | T16411-10 | mg/l  | 1260            | 1200       | 4.7 | 0-20%     |
| Sulfide                                | GN11286  | T16432-6  | mg/l  | U               | <0.20      | 0.0 | 0-20%     |
| Total Organic Carbon                   | GN11304  | T16445-18 | mg/l  | 6.0             | 6.0        | 0.0 | 0-11%     |
| pH                                     | GN11306  | T16432-4  | su    | 6.3             | 6.3        | 0.0 | 0-6.8%    |

Associated Samples:

Batch GN11286: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11288: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11291: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11304: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11306: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11331: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11336: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
Batch GN11356: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

(\*) Outside of QC limits

6.2  
6

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ITTXH0 - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                                | Batch ID | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|----------------------------------------|----------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Alkalinity, Total as CaCO <sub>3</sub> | GN11336  | T16411-10 | mg/l  | 158             | xxxxxxx      | 215       | 116.0 | 79-122%   |
| Nitrogen, Nitrate + Nitrite            | GN11291  | T16411-10 | mg/l  | 0.20            | 0.100        | 0.30      | 100.0 | 80-119%   |
| Nitrogen, Nitrate + Nitrite            | GN11291  | T16411-10 | mg/l  | 0.20            | 0.100        | 0.30      | 100.0 | 80-119%   |
| Nitrogen, Nitrite                      | GN11288  | T16432-1  | mg/l  | 0.0030 U        | 0.100        | 0.090     | 90.0  | 75-134%   |
| Sulfate                                | GN11356  | T16411-10 | mg/l  | 1260            | 250          | 1470      | 87.0  | 75-125%   |
| Sulfate                                | GN11356  | T16411-10 | mg/l  | 1260            | xxxxxxx      |           | *     | 75-125%   |
| Total Organic Carbon                   | GN11304  | T16445-18 | mg/l  | 6.0             | 10.0         | 16.0      | 100.0 | 74-121%   |

Associated Samples:

Batch GN11288: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11291: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11304: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11331: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11336: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

Batch GN11356: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ITTXH0 - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte | Batch ID | QC Sample | Units | Original Result | Spike Amount | MSD Result | RPD | QC Limit |
|---------|----------|-----------|-------|-----------------|--------------|------------|-----|----------|
|---------|----------|-----------|-------|-----------------|--------------|------------|-----|----------|

Associated Samples:  
Batch GN11336: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
(\*) Outside of QC limits





## Misc. Forms

### Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Chain of Custody

**10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770**

|                   |                        |
|-------------------|------------------------|
| FED-EX Tracking # | Bottle Order Control # |
| Accutest Quote #  | Accutest Job # T16432  |

[illegible]

## 7.1

## T16432: Chain of Custody

Page 1 of 2

**Accutest Laboratories Southeast, Inc.**

## ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION

ACCUTEST'S JOB NUMBER: T16432 CLIENT: AL6C PROJECT: T16432  
 DATE/TIME RECEIVED: 02-28-07 - 09:30 # OF COOLERS RECEIVED: 4 COOLER TEMPS: 20, 2.4, 1.8, 3.0  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 7986 1726 3857

## COOLER INFORMATION

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT  
☐ CHAIN OF CUSTODY NOT RECEIVED (COC)  
☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING  
☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING  
☐ TEMPERATURE CRITERIA NOT MET

## TRIP BLANK INFORMATION

- ☐ TRIP BLANK PROVIDED  
☒ TRIP BLANK NOT PROVIDED  
☒ TRIP BLANK NOT ON COC  
☐ TRIP BLANK INTACT  
☐ TRIP BLANK NOT INTACT  
☐ RECEIVED WATER TRIP BLANK  
☐ RECEIVED SOIL TRIP BLANK

## MISC. INFORMATION

NUMBER OF ENCORES ? 2  
 NUMBER OF 5035 FIELD KITS ? 2  
 NUMBER OR LAB FILTERED METALS ? 2

## SAMPLE INFORMATION

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES  
☐ CORRECT NUMBER OF CONTAINERS USED  
☐ SAMPLE RECEIVED IMPROPERLY PRESERVED  
☐ INSUFFICIENT VOLUME FOR ANALYSIS  
☐ TIMES ON COC DOES NOT MATCH LABEL(S)  
☐ ID'S ON COC DOES NOT MATCH LABEL(S)  
☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)  
☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED  
☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED  
☐ UNCLEAR FILTERING INSTRUCTIONS  
☐ UNCLEAR COMPOSITING INSTRUCTIONS  
☐ SAMPLE CONTAINER(S) RECEIVED BROKEN  
☐ % SOLIDS JAR NOT RECEIVED  
☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S  
☐ RESIDUAL CHLORINE PRESENT  
 (APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

SUMMARY OF COMMENTS: \* RECEIVED TWO 8330 AMBER, 3 MCL VIALS AND ONE  
250 ML BOTTLE FOR SAMPLES #2 AND #3. \* RECEIVED 3 MCL VIALS AND  
ONE 250 ML <sup>BOTTLE</sup> ~~BOTTLE~~ FOR SAMPLES #1, #4 - #6.

TECHNICIAN SIGNATURE/DATE W. H. V. 02/28/07 TECHNICIAN SIGNATURE/DATE [Signature] 02-28-07 ASD 10/03/06

T16432: Chain of Custody

Page 2 of 2



## GC Volatiles

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

∞

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample    | File ID     | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|-------------|----|----------|----|-----------|------------|------------------|
| GXY995-MB | XY025310.D1 |    | 03/07/07 | TD | n/a       | n/a        | GXY995           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | ND     | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | ND     | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | ND     | 1.0  | 0.80 | ug/l  |   |

8.1.1  
8

Blank Spike Summary

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| GXY995-BS | XY025311.D | 1  | 03/07/07 | TD | n/a       | n/a        | GXY995           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

| CAS No. | Compound | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
| 74-82-8 | Methane  | 108           | 90.3        | 84       | 54-149 |
| 74-84-0 | Ethane   | 219           | 187         | 85       | 57-143 |
| 74-85-1 | Ethene   | 290           | 234         | 81       | 57-143 |

82.1  
8

Matrix Spike Summary

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|------------|----|----------|----|-----------|------------|------------------|
| T16432-6MS | XY025319.D | 1  | 03/07/07 | TD | n/a       | n/a        | GXY995           |
| T16432-6   | XY025318.D | 1  | 03/07/07 | TD | n/a       | n/a        | GXY995           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

| CAS No. | Compound | T16432-6<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | Limits |
|---------|----------|------------------|--------------------|------------|---------|--------|
| 74-82-8 | Methane  | 0.94             | 108                | 110        | 101     | 54-149 |
| 74-84-0 | Ethane   | 1.0 U            | 219                | 225        | 103     | 57-143 |
| 74-85-1 | Ethene   | 1.0 U            | 290                | 291        | 100     | 57-143 |

8.3.1  
8

Duplicate Summary

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16432-4DUP | XY025317.D | 1  | 03/07/07 | TD | n/a       | n/a        | GXY995           |
| T16432-4    | XY025315.D | 1  | 03/07/07 | TD | n/a       | n/a        | GXY995           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6

| CAS No. | Compound | T16432-4<br>ug/l | DUP<br>Q ug/l | Q | RPD | Limits |
|---------|----------|------------------|---------------|---|-----|--------|
| 74-82-8 | Methane  | 2.88             | 3.21          |   | 11  | 24     |
| 74-84-0 | Ethane   | 1.0 U            | ND            |   | nc  | 23     |
| 74-85-1 | Ethene   | 1.0 U            | ND            |   | nc  | 10     |

84.1  
8



**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY995-ICC995  
**Lab FileID:** XY025305.D

**Response Factor Report VOA5**

**Method** : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
**Title** : Dissolved Gases in Water  
**Last Update** : Thu Mar 08 08:31:33 2007  
**Response via** : Initial Calibration

**Calibration Files**

1 =XY025301.D 2 =XY025302.D 3 =XY025304.D 4 =XY025303.D  
 5 =XY025305.D 6 =XY025306.D 7 =XY025307.D

| Compound                                                | 1     | 2     | 3     | 4     | 5     | 6     | 7     | Avg      | %RSD   |
|---------------------------------------------------------|-------|-------|-------|-------|-------|-------|-------|----------|--------|
| 1)c Methane                                             | 1.256 | 2.507 | 1.576 | 0.832 | 1.293 | 0.961 | 1.016 | 1.349 E4 | 42.09# |
| ---- Linear regr., Force(0,0) ---- Coefficient = 0.9983 |       |       |       |       |       |       |       |          |        |
| Response Ratio = 0.00000 + 10071.12721 *A               |       |       |       |       |       |       |       |          |        |
| 2)c Ethylene                                            | 2.402 | 4.239 | 2.629 | 1.419 | 2.516 | 1.854 | 1.947 | 2.429 E4 | 37.22# |
| ---- Linear regr., Force(0,0) ---- Coefficient = 0.9982 |       |       |       |       |       |       |       |          |        |
| Response Ratio = 0.00000 + 19323.23175 *A               |       |       |       |       |       |       |       |          |        |
| 3)c Ethane                                              | 2.241 | 3.960 | 2.584 | 1.355 | 2.483 | 1.825 | 1.918 | 2.338 E4 | 35.47# |
| ---- Linear regr., Force(0,0) ---- Coefficient = 0.9981 |       |       |       |       |       |       |       |          |        |
| Response Ratio = 0.00000 + 19028.53933 *A               |       |       |       |       |       |       |       |          |        |

-----  
 (#) = Out of Range

RSK147XY.M

Thu Mar 08 08:36:38 2007

8.5.1  
8

**Initial Calibration Verification**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY995-ICV995  
**Lab FileID:** XY025308.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\030707\XY025308.D Vial: 100  
 Acq On : 7 Mar 2007 2:55 pm Operator: Trangd  
 Sample : ICV995-1000 Inst : VOA5  
 Misc : gc7128,gxy995,,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Mar 08 08:31:33 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound     | Amount   | Calc.   | %Drift | Area% | Dev(min) | RT   | Window |
|--------------|----------|---------|--------|-------|----------|------|--------|
| 1 c Methane  | 1000.000 | 950.295 | 5.0    | 74    | -0.06    | 1.13 | 1.73   |
| 2 c Ethylene | 1000.000 | 962.910 | 3.7    | 74    | -0.03    | 2.85 | 3.65   |
| 3 c Ethane   | 1000.000 | 991.839 | 0.8    | 76    | -0.03    | 3.48 | 4.28   |

(#) = Out of Range  
 XY025305.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 08 08:35:31 2007

8.5.2

8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY995-ECC995  
**Lab FileID:** XY025320.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\030707\XY025320.D Vial: 100  
 Acq On : 7 Mar 2007 5:27 pm Operator: Trangd  
 Sample : ECC995-10000 Inst : VOA5  
 Misc : gc7128,gxy995,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Mar 08 08:31:33 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

| Compound     | Amount    | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|--------------|-----------|----------|--------|-------|----------|-------|--------|
| 1 c Methane  | 10000.000 | 8882.087 | 11.2   | 88    | -0.15    | 1.13- | 1.73   |
| 2 c Ethylene | 10000.000 | 9414.704 | 5.9    | 93    | -0.15    | 2.85- | 3.65   |
| 3 c Ethane   | 10000.000 | 9571.545 | 4.3    | 95    | -0.15    | 3.48- | 4.28   |

(#) = Out of Range  
 XY025307.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 08 08:36:20 2007



## GC Semi-volatiles

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19677-MB | GG020203.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16432-2, T16432-3

| CAS No.    | Compound                   | Result | RL   | MDL   | Units | Q |
|------------|----------------------------|--------|------|-------|-------|---|
| 2691-41-0  | HMX                        | ND     | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | ND     | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | ND     | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | ND     | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND     | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND     | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | ND     | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | ND     | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND     | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND     | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 610-39-9 | 3,4-Dinitrotoluene   | 102% 70-136% |

**Method Blank Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19677-MB | GG020233.D1 |    | 03/05/07 | MRE | 03/01/07  | OP19677    | GGG907           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16432-2, T16432-3

| CAS No.    | Compound                   | Result | RL   | MDL   | Units | Q |
|------------|----------------------------|--------|------|-------|-------|---|
| 2691-41-0  | HMX                        | ND     | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | ND     | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | ND     | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | ND     | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND     | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND     | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | ND     | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | ND     | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND     | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND     | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Limits      |
|----------|----------------------|-------------|
| 610-39-9 | 3,4-Dinitrotoluene   | 80% 70-136% |

**Blank Spike Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19677-BS | GG020202.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16432-2, T16432-3

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 2691-41-0  | HMX                        | 5             | 5.3         | 106      | 74-152 |
| 121-82-4   | RDX                        | 5             | 5.4         | 108      | 80-124 |
| 99-65-0    | 1,3-Dinitrobenzene         | 5             | 5.3         | 106      | 84-123 |
| 606-20-2   | 2,6-Dinitrotoluene         | 5             | 5.3         | 106      | 84-133 |
| 121-14-2   | 2,4-Dinitrotoluene         | 5             | 5.1         | 102      | 77-116 |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 5             | 5.2         | 104      | 78-117 |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 5             | 5.1         | 102      | 84-123 |
| 98-95-3    | Nitrobenzene               | 5             | 5.5         | 110      | 76-128 |
| 88-72-2    | o-Nitrotoluene             | 5             | 5.0         | 100      | 76-120 |
| 99-08-1    | m-Nitrotoluene             | 5             | 5.2         | 104      | 74-124 |
| 99-99-0    | p-Nitrotoluene             | 5             | 5.3         | 106      | 81-125 |
| 479-45-8   | Tetryl                     | 5             | 4.6         | 92       | 62-117 |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 5             | 5.3         | 106      | 85-127 |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 5             | 5.3         | 106      | 71-128 |

| CAS No.  | Surrogate Recoveries | BSP  | Limits  |
|----------|----------------------|------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 124% | 70-136% |

**Blank Spike Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19677-BS | GG020232.D1 |    | 03/05/07 | MRE | 03/01/07  | OP19677    | GGG907           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16432-2, T16432-3

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 2691-41-0  | HMX                        | 5             | 5.9         | 118      | 74-152 |
| 121-82-4   | RDX                        | 5             | 5.5         | 110      | 80-124 |
| 99-65-0    | 1,3-Dinitrobenzene         | 5             | 5.3         | 106      | 84-123 |
| 606-20-2   | 2,6-Dinitrotoluene         | 5             | 5.1         | 102      | 84-133 |
| 121-14-2   | 2,4-Dinitrotoluene         | 5             | 5.1         | 102      | 77-116 |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 5             | 5.2         | 104      | 78-117 |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 5             | 5.1         | 102      | 84-123 |
| 98-95-3    | Nitrobenzene               | 5             | 6.4         | 128      | 76-128 |
| 88-72-2    | o-Nitrotoluene             | 5             | 5.0         | 100      | 76-120 |
| 99-08-1    | m-Nitrotoluene             | 5             | 5.3         | 106      | 74-124 |
| 99-99-0    | p-Nitrotoluene             | 5             | 5.3         | 106      | 81-125 |
| 479-45-8   | Tetryl                     | 5             | 4.6         | 92       | 62-117 |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 5             | 5.5         | 110      | 85-127 |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 5             | 5.7         | 114      | 71-128 |

| CAS No.  | Surrogate Recoveries | BSP  | Limits  |
|----------|----------------------|------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 100% | 70-136% |



**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 1

**Job Number:** T16432**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample      | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19677-MS  | GG020207.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |
| OP19677-MSD | GG020208.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |
| F47539-3    | GG020206.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16432-2, T16432-3

| CAS No.    | Compound                   | F47539-3<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|------------|------------|---------|-------------|----------|-----|-------------------|
| 2691-41-0  | HMX                        | ND               | 10         | 11.0       | 110     | 11.8        | 118      | 7   | 74-152/21         |
| 121-82-4   | RDX                        | ND               | 10         | 10.3       | 103     | 10.7        | 107      | 4   | 80-124/20         |
| 99-65-0    | 1,3-Dinitrobenzene         | ND               | 10         | 10.3       | 103     | 10.9        | 109      | 6   | 84-123/23         |
| 606-20-2   | 2,6-Dinitrotoluene         | ND               | 10         | 9.9        | 99      | 10.6        | 106      | 7   | 84-133/23         |
| 121-14-2   | 2,4-Dinitrotoluene         | ND               | 10         | 9.7        | 97      | 10.3        | 103      | 6   | 77-116/26         |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND               | 10         | 9.4        | 94      | 10.5        | 105      | 11  | 78-117/28         |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND               | 10         | 9.1        | 91      | 10.2        | 102      | 11  | 84-123/27         |
| 98-95-3    | Nitrobenzene               | ND               | 10         | 10.5       | 105     | 11.1        | 111      | 6   | 76-128/28         |
| 88-72-2    | o-Nitrotoluene             | ND               | 10         | 9.3        | 93      | 10.2        | 102      | 9   | 76-120/30         |
| 99-08-1    | m-Nitrotoluene             | ND               | 10         | 9.5        | 95      | 10.6        | 106      | 11  | 74-124/32         |
| 99-99-0    | p-Nitrotoluene             | ND               | 10         | 9.7        | 97      | 10.7        | 107      | 10  | 81-125/34         |
| 479-45-8   | Tetryl                     | ND               | 10         | 7.4        | 74      | 7.9         | 79       | 7   | 62-117/28         |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND               | 10         | 9.8        | 98      | 10.4        | 104      | 6   | 85-127/21         |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND               | 10         | 9.8        | 98      | 10.4        | 104      | 6   | 71-128/21         |

| CAS No.  | Surrogate Recoveries | MS  | MSD | F47539-3 | Limits  |
|----------|----------------------|-----|-----|----------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 94% | 98% | 102%     | 70-136% |

9.3.1  
9

Semivolatile Surrogate Recovery Summary

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

|                     |            |
|---------------------|------------|
| Method: SW846 8330A | Matrix: AQ |
|---------------------|------------|

Samples and QC shown here apply to the above method

| Lab Sample ID | Lab File ID | S1 <sup>a</sup> |
|---------------|-------------|-----------------|
| T16432-2      | GG020210.D  | 95.0            |
| T16432-3      | GG020211.D  | 97.0            |
| OP19677-BS    | GG020202.D  | 124.0           |
| OP19677-BS    | GG020232.D  | 100.0           |
| OP19677-MB    | GG020203.D  | 102.0           |
| OP19677-MB    | GG020233.D  | 80.0            |
| OP19677-MS    | GG020207.D  | 94.0            |
| OP19677-MSD   | GG020208.D  | 98.0            |

| Surrogate Compounds     | Recovery Limits |
|-------------------------|-----------------|
| S1 = 3,4-Dinitrotoluene | 70-136%         |

(a) Recovery from GC signal #1

**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> GGG906-CC825 | <b>Injection Date:</b> 03/02/07 |
| <b>Lab File ID:</b> GG020201.D | <b>Injection Time:</b> 16:17    |
| <b>Instrument ID:</b> GCGG     | <b>Method:</b> SW846 8330A      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 13.50 |
|-----------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|
| OP19677-BS    | GG020202.D  | 03/02/07      | 16:45         | 13.49              |
| OP19677-MB    | GG020203.D  | 03/02/07      | 17:12         | 13.50              |
| ZZZZZZ        | GG020204.D  | 03/02/07      | 17:27         | 13.50              |
| ZZZZZZ        | GG020205.D  | 03/02/07      | 17:54         | 13.50              |
| F47539-3      | GG020206.D  | 03/02/07      | 18:22         | 13.49              |
| OP19677-MS    | GG020207.D  | 03/02/07      | 18:50         | 13.47              |
| OP19677-MSD   | GG020208.D  | 03/02/07      | 19:17         | 13.46              |
| ZZZZZZ        | GG020209.D  | 03/02/07      | 19:45         | 13.47              |
| T16432-2      | GG020210.D  | 03/02/07      | 20:12         | 13.44              |
| T16432-3      | GG020211.D  | 03/02/07      | 20:40         | 13.43              |

**Surrogate Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

GC Surrogate Retention Time Summary

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

|                |              |                 |             |
|----------------|--------------|-----------------|-------------|
| Check Std:     | GGG907-CC827 | Injection Date: | 03/05/07    |
| Lab File ID:   | GG020231.D   | Injection Time: | 13:23       |
| Instrument ID: | GCGG         | Method:         | SW846 8330A |

S1<sup>a</sup> S1<sup>b</sup>  
RT RT

|           |       |       |
|-----------|-------|-------|
| Check Std | 10.72 | 10.72 |
|-----------|-------|-------|

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | S1 <sup>a</sup> RT | S1 <sup>b</sup> RT |
|---------------|-------------|---------------|---------------|--------------------|--------------------|
| OP19677-BS    | GG020232.D  | 03/05/07      | 13:43         | 10.72              |                    |
| OP19677-MB    | GG020233.D  | 03/05/07      | 14:02         | 10.72              |                    |
| ZZZZZZ        | GG020234.D  | 03/05/07      | 14:22         | 10.72              |                    |
| ZZZZZZ        | GG020236.D  | 03/05/07      | 15:01         | 10.71              |                    |
| GGG907-ECC827 | GG020238.D  | 03/05/07      | 15:40         | 10.72              | 10.72              |

Surrogate Compounds

S1 = 3,4-Dinitrotoluene  
  
(a) Retention time from GC signal #1  
(b) Retention time from GC signal #2

9.5.2  
9

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG825-ICC825  
**Lab FileID:** GG018282.D

**Response Factor Report G1315B**

**Method** : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
**Title** : Explosives by 8330  
**Last Update** : Thu Oct 19 11:32:41 2006  
**Response via** : Initial Calibration

**Calibration Files**

20 =GG018279.D 100 =GG018280.D 250 =GG018281.D 500 =GG018282.D  
 750 =GG018283.D 1000=GG018284.D 2000=GG018285.D ICV =GG018286.D

| Compound         | 20    | 100   | 250   | 500   | 750   | 1000  | 2000  | ICV | Avg   | %RSD    |
|------------------|-------|-------|-------|-------|-------|-------|-------|-----|-------|---------|
| 1) HMX           | 2.870 | 2.789 | 2.757 | 2.694 | 2.719 | 2.735 | 2.786 |     | 2.764 | E3 2.09 |
| 2) TNX           | 5.916 | 6.424 | 6.486 | 6.331 | 6.453 | 6.468 | 6.587 |     | 6.381 | E3 3.43 |
| 3) DNX           | 4.900 | 5.156 | 5.125 | 4.986 | 5.037 | 5.057 | 5.155 |     | 5.059 | E3 1.88 |
| 4) MNX           | 4.909 | 4.991 | 4.972 | 4.807 | 4.886 | 4.901 | 4.995 |     | 4.923 | E3 1.38 |
| 5) RDX           | 3.185 | 3.565 | 3.625 | 3.500 | 3.554 | 3.547 | 3.609 |     | 3.512 | E3 4.27 |
| 6) 1,3,5-Trinit  | 7.763 | 7.813 | 7.689 | 7.436 | 7.595 | 7.612 | 7.763 |     | 7.667 | E3 1.70 |
| 7) 1,3-Dinitrob  | 1.069 | 1.070 | 1.060 | 1.029 | 1.047 | 1.051 | 1.071 |     | 1.057 | E4 1.49 |
| 8) Tetryl        | 6.130 | 6.168 | 6.180 | 6.004 | 6.091 | 6.096 | 6.221 |     | 6.127 | E3 1.17 |
| 9) Nitrobenzene  | 7.057 | 7.032 | 7.019 | 6.708 | 6.915 | 6.920 | 7.082 |     | 6.962 | E3 1.85 |
| 10) 3,4-Dinitrot | 4.667 | 4.752 | 4.687 | 4.537 | 4.621 | 4.631 | 4.731 |     | 4.661 | E3 1.56 |
| 11) 2,4,6-Trinit | 7.275 | 7.409 | 7.373 | 7.143 | 7.282 | 7.301 | 7.456 |     | 7.320 | E3 1.42 |
| 12) 4-Amino-2,6- | 5.266 | 5.304 | 5.264 | 5.117 | 5.194 | 5.220 | 5.330 |     | 5.242 | E3 1.37 |
| 13) 2-Amino-4,6- | 7.249 | 7.203 | 7.187 | 7.006 | 7.130 | 7.155 | 7.311 |     | 7.177 | E3 1.35 |
| 14) 2,6-Dinitrot | 5.524 | 5.133 | 5.010 | 4.844 | 4.942 | 4.954 | 5.071 |     | 5.068 | E3 4.37 |
| 15) 2,4-Dinitrot | 1.149 | 1.009 | 0.992 | 0.958 | 0.976 | 0.978 | 0.999 |     | 1.009 | E4 6.36 |
| 16) o-Nitrotolue | 5.044 | 4.558 | 4.542 | 4.244 | 4.403 | 4.414 | 4.516 |     | 4.532 | E3 5.53 |
| 17) p-Nitrotolue | 4.102 | 3.815 | 3.790 | 3.596 | 3.734 | 3.734 | 3.831 |     | 3.800 | E3 4.06 |
| 18) m-Nitrotolue | 4.959 | 4.808 | 4.856 | 4.629 | 4.803 | 4.812 | 4.942 |     | 4.830 | E3 2.26 |

**Signal #2**

|                  |       |       |       |       |       |       |       |  |       |         |
|------------------|-------|-------|-------|-------|-------|-------|-------|--|-------|---------|
| 1) HMX           | 8.151 | 8.148 | 8.190 | 8.012 | 8.090 | 8.092 | 8.238 |  | 8.132 | E3 0.91 |
| 2) TNX           | 0.956 | 0.980 | 0.995 | 0.969 | 0.984 | 0.985 | 1.001 |  | 0.981 | E4 1.55 |
| 3) DNX           | 7.525 | 8.044 | 8.332 | 7.974 | 7.996 | 7.991 | 8.136 |  | 8.000 | E3 3.05 |
| 4) MNX           | 7.756 | 7.781 | 7.940 | 7.696 | 7.742 | 7.746 | 7.895 |  | 7.794 | E3 1.14 |
| 5) RDX           | 4.720 | 5.727 | 5.947 | 5.855 | 5.997 | 5.944 | 6.042 |  | 5.748 | E3 8.08 |
| 6) 1,3,5-Trinit  | 1.479 | 1.619 | 1.553 | 1.513 | 1.538 | 1.540 | 1.572 |  | 1.545 | E4 2.85 |
| 7) 1,3-Dinitrob  | 1.225 | 1.286 | 1.279 | 1.246 | 1.265 | 1.272 | 1.295 |  | 1.267 | E4 1.91 |
| 8) Tetryl        | 1.037 | 1.106 | 1.123 | 1.092 | 1.106 | 1.105 | 1.129 |  | 1.100 | E4 2.76 |
| 9) Nitrobenzene  | 3.263 | 3.394 | 3.343 | 3.176 | 3.205 | 3.190 | 3.274 |  | 3.264 | E3 2.50 |
| 10) 3,4-Dinitrot | 6.324 | 6.522 | 6.468 | 6.218 | 6.242 | 6.243 | 6.394 |  | 6.344 | E3 1.89 |
| 11) 2,4,6-Trinit | 1.070 | 1.106 | 1.085 | 1.048 | 1.060 | 1.064 | 1.089 |  | 1.075 | E4 1.85 |
| 12) 4-Amino-2,6- | 1.430 | 1.457 | 1.434 | 1.391 | 1.407 | 1.413 | 1.444 |  | 1.425 | E4 1.62 |
| 13) 2-Amino-4,6- | 1.240 | 1.240 | 1.201 | 1.171 | 1.189 | 1.194 | 1.223 |  | 1.208 | E4 2.20 |
| 14) 2,6-Dinitrot | 8.005 | 7.244 | 6.878 | 6.645 | 6.758 | 6.778 | 6.958 |  | 7.038 | E3 6.64 |
| 15) 2,4-Dinitrot | 1.102 | 0.930 | 0.906 | 0.880 | 0.888 | 0.892 | 0.911 |  | 0.930 | E4 8.36 |
| 16) o-Nitrotolue | 5.194 | 4.804 | 4.848 | 4.493 | 4.691 | 4.697 | 4.799 |  | 4.789 | E3 4.46 |
| 17) p-Nitrotolue | 7.934 | 7.544 | 7.631 | 7.143 | 7.472 | 7.477 | 7.640 |  | 7.549 | E3 3.15 |
| 18) m-Nitrotolue | 6.835 | 7.097 | 7.192 | 6.782 | 7.103 | 7.117 | 7.290 |  | 7.060 | E3 2.62 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

8330\_EX.M

Fri Oct 20 16:25:52 2006

## Initial Calibration Verification

Page 1 of 2

Job Number: T16432  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG825-ICV825  
 Lab FileID: GG018286.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\10180DS\GG018286.D\dad1B.ch Vial: 10  
 Signal #2 : G:\HPCHEM\1\DATA\10180DS\GG018286.D\dad1A.ch  
 Acq On : 18-Oct-2006, 17:39:03 Operator: MIKEE  
 Sample : ICV825-500 Inst : G1315B  
 Misc : OP18202,ggg825,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Oct 19 11:32:41 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | HMX                    | 500.000 | 531.119 | -6.2         | 0     | 0.00     | 3.83-  | 4.83   |
| 2    | TNX                    |         |         | -----NA----- |       |          |        |        |
| 3    | DNX                    |         |         | -----NA----- |       |          |        |        |
| 4    | MXN                    |         |         | -----NA----- |       |          |        |        |
| 5    | RDX                    | 500.000 | 507.091 | -1.4         | 0     | 0.00     | 6.10-  | 7.10   |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 533.853 | -6.8         | 0     | 0.00     | 8.41-  | 9.41   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 523.924 | -4.8         | 0     | 0.00     | 10.38- | 11.38  |
| 8    | Tetryl                 | 500.000 | 484.365 | 3.1          | 0     | 0.00     | 11.18- | 12.18  |
| 9    | Nitrobenzene           | 500.000 | 531.046 | -6.2         | 0     | 0.00     | 11.86- | 12.86  |
| 10 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 507.486 | -1.5         | 0     | 0.00     | 13.56- | 14.56  |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 515.885 | -3.2         | 0     | 0.00     | 14.25- | 15.25  |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 480.846 | 3.8          | 0     | 0.00     | 15.03- | 16.03  |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 496.634 | 0.7          | 0     | 0.00     | 16.01- | 17.01  |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 502.401 | -0.5         | 0     | 0.00     | 16.52- | 17.52  |
| 16   | o-Nitrotoluene         | 500.000 | 501.204 | -0.2         | 0     | 0.00     | 19.59- | 20.59  |
| 17   | p-Nitrotoluene         | 500.000 | 520.375 | -4.1         | 0     | 0.00     | 20.92- | 21.92  |
| 18   | m-Nitrotoluene         | 500.000 | 509.118 | -1.8         | 0     | 0.00     | 22.61- | 23.61  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |   |      |        |       |
|------|------------------------|---------|---------|--------------|---|------|--------|-------|
| 1    | HMX                    | 500.000 | 537.899 | -7.6         | 0 | 0.00 | 3.83-  | 4.83  |
| 2    | TNX                    |         |         | -----NA----- |   |      |        |       |
| 3    | DNX                    |         |         | -----NA----- |   |      |        |       |
| 4    | MXN                    |         |         | -----NA----- |   |      |        |       |
| 5    | RDX                    | 500.000 | 525.299 | -5.1         | 0 | 0.00 | 6.10-  | 7.10  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 533.889 | -6.8         | 0 | 0.00 | 8.41-  | 9.41  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 529.524 | -5.9         | 0 | 0.00 | 10.38- | 11.38 |
| 8    | Tetryl                 | 500.000 | 489.295 | 2.1          | 0 | 0.00 | 11.18- | 12.18 |
| 9    | Nitrobenzene           | 500.000 | 531.782 | -6.4         | 0 | 0.00 | 11.86- | 12.86 |
| 10 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |   |      |        |       |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 505.844 | -1.2         | 0 | 0.00 | 13.56- | 14.56 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 516.203 | -3.2         | 0 | 0.00 | 14.25- | 15.25 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 480.458 | 3.9          | 0 | 0.00 | 15.03- | 16.03 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 493.423 | 1.3          | 0 | 0.00 | 16.01- | 17.01 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 499.987 | 0.0          | 0 | 0.00 | 16.52- | 17.52 |
| 16   | o-Nitrotoluene         | 500.000 | 503.639 | -0.7         | 0 | 0.00 | 19.59- | 20.59 |
| 17   | p-Nitrotoluene         | 500.000 | 523.730 | -4.7         | 0 | 0.00 | 20.92- | 21.92 |
| 18   | m-Nitrotoluene         | 500.000 | 512.492 | -2.5         | 0 | 0.00 | 22.61- | 23.61 |

9.62  
9

Initial Calibration Verification

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG825-ICV825  
Lab FileID: GG018286.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018286.D 8330\_EX.M                  Fri Oct 20 16:26:22 2006

9.6.2  
9

**Initial Calibration Verification**

Page 1 of 2

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG826-ICV825  
**Lab FileID:** GG018300.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\HPCHEM\1\DATA\10190DS\GG018300.D\dad1B.ch Vial: 4  
 Signal #2 : G:\HPCHEM\1\DATA\10190DS\GG018300.D\dad1A.ch  
 Acq On : 19-Oct-2006, 13:44:13 Operator: MIKEE  
 Sample : ICV825-500 Inst : G1315B  
 Misc : OP18222,ggg826,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Oct 19 11:32:41 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound                  | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT   | Window |
|------|---------------------------|---------|---------|--------|-------|----------|------|--------|
| 1    | HMX                       |         |         |        | NA    |          |      |        |
| 2    | TNX                       | 500.000 | 514.364 | -2.9   | 0     | 0.00     | 4.15 | 5.15   |
| 3    | DNX                       | 500.000 | 511.166 | -2.2   | 0     | 0.00     | 4.58 | 5.58   |
| 4    | MXN                       | 500.000 | 518.059 | -3.6   | 0     | -0.01    | 5.34 | 6.34   |
| 5    | RDX                       |         |         |        | NA    |          |      |        |
| 6    | 1,3,5-Trinitrobenzene     |         |         |        | NA    |          |      |        |
| 7    | 1,3-Dinitrobenzene        |         |         |        | NA    |          |      |        |
| 8    | Tetryl                    |         |         |        | NA    |          |      |        |
| 9    | Nitrobenzene              |         |         |        | NA    |          |      |        |
| 10 S | 3,4-Dinitrotoluene        |         |         |        | NA    |          |      |        |
| 11   | 2,4,6-Trinitrotoluene     |         |         |        | NA    |          |      |        |
| 12   | 4-Amino-2,6-Dinitrotoluen |         |         |        | NA    |          |      |        |
| 13   | 2-Amino-4,6-Dinitrotoluen |         |         |        | NA    |          |      |        |
| 14   | 2,6-Dinitrotoluene        |         |         |        | NA    |          |      |        |
| 15   | 2,4-Dinitrotoluene        |         |         |        | NA    |          |      |        |
| 16   | o-Nitrotoluene            |         |         |        | NA    |          |      |        |
| 17   | p-Nitrotoluene            |         |         |        | NA    |          |      |        |
| 18   | m-Nitrotoluene            |         |         |        | NA    |          |      |        |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                           |         |         |      |    |       |      |      |
|------|---------------------------|---------|---------|------|----|-------|------|------|
| 1    | HMX                       |         |         |      | NA |       |      |      |
| 2    | TNX                       | 500.000 | 509.991 | -2.0 | 0  | 0.00  | 4.15 | 5.15 |
| 3    | DNX                       | 500.000 | 523.209 | -4.6 | 0  | 0.00  | 4.58 | 5.58 |
| 4    | MXN                       | 500.000 | 527.451 | -5.5 | 0  | -0.01 | 5.34 | 6.34 |
| 5    | RDX                       |         |         |      | NA |       |      |      |
| 6    | 1,3,5-Trinitrobenzene     |         |         |      | NA |       |      |      |
| 7    | 1,3-Dinitrobenzene        |         |         |      | NA |       |      |      |
| 8    | Tetryl                    |         |         |      | NA |       |      |      |
| 9    | Nitrobenzene              |         |         |      | NA |       |      |      |
| 10 S | 3,4-Dinitrotoluene        |         |         |      | NA |       |      |      |
| 11   | 2,4,6-Trinitrotoluene     |         |         |      | NA |       |      |      |
| 12   | 4-Amino-2,6-Dinitrotoluen |         |         |      | NA |       |      |      |
| 13   | 2-Amino-4,6-Dinitrotoluen |         |         |      | NA |       |      |      |
| 14   | 2,6-Dinitrotoluene        |         |         |      | NA |       |      |      |
| 15   | 2,4-Dinitrotoluene        |         |         |      | NA |       |      |      |
| 16   | o-Nitrotoluene            |         |         |      | NA |       |      |      |
| 17   | p-Nitrotoluene            |         |         |      | NA |       |      |      |
| 18   | m-Nitrotoluene            |         |         |      | NA |       |      |      |



Initial Calibration Verification

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG826-ICV825  
Lab FileID: GG018300.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018286.D 8330\_EX.M                  Fri Oct 20 16:54:56 2006

9.6.3  
6

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG827-ICC827  
**Lab FileID:** GG018316.D

**Response Factor Report G1315B**

**Method** : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
**Title** : Explosives by 8330  
**Last Update** : Fri Oct 20 14:03:32 2006  
**Response via** : Initial Calibration

**Calibration Files**

20 =GG018313.D 100 =GG018314.D 250 =GG018315.D 500 =GG018316.D  
 750 =GG018317.D 1000=GG018318.D 2000=GG018319.D

|     | Compound            | 20    | 100   | 250   | 500   | 750   | 1000  | 2000  | Avg   | %RSD    |
|-----|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1)  | TNX                 | 6.022 | 6.861 | 7.022 | 6.686 | 6.915 | 6.925 | 7.121 | 6.793 | E3 5.38 |
| 2)  | HMX                 | 2.976 | 2.856 | 2.642 | 2.478 | 2.489 | 2.481 | 2.586 | 2.644 | E3 7.51 |
| 3)  | DNX                 | 5.820 | 5.904 | 5.816 | 5.437 | 5.628 | 5.545 | 5.823 | 5.710 | E3 3.05 |
| 4)  | MXN                 | 4.717 | 4.981 | 5.224 | 5.007 | 5.063 | 4.976 | 5.294 | 5.037 | E3 3.73 |
| 5)  | 1,3,5-Trinitroben   | 7.302 | 7.899 | 8.123 | 7.797 | 7.946 | 7.847 | 8.236 | 7.879 | E3 3.78 |
| 6)  | RDX                 | 3.327 | 3.935 | 3.881 | 3.729 | 3.710 | 3.686 | 3.841 | 3.730 | E3 5.39 |
| 7)  | 1,3-Dinitrobenzen   | 1.122 | 1.117 | 1.144 | 1.096 | 1.117 | 1.113 | 1.146 | 1.122 | E4 1.56 |
| 8)  | Nitrobenzene        | 6.720 | 7.206 | 7.440 | 7.104 | 7.286 | 7.290 | 7.513 | 7.223 | E3 3.61 |
| 9)  | 2,4,6-Trinitrotol   | 7.126 | 7.674 | 7.812 | 7.517 | 7.651 | 7.587 | 7.941 | 7.615 | E3 3.39 |
| 10) | Tetryl              | 5.119 | 5.755 | 6.124 | 6.105 | 6.006 | 5.862 | 6.470 | 5.920 | E3 7.10 |
| 11) | S 3,4-Dinitrotoluen | 4.973 | 4.941 | 4.969 | 4.829 | 4.912 | 4.883 | 5.055 | 4.938 | E3 1.46 |
| 12) | 2,6-Dinitrotoluen   | 6.023 | 5.649 | 5.657 | 5.415 | 5.544 | 5.538 | 5.672 | 5.643 | E3 3.38 |
| 13) | 2,4-Dinitrotoluen   | 1.200 | 1.036 | 1.034 | 0.995 | 1.012 | 1.007 | 1.038 | 1.046 | E4 6.68 |
| 14) | o-Nitrotoluene      | 5.021 | 4.648 | 4.729 | 4.526 | 4.679 | 4.666 | 4.837 | 4.729 | E3 3.36 |
| 15) | p-Nitrotoluene      | 4.036 | 3.890 | 3.967 | 3.762 | 3.919 | 3.914 | 4.051 | 3.934 | E3 2.49 |
| 16) | 4-Amino-2,6-Dinit   | 5.109 | 5.368 | 5.518 | 5.300 | 5.406 | 5.380 | 5.621 | 5.386 | E3 3.01 |
| 17) | m-Nitrotoluene      | 4.743 | 4.946 | 5.173 | 4.937 | 5.131 | 5.119 | 5.324 | 5.053 | E3 3.79 |
| 18) | 2-Amino-4,6-Dinit   | 7.249 | 7.503 | 7.692 | 7.547 | 7.548 | 7.525 | 7.845 | 7.558 | E3 2.42 |

**Signal #2**

|     |                     |       |       |       |       |       |       |       |       |          |
|-----|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)  | TNX                 | 0.828 | 1.032 | 1.066 | 1.024 | 1.037 | 1.032 | 1.073 | 1.013 | E4 8.25  |
| 2)  | HMX                 | 8.967 | 9.716 | 9.270 | 8.345 | 8.192 | 8.095 | 8.326 | 8.702 | E3 7.15  |
| 3)  | DNX                 | 0.786 | 1.108 | 1.019 | 0.937 | 0.919 | 0.897 | 0.935 | 0.943 | E4 10.65 |
| 4)  | MXN                 | 7.457 | 8.346 | 8.580 | 8.147 | 8.087 | 7.895 | 8.399 | 8.130 | E3 4.58  |
| 5)  | 1,3,5-Trinitroben   | 1.449 | 1.617 | 1.667 | 1.594 | 1.616 | 1.593 | 1.673 | 1.601 | E4 4.64  |
| 6)  | RDX                 | 6.077 | 6.386 | 6.563 | 6.283 | 6.229 | 6.181 | 6.460 | 6.311 | E3 2.67  |
| 7)  | 1,3-Dinitrobenzen   | 1.294 | 1.326 | 1.427 | 1.333 | 1.365 | 1.364 | 1.397 | 1.358 | E4 3.31  |
| 8)  | Nitrobenzene        | 3.190 | 3.096 | 3.823 | 3.281 | 3.391 | 3.385 | 3.476 | 3.378 | E3 6.96  |
| 9)  | 2,4,6-Trinitrotol   | 1.098 | 1.109 | 1.152 | 1.104 | 1.122 | 1.113 | 1.169 | 1.124 | E4 2.37  |
| 10) | Tetryl              | 0.953 | 1.028 | 1.114 | 1.113 | 1.085 | 1.059 | 1.177 | 1.075 | E4 6.67  |
| 11) | S 3,4-Dinitrotoluen | 6.832 | 6.775 | 6.813 | 6.648 | 6.692 | 6.629 | 6.906 | 6.756 | E3 1.53  |
| 12) | 2,6-Dinitrotoluen   | 8.344 | 7.760 | 7.758 | 7.423 | 7.578 | 7.556 | 7.765 | 7.740 | E3 3.83  |
| 13) | 2,4-Dinitrotoluen   | 1.104 | 0.941 | 0.942 | 0.911 | 0.927 | 0.919 | 0.952 | 0.957 | E4 6.94  |
| 14) | o-Nitrotoluene      | 3.189 | 2.755 | 2.867 | 2.791 | 2.895 | 2.880 | 3.025 | 2.915 | E3 5.09  |
| 15) | p-Nitrotoluene      | 2.114 | 1.879 | 1.907 | 1.825 | 1.916 | 1.926 | 1.998 | 1.938 | E3 4.82  |
| 16) | 4-Amino-2,6-Dinit   | 1.431 | 1.486 | 1.522 | 1.459 | 1.490 | 1.484 | 1.552 | 1.489 | E4 2.66  |
| 17) | m-Nitrotoluene      | 2.353 | 2.391 | 2.516 | 2.444 | 2.546 | 2.567 | 2.681 | 2.500 | E3 4.52  |
| 18) | 2-Amino-4,6-Dinit   | 1.233 | 1.258 | 1.276 | 1.258 | 1.253 | 1.255 | 1.311 | 1.263 | E4 1.92  |

(#) = Out of Range

8330\_RP.M

Mon Oct 23 13:34:29 2006

**Initial Calibration Verification**

Page 1 of 2

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG827-ICV827  
**Lab FileID:** GG018320.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\HPCHEM\1\DATA\1020RP\GG018320.D\dad1B.ch Vial: 10  
 Signal #2 : G:\HPCHEM\1\DATA\1020RP\GG018320.D\dad1A.ch  
 Acq On : 20-Oct-2006, 14:03:23 Operator: MIKEE  
 Sample : ICV827-250 Inst : G1315B  
 Misc : OP18202,ggg827,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Oct 20 14:03:32 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | TNX                    | 250.000 | 258.384 | -3.4         | 100   | 0.00     | 4.21-  | 5.21   |
| 2    | HMX                    | 250.000 | 260.989 | -4.4         | 104   | 0.00     | 4.69-  | 5.69   |
| 3    | DNX                    | 250.000 | 254.013 | -1.6         | 100   | 0.00     | 4.83-  | 5.83   |
| 4    | MXN                    | 250.000 | 255.142 | -2.1         | 98    | 0.00     | 5.66-  | 6.66   |
| 5    | 1,3,5-Trinitrobenzene  | 250.000 | 264.789 | -5.9         | 103   | 0.00     | 6.12-  | 7.12   |
| 6    | RDX                    | 250.000 | 252.023 | -0.8         | 97    | 0.00     | 6.51-  | 7.51   |
| 7    | 1,3-Dinitrobenzene     | 250.000 | 257.308 | -2.9         | 101   | 0.00     | 7.70-  | 8.70   |
| 8    | Nitrobenzene           | 250.000 | 266.121 | -6.4         | 103   | 0.00     | 8.24-  | 9.24   |
| 9    | 2,4,6-Trinitrotoluene  | 250.000 | 268.228 | -7.3         | 105   | 0.00     | 8.71-  | 9.71   |
| 10   | Tetryl                 | 250.000 | 205.504 | 17.8#        | 79    | 0.00     | 9.41-  | 10.41  |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 12   | 2,6-Dinitrotoluene     | 250.000 | 254.196 | -1.7         | 101   | 0.00     | 10.49- | 11.49  |
| 13   | 2,4-Dinitrotoluene     | 250.000 | 244.946 | 2.0          | 99    | 0.00     | 10.95- | 11.95  |
| 14   | o-Nitrotoluene         | 250.000 | 248.278 | 0.7          | 99    | 0.00     | 11.79- | 12.79  |
| 15   | p-Nitrotoluene         | 250.000 | 258.872 | -3.5         | 103   | 0.00     | 12.45- | 13.45  |
| 16   | 4-Amino-2,6-Dinitrotol | 250.000 | 255.921 | -2.4         | 100   | 0.00     | 12.83- | 13.83  |
| 17   | m-Nitrotoluene         | 250.000 | 252.478 | -1.0         | 99    | 0.00     | 13.29- | 14.29  |
| 18   | 2-Amino-4,6-Dinitrotol | 250.000 | 236.039 | 5.6          | 93    | 0.00     | 14.31- | 15.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |     |      |        |       |
|------|------------------------|---------|---------|--------------|-----|------|--------|-------|
| 1    | TNX                    | 250.000 | 262.147 | -4.9         | 100 | 0.00 | 4.22-  | 5.22  |
| 2    | HMX                    | 250.000 | 276.033 | -10.4        | 104 | 0.00 | 4.69-  | 5.69  |
| 3    | DNX                    | 250.000 | 263.149 | -5.3         | 97  | 0.00 | 4.83-  | 5.83  |
| 4    | MXN                    | 250.000 | 255.967 | -2.4         | 97  | 0.00 | 5.66-  | 6.66  |
| 5    | 1,3,5-Trinitrobenzene  | 250.000 | 265.613 | -6.2         | 102 | 0.00 | 6.12-  | 7.12  |
| 6    | RDX                    | 250.000 | 248.723 | 0.5          | 96  | 0.00 | 6.51-  | 7.51  |
| 7    | 1,3-Dinitrobenzene     | 250.000 | 276.649 | -10.7        | 105 | 0.00 | 7.70-  | 8.70  |
| 8    | Nitrobenzene           | 250.000 | 301.148 | -20.5#       | 106 | 0.00 | 8.24-  | 9.24  |
| 9    | 2,4,6-Trinitrotoluene  | 250.000 | 269.121 | -7.6         | 105 | 0.00 | 8.71-  | 9.71  |
| 10   | Tetryl                 | 250.000 | 203.173 | 18.7#        | 78  | 0.00 | 9.41-  | 10.41 |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |     |      |        |       |
| 12   | 2,6-Dinitrotoluene     | 250.000 | 252.008 | -0.8         | 101 | 0.00 | 10.49- | 11.49 |
| 13   | 2,4-Dinitrotoluene     | 250.000 | 241.694 | 3.3          | 98  | 0.00 | 10.95- | 11.95 |
| 14   | o-Nitrotoluene         | 250.000 | 241.466 | 3.4          | 98  | 0.00 | 11.79- | 12.79 |
| 15   | p-Nitrotoluene         | 250.000 | 250.555 | -0.2         | 102 | 0.00 | 12.46- | 13.46 |
| 16   | 4-Amino-2,6-Dinitrotol | 250.000 | 255.253 | -2.1         | 100 | 0.00 | 12.83- | 13.83 |
| 17   | m-Nitrotoluene         | 250.000 | 250.572 | -0.2         | 100 | 0.00 | 13.28- | 14.28 |
| 18   | 2-Amino-4,6-Dinitrotol | 250.000 | 234.881 | 6.0          | 93  | 0.00 | 14.31- | 15.31 |

9.6.5

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Initial Calibration Verification

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
Lab FileID: GG018320.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018315.D 8330\_RP.M              Mon Oct 23 13:35:35 2006

9.6.5  
9

## Initial Calibration Verification

Page 1 of 2

Job Number: T16432  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
 Lab FileID: GG018321.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\1020RP\GG018321.D\dad1B.ch Vial: 100  
 Signal #2 : G:\HPCHEM\1\DATA\1020RP\GG018321.D\dad1A.ch  
 Acq On : 20-Oct-2006, 15:10:45 Operator: MIKEE  
 Sample : ICV827-500 Inst : G1315B  
 Misc : OP18202,ggg827,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Oct 20 14:03:32 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | TNX                    | 500.000 | 565.302 | -13.1        | 115   | 0.00     | 4.21-  | 5.21   |
| 2    | HMX                    | 500.000 | 543.872 | -8.8         | 116   | 0.00     | 4.69-  | 5.69   |
| 3    | DNX                    | 500.000 | 551.643 | -10.3        | 116   | -0.01    | 4.83-  | 5.83   |
| 4    | MXN                    | 500.000 | 572.618 | -14.5        | 115   | 0.00     | 5.66-  | 6.66   |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 538.163 | -7.6         | 109   | 0.00     | 6.12-  | 7.12   |
| 6    | RDX                    | 500.000 | 498.936 | 0.2          | 100   | 0.00     | 6.51-  | 7.51   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 510.060 | -2.0         | 104   | 0.00     | 7.70-  | 8.70   |
| 8    | Nitrobenzene           | 500.000 | 533.993 | -6.8         | 109   | 0.00     | 8.24-  | 9.24   |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 549.178 | -9.8         | 111   | 0.00     | 8.71-  | 9.71   |
| 10   | Tetryl                 | 500.000 | 475.586 | 4.9          | 92    | 0.00     | 9.41-  | 10.41  |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 498.834 | 0.2          | 104   | 0.00     | 10.49- | 11.49  |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 493.011 | 1.4          | 104   | 0.00     | 10.95- | 11.95  |
| 14   | o-Nitrotoluene         | 500.000 | 510.083 | -2.0         | 107   | 0.00     | 11.79- | 12.79  |
| 15   | p-Nitrotoluene         | 500.000 | 530.499 | -6.1         | 111   | 0.00     | 12.45- | 13.45  |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 518.182 | -3.6         | 105   | -0.01    | 12.83- | 13.83  |
| 17   | m-Nitrotoluene         | 500.000 | 521.475 | -4.3         | 107   | 0.00     | 13.29- | 14.29  |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 479.808 | 4.0          | 96    | -0.01    | 14.31- | 15.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |     |       |        |       |
|------|------------------------|---------|---------|--------------|-----|-------|--------|-------|
| 1    | TNX                    | 500.000 | 637.256 | -27.5#       | 126 | -0.01 | 4.22-  | 5.22  |
| 2    | HMX                    | 500.000 | 581.600 | -16.3#       | 121 | 0.00  | 4.69-  | 5.69  |
| 3    | DNX                    | 500.000 | 552.258 | -10.5        | 111 | -0.01 | 4.83-  | 5.83  |
| 4    | MXN                    | 500.000 | 573.858 | -14.8        | 115 | 0.00  | 5.66-  | 6.66  |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 539.558 | -7.9         | 108 | 0.00  | 6.12-  | 7.12  |
| 6    | RDX                    | 500.000 | 495.496 | 0.9          | 100 | 0.00  | 6.51-  | 7.51  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 512.019 | -2.4         | 104 | 0.00  | 7.70-  | 8.70  |
| 8    | Nitrobenzene           | 500.000 | 545.924 | -9.2         | 112 | 0.00  | 8.24-  | 9.24  |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 549.800 | -10.0        | 112 | 0.00  | 8.71-  | 9.71  |
| 10   | Tetryl                 | 500.000 | 472.605 | 5.5          | 91  | 0.00  | 9.41-  | 10.41 |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |     |       |        |       |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 496.402 | 0.7          | 104 | 0.00  | 10.49- | 11.49 |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 494.458 | 1.1          | 104 | 0.00  | 10.95- | 11.95 |
| 14   | o-Nitrotoluene         | 500.000 | 518.803 | -3.8         | 108 | 0.00  | 11.79- | 12.79 |
| 15   | p-Nitrotoluene         | 500.000 | 534.408 | -6.9         | 114 | 0.00  | 12.46- | 13.46 |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 519.292 | -3.9         | 106 | -0.01 | 12.83- | 13.83 |
| 17   | m-Nitrotoluene         | 500.000 | 532.272 | -6.5         | 109 | 0.00  | 13.28- | 14.28 |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 479.037 | 4.2          | 96  | -0.01 | 14.31- | 15.31 |

Initial Calibration Verification

Job Number: T16432  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
Lab FileID: GG018321.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018316.D 8330\_RP.M                  Mon Oct 23 13:35:18 2006

## Continuing Calibration Summary

Page 1 of 2

Job Number: T16432  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG906-CC825  
 Lab FileID: GG020201.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\03020DS\GG020201.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\03020DS\GG020201.D\dad1A.ch  
 Acq On : 02-Mar-2007, 16:17:48 Operator: MIKEE  
 Sample : CC825-500 Inst : G1315B  
 Misc : OP19677,ggg906,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | HMX                    | 500.000 | 490.559 | 1.9    | 101   | 0.00     | 3.86-  | 4.86   |
| 2    | TNX                    | 500.000 | 512.293 | -2.5   | 103   | -0.01    | 4.20-  | 5.20   |
| 3    | DNX                    | 500.000 | 511.151 | -2.2   | 104   | 0.00     | 4.60-  | 5.60   |
| 4    | MXN                    | 500.000 | 508.598 | -1.7   | 104   | 0.01     | 5.37-  | 6.37   |
| 5    | RDX                    | 500.000 | 518.998 | -3.8   | 104   | 0.00     | 6.15-  | 7.15   |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 498.455 | 0.3    | 103   | 0.02     | 8.43-  | 9.43   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 498.190 | 0.4    | 102   | 0.02     | 10.43- | 11.43  |
| 8    | Tetryl                 | 500.000 | 498.475 | 0.3    | 102   | 0.03     | 11.21- | 12.21  |
| 9    | Nitrobenzene           | 500.000 | 503.313 | -0.7   | 104   | 0.03     | 11.93- | 12.93  |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 496.619 | 0.7    | 102   | 0.04     | 12.95- | 13.95  |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 503.597 | -0.7   | 103   | 0.04     | 13.60- | 14.60  |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 496.441 | 0.7    | 102   | 0.05     | 14.37- | 15.37  |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 500.727 | -0.1   | 103   | 0.05     | 15.14- | 16.14  |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 510.258 | -2.1   | 107   | 0.05     | 16.10- | 17.10  |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 480.817 | 3.8    | 101   | 0.05     | 16.60- | 17.60  |
| 16   | o-Nitrotoluene         | 500.000 | 497.302 | 0.5    | 106   | 0.06     | 19.73- | 20.73  |
| 17   | p-Nitrotoluene         | 500.000 | 500.449 | -0.1   | 106   | 0.06     | 21.06- | 22.06  |
| 18   | m-Nitrotoluene         | 500.000 | 506.087 | -1.2   | 106   | 0.07     | 22.76- | 23.76  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |       |     |      |        |       |
|------|------------------------|---------|---------|-------|-----|------|--------|-------|
| 1    | HMX                    | 500.000 | 500.092 | -0.0  | 102 | 0.00 | 3.86-  | 4.86  |
| 2    | TNX                    | 500.000 | 509.529 | -1.9  | 103 | 0.00 | 4.18-  | 5.18  |
| 3    | DNX                    | 500.000 | 520.538 | -4.1  | 104 | 0.00 | 4.60-  | 5.60  |
| 4    | MXN                    | 500.000 | 521.239 | -4.2  | 106 | 0.01 | 5.37-  | 6.37  |
| 5    | RDX                    | 500.000 | 566.452 | -13.3 | 111 | 0.00 | 6.15-  | 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 505.722 | -1.1  | 103 | 0.02 | 8.43-  | 9.43  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 502.475 | -0.5  | 102 | 0.02 | 10.43- | 11.43 |
| 8    | Tetryl                 | 500.000 | 507.037 | -1.4  | 102 | 0.03 | 11.21- | 12.21 |
| 9    | Nitrobenzene           | 500.000 | 499.803 | 0.0   | 103 | 0.03 | 11.93- | 12.93 |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 495.718 | 0.9   | 101 | 0.04 | 12.95- | 13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 500.992 | -0.2  | 103 | 0.04 | 13.60- | 14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 497.188 | 0.6   | 102 | 0.05 | 14.37- | 15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 499.032 | 0.2   | 103 | 0.05 | 15.14- | 16.14 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 496.978 | 0.6   | 105 | 0.05 | 16.10- | 17.10 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 472.110 | 5.6   | 100 | 0.05 | 16.60- | 17.60 |
| 16   | o-Nitrotoluene         | 500.000 | 489.795 | 2.0   | 104 | 0.05 | 19.73- | 20.73 |
| 17   | p-Nitrotoluene         | 500.000 | 496.698 | 0.7   | 105 | 0.06 | 21.06- | 22.06 |
| 18   | m-Nitrotoluene         | 500.000 | 503.963 | -0.8  | 105 | 0.07 | 22.77- | 23.77 |

Continuing Calibration Summary

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG906-CC825  
**Lab FileID:** GG020201.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018282.D 8330\_EX.M                  Mon Mar 05 11:42:29 2007



## Continuing Calibration Summary

Page 1 of 2

Job Number: T16432  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG906-CC825  
 Lab FileID: GG020212.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\03020DS\GG020212.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\03020DS\GG020212.D\dad1A.ch  
 Acq On : 02-Mar-2007, 21:07:57 Operator: MIKEE  
 Sample : CC825-1000 Inst : G1315B  
 Misc : OP19677,ggg906,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT Window   |
|------|------------------------|----------|----------|--------|-------|----------|-------------|
| 1    | HMX                    | 1000.000 | 969.184  | 3.1    | 98    | 0.00     | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1012.847 | -1.3   | 100   | -0.02    | 4.20- 5.20  |
| 3    | DNX                    | 1000.000 | 1011.041 | -1.1   | 101   | 0.00     | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1001.768 | -0.2   | 101   | 0.00     | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1012.522 | -1.3   | 100   | -0.01    | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 982.133  | 1.8    | 99    | 0.00     | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 981.873  | 1.8    | 99    | 0.00     | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 979.286  | 2.1    | 98    | 0.00     | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 995.199  | 0.5    | 100   | 0.00     | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 971.158  | 2.9    | 98    | 0.00     | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 991.752  | 0.8    | 99    | 0.00     | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 975.490  | 2.5    | 98    | 0.00     | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 987.191  | 1.3    | 99    | 0.00     | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 995.657  | 0.4    | 102   | 0.00     | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 946.550  | 5.3    | 98    | 0.00     | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 961.637  | 3.8    | 99    | -0.01    | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 975.200  | 2.5    | 99    | -0.01    | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 997.451  | 0.3    | 100   | 0.00     | 22.76-23.76 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |             |
|------|------------------------|----------|----------|------|-----|-------|-------------|
| 1    | HMX                    | 1000.000 | 984.283  | 1.6  | 99  | 0.00  | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1002.891 | -0.3 | 100 | 0.00  | 4.18- 5.18  |
| 3    | DNX                    | 1000.000 | 1012.877 | -1.3 | 101 | 0.00  | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1004.320 | -0.4 | 101 | 0.00  | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1044.793 | -4.5 | 101 | -0.02 | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 984.579  | 1.5  | 99  | 0.00  | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 989.010  | 1.1  | 99  | 0.00  | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 997.573  | 0.2  | 99  | 0.00  | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 992.439  | 0.8  | 102 | 0.00  | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 962.803  | 3.7  | 98  | 0.00  | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 983.229  | 1.7  | 99  | 0.00  | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 974.885  | 2.5  | 98  | 0.00  | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 978.179  | 2.2  | 99  | 0.00  | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 974.861  | 2.5  | 101 | 0.00  | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 935.023  | 6.5  | 97  | 0.00  | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 961.820  | 3.8  | 98  | -0.01 | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 982.213  | 1.8  | 99  | 0.00  | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1002.440 | -0.2 | 99  | -0.01 | 22.77-23.77 |

Continuing Calibration Summary

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG906-CC825  
**Lab FileID:** GG020212.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018284.D 8330\_EX.M                  Mon Mar 05 11:42:13 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-CC827  
**Lab FileID:** GG020231.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\0305RP\GG020231.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\0305RP\GG020231.D\dad1A.ch  
 Acq On : 05-Mar-2007, 13:23:34 Operator: MIKEE  
 Sample : CC827-500 Inst : G1315B  
 Misc : OP19677,ggg907,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Jan 26 08:35:20 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | TNX                    | 500.000 | 551.245 | -10.2  | 112   | 0.02     | 4.24-  | 5.24   |
| 2    | HMX                    | 500.000 | 527.482 | -5.5   | 113   | 0.00     | 4.75-  | 5.75   |
| 3    | DNX                    | 500.000 | 526.884 | -5.4   | 111   | 0.01     | 4.87-  | 5.87   |
| 4    | MXN                    | 500.000 | 525.950 | -5.2   | 106   | 0.00     | 5.72-  | 6.72   |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 507.541 | -1.5   | 103   | 0.00     | 6.17-  | 7.17   |
| 6    | RDX                    | 500.000 | 498.345 | 0.3    | 100   | 0.02     | 6.56-  | 7.56   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 495.147 | 1.0    | 101   | 0.00     | 7.78-  | 8.78   |
| 8    | Nitrobenzene           | 500.000 | 509.807 | -2.0   | 104   | 0.00     | 8.29-  | 9.29   |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 506.824 | -1.4   | 103   | -0.01    | 8.80-  | 9.80   |
| 10   | Tetryl                 | 500.000 | 535.862 | -7.2   | 104   | 0.00     | 9.52-  | 10.52  |
| 11 S | 3,4-Dinitrotoluene     | 500.000 | 492.695 | 1.5    | 101   | 0.00     | 10.21- | 11.21  |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 489.618 | 2.1    | 102   | -0.02    | 10.59- | 11.59  |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 483.678 | 3.3    | 102   | -0.02    | 11.06- | 12.06  |
| 14   | o-Nitrotoluene         | 500.000 | 502.970 | -0.6   | 105   | -0.01    | 11.86- | 12.86  |
| 15   | p-Nitrotoluene         | 500.000 | 503.359 | -0.7   | 105   | -0.01    | 12.53- | 13.53  |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 502.155 | -0.4   | 102   | -0.03    | 12.95- | 13.95  |
| 17   | m-Nitrotoluene         | 500.000 | 523.547 | -4.7   | 107   | -0.02    | 13.38- | 14.38  |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 503.929 | -0.8   | 101   | -0.03    | 14.45- | 15.45  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |      |     |       |        |       |
|------|------------------------|---------|---------|------|-----|-------|--------|-------|
| 1    | TNX                    | 500.000 | 539.038 | -7.8 | 107 | 0.02  | 4.24-  | 5.24  |
| 2    | HMX                    | 500.000 | 501.388 | -0.3 | 105 | 0.00  | 4.75-  | 5.75  |
| 3    | DNX                    | 500.000 | 520.169 | -4.0 | 105 | 0.01  | 4.87-  | 5.87  |
| 4    | MXN                    | 500.000 | 520.287 | -4.1 | 104 | 0.00  | 5.72-  | 6.72  |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 508.259 | -1.7 | 102 | 0.00  | 6.17-  | 7.17  |
| 6    | RDX                    | 500.000 | 496.557 | 0.7  | 100 | 0.02  | 6.56-  | 7.56  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 499.335 | 0.1  | 102 | 0.00  | 7.78-  | 8.78  |
| 8    | Nitrobenzene           | 500.000 | 521.041 | -4.2 | 107 | 0.00  | 8.29-  | 9.29  |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 510.092 | -2.0 | 104 | -0.01 | 8.80-  | 9.80  |
| 10   | Tetryl                 | 500.000 | 533.664 | -6.7 | 103 | 0.00  | 9.52-  | 10.52 |
| 11 S | 3,4-Dinitrotoluene     | 500.000 | 488.383 | 2.3  | 99  | 0.00  | 10.21- | 11.21 |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 487.517 | 2.5  | 102 | -0.02 | 10.59- | 11.59 |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 483.800 | 3.2  | 102 | -0.02 | 11.06- | 12.06 |
| 14   | o-Nitrotoluene         | 500.000 | 519.246 | -3.8 | 108 | -0.01 | 11.86- | 12.86 |
| 15   | p-Nitrotoluene         | 500.000 | 515.868 | -3.2 | 110 | 0.00  | 12.54- | 13.54 |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 499.988 | 0.0  | 102 | -0.03 | 12.95- | 13.95 |
| 17   | m-Nitrotoluene         | 500.000 | 538.963 | -7.8 | 110 | -0.02 | 13.37- | 14.37 |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 499.905 | 0.0  | 100 | -0.03 | 14.45- | 15.45 |

Continuing Calibration Summary

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-CC827  
**Lab FileID:** GG020231.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018316.D 8330\_RP.M              Tue Mar 06 10:57:51 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-ECC827  
**Lab FileID:** GG020238.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\0305RP\GG020238.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\0305RP\GG020238.D\dad1A.ch  
 Acq On : 05-Mar-2007, 15:40:35 Operator: MIKEE  
 Sample : ECC827-1000 Inst : G1315B  
 Misc : OP19677,ggg907,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Jan 26 08:35:20 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|----------|----------|--------|-------|----------|--------|--------|
| 1    | TNX                    | 1000.000 | 1064.078 | -6.4   | 104   | 0.02     | 4.24-  | 5.24   |
| 2    | HMX                    | 1000.000 | 1064.872 | -6.5   | 113   | 0.00     | 4.75-  | 5.75   |
| 3    | DNX                    | 1000.000 | 1029.858 | -3.0   | 106   | 0.00     | 4.87-  | 5.87   |
| 4    | MXN                    | 1000.000 | 1052.110 | -5.2   | 107   | 0.00     | 5.72-  | 6.72   |
| 5    | 1,3,5-Trinitrobenzene  | 1000.000 | 1020.840 | -2.1   | 102   | 0.00     | 6.17-  | 7.17   |
| 6    | RDX                    | 1000.000 | 1020.894 | -2.1   | 103   | 0.02     | 6.56-  | 7.56   |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 1005.302 | -0.5   | 101   | 0.00     | 7.78-  | 8.78   |
| 8    | Nitrobenzene           | 1000.000 | 1031.078 | -3.1   | 102   | 0.00     | 8.29-  | 9.29   |
| 9    | 2,4,6-Trinitrotoluene  | 1000.000 | 1033.117 | -3.3   | 104   | -0.01    | 8.80-  | 9.80   |
| 10   | Tetryl                 | 1000.000 | 1104.790 | -10.5  | 112   | 0.00     | 9.52-  | 10.52  |
| 11 S | 3,4-Dinitrotoluene     | 1000.000 | 1016.218 | -1.6   | 103   | 0.00     | 10.21- | 11.21  |
| 12   | 2,6-Dinitrotoluene     | 1000.000 | 998.411  | 0.2    | 102   | -0.02    | 10.59- | 11.59  |
| 13   | 2,4-Dinitrotoluene     | 1000.000 | 987.663  | 1.2    | 103   | -0.02    | 11.06- | 12.06  |
| 14   | o-Nitrotoluene         | 1000.000 | 1040.619 | -4.1   | 105   | -0.01    | 11.86- | 12.86  |
| 15   | p-Nitrotoluene         | 1000.000 | 1034.751 | -3.5   | 104   | -0.01    | 12.53- | 13.53  |
| 16   | 4-Amino-2,6-Dinitrotol | 1000.000 | 1018.262 | -1.8   | 102   | -0.02    | 12.95- | 13.95  |
| 17   | m-Nitrotoluene         | 1000.000 | 1063.626 | -6.4   | 105   | -0.02    | 13.38- | 14.38  |
| 18   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1018.025 | -1.8   | 102   | -0.02    | 14.45- | 15.45  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |        |       |
|------|------------------------|----------|----------|------|-----|-------|--------|-------|
| 1    | TNX                    | 1000.000 | 1065.753 | -6.6 | 105 | 0.02  | 4.24-  | 5.24  |
| 2    | HMX                    | 1000.000 | 959.987  | 4.0  | 103 | 0.00  | 4.75-  | 5.75  |
| 3    | DNX                    | 1000.000 | 1023.085 | -2.3 | 108 | 0.01  | 4.87-  | 5.87  |
| 4    | MXN                    | 1000.000 | 1036.881 | -3.7 | 107 | 0.00  | 5.72-  | 6.72  |
| 5    | 1,3,5-Trinitrobenzene  | 1000.000 | 1018.352 | -1.8 | 102 | 0.00  | 6.17-  | 7.17  |
| 6    | RDX                    | 1000.000 | 995.036  | 0.5  | 102 | 0.02  | 6.56-  | 7.56  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 1003.575 | -0.4 | 100 | 0.00  | 7.78-  | 8.78  |
| 8    | Nitrobenzene           | 1000.000 | 1035.575 | -3.6 | 103 | 0.00  | 8.29-  | 9.29  |
| 9    | 2,4,6-Trinitrotoluene  | 1000.000 | 1043.825 | -4.4 | 105 | -0.01 | 8.80-  | 9.80  |
| 10   | Tetryl                 | 1000.000 | 1097.433 | -9.7 | 111 | 0.00  | 9.52-  | 10.52 |
| 11 S | 3,4-Dinitrotoluene     | 1000.000 | 1002.293 | -0.2 | 102 | 0.00  | 10.21- | 11.21 |
| 12   | 2,6-Dinitrotoluene     | 1000.000 | 991.509  | 0.8  | 102 | -0.02 | 10.59- | 11.59 |
| 13   | 2,4-Dinitrotoluene     | 1000.000 | 990.702  | 0.9  | 103 | -0.02 | 11.06- | 12.06 |
| 14   | o-Nitrotoluene         | 1000.000 | 1071.751 | -7.2 | 108 | -0.01 | 11.86- | 12.86 |
| 15   | p-Nitrotoluene         | 1000.000 | 1073.626 | -7.4 | 108 | 0.00  | 12.54- | 13.54 |
| 16   | 4-Amino-2,6-Dinitrotol | 1000.000 | 1006.760 | -0.7 | 101 | -0.02 | 12.95- | 13.95 |
| 17   | m-Nitrotoluene         | 1000.000 | 1093.803 | -9.4 | 107 | -0.02 | 13.37- | 14.37 |
| 18   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1006.963 | -0.7 | 101 | -0.02 | 14.45- | 15.45 |

9.6.10

9

Continuing Calibration Summary

**Job Number:** T16432  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-ECC827  
**Lab FileID:** GG020238.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018318.D 8330\_RP.M              Tue Mar 06 10:58:20 2007



## General Chemistry

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|-------------|----------------|----|-----------|-------|--------------|------------|------------|-----------|
| Perchlorate | GP9043/GN24390 | 10 | <10       | ug/l  | 50           | 48.0       | 96.0       | 85-115%   |

Associated Samples:  
Batch GP9043: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
(\*) Outside of QC limits

10.1  
10



DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|-------------|----------------|-----------|-------|-----------------|------------|-----|-----------|
| Perchlorate | GP9043/GN24390 | T16411-10 | ug/l  | 4.0 U           | <10        | 0.0 | 0-15%     |

Associated Samples:  
Batch GP9043: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
(\*) Outside of QC limits

10.2  
10

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16432  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec | QC Limits |
|-------------|----------------|-----------|-------|-----------------|--------------|-----------|------|-----------|
| Perchlorate | GP9043/GN24390 | T16411-10 | ug/l  | 4.0 U           | 50           | 48.4      | 96.8 | 80-120%   |

Associated Samples:  
Batch GP9043: T16432-1, T16432-2, T16432-3, T16432-4, T16432-5, T16432-6  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits

10.3  
10

Accutest Laboratories Instrument Runlog  
Inorganics Analyses

Login Number: T16432  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030101.TXT  
Analyst: MP  
Parameters: Perchlorate

Date Analyzed: 03/01/07      Methods: EPA 314  
Run ID: GN24390

| Time  | Sample Description | Dilution Factor | PS Recov | Comments                                            |
|-------|--------------------|-----------------|----------|-----------------------------------------------------|
| 13:57 | GN24390-CCV1       | 1               |          |                                                     |
| 14:11 | GN24390-CCB1       | 1               |          |                                                     |
| 14:25 | GP9043-MB1         | 1               |          |                                                     |
| 14:40 | GP9043-B1          | 1               |          |                                                     |
| 14:54 | GN24390-CRI1       | 1               |          |                                                     |
| 15:09 | GN24390-IPC1       | 1               |          |                                                     |
| 15:23 | ZZZZZZ             | 1               |          |                                                     |
| 15:37 | ZZZZZZ             | 1               |          |                                                     |
| 15:52 | ZZZZZZ             | 1               |          |                                                     |
| 16:06 | T16411-1           | 1               |          | (sample used for QC only; not part of login T16432) |
| 16:21 | ZZZZZZ             | 1               |          |                                                     |
| 16:35 | ZZZZZZ             | 1               |          |                                                     |
| 16:50 | GN24390-CCV2       | 1               |          |                                                     |
| 17:04 | GN24390-CCB2       | 1               |          |                                                     |
| 17:18 | ZZZZZZ             | 1               |          |                                                     |
| 17:33 | ZZZZZZ             | 1               |          |                                                     |
| 17:47 | ZZZZZZ             | 1               |          |                                                     |
| 18:02 | ZZZZZZ             | 1               |          |                                                     |
| 18:16 | ZZZZZZ             | 1               |          |                                                     |
| 18:30 | ZZZZZZ             | 1               |          |                                                     |
| 18:45 | T16411-10          | 1               |          | (sample used for QC only; not part of login T16432) |
| 18:59 | T16432-1           | 1               |          |                                                     |
| 19:14 | T16432-2           | 1               |          |                                                     |
| 19:28 | T16432-3           | 1               |          |                                                     |
| 19:42 | GN24390-CCV3       | 1               |          |                                                     |
| 19:57 | GN24390-CCB3       | 1               |          |                                                     |
| 20:11 | T16432-4           | 1               |          |                                                     |
| 20:26 | T16432-5           | 1               |          |                                                     |
| 20:40 | T16432-6           | 1               |          |                                                     |
| 20:54 | GP9043-D1          | 1               |          |                                                     |
| 21:09 | GP9043-S1          | 1               |          |                                                     |
| 21:23 | GP9043-D2          | 1               |          |                                                     |
| 21:38 | GP9043-S2          | 1               |          |                                                     |

Accutest Laboratories Instrument Runlog  
Inorganics Analyses

Login Number: T16432

Account: ALGC - Accutest Laboratories Gulf Coast, Inc.

Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030101.TXT

Date Analyzed: 03/01/07

Methods: EPA 314

Analyst: MP

Run ID: GN24390

Parameters: Perchlorate

| Time | Sample Description | Dilution Factor | PS Recov | Comments |
|------|--------------------|-----------------|----------|----------|
|------|--------------------|-----------------|----------|----------|

21:52 GN24390-CCV4 1

22:06 GN24390-CCB4 1

Refer to raw data for calibration curve and standards.

Instrument QC Summary  
Inorganics Analyses

Login Number: T16432  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030101.TXT

Date Analyzed: 03/01/07  
Run ID: GN24390

Methods: EPA 314  
Units: ug/l

| Sample Number | Parameter   | Result | RL | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-------------|--------|----|---------|------------|----------|-----------|
| GN24390-CCV1  | Perchlorate | 48.0   | 10 | 4.0     | 50         | 96.0     | 85-115    |
| GN24390-CCB1  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24390-CRI1  | Perchlorate | 4.0 U  | 10 | 4.0     | 3          | 100.0    | 75-125    |
| GN24390-IPC1  | Perchlorate | 22.0   | 10 | 4.0     | 25         | 88.0     | 80-120    |
| GN24390-CCV2  | Perchlorate | 51.3   | 10 | 4.0     | 50         | 103.0    | 85-115    |
| GN24390-CCB2  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24390-CCV3  | Perchlorate | 53.1   | 10 | 4.0     | 50         | 106.0    | 85-115    |
| GN24390-CCB3  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24390-CCV4  | Perchlorate | 51.6   | 10 | 4.0     | 50         | 103.0    | 85-115    |
| GN24390-CCB4  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |

(!) Outside of QC limits

10.4  
10



IT'S ALL IN THE CHEMISTRY

04/14/10

## Technical Report for

Shaw E & I, Inc.

Longhorn Army Ammunition Plant

PROJECT #117591

Accutest Job Number: T16445

Sampling Dates: 02/22/07 - 02/23/07

Report to:

Shaw E & I, Inc.

jennifer.hoang@shawgrp.com

ATTN: Jennifer Hoang

Total number of pages in report: 189



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

Paul Canevaro  
Laboratory Director

Client Service contact: Marianne Walker 713-271-4700

Certifications: TX (T104704220-09C-TX) AR (88-0756) FL (E87628) KS (E-10366) LA (85695/04004)  
OK (9103) UT(7132714700)

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Test results relate only to samples analyzed.

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Accutest LabLink@42591 11:57 14-Apr-2010

## Sample Summary

Shaw E &amp; I, Inc.

Job No: T16445

Longhorn Army Ammunition Plant  
Project No: PROJECT #117591

| Sample Number | Collected Date | Time By   | Received | Matrix Code | Type               | Client Sample ID   |
|---------------|----------------|-----------|----------|-------------|--------------------|--------------------|
| T16445-1      | 02/22/07       | 09:30 SMC | 02/24/07 | AQ          | Ground Water       | 29WW38-FEB2007     |
| T16445-2      | 02/22/07       | 09:41 SMC | 02/24/07 | AQ          | Ground Water       | 47WW30-FEB2007     |
| T16445-3      | 02/22/07       | 11:00 SMC | 02/24/07 | AQ          | Ground Water       | LHSMW43-FEB2007    |
| T16445-4      | 02/22/07       | 15:36 SMC | 02/24/07 | AQ          | Ground Water       | 50WW06-FEB2007     |
| T16445-5      | 02/23/07       | 10:46 SMC | 02/24/07 | AQ          | Ground Water       | 50WW05-FEB2007     |
| T16445-5D     | 02/23/07       | 10:46 SMC | 02/24/07 | AQ          | Water Dup/MSD      | 50WW05-FEB2007 MSD |
| T16445-5S     | 02/23/07       | 10:46 SMC | 02/24/07 | AQ          | Water Matrix Spike | 50WW05-FEB2007 MS  |
| T16445-6      | 02/23/07       | 14:53 SMC | 02/24/07 | AQ          | Ground Water       | 50WW02-FEB2007     |
| T16445-7      | 02/22/07       | 10:30 SMC | 02/24/07 | AQ          | Ground Water       | 17WW16-FEB2007     |
| T16445-8      | 02/22/07       | 14:18 SMC | 02/24/07 | AQ          | Ground Water       | 17WW02-FEB2007     |
| T16445-9      | 02/22/07       | 14:18 SMC | 02/24/07 | AQ          | Ground Water       | 17WW02-FEB2007 FD  |
| T16445-10     | 02/22/07       | 12:45 SMC | 02/24/07 | AQ          | Ground Water       | 29WW35-FEB2007     |
| T16445-11     | 02/22/07       | 12:45 SMC | 02/24/07 | AQ          | Ground Water       | 29WW35-FEB2007 FD  |



Accutest LabLink@42591 11:57 14-Apr-2010

Sample Summary  
(continued)

Shaw E & I, Inc.

Job No: T16445

Longhorn Army Ammunition Plant  
Project No: PROJECT #117591

| Sample Number | Collected Date | Time By   | Received | Matrix Code | Type             | Client Sample ID |
|---------------|----------------|-----------|----------|-------------|------------------|------------------|
| T16445-12     | 02/22/07       | 15:00 SMC | 02/24/07 | AQ          | Ground Water     | 29WW06-FEB2007   |
| T16445-13     | 02/23/07       | 15:33 SMC | 02/24/07 | AQ          | Ground Water     | 17WW05-FEB2007   |
| T16445-14     | 02/23/07       | 16:30 SMC | 02/24/07 | AQ          | Ground Water     | 7WW06-FEB2007    |
| T16445-15     | 02/22/07       | 00:00 SMC | 02/24/07 | AQ          | Trip Blank Water | TRIP BLANK       |
| T16445-18     | 02/23/07       | 10:47 SMC | 02/24/07 | AQ          | Ground Water     | 17WW130-FEB2007  |



## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Shaw E & I, Inc.

**Job No** T16445

**Site:** Longhorn Army Ammunition Plant

**Report Date** 3/19/2007 4:57:35 PM

15 Samples and 1 Trip Blank were collected on between 02/22/2007 and 02/23/2007 and were received at Accutest on 02/24/2007 properly preserved, at 11 Deg. C and intact. These Samples received an Accutest job number of T16445. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GCMS By Method SW846 8260B

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2314 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5MS, T16445-5MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Trichloroethylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2315 |
|------------------|-------------------------|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-3MS, T16445-3MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for cis-1,2-Dichloroethylene, Trichloroethylene are outside control limits. Outside control limits due to high level in sample relative to spike amount.
- T16445-3: For QC only.

|                  |                         |
|------------------|-------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> VF2318 |
|------------------|-------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-4MS, T16445-4MSD were used as the QC samples indicated.

### Volatiles by GC By Method RSKSOP-147/175

|                  |                           |
|------------------|---------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> F:GXY992 |
|------------------|---------------------------|

- Analysis performed at Accutest Laboratories, Orlando, FL.

### Extractables by GC By Method SW846 8330A

|                  |                            |
|------------------|----------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> F:OP19677 |
|------------------|----------------------------|

- All hits confirmed by reanalysis on a dissimilar column. Analysis performed at Accutest Laboratories, Orlando, FL.

**Wet Chemistry By Method EPA 120.1**

|                  |                           |
|------------------|---------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> F:R17941 |
|------------------|---------------------------|

- Specific Conductivity: Analysis performed at Accutest Laboratories, Orlando, FL.

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11355 |
|------------------|--------------------------|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP were used as the QC samples for Specific Conductivity.

**Wet Chemistry By Method EPA 150.1/9040**

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11323 |
|------------------|--------------------------|

- Sample(s) T16445-18DUP, T16445-5DUP, T16445-7DUP were used as the QC samples for pH.

**Wet Chemistry By Method EPA 310.1**

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11375 |
|------------------|--------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP, T16445-5MS were used as the QC samples for Alkalinity, Total as CaCO<sub>3</sub>.

**Wet Chemistry By Method EPA 314**

|                  |                           |
|------------------|---------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> F:GP9044 |
|------------------|---------------------------|

- Perchlorate: Analysis performed at Accutest Laboratories, Orlando, FL.
- Estimated value, above calibration range. Analysis performed at Accutest Laboratories, Orlando, FL.

**Wet Chemistry By Method EPA 325.3**

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11343 |
|------------------|--------------------------|

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP, T16445-5MS were used as the QC samples for Chloride.

**Wet Chemistry By Method EPA 353.2**

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11290 |
|------------------|--------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP, T16445-5MS were used as the QC samples for Nitrogen, Nitrite.

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11291 |
|------------------|--------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP, T16445-5MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11300 |
|------------------|--------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-18DUP, T16445-18MS were used as the QC samples for Nitrogen, Nitrite.

|                  |                          |
|------------------|--------------------------|
| <b>Matrix</b> AQ | <b>Batch ID:</b> GN11301 |
|------------------|--------------------------|

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-18DUP, T16445-18MS were used as the QC samples for Nitrogen, Nitrate + Nitrite.
- The following samples were run outside of holding time for method EPA 353.2: T16445-18

**Wet Chemistry By Method EPA 375.3****Matrix** AQ**Batch ID:** GN11356

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP, T16445-5MS were used as the QC samples for Sulfate.

**Wet Chemistry By Method EPA 376.1****Matrix** AQ**Batch ID:** GN11313

- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP were used as the QC samples for Sulfide.

**Wet Chemistry By Method EPA 415.1/9060****Matrix** AQ**Batch ID:** GN11304

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-18DUP, T16445-18MS were used as the QC samples for Total Organic Carbon.

**Matrix** AQ**Batch ID:** GN11311

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-5DUP, T16445-5MS were used as the QC samples for Total Organic Carbon.

**Matrix** AQ**Batch ID:** GN11317

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) T16445-8DUP, T16445-8MS were used as the QC samples for Total Organic Carbon.

**Wet Chemistry By Method SM18 4500NO3E/NO2B****Matrix** AQ**Batch ID:** R15434

- Nitrogen, Nitrate: Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

Accutest Laboratories Gulf Coast (ALGC) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALGC and as stated on the COC. ALGC certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALGC Quality Manual except as noted above. This report is to be used in its entirety. ALGC is not responsible for any assumptions of data quality if partial data packages are used

## SAMPLE DELIVERY GROUP CASE NARRATIVE

**Client:** Accutest Laboratories Gulf Coast, Inc.

**Job No:** T16445

**Site:** ITTXHO: Longhorn Army Ammunition Plant

**Report Date:** 3/19/2007 10:48:45

16 Samples were collected on between 02/22/2007 and 02/23/2007 and were received at Accutest SE on 02/28/2007 properly preserved, at 1.8 Deg. C and intact. These Samples had an Accutest job number of T16445. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

### Volatiles by GC by Method RSKSOP-147/175

**Matrix:** AQ

**Batch ID:** GXY992

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples T16445-5DUP, T16445-5MS were used as the QC samples indicated.

### Extractables by GC by Method SW846 8330A

**Matrix:** AQ

**Batch ID:** OP19677

All samples were extracted within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples F47539-3MS, F47539-3MSD were used as the QC samples indicated.

T16445-12: Confirmation run.

T16445-12: All hits confirmed by reanalysis on a dissimilar column.

### Wet Chemistry by Method EPA 314

**Matrix:** AQ

**Batch ID:** GP9044

All samples were prepped within the recommended method holding time.

All samples were analyzed within the recommended method holding time.

All method blanks for this batch meet method specific criteria.

Samples T16445-5DUP, T16445-5MS, T16445-6DUP, T16445-6MS were used as the QC samples for Perchlorate.

T16445-12 for Perchlorate: Dilution required due to matrix interference.

T16445-6 for Perchlorate: Estimated value, above calibration range. Results confirmed by re-analysis.

Accutest Laboratories Southeast (ALSE) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALSE and as stated on the COC. ALSE certifies that the data meets the Data Quality Objectives for precision, accuracy and completeness as specified in the ALSE Quality Manual except as noted above. This report is to be used in its entirety. ALSE is not responsible for any assumptions of data quality if partial data packages are used.

Narrative prepared by:

---

Ellen Pampel, Inorganic QA (signature on file)

Date: March 19, 2007

**Monday, March 19, 2007**



IT'S ALL IN THE CHEMISTRY

## Section 3



## Sample Results

## Report of Analysis

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW38-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-1                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079178.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

**Client Sample ID:** 29WW38-FEB2007**Lab Sample ID:** T16445-1**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 109%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 103%   |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 109%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 129%   |        | 84-150% |

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW38-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-1                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025255.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.46   | 0.50 | 0.30 | ug/l  | J |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW38-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-1                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020214.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 121-82-4   | RDX                        | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.062 U | 0.19 | 0.062 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.076 U | 0.19 | 0.076 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.090 U | 0.19 | 0.090 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.076 U | 0.19 | 0.076 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 82%    |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 29WW38-FEB2007

Lab Sample ID: T16445-1

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 16:00 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 132      | 10    | 0.30   | mg/l     | 2  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 83.0     | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 9.0      | 1.0   | 0.57   | mg/l     | 1  | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.030 B  | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 408      | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 126      | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 1.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.5      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW30-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-2                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079173.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| Run #2 | F0079179.D | 10 | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U            | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 1.9               | 2.0 | 0.68 | ug/l  | J |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U            | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 6.8               | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U            | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U            | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 1060 <sup>a</sup> | 20  | 6.3  | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 47WW30-FEB2007**Lab Sample ID:** T16445-2**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 107%   | 104%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 101%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 106%   | 107%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 118%   | 128%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 47WW30-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-2                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025256.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 1.68   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 47WW30-FEB2007

Lab Sample ID: T16445-2

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 16:15 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 752      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 150      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 726      | 20    | 0.57   | mg/l     | 20 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 4130     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 637      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 2.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 7.1      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW43-FEB2007                | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-3                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1              | F0079232.D | 1   | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| Run #2 <sup>a</sup> | F0079190.D | 1   | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #3              | F0079233.D | 100 | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |
| Run #3 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 1.8              | 2.0 | 0.52 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene       | 10.3             | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U           | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 605 <sup>b</sup> | 200 | 83   | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 1.9              | 2.0 | 0.75 | ug/l  | J |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 1.8              | 2.0 | 0.66 | ug/l  | J |
| 127-18-4   | Tetrachloroethylene        | 82.0             | 2.0 | 0.74 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW43-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16445-3                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | SW846 8260B                    | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound          | Result             | RL  | MDL  | Units | Q |
|-----------|-------------------|--------------------|-----|------|-------|---|
| 108-88-3  | Toluene           | 0.54 U             | 2.0 | 0.54 | ug/l  |   |
| 79-01-6   | Trichloroethylene | 11600 <sup>b</sup> | 200 | 63   | ug/l  |   |
| 75-01-4   | Vinyl chloride    | 3.7                | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total)    | 1.1 U              | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Run# 3 | Limits  |
|------------|-----------------------|--------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 107%   | 106%   | 102%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   | 106%   | 94%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 100%   | 102%   | 104%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 112%   | 123%   | 111%   | 84-150% |

(a) For QC only.

(b) Result is from Run# 3

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

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

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | LHSMW43-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16445-3                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025257.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 7.07   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.62   | 1.0  | 0.60 | ug/l  | J |
| 74-85-1 | Ethene   | 2.7    | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: LHSMW43-FEB2007

Lab Sample ID: T16445-3

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF   | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|------|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |      |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1    | 03/02/07 16:29 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 295      | 25    | 0.30   | mg/l     | 5    | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 93.0     | 5.0   |        | mg/l     | 1    | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 290      | 33    | 0.57   | mg/l     | 33.3 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1    | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1    | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1    | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 2920     | 0.50  | 0.50   | umhos/cm | 1    | 03/27/07       | AFL | EPA 120.1          |
| Sulfate                                | 756      | 40    | 2.6    | mg/l     | 4    | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1    | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 4.0      | 1.0   | 0.092  | mg/l     | 1    | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.8      |       |        | su       | 1    | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 50WW06-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-4                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079226.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 2.0    | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 50WW06-FEB2007**Lab Sample ID:** T16445-4**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 106%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 119%   |        | 84-150% |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 50WW06-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-4                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025258.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 2.50   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                                                |                                |
|------------------------------------------------|--------------------------------|
| <b>Client Sample ID:</b> 50WW06-FEB2007        | <b>Date Sampled:</b> 02/22/07  |
| <b>Lab Sample ID:</b> T16445-4                 | <b>Date Received:</b> 02/24/07 |
| <b>Matrix:</b> AQ - Ground Water               | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Longhorn Army Ammunition Plant |                                |

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 16:43 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 278      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 44.0     | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 209      | 20    | 0.57   | mg/l     | 20 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.040 B  | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1260     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 203      | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 3.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 7.1      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 50WW05-FEB2007                 | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-5                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079169.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| Run #2 | F0079180.D | 20 | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U            | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 1.3               | 2.0 | 0.52 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene       | 12.9              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 13.5              | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 48.2              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U            | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U            | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 5.1               | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 1460 <sup>a</sup> | 40  | 13   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 50WW05-FEB2007**Lab Sample ID:** T16445-5**Date Sampled:** 02/23/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 2.5    | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 107%   | 105%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105%   | 104%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 105%   | 108%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 114%   | 129%   | 84-150% |

(a) Result is from Run# 2

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 50WW05-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-5                       | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025259.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 2.93   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 50WW05-FEB2007

Lab Sample ID: T16445-5

Matrix: AQ - Ground Water

Date Sampled: 02/23/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 27.8     | 10    | 4.0    | ug/l     | 1  | 03/02/07 16:58 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 457      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 73.0     | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 253      | 20    | 0.57   | mg/l     | 20 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1800     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 286      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 2.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 7.1      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 50WW02-FEB2007                 | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-6                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF  | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|-----|----------|----|-----------|------------|------------------|
| Run #1 | F0079194.D | 1   | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 | F0079234.D | 100 | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result            | RL  | MDL  | Units | Q |
|------------|----------------------------|-------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U             | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.46              | 2.0 | 0.23 | ug/l  | J |
| 75-27-4    | Bromodichloromethane       | 0.33 U            | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U            | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 4.2               | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U            | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U            | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 5.4               | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 6.5               | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 18.8              | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U            | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 855 <sup>a</sup>  | 200 | 83   | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U            | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.6               | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U            | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U            | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U             | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U             | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U            | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U            | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U            | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U             | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U            | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U            | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U            | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.92              | 2.0 | 0.66 | ug/l  | J |
| 127-18-4   | Tetrachloroethylene        | 9.3               | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U            | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 5420 <sup>a</sup> | 200 | 63   | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 50WW02-FEB2007**Lab Sample ID:** T16445-6**Date Sampled:** 02/23/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 15.2   | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 108%   | 103%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109%   | 98%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 109%   | 105%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 133%   | 115%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 50WW02-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-6                       | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025260.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 1.87   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                                                |                                |
|------------------------------------------------|--------------------------------|
| <b>Client Sample ID:</b> 50WW02-FEB2007        | <b>Date Sampled:</b> 02/23/07  |
| <b>Lab Sample ID:</b> T16445-6                 | <b>Date Received:</b> 02/24/07 |
| <b>Matrix:</b> AQ - Ground Water               | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Longhorn Army Ammunition Plant |                                |

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 532      | 10    | 4.0    | ug/l     | 1  | 03/02/07 17:12 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 138      | 5.0   | 0.30   | mg/l     | 1  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 140      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 219      | 10    | 0.57   | mg/l     | 10 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.020 B  | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>c</sup>     | 1400     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 198      | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 3.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.3      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Estimated value, above calibration range. Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(c) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW16-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-7                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079229.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 5.6    | 50  | 2.8  | ug/l  | J |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW16-FEB2007**Lab Sample ID:** T16445-7**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 94%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 104%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 106%   |        | 84-150% |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW16-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-7                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025261.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 804    | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 1.7    | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 2.1    | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW16-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-7                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020215.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.065 U | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.080 U | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.095 U | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.080 U | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 109%   |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW16-FEB2007

Lab Sample ID: T16445-7

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 17:55 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 457      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 0.0 B    | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 216      | 10    | 0.57   | mg/l     | 10 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 0.30     | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.30     | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1700     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 44.0     | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 14.0     | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 15:10 | LN  | EPA 415.1/9060     |
| pH                                     | 11.2     |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW02-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-8                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079196.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 | F0079235.D | 5  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 5.3              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 40.7             | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 4.5              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.85             | 2.0 | 0.75 | ug/l  | J |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 479 <sup>a</sup> | 10  | 3.2  | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW02-FEB2007**Lab Sample ID:** T16445-8**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 102%   | 105%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100%   | 103%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 106%   | 107%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 113%   | 118%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW02-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-8                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025264.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 7.48   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW02-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-8                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | SW846 8330A SW846 3535A        | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020216.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.065 U | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.080 U | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.095 U | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.080 U | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 107%   |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                                                |                                |
|------------------------------------------------|--------------------------------|
| <b>Client Sample ID:</b> 17WW02-FEB2007        | <b>Date Sampled:</b> 02/22/07  |
| <b>Lab Sample ID:</b> T16445-8                 | <b>Date Received:</b> 02/24/07 |
| <b>Matrix:</b> AQ - Ground Water               | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Longhorn Army Ammunition Plant |                                |

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 18:10 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 347      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 110      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 994      | 50    | 0.57   | mg/l     | 50 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.060    | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 3450     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 123      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 3.0      | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 6.8      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW02-FEB2007 FD              | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-9                       | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079197.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 | F0079236.D | 5  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 5.2              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 42.1             | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 4.2              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.88             | 2.0 | 0.75 | ug/l  | J |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 468 <sup>a</sup> | 10  | 3.2  | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW02-FEB2007 FD**Lab Sample ID:** T16445-9**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 107%   | 105%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104%   | 101%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 109%   | 107%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 117%   | 117%   | 84-150% |

(a) Result is from Run# 2

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW02-FEB2007 FD              |                        |          |
| <b>Lab Sample ID:</b>    | T16445-9                       | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025265.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 5.95   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW02-FEB2007 FD

Lab Sample ID: T16445-9

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 18:24 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 336      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 110      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 969      | 50    | 0.57   | mg/l     | 50 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.050    | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 3540     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 130      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 3.0      | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 6.8      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-10                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079198.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 | F0079237.D | 5  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 3.7              | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U           | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U           | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U           | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 237 <sup>a</sup> | 25  | 3.4  | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 25.6             | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-10                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 109%   | 104%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 107%   | 100%   | 66-139% |
| 2037-26-5  | Toluene-D8            | 108%   | 104%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 116%   | 115%   | 84-150% |

(a) Result is from Run# 2

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

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



## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-10                      | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025266.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 5.08   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-10                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020217.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 121-82-4   | RDX                        | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.062 U | 0.19 | 0.062 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.076 U | 0.19 | 0.076 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.090 U | 0.19 | 0.090 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.076 U | 0.19 | 0.076 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 98%    |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 29WW35-FEB2007

Lab Sample ID: T16445-10

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 21.5     | 10    | 4.0    | ug/l     | 1  | 03/02/07 18:39 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 295      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 19.0     | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride <sup>b</sup>                  | 77.0     | 2.0   | 0.57   | mg/l     | 2  | 04/04/07 13:20 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>c</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 618      | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 49.0     | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 0.70 B   | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 7.5      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Confirmation Sample. Analyzed outside of hold time.

(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007 FD              | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-11                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079199.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 2.8    | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 168    | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 23.4   | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 29WW35-FEB2007 FD  
**Lab Sample ID:** T16445-11  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8260B  
**Project:** Longhorn Army Ammunition Plant

**Date Sampled:** 02/22/07  
**Date Received:** 02/24/07  
**Percent Solids:** n/a

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 99%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 108%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 118%   |        | 84-150% |

U = Not detected  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

MDL - Method Detection Limit

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007 FD              | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-11                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | RSKSOP-147/175                 |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025267.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 5.70   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW35-FEB2007 FD              | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-11                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020218.D | 1  | 03/02/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 121-82-4   | RDX                        | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.062 U | 0.19 | 0.062 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.076 U | 0.19 | 0.076 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.090 U | 0.19 | 0.090 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.076 U | 0.19 | 0.076 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 117%   |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

**Client Sample ID:** 29WW35-FEB2007 FD**Lab Sample ID:** T16445-11**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 5.1 B    | 10    | 4.0    | ug/l     | 1  | 03/02/07 18:53 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 303      | 10    | 0.30   | mg/l     | 2  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 15.0     | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride <sup>b</sup>                  | 77.0     | 2.0   | 0.57   | mg/l     | 2  | 04/04/07 13:20 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>c</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 796      | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 36.0     | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 0.90 B   | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 7.6      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Confirmation Sample. Analyzed outside of hold time.

(c) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW06-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-12                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079230.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

Page 2 of 2

**Client Sample ID:** 29WW06-FEB2007**Lab Sample ID:** T16445-12**Date Sampled:** 02/22/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98%    |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 104%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 105%   |        | 84-150% |

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW06-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-12                      | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025268.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.30 U | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 29WW06-FEB2007                 | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-12                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020219.D | 1  | 03/03/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2 <sup>b</sup> | GG020236.D | 1  | 03/05/07 | AFL | 03/01/07  | F:OP19677  | F:GGG907         |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1050 ml        | 10.0 ml      |
| Run #2 | 1050 ml        | 10.0 ml      |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 121-82-4   | RDX                        | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.062 U | 0.19 | 0.062 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.16    | 0.19 | 0.071 | ug/l  | J |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.067 U | 0.19 | 0.067 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.17    | 0.19 | 0.076 | ug/l  | J |
| 98-95-3    | Nitrobenzene               | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.057 U | 0.19 | 0.057 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.071 U | 0.19 | 0.071 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.090 U | 0.19 | 0.090 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.076 U | 0.19 | 0.076 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 103%   | 90%    | 70-136% |

(a) All hits confirmed by reanalysis on a dissimilar column. Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Confirmation run. Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 29WW06-FEB2007

Lab Sample ID: T16445-12

Matrix: AQ - Ground Water

Date Sampled: 02/22/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 20 U     | 50    | 20     | ug/l     | 5  | 03/07/07 18:35 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 856      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 270      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 298      | 20    | 0.57   | mg/l     | 20 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 1.3      | 0.25  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 1.3      | 0.20  | 0.0050 | mg/l     | 4  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>c</sup>     | 2640     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 726      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 38.0     | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 6.8      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Dilution required due to matrix interference. Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

(c) Analysis performed at Accutest Laboratories, Orlando, FL.

RL = Reporting Limit

MDL = Method Detection Limit

U = Indicates a result &lt; MDL

B = Indicates a result &gt; = MDL but &lt; RL

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW05-FEB2007                 | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-13                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079231.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| Run #2 |            |    |          |    |           |            |                  |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW05-FEB2007**Lab Sample ID:** T16445-13**Date Sampled:** 02/23/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100%   |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 103%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 109%   |        | 84-150% |

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW05-FEB2007                 |                        |          |
| <b>Lab Sample ID:</b>    | T16445-13                      | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025269.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 349    | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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



## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW05-FEB2007                 | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-13                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020220.D | 1  | 03/03/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.065 U | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.080 U | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.095 U | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.080 U | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 107%   |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW05-FEB2007

Lab Sample ID: T16445-13

Matrix: AQ - Ground Water

Date Sampled: 02/23/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 19:22 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 422      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 5.2      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 174      | 20    | 0.57   | mg/l     | 20 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 1170     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 34.0     | 20    | 2.6    | mg/l     | 2  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 3.0      | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 8.2      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 7WW06-FEB2007                  | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-14                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|        | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079202.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 | F0079238.D | 5  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

|        | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 | 5.0 ml       |

## VOA TCL List

| CAS No.    | Compound                   | Result           | RL  | MDL  | Units | Q |
|------------|----------------------------|------------------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U            | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U           | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U           | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U           | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U           | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U           | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 1.5              | 2.0 | 0.52 | ug/l  | J |
| 75-35-4    | 1,1-Dichloroethylene       | 6.9              | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 8.0              | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U           | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 9.5              | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U           | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.6              | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U           | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U           | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U            | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U            | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U           | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U           | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U           | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U            | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U           | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U           | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U           | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U           | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U           | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U           | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 205 <sup>a</sup> | 10  | 3.2  | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 7WW06-FEB2007                  | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-14                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   | 104%   | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 105%   | 97%    | 66-139% |
| 2037-26-5  | Toluene-D8            | 106%   | 105%   | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 117%   | 123%   | 84-150% |

(a) Result is from Run# 2

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

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

## Report of Analysis

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|                          |                                |                                |
|--------------------------|--------------------------------|--------------------------------|
| <b>Client Sample ID:</b> | 7WW06-FEB2007                  |                                |
| <b>Lab Sample ID:</b>    | T16445-14                      | <b>Date Sampled:</b> 02/23/07  |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b> 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> n/a     |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                                |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025270.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 1.79   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 7WW06-FEB2007                  | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-14                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8330A SW846 3535A        |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020221.D | 1  | 03/03/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1000 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.065 U | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.070 U | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.080 U | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.060 U | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.075 U | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.095 U | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.080 U | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 102%   |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

|                                                |                                |
|------------------------------------------------|--------------------------------|
| <b>Client Sample ID:</b> 7WW06-FEB2007         | <b>Date Sampled:</b> 02/23/07  |
| <b>Lab Sample ID:</b> T16445-14                | <b>Date Received:</b> 02/24/07 |
| <b>Matrix:</b> AQ - Ground Water               | <b>Percent Solids:</b> n/a     |
| <b>Project:</b> Longhorn Army Ammunition Plant |                                |

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 19:36 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 336      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 4.8 B    | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1110     | 50    | 0.57   | mg/l     | 50 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | < 0.10   | 0.10  | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 0.0050 U | 0.050 | 0.0050 | mg/l     | 1  | 02/26/07 09:23 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/24/07 14:28 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 3240     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 92.0     | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 4.0      | 1.0   | 0.092  | mg/l     | 1  | 02/28/07 09:08 | LN  | EPA 415.1/9060     |
| pH                                     | 8.2      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                     | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-15                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Trip Blank Water          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079185.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 0.53 U | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83 U | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 0.63 U | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound



## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | TRIP BLANK                     | <b>Date Sampled:</b>   | 02/22/07 |
| <b>Lab Sample ID:</b>    | T16445-15                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Trip Blank Water          | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 112%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 131%   |        | 84-150% |

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

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

## Report of Analysis

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW130-FEB2007                | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Lab Sample ID:</b>    | T16445-18                      | <b>Date Received:</b>  | 02/24/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Percent Solids:</b> | n/a      |
| <b>Method:</b>           | SW846 8260B                    |                        |          |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #  | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|--------|------------|----|----------|----|-----------|------------|------------------|
| Run #1 | F0079203.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2315           |
| Run #2 |            |    |          |    |           |            |                  |

| Run #  | Purge Volume |
|--------|--------------|
| Run #1 | 5.0 ml       |
| Run #2 |              |

## VOA TCL List

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | 2.8 U  | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | 0.23 U | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | 0.33 U | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | 0.65 U | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | 0.62 U | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | 0.52 U | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | 4.9    | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | 0.68 U | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | 0.83   | 2.0 | 0.83 | ug/l  | J |
| 10061-01-5 | cis-1,3-Dichloropropene    | 0.59 U | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | 0.75 U | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | 0.61 U | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | 0.48 U | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | 1.9 U  | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | 7.3 U  | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | 0.47 U | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | 0.60 U | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | 0.67 U | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | 3.0 U  | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | 0.50 U | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | 0.37 U | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 0.46 U | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | 0.66 U | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | 0.74 U | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | 0.54 U | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | 25.1   | 2.0 | 0.63 | ug/l  |   |

U = Not detected MDL - Method Detection Limit

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

## Report of Analysis

**Client Sample ID:** 17WW130-FEB2007**Lab Sample ID:** T16445-18**Date Sampled:** 02/23/07**Matrix:** AQ - Ground Water**Date Received:** 02/24/07**Method:** SW846 8260B**Percent Solids:** n/a**Project:** Longhorn Army Ammunition Plant

## VOA TCL List

| CAS No.   | Compound       | Result | RL  | MDL  | Units | Q |
|-----------|----------------|--------|-----|------|-------|---|
| 75-01-4   | Vinyl chloride | 0.32 U | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7 | Xylene (total) | 1.1 U  | 6.0 | 1.1  | ug/l  |   |

| CAS No.    | Surrogate Recoveries  | Run# 1 | Run# 2 | Limits  |
|------------|-----------------------|--------|--------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105%   |        | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102%   |        | 66-139% |
| 2037-26-5  | Toluene-D8            | 106%   |        | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 116%   |        | 84-150% |

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

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

## Report of Analysis

Page 1 of 1

|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW130-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16445-18                      | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | RSKSOP-147/175                 | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

| Run #               | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | XY025271.D | 1  | 03/01/07 | AFL | n/a       | n/a        | F:GXY992         |
| Run #2              |            |    |          |     |           |            |                  |

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | 0.51   | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | 0.60 U | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | 0.80 U | 1.0  | 0.80 | ug/l  |   |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

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|                          |                                |                        |          |
|--------------------------|--------------------------------|------------------------|----------|
| <b>Client Sample ID:</b> | 17WW130-FEB2007                |                        |          |
| <b>Lab Sample ID:</b>    | T16445-18                      | <b>Date Sampled:</b>   | 02/23/07 |
| <b>Matrix:</b>           | AQ - Ground Water              | <b>Date Received:</b>  | 02/24/07 |
| <b>Method:</b>           | SW846 8330A SW846 3535A        | <b>Percent Solids:</b> | n/a      |
| <b>Project:</b>          | Longhorn Army Ammunition Plant |                        |          |

|                     | File ID    | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|---------------------|------------|----|----------|-----|-----------|------------|------------------|
| Run #1 <sup>a</sup> | GG020222.D | 1  | 03/03/07 | AFL | 03/01/07  | F:OP19677  | F:GGG906         |
| Run #2              |            |    |          |     |           |            |                  |

|        | Initial Volume | Final Volume |
|--------|----------------|--------------|
| Run #1 | 1030 ml        | 10.0 ml      |
| Run #2 |                |              |

| CAS No.    | Compound                   | Result  | RL   | MDL   | Units | Q |
|------------|----------------------------|---------|------|-------|-------|---|
| 2691-41-0  | HMX                        | 0.058 U | 0.19 | 0.058 | ug/l  |   |
| 121-82-4   | RDX                        | 0.073 U | 0.19 | 0.073 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | 0.068 U | 0.19 | 0.068 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | 0.063 U | 0.19 | 0.063 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | 0.073 U | 0.19 | 0.073 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 0.068 U | 0.19 | 0.068 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 0.078 U | 0.19 | 0.078 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | 0.058 U | 0.19 | 0.058 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | 0.058 U | 0.19 | 0.058 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | 0.073 U | 0.19 | 0.073 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | 0.073 U | 0.19 | 0.073 | ug/l  |   |
| 479-45-8   | Tetryl                     | 0.073 U | 0.19 | 0.073 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 0.092 U | 0.19 | 0.092 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 0.078 U | 0.19 | 0.078 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Run# 1 | Run# 2 | Limits  |
|----------|----------------------|--------|--------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 106%   |        | 70-136% |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

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

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

## Report of Analysis

Client Sample ID: 17WW130-FEB2007

Lab Sample ID: T16445-18

Matrix: AQ - Ground Water

Date Sampled: 02/23/07

Date Received: 02/24/07

Percent Solids: n/a

Project: Longhorn Army Ammunition Plant

## General Chemistry

| Analyte                                | Result   | RL    | MDL    | Units    | DF | Analyzed       | By  | Method             |
|----------------------------------------|----------|-------|--------|----------|----|----------------|-----|--------------------|
| <b>Perchlorate by IC</b>               |          |       |        |          |    |                |     |                    |
| Perchlorate <sup>a</sup>               | 4.0 U    | 10    | 4.0    | ug/l     | 1  | 03/02/07 19:51 | AFL | EPA 314            |
| Alkalinity, Total as CaCO <sub>3</sub> | 567      | 25    | 0.30   | mg/l     | 5  | 03/08/07 12:50 | EB  | EPA 310.1          |
| Carbon Dioxide                         | 228      | 5.0   |        | mg/l     | 1  | 03/12/07       | RM  | SM18 4500CO2D      |
| Chloride                               | 1030     | 50    | 0.57   | mg/l     | 50 | 03/05/07 12:15 | EB  | EPA 325.3          |
| Nitrogen, Nitrate <sup>b</sup>         | 2.7      | 0.55  | 0.0050 | mg/l     | 1  | 02/26/07 14:00 | LN  | SM18 4500NO3E/NO2B |
| Nitrogen, Nitrate + Nitrite            | 2.7      | 0.50  | 0.0050 | mg/l     | 10 | 02/26/07 13:03 | LN  | EPA 353.2          |
| Nitrogen, Nitrite                      | 0.0030 U | 0.050 | 0.0030 | mg/l     | 1  | 02/26/07 14:00 | LN  | EPA 353.2          |
| Specific Conductivity <sup>a</sup>     | 4140     | 0.50  | 0.50   | umhos/cm | 1  | 03/06/07       | AFL | EPA 120.1          |
| Sulfate                                | 173      | 40    | 2.6    | mg/l     | 4  | 03/06/07 18:00 | EB  | EPA 375.3          |
| Sulfide                                | 0.0 B    | 0.20  |        | mg/l     | 1  | 03/01/07 12:10 | LN  | EPA 376.1          |
| Total Organic Carbon                   | 6.0      | 1.0   | 0.092  | mg/l     | 1  | 02/27/07 09:10 | LN  | EPA 415.1/9060     |
| pH                                     | 6.7      |       |        | su       | 1  | 03/01/07 13:00 | TW  | EPA 150.1/9040     |

(a) Analysis performed at Accutest Laboratories, Orlando, FL.

(b) Calculated as: (Nitrogen, Nitrate + Nitrite) - (Nitrogen, Nitrite)

RL = Reporting Limit  
MDL = Method Detection Limit

U = Indicates a result < MDL  
B = Indicates a result > = MDL but < RL



## Misc. Forms

### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody
- LRC Form



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# CHAIN-OF-CUSTODY

00106959

No. 10494

|                                                     |                |                                                                                |      |                                                                                                             |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
|-----------------------------------------------------|----------------|--------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------|------|------------------------|------------------------------|-------------------------------------------|-----|------|--------|----------|-------------|------------|------------|-----|------------|
| Laboratory Name: <b>Accutest</b>                    |                | Address: <b>10165 HARWIN DR. #150</b>                                          |      | Contact: <b>Agnes</b>                                                                                       |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| Project Name: <b>Longhorn Army Ammunition Plant</b> |                | Project Location: <b>KARNACK, TX</b>                                           |      | Analysis and Method Desired (Indicate separate containers)                                                  |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| Project No.: <b>117591</b>                          |                | Project Contact: <b>KAY EVERETTE</b>                                           |      | Project Telephone No.: <b>713-996-4421</b>                                                                  |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| Point of contact: <b>DIANE MEYER</b>                |                | Project Manager/Supervisor: <b>Praveen Srivastav</b>                           |      | Remarks                                                                                                     |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| Telephone No.: <b>713-996-4408</b>                  |                |                                                                                |      |                                                                                                             |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| Item No.                                            | Sample Number  | Date                                                                           | Time | Comp                                                                                                        | Grab | Matrix                 | Sample Description, Location | Number of Containers                      | VOC | SVOC | ANIONS | Sulfides | Perchlorate | Gases, CD2 | Alkalinity | TOC | Explosives |
| 1                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 3                                         | ✓   |      |        |          |             |            |            |     |            |
| 2                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 3                                         |     |      |        |          | ✓           |            |            |     |            |
| 3                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 3                                         |     |      |        |          |             |            |            | ✓   |            |
| 4                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 1                                         |     | ✓    |        |          |             |            |            |     |            |
| 5                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 1                                         |     |      | ✓      |          |             |            |            |     |            |
| 6                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 1                                         |     |      |        | ✓        |             |            |            |     |            |
| 7                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 1                                         |     |      |        |          |             | ✓          |            |     |            |
| 8                                                   | 29WW38-Feb2007 | 2-22-07                                                                        | 0930 |                                                                                                             | ✓    | W                      | Site 29, GW                  | 2                                         |     |      |        |          |             |            |            |     | ✓          |
| 9                                                   |                |                                                                                |      |                                                                                                             |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| 10                                                  |                |                                                                                |      |                                                                                                             |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |
| Transfers Relinquished By (Signature)               |                | Date/Time                                                                      |      | Transfers Accepted By (Signature)                                                                           |      | Date/Time              |                              | Special Instructions                      |     |      |        |          |             |            |            |     |            |
| <i>Sherry M. Adoo</i>                               |                | 2-22-07 17:00                                                                  |      | <i>Scott Beesinger</i>                                                                                      |      | 2/22/07 17:00          |                              | up                                        |     |      |        |          |             |            |            |     |            |
| <i>Scott Beesinger</i>                              |                | 2/23/07 08:30                                                                  |      |                                                                                                             |      |                        |                              | FedEx Airbill No.:                        |     |      |        |          |             |            |            |     |            |
|                                                     |                |                                                                                |      | Laboratory                                                                                                  |      | A. Roden 2/24/07/11:15 |                              | Sampler's Signature <i>Sherry M. Adoo</i> |     |      |        |          |             |            |            |     |            |
| TAT: _____ Standard _____ Rush Due: _____           |                | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |      | Received Good Condition <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Cold |      |                        |                              |                                           |     |      |        |          |             |            |            |     |            |

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T16445: Chain of Custody

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T16445

00106960



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Houston, TX 77042 (713) 996-4400

## CHAIN-OF-CUSTODY

No. 10928

| Laboratory Name: <b>Accutest</b>                      |                  | Address: <b>10165 Harwin DR #150<br/>Houston, TX 77036</b>                     |      | Contact: <b>AGNES: 713-271-4700</b>                                                                         |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
|-------------------------------------------------------|------------------|--------------------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------|------|------------------|------------------------------|------------------------------------------------------------------|-----------|----------------------|-----------------------|-------------|-----------|----------------|-----------|
| Project Name: <b>LONGHORN ARMY<br/>MUNITION PLANT</b> |                  | Project Location: <b>KARNACK, TX</b>                                           |      | Analysis and Method Desired<br>(Indicate separate containers)                                               |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| Project No.: <b>117591</b>                            |                  | Project Contact: <b>KAY<br/>EVERETTE</b>                                       |      | Project Telephone No.: <b>713-996-4421</b>                                                                  |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| Point of contact: <b>DIANE MOYER</b>                  |                  | Project Manager/Supervisor: <b>SRIVASTAV</b>                                   |      | Remarks                                                                                                     |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| Telephone No.: <b>713-996-4408</b>                    |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| Item No.                                              | Sample Number    | Date                                                                           | Time | Comp                                                                                                        | Grab | Matrix           | Sample Description, Location | Number of Containers                                             | VOCs 8260 | PHIONS<br>ANIONS 300 | SULPHIDES 3762<br>314 | Perchlorate | Gases 175 | BIKALINITY 310 | TOC 415-1 |
| 2                                                     | 47WW30-FEB2007   | 2/22/07                                                                        | 0941 |                                                                                                             | X    | GW               | 47WW30                       | 13                                                               | X         | X                    | X                     | X           | X         | X              | X         |
| 3                                                     | LHS MW43-FEB2007 | 2/22/07                                                                        | 1100 |                                                                                                             | X    | GW               | LHS MW43                     | 13                                                               | X         | X                    | X                     | X           | X         | X              | X         |
| 4                                                     | SDWW06-FEB2007   | 2/22/07                                                                        | 1530 |                                                                                                             | X    | GW               | SDWW06                       | 13                                                               | X         | X                    | X                     | X           | X         | X              | X         |
| 4                                                     |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| 5                                                     |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| 6                                                     |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| 7                                                     |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| 8                                                     |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| 9                                                     |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| 10                                                    |                  |                                                                                |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
| Transfers Relinquished By (Signature)                 |                  | Date/Time                                                                      |      | Transfers Accepted By (Signature)                                                                           |      | Date/Time        |                              | Special Instructions                                             |           |                      |                       |             |           |                |           |
| <i>J. Paul</i>                                        |                  | 2/22/07 @ 1800                                                                 |      | <i>Scott Beesigen</i>                                                                                       |      | 2/22/07<br>18:00 |                              | URS<br>FedEx Airbill No.:<br>Sampler's Signature: <i>J. Paul</i> |           |                      |                       |             |           |                |           |
| <i>Scott Beesigen</i>                                 |                  | 2/23/07<br>08:30                                                               |      |                                                                                                             |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |
|                                                       |                  |                                                                                |      | Laboratory: <i>A. Rodriguez</i>                                                                             |      | 2/22/07 11:15    |                              |                                                                  |           |                      |                       |             |           |                |           |
| TAT: _____ Standard _____ Rush Due: _____             |                  | Seals Intact? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N |      | Received Good Condition <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> Cold |      |                  |                              |                                                                  |           |                      |                       |             |           |                |           |

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T16445

00106961



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## CHAIN-OF-CUSTODY

No. 10918

|                                                     |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
|-----------------------------------------------------|----------------|-----------------------------------------------------|------|------------------------------------------------------------|------|---------------------|------------------------------|--------------------------------------|-------|--------|----------|-------------|-------|------------|-----|-----------------|
| Laboratory Name: <u>Accutest</u>                    |                | Address: <u>10105 Harwin dr, #150</u>               |      | Contact: <u>Agnes - 713-271-4700</u>                       |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| Project Name: <u>Longhorn Army Ammunition Plant</u> |                | Project Location: <u>Karnack, TX</u>                |      | Analysis and Method Desired (Indicate separate containers) |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| Project No.: <u>117591</u>                          |                | Project Contact: <u>Kay Bierette</u>                |      | Project Telephone No.: <u>713-996-4421</u>                 |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| Point of contact: <u>Diane Meyer</u>                |                | Project Manager/Supervisor: <u>PRABEN SRIVASTAV</u> |      | Remarks                                                    |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| Telephone No.: <u>713-996-4408</u>                  |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| Item No.                                            | Sample Number  | Date                                                | Time | Comp                                                       | Grab | Matrix              | Sample Description, Location | Number of Containers                 | VOC's | ANIONS | Sulfides | Perchlorate | Gases | Alkalinity | TOC | Remarks         |
| 5                                                   | SDWW05-FEB2007 | 2/23/07                                             | 1046 |                                                            | X    | GW                  | SDWW05                       | 13                                   | X     | X      | X        | X           | X     | X          | X   | ms/msp Included |
| 6                                                   | SDWW02-FEB2007 | 2/23/07                                             | 1153 |                                                            | X    | GW                  | SDWW02                       | 13                                   | X     | X      | X        | X           | X     | X          | X   |                 |
| 3                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 4                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 5                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 6                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 7                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 8                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 9                                                   |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| 10                                                  |                |                                                     |      |                                                            |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |
| Transfers Relinquished By (Signature)               |                | Date/Time                                           |      | Transfers Accepted By (Signature)                          |      | Date/Time           |                              | Special Instructions                 |       |        |          |             |       |            |     |                 |
| <u>J. B. S.</u>                                     |                | 2/23/07 1800                                        |      | <u>Scott Beezinger</u>                                     |      | 2/23/07 18:00       |                              | 1175                                 |       |        |          |             |       |            |     |                 |
| <u>Scott Beezinger</u>                              |                | 2/23/07 1800                                        |      |                                                            |      |                     |                              | FedEx Airbill No.:                   |       |        |          |             |       |            |     |                 |
|                                                     |                |                                                     |      | Laboratory                                                 |      | <u>A. Rodriguez</u> |                              | Sampler's Signature: <u>J. B. S.</u> |       |        |          |             |       |            |     |                 |
| TAT: _____ Standard _____ Rush Due: _____           |                | Seals Intact? <u>Y</u> N                            |      | Received Good Condition <u>Y</u> N Cold                    |      |                     |                              |                                      |       |        |          |             |       |            |     |                 |

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T16445

00106962



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## CHAIN-OF-CUSTODY

No. 10930

| Laboratory Name: <u>Accutest</u>                          |                |         |      | Address: <u>10165 Harwin #150</u><br><u>Houston TX 77036</u> |      |                                                                                  |                              | Contact: <u>Agnes (713) 271 4700</u>                          |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
|-----------------------------------------------------------|----------------|---------|------|--------------------------------------------------------------|------|----------------------------------------------------------------------------------|------------------------------|---------------------------------------------------------------|-----|---------------------------------|--------|-----------------------------------------|----------|-------|-------------|-----|-------|-----|------------|-------|-----|-------|------------|------|
| Project Name: <u>LHAAP</u>                                |                |         |      | Project Location: <u>Karnack, TX</u>                         |      |                                                                                  |                              | Analysis and Method Desired<br>(Indicate separate containers) |     |                                 |        | Remarks                                 |          |       |             |     |       |     |            |       |     |       |            |      |
| Project No.: <u>117591</u>                                |                |         |      | Project Contact: <u>K. Everette</u>                          |      | Project Telephone No.: <u>(713) 996 4421</u>                                     |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| Point of contact: <u>D. Meyers</u>                        |                |         |      | Project Manager/Supervisor: <u>P. Srivastav</u>              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| Telephone No.: <u>(713) 996-4408</u>                      |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| Item No.                                                  | Sample Number  | Date    | Time | Comp                                                         | Grab | Matrix                                                                           | Sample Description, Location | Number of Containers                                          | VOC | 8260                            | Anions | 300                                     | Sulfides | 376.2 | Perchlorate | 314 | Cases | 175 | Alkalinity | 310.1 | TOC | 415.1 | EXPLOSIVES | 3330 |
| 1                                                         | 17WW16-Feb2007 | 2-22-07 | 1030 |                                                              | ✓    | W                                                                                | GW, Site 17                  | 15                                                            | 3   | 1                               | 1      | 1                                       | 1        | 1     | 3           | 1   | 3     | 1   | 3          | 2     |     |       |            |      |
| 2                                                         | 17WW02-Feb2007 | 2-22-07 | 1418 | 5m                                                           | ✓    | W                                                                                | GW, Site 17                  | 15                                                            | 3   | 1                               | 1      | 1                                       | 1        | 1     | 3           | 1   | 3     | 1   | 3          | 2     |     |       |            |      |
| 3                                                         | 17WW02-Feb2007 | 2-22-07 | 1418 |                                                              | ✓    | W                                                                                | GW, Site 17                  | 15                                                            | 3   | 1                               | 1      | 1                                       | 1        | 1     | 3           | 1   | 3     | 1   | 3          | 2     | FD  |       |            |      |
| 4                                                         |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| 5                                                         |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| 6                                                         |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| 7                                                         |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| 8                                                         |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| 9                                                         |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| 10                                                        |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |
| Transfers Relinquished By (Signature): <u>[Signature]</u> |                |         |      | Date/Time: <u>2/23/07 8:22</u>                               |      | Transfers Accepted By (Signature): <u>[Signature]</u>                            |                              |                                                               |     | Date/Time: <u>2/23/07 08:22</u> |        | Special Instructions                    |          |       |             |     |       |     |            |       |     |       |            |      |
| Transfers Relinquished By (Signature): <u>[Signature]</u> |                |         |      | Date/Time: <u>2/23/07 8:30</u>                               |      | Transfers Accepted By (Signature): <u>[Signature]</u>                            |                              |                                                               |     | Date/Time: <u>2/23/07 08:22</u> |        | Special Instructions                    |          |       |             |     |       |     |            |       |     |       |            |      |
|                                                           |                |         |      |                                                              |      | Laboratory: <u>A. Rader</u>                                                      |                              |                                                               |     |                                 |        | FedEX Airbill No.: <u>UPS</u>           |          |       |             |     |       |     |            |       |     |       |            |      |
|                                                           |                |         |      |                                                              |      |                                                                                  |                              |                                                               |     |                                 |        | Sampler's Signature: <u>[Signature]</u> |          |       |             |     |       |     |            |       |     |       |            |      |
| TAT: <u>X</u> Standard <u>    </u> Rush Due: <u>    </u>  |                |         |      | Seals Intact? <u>Y</u> <u>    </u> N <u>    </u>             |      | Received Good Condition <u>    </u> Y <u>    </u> N <u>    </u> Cold <u>    </u> |                              |                                                               |     |                                 |        |                                         |          |       |             |     |       |     |            |       |     |       |            |      |

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T16445: Chain of Custody

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**CHAIN-OF-CUSTODY**

**Laboratory Name:** Accutest **Address:** 10165 Harwin Dr #150 **Contact:** Agnes  
Houston, TX 77036 713-271-4700

**Project Name:** Longhorn Army Ammunition Plant **Project Location:** KARNACK TX

**Project No.:** 117591 **Project Contact:** Kay Everett **Project Telephone No.:** 713-996-4421

**Point of contact:** Diane Meyer **Project Manager/Supervisor:** Praveen Srivastav

**Telephone No.:** 713-996-4408

| Item No. | Sample Number     | Date    | Time | Comp | Grab | Matrix | Sample Description, Location | Analysis and Method Desired (Indicate separate containers) |       |           |     |        |          |             |            |               |  | Remarks |
|----------|-------------------|---------|------|------|------|--------|------------------------------|------------------------------------------------------------|-------|-----------|-----|--------|----------|-------------|------------|---------------|--|---------|
|          |                   |         |      |      |      |        |                              | VOC                                                        | SP175 | GASES-CD2 | TOC | ANIONS | Sulfides | Perchlorate | ALKALINITY | EXPLOSIVES    |  |         |
| 10       | 29WW35-Feb2007    | 2-22-07 | 1245 |      | ✓    | W      | Site 29, BW (15)             | 3                                                          | 3     | 3         | 1   | 1      | 1        | 1           | 2          | 15 containers |  |         |
| 11       | 29WW35-Feb2007-FD | 2-22-07 | 1245 |      | ✓    | W      | Site 29, GW (15)             | 3                                                          | 3     | 3         | 1   | 1      | 1        | 1           | 2          | FDs           |  |         |
| 12       | 29WW06-Feb2007    | 2-22-07 | 1500 |      | ✓    | W      | Site 29, GW (15)             | 3                                                          | 3     | 3         | 1   | 1      | 1        | 1           | 2          | 15 containers |  |         |
| 4        |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |
| 5        |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |
| 6        |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |
| 7        |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |
| 8        |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |
| 9        |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |
| 10       |                   |         |      |      |      |        |                              |                                                            |       |           |     |        |          |             |            |               |  |         |

|                                                                                       |                                                                                                 |                                                             |                                   |                             |
|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------|-----------------------------|
| <b>Transfers Relinquished By (Signature)</b><br>Sherry McAllen                        | <b>Date/Time</b><br>2-22-07 17:00                                                               | <b>Transfers Accepted By (Signature)</b><br>Scott Bessinger | <b>Date/Time</b><br>2/22/07 17:00 | <b>Special Instructions</b> |
| <b>Seals Intact?</b> <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <b>Received Good Condition</b> <input checked="" type="checkbox"/> Y <input type="checkbox"/> N | <b>Sampler's Signature</b> Sherry McAllen                   |                                   |                             |

TAT: \_\_\_\_\_ Standard \_\_\_\_\_ Rush Due: \_\_\_\_\_

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T16445: Chain of Custody

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Shaw Environmental, Inc.

3010 Briarpark Drive, Suite 4N  
Houston, TX 77042 (713) 996-4400

# CHAIN-OF-CUSTODY

00106964

No. 10956

T16445

Laboratory Name: Accutest Address: 10165 HARWIN DR. #150 Agnes  
Houston, TX 77036 Contact: 713-271-4700

Project Name: Loughorn Army Ammunition Plant Project Location: HARNACK, TX  
Project No. 117591 Project Contact: Kay Everette Project Telephone No. 713-996-4421

Point of contact: DIANE MEYER Project Manager/Supervisor: PRAVEEN SRIVASTAV

Telephone No. 713-996-4408

| Item No.                                  | Sample Number   | Date          | Time       | Comp                                                | Grab | Matrix          | Sample Description, Location | Number of Containers                                          | Analysis and Method Desired (Indicate separate containers) |                                    |           |           |       |       |        |       |          |       | Remarks |             |
|-------------------------------------------|-----------------|---------------|------------|-----------------------------------------------------|------|-----------------|------------------------------|---------------------------------------------------------------|------------------------------------------------------------|------------------------------------|-----------|-----------|-------|-------|--------|-------|----------|-------|---------|-------------|
|                                           |                 |               |            |                                                     |      |                 |                              |                                                               | VOC                                                        | SOP 175                            | GASES-QD2 | TOC       | 415.1 | 300.0 | ANIONS | 370.2 | SULFIDES | 314.0 |         | PERCHLORATE |
| 13                                        | 17WW05-FEB2007  | 2/23/07       | 15:35      | ✓                                                   | W    | GW              | 17WW05                       | 15                                                            | 3                                                          | 3                                  | 3         | 1         | 1     | 1     | 1      | 2     | 1        |       |         |             |
| 14                                        | 17WW06-FEB2007  | 2/23/07       | 16:38      | ✓                                                   | W    | GW              | 17WW06                       | 14                                                            | 3                                                          | 3                                  | 3         | 1         | 1     | 1     | 1      | 1     | 1        |       |         |             |
| 15                                        | 3               | tb.           | AR-2-24-07 |                                                     |      |                 |                              |                                                               |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| 16                                        | 4               |               |            |                                                     |      |                 |                              |                                                               |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| 17                                        | 5               |               |            |                                                     |      |                 |                              |                                                               |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| 18                                        | 17WW130-FEB2007 | 2/23/07       | 10:47      |                                                     |      |                 | AR-2-26-07                   |                                                               |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| 9                                         |                 |               |            |                                                     |      |                 |                              |                                                               |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| 10                                        |                 |               |            |                                                     |      |                 |                              |                                                               |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| Transfers Relinquished By (Signature)     |                 | Date/Time     |            | Transfers Accepted By (Signature)                   |      | Date/Time       |                              | Special Instructions                                          |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| <i>M. Hill</i>                            |                 | 2/23/07 17:00 |            | <i>Sarah Boerger</i>                                |      | 2/23/07 17:00   |                              | UR                                                            |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
| <i>Sarah Boerger</i>                      |                 | 2/23/07 17:15 |            |                                                     |      |                 |                              | FedEx Airbill No.:                                            |                                                            |                                    |           |           |       |       |        |       |          |       |         |             |
|                                           |                 |               |            | Laboratory                                          |      | <i>A. Rodin</i> |                              | 2/24/07/11:15                                                 |                                                            | Sampler's Signature <i>M. Hill</i> |           |           |       |       |        |       |          |       |         |             |
| TAT: _____ Standard _____ Rush Due: _____ |                 |               |            | Seals Intact? <input checked="" type="checkbox"/> N |      |                 |                              | Received Good Condition <input checked="" type="checkbox"/> N |                                                            |                                    |           | No. 10956 |       |       |        |       |          |       |         |             |

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T16445: Chain of Custody

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**ACCUTEST.****VARIANCE MEMO  
SAMPLE LOG-IN**

00106965

SAMPLE(S) VARIOUS  
PROJECT LHAAP  
FILED BY ARDATE 2/24/07LAB NO. T16445**VARIANCE - Check applicable item(s):**

- Insufficient sample sent for proper analysis; received approx. \_\_\_\_\_
- Sample bottle received broken and/or cap not intact.
- Samples received without paperwork; paperwork received without samples.
- ☒ Samples received without proper refrigeration, when it has been deemed necessary. Temperature at receipt: 11.0° - 1 cooler
- Illegible sample number or label missing from bottle.
- Numbers on sample not the same as numbers on paper work.
- Incomplete instructions received with sample(s) ie., no request for analysis, no chain of custody, incomplete billing instructions, no due date, etc. Temperature at receipt: \_\_\_\_\_
- Samples received in improper container or lacking proper preservation.
- Physical characteristics different than those on sampling sheets; Describe: \_\_\_\_\_
- Rush samples on hold because of incomplete paperwork.

Other (specify) #11 - rec'd. w/ one explosive container not two.  
#9 - Had NO Explosive Containers.  
#18 - 17 WU130 FEB 2007 was an extra sample rec'd. & not on the COL.  
See attached list of samples received out of temp.

**CORRECTIVE ACTION TAKEN**

DIANE M. Person Contacted \_\_\_\_\_ By phone. \_\_\_\_\_

Client informed verbally. \_\_\_\_\_ Samples processed for information only and noted on report.

Client informed by memo/letter. EMAIL \_\_\_\_\_ Samples processed with higher detection limits accepted.

Samples processed as is. \_\_\_\_\_ Samples rejected.

Samples preserved by lab. \_\_\_\_\_

Client will resample and resubmit. \_\_\_\_\_

Notes: Analyze all samples out of temp. -11) OK, -9) OK  
18) Analyze all short holds. Place on hold.  
Analyze 5x18 per Diane 2/26/A AVS

**ROUTING**

| TITLE            | DATE          | INITIALS   | CORRECTED? |
|------------------|---------------|------------|------------|
| Sample Manager:  |               |            |            |
| Login:           |               |            |            |
| Project Manager: | <u>2/26/A</u> | <u>AVS</u> |            |
| Comments:        |               |            |            |

Form: SM006

T16445: Chain of Custody  
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Sampled out of temp.: 11.0°

00106966

- #2 - 47 WW30 - FEB 2007 - 2/28/07 @ 09:41  
2 - Plastic 1000 ml's unpreserved.
- #7 - 17 WW16 - FEB 2007 - 2/28/07 @ 10:30.  
1 - Plastic 1000 ml unpreserved
- #8 - 17 WW02 - FEB 2007 2/28/07 @ 14:18.  
2 - Plastic 1000 ml's unpreserved  
1 - Plastic 500 ml w/ NaOH & Zinc Acetate
- #9 - 17 WW02 - FEB 2007 2/28/07 @ 14:18 - FD  
2 - Plastic 1000 ml unpreserved.
- #10 - 29 WW35 - FEB 2007 2/28/07 @ 12:45.  
2 - Plastic 1000 ml's unpreserved.  
1 - Plastic 500 ml unpreserved.
- #11 29 WW35 - FEB 2007 - FD 2/28/07 @ 12:45.  
2 - Plastic 1000 ml's unpreserved.  
1 - Plastic 500 ml w/ NaOH & Zinc Acetate
- #12 - 29 WW06 - FEB 2007 2/28/07 @ 15:00.  
2 - Plastic 1000 ml's unpreserved.  
1 - Plastic 500 ml. w/ NaOH & Zinc Acetate.



**ACCUTEST.**

**SAMPLE RECEIPT LOG**

00106967

JOB #: T16445

DATE/TIME RECEIVED: 2/24/07 11:15

CLIENT: Shaw

INITIALS: AR

- Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):
- ☒ N Sample received in undamaged condition.
  - ☒ N Samples received within temp. range.
  - ☒ N Sample received with proper pH.
  - ☒ N Sample received in proper containers.
  - ☒ N Sample volume sufficient for analysis.
  - ☒ N Sample received with chain of custody.
  - ☒ N Chain of Custody matches sample IDs and analysis on containers.
  - ☒ N Samples Headspace acceptable
  - ☒ N Custody seal received intact and tamper not evident on cooler.
  - ☒ N Custody seal received intact and tamper not evident on bottles.

| SAMPLE or FIELD ID  | BOTTLE # | DATE SAMPLED | MATRIX | VOLUME | LOCATION | PRESERV.    | PH             |
|---------------------|----------|--------------|--------|--------|----------|-------------|----------------|
| 1,2,3,4,7,8,9,10,11 | 1-3      | 2/22         | AD     | 40ml.  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
| 1                   | 4-6      |              |        |        | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
| 1                   | 7-9      |              |        |        | 2K, 2L   | 1,2,3,4,5,6 | U, <2, >12, NA |
| 1                   | 10-12    |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |
| 1,2,3,4,10,11       | 13       |              |        | P500   |          | 1,2,3,4,5,6 | U, <2, >12, NA |
| 1,8,18              | 14-15    |              |        | 81000  | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
| 5                   | 1-9      | 2/23         |        | 40ml.  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 10-18    |              |        |        | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 19-27    |              |        |        | 2K, 2L   | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 28-32    |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 33-35    |              |        | P500   |          | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 36-38    |              |        |        |          | 1,2,3,4,5,6 | U, <2, >12, NA |
| U                   | 1-3      |              |        | 40ml.  | VREF     | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 4-6      |              |        |        | SUB      | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 7-9      |              |        |        | 2K, 2L   | 1,2,3,4,5,6 | U, <2, >12, NA |
|                     | 10-11    |              |        | P1000  |          | 1,2,3,4,5,6 | U, <2, >12, NA |

LOCATION: WI: Walk-in VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

pH of waters checked excluding volatiles  
pH of soils N/A

Delivery method: Courier; FE

COOLER TEMP: 11.0 COOLER TEMP: 3.6  
COOLER TEMP: 3.0 COOLER TEMP: 3.0  
Form: SM012, Rev.07/28/06, QAO

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**ACCUTEST.**

**SAMPLE RECEIPT LOG**

00106968

JOB #: T16445

DATE/TIME RECEIVED: 2/24/07/11:15

CLIENT: Shaw

INITIALS: AR

- Condition/Variance (Circle "Y" for yes and "N" for no or NA. If "N" is circled, see variance for explanation):
1. ☒ N Sample received in undamaged condition.
  2. ☒ N Samples received within temp. range.
  3. ☒ N Sample received with proper pH.
  4. ☒ N Sample received in proper containers.
  5. ☒ N Sample volume sufficient for analysis.
  6. ☒ N Sample received with chain of custody.
  7. ☒ N Chain of Custody matches sample IDs and analysis on containers.
  8. ☒ N Samples Headspace acceptable
  9. ☒ N NA Custody seal received intact and tamper not evident on cooler.
  10. Y N ☒ NA Custody seal received intact and tamper not evident on bottles.

| SAMPLE or FIELD ID | BOTTLE # | DATE SAMPLED | MATRIX | VOLUME | LOCATION | PRESERV.    | PH                |
|--------------------|----------|--------------|--------|--------|----------|-------------|-------------------|
| 6                  | 12       | 2/23         | AR     | P500   | 2K, 2L   | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 6                  | 13       | 1            |        | 1      | 1        | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 7                  | 10       | 2/22         |        | P1000  | 2K, 2L   | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 7                  | 11       |              |        | P500   | 1        | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 7                  | 12       |              |        | 1      | 1        | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 7                  | 13-15    |              |        | A1000  | SUB      | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 10                 | 10-12    |              |        | P1000  | 2K, 2L   | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 10                 | 13       |              |        | P500   | 1        | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 10                 | 14-15    |              |        | A1000  | SUB      | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 11                 | 14       |              |        | 1      | 1        | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 13                 | 10       |              |        | P1000  | 2K, 2L   | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 1                  | 11-12    |              |        | P500   | 1        | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 1                  | 13       |              |        | 1      | 1        | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 1                  | 14-15    |              |        | A1000  | SUB      | 1,2,3,4,5,6 | 10 <2, >12, NA    |
| 14                 | 14       |              |        | A1000  | SUB      | 1,2,3,4,5,6 | U, 10 <2, >12, NA |
| 15-17              | 1-2      | N/A          | AR     | some   | VREF     | 1,2,3,4,5,6 | U, 10 <2, >12, NA |

LOCATION: WI: Walk-in VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

Comments:

pH of waters checked excluding volatiles  
pH of soils N/A

Delivery method: Courier: FE

COOLER TEMP: 2.4 COOLER TEMP: 2.1  
COOLER TEMP: COOLER TEMP:

Form: SM012, Rev.07/28/06, QAO

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## Appendix A Laboratory Data Package Cover Page

4.2  
4

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 or ISO/IEC 17025 Section 5.10
  - 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 me 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.

**Check, if applicable:** [ ] This laboratory is an in-house laboratory controlled by the person responding to rule. The official signing the cover page of the rule-required report (for example, the APAR) in which these data are used is responsible for releasing this data package and is by signature affirming the above release statement is true.

Ron Martino



Lab Director

3/19/2007

Name (Printed)

Signature

Official Title (printed)

Date

1. Items identified by the letter "R" must be included in the laboratory data package submitted 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.

| Appendix A (cont'd): Laboratory Review Checklist: Reportable Data |                |                                                                                                                               |                               |    |                 |                 |                  |
|-------------------------------------------------------------------|----------------|-------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----|-----------------|-----------------|------------------|
| Laboratory Name: Accutest Laboratories Gulf Coast                 |                |                                                                                                                               | LRC Date: 3/19/2007           |    |                 |                 |                  |
| Project Name: Longhorn                                            |                |                                                                                                                               | Laboratory Job Number: T16445 |    |                 |                 |                  |
| Reviewer Name: Ron Martino                                        |                |                                                                                                                               | Prep Batch Number(s):         |    |                 |                 |                  |
| # <sup>1</sup>                                                    | A <sup>2</sup> | Description                                                                                                                   | Yes                           | No | NA <sup>3</sup> | NR <sup>4</sup> | ER# <sup>5</sup> |
|                                                                   |                | <b>Chain-of-custody (C-O-C)</b>                                                                                               |                               |    |                 |                 |                  |
| R1                                                                | OI             | Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?                                   | X                             |    |                 |                 |                  |
|                                                                   |                | Were all departures from standard conditions described in an exception report?                                                | X                             |    |                 |                 |                  |
| R2                                                                | OI             | <b>Sample and quality control (QC) identification</b>                                                                         |                               |    |                 |                 |                  |
|                                                                   |                | Are all field sample ID numbers cross-referenced to the laboratory ID numbers?                                                | X                             |    |                 |                 |                  |
|                                                                   |                | Are all laboratory ID numbers cross-referenced to the corresponding QC data?                                                  | X                             |    |                 |                 |                  |
| R3                                                                | OI             | <b>Test reports</b>                                                                                                           |                               |    |                 |                 |                  |
|                                                                   |                | Were all samples prepared and analyzed within holding times?                                                                  | X                             |    |                 |                 |                  |
|                                                                   |                | Other than those results < MQL, were all other raw values bracketed by calibration standards?                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were calculations checked by a peer or supervisor?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were all analyte identifications checked by a peer or supervisor?                                                             | X                             |    |                 |                 |                  |
|                                                                   |                | Were sample quantitation limits reported for all analytes not detected?                                                       | X                             |    |                 |                 |                  |
|                                                                   |                | Were all results for soil and sediment samples reported on a dry weight basis?                                                |                               |    | X               |                 |                  |
|                                                                   |                | Were % moisture (or solids) reported for all soil and sediment samples?                                                       |                               |    | X               |                 |                  |
|                                                                   |                | If required for the project, TICs reported?                                                                                   |                               |    | X               |                 |                  |
| R4                                                                | O              | <b>Surrogate recovery data</b>                                                                                                |                               |    |                 |                 |                  |
|                                                                   |                | Were surrogates added prior to extraction?                                                                                    | X                             |    |                 |                 |                  |
|                                                                   |                | Were surrogate percent recoveries in all samples within the laboratory QC limits?                                             | X                             |    |                 |                 |                  |
| R5                                                                | OI             | <b>Test reports/summary forms for blank samples</b>                                                                           |                               |    |                 |                 |                  |
|                                                                   |                | Were appropriate type(s) of blanks analyzed?                                                                                  | X                             |    |                 |                 |                  |
|                                                                   |                | Were blanks analyzed at the appropriate frequency?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures? | X                             |    |                 |                 |                  |
|                                                                   |                | Were blank concentrations < MQL?                                                                                              | X                             |    |                 |                 |                  |
| R6                                                                | OI             | <b>Laboratory control samples (LCS):</b>                                                                                      |                               |    |                 |                 |                  |
|                                                                   |                | Were all COCs included in the LCS?                                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were LCSs analyzed at the required frequency?                                                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?                                                       | X                             |    |                 |                 |                  |
|                                                                   |                | Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?    | X                             |    |                 |                 |                  |
|                                                                   |                | Was the LCSD RPD within QC limits?                                                                                            |                               |    | X               |                 |                  |
| R7                                                                | OI             | <b>Matrix spike (MS) and matrix spike duplicate (MSD) data</b>                                                                |                               |    |                 |                 |                  |
|                                                                   |                | Were the project/method specified analytes included in the MS and MSD?                                                        | X                             |    |                 |                 |                  |
|                                                                   |                | Were MS/MSD analyzed at the appropriate frequency?                                                                            | X                             |    |                 |                 |                  |
|                                                                   |                | Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?                                                         |                               | X  |                 |                 | 2                |
|                                                                   |                | Were MS/MSD RPDs within laboratory QC limits?                                                                                 | X                             |    |                 |                 |                  |
| R8                                                                | OI             | <b>Analytical duplicate data</b>                                                                                              |                               |    |                 |                 |                  |
|                                                                   |                | Were appropriate analytical duplicates analyzed for each matrix?                                                              | X                             |    |                 |                 |                  |
|                                                                   |                | Were analytical duplicates analyzed at the appropriate frequency?                                                             | X                             |    |                 |                 |                  |
|                                                                   |                | Were RPDs or relative standard deviations within the laboratory QC limits?                                                    | X                             |    |                 |                 |                  |
| R9                                                                | OI             | <b>Method quantitation limits (MQLs):</b>                                                                                     |                               |    |                 |                 |                  |
|                                                                   |                | Are the MQLs for each method analyte included in the laboratory data package?                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?                                      | X                             |    |                 |                 |                  |
|                                                                   |                | Are unadjusted MQLs included in the laboratory data package?                                                                  | X                             |    |                 |                 |                  |
| R10                                                               | OI             | <b>Other problems/anomalies</b>                                                                                               |                               |    |                 |                 |                  |
|                                                                   |                | Are all known problems/anomalies/special conditions noted in this LRC and ER?                                                 | X                             |    |                 |                 |                  |
|                                                                   |                | Were all necessary corrective actions performed for the reported data?                                                        | X                             |    |                 |                 |                  |

2. = 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).

**Appendix A (cont'd): Laboratory Review Checklist: Reportable Data**

Laboratory Name: Accutest Laboratories Gulf Coast

LRC Date: 3/19/2007

Project Name: Longhom

Laboratory Job Number: T16445

Reviewer Name: Ron Martino

Prep Batch Number(s):

| # <sup>1</sup> | A <sup>2</sup> | Description                                                                                            | Yes | No | NA <sup>3</sup> | NR <sup>4</sup> | ER# <sup>5</sup> |
|----------------|----------------|--------------------------------------------------------------------------------------------------------|-----|----|-----------------|-----------------|------------------|
| S1             | OI             | <b>Initial calibration (ICAL)</b>                                                                      |     |    |                 |                 |                  |
|                |                | Were response factors and/or relative response factors for each analyte within QC limits?              | X   |    |                 |                 |                  |
|                |                | Were percent RSDs or correlation coefficient criteria met?                                             | X   |    |                 |                 |                  |
|                |                | Was the number of standards recommended in the method used for all analytes?                           | X   |    |                 |                 |                  |
|                |                | Were all points generated between the lowest and highest standard used to calculate the curve?         | X   |    |                 |                 |                  |
|                |                | Are ICAL data available for all instruments used?                                                      | X   |    |                 |                 |                  |
|                |                | 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</b>       |     |    |                 |                 |                  |
|                |                | Was the CCV analyzed at the method-required frequency?                                                 | X   |    |                 |                 |                  |
|                |                | Were percent differences for each analyte within the method-required QC limits?                        | X   |    |                 |                 |                  |
|                |                | Was the ICAL curve verified for each analyte?                                                          | X   |    |                 |                 |                  |
|                |                | Was the absolute value of the analyte concentration in the inorganic CCB < MDL?                        | X   |    |                 |                 |                  |
| S3             | O              | <b>Mass spectral tuning:</b>                                                                           |     |    |                 |                 |                  |
|                |                | Was the appropriate compound for the method used for tuning?                                           | X   |    |                 |                 |                  |
|                |                | Were ion abundance data within the method-required QC limits?                                          | X   |    |                 |                 |                  |
| S4             | O              | <b>Internal standards (IS):</b>                                                                        |     |    |                 |                 |                  |
|                |                | 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 or ISO/IEC 17025 section</b>        |     |    |                 |                 |                  |
|                |                | Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?                  | X   |    |                 |                 |                  |
|                |                | Were data associated with manual integrations flagged on the raw data?                                 | X   |    |                 |                 |                  |
| S6             | O              | <b>Dual column confirmation</b>                                                                        |     |    |                 |                 |                  |
|                |                | Did dual column confirmation results meet the method-required QC?                                      |     |    | X               |                 |                  |
| S7             | O              | <b>Tentatively identified compounds (TICs):</b>                                                        |     |    |                 |                 |                  |
|                |                | 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>                                                        |     |    |                 |                 |                  |
|                |                | Were percent recoveries within method QC limits?                                                       |     |    | X               |                 |                  |
|                | I              | <b>Serial dilutions, post digestion spikes, and method of standard additions</b>                       |     |    |                 |                 |                  |
|                |                | 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>                                                            |     |    |                 |                 |                  |
|                |                | Was a MDL study performed for each reported analyte?                                                   | X   |    |                 |                 |                  |
|                |                | Is the MDL either adjusted or supported by the analysis of DCCs?                                       | X   |    |                 |                 |                  |
| S11            | OI             | <b>Proficiency test reports:</b>                                                                       |     |    |                 |                 |                  |
|                |                | Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies? | X   |    |                 |                 |                  |
| S12            | OI             | <b>Standards documentation</b>                                                                         |     |    |                 |                 |                  |
|                |                | Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?      | X   |    |                 |                 |                  |
| S13            | OI             | <b>Compound/analyte identification procedures</b>                                                      |     |    |                 |                 |                  |
|                |                | Are the procedures for compound/analyte identification documented?                                     | X   |    |                 |                 |                  |
| S14            | OI             | <b>Demonstration of analyst competency (DOC)</b>                                                       |     |    |                 |                 |                  |
|                |                | Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?                                       | X   |    |                 |                 |                  |
|                |                | Is documentation of the analyst's competency up-to-date and on file?                                   | X   |    |                 |                 |                  |
| S15            | OI             | <b>Verification/validation documentation for methods</b> (NELAC Chap 5 or ISO/IEC 17025 Section 5)     |     |    |                 |                 |                  |
|                |                | 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>                                                |     |    |                 |                 |                  |
|                |                | Are laboratory SOPs current and on file for each method performed?                                     | 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).

| Laboratory Name: Accutest Laboratories Gulf Coast |                                                                                                                                                                             | LRC Date: 3/19/2007           |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| Project Name: Longhorn                            |                                                                                                                                                                             | Laboratory Job Number: T16445 |
| Reviewer Name: Ron Martino                        |                                                                                                                                                                             | Prep Batch Number(s):         |
| ER # <sup>1</sup>                                 | DESCRIPTION                                                                                                                                                                 |                               |
| 1                                                 | For reporting purposes, the MQL is defined in the report as the RL. The unadjusted MQL/RL is reported in the method blank. The SQL/MDL is defined in the report as the MDL. |                               |
| 2                                                 | All anomalies are discussed in the case narrative.                                                                                                                          |                               |

RG-366/TRRP-13 December 2002

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**ACCUTEST.**  
T16445 Laboratories



IT'S ALL IN THE CHEMISTRY

**Section 5****GC/MS Volatiles**

5

**QC Data Summaries**

---

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

Page 1 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2314-MB | F0079164.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-1, T16445-2, T16445-5

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16445  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2314-MB | F0079164.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16445-1, T16445-2, T16445-5

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 104% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 100% 66-139% |
| 2037-26-5  | Toluene-D8            | 106% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 113% 84-150% |

5.1.1  
5



**Method Blank Summary**

Page 1 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2315-MB | F0079184.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-3, T16445-6, T16445-8, T16445-9, T16445-10, T16445-11, T16445-14, T16445-15, T16445-18

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16445  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2315-MB | F0079184.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16445-3, T16445-6, T16445-8, T16445-9, T16445-10, T16445-11, T16445-14, T16445-15, T16445-18

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 103% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 98% 66-139%  |
| 2037-26-5  | Toluene-D8            | 109% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 129% 84-150% |

**Method Blank Summary**

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**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2318-MB | F0079225.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-3, T16445-4, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-12, T16445-13, T16445-14

| CAS No.    | Compound                   | Result | RL  | MDL  | Units | Q |
|------------|----------------------------|--------|-----|------|-------|---|
| 67-64-1    | Acetone                    | ND     | 50  | 2.8  | ug/l  |   |
| 71-43-2    | Benzene                    | ND     | 2.0 | 0.23 | ug/l  |   |
| 75-27-4    | Bromodichloromethane       | ND     | 2.0 | 0.33 | ug/l  |   |
| 75-25-2    | Bromoform                  | ND     | 2.0 | 0.65 | ug/l  |   |
| 108-90-7   | Chlorobenzene              | ND     | 2.0 | 0.54 | ug/l  |   |
| 75-00-3    | Chloroethane               | ND     | 2.0 | 0.46 | ug/l  |   |
| 67-66-3    | Chloroform                 | ND     | 2.0 | 0.66 | ug/l  |   |
| 75-15-0    | Carbon disulfide           | ND     | 2.0 | 0.62 | ug/l  |   |
| 56-23-5    | Carbon tetrachloride       | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-34-3    | 1,1-Dichloroethane         | ND     | 2.0 | 0.52 | ug/l  |   |
| 75-35-4    | 1,1-Dichloroethylene       | ND     | 2.0 | 0.68 | ug/l  |   |
| 107-06-2   | 1,2-Dichloroethane         | ND     | 2.0 | 0.53 | ug/l  |   |
| 78-87-5    | 1,2-Dichloropropane        | ND     | 2.0 | 0.59 | ug/l  |   |
| 124-48-1   | Dibromochloromethane       | ND     | 2.0 | 0.68 | ug/l  |   |
| 156-59-2   | cis-1,2-Dichloroethylene   | ND     | 2.0 | 0.83 | ug/l  |   |
| 10061-01-5 | cis-1,3-Dichloropropene    | ND     | 2.0 | 0.59 | ug/l  |   |
| 156-60-5   | trans-1,2-Dichloroethylene | ND     | 2.0 | 0.75 | ug/l  |   |
| 10061-02-6 | trans-1,3-Dichloropropene  | ND     | 2.0 | 0.61 | ug/l  |   |
| 100-41-4   | Ethylbenzene               | ND     | 2.0 | 0.48 | ug/l  |   |
| 591-78-6   | 2-Hexanone                 | ND     | 10  | 1.9  | ug/l  |   |
| 108-10-1   | 4-Methyl-2-pentanone       | ND     | 10  | 7.3  | ug/l  |   |
| 74-83-9    | Methyl bromide             | ND     | 2.0 | 0.47 | ug/l  |   |
| 74-87-3    | Methyl chloride            | ND     | 2.0 | 0.60 | ug/l  |   |
| 75-09-2    | Methylene chloride         | ND     | 5.0 | 0.67 | ug/l  |   |
| 78-93-3    | Methyl ethyl ketone        | ND     | 10  | 3.0  | ug/l  |   |
| 100-42-5   | Styrene                    | ND     | 2.0 | 0.50 | ug/l  |   |
| 71-55-6    | 1,1,1-Trichloroethane      | ND     | 2.0 | 0.37 | ug/l  |   |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | ND     | 2.0 | 0.46 | ug/l  |   |
| 79-00-5    | 1,1,2-Trichloroethane      | ND     | 2.0 | 0.66 | ug/l  |   |
| 127-18-4   | Tetrachloroethylene        | ND     | 2.0 | 0.74 | ug/l  |   |
| 108-88-3   | Toluene                    | ND     | 2.0 | 0.54 | ug/l  |   |
| 79-01-6    | Trichloroethylene          | ND     | 2.0 | 0.63 | ug/l  |   |
| 75-01-4    | Vinyl chloride             | ND     | 2.0 | 0.32 | ug/l  |   |
| 1330-20-7  | Xylene (total)             | ND     | 6.0 | 1.1  | ug/l  |   |

Method Blank Summary

Job Number: T16445  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2318-MB | F0079225.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16445-3, T16445-4, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-12, T16445-13, T16445-14

| CAS No.    | Surrogate Recoveries  | Limits       |
|------------|-----------------------|--------------|
| 1868-53-7  | Dibromofluoromethane  | 103% 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97% 66-139%  |
| 2037-26-5  | Toluene-D8            | 108% 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 121% 84-150% |

**Blank Spike Summary**

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**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2314-BS | F0079163.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-1, T16445-2, T16445-5

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 109         | 87       | 31-158 |
| 71-43-2    | Benzene                    | 25            | 22.8        | 91       | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 21.5        | 86       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 22.4        | 90       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 22.3        | 89       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 24.7        | 99       | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 23.2        | 93       | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 19.0        | 76       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 25.0        | 100      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 23.1        | 92       | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 22.3        | 89       | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 23.6        | 94       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 22.6        | 90       | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 21.7        | 87       | 67-117 |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 21.9        | 88       | 65-116 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 21.9        | 88       | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 22.2        | 89       | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 22.9        | 92       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 22.1        | 88       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 115         | 92       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 121         | 97       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 21.3        | 85       | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 20.7        | 83       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 20.5        | 82       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 115         | 92       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 18.5        | 74       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 24.1        | 96       | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 21.7        | 87       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 22.9        | 92       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 23.7        | 95       | 72-128 |
| 108-88-3   | Toluene                    | 25            | 22.4        | 90       | 70-121 |
| 79-01-6    | Trichloroethylene          | 25            | 23.1        | 92       | 69-120 |
| 75-01-4    | Vinyl chloride             | 25            | 23.0        | 92       | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 67.8        | 90       | 72-120 |

Blank Spike Summary

Job Number: T16445  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2314-BS | F0079163.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16445-1, T16445-2, T16445-5

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 105% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 102% | 66-139% |
| 2037-26-5  | Toluene-D8            | 103% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 98%  | 84-150% |

5.2.1  
5

**Blank Spike Summary**

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**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2315-BS | F0079183.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-3, T16445-6, T16445-8, T16445-9, T16445-10, T16445-11, T16445-14, T16445-15, T16445-18

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 103         | 82       | 31-158 |
| 71-43-2    | Benzene                    | 25            | 25.1        | 100      | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 23.8        | 95       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 22.2        | 89       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 24.3        | 97       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 26.6        | 106      | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 25.7        | 103      | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 21.7        | 87       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 27.6        | 110      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 26.2        | 105      | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 25.4        | 102      | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 24.1        | 96       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 25.2        | 101      | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 22.4        | 90       | 67-117 |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 24.3        | 97       | 65-116 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 25.0        | 100      | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 25.2        | 101      | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 24.7        | 99       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 23.9        | 96       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 101         | 81       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 111         | 89       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 23.0        | 92       | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 23.0        | 92       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 23.5        | 94       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 107         | 86       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 20.0        | 80       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 26.2        | 105      | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 21.4        | 86       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 22.9        | 92       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 26.4        | 106      | 72-128 |
| 108-88-3   | Toluene                    | 25            | 24.3        | 97       | 70-121 |
| 79-01-6    | Trichloroethylene          | 25            | 26.1        | 104      | 69-120 |
| 75-01-4    | Vinyl chloride             | 25            | 25.2        | 101      | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 74.2        | 99       | 72-120 |

Blank Spike Summary

Job Number: T16445  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2315-BS | F0079183.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16445-3, T16445-6, T16445-8, T16445-9, T16445-10, T16445-11, T16445-14, T16445-15, T16445-18

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 104% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 101% | 66-139% |
| 2037-26-5  | Toluene-D8            | 102% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 84-150% |



**Blank Spike Summary**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2318-BS | F0079224.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16445-3, T16445-4, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-12, T16445-13, T16445-14

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 67-64-1    | Acetone                    | 125           | 87.0        | 70       | 31-158 |
| 71-43-2    | Benzene                    | 25            | 24.3        | 97       | 67-118 |
| 75-27-4    | Bromodichloromethane       | 25            | 22.4        | 90       | 66-115 |
| 75-25-2    | Bromoform                  | 25            | 20.6        | 82       | 57-119 |
| 108-90-7   | Chlorobenzene              | 25            | 24.0        | 96       | 72-116 |
| 75-00-3    | Chloroethane               | 25            | 24.1        | 96       | 61-135 |
| 67-66-3    | Chloroform                 | 25            | 24.6        | 98       | 66-117 |
| 75-15-0    | Carbon disulfide           | 25            | 20.1        | 80       | 39-136 |
| 56-23-5    | Carbon tetrachloride       | 25            | 27.0        | 108      | 67-131 |
| 75-34-3    | 1,1-Dichloroethane         | 25            | 24.3        | 97       | 63-125 |
| 75-35-4    | 1,1-Dichloroethylene       | 25            | 23.0        | 92       | 52-143 |
| 107-06-2   | 1,2-Dichloroethane         | 25            | 22.7        | 91       | 61-120 |
| 78-87-5    | 1,2-Dichloropropane        | 25            | 24.3        | 97       | 64-118 |
| 124-48-1   | Dibromochloromethane       | 25            | 21.1        | 84       | 67-117 |
| 156-59-2   | cis-1,2-Dichloroethylene   | 25            | 23.4        | 94       | 65-116 |
| 10061-01-5 | cis-1,3-Dichloropropene    | 25            | 23.6        | 94       | 67-118 |
| 156-60-5   | trans-1,2-Dichloroethylene | 25            | 23.3        | 93       | 66-128 |
| 10061-02-6 | trans-1,3-Dichloropropene  | 25            | 22.2        | 89       | 73-126 |
| 100-41-4   | Ethylbenzene               | 25            | 23.9        | 96       | 71-119 |
| 591-78-6   | 2-Hexanone                 | 125           | 87.1        | 70       | 45-132 |
| 108-10-1   | 4-Methyl-2-pentanone       | 125           | 95.6        | 76       | 46-127 |
| 74-83-9    | Methyl bromide             | 25            | 21.3        | 85       | 51-126 |
| 74-87-3    | Methyl chloride            | 25            | 22.5        | 90       | 47-130 |
| 75-09-2    | Methylene chloride         | 25            | 21.8        | 87       | 53-130 |
| 78-93-3    | Methyl ethyl ketone        | 125           | 87.5        | 70       | 47-128 |
| 100-42-5   | Styrene                    | 25            | 19.3        | 77       | 69-115 |
| 71-55-6    | 1,1,1-Trichloroethane      | 25            | 26.5        | 106      | 67-128 |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 25            | 19.4        | 78       | 57-121 |
| 79-00-5    | 1,1,2-Trichloroethane      | 25            | 20.9        | 84       | 62-117 |
| 127-18-4   | Tetrachloroethylene        | 25            | 26.1        | 104      | 72-128 |
| 108-88-3   | Toluene                    | 25            | 23.9        | 96       | 70-121 |
| 79-01-6    | Trichloroethylene          | 25            | 25.5        | 102      | 69-120 |
| 75-01-4    | Vinyl chloride             | 25            | 22.5        | 90       | 59-145 |
| 1330-20-7  | Xylene (total)             | 75            | 72.3        | 96       | 72-120 |

Blank Spike Summary

Job Number: T16445  
Account: ITTXHO Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Sample    | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|------------|----|----------|----|-----------|------------|------------------|
| VF2318-BS | F0079224.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

The QC reported here applies to the following samples: Method: SW846 8260B

T16445-3, T16445-4, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-12, T16445-13, T16445-14

| CAS No.    | Surrogate Recoveries  | BSP  | Limits  |
|------------|-----------------------|------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106% | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 97%  | 66-139% |
| 2037-26-5  | Toluene-D8            | 103% | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 101% | 84-150% |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16445-5MS  | F0079170.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| T16445-5MSD | F0079171.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| T16445-5    | F0079169.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| T16445-5    | F0079180.D | 20 | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-1, T16445-2, T16445-5

| CAS No.    | Compound                   | T16445-5<br>ug/l  | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>%           | MSD<br>ug/l | MSD<br>%          | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|-------------------|------------|------|------------|-------------------|-------------|-------------------|-----|-------------------|
| 67-64-1    | Acetone                    | 50 U              |            | 125  | 121        | 97                | 121         | 97                | 0   | 39-130/26         |
| 71-43-2    | Benzene                    | 2.0 U             |            | 25   | 23.6       | 94                | 22.9        | 92                | 3   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | 2.0 U             |            | 25   | 22.6       | 90                | 21.7        | 87                | 4   | 64-119/22         |
| 75-25-2    | Bromoform                  | 2.0 U             |            | 25   | 23.7       | 95                | 22.9        | 92                | 3   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | 2.0 U             |            | 25   | 22.8       | 91                | 22.4        | 90                | 2   | 72-118/20         |
| 75-00-3    | Chloroethane               | 2.0 U             |            | 25   | 26.5       | 106               | 25.7        | 103               | 3   | 60-136/25         |
| 67-66-3    | Chloroform                 | 2.0 U             |            | 25   | 24.0       | 96                | 23.6        | 94                | 2   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | 2.0 U             |            | 25   | 19.4       | 78                | 19.7        | 79                | 2   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | 2.0 U             |            | 25   | 25.3       | 101               | 25.0        | 100               | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 1.3               | J          | 25   | 25.7       | 98                | 25.0        | 95                | 3   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 12.9              |            | 25   | 35.8       | 92                | 36.0        | 92                | 1   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | 13.5              |            | 25   | 39.1       | 102               | 38.0        | 98                | 3   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | 2.0 U             |            | 25   | 23.8       | 95                | 23.2        | 93                | 3   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | 2.0 U             |            | 25   | 21.9       | 88                | 22.0        | 88                | 0   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 48.2              |            | 25   | 72.1       | 96                | 72.9        | 99                | 1   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 2.0 U             |            | 25   | 22.2       | 89                | 22.2        | 89                | 0   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.0 U             |            | 25   | 24.0       | 96                | 23.5        | 94                | 2   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 2.0 U             |            | 25   | 22.6       | 90                | 22.5        | 90                | 0   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | 2.0 U             |            | 25   | 22.4       | 90                | 22.2        | 89                | 1   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | 10 U              |            | 125  | 126        | 101               | 124         | 99                | 2   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | 10 U              |            | 125  | 133        | 106               | 132         | 106               | 1   | 41-133/22         |
| 74-83-9    | Methyl bromide             | 2.0 U             |            | 25   | 23.2       | 93                | 22.1        | 88                | 5   | 47-129/27         |
| 74-87-3    | Methyl chloride            | 2.0 U             |            | 25   | 23.7       | 95                | 22.5        | 90                | 5   | 45-133/24         |
| 75-09-2    | Methylene chloride         | 5.0 U             |            | 25   | 22.3       | 89                | 21.5        | 86                | 4   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | 10 U              |            | 125  | 126        | 101               | 125         | 100               | 1   | 43-125/29         |
| 100-42-5   | Styrene                    | 2.0 U             |            | 25   | 18.7       | 75                | 18.4        | 74                | 2   | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 2.0 U             |            | 25   | 24.8       | 99                | 24.5        | 98                | 1   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 2.0 U             |            | 25   | 22.1       | 88                | 22.7        | 91                | 3   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | 2.0 U             |            | 25   | 22.9       | 92                | 23.0        | 92                | 0   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | 5.1               |            | 25   | 28.7       | 94                | 29.1        | 96                | 1   | 69-132/21         |
| 108-88-3   | Toluene                    | 2.0 U             |            | 25   | 22.7       | 91                | 22.3        | 89                | 2   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 1460 <sup>b</sup> |            | 25   | 1680       | 200* <sup>a</sup> | 1680        | 200* <sup>a</sup> | 0   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | 2.5               |            | 25   | 28.3       | 103               | 27.3        | 99                | 4   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | 6.0 U             |            | 75   | 68.6       | 91                | 67.6        | 90                | 1   | 71-122/16         |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 2 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16445-5MS  | F0079170.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| T16445-5MSD | F0079171.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| T16445-5    | F0079169.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2314           |
| T16445-5    | F0079180.D | 20 | 03/07/07 | LJ | n/a       | n/a        | VF2314           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-1, T16445-2, T16445-5

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16445-5 | T16445-5 | Limits  |
|------------|-----------------------|------|------|----------|----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 110% | 112% | 107%     | 105%     | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 109% | 108% | 105%     | 104%     | 66-139% |
| 2037-26-5  | Toluene-D8            | 107% | 107% | 105%     | 108%     | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 102% | 103% | 114%     | 129%     | 84-150% |

(a) Outside control limits due to high level in sample relative to spike amount.

(b) Result is from Run #2.

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 2

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

| Sample                | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|------------|----|----------|----|-----------|------------|------------------|
| T16445-3MS            | F0079191.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| T16445-3MSD           | F0079192.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| T16445-3 <sup>a</sup> | F0079190.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |

The QC reported here applies to the following samples:

Method: SW846 8260B

T16445-3, T16445-6, T16445-8, T16445-9, T16445-10, T16445-11, T16445-14, T16445-15, T16445-18

| CAS No.    | Compound                   | T16445-3<br>ug/l | Spike<br>Q | ug/l | MS<br>ug/l | MS<br>%             | MSD<br>ug/l | MSD<br>%            | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|------------|------|------------|---------------------|-------------|---------------------|-----|-------------------|
| 67-64-1    | Acetone                    | 50 U             |            | 125  | 103        | 82                  | 98.2        | 79                  | 5   | 39-130/26         |
| 71-43-2    | Benzene                    | 2.0 U            |            | 25   | 23.6       | 94                  | 24.0        | 96                  | 2   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | 2.0 U            |            | 25   | 22.5       | 90                  | 22.3        | 89                  | 1   | 64-119/22         |
| 75-25-2    | Bromoform                  | 2.0 U            |            | 25   | 20.5       | 82                  | 20.7        | 83                  | 1   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | 2.0 U            |            | 25   | 22.8       | 91                  | 23.3        | 93                  | 2   | 72-118/20         |
| 75-00-3    | Chloroethane               | 2.0 U            |            | 25   | 24.6       | 98                  | 23.8        | 95                  | 3   | 60-136/25         |
| 67-66-3    | Chloroform                 | 2.0 U            |            | 25   | 24.9       | 100                 | 25.4        | 102                 | 2   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | 2.0 U            |            | 25   | 20.2       | 81                  | 19.9        | 80                  | 1   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | 2.0 U            |            | 25   | 25.6       | 102                 | 25.8        | 103                 | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 2.0              |            | 25   | 27.3       | 101                 | 26.7        | 99                  | 2   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 10.9             |            | 25   | 34.9       | 96                  | 33.5        | 90                  | 4   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | 2.0              |            | 25   | 24.5       | 90                  | 24.1        | 88                  | 2   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | 2.0 U            |            | 25   | 23.2       | 93                  | 24.2        | 97                  | 4   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | 2.0 U            |            | 25   | 21.4       | 86                  | 22.0        | 88                  | 3   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 699              | E          | 25   | 685        | -56* <sup>b</sup>   | 690         | -36* <sup>b</sup>   | 1   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 2.0 U            |            | 25   | 23.5       | 94                  | 23.8        | 95                  | 1   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.1              |            | 25   | 26.1       | 96                  | 26.0        | 96                  | 0   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 2.0 U            |            | 25   | 24.4       | 98                  | 24.1        | 96                  | 1   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | 2.0 U            |            | 25   | 22.8       | 91                  | 23.5        | 94                  | 3   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | 10 U             |            | 125  | 105        | 84                  | 101         | 81                  | 4   | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | 10 U             |            | 125  | 114        | 91                  | 110         | 88                  | 4   | 41-133/22         |
| 74-83-9    | Methyl bromide             | 2.0 U            |            | 25   | 21.6       | 86                  | 20.8        | 83                  | 4   | 47-129/27         |
| 74-87-3    | Methyl chloride            | 2.0 U            |            | 25   | 23.2       | 93                  | 22.1        | 88                  | 5   | 45-133/24         |
| 75-09-2    | Methylene chloride         | 5.0 U            |            | 25   | 22.8       | 91                  | 22.5        | 90                  | 1   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | 10 U             |            | 125  | 108        | 86                  | 105         | 84                  | 3   | 43-125/29         |
| 100-42-5   | Styrene                    | 2.0 U            |            | 25   | 18.9       | 76                  | 19.0        | 76                  | 1   | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 2.0 U            |            | 25   | 25.2       | 101                 | 24.8        | 99                  | 2   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 2.0 U            |            | 25   | 20.8       | 83                  | 21.4        | 86                  | 3   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | 1.7              | J          | 25   | 23.7       | 88                  | 24.0        | 89                  | 1   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | 83.1             |            | 25   | 107        | 96                  | 106         | 92                  | 1   | 69-132/21         |
| 108-88-3   | Toluene                    | 2.0 U            |            | 25   | 22.8       | 91                  | 23.4        | 94                  | 3   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 6520             | E          | 25   | 6200       | -1280* <sup>b</sup> | 6140        | -1520* <sup>b</sup> | 1   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | 3.8              |            | 25   | 28.3       | 98                  | 27.1        | 93                  | 4   | 51-147/24         |
| 1330-20-7  | Xylene (total)             | 6.0 U            |            | 75   | 69.8       | 93                  | 70.7        | 94                  | 1   | 71-122/16         |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 2 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample                | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------------------|------------|----|----------|----|-----------|------------|------------------|
| T16445-3MS            | F0079191.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| T16445-3MSD           | F0079192.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |
| T16445-3 <sup>a</sup> | F0079190.D | 1  | 03/07/07 | LJ | n/a       | n/a        | VF2315           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-3, T16445-6, T16445-8, T16445-9, T16445-10, T16445-11, T16445-14, T16445-15, T16445-18

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16445-3 | Limits  |
|------------|-----------------------|------|------|----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106% | 107% | 106%     | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 106% | 107% | 106%     | 66-139% |
| 2037-26-5  | Toluene-D8            | 101% | 104% | 102%     | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 103% | 123%     | 84-150% |

(a) For QC only.

(b) Outside control limits due to high level in sample relative to spike amount.

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16445-4MS  | F0079227.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| T16445-4MSD | F0079228.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| T16445-4    | F0079226.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-3, T16445-4, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-12, T16445-13, T16445-14

| CAS No.    | Compound                   | T16445-4<br>ug/l | Spike<br>Q | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|------------|------------|---------|-------------|----------|-----|-------------------|
| 67-64-1    | Acetone                    | 50 U             | 125        | 98.5       | 79      | 107         | 86       | 8   | 39-130/26         |
| 71-43-2    | Benzene                    | 2.0 U            | 25         | 23.2       | 93      | 23.1        | 92       | 0   | 65-122/15         |
| 75-27-4    | Bromodichloromethane       | 2.0 U            | 25         | 22.0       | 88      | 22.2        | 89       | 1   | 64-119/22         |
| 75-25-2    | Bromoform                  | 2.0 U            | 25         | 21.7       | 87      | 22.1        | 88       | 2   | 50-123/28         |
| 108-90-7   | Chlorobenzene              | 2.0 U            | 25         | 23.0       | 92      | 22.8        | 91       | 1   | 72-118/20         |
| 75-00-3    | Chloroethane               | 2.0 U            | 25         | 26.1       | 104     | 24.8        | 99       | 5   | 60-136/25         |
| 67-66-3    | Chloroform                 | 2.0 U            | 25         | 24.0       | 96      | 23.5        | 94       | 2   | 65-120/20         |
| 75-15-0    | Carbon disulfide           | 2.0 U            | 25         | 19.5       | 78      | 18.9        | 76       | 3   | 37-140/24         |
| 56-23-5    | Carbon tetrachloride       | 2.0 U            | 25         | 25.6       | 102     | 25.4        | 102      | 1   | 64-135/23         |
| 75-34-3    | 1,1-Dichloroethane         | 2.0 U            | 25         | 24.3       | 97      | 23.5        | 94       | 3   | 65-126/21         |
| 75-35-4    | 1,1-Dichloroethylene       | 2.0 U            | 25         | 23.0       | 92      | 22.0        | 88       | 4   | 55-140/25         |
| 107-06-2   | 1,2-Dichloroethane         | 2.0 U            | 25         | 23.0       | 92      | 22.6        | 90       | 2   | 57-125/25         |
| 78-87-5    | 1,2-Dichloropropane        | 2.0 U            | 25         | 23.4       | 94      | 23.3        | 93       | 0   | 63-121/22         |
| 124-48-1   | Dibromochloromethane       | 2.0 U            | 25         | 21.2       | 85      | 22.2        | 89       | 5   | 60-123/23         |
| 156-59-2   | cis-1,2-Dichloroethylene   | 2.0 U            | 25         | 22.3       | 89      | 22.2        | 89       | 0   | 62-120/24         |
| 10061-01-5 | cis-1,3-Dichloropropene    | 2.0 U            | 25         | 23.2       | 93      | 23.0        | 92       | 1   | 61-119/23         |
| 156-60-5   | trans-1,2-Dichloroethylene | 2.0 U            | 25         | 23.1       | 92      | 22.1        | 88       | 4   | 64-130/22         |
| 10061-02-6 | trans-1,3-Dichloropropene  | 2.0 U            | 25         | 22.6       | 90      | 23.5        | 94       | 4   | 65-129/23         |
| 100-41-4   | Ethylbenzene               | 2.0 U            | 25         | 22.8       | 91      | 22.7        | 91       | 0   | 70-123/18         |
| 591-78-6   | 2-Hexanone                 | 10 U             | 125        | 101        | 81      | 112         | 90       | 10  | 41-137/27         |
| 108-10-1   | 4-Methyl-2-pentanone       | 10 U             | 125        | 112        | 90      | 118         | 94       | 5   | 41-133/22         |
| 74-83-9    | Methyl bromide             | 2.0 U            | 25         | 23.1       | 92      | 22.6        | 90       | 2   | 47-129/27         |
| 74-87-3    | Methyl chloride            | 2.0 U            | 25         | 24.9       | 100     | 23.5        | 94       | 6   | 45-133/24         |
| 75-09-2    | Methylene chloride         | 5.0 U            | 25         | 21.8       | 87      | 21.4        | 86       | 2   | 49-128/21         |
| 78-93-3    | Methyl ethyl ketone        | 10 U             | 125        | 104        | 83      | 112         | 90       | 7   | 43-125/29         |
| 100-42-5   | Styrene                    | 2.0 U            | 25         | 19.1       | 76      | 19.1        | 76       | 0   | 65-120/21         |
| 71-55-6    | 1,1,1-Trichloroethane      | 2.0 U            | 25         | 25.0       | 100     | 24.2        | 97       | 3   | 68-131/21         |
| 79-34-5    | 1,1,2,2-Tetrachloroethane  | 2.0 U            | 25         | 20.8       | 83      | 21.6        | 86       | 4   | 50-128/22         |
| 79-00-5    | 1,1,2-Trichloroethane      | 2.0 U            | 25         | 22.0       | 88      | 22.4        | 90       | 2   | 58-120/22         |
| 127-18-4   | Tetrachloroethylene        | 2.0 U            | 25         | 25.0       | 100     | 24.9        | 100      | 0   | 69-132/21         |
| 108-88-3   | Toluene                    | 2.0 U            | 25         | 23.0       | 92      | 23.1        | 92       | 0   | 70-123/18         |
| 79-01-6    | Trichloroethylene          | 2.0              | 25         | 26.3       | 97      | 25.9        | 96       | 2   | 70-120/19         |
| 75-01-4    | Vinyl chloride             | 2.0 U            | 25         | 25.9       | 104     | 23.5        | 94       | 10  | 51-147/24         |
| 1330-20-7  | Xylene (total)             | 6.0 U            | 75         | 70.3       | 94      | 69.8        | 93       | 1   | 71-122/16         |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 2 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant

| Sample      | File ID    | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|------------|----|----------|----|-----------|------------|------------------|
| T16445-4MS  | F0079227.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| T16445-4MSD | F0079228.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |
| T16445-4    | F0079226.D | 1  | 03/08/07 | LJ | n/a       | n/a        | VF2318           |

**The QC reported here applies to the following samples:****Method:** SW846 8260B

T16445-3, T16445-4, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-12, T16445-13, T16445-14

| CAS No.    | Surrogate Recoveries  | MS   | MSD  | T16445-4 | Limits  |
|------------|-----------------------|------|------|----------|---------|
| 1868-53-7  | Dibromofluoromethane  | 106% | 105% | 102%     | 73-139% |
| 17060-07-0 | 1,2-Dichloroethane-D4 | 104% | 102% | 98%      | 66-139% |
| 2037-26-5  | Toluene-D8            | 103% | 105% | 106%     | 77-148% |
| 460-00-4   | 4-Bromofluorobenzene  | 99%  | 99%  | 119%     | 84-150% |



**Instrument Performance Check (BFB)**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VF2305-BFB      | <b>Injection Date:</b> 02/28/07 |
| <b>Lab File ID:</b> F0078963.D | <b>Injection Time:</b> 14:36    |
| <b>Instrument ID:</b> GCMSF    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 7281          | 16.0                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 18364         | 40.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 45541         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2793          | 6.1                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 107           | 0.23 (0.27) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 39123         | 85.9                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 3023          | 6.6 (7.7) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 37355         | 82.0 (95.5) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2802          | 6.2 (7.5) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID  | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID                           |
|----------------|-------------|---------------|---------------|--------------|--------------------------------------------|
| VF2305-IC2305  | F0078964.D  | 02/28/07      | 15:10         | 00:34        | Initial cal 2                              |
| VF2305-IC2305  | F0078965.D  | 02/28/07      | 15:41         | 01:05        | Initial cal 5                              |
| VF2305-IC2305  | F0078966.D  | 02/28/07      | 16:12         | 01:36        | Initial cal 20                             |
| VF2305-ICC2305 | F0078967.D  | 02/28/07      | 16:44         | 02:08        | Initial cal 40                             |
| VF2305-IC2305  | F0078968.D  | 02/28/07      | 17:16         | 02:40        | Initial cal 70                             |
| VF2305-IC2305  | F0078969.D  | 02/28/07      | 17:46         | 03:10        | Initial cal 100                            |
| VF2305-IC2305  | F0078970.D  | 02/28/07      | 18:18         | 03:42        | Initial cal 200                            |
| VF2305-BS      | F0078972.D  | 02/28/07      | 19:21         | 04:45        | Blank Spike                                |
| VF2305-MB      | F0078974.D  | 02/28/07      | 20:24         | 05:48        | Method Blank                               |
| ZZZZZZ         | F0078975.D  | 02/28/07      | 20:55         | 06:19        | (unrelated sample)                         |
| ZZZZZZ         | F0078976.D  | 02/28/07      | 21:26         | 06:50        | (unrelated sample)                         |
| ZZZZZZ         | F0078977.D  | 02/28/07      | 21:58         | 07:22        | (unrelated sample)                         |
| T16395-2       | F0078978.D  | 02/28/07      | 22:30         | 07:54        | (used for QC only; not part of job T16445) |
| T16395-2MS     | F0078979.D  | 02/28/07      | 23:00         | 08:24        | Matrix Spike                               |
| T16395-2MSD    | F0078980.D  | 02/28/07      | 23:32         | 08:56        | Matrix Spike Duplicate                     |
| ZZZZZZ         | F0078981.D  | 03/01/07      | 00:03         | 09:27        | (unrelated sample)                         |
| ZZZZZZ         | F0078982.D  | 03/01/07      | 00:35         | 09:59        | (unrelated sample)                         |
| ZZZZZZ         | F0078983.D  | 03/01/07      | 01:06         | 10:30        | (unrelated sample)                         |
| ZZZZZZ         | F0078984.D  | 03/01/07      | 01:38         | 11:02        | (unrelated sample)                         |
| ZZZZZZ         | F0078989.D  | 03/01/07      | 04:15         | 13:39        | (unrelated sample)                         |
| ZZZZZZ         | F0078990.D  | 03/01/07      | 04:47         | 14:11        | (unrelated sample)                         |
| ZZZZZZ         | F0078991.D  | 03/01/07      | 05:19         | 14:43        | (unrelated sample)                         |
| ZZZZZZ         | F0078992.D  | 03/01/07      | 05:50         | 15:14        | (unrelated sample)                         |

**Instrument Performance Check (BFB)**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Sample:</b> VF2314-BFB      | <b>Injection Date:</b> 03/07/07 |
| <b>Lab File ID:</b> F0079161.D | <b>Injection Time:</b> 02:16    |
| <b>Instrument ID:</b> GCMSF    |                                 |

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 7377          | 17.5                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 17646         | 41.8                     | Pass      |
| 95  | Base peak, 100% relative abundance | 42171         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2522          | 6.0                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 89            | 0.21 (0.25) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 36285         | 86.0                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2662          | 6.3 (7.3) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 34632         | 82.1 (95.4) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2164          | 5.1 (6.2) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|---------------|-------------|---------------|---------------|--------------|------------------------|
| VF2314-CC2305 | F0079162.D  | 03/07/07      | 02:47         | 00:31        | Continuing cal 40      |
| VF2314-BS     | F0079163.D  | 03/07/07      | 03:18         | 01:02        | Blank Spike            |
| VF2314-MB     | F0079164.D  | 03/07/07      | 03:50         | 01:34        | Method Blank           |
| ZZZZZZ        | F0079165.D  | 03/07/07      | 04:21         | 02:05        | (unrelated sample)     |
| ZZZZZZ        | F0079166.D  | 03/07/07      | 04:53         | 02:37        | (unrelated sample)     |
| ZZZZZZ        | F0079167.D  | 03/07/07      | 05:24         | 03:08        | (unrelated sample)     |
| T16445-5      | F0079169.D  | 03/07/07      | 06:26         | 04:10        | 50WW05-FEB2007         |
| T16445-5MS    | F0079170.D  | 03/07/07      | 06:58         | 04:42        | Matrix Spike           |
| T16445-5MSD   | F0079171.D  | 03/07/07      | 07:29         | 05:13        | Matrix Spike Duplicate |
| T16445-2      | F0079173.D  | 03/07/07      | 08:32         | 06:16        | 47WW30-FEB2007         |
| ZZZZZZ        | F0079174.D  | 03/07/07      | 09:03         | 06:47        | (unrelated sample)     |
| ZZZZZZ        | F0079175.D  | 03/07/07      | 09:35         | 07:19        | (unrelated sample)     |
| ZZZZZZ        | F0079176.D  | 03/07/07      | 10:06         | 07:50        | (unrelated sample)     |
| ZZZZZZ        | F0079177.D  | 03/07/07      | 10:37         | 08:21        | (unrelated sample)     |
| T16445-1      | F0079178.D  | 03/07/07      | 11:10         | 08:54        | 29WW38-FEB2007         |
| T16445-2      | F0079179.D  | 03/07/07      | 11:41         | 09:25        | 47WW30-FEB2007         |
| T16445-5      | F0079180.D  | 03/07/07      | 12:12         | 09:56        | 50WW05-FEB2007         |

**Instrument Performance Check (BFB)**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2315-BFB  
**Lab File ID:** F0079181.D  
**Instrument ID:** GCMSF  
**Injection Date:** 03/07/07  
**Injection Time:** 12:44

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 7668          | 19.2                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 16756         | 42.0                     | Pass      |
| 95  | Base peak, 100% relative abundance | 39853         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2768          | 6.9                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 96            | 0.24 (0.28) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 34109         | 85.6                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2473          | 6.2 (7.3) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 33421         | 83.9 (98.0) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2339          | 5.9 (7.0) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|---------------|-------------|---------------|---------------|--------------|------------------------|
| VF2315-CC2305 | F0079182.D  | 03/07/07      | 13:19         | 00:35        | Continuing cal 40      |
| VF2315-BS     | F0079183.D  | 03/07/07      | 13:54         | 01:10        | Blank Spike            |
| VF2315-MB     | F0079184.D  | 03/07/07      | 14:26         | 01:42        | Method Blank           |
| T16445-15     | F0079185.D  | 03/07/07      | 14:58         | 02:14        | TRIP BLANK             |
| ZZZZZZ        | F0079186.D  | 03/07/07      | 15:28         | 02:44        | (unrelated sample)     |
| ZZZZZZ        | F0079187.D  | 03/07/07      | 15:59         | 03:15        | (unrelated sample)     |
| ZZZZZZ        | F0079188.D  | 03/07/07      | 16:30         | 03:46        | (unrelated sample)     |
| ZZZZZZ        | F0079189.D  | 03/07/07      | 17:01         | 04:17        | (unrelated sample)     |
| T16445-3      | F0079190.D  | 03/07/07      | 17:32         | 04:48        | LHSMW43-FEB2007        |
| T16445-3MS    | F0079191.D  | 03/07/07      | 18:04         | 05:20        | Matrix Spike           |
| T16445-3MSD   | F0079192.D  | 03/07/07      | 18:35         | 05:51        | Matrix Spike Duplicate |
| T16445-6      | F0079194.D  | 03/07/07      | 19:38         | 06:54        | 50WW02-FEB2007         |
| T16445-8      | F0079196.D  | 03/07/07      | 20:41         | 07:57        | 17WW02-FEB2007         |
| T16445-9      | F0079197.D  | 03/07/07      | 21:12         | 08:28        | 17WW02-FEB2007 FD      |
| T16445-10     | F0079198.D  | 03/07/07      | 21:44         | 09:00        | 29WW35-FEB2007         |
| T16445-11     | F0079199.D  | 03/07/07      | 22:15         | 09:31        | 29WW35-FEB2007 FD      |
| T16445-14     | F0079202.D  | 03/07/07      | 23:49         | 11:05        | 7WW06-FEB2007          |
| T16445-18     | F0079203.D  | 03/08/07      | 00:20         | 11:36        | 17WW130-FEB2007        |

**Instrument Performance Check (BFB)**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2318-BFB  
**Lab File ID:** F0079222.D  
**Instrument ID:** GCMSF

**Injection Date:** 03/08/07  
**Injection Time:** 10:25

| m/e | Ion Abundance Criteria             | Raw Abundance | % Relative Abundance     | Pass/Fail |
|-----|------------------------------------|---------------|--------------------------|-----------|
| 50  | 15.0 - 40.0% of mass 95            | 6198          | 16.4                     | Pass      |
| 75  | 30.0 - 60.0% of mass 95            | 15579         | 41.3                     | Pass      |
| 95  | Base peak, 100% relative abundance | 37709         | 100.0                    | Pass      |
| 96  | 5.0 - 9.0% of mass 95              | 2320          | 6.2                      | Pass      |
| 173 | Less than 2.0% of mass 174         | 83            | 0.22 (0.26) <sup>a</sup> | Pass      |
| 174 | 50.0 - 100.0% of mass 95           | 32211         | 85.4                     | Pass      |
| 175 | 5.0 - 9.0% of mass 174             | 2369          | 6.3 (7.4) <sup>a</sup>   | Pass      |
| 176 | 95.0 - 101.0% of mass 174          | 31824         | 84.4 (98.8) <sup>a</sup> | Pass      |
| 177 | 5.0 - 9.0% of mass 176             | 2216          | 5.9 (7.0) <sup>b</sup>   | Pass      |

(a) Value is % of mass 174

(b) Value is % of mass 176

**This check applies to the following Samples, MS, MSD, Blanks, and Standards:**

| Lab Sample ID | Lab File ID | Date Analyzed | Time Analyzed | Hours Lapsed | Client Sample ID       |
|---------------|-------------|---------------|---------------|--------------|------------------------|
| VF2318-CC2305 | F0079223.D  | 03/08/07      | 10:59         | 00:34        | Continuing cal 40      |
| VF2318-BS     | F0079224.D  | 03/08/07      | 11:33         | 01:08        | Blank Spike            |
| VF2318-MB     | F0079225.D  | 03/08/07      | 12:05         | 01:40        | Method Blank           |
| T16445-4      | F0079226.D  | 03/08/07      | 12:37         | 02:12        | 50WW06-FEB2007         |
| T16445-4MS    | F0079227.D  | 03/08/07      | 13:09         | 02:44        | Matrix Spike           |
| T16445-4MSD   | F0079228.D  | 03/08/07      | 14:05         | 03:40        | Matrix Spike Duplicate |
| T16445-7      | F0079229.D  | 03/08/07      | 14:36         | 04:11        | 17WW16-FEB2007         |
| T16445-12     | F0079230.D  | 03/08/07      | 15:08         | 04:43        | 29WW06-FEB2007         |
| T16445-13     | F0079231.D  | 03/08/07      | 15:39         | 05:14        | 17WW05-FEB2007         |
| T16445-3      | F0079232.D  | 03/08/07      | 16:11         | 05:46        | LHSMW43-FEB2007        |
| T16445-3      | F0079233.D  | 03/08/07      | 16:42         | 06:17        | LHSMW43-FEB2007        |
| T16445-6      | F0079234.D  | 03/08/07      | 17:14         | 06:49        | 50WW02-FEB2007         |
| T16445-8      | F0079235.D  | 03/08/07      | 17:45         | 07:20        | 17WW02-FEB2007         |
| T16445-9      | F0079236.D  | 03/08/07      | 18:17         | 07:52        | 17WW02-FEB2007 FD      |
| T16445-10     | F0079237.D  | 03/08/07      | 18:49         | 08:24        | 29WW35-FEB2007         |
| T16445-14     | F0079238.D  | 03/08/07      | 19:21         | 08:56        | 7WW06-FEB2007          |
| ZZZZZZ        | F0079239.D  | 03/08/07      | 19:53         | 09:28        | (unrelated sample)     |
| ZZZZZZ        | F0079240.D  | 03/08/07      | 20:24         | 09:59        | (unrelated sample)     |
| ZZZZZZ        | F0079241.D  | 03/08/07      | 20:56         | 10:31        | (unrelated sample)     |
| ZZZZZZ        | F0079242.D  | 03/08/07      | 21:28         | 11:03        | (unrelated sample)     |
| ZZZZZZ        | F0079243.D  | 03/08/07      | 22:00         | 11:35        | (unrelated sample)     |

**Volatile Internal Standard Area Summary**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2314-CC2305 | <b>Injection Date:</b> 03/07/07 |
| <b>Lab File ID:</b> F0079162.D  | <b>Injection Time:</b> 02:47    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1    |       | IS 2    |       | IS 3   |       |
|--------------------------|---------|-------|---------|-------|--------|-------|
|                          | AREA    | RT    | AREA    | RT    | AREA   | RT    |
| Check Std                | 671218  | 11.87 | 539776  | 15.94 | 225030 | 19.21 |
| Upper Limit <sup>a</sup> | 1342436 | 12.37 | 1079552 | 16.44 | 450060 | 19.71 |
| Lower Limit <sup>b</sup> | 335609  | 11.37 | 269888  | 15.44 | 112515 | 18.71 |

| Lab Sample ID | IS 1 AREA | RT    | IS 2 AREA | RT    | IS 3 AREA | RT    |
|---------------|-----------|-------|-----------|-------|-----------|-------|
| VF2314-BS     | 763258    | 11.87 | 585053    | 15.95 | 230789    | 19.20 |
| VF2314-MB     | 761236    | 11.87 | 554989    | 15.95 | 171804    | 19.22 |
| ZZZZZZ        | 715869    | 11.87 | 528018    | 15.95 | 164528    | 19.21 |
| ZZZZZZ        | 713777    | 11.87 | 527108    | 15.95 | 157669    | 19.22 |
| ZZZZZZ        | 714014    | 11.87 | 515957    | 15.94 | 155677    | 19.21 |
| T16445-5      | 696275    | 11.87 | 518491    | 15.94 | 157926    | 19.21 |
| T16445-5MS    | 690323    | 11.87 | 531735    | 15.95 | 212449    | 19.21 |
| T16445-5MSD   | 718441    | 11.88 | 554101    | 15.95 | 216829    | 19.21 |
| T16445-2      | 673074    | 11.86 | 503844    | 15.94 | 144956    | 19.20 |
| ZZZZZZ        | 676854    | 11.85 | 489839    | 15.93 | 140401    | 19.20 |
| ZZZZZZ        | 668299    | 11.86 | 481794    | 15.94 | 136958    | 19.20 |
| ZZZZZZ        | 668450    | 11.86 | 482234    | 15.94 | 127852    | 19.20 |
| ZZZZZZ        | 650403    | 11.86 | 471126    | 15.94 | 137112    | 19.20 |
| T16445-1      | 665672    | 11.86 | 484146    | 15.93 | 130143    | 19.20 |
| T16445-2      | 676833    | 11.87 | 486651    | 15.94 | 127880    | 19.21 |
| T16445-5      | 675974    | 11.87 | 487525    | 15.95 | 126817    | 19.21 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Internal Standard Area Summary**

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2315-CC2305 | <b>Injection Date:</b> 03/07/07 |
| <b>Lab File ID:</b> F0079182.D  | <b>Injection Time:</b> 13:19    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1    |       | IS 2    |       | IS 3   |       |
|--------------------------|---------|-------|---------|-------|--------|-------|
|                          | AREA    | RT    | AREA    | RT    | AREA   | RT    |
| Check Std                | 698014  | 11.87 | 549946  | 15.95 | 231402 | 19.21 |
| Upper Limit <sup>a</sup> | 1396028 | 12.37 | 1099892 | 16.45 | 462804 | 19.71 |
| Lower Limit <sup>b</sup> | 349007  | 11.37 | 274973  | 15.45 | 115701 | 18.71 |

| Lab Sample ID         | IS 1 AREA | RT    | IS 2 AREA | RT    | IS 3 AREA | RT    |
|-----------------------|-----------|-------|-----------|-------|-----------|-------|
| VF2315-BS             | 751267    | 11.87 | 582464    | 15.95 | 220558    | 19.22 |
| VF2315-MB             | 739731    | 11.88 | 521309    | 15.96 | 135288    | 19.23 |
| T16445-15             | 709635    | 11.88 | 498169    | 15.96 | 130636    | 19.23 |
| ZZZZZZ                | 713511    | 11.89 | 505249    | 15.96 | 133789    | 19.22 |
| ZZZZZZ                | 670598    | 11.89 | 482656    | 15.97 | 127882    | 19.23 |
| ZZZZZZ                | 692002    | 11.89 | 498481    | 15.96 | 134149    | 19.23 |
| ZZZZZZ                | 694603    | 11.89 | 509623    | 15.97 | 139087    | 19.23 |
| T16445-3 <sup>c</sup> | 692901    | 11.89 | 523917    | 15.96 | 140544    | 19.22 |
| T16445-3MS            | 703380    | 11.89 | 542581    | 15.97 | 203275    | 19.23 |
| T16445-3MSD           | 721789    | 11.88 | 551007    | 15.96 | 199926    | 19.23 |
| T16445-6              | 701179    | 11.88 | 509297    | 15.96 | 124874    | 19.22 |
| T16445-8              | 672132    | 11.88 | 483654    | 15.95 | 147428    | 19.22 |
| T16445-9              | 655210    | 11.87 | 474247    | 15.95 | 142235    | 19.21 |
| T16445-10             | 658250    | 11.88 | 479882    | 15.95 | 141112    | 19.22 |
| T16445-11             | 645297    | 11.88 | 465709    | 15.95 | 134763    | 19.22 |
| T16445-14             | 633357    | 11.87 | 461754    | 15.95 | 129759    | 19.21 |
| T16445-18             | 630021    | 11.88 | 455820    | 15.95 | 129210    | 19.21 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

(c) For QC only.

**Volatile Internal Standard Area Summary**

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**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                                 |                                 |
|---------------------------------|---------------------------------|
| <b>Check Std:</b> VF2318-CC2305 | <b>Injection Date:</b> 03/08/07 |
| <b>Lab File ID:</b> F0079223.D  | <b>Injection Time:</b> 10:59    |
| <b>Instrument ID:</b> GCMSF     | <b>Method:</b> SW846 8260B      |

|                          | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|--------------------------|--------------|-------|--------------|-------|--------------|-------|
| Check Std                | 698975       | 11.87 | 551152       | 15.94 | 223338       | 19.21 |
| Upper Limit <sup>a</sup> | 1397950      | 12.37 | 1102304      | 16.44 | 446676       | 19.71 |
| Lower Limit <sup>b</sup> | 349488       | 11.37 | 275576       | 15.44 | 111669       | 18.71 |

| Lab<br>Sample ID | IS 1<br>AREA | RT    | IS 2<br>AREA | RT    | IS 3<br>AREA | RT    |
|------------------|--------------|-------|--------------|-------|--------------|-------|
| VF2318-BS        | 746410       | 11.87 | 580582       | 15.94 | 210100       | 19.21 |
| VF2318-MB        | 745444       | 11.88 | 531800       | 15.96 | 140552       | 19.22 |
| T16445-4         | 739935       | 11.88 | 531107       | 15.96 | 143733       | 19.22 |
| T16445-4MS       | 707673       | 11.88 | 540763       | 15.95 | 204404       | 19.22 |
| T16445-4MSD      | 763469       | 11.88 | 578582       | 15.95 | 218177       | 19.22 |
| T16445-7         | 721619       | 11.89 | 534862       | 15.97 | 175880       | 19.23 |
| T16445-12        | 648782       | 11.89 | 490210       | 15.97 | 162557       | 19.23 |
| T16445-13        | 701074       | 11.89 | 520078       | 15.96 | 161875       | 19.23 |
| T16445-3         | 671762       | 11.90 | 510964       | 15.97 | 157114       | 19.24 |
| T16445-3         | 661266       | 11.89 | 484654       | 15.96 | 144861       | 19.24 |
| T16445-6         | 650121       | 11.89 | 473895       | 15.97 | 134032       | 19.23 |
| T16445-8         | 642529       | 11.89 | 461686       | 15.97 | 128039       | 19.23 |
| T16445-9         | 627515       | 11.89 | 448085       | 15.96 | 125224       | 19.23 |
| T16445-10        | 623811       | 11.88 | 456759       | 15.96 | 122979       | 19.22 |
| T16445-14        | 620723       | 11.89 | 447599       | 15.96 | 114685       | 19.22 |
| ZZZZZZ           | 612552       | 11.89 | 445736       | 15.96 | 121452       | 19.23 |
| ZZZZZZ           | 570298       | 11.88 | 412673       | 15.95 | 110551*      | 19.22 |
| ZZZZZZ           | 579619       | 11.87 | 421291       | 15.95 | 109077*      | 19.22 |
| ZZZZZZ           | 599201       | 11.87 | 424322       | 15.95 | 107464*      | 19.21 |
| ZZZZZZ           | 591981       | 11.87 | 425080       | 15.95 | 108784*      | 19.21 |

**IS 1** = Fluorobenzene  
**IS 2** = Chlorobenzene-D5  
**IS 3** = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

**Volatile Surrogate Recovery Summary**

Page 1 of 2

**Job Number:** T16445**Account:** ITTXHO Shaw E & I, Inc.**Project:** Longhorn Army Ammunition Plant**Method:** SW846 8260B**Matrix:** AQ**Samples and QC shown here apply to the above method**

| Lab<br>Sample ID | Lab<br>File ID | S1    | S2    | S3    | S4    |
|------------------|----------------|-------|-------|-------|-------|
| T16445-1         | F0079178.D     | 109.0 | 103.0 | 109.0 | 129.0 |
| T16445-2         | F0079179.D     | 104.0 | 101.0 | 107.0 | 128.0 |
| T16445-2         | F0079173.D     | 107.0 | 104.0 | 106.0 | 118.0 |
| T16445-3         | F0079232.D     | 107.0 | 102.0 | 100.0 | 112.0 |
| T16445-3         | F0079233.D     | 102.0 | 94.0  | 104.0 | 111.0 |
| T16445-3         | F0079190.D     | 106.0 | 106.0 | 102.0 | 123.0 |
| T16445-4         | F0079226.D     | 102.0 | 98.0  | 106.0 | 119.0 |
| T16445-5         | F0079180.D     | 105.0 | 104.0 | 108.0 | 129.0 |
| T16445-5         | F0079169.D     | 107.0 | 105.0 | 105.0 | 114.0 |
| T16445-6         | F0079234.D     | 103.0 | 98.0  | 105.0 | 115.0 |
| T16445-6         | F0079194.D     | 108.0 | 109.0 | 109.0 | 133.0 |
| T16445-7         | F0079229.D     | 104.0 | 94.0  | 104.0 | 106.0 |
| T16445-8         | F0079235.D     | 105.0 | 103.0 | 107.0 | 118.0 |
| T16445-8         | F0079196.D     | 102.0 | 100.0 | 106.0 | 113.0 |
| T16445-9         | F0079236.D     | 105.0 | 101.0 | 107.0 | 117.0 |
| T16445-9         | F0079197.D     | 107.0 | 104.0 | 109.0 | 117.0 |
| T16445-10        | F0079237.D     | 104.0 | 100.0 | 104.0 | 115.0 |
| T16445-10        | F0079198.D     | 109.0 | 107.0 | 108.0 | 116.0 |
| T16445-11        | F0079199.D     | 105.0 | 99.0  | 108.0 | 118.0 |
| T16445-12        | F0079230.D     | 105.0 | 98.0  | 104.0 | 105.0 |
| T16445-13        | F0079231.D     | 105.0 | 100.0 | 103.0 | 109.0 |
| T16445-14        | F0079238.D     | 104.0 | 97.0  | 105.0 | 123.0 |
| T16445-14        | F0079202.D     | 105.0 | 105.0 | 106.0 | 117.0 |
| T16445-15        | F0079185.D     | 106.0 | 102.0 | 112.0 | 131.0 |
| T16445-18        | F0079203.D     | 105.0 | 102.0 | 106.0 | 116.0 |
| T16445-3MS       | F0079191.D     | 106.0 | 106.0 | 101.0 | 99.0  |
| T16445-3MSD      | F0079192.D     | 107.0 | 107.0 | 104.0 | 103.0 |
| T16445-4MS       | F0079227.D     | 106.0 | 104.0 | 103.0 | 99.0  |
| T16445-4MSD      | F0079228.D     | 105.0 | 102.0 | 105.0 | 99.0  |
| T16445-5MS       | F0079170.D     | 110.0 | 109.0 | 107.0 | 102.0 |
| T16445-5MSD      | F0079171.D     | 112.0 | 108.0 | 107.0 | 103.0 |
| VF2314-BS        | F0079163.D     | 105.0 | 102.0 | 103.0 | 98.0  |
| VF2314-MB        | F0079164.D     | 104.0 | 100.0 | 106.0 | 113.0 |
| VF2315-BS        | F0079183.D     | 104.0 | 101.0 | 102.0 | 99.0  |
| VF2315-MB        | F0079184.D     | 103.0 | 98.0  | 109.0 | 129.0 |
| VF2318-BS        | F0079224.D     | 106.0 | 97.0  | 103.0 | 101.0 |
| VF2318-MB        | F0079225.D     | 103.0 | 97.0  | 108.0 | 121.0 |

5.6.1

5



**Volatile Surrogate Recovery Summary**

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

|                            |                   |
|----------------------------|-------------------|
| <b>Method:</b> SW846 8260B | <b>Matrix:</b> AQ |
|----------------------------|-------------------|

Samples and QC shown here apply to the above method

|                            |                        |
|----------------------------|------------------------|
| <b>Surrogate Compounds</b> | <b>Recovery Limits</b> |
|----------------------------|------------------------|

|                            |                        |
|----------------------------|------------------------|
| <b>Surrogate Compounds</b> | <b>Recovery Limits</b> |
|----------------------------|------------------------|

|                            |         |
|----------------------------|---------|
| S1 = Dibromofluoromethane  | 73-139% |
| S2 = 1,2-Dichloroethane-D4 | 66-139% |
| S3 = Toluene-D8            | 77-148% |
| S4 = 4-Bromofluorobenzene  | 84-150% |

5.6.1  
 5

## Initial Calibration Summary

Job Number: T16445  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2305-ICC2305  
 Lab FileID: F0078967.D

## Response Factor Report GC/MS F

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Initial Calibration

## Calibration Files

1 =F0078964.D 2 =F0078965.D 3 =F0078966.D  
 4 =F0078967.D 5 =F0078968.D 6 =F0078969.D 7 =F0078970.D

| Compound                                           | 1              | 2     | 3     | 4     | 5     | 6     | 7     | Avg   | %RSD  |
|----------------------------------------------------|----------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1) I Fluorobenzene                                 | -----ISTD----- |       |       |       |       |       |       |       |       |
| 2) Dichlorodifluorom                               | 0.157          | 0.162 | 0.153 | 0.171 | 0.181 | 0.178 | 0.196 | 0.171 | 8.89  |
| 3)P Chloromethane                                  | 0.353          | 0.368 | 0.326 | 0.309 | 0.319 | 0.297 | 0.331 | 0.329 | 7.50  |
| 4)C Vinyl Chloride                                 | 0.279          | 0.316 | 0.268 | 0.280 | 0.287 | 0.269 | 0.300 | 0.286 | 6.01  |
| 5) Bromomethane                                    | 0.275          | 0.253 | 0.223 | 0.215 | 0.216 | 0.204 | 0.190 | 0.225 | 12.95 |
| 6) Chloroethane                                    | 0.203          | 0.232 | 0.219 | 0.222 | 0.222 | 0.210 | 0.211 | 0.217 | 4.37  |
| 7) Trichlorofluorome                               | 0.137          | 0.154 | 0.142 | 0.159 | 0.166 | 0.162 | 0.164 | 0.155 | 7.23  |
| 8) Acrolein                                        | 0.030          | 0.030 | 0.031 | 0.036 | 0.036 | 0.033 | 0.033 | 0.033 | 8.00  |
| 9)C 1,1-Dichloroethen                              | 0.287          | 0.299 | 0.298 | 0.320 | 0.322 | 0.306 | 0.312 | 0.306 | 4.04  |
| 10) Freon 113                                      | 0.174          | 0.190 | 0.191 | 0.225 | 0.225 | 0.213 | 0.216 | 0.205 | 9.65  |
| 11) Acetone                                        | 0.065          | 0.062 | 0.057 | 0.052 | 0.053 | 0.053 | 0.052 | 0.056 | 9.61  |
| 12) Iodomethane                                    | 0.405          | 0.432 | 0.438 | 0.436 | 0.447 | 0.434 | 0.445 | 0.434 | 3.22  |
| 13) Methyl acetate                                 | 0.199          | 0.203 | 0.197 | 0.179 | 0.188 | 0.186 | 0.185 | 0.191 | 4.56  |
| 14) Carbon Disulfide                               | 0.833          | 0.878 | 0.869 | 0.908 | 0.930 | 0.885 | 0.918 | 0.889 | 3.74  |
| 15) Methylene Chlorid                              | 0.410          | 0.424 | 0.407 | 0.404 | 0.396 | 0.378 | 0.376 | 0.399 | 4.34  |
| 16) Tert Butyl Alchoh                              | 0.015          | 0.018 | 0.018 | 0.015 | 0.017 | 0.018 | 0.018 | 0.017 | 8.14  |
| 17) trans-1,2-Dichlor                              | 0.328          | 0.340 | 0.340 | 0.344 | 0.351 | 0.337 | 0.344 | 0.341 | 2.11  |
| 18) Acrylonitrile                                  | 0.086          | 0.099 | 0.097 | 0.091 | 0.097 | 0.098 | 0.097 | 0.095 | 4.82  |
| 19) Methyl Tert Butyl                              | 0.577          | 0.603 | 0.572 | 0.555 | 0.578 | 0.587 | 0.594 | 0.581 | 2.70  |
| 20) Hexane                                         | 0.300          | 0.281 | 0.283 | 0.341 | 0.346 | 0.320 | 0.315 | 0.312 | 8.32  |
| 21)P 1,1-Dichloroethan                             | 0.428          | 0.457 | 0.436 | 0.445 | 0.450 | 0.430 | 0.435 | 0.440 | 2.44  |
| 22) Vinyl acetate                                  | 0.513          | 0.554 | 0.582 | 0.564 | 0.569 | 0.552 | 0.517 | 0.550 | 4.74  |
| 23) Di-isopropyl ethe                              | 0.944          | 1.012 | 0.992 | 0.981 | 0.988 | 0.943 | 0.934 | 0.971 | 3.09  |
| 24) Ethyl tert-butyl                               | 0.721          | 0.735 | 0.733 | 0.737 | 0.753 | 0.739 | 0.749 | 0.738 | 1.43  |
| 25) 2,2-Dichloropropa                              | 0.208          | 0.200 | 0.197 | 0.210 | 0.209 | 0.202 | 0.195 | 0.203 | 2.91  |
| 26) cis-1,2-Dichloroe                              | 0.282          | 0.305 | 0.302 | 0.308 | 0.307 | 0.302 | 0.307 | 0.302 | 3.03  |
| 27) 2-Butanone                                     | 0.113          | 0.118 | 0.120 | 0.105 | 0.111 | 0.112 | 0.109 | 0.113 | 4.48  |
| 28) Bromochloromethan                              | 0.124          | 0.142 | 0.145 | 0.146 | 0.147 | 0.149 | 0.150 | 0.143 | 6.13  |
| 29)C Chloroform                                    | 0.343          | 0.363 | 0.358 | 0.362 | 0.364 | 0.353 | 0.362 | 0.358 | 2.09  |
| 30) Tetrahydrofuran                                | 0.048          | 0.035 | 0.033 | 0.030 | 0.031 | 0.031 | 0.029 | 0.034 | 19.44 |
| ----- Linear regression ----- Coefficient = 0.9988 |                |       |       |       |       |       |       |       |       |
| Response Ratio = 0.00148 + 0.02898 *A              |                |       |       |       |       |       |       |       |       |
| 31) 1,1,1-Trichloroet                              | 0.196          | 0.201 | 0.204 | 0.213 | 0.218 | 0.210 | 0.215 | 0.208 | 3.79  |
| 32)S Dibromofluorometh                             | 0.211          | 0.221 | 0.210 | 0.217 | 0.221 | 0.221 | 0.226 | 0.218 | 2.61  |
| 33) Cyclohexane                                    | 0.390          | 0.405 | 0.413 | 0.479 | 0.485 | 0.453 | 0.447 | 0.439 | 8.43  |
| 34) 1,1-Dichloropropo                              | 0.283          | 0.279 | 0.292 | 0.313 | 0.321 | 0.312 | 0.316 | 0.302 | 5.61  |
| 35) Carbon Tetrachlor                              | 0.142          | 0.161 | 0.164 | 0.176 | 0.181 | 0.177 | 0.183 | 0.169 | 8.57  |
| 36)S 1,2-Dichloroethan                             | 0.159          | 0.173 | 0.166 | 0.161 | 0.165 | 0.162 | 0.166 | 0.165 | 2.76  |
| 37) Benzene                                        | 1.089          | 1.108 | 1.092 | 1.113 | 1.134 | 1.098 | 1.119 | 1.108 | 1.43  |
| 38) 1,2-Dichloroethan                              | 0.181          | 0.193 | 0.200 | 0.205 | 0.200 | 0.204 | 0.201 | 0.198 | 4.13  |
| 39) tert-amyl methyl                               | 0.712          | 0.774 | 0.759 | 0.736 | 0.767 | 0.769 | 0.782 | 0.757 | 3.26  |
| 40) Trichloroethene                                | 0.212          | 0.223 | 0.218 | 0.229 | 0.233 | 0.229 | 0.236 | 0.226 | 3.78  |
| 41) Methylcyclohexane                              | 0.318          | 0.332 | 0.335 | 0.391 | 0.401 | 0.384 | 0.388 | 0.364 | 9.38  |
| 42)C 1,2-Dichloropropa                             | 0.320          | 0.304 | 0.310 | 0.316 | 0.320 | 0.310 | 0.318 | 0.314 | 1.90  |
| 43) Dibromomethane                                 | 0.129          | 0.147 | 0.169 | 0.160 | 0.166 | 0.165 | 0.170 | 0.158 | 9.61  |

## Initial Calibration Summary

Job Number: T16445  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2305-ICC2305  
 Lab FileID: F0078967.D

|     |                               |                       |       |       |       |       |       |       |       |       |
|-----|-------------------------------|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| 44) | 1,4-Dioxane                   | 0.002                 | 0.002 | 0.002 | 0.002 | 0.003 | 0.003 | 0.003 | 0.002 | 17.15 |
|     | ----- Linear regression ----- | Coefficient = 0.9989  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.00341 + 0.00271 *A |       |       |       |       |       |       |       |       |
| 45) | Bromodichlorometh             | 0.287                 | 0.300 | 0.298 | 0.307 | 0.311 | 0.306 | 0.317 | 0.304 | 3.19  |
| 46) | 2-Nitropropane                | 0.046                 | 0.042 | 0.041 | 0.037 | 0.038 | 0.039 | 0.038 | 0.040 | 7.95  |
| 47) | 2-Chloroethyl vin             | 0.094                 | 0.104 | 0.122 | 0.125 | 0.136 | 0.143 | 0.152 | 0.125 | 16.72 |
|     | ----- Linear regression ----- | Coefficient = 0.9983  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.06248 + 0.15260 *A |       |       |       |       |       |       |       |       |
| 48) | 4-Methyl-2-pentan             | 0.229                 | 0.239 | 0.249 | 0.234 | 0.246 | 0.246 | 0.237 | 0.240 | 3.06  |
| 49) | cis-1,3-Dichlorop             | 0.369                 | 0.397 | 0.420 | 0.427 | 0.443 | 0.439 | 0.454 | 0.421 | 6.95  |
| 50) | I Chlorobenzene-d5            | -----ISTD-----        |       |       |       |       |       |       |       |       |
| 51) | S Toluene-d8                  | 1.147                 | 1.122 | 1.060 | 1.073 | 1.083 | 1.079 | 1.120 | 1.098 | 2.89  |
| 52) | C Toluene                     | 1.382                 | 1.408 | 1.358 | 1.387 | 1.384 | 1.367 | 1.417 | 1.386 | 1.51  |
| 53) | trans-1,3-Dichlor             | 0.340                 | 0.364 | 0.391 | 0.402 | 0.406 | 0.409 | 0.428 | 0.391 | 7.65  |
| 54) | 1,1,2-Trichloroet             | 0.263                 | 0.295 | 0.289 | 0.279 | 0.283 | 0.284 | 0.289 | 0.283 | 3.62  |
| 55) | Tetrachloroethene             | 0.272                 | 0.280 | 0.293 | 0.302 | 0.309 | 0.299 | 0.307 | 0.294 | 4.70  |
| 56) | 2-hexanone                    | 0.170                 | 0.180 | 0.203 | 0.194 | 0.206 | 0.211 | 0.208 | 0.196 | 8.04  |
| 57) | 1,3-Dichloropropa             | 0.605                 | 0.605 | 0.602 | 0.593 | 0.592 | 0.591 | 0.602 | 0.599 | 1.05  |
| 58) | Dibromochlorometh             | 0.254                 | 0.312 | 0.303 | 0.296 | 0.299 | 0.304 | 0.315 | 0.298 | 6.92  |
| 59) | 1,2-Dibromoethane             | 0.283                 | 0.310 | 0.305 | 0.302 | 0.314 | 0.320 | 0.331 | 0.309 | 4.87  |
| 60) | 1-Chlorohexane                | 0.464                 | 0.467 | 0.465 | 0.505 | 0.517 | 0.509 | 0.535 | 0.495 | 5.83  |
| 61) | P Chlorobenzene               | 0.877                 | 0.857 | 0.851 | 0.870 | 0.877 | 0.867 | 0.897 | 0.871 | 1.73  |
| 62) | 1,1,1,2-Tetrachlo             | 0.264                 | 0.284 | 0.283 | 0.282 | 0.281 | 0.279 | 0.288 | 0.280 | 2.74  |
| 63) | C Ethylbenzene                | 1.475                 | 1.458 | 1.433 | 1.493 | 1.499 | 1.470 | 1.518 | 1.478 | 1.90  |
| 64) | m,p-Xylene                    | 0.970                 | 0.990 | 1.008 | 1.040 | 1.057 | 1.039 | 1.067 | 1.025 | 3.51  |
| 65) | o-Xylene                      | 1.021                 | 1.033 | 1.058 | 1.084 | 1.107 | 1.077 | 1.111 | 1.070 | 3.23  |
| 66) | Styrene                       | 0.796                 | 0.855 | 0.910 | 0.960 | 0.983 | 0.978 | 1.013 | 0.928 | 8.44  |
| 67) | P Bromoform                   | 0.142                 | 0.077 | 0.184 | 0.179 | 0.195 | 0.199 | 0.205 | 0.169 | 26.85 |
|     | ----- Linear regression ----- | Coefficient = 0.9995  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.01246 + 0.20679 *A |       |       |       |       |       |       |       |       |
| 68) | I 1,4-Dichlorobenzene-d       | -----ISTD-----        |       |       |       |       |       |       |       |       |
| 69) | Isopropylbenzene              | 3.394                 | 3.422 | 2.803 | 2.838 | 2.780 | 2.731 | 2.618 | 2.941 | 11.11 |
| 70) | Cyclohexanone                 | 0.023                 | 0.030 | 0.027 | 0.025 | 0.026 | 0.029 | 0.027 | 0.027 | 8.23  |
| 71) | S 4-Bromofluorobenz           | 1.169                 | 1.004 | 0.864 | 0.853 | 0.853 | 0.860 | 0.845 | 0.921 | 13.32 |
| 72) | Bromobenzene                  | 0.997                 | 0.963 | 0.842 | 0.837 | 0.823 | 0.822 | 0.788 | 0.867 | 9.15  |
| 73) | P 1,1,2,2-Tetrachlo           | 1.339                 | 1.320 | 1.146 | 1.011 | 1.011 | 1.030 | 0.983 | 1.120 | 13.59 |
| 74) | Trans-1,4-Dichlor             | 0.143                 | 0.182 | 0.177 | 0.182 | 0.188 | 0.192 | 0.192 | 0.179 | 9.42  |
| 75) | 1,2,3-Trichloropr             | 0.257                 | 0.296 | 0.253 | 0.232 | 0.230 | 0.236 | 0.225 | 0.247 | 10.10 |
| 76) | n-Propylbenzene               | 4.567                 | 4.426 | 4.010 | 4.105 | 4.023 | 3.954 | 3.865 | 4.136 | 6.29  |
| 77) | 2-Chlorotoluene               | 3.164                 | 2.888 | 2.531 | 2.500 | 2.416 | 2.351 | 2.285 | 2.591 | 12.31 |
| 78) | 4-Chlorotoluene               | 2.569                 | 2.376 | 2.183 | 2.187 | 2.133 | 2.116 | 2.076 | 2.234 | 7.90  |
| 79) | 1,3,5-Trimethylbe             | 2.668                 | 2.535 | 2.320 | 2.351 | 2.287 | 2.250 | 2.168 | 2.368 | 7.33  |
| 80) | sec-Butylbenzene              | 3.329                 | 3.252 | 3.038 | 3.232 | 3.150 | 3.042 | 2.937 | 3.140 | 4.47  |
| 81) | 1,3-Dichlorobenze             | 1.316                 | 1.426 | 1.364 | 1.413 | 1.441 | 1.419 | 1.422 | 1.400 | 3.16  |
| 82) | 4-Isopropyltoluen             | 2.408                 | 2.304 | 2.224 | 2.403 | 2.346 | 2.277 | 2.220 | 2.312 | 3.37  |
| 83) | 1,4-Dichlorobenze             | 1.528                 | 1.430 | 1.389 | 1.429 | 1.420 | 1.423 | 1.424 | 1.435 | 3.04  |
| 84) | tert-Butylbenzene             | 0.533                 | 0.438 | 0.430 | 0.445 | 0.436 | 0.429 | 0.410 | 0.446 | 8.90  |
| 85) | n-Butylbenzene                | 1.465                 | 1.572 | 1.892 | 2.173 | 2.149 | 2.132 | 2.214 | 1.942 | 15.91 |
|     | ----- Linear regression ----- | Coefficient = 0.9997  |       |       |       |       |       |       |       |       |
|     | Response Ratio =              | -0.08322 + 2.22219 *A |       |       |       |       |       |       |       |       |
| 86) | 1,2-Dichlorobenze             | 1.206                 | 1.332 | 1.314 | 1.336 | 1.345 | 1.359 | 1.369 | 1.323 | 4.14  |
| 87) | 1,2,4-Trimethylbe             | 2.566                 | 2.449 | 2.311 | 2.410 | 2.354 | 2.310 | 2.242 | 2.377 | 4.53  |
| 88) | 1,2-Dibromo-3-Chl             | 0.068                 | 0.106 | 0.082 | 0.072 | 0.077 | 0.089 | 0.088 | 0.083 | 15.22 |
|     | ----- Linear regression ----- | Coefficient = 0.9968  |       |       |       |       |       |       |       |       |

5.7.1

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**Initial Calibration Summary**

Page 3 of 3

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2305-ICC2305  
**Lab FileID:** F0078967.D

---

Response Ratio =  $-0.00467 + 0.08863 * A$

89) 1,2,4-Trichlorobe 0.166 0.135 0.302 0.403 0.468 0.530 0.585 0.370 47.33  
 ----- Linear regression ----- Coefficient = 0.9944  
 Response Ratio =  $-0.09820 + 0.59565 * A$

90) Hexachlorobutadie 0.058 0.088 0.170 0.207 0.204 0.208 0.202 0.162 38.83  
 ----- Linear regression ----- Coefficient = 0.9993  
 Response Ratio =  $-0.00579 + 0.20548 * A$

91) Naphthalene 0.526 0.280 0.475 0.606 0.781 0.975 1.125 0.681 43.48  
 ----- Quadratic regression ----- Coefficient = 0.9974  
 Response Ratio =  $-0.07686 + 0.74236 * A + 0.10172 * A^2$

92) 1,2,3-Trichlorobe 0.167 0.113 0.217 0.276 0.334 0.389 0.421 0.274 41.95  
 ----- Linear regression ----- Coefficient = 0.9938  
 Response Ratio =  $-0.07169 + 0.43007 * A$

-----  
 (#) = Out of Range

VF2305C.M

Thu Mar 01 07:44:03 2007

5.7.1

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**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2314-CC2305  
**Lab FileID:** F0079162.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2313\F0079162.D Vial: 2  
 Acq On : 7 Mar 2007 2:47 am Operator: lydiaj  
 Sample : cc2305-40 Inst : GC/MS F  
 Misc : ms3885,vf2314,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|------|--------------------------|-------|-------|-------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0   | 82    | -0.08    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.149 | 12.9  | 72    | -0.05    |
| 3 P  | Chloromethane            | 0.329 | 0.336 | -2.1  | 90    | -0.06    |
| 4 C  | Vinyl Chloride           | 0.286 | 0.303 | -5.9  | 89    | -0.06    |
| 5    | Bromomethane             | 0.225 | 0.230 | -2.2  | 88    | -0.07    |
| 6    | Chloroethane             | 0.217 | 0.235 | -8.3  | 87    | -0.07    |
| 7    | Trichlorofluoromethane   | 0.155 | 0.171 | -10.3 | 89    | -0.06    |
| 8    | Acrolein                 | 0.033 | 0.030 | 9.1   | 69    | -0.08    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.310 | -1.3  | 80    | -0.07    |
| 10   | Freon 113                | 0.205 | 0.205 | 0.0   | 75    | -0.07    |
| 11   | Acetone                  | 0.056 | 0.058 | -3.6  | 93    | -0.07    |
| 12   | Iodomethane              | 0.434 | 0.433 | 0.2   | 82    | -0.07    |
| 13   | Methyl acetate           | 0.191 | 0.220 | -15.2 | 101   | -0.07    |
| 14   | Carbon Disulfide         | 0.889 | 0.861 | 3.1   | 78    | -0.07    |
| 15   | Methylene Chloride       | 0.399 | 0.417 | -4.5  | 85    | -0.07    |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.020 | -17.6 | 106   | -0.08    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.353 | -3.5  | 85    | -0.07    |
| 18   | Acrylonitrile            | 0.095 | 0.108 | -13.7 | 97    | -0.07    |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.615 | -5.9  | 91    | -0.08    |
| 20   | Hexane                   | 0.312 | 0.282 | 9.6   | 68    | -0.08    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.464 | -5.5  | 86    | -0.08    |
| 22   | Vinyl acetate            | 0.550 | 0.626 | -13.8 | 92    | -0.08    |
| 23   | Di-isopropyl ether       | 0.971 | 1.067 | -9.9  | 90    | -0.07    |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.798 | -8.1  | 89    | -0.07    |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.181 | 10.8  | 71    | -0.07    |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.321 | -6.3  | 86    | -0.08    |
| 27   | 2-Butanone               | 0.113 | 0.129 | -14.2 | 101   | -0.08    |
| 28   | Bromochloromethane       | 0.143 | 0.153 | -7.0  | 87    | -0.08    |
| 29 C | Chloroform               | 0.358 | 0.376 | -5.0  | 86    | -0.08    |
| 30   | Tetrahydrofuran          | 0.034 | 0.036 | -5.9  | 99    | -0.08    |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.219 | -5.3  | 85    | -0.08    |
| 32 S | Dibromofluoromethane     | 0.218 | 0.250 | -14.7 | 95    | -0.07    |
| 33   | Cyclohexane              | 0.439 | 0.461 | -5.0  | 79    | -0.08    |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.319 | -5.6  | 84    | -0.08    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.180 | -6.5  | 84    | -0.08    |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.192 | -16.4 | 98    | -0.08    |
| 37   | Benzene                  | 1.108 | 1.171 | -5.7  | 87    | -0.08    |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.218 | -10.1 | 88    | -0.08    |
| 39   | tert-amyl methyl ether   | 0.757 | 0.810 | -7.0  | 91    | -0.08    |
| 40   | Trichloroethene          | 0.226 | 0.238 | -5.3  | 85    | -0.08    |
| 41   | Methylcyclohexane        | 0.364 | 0.363 | 0.3   | 76    | -0.08    |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.342 | -8.9  | 89    | -0.08    |

## Continuing Calibration Summary

Page 2 of 2

Job Number: T16445  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2314-CC2305  
 Lab FileID: F0079162.D

|      |                             |       |       |        |     |       |
|------|-----------------------------|-------|-------|--------|-----|-------|
| 43   | Dibromomethane              | 0.158 | 0.173 | -9.5   | 89  | -0.09 |
| 44   | 1,4-Dioxane                 | 0.002 | 0.003 | -50.0# | 100 | -0.08 |
| 45   | Bromodichloromethane        | 0.304 | 0.328 | -7.9   | 88  | -0.08 |
| 46   | 2-Nitropropane              | 0.040 | 0.045 | -12.5  | 99  | -0.09 |
| 47   | 2-Chloroethyl vinyl ether   | 0.125 | 0.133 | -6.4   | 88  | -0.08 |
| 48   | 4-Methyl-2-pentanone        | 0.240 | 0.290 | -20.8# | 102 | -0.09 |
| 49   | cis-1,3-Dichloropropene     | 0.421 | 0.442 | -5.0   | 85  | -0.08 |
|      |                             |       |       |        |     |       |
| 50 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 89  | -0.08 |
| 51 S | Toluene-d8                  | 1.098 | 1.140 | -3.8   | 94  | -0.08 |
| 52 C | Toluene                     | 1.386 | 1.356 | 2.2    | 87  | -0.08 |
| 53   | trans-1,3-Dichloropropene   | 0.391 | 0.395 | -1.0   | 87  | -0.08 |
| 54   | 1,1,2-Trichloroethane       | 0.283 | 0.288 | -1.8   | 91  | -0.08 |
| 55   | Tetrachloroethene           | 0.294 | 0.293 | 0.3    | 86  | -0.09 |
| 56   | 2-hexanone                  | 0.196 | 0.223 | -13.8  | 102 | -0.08 |
| 57   | 1,3-Dichloropropane         | 0.599 | 0.605 | -1.0   | 90  | -0.08 |
| 58   | Dibromochloromethane        | 0.298 | 0.306 | -2.7   | 92  | -0.08 |
| 59   | 1,2-Dibromoethane           | 0.309 | 0.320 | -3.6   | 94  | -0.09 |
| 60   | 1-Chlorohexane              | 0.495 | 0.458 | 7.5    | 80  | -0.09 |
| 61 P | Chlorobenzene               | 0.871 | 0.866 | 0.6    | 88  | -0.09 |
| 62   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.283 | -1.1   | 89  | -0.09 |
| 63 C | Ethylbenzene                | 1.478 | 1.455 | 1.6    | 86  | -0.09 |
| 64   | m,p-Xylene                  | 1.025 | 1.024 | 0.1    | 87  | -0.09 |
| 65   | o-Xylene                    | 1.070 | 1.091 | -2.0   | 89  | -0.09 |
| 66   | Styrene                     | 0.928 | 0.947 | -2.0   | 87  | -0.08 |
| 67 P | Bromoform                   | 0.169 | 0.201 | -18.9  | 100 | -0.09 |
|      |                             |       |       |        |     |       |
| 68 I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0    | 90  | -0.09 |
| 69   | Isopropylbenzene            | 2.941 | 2.700 | 8.2    | 86  | -0.08 |
| 70   | Cyclohexanone               | 0.027 | 0.042 | -55.6# | 149 | -0.10 |
| 71 S | 4-Bromofluorobenzene        | 0.921 | 0.903 | 2.0    | 96  | -0.09 |
| 72   | Bromobenzene                | 0.867 | 0.837 | 3.5    | 90  | -0.10 |
| 73 P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.088 | 2.9    | 97  | -0.09 |
| 74   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.171 | 4.5    | 85  | -0.09 |
| 75   | 1,2,3-Trichloropropane      | 0.247 | 0.252 | -2.0   | 99  | -0.10 |
| 76   | n-Propylbenzene             | 4.136 | 3.884 | 6.1    | 86  | -0.09 |
| 77   | 2-Chlorotoluene             | 2.591 | 2.414 | 6.8    | 87  | -0.09 |
| 78   | 4-Chlorotoluene             | 2.234 | 2.100 | 6.0    | 87  | -0.10 |
| 79   | 1,3,5-Trimethylbenzene      | 2.368 | 2.226 | 6.0    | 86  | -0.09 |
| 80   | sec-Butylbenzene            | 3.140 | 3.014 | 4.0    | 84  | -0.09 |
| 81   | 1,3-Dichlorobenzene         | 1.400 | 1.412 | -0.9   | 90  | -0.10 |
| 82   | 4-Isopropyltoluene          | 2.312 | 2.210 | 4.4    | 83  | -0.09 |
| 83   | 1,4-Dichlorobenzene         | 1.435 | 1.389 | 3.2    | 88  | -0.09 |
| 84   | tert-Butylbenzene           | 0.446 | 0.422 | 5.4    | 86  | -0.10 |
| 85   | n-Butylbenzene              | 1.942 | 1.915 | 1.4    | 80  | -0.10 |
| 86   | 1,2-Dichlorobenzene         | 1.323 | 1.344 | -1.6   | 91  | -0.09 |
| 87   | 1,2,4-Trimethylbenzene      | 2.377 | 2.293 | 3.5    | 86  | -0.09 |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.075 | 9.6    | 94  | -0.09 |
| 89   | 1,2,4-Trichlorobenzene      | 0.370 | 0.387 | -4.6   | 87  | -0.10 |
| 90   | Hexachlorobutadiene         | 0.162 | 0.189 | -16.7  | 83  | -0.11 |
| 91   | Naphthalene                 | 0.681 | 0.633 | 7.0    | 94  | -0.11 |
| 92   | 1,2,3-Trichlorobenzene      | 0.274 | 0.283 | -3.3   | 93  | -0.12 |

Average % D = 7.3

(#) = Out of Range  
 F0078967.D VF2305C.M

SPCC's out = 0 CCC's out = 0  
 Wed Mar 07 10:06:33 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2315-CC2305  
**Lab FileID:** F0079182.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2315-1\F0079182.D Vial: 2  
 Acq On : 7 Mar 2007 1:19 pm Operator: lydiaj  
 Sample : cc2305-40 Inst : GC/MS F  
 Misc : ms3885,vf2315,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|------|--------------------------|-------|-------|-------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0   | 86    | -0.08    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.148 | 13.5  | 74    | -0.04    |
| 3 P  | Chloromethane            | 0.329 | 0.330 | -0.3  | 92    | -0.05    |
| 4 C  | Vinyl Chloride           | 0.286 | 0.292 | -2.1  | 90    | -0.06    |
| 5    | Bromomethane             | 0.225 | 0.223 | 0.9   | 89    | -0.07    |
| 6    | Chloroethane             | 0.217 | 0.226 | -4.1  | 88    | -0.06    |
| 7    | Trichlorofluoromethane   | 0.155 | 0.162 | -4.5  | 87    | -0.06    |
| 8    | Acrolein                 | 0.033 | 0.034 | -3.0  | 81    | -0.08    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.297 | 2.9   | 80    | -0.07    |
| 10   | Freon 113                | 0.205 | 0.193 | 5.9   | 73    | -0.07    |
| 11   | Acetone                  | 0.056 | 0.051 | 8.9   | 84    | -0.07    |
| 12   | Iodomethane              | 0.434 | 0.399 | 8.1   | 78    | -0.07    |
| 13   | Methyl acetate           | 0.191 | 0.208 | -8.9  | 100   | -0.07    |
| 14   | Carbon Disulfide         | 0.889 | 0.797 | 10.3  | 75    | -0.07    |
| 15   | Methylene Chloride       | 0.399 | 0.419 | -5.0  | 89    | -0.07    |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.019 | -11.8 | 103   | -0.08    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.339 | 0.6   | 84    | -0.07    |
| 18   | Acrylonitrile            | 0.095 | 0.092 | 3.2   | 86    | -0.07    |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.574 | 1.2   | 89    | -0.07    |
| 20   | Hexane                   | 0.312 | 0.316 | -1.3  | 79    | -0.08    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.453 | -3.0  | 87    | -0.08    |
| 22   | Vinyl acetate            | 0.550 | 0.609 | -10.7 | 93    | -0.08    |
| 23   | Di-isopropyl ether       | 0.971 | 1.066 | -9.8  | 93    | -0.07    |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.773 | -4.7  | 90    | -0.07    |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.210 | -3.4  | 86    | -0.07    |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.307 | -1.7  | 86    | -0.08    |
| 27   | 2-Butanone               | 0.113 | 0.108 | 4.4   | 88    | -0.08    |
| 28   | Bromochloromethane       | 0.143 | 0.147 | -2.8  | 86    | -0.08    |
| 29 C | Chloroform               | 0.358 | 0.370 | -3.4  | 88    | -0.08    |
| 30   | Tetrahydrofuran          | 0.034 | 0.032 | 5.9   | 91    | -0.08    |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.210 | -1.0  | 84    | -0.08    |
| 32 S | Dibromofluoromethane     | 0.218 | 0.227 | -4.1  | 90    | -0.08    |
| 33   | Cyclohexane              | 0.439 | 0.451 | -2.7  | 81    | -0.08    |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.317 | -5.0  | 87    | -0.08    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.174 | -3.0  | 85    | -0.08    |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.176 | -6.7  | 94    | -0.08    |
| 37   | Benzene                  | 1.108 | 1.127 | -1.7  | 87    | -0.08    |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.213 | -7.6  | 89    | -0.08    |
| 39   | tert-amyl methyl ether   | 0.757 | 0.777 | -2.6  | 91    | -0.08    |
| 40   | Trichloroethene          | 0.226 | 0.232 | -2.7  | 87    | -0.08    |
| 41   | Methylcyclohexane        | 0.364 | 0.371 | -1.9  | 81    | -0.08    |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.336 | -7.0  | 91    | -0.09    |



## Continuing Calibration Summary

Page 2 of 2

Job Number: T16445  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2315-CC2305  
 Lab FileID: F0079182.D

|    |   |                             |       |       |        |     |       |
|----|---|-----------------------------|-------|-------|--------|-----|-------|
| 43 |   | Dibromomethane              | 0.158 | 0.169 | -7.0   | 91  | -0.09 |
| 44 |   | 1,4-Dioxane                 | 0.002 | 0.003 | -50.0# | 106 | -0.09 |
| 45 |   | Bromodichloromethane        | 0.304 | 0.321 | -5.6   | 90  | -0.08 |
| 46 |   | 2-Nitropropane              | 0.040 | 0.042 | -5.0   | 98  | -0.08 |
| 47 |   | 2-Chloroethyl vinyl ether   | 0.125 | 0.124 | 0.8    | 85  | -0.08 |
| 48 |   | 4-Methyl-2-pentanone        | 0.240 | 0.236 | 1.7    | 87  | -0.09 |
| 49 |   | cis-1,3-Dichloropropene     | 0.421 | 0.461 | -9.5   | 93  | -0.08 |
|    |   |                             |       |       |        |     |       |
| 50 | I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 90  | -0.08 |
| 51 | S | Toluene-d8                  | 1.098 | 1.096 | 0.2    | 92  | -0.08 |
| 52 | C | Toluene                     | 1.386 | 1.363 | 1.7    | 89  | -0.08 |
| 53 |   | trans-1,3-Dichloropropene   | 0.391 | 0.405 | -3.6   | 91  | -0.07 |
| 54 |   | 1,1,2-Trichloroethane       | 0.283 | 0.289 | -2.1   | 93  | -0.08 |
| 55 |   | Tetrachloroethene           | 0.294 | 0.299 | -1.7   | 89  | -0.09 |
| 56 |   | 2-hexanone                  | 0.196 | 0.182 | 7.1    | 85  | -0.08 |
| 57 |   | 1,3-Dichloropropane         | 0.599 | 0.606 | -1.2   | 92  | -0.08 |
| 58 |   | Dibromochloromethane        | 0.298 | 0.306 | -2.7   | 94  | -0.08 |
| 59 |   | 1,2-Dibromoethane           | 0.309 | 0.310 | -0.3   | 93  | -0.08 |
| 60 |   | 1-Chlorohexane              | 0.495 | 0.501 | -1.2   | 90  | -0.09 |
| 61 | P | Chlorobenzene               | 0.871 | 0.876 | -0.6   | 91  | -0.09 |
| 62 |   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.286 | -2.1   | 92  | -0.08 |
| 63 | C | Ethylbenzene                | 1.478 | 1.474 | 0.3    | 89  | -0.09 |
| 64 |   | m,p-Xylene                  | 1.025 | 1.039 | -1.4   | 90  | -0.08 |
| 65 |   | o-Xylene                    | 1.070 | 1.102 | -3.0   | 92  | -0.09 |
| 66 |   | Styrene                     | 0.928 | 0.964 | -3.9   | 91  | -0.08 |
| 67 | P | Bromoform                   | 0.169 | 0.198 | -17.2  | 100 | -0.09 |
|    |   |                             |       |       |        |     |       |
| 68 | I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0    | 93  | -0.09 |
| 69 |   | Isopropylbenzene            | 2.941 | 2.758 | 6.2    | 90  | -0.08 |
| 70 |   | Cyclohexanone               | 0.027 | 0.039 | -44.4# | 142 | -0.10 |
| 71 | S | 4-Bromofluorobenzene        | 0.921 | 0.840 | 8.8    | 92  | -0.09 |
| 72 |   | Bromobenzene                | 0.867 | 0.840 | 3.1    | 93  | -0.09 |
| 73 | P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.065 | 4.9    | 98  | -0.09 |
| 74 |   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.176 | 1.7    | 90  | -0.09 |
| 75 |   | 1,2,3-Trichloropropane      | 0.247 | 0.240 | 2.8    | 96  | -0.09 |
| 76 |   | n-Propylbenzene             | 4.136 | 4.041 | 2.3    | 92  | -0.09 |
| 77 |   | 2-Chlorotoluene             | 2.591 | 2.463 | 4.9    | 92  | -0.09 |
| 78 |   | 4-Chlorotoluene             | 2.234 | 2.117 | 5.2    | 90  | -0.10 |
| 79 |   | 1,3,5-Trimethylbenzene      | 2.368 | 2.281 | 3.7    | 90  | -0.09 |
| 80 |   | sec-Butylbenzene            | 3.140 | 3.101 | 1.2    | 89  | -0.09 |
| 81 |   | 1,3-Dichlorobenzene         | 1.400 | 1.439 | -2.8   | 95  | -0.09 |
| 82 |   | 4-Isopropyltoluene          | 2.312 | 2.294 | 0.8    | 89  | -0.09 |
| 83 |   | 1,4-Dichlorobenzene         | 1.435 | 1.431 | 0.3    | 93  | -0.09 |
| 84 |   | tert-Butylbenzene           | 0.446 | 0.438 | 1.8    | 91  | -0.10 |
| 85 |   | n-Butylbenzene              | 1.942 | 2.030 | -4.5   | 87  | -0.10 |
| 86 |   | 1,2-Dichlorobenzene         | 1.323 | 1.352 | -2.2   | 94  | -0.09 |
| 87 |   | 1,2,4-Trimethylbenzene      | 2.377 | 2.379 | -0.1   | 92  | -0.09 |
| 88 |   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.071 | 14.5   | 92  | -0.10 |
| 89 |   | 1,2,4-Trichlorobenzene      | 0.370 | 0.343 | 7.3    | 79  | -0.09 |
| 90 |   | Hexachlorobutadiene         | 0.162 | 0.192 | -18.5  | 86  | -0.11 |
| 91 |   | Naphthalene                 | 0.681 | 0.550 | 19.2   | 84  | -0.12 |
| 92 |   | 1,2,3-Trichlorobenzene      | 0.274 | 0.247 | 9.9    | 83  | -0.12 |

Average % D = 5.5

(#) = Out of Range  
 F0078967.D VF2305C.M

SPCC's out = 0 CCC's out = 0  
 Thu Mar 08 11:48:42 2007



**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16445  
**Account:** ITTXHO Shaw E & I, Inc.  
**Project:** Longhorn Army Ammunition Plant

**Sample:** VF2318-CC2305  
**Lab FileID:** F0079223.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\1\DATA\VF2318-1\F0079223.D Vial: 2  
 Acq On : 8 Mar 2007 10:59 am Operator: lydiaj  
 Sample : cc2305-40 Inst : GC/MS F  
 Misc : ms3889,vf2318,,,,5,1,water Multiplr: 1.00  
 MS Integration Params: RTEINT.P

Method : C:\HPCHEM\1\METHODS\VF2305C.M (RTE Integrator)  
 Title : SW846 8260B and EPA 624  
 Last Update : Thu Mar 01 07:31:12 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.001 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 20% Max. Rel. Area : 200%

|      | Compound                 | AvgRF | CCRF  | %Dev  | Area% | Dev(min) |
|------|--------------------------|-------|-------|-------|-------|----------|
| 1 I  | Fluorobenzene            | 1.000 | 1.000 | 0.0   | 86    | -0.08    |
| 2    | Dichlorodifluoromethane  | 0.171 | 0.134 | 21.6# | 68    | -0.04    |
| 3 P  | Chloromethane            | 0.329 | 0.313 | 4.9   | 87    | -0.05    |
| 4 C  | Vinyl Chloride           | 0.286 | 0.273 | 4.5   | 84    | -0.06    |
| 5    | Bromomethane             | 0.225 | 0.222 | 1.3   | 89    | -0.07    |
| 6    | Chloroethane             | 0.217 | 0.229 | -5.5  | 89    | -0.06    |
| 7    | Trichlorofluoromethane   | 0.155 | 0.168 | -8.4  | 91    | -0.07    |
| 8    | Acrolein                 | 0.033 | 0.033 | 0.0   | 81    | -0.07    |
| 9 C  | 1,1-Dichloroethene       | 0.306 | 0.303 | 1.0   | 81    | -0.07    |
| 10   | Freon 113                | 0.205 | 0.207 | -1.0  | 79    | -0.07    |
| 11   | Acetone                  | 0.056 | 0.042 | 25.0# | 70    | -0.07    |
| 12   | Iodomethane              | 0.434 | 0.423 | 2.5   | 83    | -0.07    |
| 13   | Methyl acetate           | 0.191 | 0.176 | 7.9   | 84    | -0.07    |
| 14   | Carbon Disulfide         | 0.889 | 0.841 | 5.4   | 80    | -0.08    |
| 15   | Methylene Chloride       | 0.399 | 0.413 | -3.5  | 88    | -0.07    |
| 16   | Tert Butyl Alcohol       | 0.017 | 0.017 | 0.0   | 92    | -0.07    |
| 17   | trans-1,2-Dichloroethene | 0.341 | 0.350 | -2.6  | 87    | -0.07    |
| 18   | Acrylonitrile            | 0.095 | 0.078 | 17.9  | 73    | -0.07    |
| 19   | Methyl Tert Butyl Ether  | 0.581 | 0.562 | 3.3   | 87    | -0.07    |
| 20   | Hexane                   | 0.312 | 0.315 | -1.0  | 79    | -0.08    |
| 21 P | 1,1-Dichloroethane       | 0.440 | 0.464 | -5.5  | 89    | -0.07    |
| 22   | Vinyl acetate            | 0.550 | 0.547 | 0.5   | 83    | -0.07    |
| 23   | Di-isopropyl ether       | 0.971 | 1.060 | -9.2  | 93    | -0.07    |
| 24   | Ethyl tert-butyl ether   | 0.738 | 0.774 | -4.9  | 90    | -0.07    |
| 25   | 2,2-Dichloropropane      | 0.203 | 0.232 | -14.3 | 95    | -0.07    |
| 26   | cis-1,2-Dichloroethene   | 0.302 | 0.324 | -7.3  | 90    | -0.08    |
| 27   | 2-Butanone               | 0.113 | 0.090 | 20.4# | 74    | -0.08    |
| 28   | Bromochloromethane       | 0.143 | 0.149 | -4.2  | 88    | -0.08    |
| 29 C | Chloroform               | 0.358 | 0.387 | -8.1  | 92    | -0.08    |
| 30   | Tetrahydrofuran          | 0.034 | 0.028 | 17.6  | 80    | -0.08    |
| 31   | 1,1,1-Trichloroethane    | 0.208 | 0.224 | -7.7  | 90    | -0.08    |
| 32 S | Dibromofluoromethane     | 0.218 | 0.236 | -8.3  | 93    | -0.07    |
| 33   | Cyclohexane              | 0.439 | 0.472 | -7.5  | 85    | -0.08    |
| 34   | 1,1-Dichloropropene      | 0.302 | 0.328 | -8.6  | 90    | -0.08    |
| 35   | Carbon Tetrachloride     | 0.169 | 0.187 | -10.7 | 91    | -0.07    |
| 36 S | 1,2-Dichloroethane-d4    | 0.165 | 0.169 | -2.4  | 90    | -0.08    |
| 37   | Benzene                  | 1.108 | 1.177 | -6.2  | 91    | -0.07    |
| 38   | 1,2-Dichloroethane       | 0.198 | 0.206 | -4.0  | 86    | -0.08    |
| 39   | tert-amyl methyl ether   | 0.757 | 0.767 | -1.3  | 90    | -0.08    |
| 40   | Trichloroethene          | 0.226 | 0.248 | -9.7  | 93    | -0.08    |
| 41   | Methylcyclohexane        | 0.364 | 0.394 | -8.2  | 87    | -0.08    |
| 42 C | 1,2-Dichloropropane      | 0.314 | 0.345 | -9.9  | 94    | -0.08    |

## Continuing Calibration Summary

Page 2 of 2

Job Number: T16445  
 Account: ITTXHO Shaw E & I, Inc.  
 Project: Longhorn Army Ammunition Plant

Sample: VF2318-CC2305  
 Lab FileID: F0079223.D

|      |                             |       |       |        |     |       |
|------|-----------------------------|-------|-------|--------|-----|-------|
| 43   | Dibromomethane              | 0.158 | 0.163 | -3.2   | 88  | -0.08 |
| 44   | 1,4-Dioxane                 | 0.002 | 0.002 | 0.0    | 89  | -0.08 |
| 45   | Bromodichloromethane        | 0.304 | 0.332 | -9.2   | 93  | -0.08 |
| 46   | 2-Nitropropane              | 0.040 | 0.036 | 10.0   | 84  | -0.08 |
| 47   | 2-Chloroethyl vinyl ether   | 0.125 | 0.110 | 12.0   | 76  | -0.08 |
| 48   | 4-Methyl-2-pentanone        | 0.240 | 0.206 | 14.2   | 76  | -0.08 |
| 49   | cis-1,3-Dichloropropene     | 0.421 | 0.471 | -11.9  | 95  | -0.08 |
| 50 I | Chlorobenzene-d5            | 1.000 | 1.000 | 0.0    | 90  | -0.08 |
| 51 S | Toluene-d8                  | 1.098 | 1.138 | -3.6   | 96  | -0.08 |
| 52 C | Toluene                     | 1.386 | 1.437 | -3.7   | 94  | -0.08 |
| 53   | trans-1,3-Dichloropropene   | 0.391 | 0.405 | -3.6   | 91  | -0.07 |
| 54   | 1,1,2-Trichloroethane       | 0.283 | 0.284 | -0.4   | 92  | -0.08 |
| 55   | Tetrachloroethene           | 0.294 | 0.324 | -10.2  | 97  | -0.09 |
| 56   | 2-hexanone                  | 0.196 | 0.157 | 19.9   | 73  | -0.08 |
| 57   | 1,3-Dichloropropane         | 0.599 | 0.582 | 2.8    | 89  | -0.08 |
| 58   | Dibromochloromethane        | 0.298 | 0.305 | -2.3   | 93  | -0.08 |
| 59   | 1,2-Dibromoethane           | 0.309 | 0.301 | 2.6    | 90  | -0.08 |
| 60   | 1-Chlorohexane              | 0.495 | 0.527 | -6.5   | 94  | -0.08 |
| 61 P | Chlorobenzene               | 0.871 | 0.923 | -6.0   | 96  | -0.09 |
| 62   | 1,1,1,2-Tetrachloroethane   | 0.280 | 0.299 | -6.8   | 96  | -0.09 |
| 63 C | Ethylbenzene                | 1.478 | 1.578 | -6.8   | 96  | -0.09 |
| 64   | m,p-Xylene                  | 1.025 | 1.080 | -5.4   | 94  | -0.08 |
| 65   | o-Xylene                    | 1.070 | 1.152 | -7.7   | 96  | -0.08 |
| 66   | Styrene                     | 0.928 | 0.989 | -6.6   | 93  | -0.08 |
| 67 P | Bromoform                   | 0.169 | 0.180 | -6.5   | 91  | -0.09 |
| 68 I | 1,4-Dichlorobenzene-d4      | 1.000 | 1.000 | 0.0    | 90  | -0.09 |
| 69   | Isopropylbenzene            | 2.941 | 3.019 | -2.7   | 95  | -0.08 |
| 70   | Cyclohexanone               | 0.027 | 0.046 | -70.4# | 163 | -0.10 |
| 71 S | 4-Bromofluorobenzene        | 0.921 | 0.912 | 1.0    | 96  | -0.09 |
| 72   | Bromobenzene                | 0.867 | 0.917 | -5.8   | 98  | -0.09 |
| 73 P | 1,1,2,2-Tetrachloroethane   | 1.120 | 1.007 | 10.1   | 89  | -0.09 |
| 74   | Trans-1,4-Dichloro-2-Butene | 0.179 | 0.160 | 10.6   | 79  | -0.10 |
| 75   | 1,2,3-Trichloropropane      | 0.247 | 0.233 | 5.7    | 90  | -0.09 |
| 76   | n-Propylbenzene             | 4.136 | 4.335 | -4.8   | 95  | -0.09 |
| 77   | 2-Chlorotoluene             | 2.591 | 2.658 | -2.6   | 95  | -0.09 |
| 78   | 4-Chlorotoluene             | 2.234 | 2.314 | -3.6   | 95  | -0.10 |
| 79   | 1,3,5-Trimethylbenzene      | 2.368 | 2.500 | -5.6   | 95  | -0.08 |
| 80   | sec-Butylbenzene            | 3.140 | 3.327 | -6.0   | 92  | -0.09 |
| 81   | 1,3-Dichlorobenzene         | 1.400 | 1.523 | -8.8   | 97  | -0.09 |
| 82   | 4-Isopropyltoluene          | 2.312 | 2.458 | -6.3   | 92  | -0.09 |
| 83   | 1,4-Dichlorobenzene         | 1.435 | 1.494 | -4.1   | 94  | -0.09 |
| 84   | tert-Butylbenzene           | 0.446 | 0.456 | -2.2   | 92  | -0.10 |
| 85   | n-Butylbenzene              | 1.942 | 2.065 | -6.3   | 85  | -0.10 |
| 86   | 1,2-Dichlorobenzene         | 1.323 | 1.387 | -4.8   | 93  | -0.09 |
| 87   | 1,2,4-Trimethylbenzene      | 2.377 | 2.512 | -5.7   | 94  | -0.09 |
| 88   | 1,2-Dibromo-3-Chloropropane | 0.083 | 0.069 | 16.9   | 85  | -0.09 |
| 89   | 1,2,4-Trichlorobenzene      | 0.370 | 0.322 | 13.0   | 72  | -0.09 |
| 90   | Hexachlorobutadiene         | 0.162 | 0.201 | -24.1# | 87  | -0.10 |
| 91   | Naphthalene                 | 0.681 | 0.464 | 31.9#  | 69  | -0.11 |
| 92   | 1,2,3-Trichlorobenzene      | 0.274 | 0.216 | 21.2#  | 70  | -0.11 |

Average % D = 8.2

(#) = Out of Range  
 F0078967.D VF2305C.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 09 16:10:50 2007



## General Chemistry

### QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16445  
Account: ITTXHO - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                     | Batch ID | RL    | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|-----------------------------|----------|-------|-----------|-------|--------------|------------|------------|-----------|
| Alkalinity, Total as CaCO3  | GN11375  | 5.0   | <5.0      | mg/l  | 2500         | 2500       | 100.0      | 80-120%   |
| Chloride                    | GN11343  | 1.0   | <1.0      | mg/l  | xxxxxxx      | 1020       | 102.0      | 92-107%   |
| Nitrogen, Nitrate + Nitrite | GN11291  | 0.050 | <0.050    | mg/l  | 0.500        | 0.51       | 102.0      | 89-112%   |
| Nitrogen, Nitrate + Nitrite | GN11301  | 0.050 | <0.050    | mg/l  | 0.500        | 0.51       | 102.0      | 89-112%   |
| Nitrogen, Nitrite           | GN11290  | 0.050 | <0.050    | mg/l  | 0.500        | 0.49       | 98.0       | 89-117%   |
| Nitrogen, Nitrite           | GN11300  | 0.050 | <0.050    | mg/l  | 0.500        | 0.49       | 98.0       | 89-117%   |
| Sulfate                     | GN11356  | 10    | <10       | mg/l  | 100          | 95.0       | 95.0       | 80-120%   |
| Sulfate                     | GN11356  |       |           | mg/l  | xxxxxxx      |            | *          | 80-120%   |
| Sulfide                     | GN11313  | 0.20  | <0.20     | mg/l  | 1600         | 1380       | 85.0       | 80-120%   |
| Total Organic Carbon        | GN11304  | 1.0   | <1.0      | mg/l  | 25.0         | 26.0       | 104.0      | 83-110%   |
| Total Organic Carbon        | GN11311  | 1.0   | <1.0      | mg/l  | 25.0         | 25.0       | 100.0      | 83-110%   |
| Total Organic Carbon        | GN11317  | 1.0   | <1.0      | mg/l  | 25.0         | 25.0       | 100.0      | 83-110%   |

Associated Samples:

Batch GN11290: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11291: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11300: T16445-18  
 Batch GN11301: T16445-18  
 Batch GN11304: T16445-18  
 Batch GN11311: T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7  
 Batch GN11313: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11317: T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-8, T16445-9  
 Batch GN11343: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11356: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11375: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 (\*) Outside of QC limits

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16445  
Account: ITTXH0 - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                     | Batch ID | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|-----------------------------|----------|-----------|-------|-----------------|------------|-----|-----------|
| Alkalinity, Total as CaCO3  | GN11375  | T16445-5  | mg/l  | 457             | 457        | 0.0 | 0-10%     |
| Chloride                    | GN11343  | T16445-5  | mg/l  | 253             | 258        | 2.0 | 0-5%      |
| Nitrogen, Nitrate + Nitrite | GN11291  | T16445-5  | mg/l  | 0.0050 U        | <0.050     | 0.0 | 0-10%     |
| Nitrogen, Nitrate + Nitrite | GN11301  | T16445-18 | mg/l  | 2.7             | 2.7        | 0.0 | 0-10%     |
| Nitrogen, Nitrite           | GN11290  | T16445-5  | mg/l  | 0.0030 U        | <0.050     | 0.0 | 0-10%     |
| Nitrogen, Nitrite           | GN11300  | T16445-18 | mg/l  | 0.0030 U        | <0.050     | 0.0 | 0-10%     |
| Sulfate                     | GN11356  | T16445-5  | mg/l  | 286             | 291        | 1.7 | 0-20%     |
| Sulfide                     | GN11313  | T16445-5  | mg/l  | 0.0 B           | <0.20      | 0.0 | 0-20%     |
| Total Organic Carbon        | GN11304  | T16445-18 | mg/l  | 6.0             | 6.0        | 0.0 | 0-11%     |
| Total Organic Carbon        | GN11311  | T16445-5  | mg/l  | 2.0             | 2.0        | 0.0 | 0-11%     |
| Total Organic Carbon        | GN11317  | T16445-8  | mg/l  | 3.0             | 3.0        | 0.0 | 0-11%     |
| pH                          | GN11323  | T16445-5  | su    | 7.1             | 7.1        | 0.0 | 0-6.8%    |
| pH                          | GN11323  | T16445-7  | su    | 11.2            | 11.1       | 1.8 | 0-6.8%    |
| pH                          | GN11323  | T16445-18 | su    | 6.7             | 7.0        | 3.5 | 0-6.8%    |

Associated Samples:

Batch GN11290: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11291: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11300: T16445-18  
 Batch GN11301: T16445-18  
 Batch GN11304: T16445-18  
 Batch GN11311: T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7  
 Batch GN11313: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11317: T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-8, T16445-9  
 Batch GN11323: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11343: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11356: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 Batch GN11375: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
 (\*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16445  
Account: ITTXHO - Shaw E & I, Inc.  
Project: Longhorn Army Ammunition Plant

| Analyte                     | Batch ID | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|-----------------------------|----------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Alkalinity, Total as CaCO3  | GN11375  | T16445-5  | mg/l  | 457             | 125          | 590       | 106.0 | 79-122%   |
| Chloride                    | GN11343  | T16445-5  | mg/l  | 253             | xxxxxxx      | 462       | 104.0 | 81-119%   |
| Nitrogen, Nitrate + Nitrite | GN11291  | T16445-5  | mg/l  | 0.0050 U        | 0.100        | 0.097     | 97.0  | 80-119%   |
| Nitrogen, Nitrate + Nitrite | GN11291  | T16445-5  | mg/l  | 0.0050 U        | 0.100        | 0.10      | 100.0 | 80-119%   |
| Nitrogen, Nitrate + Nitrite | GN11301  | T16445-18 | mg/l  | 2.7             | 1.00         | 3.7       | 100.0 | 80-119%   |
| Nitrogen, Nitrite           | GN11290  | T16445-5  | mg/l  | 0.0030 U        | 0.100        | 0.096     | 96.0  | 75-134%   |
| Nitrogen, Nitrite           | GN11290  | T16445-5  | mg/l  | 0.0030 U        | 0.100        | 0.096     | 96.0  | 75-134%   |
| Nitrogen, Nitrite           | GN11300  | T16445-18 | mg/l  | 0.0030 U        | 0.100        | 0.094     | 94.0  | 75-134%   |
| Sulfate                     | GN11356  | T16445-5  | mg/l  | 286             | 100          | 296       | 100.0 | 75-125%   |
| Sulfate                     | GN11356  | T16445-5  | mg/l  | 286             | xxxxxxx      |           | *     | 75-125%   |
| Total Organic Carbon        | GN11304  | T16445-18 | mg/l  | 6.0             | 10.0         | 16.0      | 100.0 | 74-121%   |
| Total Organic Carbon        | GN11311  | T16445-5  | mg/l  | 2.0             | 10.0         | 13.0      | 110.0 | 74-121%   |
| Total Organic Carbon        | GN11311  | T16445-5  | mg/l  | 2.0             | 10.0         | 12.0      | 100.0 | 74-121%   |
| Total Organic Carbon        | GN11317  | T16445-8  | mg/l  | 3.0             | 10.0         | 14.0      | 110.0 | 74-121%   |

Associated Samples:

Batch GN11290: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9

Batch GN11291: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9

Batch GN11300: T16445-18

Batch GN11301: T16445-18

Batch GN11304: T16445-18

Batch GN11311: T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7

Batch GN11317: T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-8, T16445-9

Batch GN11343: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9

Batch GN11356: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9

Batch GN11375: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



## Misc. Forms

### Custody Documents and Other Forms

(Accutest Laboratories Southeast, Inc.)

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Includes the following where applicable:

- Chain of Custody


**ACCUTEST**  
 Laboratories

**T16445**

# CHAIN OF CUSTODY

 Page 1 of 2

10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

| Subcontract Information                                                                                                                                                                                                                                                                                 |                     | Project Information                                                                                                                                                                                                                                                                                                                       |                    | FED-EX Tracking #           |              | Bottle Order Control #                                                                                                                         |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Company Name<br><b>ALSE-ORLANDO</b>                                                                                                                                                                                                                                                                     |                     | Send Report to:<br><b>Agnsv@accutest.com</b>                                                                                                                                                                                                                                                                                              |                    | Accutest Quote #            |              | Accutest Job #<br><b>T16445</b>                                                                                                                |  |
| Project Contact                                                                                                                                                                                                                                                                                         |                     | Bill to                                                                                                                                                                                                                                                                                                                                   |                    | Requested Analyses          |              | Matrix Codes                                                                                                                                   |  |
| Address                                                                                                                                                                                                                                                                                                 |                     | Address                                                                                                                                                                                                                                                                                                                                   |                    |                             |              | DW - Drinking Water<br>GW - Ground Water<br>WW - Wastewater<br>SD - Soil<br>SL - Sludge<br>OL - Oil<br>LIQ - Other Liquid<br>SOL - Other Solid |  |
| City<br><b>ORLANDO</b>                                                                                                                                                                                                                                                                                  | State<br><b>FL</b>  | City<br><b>Houston, TX</b>                                                                                                                                                                                                                                                                                                                | State<br><b>TX</b> |                             |              |                                                                                                                                                |  |
| Zip<br><b>32801</b>                                                                                                                                                                                                                                                                                     | Zip<br><b>77036</b> | Phone No.<br><b>713-271-4700 / 713-271-4770</b>                                                                                                                                                                                                                                                                                           |                    | Accutest Purchase Order #   |              |                                                                                                                                                |  |
| Accutest Sample ID                                                                                                                                                                                                                                                                                      |                     | Collection                                                                                                                                                                                                                                                                                                                                |                    | Number of preserved bottles |              | LAB USE ONLY                                                                                                                                   |  |
|                                                                                                                                                                                                                                                                                                         |                     | Date                                                                                                                                                                                                                                                                                                                                      | Time               | Matrix                      | # of bottles |                                                                                                                                                |  |
| T16445-1                                                                                                                                                                                                                                                                                                |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 930                | GW                          | 5            |                                                                                                                                                |  |
| T16445-2                                                                                                                                                                                                                                                                                                |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 941                | GW                          | 3            |                                                                                                                                                |  |
| T16445-3                                                                                                                                                                                                                                                                                                |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 1538               | GW                          | 3            |                                                                                                                                                |  |
| T16445-5 + MS/MSD                                                                                                                                                                                                                                                                                       |                     | 2/23/2007                                                                                                                                                                                                                                                                                                                                 | 1048               | GW                          | 9            |                                                                                                                                                |  |
| T16445-6                                                                                                                                                                                                                                                                                                |                     | 2/23/2007                                                                                                                                                                                                                                                                                                                                 | 1453               | GW                          | 3            |                                                                                                                                                |  |
| T16445-7                                                                                                                                                                                                                                                                                                |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 1030               | GW                          | 5            |                                                                                                                                                |  |
| T16445-8                                                                                                                                                                                                                                                                                                |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 1418               | GW                          | 5            |                                                                                                                                                |  |
| T16445-9                                                                                                                                                                                                                                                                                                |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 1418               | GW                          | 3            |                                                                                                                                                |  |
| T16445-10                                                                                                                                                                                                                                                                                               |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 1245               | GW                          | 5            |                                                                                                                                                |  |
| T16445-11                                                                                                                                                                                                                                                                                               |                     | 2/22/2007                                                                                                                                                                                                                                                                                                                                 | 1245               | GW                          | 5            | FD, Only 1-1L Amber                                                                                                                            |  |
| Turnaround Time (Business days)                                                                                                                                                                                                                                                                         |                     | Date Deliverable Information                                                                                                                                                                                                                                                                                                              |                    | Comments / Remarks          |              |                                                                                                                                                |  |
| <input checked="" type="checkbox"/> 10 Day STANDARD<br><input type="checkbox"/> 8 Day RUSH<br><input type="checkbox"/> 4 Day RUSH<br><input type="checkbox"/> 3 Day EMERGENCY<br><input type="checkbox"/> 2 Day EMERGENCY<br><input type="checkbox"/> 1 Day EMERGENCY<br><input type="checkbox"/> Other |                     | Approved By: _____ Date: _____<br><input type="checkbox"/> Commercial "A"<br><input type="checkbox"/> Commercial "B"<br><input checked="" type="checkbox"/> TRRP 13<br><input checked="" type="checkbox"/> Reduced Tier1<br><input type="checkbox"/> State Forms<br><input type="checkbox"/> EDD Format<br><input type="checkbox"/> Other |                    |                             |              |                                                                                                                                                |  |
| Commercial "A" = Results Only<br>Commercial "B" = Results & Standard QC                                                                                                                                                                                                                                 |                     |                                                                                                                                                                                                                                                                                                                                           |                    |                             |              |                                                                                                                                                |  |
| SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY                                                                                                                                                                                                 |                     |                                                                                                                                                                                                                                                                                                                                           |                    |                             |              |                                                                                                                                                |  |
| Relinquished by Sampler:                                                                                                                                                                                                                                                                                |                     | Received By:                                                                                                                                                                                                                                                                                                                              |                    | Relinquished By:            |              | Received By:                                                                                                                                   |  |
| 1                                                                                                                                                                                                                                                                                                       |                     | 1                                                                                                                                                                                                                                                                                                                                         |                    | 2                           |              | 2                                                                                                                                              |  |
| Relinquished By:                                                                                                                                                                                                                                                                                        |                     | Received By:                                                                                                                                                                                                                                                                                                                              |                    | Relinquished By:            |              | Received By:                                                                                                                                   |  |
| 3                                                                                                                                                                                                                                                                                                       |                     | 3                                                                                                                                                                                                                                                                                                                                         |                    | 4                           |              | 4                                                                                                                                              |  |
| Relinquished By:                                                                                                                                                                                                                                                                                        |                     | Received By:                                                                                                                                                                                                                                                                                                                              |                    | Relinquished By:            |              | Received By:                                                                                                                                   |  |
| 5                                                                                                                                                                                                                                                                                                       |                     | 5                                                                                                                                                                                                                                                                                                                                         |                    | 5                           |              | 5                                                                                                                                              |  |
| FV                                                                                                                                                                                                                                                                                                      |                     | w/ Fred V...                                                                                                                                                                                                                                                                                                                              |                    | Kodm                        |              | Fx                                                                                                                                             |  |
| Date Time: 02-28-07                                                                                                                                                                                                                                                                                     |                     | Date Time: 02-28-07                                                                                                                                                                                                                                                                                                                       |                    | Date Time: 02-28-07         |              | Date Time: 02-28-07                                                                                                                            |  |
|                                                                                                                                                                                                                                                                                                         |                     |                                                                                                                                                                                                                                                                                                                                           |                    | Preferred where applicable  |              | On Ice Cooler Temp.                                                                                                                            |  |
|                                                                                                                                                                                                                                                                                                         |                     |                                                                                                                                                                                                                                                                                                                                           |                    |                             |              |                                                                                                                                                |  |

**T16445: Chain of Custody**

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Accutest Laboratories Southeast, Inc.




**ACCUTEST**  
Laboratories

T16445

## CHAIN OF CUSTODY

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10165 Harwin, Suite 150 - Houston, TX 77036 - 713-271-4700 fax: 713-271-4770

|                   |  |                        |  |
|-------------------|--|------------------------|--|
| FED-EX Tracking # |  | Bottle Order Control # |  |
| Accutest Quote #  |  | Accutest Job # T16445  |  |

| Subcontract Information       |         | Project Information                     |                             | Requested Analyses |     | Matrix Codes                                                                                                                       |  |
|-------------------------------|---------|-----------------------------------------|-----------------------------|--------------------|-----|------------------------------------------------------------------------------------------------------------------------------------|--|
| Company Name<br>ALSE-ORLANDO  |         | Send Report to:<br>Agnesev@accutest.com |                             |                    |     | DW - Drinking Water<br>GW - Ground Water<br>WW - Wastewater<br>SO - Soil<br>SL - Sludge<br>LIQ - Other Liquid<br>SOL - Other Solid |  |
| Project Contact               |         | Bill to                                 |                             |                    |     |                                                                                                                                    |  |
| Address                       |         | Accutest Laboratories                   |                             |                    |     |                                                                                                                                    |  |
| Address                       |         | Address                                 |                             |                    |     |                                                                                                                                    |  |
| 10165 Harwin Drive, Suite 150 |         | 10165 Harwin Drive, Suite 150           |                             |                    |     |                                                                                                                                    |  |
| City<br>ORLANDO               | State   | Zip                                     | City<br>Houston, TX 77036   | State              | Zip |                                                                                                                                    |  |
| Phone No.                     | Fax No. | Phone No.                               | 713-271-4700 / 713-271-4770 | Fax No.            |     |                                                                                                                                    |  |
| Accutest Purchase Order #     |         |                                         |                             |                    |     |                                                                                                                                    |  |

| Accutest Sample ID | Collection |      | Matrix | # of bottles | Number of preserved bottles |   |   |   |   |   |   |   |   |    | LAB USE ONLY |  |                 |
|--------------------|------------|------|--------|--------------|-----------------------------|---|---|---|---|---|---|---|---|----|--------------|--|-----------------|
|                    | Date       | Time |        |              | 1                           | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |              |  |                 |
| T16445-12          | 2/22/2007  | 1500 | GW     | 5            | 2                           |   |   |   |   |   |   |   |   |    |              |  |                 |
| T16445-13          | 2/23/2007  | 1533 | GW     | 5            | 2                           |   |   |   |   |   |   |   |   |    |              |  |                 |
| T16445-14          | 2/23/2007  | 1830 | GW     | 5            | 2                           |   |   |   |   |   |   |   |   |    |              |  | Only 1-1L Amber |
| T16445-18          | 2/23/2007  | 1047 | GW     | 5            | 2                           |   |   |   |   |   |   |   |   |    |              |  |                 |
| T16445-4           | 2/22/2007  | 1536 | GW     | 3            | 2                           |   |   |   |   |   |   |   |   |    |              |  |                 |

|                                                                                                                                                                                                                                                                                                         |                     |                                                                                                                                                                                        |                                                                                                               |                    |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|--------------------|--|
| Turnaround Time (Business days)                                                                                                                                                                                                                                                                         |                     | Data Deliverable Information                                                                                                                                                           |                                                                                                               | Comments / Remarks |  |
| <input checked="" type="checkbox"/> 10 Day STANDARD<br><input type="checkbox"/> 5 Day RUSH<br><input type="checkbox"/> 4 Day RUSH<br><input type="checkbox"/> 3 Day EMERGENCY<br><input type="checkbox"/> 2 Day EMERGENCY<br><input type="checkbox"/> 1 Day EMERGENCY<br><input type="checkbox"/> Other | Approved By / Date: | <input type="checkbox"/> Commercial "A"<br><input type="checkbox"/> Commercial "B"<br><input checked="" type="checkbox"/> TRRP 13<br><input checked="" type="checkbox"/> Reduced Tier1 | <input type="checkbox"/> State Forms<br><input type="checkbox"/> EDD Format<br><input type="checkbox"/> Other |                    |  |
|                                                                                                                                                                                                                                                                                                         |                     | Commercial "A" = Results Only<br>Commercial "B" = Results & Standard QC                                                                                                                |                                                                                                               |                    |  |

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION, INCLUDING COURIER DELIVERY

|                          |            |              |                  |                            |              |
|--------------------------|------------|--------------|------------------|----------------------------|--------------|
| Relinquished by Sampler: | Date Time: | Received By: | Relinquished By: | Date Time:                 | Received By: |
| 1                        |            | 1            | 2                |                            | 2            |
| Relinquished by:         | Date Time: | Received By: | Relinquished By: | Date Time:                 | Received By: |
| 3                        |            | 3            | 4                |                            | 4            |
| Relinquished by:         | Date Time: | Received By: | Custody Seal #   | Preserved While Applicable | On Ice       |
| 5                        |            | 5            |                  |                            | Cooler Temp. |

20.2.4.18 20

T16445: Chain of Custody

Page 2 of 3

**ACCUTEST LABORATORIES SAMPLE RECEIPT CONFIRMATION**

ACCUTEST'S JOB NUMBER: T16445 CLIENT: AL6C PROJECT: T16445  
 DATE/TIME RECEIVED: 02-28-07 09:30 # OF COOLERS RECEIVED: 4 COOLER TEMPS: 2.0, 2.4, 1.8, 3.0  
 METHOD OF DELIVERY: FEDEX UPS ACCUTEST COURIER GREYHOUND DELIVERY OTHER  
 AIRBILL NUMBERS: 7986 1726 3879

**COOLER INFORMATION**

- ☐ CUSTODY SEAL NOT PRESENT OR NOT INTACT  
☐ CHAIN OF CUSTODY NOT RECEIVED (COC)  
☐ ANALYSIS REQUESTED IS UNCLEAR OR MISSING  
☐ SAMPLE DATES OR TIMES UNCLEAR OR MISSING  
☐ TEMPERATURE CRITERIA NOT MET

**TRIP BLANK INFORMATION**

- ☐ TRIP BLANK PROVIDED  
☒ TRIP BLANK NOT PROVIDED  
☒ TRIP BLANK NOT ON COC  
☐ TRIP BLANK INTACT  
☐ TRIP BLANK NOT INTACT  
☐ RECEIVED WATER TRIP BLANK  
☐ RECEIVED SOIL TRIP BLANK

**MISC. INFORMATION**

NUMBER OF ENCORES ? 6  
 NUMBER OF 5035 FIELD KITS ? 2  
 NUMBER OR LAB FILTERED METALS ? 2

SUMMARY OF COMMENTS:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**SAMPLE INFORMATION**

- ☐ SAMPLE LABELS NOT PRESENT ON ALL BOTTLES  
☐ CORRECT NUMBER OF CONTAINERS USED  
☐ SAMPLE RECEIVED IMPROPERLY PRESERVED  
☐ INSUFFICIENT VOLUME FOR ANALYSIS  
☐ TIMES ON COC DOES NOT MATCH LABEL(S)  
☐ ID'S ON COC DOES NOT MATCH LABEL(S)  
☐ VOC VIALS HAVE HEADSPACE (MACRO BUBBLES)  
☐ BOTTLES RECEIVED BUT ANALYSIS NOT REQUESTED  
☐ NO BOTTLES RECEIVED FOR ANALYSIS REQUESTED  
☐ UNCLEAR FILTERING INSTRUCTIONS  
☐ UNCLEAR COMPOSITING INSTRUCTIONS  
☐ SAMPLE CONTAINER(S) RECEIVED BROKEN  
☐ % SOLIDS JAR NOT RECEIVED  
☐ 5035 FIELD KIT NOT FROZEN WITHIN 48 HOUR'S  
☐ RESIDUAL CHLORINE PRESENT  
 ( APPLICABLE TO EPA 600 SERIES OR NORTH CAROLINA ORGANICS)

TECHNICIAN SIGNATURE/DATE W. J. V. 02-28-07 TECHNICIAN SIGNATURE/DATE [Signature] 2-28-07 ASBD 10/03/06

**T16445: Chain of Custody**

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## GC Volatiles

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)



Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample    | File ID      | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|--------------|----|----------|----|-----------|------------|------------------|
| GXY992-MB | XY025253.D 1 |    | 03/01/07 | TD | n/a       | n/a        | GXY992           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No. | Compound | Result | RL   | MDL  | Units | Q |
|---------|----------|--------|------|------|-------|---|
| 74-82-8 | Methane  | ND     | 0.50 | 0.30 | ug/l  |   |
| 74-84-0 | Ethane   | ND     | 1.0  | 0.60 | ug/l  |   |
| 74-85-1 | Ethene   | ND     | 1.0  | 0.80 | ug/l  |   |

8.1.1  
8

Blank Spike Summary

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample    | File ID      | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-----------|--------------|----|----------|----|-----------|------------|------------------|
| GXY992-BS | XY025254.D 1 |    | 03/01/07 | TD | n/a       | n/a        | GXY992           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No. | Compound | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|---------|----------|---------------|-------------|----------|--------|
| 74-82-8 | Methane  | 108           | 123         | 114      | 54-149 |
| 74-84-0 | Ethane   | 219           | 245         | 112      | 57-143 |
| 74-85-1 | Ethene   | 290           | 319         | 110      | 57-143 |

8.2.1  
8

Matrix Spike Summary

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID      | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|------------|--------------|----|----------|----|-----------|------------|------------------|
| T16445-5MS | XY025273.D 1 |    | 03/01/07 | TD | n/a       | n/a        | GXY992           |
| T16445-5   | XY025259.D 1 |    | 03/01/07 | TD | n/a       | n/a        | GXY992           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No. | Compound | T16445-5<br>ug/l | Spike<br>Q ug/l | MS<br>ug/l | MS<br>% | Limits |
|---------|----------|------------------|-----------------|------------|---------|--------|
| 74-82-8 | Methane  | 2.93             | 108             | 144        | 131     | 54-149 |
| 74-84-0 | Ethane   | 1.0 U            | 219             | 286        | 131     | 57-143 |
| 74-85-1 | Ethene   | 1.0 U            | 290             | 371        | 128     | 57-143 |

8.3.1  
8

Duplicate Summary

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

| Sample      | File ID      | DF | Analyzed | By | Prep Date | Prep Batch | Analytical Batch |
|-------------|--------------|----|----------|----|-----------|------------|------------------|
| T16445-5DUP | XY025272.D 1 |    | 03/01/07 | TD | n/a       | n/a        | GXY992           |
| T16445-5    | XY025259.D 1 |    | 03/01/07 | TD | n/a       | n/a        | GXY992           |

The QC reported here applies to the following samples: Method: RSKSOP-147/175

T16445-1, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No. | Compound | T16445-5<br>ug/l | DUP<br>Q ug/l | Q | RPD | Limits |
|---------|----------|------------------|---------------|---|-----|--------|
| 74-82-8 | Methane  | 2.93             | 3.38          |   | 14  | 24     |
| 74-84-0 | Ethane   | 1.0 U            | ND            |   | nc  | 23     |
| 74-85-1 | Ethene   | 1.0 U            | ND            |   | nc  | 10     |

8.4.1  
8

**Initial Calibration Summary**

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**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY989-ICC989  
**Lab FileID:** XY025202.D

**Response Factor Report VOA5**

**Method** : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
**Title** : Dissolved Gases in Water  
**Last Update** : Thu Feb 22 15:36:18 2007  
**Response via** : Initial Calibration

**Calibration Files**

1 =XY025194.D 2 =XY025195.D 3 =XY025201.D 4 =XY025197.D  
 5 =XY025202.D 6 =XY025199.D 7 =XY025200.D

| Compound     | 1     | 2     | 3     | 4     | 5     | 6     | 7     | Avg   | %RSD     |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)c Methane  | 1.442 | 0.904 | 1.128 | 1.220 | 0.672 | 0.793 | 0.957 | 1.017 | E4 26.02 |
| 2)c Ethylene | 2.415 | 1.896 | 1.964 | 2.128 | 1.306 | 1.522 | 1.817 | 1.864 | E4 19.76 |
| 3)c Ethane   | 2.311 | 1.873 | 1.880 | 2.068 | 1.280 | 1.499 | 1.798 | 1.816 | E4 18.87 |

(#) = Out of Range

RSK147XY.M

Thu Feb 22 15:38:10 2007

8.5.1  
8



**Initial Calibration Verification**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY989-ICV989  
**Lab FileID:** XY025203.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\022207\XY025203.D Vial: 100  
 Acq On : 22 Feb 2007 1:27 pm Operator: Trangd  
 Sample : ICV989-1000 Inst : VOA5  
 Misc : gc7062,gxy989,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Thu Feb 22 15:36:18 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|----------|----------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 1000.000 | 1154.410 | -15.4  | 175   | 0.20     | 0.88- | 1.48   |
| 2 c | Ethylene | 1000.000 | 1202.152 | -20.2  | 172   | 0.31     | 2.54- | 3.34   |
| 3 c | Ethane   | 1000.000 | 1245.774 | -24.6  | 177   | 0.32     | 3.14- | 3.94   |

(#) = Out of Range  
 XY025202.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Thu Feb 22 15:37:53 2007

8.5.2  
8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY992-CC989  
**Lab FileID:** XY025251.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\030107\XY025251.D Vial: 100  
 Acq On : 1 Mar 2007 9:53 am Operator: Trangd  
 Sample : CC989-1000 Inst : VOA5  
 Misc : gc7109,gxy992,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Fri Mar 02 09:28:32 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|----------|----------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 1000.000 | 1006.127 | -0.6   | 152   | -0.11    | 1.16- | 1.76   |
| 2 c | Ethylene | 1000.000 | 1069.950 | -7.0   | 153   | -0.09    | 2.96- | 3.76   |
| 3 c | Ethane   | 1000.000 | 1082.186 | -8.2   | 153   | -0.08    | 3.58- | 4.38   |

(#) = Out of Range  
 XY025202.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 02 10:53:27 2007

8.5.3  
8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY992-CC989  
**Lab FileID:** XY025262.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\030107\XY025262.D Vial: 100  
 Acq On : 1 Mar 2007 1:50 pm Operator: Trangd  
 Sample : CC989-500 Inst : VOA5  
 Misc : gc7128,gxy992,,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Fri Mar 02 09:28:32 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|---------|---------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 500.000 | 411.874 | 17.6   | 69    | 0.09     | 1.16- | 1.76   |
| 2 c | Ethylene | 500.000 | 450.472 | 9.9    | 79    | 0.14     | 2.96- | 3.76   |
| 3 c | Ethane   | 500.000 | 453.565 | 9.3    | 80    | 0.15     | 3.58- | 4.38   |

(#) = Out of Range  
 XY025197.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 02 09:55:28 2007

8.5.4

8

**Continuing Calibration Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GXY992-ECC989  
**Lab FileID:** XY025274.D

**Evaluate Continuing Calibration Report**

Data File : C:\HPCHEM\2\DATA\030107\XY025274.D Vial: 100  
 Acq On : 1 Mar 2007 4:48 pm Operator: Trangd  
 Sample : ECC989-1000 Inst : VOA5  
 Misc : gc7128,gxy992,,,,, Multiplr: 1.00  
 IntFile : EVENTS.E

Method : C:\HPCHEM\2\METHODS\RSK147XY.M (Chemstation Integrator)  
 Title : Dissolved Gases in Water  
 Last Update : Fri Mar 02 09:28:32 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 30% Max. Rel. Area : 150%

|     | Compound | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT    | Window |
|-----|----------|----------|----------|--------|-------|----------|-------|--------|
| 1 c | Methane  | 1000.000 | 1171.434 | -17.1  | 177   | 0.00     | 1.16- | 1.76   |
| 2 c | Ethylene | 1000.000 | 1277.743 | -27.8  | 182   | 0.00     | 2.96- | 3.76   |
| 3 c | Ethane   | 1000.000 | 1297.361 | -29.7  | 184   | 0.00     | 3.58- | 4.38   |

(#) = Out of Range  
 XY025202.D RSK147XY.M

SPCC's out = 0 CCC's out = 0  
 Fri Mar 02 09:55:08 2007

8.5.5

8



## GC Semi-volatiles

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries
- GC Surrogate Retention Time Summaries
- Initial and Continuing Calibration Summaries

**Method Blank Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19677-MB | GG020203.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16445-1, T16445-7, T16445-8, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No.    | Compound                   | Result | RL   | MDL   | Units | Q |
|------------|----------------------------|--------|------|-------|-------|---|
| 2691-41-0  | HMX                        | ND     | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | ND     | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | ND     | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | ND     | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND     | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND     | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | ND     | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | ND     | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND     | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND     | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Limits       |
|----------|----------------------|--------------|
| 610-39-9 | 3,4-Dinitrotoluene   | 102% 70-136% |

**Method Blank Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19677-MB | GG020233.D1 |    | 03/05/07 | MRE | 03/01/07  | OP19677    | GGG907           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16445-1, T16445-7, T16445-8, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No.    | Compound                   | Result | RL   | MDL   | Units | Q |
|------------|----------------------------|--------|------|-------|-------|---|
| 2691-41-0  | HMX                        | ND     | 0.20 | 0.060 | ug/l  |   |
| 121-82-4   | RDX                        | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-65-0    | 1,3-Dinitrobenzene         | ND     | 0.20 | 0.070 | ug/l  |   |
| 606-20-2   | 2,6-Dinitrotoluene         | ND     | 0.20 | 0.065 | ug/l  |   |
| 121-14-2   | 2,4-Dinitrotoluene         | ND     | 0.20 | 0.075 | ug/l  |   |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND     | 0.20 | 0.070 | ug/l  |   |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND     | 0.20 | 0.080 | ug/l  |   |
| 98-95-3    | Nitrobenzene               | ND     | 0.20 | 0.060 | ug/l  |   |
| 88-72-2    | o-Nitrotoluene             | ND     | 0.20 | 0.060 | ug/l  |   |
| 99-08-1    | m-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-99-0    | p-Nitrotoluene             | ND     | 0.20 | 0.075 | ug/l  |   |
| 479-45-8   | Tetryl                     | ND     | 0.20 | 0.075 | ug/l  |   |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND     | 0.20 | 0.095 | ug/l  |   |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND     | 0.20 | 0.080 | ug/l  |   |

| CAS No.  | Surrogate Recoveries | Limits      |
|----------|----------------------|-------------|
| 610-39-9 | 3,4-Dinitrotoluene   | 80% 70-136% |

**Blank Spike Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19677-BS | GG020202.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16445-1, T16445-7, T16445-8, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 2691-41-0  | HMX                        | 5             | 5.3         | 106      | 74-152 |
| 121-82-4   | RDX                        | 5             | 5.4         | 108      | 80-124 |
| 99-65-0    | 1,3-Dinitrobenzene         | 5             | 5.3         | 106      | 84-123 |
| 606-20-2   | 2,6-Dinitrotoluene         | 5             | 5.3         | 106      | 84-133 |
| 121-14-2   | 2,4-Dinitrotoluene         | 5             | 5.1         | 102      | 77-116 |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 5             | 5.2         | 104      | 78-117 |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 5             | 5.1         | 102      | 84-123 |
| 98-95-3    | Nitrobenzene               | 5             | 5.5         | 110      | 76-128 |
| 88-72-2    | o-Nitrotoluene             | 5             | 5.0         | 100      | 76-120 |
| 99-08-1    | m-Nitrotoluene             | 5             | 5.2         | 104      | 74-124 |
| 99-99-0    | p-Nitrotoluene             | 5             | 5.3         | 106      | 81-125 |
| 479-45-8   | Tetryl                     | 5             | 4.6         | 92       | 62-117 |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 5             | 5.3         | 106      | 85-127 |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 5             | 5.3         | 106      | 71-128 |

| CAS No.  | Surrogate Recoveries | BSP  | Limits  |
|----------|----------------------|------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 124% | 70-136% |



**Blank Spike Summary**

Page 1 of 1

**Job Number:** T16445**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample     | File ID     | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|------------|-------------|----|----------|-----|-----------|------------|------------------|
| OP19677-BS | GG020232.D1 |    | 03/05/07 | MRE | 03/01/07  | OP19677    | GGG907           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16445-1, T16445-7, T16445-8, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No.    | Compound                   | Spike<br>ug/l | BSP<br>ug/l | BSP<br>% | Limits |
|------------|----------------------------|---------------|-------------|----------|--------|
| 2691-41-0  | HMX                        | 5             | 5.9         | 118      | 74-152 |
| 121-82-4   | RDX                        | 5             | 5.5         | 110      | 80-124 |
| 99-65-0    | 1,3-Dinitrobenzene         | 5             | 5.3         | 106      | 84-123 |
| 606-20-2   | 2,6-Dinitrotoluene         | 5             | 5.1         | 102      | 84-133 |
| 121-14-2   | 2,4-Dinitrotoluene         | 5             | 5.1         | 102      | 77-116 |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | 5             | 5.2         | 104      | 78-117 |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | 5             | 5.1         | 102      | 84-123 |
| 98-95-3    | Nitrobenzene               | 5             | 6.4         | 128      | 76-128 |
| 88-72-2    | o-Nitrotoluene             | 5             | 5.0         | 100      | 76-120 |
| 99-08-1    | m-Nitrotoluene             | 5             | 5.3         | 106      | 74-124 |
| 99-99-0    | p-Nitrotoluene             | 5             | 5.3         | 106      | 81-125 |
| 479-45-8   | Tetryl                     | 5             | 4.6         | 92       | 62-117 |
| 99-35-4    | 1,3,5-Trinitrobenzene      | 5             | 5.5         | 110      | 85-127 |
| 118-96-7   | 2,4,6-Trinitrotoluene      | 5             | 5.7         | 114      | 71-128 |

| CAS No.  | Surrogate Recoveries | BSP  | Limits  |
|----------|----------------------|------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 100% | 70-136% |

**Matrix Spike/Matrix Spike Duplicate Summary**

Page 1 of 1

**Job Number:** T16445**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant

| Sample      | File ID      | DF | Analyzed | By  | Prep Date | Prep Batch | Analytical Batch |
|-------------|--------------|----|----------|-----|-----------|------------|------------------|
| OP19677-MS  | GG020207.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |
| OP19677-MSD | GG020208.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |
| F47539-3    | GG020206.D 1 |    | 03/02/07 | MRE | 03/01/07  | OP19677    | GGG906           |

**The QC reported here applies to the following samples:****Method:** SW846 8330A

T16445-1, T16445-7, T16445-8, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18

| CAS No.    | Compound                   | F47539-3<br>ug/l | Spike<br>Q<br>ug/l | MS<br>ug/l | MS<br>% | MSD<br>ug/l | MSD<br>% | RPD | Limits<br>Rec/RPD |
|------------|----------------------------|------------------|--------------------|------------|---------|-------------|----------|-----|-------------------|
| 2691-41-0  | HMX                        | ND               | 10                 | 11.0       | 110     | 11.8        | 118      | 7   | 74-152/21         |
| 121-82-4   | RDX                        | ND               | 10                 | 10.3       | 103     | 10.7        | 107      | 4   | 80-124/20         |
| 99-65-0    | 1,3-Dinitrobenzene         | ND               | 10                 | 10.3       | 103     | 10.9        | 109      | 6   | 84-123/23         |
| 606-20-2   | 2,6-Dinitrotoluene         | ND               | 10                 | 9.9        | 99      | 10.6        | 106      | 7   | 84-133/23         |
| 121-14-2   | 2,4-Dinitrotoluene         | ND               | 10                 | 9.7        | 97      | 10.3        | 103      | 6   | 77-116/26         |
| 35572-78-2 | 2-amino-4,6-Dinitrotoluene | ND               | 10                 | 9.4        | 94      | 10.5        | 105      | 11  | 78-117/28         |
| 19406-51-0 | 4-amino-2,6-Dinitrotoluene | ND               | 10                 | 9.1        | 91      | 10.2        | 102      | 11  | 84-123/27         |
| 98-95-3    | Nitrobenzene               | ND               | 10                 | 10.5       | 105     | 11.1        | 111      | 6   | 76-128/28         |
| 88-72-2    | o-Nitrotoluene             | ND               | 10                 | 9.3        | 93      | 10.2        | 102      | 9   | 76-120/30         |
| 99-08-1    | m-Nitrotoluene             | ND               | 10                 | 9.5        | 95      | 10.6        | 106      | 11  | 74-124/32         |
| 99-99-0    | p-Nitrotoluene             | ND               | 10                 | 9.7        | 97      | 10.7        | 107      | 10  | 81-125/34         |
| 479-45-8   | Tetryl                     | ND               | 10                 | 7.4        | 74      | 7.9         | 79       | 7   | 62-117/28         |
| 99-35-4    | 1,3,5-Trinitrobenzene      | ND               | 10                 | 9.8        | 98      | 10.4        | 104      | 6   | 85-127/21         |
| 118-96-7   | 2,4,6-Trinitrotoluene      | ND               | 10                 | 9.8        | 98      | 10.4        | 104      | 6   | 71-128/21         |

| CAS No.  | Surrogate Recoveries | MS  | MSD | F47539-3 | Limits  |
|----------|----------------------|-----|-----|----------|---------|
| 610-39-9 | 3,4-Dinitrotoluene   | 94% | 98% | 102%     | 70-136% |

9.3.1  
9

**Semivolatiles Surrogate Recovery Summary**

Page 1 of 1

**Job Number:** T16445**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.**Project:** ITTXHO: Longhorn Army Ammunition Plant**Method:** SW846 8330A**Matrix:** AQ**Samples and QC shown here apply to the above method**

| Lab<br>Sample ID | Lab<br>File ID | S1 <sup>a</sup> |
|------------------|----------------|-----------------|
| T16445-1         | GG020214.D     | 82.0            |
| T16445-7         | GG020215.D     | 109.0           |
| T16445-8         | GG020216.D     | 107.0           |
| T16445-10        | GG020217.D     | 98.0            |
| T16445-11        | GG020218.D     | 117.0           |
| T16445-12        | GG020236.D     | 90.0            |
| T16445-12        | GG020219.D     | 103.0           |
| T16445-13        | GG020220.D     | 107.0           |
| T16445-14        | GG020221.D     | 102.0           |
| T16445-18        | GG020222.D     | 106.0           |
| OP19677-BS       | GG020202.D     | 124.0           |
| OP19677-BS       | GG020232.D     | 100.0           |
| OP19677-MB       | GG020203.D     | 102.0           |
| OP19677-MB       | GG020233.D     | 80.0            |
| OP19677-MS       | GG020207.D     | 94.0            |
| OP19677-MSD      | GG020208.D     | 98.0            |

| Surrogate<br>Compounds | Recovery<br>Limits |
|------------------------|--------------------|
|------------------------|--------------------|

|                         |         |
|-------------------------|---------|
| S1 = 3,4-Dinitrotoluene | 70-136% |
|-------------------------|---------|

(a) Recovery from GC signal #1

**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> GGG906-CC825 | <b>Injection Date:</b> 03/02/07 |
| <b>Lab File ID:</b> GG020201.D | <b>Injection Time:</b> 16:17    |
| <b>Instrument ID:</b> GCGG     | <b>Method:</b> SW846 8330A      |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 13.50 |
|-----------|-------|

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|
| OP19677-BS       | GG020202.D     | 03/02/07         | 16:45            | 13.49                 |
| OP19677-MB       | GG020203.D     | 03/02/07         | 17:12            | 13.50                 |
| ZZZZZZ           | GG020204.D     | 03/02/07         | 17:27            | 13.50                 |
| ZZZZZZ           | GG020205.D     | 03/02/07         | 17:54            | 13.50                 |
| F47539-3         | GG020206.D     | 03/02/07         | 18:22            | 13.49                 |
| OP19677-MS       | GG020207.D     | 03/02/07         | 18:50            | 13.47                 |
| OP19677-MSD      | GG020208.D     | 03/02/07         | 19:17            | 13.46                 |
| ZZZZZZ           | GG020209.D     | 03/02/07         | 19:45            | 13.47                 |
| ZZZZZZ           | GG020210.D     | 03/02/07         | 20:12            | 13.44                 |
| ZZZZZZ           | GG020211.D     | 03/02/07         | 20:40            | 13.43                 |

**Surrogate  
Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

|                       |              |                        |             |
|-----------------------|--------------|------------------------|-------------|
| <b>Check Std:</b>     | GGG906-CC825 | <b>Injection Date:</b> | 03/02/07    |
| <b>Lab File ID:</b>   | GG020212.D   | <b>Injection Time:</b> | 21:07       |
| <b>Instrument ID:</b> | GCGG         | <b>Method:</b>         | SW846 8330A |

**S1<sup>a</sup>**  
**RT**

|           |       |
|-----------|-------|
| Check Std | 13.45 |
|-----------|-------|

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|
| T16445-1         | GG020214.D     | 03/02/07         | 22:03            | 13.44                 |
| T16445-7         | GG020215.D     | 03/02/07         | 22:30            | 13.42                 |
| T16445-8         | GG020216.D     | 03/02/07         | 22:58            | 13.43                 |
| T16445-10        | GG020217.D     | 03/02/07         | 23:25            | 13.43                 |
| T16445-11        | GG020218.D     | 03/02/07         | 23:53            | 13.43                 |
| T16445-12        | GG020219.D     | 03/03/07         | 00:20            | 13.40                 |
| T16445-13        | GG020220.D     | 03/03/07         | 00:48            | 13.42                 |
| T16445-14        | GG020221.D     | 03/03/07         | 01:16            | 13.43                 |
| T16445-18        | GG020222.D     | 03/03/07         | 01:43            | 13.41                 |
| ZZZZZZ           | GG020223.D     | 03/03/07         | 02:11            | 13.42                 |

**Surrogate  
Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

**GC Surrogate Retention Time Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

|                                |                                 |
|--------------------------------|---------------------------------|
| <b>Check Std:</b> GGG907-CC827 | <b>Injection Date:</b> 03/05/07 |
| <b>Lab File ID:</b> GG020231.D | <b>Injection Time:</b> 13:23    |
| <b>Instrument ID:</b> GCGG     | <b>Method:</b> SW846 8330A      |

|                       |                       |
|-----------------------|-----------------------|
| <b>S1<sup>a</sup></b> | <b>S1<sup>b</sup></b> |
| <b>RT</b>             | <b>RT</b>             |

|           |       |       |
|-----------|-------|-------|
| Check Std | 10.72 | 10.72 |
|-----------|-------|-------|

| Lab<br>Sample ID | Lab<br>File ID | Date<br>Analyzed | Time<br>Analyzed | S1 <sup>a</sup><br>RT | S1 <sup>b</sup><br>RT |
|------------------|----------------|------------------|------------------|-----------------------|-----------------------|
| OP19677-BS       | GG020232.D     | 03/05/07         | 13:43            | 10.72                 |                       |
| OP19677-MB       | GG020233.D     | 03/05/07         | 14:02            | 10.72                 |                       |
| ZZZZZZ           | GG020234.D     | 03/05/07         | 14:22            | 10.72                 |                       |
| T16445-12        | GG020236.D     | 03/05/07         | 15:01            | 10.71                 |                       |
| GGG907-ECC827    | GG020238.D     | 03/05/07         | 15:40            | 10.72                 | 10.72                 |

**Surrogate  
Compounds**

S1 = 3,4-Dinitrotoluene

(a) Retention time from GC signal #1

(b) Retention time from GC signal #2

9.5.3

6

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG825-ICC825  
**Lab FileID:** GG018282.D

**Response Factor Report G1315B**

**Method** : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
**Title** : Explosives by 8330  
**Last Update** : Thu Oct 19 11:32:41 2006  
**Response via** : Initial Calibration

**Calibration Files**

20 =GG018279.D 100 =GG018280.D 250 =GG018281.D 500 =GG018282.D  
 750 =GG018283.D 1000=GG018284.D 2000=GG018285.D ICV =GG018286.D

| Compound         | 20    | 100   | 250   | 500   | 750   | 1000  | 2000  | ICV | Avg   | %RSD    |
|------------------|-------|-------|-------|-------|-------|-------|-------|-----|-------|---------|
| 1) HMX           | 2.870 | 2.789 | 2.757 | 2.694 | 2.719 | 2.735 | 2.786 |     | 2.764 | E3 2.09 |
| 2) TNX           | 5.916 | 6.424 | 6.486 | 6.331 | 6.453 | 6.468 | 6.587 |     | 6.381 | E3 3.43 |
| 3) DNX           | 4.900 | 5.156 | 5.125 | 4.986 | 5.037 | 5.057 | 5.155 |     | 5.059 | E3 1.88 |
| 4) MNX           | 4.909 | 4.991 | 4.972 | 4.807 | 4.886 | 4.901 | 4.995 |     | 4.923 | E3 1.38 |
| 5) RDX           | 3.185 | 3.565 | 3.625 | 3.500 | 3.554 | 3.547 | 3.609 |     | 3.512 | E3 4.27 |
| 6) 1,3,5-Trinit  | 7.763 | 7.813 | 7.689 | 7.436 | 7.595 | 7.612 | 7.763 |     | 7.667 | E3 1.70 |
| 7) 1,3-Dinitrob  | 1.069 | 1.070 | 1.060 | 1.029 | 1.047 | 1.051 | 1.071 |     | 1.057 | E4 1.49 |
| 8) Tetryl        | 6.130 | 6.168 | 6.180 | 6.004 | 6.091 | 6.096 | 6.221 |     | 6.127 | E3 1.17 |
| 9) Nitrobenzene  | 7.057 | 7.032 | 7.019 | 6.708 | 6.915 | 6.920 | 7.082 |     | 6.962 | E3 1.85 |
| 10) 3,4-Dinitrot | 4.667 | 4.752 | 4.687 | 4.537 | 4.621 | 4.631 | 4.731 |     | 4.661 | E3 1.56 |
| 11) 2,4,6-Trinit | 7.275 | 7.409 | 7.373 | 7.143 | 7.282 | 7.301 | 7.456 |     | 7.320 | E3 1.42 |
| 12) 4-Amino-2,6- | 5.266 | 5.304 | 5.264 | 5.117 | 5.194 | 5.220 | 5.330 |     | 5.242 | E3 1.37 |
| 13) 2-Amino-4,6- | 7.249 | 7.203 | 7.187 | 7.006 | 7.130 | 7.155 | 7.311 |     | 7.177 | E3 1.35 |
| 14) 2,6-Dinitrot | 5.524 | 5.133 | 5.010 | 4.844 | 4.942 | 4.954 | 5.071 |     | 5.068 | E3 4.37 |
| 15) 2,4-Dinitrot | 1.149 | 1.009 | 0.992 | 0.958 | 0.976 | 0.978 | 0.999 |     | 1.009 | E4 6.36 |
| 16) o-Nitrotolue | 5.044 | 4.558 | 4.542 | 4.244 | 4.403 | 4.414 | 4.516 |     | 4.532 | E3 5.53 |
| 17) p-Nitrotolue | 4.102 | 3.815 | 3.790 | 3.596 | 3.734 | 3.734 | 3.831 |     | 3.800 | E3 4.06 |
| 18) m-Nitrotolue | 4.959 | 4.808 | 4.856 | 4.629 | 4.803 | 4.812 | 4.942 |     | 4.830 | E3 2.26 |

**Signal #2**

|                  |       |       |       |       |       |       |       |  |       |         |
|------------------|-------|-------|-------|-------|-------|-------|-------|--|-------|---------|
| 1) HMX           | 8.151 | 8.148 | 8.190 | 8.012 | 8.090 | 8.092 | 8.238 |  | 8.132 | E3 0.91 |
| 2) TNX           | 0.956 | 0.980 | 0.995 | 0.969 | 0.984 | 0.985 | 1.001 |  | 0.981 | E4 1.55 |
| 3) DNX           | 7.525 | 8.044 | 8.332 | 7.974 | 7.996 | 7.991 | 8.136 |  | 8.000 | E3 3.05 |
| 4) MNX           | 7.756 | 7.781 | 7.940 | 7.696 | 7.742 | 7.746 | 7.895 |  | 7.794 | E3 1.14 |
| 5) RDX           | 4.720 | 5.727 | 5.947 | 5.855 | 5.997 | 5.944 | 6.042 |  | 5.748 | E3 8.08 |
| 6) 1,3,5-Trinit  | 1.479 | 1.619 | 1.553 | 1.513 | 1.538 | 1.540 | 1.572 |  | 1.545 | E4 2.85 |
| 7) 1,3-Dinitrob  | 1.225 | 1.286 | 1.279 | 1.246 | 1.265 | 1.272 | 1.295 |  | 1.267 | E4 1.91 |
| 8) Tetryl        | 1.037 | 1.106 | 1.123 | 1.092 | 1.106 | 1.105 | 1.129 |  | 1.100 | E4 2.76 |
| 9) Nitrobenzene  | 3.263 | 3.394 | 3.343 | 3.176 | 3.205 | 3.190 | 3.274 |  | 3.264 | E3 2.50 |
| 10) 3,4-Dinitrot | 6.324 | 6.522 | 6.468 | 6.218 | 6.242 | 6.243 | 6.394 |  | 6.344 | E3 1.89 |
| 11) 2,4,6-Trinit | 1.070 | 1.106 | 1.085 | 1.048 | 1.060 | 1.064 | 1.089 |  | 1.075 | E4 1.85 |
| 12) 4-Amino-2,6- | 1.430 | 1.457 | 1.434 | 1.391 | 1.407 | 1.413 | 1.444 |  | 1.425 | E4 1.62 |
| 13) 2-Amino-4,6- | 1.240 | 1.240 | 1.201 | 1.171 | 1.189 | 1.194 | 1.223 |  | 1.208 | E4 2.20 |
| 14) 2,6-Dinitrot | 8.005 | 7.244 | 6.878 | 6.645 | 6.758 | 6.778 | 6.958 |  | 7.038 | E3 6.64 |
| 15) 2,4-Dinitrot | 1.102 | 0.930 | 0.906 | 0.880 | 0.888 | 0.892 | 0.911 |  | 0.930 | E4 8.36 |
| 16) o-Nitrotolue | 5.194 | 4.804 | 4.848 | 4.493 | 4.691 | 4.697 | 4.799 |  | 4.789 | E3 4.46 |
| 17) p-Nitrotolue | 7.934 | 7.544 | 7.631 | 7.143 | 7.472 | 7.477 | 7.640 |  | 7.549 | E3 3.15 |
| 18) m-Nitrotolue | 6.835 | 7.097 | 7.192 | 6.782 | 7.103 | 7.117 | 7.290 |  | 7.060 | E3 2.62 |

(#) = Out of Range ### Number of calibration levels exceeded format ###

8330\_EX.M

Fri Oct 20 16:25:52 2006

## Initial Calibration Verification

Page 1 of 2

Job Number: T16445  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG825-ICV825  
 Lab FileID: GG018286.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\10180DS\GG018286.D\dad1B.ch Vial: 10  
 Signal #2 : G:\HPCHEM\1\DATA\10180DS\GG018286.D\dad1A.ch  
 Acq On : 18-Oct-2006, 17:39:03 Operator: MIKEE  
 Sample : ICV825-500 Inst : G1315B  
 Misc : OP18202,ggg825,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Oct 19 11:32:41 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT Window   |
|------|------------------------|---------|---------|--------------|-------|----------|-------------|
| 1    | HMX                    | 500.000 | 531.119 | -6.2         | 0     | 0.00     | 3.83- 4.83  |
| 2    | TNX                    |         |         | -----NA----- |       |          |             |
| 3    | DNX                    |         |         | -----NA----- |       |          |             |
| 4    | MXN                    |         |         | -----NA----- |       |          |             |
| 5    | RDX                    | 500.000 | 507.091 | -1.4         | 0     | 0.00     | 6.10- 7.10  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 533.853 | -6.8         | 0     | 0.00     | 8.41- 9.41  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 523.924 | -4.8         | 0     | 0.00     | 10.38-11.38 |
| 8    | Tetryl                 | 500.000 | 484.365 | 3.1          | 0     | 0.00     | 11.18-12.18 |
| 9    | Nitrobenzene           | 500.000 | 531.046 | -6.2         | 0     | 0.00     | 11.86-12.86 |
| 10 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |             |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 507.486 | -1.5         | 0     | 0.00     | 13.56-14.56 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 515.885 | -3.2         | 0     | 0.00     | 14.25-15.25 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 480.846 | 3.8          | 0     | 0.00     | 15.03-16.03 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 496.634 | 0.7          | 0     | 0.00     | 16.01-17.01 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 502.401 | -0.5         | 0     | 0.00     | 16.52-17.52 |
| 16   | o-Nitrotoluene         | 500.000 | 501.204 | -0.2         | 0     | 0.00     | 19.59-20.59 |
| 17   | p-Nitrotoluene         | 500.000 | 520.375 | -4.1         | 0     | 0.00     | 20.92-21.92 |
| 18   | m-Nitrotoluene         | 500.000 | 509.118 | -1.8         | 0     | 0.00     | 22.61-23.61 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |   |      |             |
|------|------------------------|---------|---------|--------------|---|------|-------------|
| 1    | HMX                    | 500.000 | 537.899 | -7.6         | 0 | 0.00 | 3.83- 4.83  |
| 2    | TNX                    |         |         | -----NA----- |   |      |             |
| 3    | DNX                    |         |         | -----NA----- |   |      |             |
| 4    | MXN                    |         |         | -----NA----- |   |      |             |
| 5    | RDX                    | 500.000 | 525.299 | -5.1         | 0 | 0.00 | 6.10- 7.10  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 533.889 | -6.8         | 0 | 0.00 | 8.41- 9.41  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 529.524 | -5.9         | 0 | 0.00 | 10.38-11.38 |
| 8    | Tetryl                 | 500.000 | 489.295 | 2.1          | 0 | 0.00 | 11.18-12.18 |
| 9    | Nitrobenzene           | 500.000 | 531.782 | -6.4         | 0 | 0.00 | 11.86-12.86 |
| 10 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |   |      |             |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 505.844 | -1.2         | 0 | 0.00 | 13.56-14.56 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 516.203 | -3.2         | 0 | 0.00 | 14.25-15.25 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 480.458 | 3.9          | 0 | 0.00 | 15.03-16.03 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 493.423 | 1.3          | 0 | 0.00 | 16.01-17.01 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 499.987 | 0.0          | 0 | 0.00 | 16.52-17.52 |
| 16   | o-Nitrotoluene         | 500.000 | 503.639 | -0.7         | 0 | 0.00 | 19.59-20.59 |
| 17   | p-Nitrotoluene         | 500.000 | 523.730 | -4.7         | 0 | 0.00 | 20.92-21.92 |
| 18   | m-Nitrotoluene         | 500.000 | 512.492 | -2.5         | 0 | 0.00 | 22.61-23.61 |

9.62  
9



Initial Calibration Verification

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG825-ICV825  
Lab FileID: GG018286.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018286.D 8330\_EX.M                  Fri Oct 20 16:26:22 2006

**Initial Calibration Verification**

Page 1 of 2

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG826-ICV825  
**Lab FileID:** GG018300.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\HPCHEM\1\DATA\10190DS\GG018300.D\dad1B.ch Vial: 4  
 Signal #2 : G:\HPCHEM\1\DATA\10190DS\GG018300.D\dad1A.ch  
 Acq On : 19-Oct-2006, 13:44:13 Operator: MIKEE  
 Sample : ICV825-500 Inst : G1315B  
 Misc : OP18222,ggg826,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Oct 19 11:32:41 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound                  | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT    | Window |
|------|---------------------------|---------|---------|--------------|-------|----------|-------|--------|
| 1    | HMX                       |         |         | -----NA----- |       |          |       |        |
| 2    | TNX                       | 500.000 | 514.364 | -2.9         | 0     | 0.00     | 4.15- | 5.15   |
| 3    | DNX                       | 500.000 | 511.166 | -2.2         | 0     | 0.00     | 4.58- | 5.58   |
| 4    | MXN                       | 500.000 | 518.059 | -3.6         | 0     | -0.01    | 5.34- | 6.34   |
| 5    | RDX                       |         |         | -----NA----- |       |          |       |        |
| 6    | 1,3,5-Trinitrobenzene     |         |         | -----NA----- |       |          |       |        |
| 7    | 1,3-Dinitrobenzene        |         |         | -----NA----- |       |          |       |        |
| 8    | Tetryl                    |         |         | -----NA----- |       |          |       |        |
| 9    | Nitrobenzene              |         |         | -----NA----- |       |          |       |        |
| 10 S | 3,4-Dinitrotoluene        |         |         | -----NA----- |       |          |       |        |
| 11   | 2,4,6-Trinitrotoluene     |         |         | -----NA----- |       |          |       |        |
| 12   | 4-Amino-2,6-Dinitrotoluen |         |         | -----NA----- |       |          |       |        |
| 13   | 2-Amino-4,6-Dinitrotoluen |         |         | -----NA----- |       |          |       |        |
| 14   | 2,6-Dinitrotoluene        |         |         | -----NA----- |       |          |       |        |
| 15   | 2,4-Dinitrotoluene        |         |         | -----NA----- |       |          |       |        |
| 16   | o-Nitrotoluene            |         |         | -----NA----- |       |          |       |        |
| 17   | p-Nitrotoluene            |         |         | -----NA----- |       |          |       |        |
| 18   | m-Nitrotoluene            |         |         | -----NA----- |       |          |       |        |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                           |         |         |              |   |       |       |      |
|------|---------------------------|---------|---------|--------------|---|-------|-------|------|
| 1    | HMX                       |         |         | -----NA----- |   |       |       |      |
| 2    | TNX                       | 500.000 | 509.991 | -2.0         | 0 | 0.00  | 4.15- | 5.15 |
| 3    | DNX                       | 500.000 | 523.209 | -4.6         | 0 | 0.00  | 4.58- | 5.58 |
| 4    | MXN                       | 500.000 | 527.451 | -5.5         | 0 | -0.01 | 5.34- | 6.34 |
| 5    | RDX                       |         |         | -----NA----- |   |       |       |      |
| 6    | 1,3,5-Trinitrobenzene     |         |         | -----NA----- |   |       |       |      |
| 7    | 1,3-Dinitrobenzene        |         |         | -----NA----- |   |       |       |      |
| 8    | Tetryl                    |         |         | -----NA----- |   |       |       |      |
| 9    | Nitrobenzene              |         |         | -----NA----- |   |       |       |      |
| 10 S | 3,4-Dinitrotoluene        |         |         | -----NA----- |   |       |       |      |
| 11   | 2,4,6-Trinitrotoluene     |         |         | -----NA----- |   |       |       |      |
| 12   | 4-Amino-2,6-Dinitrotoluen |         |         | -----NA----- |   |       |       |      |
| 13   | 2-Amino-4,6-Dinitrotoluen |         |         | -----NA----- |   |       |       |      |
| 14   | 2,6-Dinitrotoluene        |         |         | -----NA----- |   |       |       |      |
| 15   | 2,4-Dinitrotoluene        |         |         | -----NA----- |   |       |       |      |
| 16   | o-Nitrotoluene            |         |         | -----NA----- |   |       |       |      |
| 17   | p-Nitrotoluene            |         |         | -----NA----- |   |       |       |      |
| 18   | m-Nitrotoluene            |         |         | -----NA----- |   |       |       |      |

9.6.3

9

Initial Calibration Verification

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG826-ICV825  
**Lab FileID:** GG018300.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018286.D 8330\_EX.M                  Fri Oct 20 16:54:56 2006

**Initial Calibration Summary**

Page 1 of 1

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG827-ICC827  
**Lab FileID:** GG018316.D

**Response Factor Report G1315B**

**Method** : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
**Title** : Explosives by 8330  
**Last Update** : Fri Oct 20 14:03:32 2006  
**Response via** : Initial Calibration

**Calibration Files**

20 =GG018313.D 100 =GG018314.D 250 =GG018315.D 500 =GG018316.D  
 750 =GG018317.D 1000=GG018318.D 2000=GG018319.D

|     | Compound            | 20    | 100   | 250   | 500   | 750   | 1000  | 2000  | Avg   | %RSD    |
|-----|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|---------|
| 1)  | TNX                 | 6.022 | 6.861 | 7.022 | 6.686 | 6.915 | 6.925 | 7.121 | 6.793 | E3 5.38 |
| 2)  | HMX                 | 2.976 | 2.856 | 2.642 | 2.478 | 2.489 | 2.481 | 2.586 | 2.644 | E3 7.51 |
| 3)  | DNX                 | 5.820 | 5.904 | 5.816 | 5.437 | 5.628 | 5.545 | 5.823 | 5.710 | E3 3.05 |
| 4)  | MXN                 | 4.717 | 4.981 | 5.224 | 5.007 | 5.063 | 4.976 | 5.294 | 5.037 | E3 3.73 |
| 5)  | 1,3,5-Trinitroben   | 7.302 | 7.899 | 8.123 | 7.797 | 7.946 | 7.847 | 8.236 | 7.879 | E3 3.78 |
| 6)  | RDX                 | 3.327 | 3.935 | 3.881 | 3.729 | 3.710 | 3.686 | 3.841 | 3.730 | E3 5.39 |
| 7)  | 1,3-Dinitrobenzen   | 1.122 | 1.117 | 1.144 | 1.096 | 1.117 | 1.113 | 1.146 | 1.122 | E4 1.56 |
| 8)  | Nitrobenzene        | 6.720 | 7.206 | 7.440 | 7.104 | 7.286 | 7.290 | 7.513 | 7.223 | E3 3.61 |
| 9)  | 2,4,6-Trinitrotol   | 7.126 | 7.674 | 7.812 | 7.517 | 7.651 | 7.587 | 7.941 | 7.615 | E3 3.39 |
| 10) | Tetryl              | 5.119 | 5.755 | 6.124 | 6.105 | 6.006 | 5.862 | 6.470 | 5.920 | E3 7.10 |
| 11) | S 3,4-Dinitrotoluen | 4.973 | 4.941 | 4.969 | 4.829 | 4.912 | 4.883 | 5.055 | 4.938 | E3 1.46 |
| 12) | 2,6-Dinitrotoluen   | 6.023 | 5.649 | 5.657 | 5.415 | 5.544 | 5.538 | 5.672 | 5.643 | E3 3.38 |
| 13) | 2,4-Dinitrotoluen   | 1.200 | 1.036 | 1.034 | 0.995 | 1.012 | 1.007 | 1.038 | 1.046 | E4 6.68 |
| 14) | o-Nitrotoluene      | 5.021 | 4.648 | 4.729 | 4.526 | 4.679 | 4.666 | 4.837 | 4.729 | E3 3.36 |
| 15) | p-Nitrotoluene      | 4.036 | 3.890 | 3.967 | 3.762 | 3.919 | 3.914 | 4.051 | 3.934 | E3 2.49 |
| 16) | 4-Amino-2,6-Dinit   | 5.109 | 5.368 | 5.518 | 5.300 | 5.406 | 5.380 | 5.621 | 5.386 | E3 3.01 |
| 17) | m-Nitrotoluene      | 4.743 | 4.946 | 5.173 | 4.937 | 5.131 | 5.119 | 5.324 | 5.053 | E3 3.79 |
| 18) | 2-Amino-4,6-Dinit   | 7.249 | 7.503 | 7.692 | 7.547 | 7.548 | 7.525 | 7.845 | 7.558 | E3 2.42 |

**Signal #2**

|     |                     |       |       |       |       |       |       |       |       |          |
|-----|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| 1)  | TNX                 | 0.828 | 1.032 | 1.066 | 1.024 | 1.037 | 1.032 | 1.073 | 1.013 | E4 8.25  |
| 2)  | HMX                 | 8.967 | 9.716 | 9.270 | 8.345 | 8.192 | 8.095 | 8.326 | 8.702 | E3 7.15  |
| 3)  | DNX                 | 0.786 | 1.108 | 1.019 | 0.937 | 0.919 | 0.897 | 0.935 | 0.943 | E4 10.65 |
| 4)  | MXN                 | 7.457 | 8.346 | 8.580 | 8.147 | 8.087 | 7.895 | 8.399 | 8.130 | E3 4.58  |
| 5)  | 1,3,5-Trinitroben   | 1.449 | 1.617 | 1.667 | 1.594 | 1.616 | 1.593 | 1.673 | 1.601 | E4 4.64  |
| 6)  | RDX                 | 6.077 | 6.386 | 6.563 | 6.283 | 6.229 | 6.181 | 6.460 | 6.311 | E3 2.67  |
| 7)  | 1,3-Dinitrobenzen   | 1.294 | 1.326 | 1.427 | 1.333 | 1.365 | 1.364 | 1.397 | 1.358 | E4 3.31  |
| 8)  | Nitrobenzene        | 3.190 | 3.096 | 3.823 | 3.281 | 3.391 | 3.385 | 3.476 | 3.378 | E3 6.96  |
| 9)  | 2,4,6-Trinitrotol   | 1.098 | 1.109 | 1.152 | 1.104 | 1.122 | 1.113 | 1.169 | 1.124 | E4 2.37  |
| 10) | Tetryl              | 0.953 | 1.028 | 1.114 | 1.113 | 1.085 | 1.059 | 1.177 | 1.075 | E4 6.67  |
| 11) | S 3,4-Dinitrotoluen | 6.832 | 6.775 | 6.813 | 6.648 | 6.692 | 6.629 | 6.906 | 6.756 | E3 1.53  |
| 12) | 2,6-Dinitrotoluen   | 8.344 | 7.760 | 7.758 | 7.423 | 7.578 | 7.556 | 7.765 | 7.740 | E3 3.83  |
| 13) | 2,4-Dinitrotoluen   | 1.104 | 0.941 | 0.942 | 0.911 | 0.927 | 0.919 | 0.952 | 0.957 | E4 6.94  |
| 14) | o-Nitrotoluene      | 3.189 | 2.755 | 2.867 | 2.791 | 2.895 | 2.880 | 3.025 | 2.915 | E3 5.09  |
| 15) | p-Nitrotoluene      | 2.114 | 1.879 | 1.907 | 1.825 | 1.916 | 1.926 | 1.998 | 1.938 | E3 4.82  |
| 16) | 4-Amino-2,6-Dinit   | 1.431 | 1.486 | 1.522 | 1.459 | 1.490 | 1.484 | 1.552 | 1.489 | E4 2.66  |
| 17) | m-Nitrotoluene      | 2.353 | 2.391 | 2.516 | 2.444 | 2.546 | 2.567 | 2.681 | 2.500 | E3 4.52  |
| 18) | 2-Amino-4,6-Dinit   | 1.233 | 1.258 | 1.276 | 1.258 | 1.253 | 1.255 | 1.311 | 1.263 | E4 1.92  |

(#) = Out of Range

8330\_RP.M

Mon Oct 23 13:34:29 2006

## Initial Calibration Verification

Page 1 of 2

Job Number: T16445  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
 Lab FileID: GG018320.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\1020RP\GG018320.D\dad1B.ch Vial: 10  
 Signal #2 : G:\HPCHEM\1\DATA\1020RP\GG018320.D\dad1A.ch  
 Acq On : 20-Oct-2006, 14:03:23 Operator: MIKEE  
 Sample : ICV827-250 Inst : G1315B  
 Misc : OP18202,ggg827,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Oct 20 14:03:32 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | TNX                    | 250.000 | 258.384 | -3.4         | 100   | 0.00     | 4.21-  | 5.21   |
| 2    | HMX                    | 250.000 | 260.989 | -4.4         | 104   | 0.00     | 4.69-  | 5.69   |
| 3    | DNX                    | 250.000 | 254.013 | -1.6         | 100   | 0.00     | 4.83-  | 5.83   |
| 4    | MXN                    | 250.000 | 255.142 | -2.1         | 98    | 0.00     | 5.66-  | 6.66   |
| 5    | 1,3,5-Trinitrobenzene  | 250.000 | 264.789 | -5.9         | 103   | 0.00     | 6.12-  | 7.12   |
| 6    | RDX                    | 250.000 | 252.023 | -0.8         | 97    | 0.00     | 6.51-  | 7.51   |
| 7    | 1,3-Dinitrobenzene     | 250.000 | 257.308 | -2.9         | 101   | 0.00     | 7.70-  | 8.70   |
| 8    | Nitrobenzene           | 250.000 | 266.121 | -6.4         | 103   | 0.00     | 8.24-  | 9.24   |
| 9    | 2,4,6-Trinitrotoluene  | 250.000 | 268.228 | -7.3         | 105   | 0.00     | 8.71-  | 9.71   |
| 10   | Tetryl                 | 250.000 | 205.504 | 17.8#        | 79    | 0.00     | 9.41-  | 10.41  |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 12   | 2,6-Dinitrotoluene     | 250.000 | 254.196 | -1.7         | 101   | 0.00     | 10.49- | 11.49  |
| 13   | 2,4-Dinitrotoluene     | 250.000 | 244.946 | 2.0          | 99    | 0.00     | 10.95- | 11.95  |
| 14   | o-Nitrotoluene         | 250.000 | 248.278 | 0.7          | 99    | 0.00     | 11.79- | 12.79  |
| 15   | p-Nitrotoluene         | 250.000 | 258.872 | -3.5         | 103   | 0.00     | 12.45- | 13.45  |
| 16   | 4-Amino-2,6-Dinitrotol | 250.000 | 255.921 | -2.4         | 100   | 0.00     | 12.83- | 13.83  |
| 17   | m-Nitrotoluene         | 250.000 | 252.478 | -1.0         | 99    | 0.00     | 13.29- | 14.29  |
| 18   | 2-Amino-4,6-Dinitrotol | 250.000 | 236.039 | 5.6          | 93    | 0.00     | 14.31- | 15.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |     |      |        |       |
|------|------------------------|---------|---------|--------------|-----|------|--------|-------|
| 1    | TNX                    | 250.000 | 262.147 | -4.9         | 100 | 0.00 | 4.22-  | 5.22  |
| 2    | HMX                    | 250.000 | 276.033 | -10.4        | 104 | 0.00 | 4.69-  | 5.69  |
| 3    | DNX                    | 250.000 | 263.149 | -5.3         | 97  | 0.00 | 4.83-  | 5.83  |
| 4    | MXN                    | 250.000 | 255.967 | -2.4         | 97  | 0.00 | 5.66-  | 6.66  |
| 5    | 1,3,5-Trinitrobenzene  | 250.000 | 265.613 | -6.2         | 102 | 0.00 | 6.12-  | 7.12  |
| 6    | RDX                    | 250.000 | 248.723 | 0.5          | 96  | 0.00 | 6.51-  | 7.51  |
| 7    | 1,3-Dinitrobenzene     | 250.000 | 276.649 | -10.7        | 105 | 0.00 | 7.70-  | 8.70  |
| 8    | Nitrobenzene           | 250.000 | 301.148 | -20.5#       | 106 | 0.00 | 8.24-  | 9.24  |
| 9    | 2,4,6-Trinitrotoluene  | 250.000 | 269.121 | -7.6         | 105 | 0.00 | 8.71-  | 9.71  |
| 10   | Tetryl                 | 250.000 | 203.173 | 18.7#        | 78  | 0.00 | 9.41-  | 10.41 |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |     |      |        |       |
| 12   | 2,6-Dinitrotoluene     | 250.000 | 252.008 | -0.8         | 101 | 0.00 | 10.49- | 11.49 |
| 13   | 2,4-Dinitrotoluene     | 250.000 | 241.694 | 3.3          | 98  | 0.00 | 10.95- | 11.95 |
| 14   | o-Nitrotoluene         | 250.000 | 241.466 | 3.4          | 98  | 0.00 | 11.79- | 12.79 |
| 15   | p-Nitrotoluene         | 250.000 | 250.555 | -0.2         | 102 | 0.00 | 12.46- | 13.46 |
| 16   | 4-Amino-2,6-Dinitrotol | 250.000 | 255.253 | -2.1         | 100 | 0.00 | 12.83- | 13.83 |
| 17   | m-Nitrotoluene         | 250.000 | 250.572 | -0.2         | 100 | 0.00 | 13.28- | 14.28 |
| 18   | 2-Amino-4,6-Dinitrotol | 250.000 | 234.881 | 6.0          | 93  | 0.00 | 14.31- | 15.31 |

Initial Calibration Verification

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
Lab FileID: GG018320.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018315.D 8330\_RP.M                  Mon Oct 23 13:35:35 2006

## Initial Calibration Verification

Page 1 of 2

Job Number: T16445  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
 Lab FileID: GG018321.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\HPCHEM\1\DATA\1020RP\GG018321.D\dad1B.ch Vial: 100  
 Signal #2 : G:\HPCHEM\1\DATA\1020RP\GG018321.D\dad1A.ch  
 Acq On : 20-Oct-2006, 15:10:45 Operator: MIKEE  
 Sample : ICV827-500 Inst : G1315B  
 Misc : OP18202,ggg827,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Oct 20 14:03:32 2006  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift       | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------------|-------|----------|--------|--------|
| 1    | TNX                    | 500.000 | 565.302 | -13.1        | 115   | 0.00     | 4.21-  | 5.21   |
| 2    | HMX                    | 500.000 | 543.872 | -8.8         | 116   | 0.00     | 4.69-  | 5.69   |
| 3    | DNX                    | 500.000 | 551.643 | -10.3        | 116   | -0.01    | 4.83-  | 5.83   |
| 4    | MXN                    | 500.000 | 572.618 | -14.5        | 115   | 0.00     | 5.66-  | 6.66   |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 538.163 | -7.6         | 109   | 0.00     | 6.12-  | 7.12   |
| 6    | RDX                    | 500.000 | 498.936 | 0.2          | 100   | 0.00     | 6.51-  | 7.51   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 510.060 | -2.0         | 104   | 0.00     | 7.70-  | 8.70   |
| 8    | Nitrobenzene           | 500.000 | 533.993 | -6.8         | 109   | 0.00     | 8.24-  | 9.24   |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 549.178 | -9.8         | 111   | 0.00     | 8.71-  | 9.71   |
| 10   | Tetryl                 | 500.000 | 475.586 | 4.9          | 92    | 0.00     | 9.41-  | 10.41  |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |       |          |        |        |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 498.834 | 0.2          | 104   | 0.00     | 10.49- | 11.49  |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 493.011 | 1.4          | 104   | 0.00     | 10.95- | 11.95  |
| 14   | o-Nitrotoluene         | 500.000 | 510.083 | -2.0         | 107   | 0.00     | 11.79- | 12.79  |
| 15   | p-Nitrotoluene         | 500.000 | 530.499 | -6.1         | 111   | 0.00     | 12.45- | 13.45  |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 518.182 | -3.6         | 105   | -0.01    | 12.83- | 13.83  |
| 17   | m-Nitrotoluene         | 500.000 | 521.475 | -4.3         | 107   | 0.00     | 13.29- | 14.29  |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 479.808 | 4.0          | 96    | -0.01    | 14.31- | 15.31  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |              |     |       |        |       |
|------|------------------------|---------|---------|--------------|-----|-------|--------|-------|
| 1    | TNX                    | 500.000 | 637.256 | -27.5#       | 126 | -0.01 | 4.22-  | 5.22  |
| 2    | HMX                    | 500.000 | 581.600 | -16.3#       | 121 | 0.00  | 4.69-  | 5.69  |
| 3    | DNX                    | 500.000 | 552.258 | -10.5        | 111 | -0.01 | 4.83-  | 5.83  |
| 4    | MXN                    | 500.000 | 573.858 | -14.8        | 115 | 0.00  | 5.66-  | 6.66  |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 539.558 | -7.9         | 108 | 0.00  | 6.12-  | 7.12  |
| 6    | RDX                    | 500.000 | 495.496 | 0.9          | 100 | 0.00  | 6.51-  | 7.51  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 512.019 | -2.4         | 104 | 0.00  | 7.70-  | 8.70  |
| 8    | Nitrobenzene           | 500.000 | 545.924 | -9.2         | 112 | 0.00  | 8.24-  | 9.24  |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 549.800 | -10.0        | 112 | 0.00  | 8.71-  | 9.71  |
| 10   | Tetryl                 | 500.000 | 472.605 | 5.5          | 91  | 0.00  | 9.41-  | 10.41 |
| 11 S | 3,4-Dinitrotoluene     |         |         | -----NA----- |     |       |        |       |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 496.402 | 0.7          | 104 | 0.00  | 10.49- | 11.49 |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 494.458 | 1.1          | 104 | 0.00  | 10.95- | 11.95 |
| 14   | o-Nitrotoluene         | 500.000 | 518.803 | -3.8         | 108 | 0.00  | 11.79- | 12.79 |
| 15   | p-Nitrotoluene         | 500.000 | 534.408 | -6.9         | 114 | 0.00  | 12.46- | 13.46 |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 519.292 | -3.9         | 106 | -0.01 | 12.83- | 13.83 |
| 17   | m-Nitrotoluene         | 500.000 | 532.272 | -6.5         | 109 | 0.00  | 13.28- | 14.28 |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 479.037 | 4.2          | 96  | -0.01 | 14.31- | 15.31 |

Initial Calibration Verification

Job Number: T16445  
Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG827-ICV827  
Lab FileID: GG018321.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018316.D 8330\_RP.M                  Mon Oct 23 13:35:18 2006



## Continuing Calibration Summary

Page 1 of 2

Job Number: T16445  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG906-CC825  
 Lab FileID: GG020201.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\03020DS\GG020201.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\03020DS\GG020201.D\dad1A.ch  
 Acq On : 02-Mar-2007, 16:17:48 Operator: MIKEE  
 Sample : CC825-500 Inst : G1315B  
 Misc : OP19677,ggg906,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | HMX                    | 500.000 | 490.559 | 1.9    | 101   | 0.00     | 3.86-  | 4.86   |
| 2    | TNX                    | 500.000 | 512.293 | -2.5   | 103   | -0.01    | 4.20-  | 5.20   |
| 3    | DNX                    | 500.000 | 511.151 | -2.2   | 104   | 0.00     | 4.60-  | 5.60   |
| 4    | MXN                    | 500.000 | 508.598 | -1.7   | 104   | 0.01     | 5.37-  | 6.37   |
| 5    | RDX                    | 500.000 | 518.998 | -3.8   | 104   | 0.00     | 6.15-  | 7.15   |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 498.455 | 0.3    | 103   | 0.02     | 8.43-  | 9.43   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 498.190 | 0.4    | 102   | 0.02     | 10.43- | 11.43  |
| 8    | Tetryl                 | 500.000 | 498.475 | 0.3    | 102   | 0.03     | 11.21- | 12.21  |
| 9    | Nitrobenzene           | 500.000 | 503.313 | -0.7   | 104   | 0.03     | 11.93- | 12.93  |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 496.619 | 0.7    | 102   | 0.04     | 12.95- | 13.95  |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 503.597 | -0.7   | 103   | 0.04     | 13.60- | 14.60  |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 496.441 | 0.7    | 102   | 0.05     | 14.37- | 15.37  |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 500.727 | -0.1   | 103   | 0.05     | 15.14- | 16.14  |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 510.258 | -2.1   | 107   | 0.05     | 16.10- | 17.10  |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 480.817 | 3.8    | 101   | 0.05     | 16.60- | 17.60  |
| 16   | o-Nitrotoluene         | 500.000 | 497.302 | 0.5    | 106   | 0.06     | 19.73- | 20.73  |
| 17   | p-Nitrotoluene         | 500.000 | 500.449 | -0.1   | 106   | 0.06     | 21.06- | 22.06  |
| 18   | m-Nitrotoluene         | 500.000 | 506.087 | -1.2   | 106   | 0.07     | 22.76- | 23.76  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |       |     |      |        |       |
|------|------------------------|---------|---------|-------|-----|------|--------|-------|
| 1    | HMX                    | 500.000 | 500.092 | -0.0  | 102 | 0.00 | 3.86-  | 4.86  |
| 2    | TNX                    | 500.000 | 509.529 | -1.9  | 103 | 0.00 | 4.18-  | 5.18  |
| 3    | DNX                    | 500.000 | 520.538 | -4.1  | 104 | 0.00 | 4.60-  | 5.60  |
| 4    | MXN                    | 500.000 | 521.239 | -4.2  | 106 | 0.01 | 5.37-  | 6.37  |
| 5    | RDX                    | 500.000 | 566.452 | -13.3 | 111 | 0.00 | 6.15-  | 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 500.000 | 505.722 | -1.1  | 103 | 0.02 | 8.43-  | 9.43  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 502.475 | -0.5  | 102 | 0.02 | 10.43- | 11.43 |
| 8    | Tetryl                 | 500.000 | 507.037 | -1.4  | 102 | 0.03 | 11.21- | 12.21 |
| 9    | Nitrobenzene           | 500.000 | 499.803 | 0.0   | 103 | 0.03 | 11.93- | 12.93 |
| 10 S | 3,4-Dinitrotoluene     | 500.000 | 495.718 | 0.9   | 101 | 0.04 | 12.95- | 13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 500.000 | 500.992 | -0.2  | 103 | 0.04 | 13.60- | 14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 500.000 | 497.188 | 0.6   | 102 | 0.05 | 14.37- | 15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 500.000 | 499.032 | 0.2   | 103 | 0.05 | 15.14- | 16.14 |
| 14   | 2,6-Dinitrotoluene     | 500.000 | 496.978 | 0.6   | 105 | 0.05 | 16.10- | 17.10 |
| 15   | 2,4-Dinitrotoluene     | 500.000 | 472.110 | 5.6   | 100 | 0.05 | 16.60- | 17.60 |
| 16   | o-Nitrotoluene         | 500.000 | 489.795 | 2.0   | 104 | 0.05 | 19.73- | 20.73 |
| 17   | p-Nitrotoluene         | 500.000 | 496.698 | 0.7   | 105 | 0.06 | 21.06- | 22.06 |
| 18   | m-Nitrotoluene         | 500.000 | 503.963 | -0.8  | 105 | 0.07 | 22.77- | 23.77 |

Continuing Calibration Summary

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG906-CC825  
**Lab FileID:** GG020201.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018282.D 8330\_EX.M                  Mon Mar 05 11:42:29 2007

## Continuing Calibration Summary

Page 1 of 2

Job Number: T16445  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG906-CC825  
 Lab FileID: GG020212.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\03020DS\GG020212.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\03020DS\GG020212.D\dad1A.ch  
 Acq On : 02-Mar-2007, 21:07:57 Operator: MIKEE  
 Sample : CC825-1000 Inst : G1315B  
 Misc : OP19677,ggg906,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT Window   |
|------|------------------------|----------|----------|--------|-------|----------|-------------|
| 1    | HMX                    | 1000.000 | 969.184  | 3.1    | 98    | 0.00     | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1012.847 | -1.3   | 100   | -0.02    | 4.20- 5.20  |
| 3    | DNX                    | 1000.000 | 1011.041 | -1.1   | 101   | 0.00     | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1001.768 | -0.2   | 101   | 0.00     | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1012.522 | -1.3   | 100   | -0.01    | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 982.133  | 1.8    | 99    | 0.00     | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 981.873  | 1.8    | 99    | 0.00     | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 979.286  | 2.1    | 98    | 0.00     | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 995.199  | 0.5    | 100   | 0.00     | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 971.158  | 2.9    | 98    | 0.00     | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 991.752  | 0.8    | 99    | 0.00     | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 975.490  | 2.5    | 98    | 0.00     | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 987.191  | 1.3    | 99    | 0.00     | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 995.657  | 0.4    | 102   | 0.00     | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 946.550  | 5.3    | 98    | 0.00     | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 961.637  | 3.8    | 99    | -0.01    | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 975.200  | 2.5    | 99    | -0.01    | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 997.451  | 0.3    | 100   | 0.00     | 22.76-23.76 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |             |
|------|------------------------|----------|----------|------|-----|-------|-------------|
| 1    | HMX                    | 1000.000 | 984.283  | 1.6  | 99  | 0.00  | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1002.891 | -0.3 | 100 | 0.00  | 4.18- 5.18  |
| 3    | DNX                    | 1000.000 | 1012.877 | -1.3 | 101 | 0.00  | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1004.320 | -0.4 | 101 | 0.00  | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1044.793 | -4.5 | 101 | -0.02 | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 984.579  | 1.5  | 99  | 0.00  | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 989.010  | 1.1  | 99  | 0.00  | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 997.573  | 0.2  | 99  | 0.00  | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 992.439  | 0.8  | 102 | 0.00  | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 962.803  | 3.7  | 98  | 0.00  | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 983.229  | 1.7  | 99  | 0.00  | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 974.885  | 2.5  | 98  | 0.00  | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 978.179  | 2.2  | 99  | 0.00  | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 974.861  | 2.5  | 101 | 0.00  | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 935.023  | 6.5  | 97  | 0.00  | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 961.820  | 3.8  | 98  | -0.01 | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 982.213  | 1.8  | 99  | 0.00  | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1002.440 | -0.2 | 99  | -0.01 | 22.77-23.77 |

Continuing Calibration Summary

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG906-CC825  
**Lab FileID:** GG020212.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018284.D 8330\_EX.M                  Mon Mar 05 11:42:13 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG906-CC825  
**Lab FileID:** GG020224.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\03020DS\GG020224.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\03020DS\GG020224.D\dad1A.ch  
 Acq On : 03-Mar-2007, 02:38:33 Operator: MIKEE  
 Sample : CC825-1000 Inst : G1315B  
 Misc : OP19677,ggg906,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: EVENTS2.E

Method : C:\HPCHEM\1\METHODS\8330\_EX.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Thu Mar 01 11:02:09 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT Window   |
|------|------------------------|----------|----------|--------|-------|----------|-------------|
| 1    | HMX                    | 1000.000 | 963.991  | 3.6    | 97    | 0.00     | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 1010.267 | -1.0   | 100   | -0.02    | 4.20- 5.20  |
| 3    | DNX                    | 1000.000 | 1005.452 | -0.5   | 101   | 0.00     | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1000.098 | -0.0   | 100   | 0.00     | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1025.240 | -2.5   | 102   | -0.02    | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 993.055  | 0.7    | 100   | 0.00     | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 980.619  | 1.9    | 99    | -0.01    | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 974.910  | 2.5    | 98    | -0.02    | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 982.824  | 1.7    | 99    | -0.01    | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 957.890  | 4.2    | 96    | -0.01    | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 980.868  | 1.9    | 98    | -0.01    | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 962.421  | 3.8    | 97    | 0.00     | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1009.138 | -0.9   | 101   | 0.00     | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 1335.440 | -33.5# | 137   | 0.00     | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 1096.840 | -9.7   | 113   | -0.01    | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 979.988  | 2.0    | 101   | -0.02    | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 1001.774 | -0.2   | 102   | -0.02    | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1009.574 | -1.0   | 101   | -0.02    | 22.76-23.76 |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |             |
|------|------------------------|----------|----------|------|-----|-------|-------------|
| 1    | HMX                    | 1000.000 | 940.821  | 5.9  | 95  | 0.00  | 3.86- 4.86  |
| 2    | TNX                    | 1000.000 | 949.976  | 5.0  | 95  | 0.00  | 4.18- 5.18  |
| 3    | DNX                    | 1000.000 | 962.122  | 3.8  | 96  | 0.00  | 4.60- 5.60  |
| 4    | MXN                    | 1000.000 | 1000.037 | -0.0 | 101 | 0.00  | 5.37- 6.37  |
| 5    | RDX                    | 1000.000 | 1048.505 | -4.9 | 101 | -0.02 | 6.15- 7.15  |
| 6    | 1,3,5-Trinitrobenzene  | 1000.000 | 992.257  | 0.8  | 100 | 0.00  | 8.43- 9.43  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 989.715  | 1.0  | 99  | -0.01 | 10.43-11.43 |
| 8    | Tetryl                 | 1000.000 | 995.610  | 0.4  | 99  | -0.02 | 11.21-12.21 |
| 9    | Nitrobenzene           | 1000.000 | 966.310  | 3.4  | 99  | -0.01 | 11.93-12.93 |
| 10 S | 3,4-Dinitrotoluene     | 1000.000 | 952.955  | 4.7  | 97  | -0.01 | 12.95-13.95 |
| 11   | 2,4,6-Trinitrotoluene  | 1000.000 | 974.813  | 2.5  | 98  | -0.01 | 13.60-14.60 |
| 12   | 4-Amino-2,6-Dinitrotol | 1000.000 | 968.590  | 3.1  | 98  | 0.00  | 14.37-15.37 |
| 13   | 2-Amino-4,6-Dinitrotol | 1000.000 | 981.214  | 1.9  | 99  | 0.00  | 15.14-16.14 |
| 14   | 2,6-Dinitrotoluene     | 1000.000 | 1062.649 | -6.3 | 110 | 0.00  | 16.10-17.10 |
| 15   | 2,4-Dinitrotoluene     | 1000.000 | 991.035  | 0.9  | 103 | -0.01 | 16.60-17.60 |
| 16   | o-Nitrotoluene         | 1000.000 | 973.475  | 2.7  | 99  | -0.02 | 19.73-20.73 |
| 17   | p-Nitrotoluene         | 1000.000 | 993.006  | 0.7  | 100 | -0.02 | 21.06-22.06 |
| 18   | m-Nitrotoluene         | 1000.000 | 1007.492 | -0.7 | 100 | -0.03 | 22.77-23.77 |

Continuing Calibration Summary

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG906-CC825  
**Lab FileID:** GG020224.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018284.D 8330\_EX.M                  Mon Mar 05 11:42:13 2007

**Continuing Calibration Summary**

Page 1 of 2

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-CC827  
**Lab FileID:** GG020231.D

**Evaluate Continuing Calibration Report**

Signal #1 : G:\DATA\0305RP\GG020231.D\dad1B.ch Vial: 2  
 Signal #2 : G:\DATA\0305RP\GG020231.D\dad1A.ch  
 Acq On : 05-Mar-2007, 13:23:34 Operator: MIKEE  
 Sample : CC827-500 Inst : G1315B  
 Misc : OP19677,ggg907,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Jan 26 08:35:20 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount  | Calc.   | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|---------|---------|--------|-------|----------|--------|--------|
| 1    | TNX                    | 500.000 | 551.245 | -10.2  | 112   | 0.02     | 4.24-  | 5.24   |
| 2    | HMX                    | 500.000 | 527.482 | -5.5   | 113   | 0.00     | 4.75-  | 5.75   |
| 3    | DNX                    | 500.000 | 526.884 | -5.4   | 111   | 0.01     | 4.87-  | 5.87   |
| 4    | MXN                    | 500.000 | 525.950 | -5.2   | 106   | 0.00     | 5.72-  | 6.72   |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 507.541 | -1.5   | 103   | 0.00     | 6.17-  | 7.17   |
| 6    | RDX                    | 500.000 | 498.345 | 0.3    | 100   | 0.02     | 6.56-  | 7.56   |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 495.147 | 1.0    | 101   | 0.00     | 7.78-  | 8.78   |
| 8    | Nitrobenzene           | 500.000 | 509.807 | -2.0   | 104   | 0.00     | 8.29-  | 9.29   |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 506.824 | -1.4   | 103   | -0.01    | 8.80-  | 9.80   |
| 10   | Tetryl                 | 500.000 | 535.862 | -7.2   | 104   | 0.00     | 9.52-  | 10.52  |
| 11 S | 3,4-Dinitrotoluene     | 500.000 | 492.695 | 1.5    | 101   | 0.00     | 10.21- | 11.21  |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 489.618 | 2.1    | 102   | -0.02    | 10.59- | 11.59  |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 483.678 | 3.3    | 102   | -0.02    | 11.06- | 12.06  |
| 14   | o-Nitrotoluene         | 500.000 | 502.970 | -0.6   | 105   | -0.01    | 11.86- | 12.86  |
| 15   | p-Nitrotoluene         | 500.000 | 503.359 | -0.7   | 105   | -0.01    | 12.53- | 13.53  |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 502.155 | -0.4   | 102   | -0.03    | 12.95- | 13.95  |
| 17   | m-Nitrotoluene         | 500.000 | 523.547 | -4.7   | 107   | -0.02    | 13.38- | 14.38  |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 503.929 | -0.8   | 101   | -0.03    | 14.45- | 15.45  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |         |         |      |     |       |        |       |
|------|------------------------|---------|---------|------|-----|-------|--------|-------|
| 1    | TNX                    | 500.000 | 539.038 | -7.8 | 107 | 0.02  | 4.24-  | 5.24  |
| 2    | HMX                    | 500.000 | 501.388 | -0.3 | 105 | 0.00  | 4.75-  | 5.75  |
| 3    | DNX                    | 500.000 | 520.169 | -4.0 | 105 | 0.01  | 4.87-  | 5.87  |
| 4    | MXN                    | 500.000 | 520.287 | -4.1 | 104 | 0.00  | 5.72-  | 6.72  |
| 5    | 1,3,5-Trinitrobenzene  | 500.000 | 508.259 | -1.7 | 102 | 0.00  | 6.17-  | 7.17  |
| 6    | RDX                    | 500.000 | 496.557 | 0.7  | 100 | 0.02  | 6.56-  | 7.56  |
| 7    | 1,3-Dinitrobenzene     | 500.000 | 499.335 | 0.1  | 102 | 0.00  | 7.78-  | 8.78  |
| 8    | Nitrobenzene           | 500.000 | 521.041 | -4.2 | 107 | 0.00  | 8.29-  | 9.29  |
| 9    | 2,4,6-Trinitrotoluene  | 500.000 | 510.092 | -2.0 | 104 | -0.01 | 8.80-  | 9.80  |
| 10   | Tetryl                 | 500.000 | 533.664 | -6.7 | 103 | 0.00  | 9.52-  | 10.52 |
| 11 S | 3,4-Dinitrotoluene     | 500.000 | 488.383 | 2.3  | 99  | 0.00  | 10.21- | 11.21 |
| 12   | 2,6-Dinitrotoluene     | 500.000 | 487.517 | 2.5  | 102 | -0.02 | 10.59- | 11.59 |
| 13   | 2,4-Dinitrotoluene     | 500.000 | 483.800 | 3.2  | 102 | -0.02 | 11.06- | 12.06 |
| 14   | o-Nitrotoluene         | 500.000 | 519.246 | -3.8 | 108 | -0.01 | 11.86- | 12.86 |
| 15   | p-Nitrotoluene         | 500.000 | 515.868 | -3.2 | 110 | 0.00  | 12.54- | 13.54 |
| 16   | 4-Amino-2,6-Dinitrotol | 500.000 | 499.988 | 0.0  | 102 | -0.03 | 12.95- | 13.95 |
| 17   | m-Nitrotoluene         | 500.000 | 538.963 | -7.8 | 110 | -0.02 | 13.37- | 14.37 |
| 18   | 2-Amino-4,6-Dinitrotol | 500.000 | 499.905 | 0.0  | 100 | -0.03 | 14.45- | 15.45 |

9.6-10

9

Continuing Calibration Summary

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-CC827  
**Lab FileID:** GG020231.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018316.D 8330\_RP.M              Tue Mar 06 10:57:51 2007



## Continuing Calibration Summary

Page 1 of 2

Job Number: T16445  
 Account: ALGC Accutest Laboratories Gulf Coast, Inc.  
 Project: ITTXHO: Longhorn Army Ammunition Plant

Sample: GGG907-ECC827  
 Lab FileID: GG020238.D

## Evaluate Continuing Calibration Report

Signal #1 : G:\DATA\0305RP\GG020238.D\dad1B.ch Vial: 3  
 Signal #2 : G:\DATA\0305RP\GG020238.D\dad1A.ch  
 Acq On : 05-Mar-2007, 15:40:35 Operator: MIKEE  
 Sample : ECC827-1000 Inst : G1315B  
 Misc : OP19677,ggg907,1000,,,10,,water Multiplr: 1.00  
 IntFile Signal #1: EVENTS.E IntFile Signal #2: events2.e

Method : C:\HPCHEM\1\METHODS\8330\_RP.M (Chemstation Integrator)  
 Title : Explosives by 8330  
 Last Update : Fri Jan 26 08:35:20 2007  
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min  
 Max. RRF Dev : 15% Max. Rel. Area : 200%

|      | Compound               | Amount   | Calc.    | %Drift | Area% | Dev(min) | RT     | Window |
|------|------------------------|----------|----------|--------|-------|----------|--------|--------|
| 1    | TNX                    | 1000.000 | 1064.078 | -6.4   | 104   | 0.02     | 4.24-  | 5.24   |
| 2    | HMX                    | 1000.000 | 1064.872 | -6.5   | 113   | 0.00     | 4.75-  | 5.75   |
| 3    | DNX                    | 1000.000 | 1029.858 | -3.0   | 106   | 0.00     | 4.87-  | 5.87   |
| 4    | MXN                    | 1000.000 | 1052.110 | -5.2   | 107   | 0.00     | 5.72-  | 6.72   |
| 5    | 1,3,5-Trinitrobenzene  | 1000.000 | 1020.840 | -2.1   | 102   | 0.00     | 6.17-  | 7.17   |
| 6    | RDX                    | 1000.000 | 1020.894 | -2.1   | 103   | 0.02     | 6.56-  | 7.56   |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 1005.302 | -0.5   | 101   | 0.00     | 7.78-  | 8.78   |
| 8    | Nitrobenzene           | 1000.000 | 1031.078 | -3.1   | 102   | 0.00     | 8.29-  | 9.29   |
| 9    | 2,4,6-Trinitrotoluene  | 1000.000 | 1033.117 | -3.3   | 104   | -0.01    | 8.80-  | 9.80   |
| 10   | Tetryl                 | 1000.000 | 1104.790 | -10.5  | 112   | 0.00     | 9.52-  | 10.52  |
| 11 S | 3,4-Dinitrotoluene     | 1000.000 | 1016.218 | -1.6   | 103   | 0.00     | 10.21- | 11.21  |
| 12   | 2,6-Dinitrotoluene     | 1000.000 | 998.411  | 0.2    | 102   | -0.02    | 10.59- | 11.59  |
| 13   | 2,4-Dinitrotoluene     | 1000.000 | 987.663  | 1.2    | 103   | -0.02    | 11.06- | 12.06  |
| 14   | o-Nitrotoluene         | 1000.000 | 1040.619 | -4.1   | 105   | -0.01    | 11.86- | 12.86  |
| 15   | p-Nitrotoluene         | 1000.000 | 1034.751 | -3.5   | 104   | -0.01    | 12.53- | 13.53  |
| 16   | 4-Amino-2,6-Dinitrotol | 1000.000 | 1018.262 | -1.8   | 102   | -0.02    | 12.95- | 13.95  |
| 17   | m-Nitrotoluene         | 1000.000 | 1063.626 | -6.4   | 105   | -0.02    | 13.38- | 14.38  |
| 18   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1018.025 | -1.8   | 102   | -0.02    | 14.45- | 15.45  |

\*\*\*\*\* Signal #2 \*\*\*\*\*

|      |                        |          |          |      |     |       |        |       |
|------|------------------------|----------|----------|------|-----|-------|--------|-------|
| 1    | TNX                    | 1000.000 | 1065.753 | -6.6 | 105 | 0.02  | 4.24-  | 5.24  |
| 2    | HMX                    | 1000.000 | 959.987  | 4.0  | 103 | 0.00  | 4.75-  | 5.75  |
| 3    | DNX                    | 1000.000 | 1023.085 | -2.3 | 108 | 0.01  | 4.87-  | 5.87  |
| 4    | MXN                    | 1000.000 | 1036.881 | -3.7 | 107 | 0.00  | 5.72-  | 6.72  |
| 5    | 1,3,5-Trinitrobenzene  | 1000.000 | 1018.352 | -1.8 | 102 | 0.00  | 6.17-  | 7.17  |
| 6    | RDX                    | 1000.000 | 995.036  | 0.5  | 102 | 0.02  | 6.56-  | 7.56  |
| 7    | 1,3-Dinitrobenzene     | 1000.000 | 1003.575 | -0.4 | 100 | 0.00  | 7.78-  | 8.78  |
| 8    | Nitrobenzene           | 1000.000 | 1035.575 | -3.6 | 103 | 0.00  | 8.29-  | 9.29  |
| 9    | 2,4,6-Trinitrotoluene  | 1000.000 | 1043.825 | -4.4 | 105 | -0.01 | 8.80-  | 9.80  |
| 10   | Tetryl                 | 1000.000 | 1097.433 | -9.7 | 111 | 0.00  | 9.52-  | 10.52 |
| 11 S | 3,4-Dinitrotoluene     | 1000.000 | 1002.293 | -0.2 | 102 | 0.00  | 10.21- | 11.21 |
| 12   | 2,6-Dinitrotoluene     | 1000.000 | 991.509  | 0.8  | 102 | -0.02 | 10.59- | 11.59 |
| 13   | 2,4-Dinitrotoluene     | 1000.000 | 990.702  | 0.9  | 103 | -0.02 | 11.06- | 12.06 |
| 14   | o-Nitrotoluene         | 1000.000 | 1071.751 | -7.2 | 108 | -0.01 | 11.86- | 12.86 |
| 15   | p-Nitrotoluene         | 1000.000 | 1073.626 | -7.4 | 108 | 0.00  | 12.54- | 13.54 |
| 16   | 4-Amino-2,6-Dinitrotol | 1000.000 | 1006.760 | -0.7 | 101 | -0.02 | 12.95- | 13.95 |
| 17   | m-Nitrotoluene         | 1000.000 | 1093.803 | -9.4 | 107 | -0.02 | 13.37- | 14.37 |
| 18   | 2-Amino-4,6-Dinitrotol | 1000.000 | 1006.963 | -0.7 | 101 | -0.02 | 14.45- | 15.45 |

9.6.11

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Continuing Calibration Summary

**Job Number:** T16445  
**Account:** ALGC Accutest Laboratories Gulf Coast, Inc.  
**Project:** ITTXHO: Longhorn Army Ammunition Plant

**Sample:** GGG907-ECC827  
**Lab FileID:** GG020238.D

(#) = Out of Range                      SPCC's out = 0    CCC's out = 0  
GG018318.D 8330\_RP.M                      Tue Mar 06 10:58:20 2007



## General Chemistry

### QC Data Summaries

(Accutest Laboratories Southeast, Inc.)

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries
- Instrument Runlogs/QC

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16445  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | RL | MB Result | Units | Spike Amount | BSP Result | BSP %Recov | QC Limits |
|-------------|----------------|----|-----------|-------|--------------|------------|------------|-----------|
| Perchlorate | GP9044/GN24408 | 10 | <10       | ug/l  | 50           | 50.1       | 100.2      | 85-115%   |

Associated Samples:  
Batch GP9044: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
(\*) Outside of QC limits

10.1  
10

DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16445  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | QC Sample | Units | Original Result | DUP Result | RPD | QC Limits |
|-------------|----------------|-----------|-------|-----------------|------------|-----|-----------|
| Perchlorate | GP9044/GN24408 | T16445-5  | ug/l  | 27.8            | 29.4       | 5.6 | 0-15%     |
| Perchlorate | GP9044/GN24408 | T16445-6  | ug/l  | 532             | 550        | 3.3 | 0-15%     |

Associated Samples:  
Batch GP9044: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
(\*) Outside of QC limits

10.2  
10

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: T16445  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

| Analyte     | Batch ID       | QC Sample | Units | Original Result | Spike Amount | MS Result | %Rec  | QC Limits |
|-------------|----------------|-----------|-------|-----------------|--------------|-----------|-------|-----------|
| Perchlorate | GP9044/GN24408 | T16445-5  | ug/l  | 27.8            | 50           | 79.8      | 104.0 | 80-120%   |
| Perchlorate | GP9044/GN24408 | T16445-6  | ug/l  | 532             | 50           | 583       | 102.0 | 80-120%   |

Associated Samples:  
Batch GP9044: T16445-1, T16445-10, T16445-11, T16445-12, T16445-13, T16445-14, T16445-18, T16445-2, T16445-3, T16445-4, T16445-5, T16445-6, T16445-7, T16445-8, T16445-9  
(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits

10.3  
10

Accutest Laboratories Instrument Runlog  
Inorganics Analyses

Login Number: T16445  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030201.TXT  
Analyst: MP  
Parameters: Perchlorate

Date Analyzed: 03/02/07      Methods: EPA 314  
Run ID: GN24408

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 14:05 | GN24408-CCV1       | 1               |          |          |
| 14:20 | GN24408-CCB1       | 1               |          |          |
| 14:34 | GP9044-MB1         | 1               |          |          |
| 14:49 | GP9044-B1          | 1               |          |          |
| 15:31 | GN24408-CRI1       | 1               |          |          |
| 15:46 | GN24408-IPC1       | 1               |          |          |
| 16:00 | T16445-1           | 1               |          |          |
| 16:15 | T16445-2           | 1               |          |          |
| 16:29 | T16445-3           | 1               |          |          |
| 16:43 | T16445-4           | 1               |          |          |
| 16:58 | T16445-5           | 1               |          |          |
| 17:12 | T16445-6           | 1               |          |          |
| 17:27 | GN24408-CCV2       | 1               |          |          |
| 17:41 | GN24408-CCB2       | 1               |          |          |
| 17:55 | T16445-7           | 1               |          |          |
| 18:10 | T16445-8           | 1               |          |          |
| 18:24 | T16445-9           | 1               |          |          |
| 18:39 | T16445-10          | 1               |          |          |
| 18:53 | T16445-11          | 1               |          |          |
| 19:22 | T16445-13          | 1               |          |          |
| 19:36 | T16445-14          | 1               |          |          |
| 19:51 | T16445-18          | 1               |          |          |
| 20:05 | ZZZZZZ             | 1               |          |          |
| 20:19 | GN24408-CCV3       | 1               |          |          |
| 20:34 | GN24408-CCB3       | 1               |          |          |
| 20:48 | GP9044-D1          | 1               |          |          |
| 21:03 | GP9044-S1          | 1               |          |          |
| 21:17 | GP9044-D2          | 1               |          |          |
| 21:32 | GP9044-S2          | 1               |          |          |
| 21:46 | GN24408-CCV4       | 1               |          |          |
| 22:00 | GN24408-CCB4       | 1               |          |          |

Refer to raw data for calibration curve and standards.

Instrument QC Summary  
Inorganics Analyses

Login Number: T16445  
Account: ALGC - Accutest Laboratories Gulf Coast, Inc.  
Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030201.TXT

Date Analyzed: 03/02/07  
Run ID: GN24408

Methods: EPA 314  
Units: ug/l

| Sample Number | Parameter   | Result | RL | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-------------|--------|----|---------|------------|----------|-----------|
| GN24408-CCV1  | Perchlorate | 52.1   | 10 | 4.0     | 50         | 104.2    | 85-115    |
| GN24408-CCB1  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24408-CRI1  | Perchlorate | 4.0 U  | 10 | 4.0     | 3          | 86.6     | 75-125    |
| GN24408-IPC1  | Perchlorate | 23.2   | 10 | 4.0     | 25         | 92.8     | 80-120    |
| GN24408-CCV2  | Perchlorate | 50.4   | 10 | 4.0     | 50         | 100.8    | 85-115    |
| GN24408-CCB2  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24408-CCV3  | Perchlorate | 52.6   | 10 | 4.0     | 50         | 105.2    | 85-115    |
| GN24408-CCB3  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24408-CCV4  | Perchlorate | 53.4   | 10 | 4.0     | 50         | 106.8    | 85-115    |
| GN24408-CCB4  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |

(!) Outside of QC limits

10.4  
10



Accutest Laboratories Instrument Runlog  
Inorganics Analyses

Login Number: T16445

Account: ALGC - Accutest Laboratories Gulf Coast, Inc.

Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030701.TXT

Date Analyzed: 03/07/07

Methods: EPA 314

Analyst: MP

Run ID: GN24437

Parameters: Perchlorate

| Time  | Sample Description | Dilution Factor | PS Recov | Comments |
|-------|--------------------|-----------------|----------|----------|
| 17:09 | GN24437-CCV1       | 1               |          |          |
| 17:23 | GN24437-CCB1       | 1               |          |          |
| 18:35 | T16445-12          | 5               |          |          |
| 18:50 | GN24437-CCV2       | 1               |          |          |
| 19:04 | GN24437-CCB2       | 1               |          |          |

Refer to raw data for calibration curve and standards.

Instrument QC Summary  
Inorganics Analyses

Login Number: T16445

Account: ALGC - Accutest Laboratories Gulf Coast, Inc.

Project: ITTXH0: Longhorn Army Ammunition Plant

File ID: 207030701.TXT

Date Analyzed: 03/07/07

Methods: EPA 314

Run ID: GN24437

Units: ug/l

| Sample Number | Parameter   | Result | RL | IDL/MDL | True Value | % Recov. | QC Limits |
|---------------|-------------|--------|----|---------|------------|----------|-----------|
| GN24437-CCV1  | Perchlorate | 52.5   | 10 | 4.0     | 50         | 105.0    | 85-115    |
| GN24437-CCB1  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |
| GN24437-CCV2  | Perchlorate | 46.7   | 10 | 4.0     | 50         | 93.4     | 85-115    |
| GN24437-CCB2  | Perchlorate | 4.0 U  | 10 | 4.0     |            |          |           |

(!) Outside of QC limits