ANALYTICAL SUMMARY DATA PACKAGE
SDG # KIRTLAND_061

PROJECT NAME: KIRTLAND AFB 2011
PROJECT LOCATION: ALBUQUERQUE, NEW MEXICO

SUBMITTAL TO:
Pamela Moss
SHAW E&I, Inc.
9201 East Dry Creek
Centennial, CO 80112

SUBMITTAL BY:
Empirical Laboratories, LLC (EL)
621 Mainstream Drive, Suite 270
Nashville, TN 37228
Tel (615)345-1115
Fax (866)417-0548

LABORATORY CONTACT PERSON:
Project Manager: Jennifer Chandler
Tel (615)345-1115
Fax (866)417-0548
Email: jchandler@empirlabs.com

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Report Revision #: N/A
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THIS DOCUMENT MEETS DoD QSM 4.2 STANDARDS

The results relate to only the samples associated with the referenced SDG and the submitted data has been produced in accordance with laboratory procedures. The Laboratory's Technical Lab Director, Mr. Rick Davis, is responsible for the final data produced and reported. His signature is listed at the end of the Case Narrative within the Analytical Data Package. If applicable to this report package, details on report revisions and the information on subcontracted analysis are listed in the package Case Narrative. This report shall not be reproduced, except in full, without the written approval of Empirical Laboratories, LLC.

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Sample Delivery Group Case Narrative

Receipt Information
The samples were received within the preservation guidelines for the associated methods. The information associated with sample receipt and the Sample Delivery Group (SDG) are included within section 4 of this package, which also provides information on the link between the client sample ID listed on the COC and laboratory's assigned unique sample ID or WorkOrder #. The sample is tracked through the laboratory for all analysis via the assigned WorkOrder #.

All samples that were received were analyzed and none of the samples were placed on hold without analyses. There were no subcontracted analyses for this SDG.

Changes to the Revision
This is an original submittal of the final report package.

Analytical Information
All samples were prepped (where applicable) and analyzed within the standard allowed holding times, unless noted within the exceptions listed below. The laboratory analyzed all samples within the program and method guidelines. Sample prep and dilution information is provided within the final results report and at the beginning of each form set. The following information is provided specific to individual methods:

Chromatographic Flags for Manual Integration:
The following letters are used to denote manual integrations on the laboratory's raw data in association with chromatographic integrations:

A: The peak was manually integrated as it was not integrated in the original chromatogram.
B: The peak was manually integrated due to resolution or coelution issues in the original chromatogram.
C: The peak was manually integrated to correct the baseline from the original chromatogram.
D: The peak was manually integrated to identify the correct peak as the wrong peak was identified in the original chromatogram.
E: The peak was manually integrated to include the entire peak as the original chromatogram only integrated part of the peak.

SW8260B:
The following continuing calibration verifications exceeded criteria:
2H23310-CCV1 with a positive bias for Bromomethane and 4-Methyl-2-pentanone
2H23505-CCV1 with a negative bias for Bromomethane

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW8270D BNA:
The following surrogates exceeded criteria:
2-Fluorophenol with a negative bias in 1208091-01 and 2H14019-BLK1

The following matrix spikes exceeded criteria:
2H14019-MS1/MSD1 (1208091-01) exceeded relative percent difference criteria for 2-Chlorophenol, 4,6-Dinitro-2-methylphenol, 2,4-Dinitrophenol, 4-Nitrophenol, and Pentachlorophenol

The following continuing calibration verifications exceeded criteria:
2H24101-CCV1 with a positive bias for Terphenyl-d14

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW8015B DRO:
No anomalies or deviations are noted.

SW8015B GRO:
No anomalies or deviations are noted.

SW8011:
The following surrogates exceeded criteria:
1,3-Dibromopropane with a positive bias on column 1 in 2H21929-BLK1, -BS1, and 1208091-01

The following continuing calibration verifications exceeded criteria:
2H23515-CCV1 with a positive bias on both columns for 1,3-Dibromopropane
2H23515-CCV2 with a positive bias on column 1 for 1,3-Dibromopropane

The following surrogates exceeded the retention time window:

1,3-Dibromopropane in 2H21929-MS1, -MSD1, and 2H23515-CCV2; note - Retention times associated to 2H21929-MS1/MSD1 (1208091-01) and the closing CCV, 2H23515-CCV2, exhibited a shift outside the retention time window for 1,2-Dibromoethane and the surrogate, 1,3-Dibromopropane. As the analyte and surrogate shift were consistent and unspiked sample retention times remained within the RT windows, spike and CCV results were reported from an appropriately widened RT window.

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

SW6010B:
The following matrix spikes exceeded criteria:
2H15015-MS2/MSD2 (1208091-01) for Calcium and Sodium; note – the parent sample concentrations for Calcium and Sodium are greater than 4 times the amount spiked

The following post spikes exceeded criteria:
2H15015-PS2 (1208091-01) for Calcium; note – the parent sample concentration for Calcium is greater than 4 times the amount spiked

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

Wet Chemistry:
The following compounds are qualified with an M to indicate that the LOQ was raised to the level of the reporting limit standard within criteria:
Sulfate as SO4 (2.5 mg/L) in 1208091-01

No additional anomalies or deviations are noted and the proper data qualifiers have been applied.

Data Qualifiers
As applicable and where required, the following general qualifiers are associated with the sample results. Additional qualifiers will be specified within the reporting sections of the data package or within the body of the Case Narrative.

Analytical Report Terms and Qualifiers

DL: The detection limit (DL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero. The DL is supported by the method detection limit (MDL) which is determined from analysis of a sample containing the analyte in a given matrix.

LOD: The Limit of Detection is an estimate of the minimum amount of a substance that an analytical process can reliably detect. An LOD is analyte- and matrix-specific and may be laboratory-dependent. This definition is further clarified in the DoD QSM 4.2 revisions as the smallest amount or concentration of a substance that must be present in a sample in order to be detected at a high level of confidence (99%). At the LOD, the false negative rate (Type II error) is 1%.

LOQ: The Limit of Quantitation is the minimum level, concentration, or quantity of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. This term is further clarified within the DoD QSM 4.2 as the lowest concentration that produces a quantitative result within specified limits of precision and bias.

*****: Exceeding quality control criteria are associated with the reported result.

B: The presence of a "B" to the right of an analytical value indicates that this compound was also detected in the method blank and the data should be interpreted with caution. One should consider the possibility that the correct sample result might be less than the reported result and, perhaps, zero.

D: When a sample (or sample extract) is rerun diluted because one of the compound concentrations exceeded the highest concentration range for the standard curve, all of the values obtained in the dilution run will be flagged with a "D".

E: The concentration for any compound found which exceeds the highest concentration level on the standard curve for that compound will be flagged with an "E". Usually the sample will be rerun at a dilution to quantitate the flagged compound.

H1: The result was analyzed outside of the EPA recommended holding time.

H2: The result was extracted outside of the EPA recommended holding time.

H3: The sample for this analyte was received outside of the EPA recommended holding time.

J: The presence of a "J" to the right of an analytical result indicates that the reported result is estimated. The mass spectral data pass the identification criteria showing that the compound is present, but the calculated result is less than the LOQ. One should feel confident that the result is greater than zero and less than the LOQ.

M: Indicates that the sample matrix interfered with the quantitation of the analyte. In dual column analysis the result is reported from the column with the lower concentration. In inorganics, it indicates that the parameters DL/LOD/LOQ have been raised.

N: The MS/MSD accuracy and/or precision are outside criteria. The predigested spike recovery is not within control limits for the associated parameter.

P: The associated numerical value is an estimated quantity. There is greater than a 40% difference between the two GC columns for the detected concentrations. The higher of the two values is reported unless matrix interference is obvious or for HPLC analysis where the primary column is reported.

Q: The relative percent difference (RPD) and/or percent recovery exceeded limits in the associated Blank Spike and/or Blank Spike Duplicate.

S: The associated internal standard exceeded criteria.

U: The presence of a "U" indicates that the analyte was analyzed for but was not detected or the concentration of the analyte quantitated below the DL.

X: The parameter shows a potential positive bias on a reported concentration due to an ICV or CCV exceeding the upper control limit on the high side.

Y: The parameter shows a potential negative bias on a reported concentration due to an ICV or CCV exceeding the lower control limit on the low side.

Z: The parameter shows lack of confirmation/detection, which may be due to a negative bias in the ICV or CCV which exceeds the lower control limit.

LIMS Definitions / Naming Conventions:

The following are general naming conventions that are used throughout the laboratory; however, on a method by method basis, there are additional QAQC items that are named in a consistent format.

BLK: LIMS assigns a unique identifier to the Method Blank by naming it as the letters

BLK appended to the Batch ID. A Method Blank is an analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The Method Blank is used to assess for possible contamination during preparation and/or analysis steps. Method Blanks within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally.

BS: LIMS assigns a unique identifier to the Blank Spike by naming it as the letters BS appended to the Batch ID. The Blank Spike or Lab Control Sample is a controlled analyte-free matrix, which is spiked with known and verified concentrations of target analytes. Spiking concentrations can be referenced in the method SOP. The BS is used to evaluate the viability of analytes taken through the entire prep (when applicable) and analytical process. Blank Spikes within a Batch or Analytical sequence will be appended with a numerical value beginning with 1 that will increase incrementally. A duplicate Blank Spike will be designated as a BSD.

MS: The LIMS assigns each Client sample with a unique identifier. The Matrix Spike is designated with a MS at the end of the sample's unique identifier. The Matrix Spike sample is used to assess the effect of the sample matrix on the precision and accuracy of the results generated using the selected method. A duplicate Matrix Spike will be designated as a MSD.

IDs: The LIMS assigns each Client sample with a unique identifier. The letter "RE" may potentially be appended to the end of the LIMS Sample ID. And "**RE"** implies that the sample was either re-prepped, re-analyzed straight, or re-analyzed at a dilution. Subsequent re-analysis for the sample will be appended with a numerical value beginning with 1 that will increase incrementally. Eg: RE1, RE2, RE3, etc.

Statement of Data Authenticity:
I certify that, based upon my inquiry of those individuals immediately responsible for obtaining the information and to the best of my knowledge, the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, with the exception of the conditions detailed in this Case Narrative, as verified by my signature below. During absences, the Data Quality Manager, Technical Directors or Project Managers are authorized to sign this Statement of Data Authenticity.

Mr. Rick D. Davis
Laboratory Technical Director / VP Operations

ORGANIC CALCULATIONS

GC/MS Volatiles

$$\text{Final Concentration} = \frac{\text{On-column(ug/L or ug/Kg) * Expected Vol/Weight (mL or g) * Dilution}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

Note - Expected Vol/Weight value is found in "Final Vol" column of Preparation Batch Summary.

GC/MS Extractables

$$\text{Final Concentration} = \frac{\text{On-column(ng/uL) * Final Vol (ml) * Dilution *(1000uL/mL)}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g

= ug/L or ug/kg

GC or LC Extractables

$$\text{Final Concentration} = \frac{\text{On-column(ng/mL) * Final Vol (mL) * Dilution}}{\text{Initial Vol/Weight (mL or g) * (Percent Solids/100) (if applicable)}}$$

= ng/mL or ng/g

= ug/L or ug/kg

Sample Receipt Information

Shaw
Shaw E & I, Inc.

120891

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-GW224

Project Number: 140705
Project Name: Kirtland AFB
Sample Coordinator: Mark Lyon
Turnaround Time:

Samples Shipment Date: 13 AUG 2012
Lab Destination: Empirical Laboratories, Inc.
Lab Contact: Sonya Gordon
Project Contact: Pamela Moss
Carrier/Waybill No.: Fed Ex/488306619033

Bill To: Shaw Environmental, Inc. - Accounts P
PO Box 98519
Baton Rouge LA 70884

Report To: Pamela Moss
7604 Technology Way, Suite 300
Denver CO 80237

Special Instructions:

Possible Hazard Indentification:
Non-hazard X Flammable ☐ Skin Irritant ☐ Poison B ☐ Radiological ☐ Unknown ☐

Sample Disposal:
Return to Client ☐ Disposal by Lab X Archive ☐ (mos.)

1. Relinquished By (Signature/Affiliation) Shaw — Date: 8/13/12 Time: 1600
2. Relinquished By (Signature/Affiliation) — Date: Time:
3. Relinquished By (Signature/Affiliation) — Date: Time:

1. Received By (Signature/Affiliation) — Date: Time:
2. Received By (Signature/Affiliation) — Date: Time:
3. Received By (Signature/Affiliation) — Date: 8/14/12 Time: 0820

Comments:

	Sample No	Sample Name	Sample Date	Sample Time	Container	Ctr Qty	Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
01	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	40 mL VOA VIAL	3	None except cool to 4 C	EDB by SW846 8011			N		
	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	40 mL VOA VIAL	3	HCl<pH 2	TPH as Gasoline by SW846 8015B			N		
	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	1000 mL A GLASS	1	None except cool to 4 C	TPH as Diesel by SW846 8015B			N		
	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	40 mL VOA VIAL	3	HCl<pH 2	VOCs by SW846 8260B			N		
02	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	250 mL HDPE	1	HNO3<pH 2	Dissolved Iron and Manganese by SW846 6010C			N		
01	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	250 mL HDPE	1	H2SO4<pH 2	Nitrate plus Nitrite by EPA 353.2, Ammonia by SM4500B			N		
	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	1000 mL A GLASS	2	None except cool to 4 C	SVOCs by SW846 8270D			N		

1208091

Shaw™
Shaw E & I, Inc.

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

Reference Document No: 140705-GW224

	Sample No	Sample Name	Sample Date	Sample Time	Container		Preservative	Requested Testing Program	Sample Vol	Units	Fil	CID	Condition On Receipt
01	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	250 mL HDPE	1	Zinc Acetate and NaOH>9	Sulfide by SM4500S-2CF			N		
	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	250 mL HDPE	1	None except cool to 4 C	Chloride and Sulfate by EPA 300, Alkalinity by SM2320B			N		
	GW0648	KAFB-106020-WG-GW0648-REG	13 AUG 2012	10:53	250 mL HDPE	1	HNO3<pH 2	Total Calcium, Potassium, Magnesium, Sodium, and Lead by SW846 6010C			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	40 mL VOA VIAL	3	HCl<pH 2	TPH as Gasoline by SW846 8015B			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	1000 mL A GLASS	1	None except cool to 4 C	TPH as Diesel by SW846 8015B			N		
02	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	250 mL HDPE	1	HNO3<pH 2	Dissolved Iron and Manganese by SW846 6010C			N		
01	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	40 mL VOA VIAL	3	HCl<pH 2	VOCs by SW846 8260B			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	250 mL HDPE	1	HNO3<pH 2	Total Calcium, Potassium, Magnesium, Sodium, and Lead by SW846 6010C			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	250 mL HDPE	1	Zinc Acetate and NaOH>9	Sulfide by SM4500S-2CF			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	40 mL VOA VIAL	3	None except cool to 4 C	EDB by SW846 8011			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	1000 mL A GLASS	2	None except cool to 4 C	SVOCs by SW846 8270D			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	250 mL HDPE	1	H2SO4<pH 2	Nitrate plus Nitrite by EPA 353.2, Ammonia by SM4500B			N		
	GW0648-MS	KAFB-106020-WG-GW0648-MS-MS	13 AUG 2012	10:53	250 mL HDPE	1	None except cool to 4 C	Chloride and Sulfate by EPA 300, Alkalinity by SM2320B			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	1000 mL A GLASS	1	None except cool to 4 C	TPH as Diesel by SW846 8015B			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	250 mL HDPE	1	HNO3<pH 2	Total Calcium, Potassium, Magnesium, Sodium, and Lead by SW846 6010C			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	40 mL VOA VIAL	3	None except cool to 4 C	EDB by SW846 8011			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	40 mL VOA VIAL	3	HCl<pH 2	VOCs by SW846 8260B			N		
02	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	250 mL HDPE	1	HNO3<pH 2	Dissolved Iron and Manganese by SW846 6010C			N		
01	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	250 mL HDPE	1	None except cool to 4 C	Chloride and Sulfate by EPA 300, Alkalinity by SM2320B			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	250 mL HDPE	1	H2SO4<pH 2	Nitrate plus Nitrite by EPA 353.2, Ammonia by SM4500B			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	40 mL VOA VIAL	3	HCl<pH 2	TPH as Gasoline by SW846 8015B			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	250 mL HDPE	1	Zinc Acetate and NaOH>9	Sulfide by SM4500S-2CF			N		
	GW0648-MSD	KAFB-106020-WG-GW0648-MSD-MSD	13 AUG 2012	10:53	1000 mL A GLASS	2	None except cool to 4 C	SVOCs by SW846 8270D			N		
03	GW8224-TB	FIELDQC-BW-GW8224-TB-TB	13 AUG 2012	08:00	40 mL VOA VIAL	2	HCl<pH 2	VOCs by SW846 8260B			N		

Cooler Received/Opened On_ 08/14/12 @ 0820

WO# 1208091

1. Tracking # 9033 (last 4 digits, FedEx)

Courier: ___FED-EX

2. Temperature of rep. sample or temp blank when opened: 1.1 *Degrees Celsius + correction factor - 0.2* = 0.9

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES ...NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1-FRONT

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # 1

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES... NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCR generated? YES...NO...#_____

Additional Details:

Cooler Received/Opened On_ 08/14/12 @ 0820

WO# 1208091

1. Tracking # 9044 (last 4 digits, FedEx)

Courier: ___FED-EX

2. Temperature of rep. sample or temp blank when opened: 2.5 *Degrees Celsius + correction factor* - 0.2 = 2.3

3. If Item #2 temperature is 0°C or less, was the representative sample or temp blank frozen? YES NO...NA

4. Were custody seals on outside of cooler? YES...NO...NA

If yes, how many and where: 1-FRONT

5. Were the seals intact, signed, and dated correctly? YES...NO...NA

6. Were custody papers inside cooler? YES...NO...NA

I certify that I opened the cooler and answered questions 1-6 (intial) _____

7. Were custody seals on containers: YES NO and Intact YES...NO...NA

Were these signed and dated correctly? YES...NO...NA

8. Packing mat'l used? Bubblewrap Plastic bag Peanuts Vermiculite Foam Insert Paper Other None

9. Cooling process: Ice Ice-pack Ice (direct contact) Dry ice Other None

10. Did all containers arrive in good condition (unbroken)? YES...NO...NA

11. Were all container labels complete (#, date, signed, pres., etc)? YES...NO...NA

12. Did all container labels and tags agree with custody papers? YES...NO...NA

13a. Were VOA vials received? YES...NO...NA

b. Was there any observable headspace present in any VOA vial? YES...NO...NA

14. Was there a Trip Blank in this cooler? YES...NO...NA If multiple coolers, sequence # ~~#2~~ #2

I certify that I unloaded the cooler and answered questions 7-14 (intial) _____

15a. On pres'd bottles, did pH test strips suggest preservation reached the correct pH level? YES... NO...NA

b. Did the bottle labels indicate that the correct preservatives were used YES...NO...NA

16. Was residual chlorine present? YES...NO...NA

I certify that I checked for chlorine and pH as per SOP and answered questions 15-16 (intial) _____

17. Were custody papers properly filled out (ink, signed, etc)? YES...NO...NA

18. Did you sign the custody papers in the appropriate place? YES...NO...NA

19. Were correct containers used for the analysis requested? YES...NO...NA

20. Was sufficient amount of sample sent in each container? YES...NO...NA

I certify that I entered this project into LIMS and answered questions 17-20 (intial) _____

I certify that I attached a label with the unique LIMS number to each container (intial) _____

21. Were there Non-Conformance issues at login? YES...NO Was a NCR generated? YES...NO...#_____

Additional Details:

WORK ORDER

Printed: 8/14/2012 12:33:56PM

1208091

Empirical Laboratories, LLC

Client: Shaw E & I (I700)
Project: Kirtland AFB 2011

Project Manager: Jennifer Chandler
Project Number: SHW_Kirtland

Report To:
Shaw E & I (I700)
Pamela Moss
9201 East Dry Creek
Denver, CO 80112
Phone: (720) 554-8252
Fax: (225) 932-2661

Invoice To:
Shaw E & I (I700)
Accounts Payable
PO Box 98519
Baton Rouge, LA 70884
Phone :(225) 932-2500
Fax: (225) 932-2661

Due to Client: 09/05/2012 16:00 *This is the projected due date to the client, at the time of receipt, and is for report delivery via upload, and/or email, and/or shipment to meet TAT as setup by project*

Received By: Benjamin C. Wright
Date Received: 08/14/2012 08:20
Logged In By: Benjamin C. Wright
Date Logged In: 08/14/2012 11:03

Samples Received at: **0.9°C**

Custody Seals	Yes	Received On Ice	Yes
Containers Intact	Yes		
COC/Labels Agree	Yes		
Preservation Confirme	Yes		

Method	Test Code	Due	TAT	Expires	Comments
1208091-01 GW0648 [Water] Sampled 08/13/2012 10:53 Mountain 'Client Sample'					**MS/MSD.**
SM4500S2CF	WC_SULFIDE_4500S2CF	08/30/2012 14:00	15	08/20/2012 11:53	MS/MSD.
E353.2	WC_NO3NO2_N_353.2	08/30/2012 14:00	15	09/10/2012 11:53	MS/MSD.
E300.0	WC_ANIONS_300.0 (Regular)	08/30/2012 14:00	15	09/10/2012 11:53	MS/MSD.Cl, SO4
SM4500NH3BG	WC_AMMONIA_PHENATE_4500NH3BG	08/30/2012 14:00	15	09/10/2012 11:53	MS/MSD.
SM2320B	WC_ALKALINITY_2320B	08/30/2012 14:00	15	08/27/2012 11:53	MS/MSD.carb/bicarb
SW8260B	VOC_8260B_REG	08/30/2012 14:00	15	08/27/2012 11:53	MS/MSD.naphthalene must be reported
SW8015B GRO	VGC_GRO_8015B	08/30/2012 14:00	15	08/27/2012 11:53	MS/MSD.
SW8270D	SMS_BNA_8270D_3510_REG	08/30/2012 14:00	15	08/20/2012 11:53	MS/MSD.requires 3-Methlphenol/4-Methylphenol/Naphthalene
SW8011	SGC_EDB_8011	08/30/2012 14:00	15	08/27/2012 11:53	MS/MSD.Run dilutions based on 8260 results!
SW8015B DRO	SGC_DRO_8015B_3510	08/30/2012 14:00	15	08/20/2012 11:53	MS/MSD.
SW6010B	MET_ICP_6010B_FULL	08/30/2012 14:00	15	02/09/2013 11:53	MS/MSD.Ca, Pb, K, Na, Mg
1208091-02 GW0648 [Water] Sampled 08/13/2012 10:53 Mountain 'Client Sample'					**MS/MSD.**
SW6010B	MET_ICP_6010B_FULL_DIS	08/30/2012 14:00	15	02/09/2013 11:53	MS/MSD.Fe & Mn
1208091-03 GW8224-TB [Water] Sampled 08/13/2012 08:00 Mountain 'Trip Blank'					
SW8260B	VOC_8260B_REG	08/30/2012 14:00	15	08/27/2012 09:00	naphthalene must be reported

Reviewed By

Date

Sample Delivery Group Assignment Form

CLIENT: Shaw E & I (I700)
PROJECT NAME: Kirtland AFB 2011
SDG #: Kirtland_061

QC LEVEL: Level IV
Report Due: 9/5/2012
Client Sample Count: 2

Sample Type	Sampled	Received	Lab ID	Client ID	Report Matrix	E300.0	E353.2	SM2320B	SM4500NH3BG	SM4500S2CF
Client Sample	8/13/2012	8/14/2012	1208091-01	GW0648	Water	MS/MSD.	MS/MSD.	MS/MSD.	MS/MSD.	MS/MSD.
Client Sample	8/13/2012	8/14/2012	1208091-02	GW0648	Water					
Trip Blank	8/13/2012	8/14/2012	1208091-03	GW8224-TB	Water					

Sample Type	Sampled	Received	Lab ID	Client ID	Report Matrix	SW6010B	SW8011	SW8015B DRO	SW8015B GRO	SW8260B	SW8270D
Client Sample	8/13/2012	8/14/2012	1208091-01	GW0648	Water	MS/MSD.	MS/MSD.	MS/MSD.	MS/MSD.	MS/MSD.	MS/MSD.
Client Sample	8/13/2012	8/14/2012	1208091-02	GW0648	Water	MS/MSD.					
Trip Blank	8/13/2012	8/14/2012	1208091-03	GW8224-TB	Water					X	

Data for SW8260B Forms

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	0809101.D
Sampled:	08/13/12 10:53	Prepared:	08/21/12 11:28	Analyzed:	08/21/12 11:28
Solids:		Preparation:	5030B	Dilution:	1

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		2.50	5.00	10.0	U
71-43-2	Benzene		0.250	0.500	1.00	U
108-86-1	Bromobenzene		0.250	0.500	1.00	U
74-97-5	Bromochloromethane		0.250	0.500	1.00	U
75-27-4	Bromodichloromethane		0.250	0.500	1.00	U
75-25-2	Bromoform		0.250	0.500	1.00	U
74-83-9	Bromomethane		0.500	1.00	2.00	Y, U
104-51-8	n-Butylbenzene		0.250	0.500	1.00	U
78-93-3	2-Butanone		2.50	5.00	10.0	U
135-98-8	sec-Butylbenzene		0.250	0.500	1.00	U
98-06-6	tert-Butylbenzene		0.250	0.500	1.00	U
75-15-0	Carbon disulfide		0.250	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.250	0.500	1.00	U
108-90-7	Chlorobenzene		0.250	0.500	1.00	U
75-00-3	Chloroethane		0.500	1.00	2.00	U
67-66-3	Chloroform		0.250	0.500	1.00	U
74-87-3	Chloromethane		0.250	0.500	1.00	U
95-49-8	2-Chlorotoluene		0.250	0.500	1.00	U
106-43-4	4-Chlorotoluene		0.250	0.500	1.00	U
124-48-1	Dibromochloromethane		0.250	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.500	1.00	2.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.250	0.500	1.00	U
74-95-3	Dibromomethane		0.250	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene		0.250	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	0.500	1.00	U
75-71-8	Dichlorodifluoromethane		0.500	1.00	2.00	U
75-34-3	1,1-Dichloroethane		0.250	0.500	1.00	U
107-06-2	1,2-Dichloroethane		0.250	0.500	1.00	U
75-35-4	1,1-Dichloroethene		0.250	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.250	0.500	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.250	0.500	1.00	U
78-87-5	1,2-Dichloropropane		0.250	0.500	1.00	U
142-28-9	1,3-Dichloropropane		0.250	0.500	1.00	U
594-20-7	2,2-Dichloropropane		0.250	0.500	1.00	U
563-58-6	1,1-Dichloropropene		0.250	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.250	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.250	0.500	1.00	U
100-41-4	Ethylbenzene		0.250	0.500	1.00	U
87-68-3	Hexachlorobutadiene		0.250	0.500	2.00	U

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	0809101.D
Sampled:	08/13/12 10:53	Prepared:	08/21/12 11:28	Analyzed:	08/21/12 11:28
Solids:		Preparation:	5030B	Dilution:	1

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		1.25	2.50	5.00	U
98-82-8	Isopropylbenzene		0.250	0.500	1.00	U
99-87-6	p-Isopropyltoluene		0.250	0.500	1.00	U
75-09-2	Methylene chloride		0.500	1.00	2.00	U
91-20-3	Naphthalene		0.250	0.500	2.00	U
108-10-1	4-Methyl-2-pentanone		1.25	2.50	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	0.500	1.00	U
103-65-1	n-Propylbenzene		0.250	0.500	1.00	U
100-42-5	Styrene		0.250	0.500	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.250	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.250	0.500	1.00	U
127-18-4	Tetrachloroethene		0.250	0.500	1.00	U
108-88-3	Toluene		0.250	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.250	0.500	2.00	U
120-82-1	1,2,4-Trichlorobenzene		0.250	0.500	2.00	U
79-00-5	1,1,2-Trichloroethane		0.250	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane		0.250	0.500	1.00	U
79-01-6	Trichloroethene		0.250	0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.500	1.00	2.00	U
96-18-4	1,2,3-Trichloropropane		0.500	1.00	2.00	U
108-67-8	1,3,5-Trimethylbenzene		0.250	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene		0.250	0.500	1.00	U
75-01-4	Vinyl chloride		0.250	0.500	1.00	U
1330-20-7	Xylenes (total)		0.750	1.50	3.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	29.33	97.8	75 - 120	
Dibromofluoromethane	30.00	29.93	99.8	85 - 115	
1,2-Dichloroethane-d4	30.00	28.94	96.5	70 - 120	
Toluene-d8	30.00	29.29	97.6	85 - 120	

ANALYSIS DATA SHEET

GW8224-TB

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-03	File ID:	0809103.D
Sampled:	08/13/12 08:00	Prepared:	08/17/12 14:18	Analyzed:	08/17/12 14:18
Solids:		Preparation:	5030B	Dilution:	1

Batch: 2H17007 Sequence: 2H23310 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		2.50	5.00	10.0	U
71-43-2	Benzene		0.250	0.500	1.00	U
108-86-1	Bromobenzene		0.250	0.500	1.00	U
74-97-5	Bromochloromethane		0.250	0.500	1.00	U
75-27-4	Bromodichloromethane		0.250	0.500	1.00	U
75-25-2	Bromoform		0.250	0.500	1.00	U
74-83-9	Bromomethane		0.500	1.00	2.00	X, U
104-51-8	n-Butylbenzene		0.250	0.500	1.00	U
78-93-3	2-Butanone		2.50	5.00	10.0	U
135-98-8	sec-Butylbenzene		0.250	0.500	1.00	U
98-06-6	tert-Butylbenzene		0.250	0.500	1.00	U
75-15-0	Carbon disulfide		0.250	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.250	0.500	1.00	U
108-90-7	Chlorobenzene		0.250	0.500	1.00	U
75-00-3	Chloroethane		0.500	1.00	2.00	U
67-66-3	Chloroform		0.250	0.500	1.00	U
74-87-3	Chloromethane		0.250	0.500	1.00	U
95-49-8	2-Chlorotoluene		0.250	0.500	1.00	U
106-43-4	4-Chlorotoluene		0.250	0.500	1.00	U
124-48-1	Dibromochloromethane		0.250	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.500	1.00	2.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.250	0.500	1.00	U
74-95-3	Dibromomethane		0.250	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene		0.250	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	0.500	1.00	U
75-71-8	Dichlorodifluoromethane		0.500	1.00	2.00	U
75-34-3	1,1-Dichloroethane		0.250	0.500	1.00	U
107-06-2	1,2-Dichloroethane		0.250	0.500	1.00	U
75-35-4	1,1-Dichloroethene		0.250	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.250	0.500	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.250	0.500	1.00	U
78-87-5	1,2-Dichloropropane		0.250	0.500	1.00	U
142-28-9	1,3-Dichloropropane		0.250	0.500	1.00	U
594-20-7	2,2-Dichloropropane		0.250	0.500	1.00	U
563-58-6	1,1-Dichloropropene		0.250	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.250	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.250	0.500	1.00	U
100-41-4	Ethylbenzene		0.250	0.500	1.00	U
87-68-3	Hexachlorobutadiene		0.250	0.500	2.00	U

ANALYSIS DATA SHEET

GW8224-TB

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-03	File ID:	0809103.D
Sampled:	08/13/12 08:00	Prepared:	08/17/12 14:18	Analyzed:	08/17/12 14:18
Solids:		Preparation:	5030B	Dilution:	1

Batch: 2H17007 Sequence: 2H23310 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		1.25	2.50	5.00	U
98-82-8	Isopropylbenzene		0.250	0.500	1.00	U
99-87-6	p-Isopropyltoluene		0.250	0.500	1.00	U
75-09-2	Methylene chloride	1.75	0.500	1.00	2.00	J
91-20-3	Naphthalene		0.250	0.500	2.00	U
108-10-1	4-Methyl-2-pentanone		1.25	2.50	5.00	X, U
1634-04-4	Methyl t-Butyl Ether		0.250	0.500	1.00	U
103-65-1	n-Propylbenzene		0.250	0.500	1.00	U
100-42-5	Styrene		0.250	0.500	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.250	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.250	0.500	1.00	U
127-18-4	Tetrachloroethene	0.310	0.250	0.500	1.00	J
108-88-3	Toluene		0.250	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.250	0.500	2.00	U
120-82-1	1,2,4-Trichlorobenzene		0.250	0.500	2.00	U
79-00-5	1,1,2-Trichloroethane		0.250	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane		0.250	0.500	1.00	U
79-01-6	Trichloroethene		0.250	0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.500	1.00	2.00	U
96-18-4	1,2,3-Trichloropropane		0.500	1.00	2.00	U
108-67-8	1,3,5-Trimethylbenzene		0.250	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene		0.250	0.500	1.00	U
75-01-4	Vinyl chloride		0.250	0.500	1.00	U
1330-20-7	Xylenes (total)		0.750	1.50	3.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.63	95.4	75 - 120	
Dibromofluoromethane	30.00	30.80	103	85 - 115	
1,2-Dichloroethane-d4	30.00	28.53	95.1	70 - 120	
Toluene-d8	30.00	27.35	91.2	85 - 120	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23310	Instrument:	MS-VOA3
		Calibration:	2213002

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (2H23310-CCV1) ug/L				Lab File ID: SEQCCV1.D		Analyzed: 08/17/12 11:07		
Bromofluorobenzene	30.00	104	80 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	93.9	80 - 120	6.727	6.727	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	91.2	80 - 120	7.232	7.232	0.0000	+/-1.000	
Toluene-d8	30.00	92.6	80 - 120	9.477	9.477	0.0000	+/-1.000	
LCS (2H17007-BS1) ug/L				Lab File ID: 0817LCS1.D		Analyzed: 08/17/12 11:35		
Bromofluorobenzene	30.00	100	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	96.5	85 - 115	6.733	6.727	0.0060	+/-1.000	
1,2-Dichloroethane-d4	30.00	89.5	70 - 120	7.232	7.232	0.0000	+/-1.000	
Toluene-d8	30.00	94.4	85 - 120	9.477	9.477	0.0000	+/-1.000	
Blank (2H17007-BLK1) ug/L				Lab File ID: 0817BLK1.D		Analyzed: 08/17/12 12:56		
Bromofluorobenzene	30.00	95.8	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	98.5	85 - 115	6.727	6.727	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	94.0	70 - 120	7.232	7.232	0.0000	+/-1.000	
Toluene-d8	30.00	95.7	85 - 120	9.477	9.477	0.0000	+/-1.000	
GW8224-TB (1208091-03) ug/L				Lab File ID: 0809103.D		Analyzed: 08/17/12 14:18		
Bromofluorobenzene	30.00	95.4	75 - 120	12.111	12.117	-0.0060	+/-1.000	
Dibromofluoromethane	30.00	103	85 - 115	6.727	6.727	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	95.1	70 - 120	7.238	7.232	0.0060	+/-1.000	
Toluene-d8	30.00	91.2	85 - 120	9.477	9.477	0.0000	+/-1.000	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23505	Instrument:	MS-VOA3
		Calibration:	2213002

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (2H23505-CCV1) ug/L				Lab File ID: SEQCCV1.D		Analyzed: 08/21/12 07:20		
Bromofluorobenzene	30.00	102	80 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	97.2	80 - 120	6.733	6.733	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	95.7	80 - 120	7.232	7.232	0.0000	+/-1.000	
Toluene-d8	30.00	93.1	80 - 120	9.477	9.477	0.0000	+/-1.000	
LCS (2H21925-BS1) ug/L				Lab File ID: 0821LCS1.D		Analyzed: 08/21/12 07:47		
Bromofluorobenzene	30.00	101	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	95.6	85 - 115	6.733	6.733	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	92.5	70 - 120	7.238	7.232	0.0060	+/-1.000	
Toluene-d8	30.00	96.5	85 - 120	9.477	9.477	0.0000	+/-1.000	
Blank (2H21925-BLK1) ug/L				Lab File ID: 0821BLK1.D		Analyzed: 08/21/12 09:09		
Bromofluorobenzene	30.00	96.5	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	101	85 - 115	6.727	6.733	-0.0060	+/-1.000	
1,2-Dichloroethane-d4	30.00	90.7	70 - 120	7.238	7.232	0.0060	+/-1.000	
Toluene-d8	30.00	97.1	85 - 120	9.477	9.477	0.0000	+/-1.000	
GW0648 (1208091-01) ug/L				Lab File ID: 0809101.D		Analyzed: 08/21/12 11:28		
Bromofluorobenzene	30.00	97.8	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	99.8	85 - 115	6.733	6.733	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	96.5	70 - 120	7.238	7.232	0.0060	+/-1.000	
Toluene-d8	30.00	97.6	85 - 120	9.477	9.477	0.0000	+/-1.000	
Matrix Spike (2H21925-MS2) ug/L				Lab File ID: 0809101M.D		Analyzed: 08/21/12 16:54		
Bromofluorobenzene	30.00	101	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	96.0	85 - 115	6.733	6.733	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	92.9	70 - 120	7.238	7.232	0.0060	+/-1.000	
Toluene-d8	30.00	96.2	85 - 120	9.477	9.477	0.0000	+/-1.000	
Matrix Spike Dup (2H21925-MSD2) ug/L				Lab File ID: 0809101S.D		Analyzed: 08/21/12 17:21		
Bromofluorobenzene	30.00	101	75 - 120	12.117	12.117	0.0000	+/-1.000	
Dibromofluoromethane	30.00	95.3	85 - 115	6.733	6.733	0.0000	+/-1.000	
1,2-Dichloroethane-d4	30.00	95.3	70 - 120	7.232	7.232	0.0000	+/-1.000	
Toluene-d8	30.00	98.8	85 - 120	9.477	9.477	0.0000	+/-1.000	

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H17007	Laboratory ID:	2H17007-BS1
Preparation:	5030B	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Acetone	100.0	85.1	85.1	40 - 140
Benzene	50.00	50.5	101	80 - 120
Bromobenzene	50.00	46.7	93.5	75 - 125
Bromochloromethane	50.00	48.4	96.7	65 - 130
Bromodichloromethane	50.00	44.7	89.4	75 - 120
Bromoform	50.00	46.2	92.5	70 - 130
Bromomethane	50.00	67.1	134	30 - 145
n-Butylbenzene	50.00	48.7	97.4	70 - 135
2-Butanone	100.0	102	102	30 - 150
sec-Butylbenzene	50.00	48.4	96.8	70 - 125
tert-Butylbenzene	50.00	49.0	98.0	70 - 130
Carbon disulfide	50.00	45.9	91.9	35 - 160
Carbon tetrachloride	50.00	44.8	89.7	65 - 140
Chlorobenzene	50.00	46.2	92.5	80 - 120
Chloroethane	50.00	51.7	103	60 - 135
Chloroform	50.00	46.8	93.6	65 - 135
Chloromethane	50.00	44.7	89.5	40 - 125
2-Chlorotoluene	50.00	46.4	92.8	75 - 125
4-Chlorotoluene	50.00	46.0	92.0	75 - 130
Dibromochloromethane	50.00	44.2	88.5	60 - 135
1,2-Dibromo-3-chloropropane	50.00	44.0	87.9	50 - 130
1,2-Dibromoethane (EDB)	50.00	45.1	90.1	80 - 120
Dibromomethane	50.00	45.8	91.5	75 - 125
1,2-Dichlorobenzene	50.00	46.3	92.5	70 - 120
1,3-Dichlorobenzene	50.00	45.9	91.7	75 - 125
1,4-Dichlorobenzene	50.00	46.3	92.7	75 - 125
Dichlorodifluoromethane	50.00	51.0	102	30 - 155
1,1-Dichloroethane	50.00	46.8	93.7	70 - 135
1,2-Dichloroethane	50.00	47.6	95.2	70 - 130
1,1-Dichloroethene	50.00	44.1	88.2	70 - 130

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H17007	Laboratory ID:	2H17007-BS1
Preparation:	5030B	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
cis-1,2-Dichloroethene	50.00	48.2	96.4	70 - 125
trans-1,2-Dichloroethene	50.00	49.2	98.4	60 - 140
1,2-Dichloropropane	50.00	49.0	98.0	75 - 125
1,3-Dichloropropane	50.00	46.2	92.3	75 - 125
2,2-Dichloropropane	50.00	49.7	99.3	70 - 135
1,1-Dichloropropene	50.00	48.7	97.4	75 - 130
cis-1,3-Dichloropropene	50.00	52.1	104	70 - 130
trans-1,3-Dichloropropene	50.00	42.5	84.9	55 - 140
Ethylbenzene	50.00	49.1	98.3	75 - 125
Hexachlorobutadiene	50.00	47.6	95.2	50 - 140
2-Hexanone	100.0	107	107	55 - 130
Isopropylbenzene	50.00	46.5	93.1	75 - 125
p-Isopropyltoluene	50.00	44.9	89.8	75 - 130
Methylene chloride	50.00	44.6	89.2	55 - 140
Naphthalene	50.00	42.8	85.6	55 - 140
4-Methyl-2-pentanone	100.0	117	117	60 - 135
Methyl t-Butyl Ether	50.00	47.1	94.2	65 - 125
n-Propylbenzene	50.00	46.5	92.9	70 - 130
Styrene	50.00	50.3	101	65 - 135
1,1,2,2-Tetrachloroethane	50.00	42.8	85.5	65 - 130
1,1,1,2-Tetrachloroethane	50.00	46.0	91.9	80 - 130
Tetrachloroethene	50.00	47.7	95.4	45 - 150
Toluene	50.00	48.1	96.1	75 - 120
1,2,3-Trichlorobenzene	50.00	47.1	94.3	55 - 140
1,2,4-Trichlorobenzene	50.00	46.8	93.6	65 - 135
1,1,2-Trichloroethane	50.00	46.1	92.3	75 - 125
1,1,1-Trichloroethane	50.00	47.9	95.9	65 - 130
Trichloroethene	50.00	51.0	102	70 - 125
Trichlorofluoromethane	50.00	50.9	102	60 - 145
1,2,3-Trichloropropane	50.00	45.7	91.4	75 - 125

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H17007	Laboratory ID:	2H17007-BS1
Preparation:	5030B	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
1,3,5-Trimethylbenzene	50.00	48.3	96.5	75 - 130
1,2,4-Trimethylbenzene	50.00	47.6	95.2	75 - 130
Vinyl chloride	50.00	57.9	116	50 - 145
Xylenes (total)	150.0	146	97.2	75 - 130

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H21925	Laboratory ID:	2H21925-BS1
Preparation:	5030B	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Acetone	100.0	82.6	82.6	40 - 140
Benzene	50.00	49.0	97.9	80 - 120
Bromobenzene	50.00	46.7	93.5	75 - 125
Bromochloromethane	50.00	46.0	92.1	65 - 130
Bromodichloromethane	50.00	42.4	84.8	75 - 120
Bromoform	50.00	45.4	90.7	70 - 130
Bromomethane	50.00	36.5	73.0	30 - 145
n-Butylbenzene	50.00	48.9	97.9	70 - 135
2-Butanone	100.0	92.2	92.2	30 - 150
sec-Butylbenzene	50.00	48.8	97.6	70 - 125
tert-Butylbenzene	50.00	47.9	95.8	70 - 130
Carbon disulfide	50.00	44.2	88.4	35 - 160
Carbon tetrachloride	50.00	45.3	90.6	65 - 140
Chlorobenzene	50.00	46.3	92.6	80 - 120
Chloroethane	50.00	50.2	100	60 - 135
Chloroform	50.00	44.4	88.8	65 - 135
Chloromethane	50.00	39.2	78.5	40 - 125
2-Chlorotoluene	50.00	46.0	92.1	75 - 125
4-Chlorotoluene	50.00	45.5	91.0	75 - 130
Dibromochloromethane	50.00	43.2	86.3	60 - 135
1,2-Dibromo-3-chloropropane	50.00	40.6	81.1	50 - 130
1,2-Dibromoethane (EDB)	50.00	44.9	89.8	80 - 120
Dibromomethane	50.00	43.5	87.1	75 - 125
1,2-Dichlorobenzene	50.00	45.7	91.4	70 - 120
1,3-Dichlorobenzene	50.00	46.4	92.7	75 - 125
1,4-Dichlorobenzene	50.00	45.1	90.1	75 - 125
Dichlorodifluoromethane	50.00	46.0	92.0	30 - 155
1,1-Dichloroethane	50.00	45.9	91.7	70 - 135
1,2-Dichloroethane	50.00	45.0	89.9	70 - 130
1,1-Dichloroethene	50.00	42.6	85.3	70 - 130

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H21925	Laboratory ID:	2H21925-BS1
Preparation:	5030B	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
cis-1,2-Dichloroethene	50.00	46.8	93.6	70 - 125
trans-1,2-Dichloroethene	50.00	47.6	95.3	60 - 140
1,2-Dichloropropane	50.00	47.6	95.3	75 - 125
1,3-Dichloropropane	50.00	45.2	90.3	75 - 125
2,2-Dichloropropane	50.00	47.5	94.9	70 - 135
1,1-Dichloropropene	50.00	47.2	94.4	75 - 130
cis-1,3-Dichloropropene	50.00	50.3	101	70 - 130
trans-1,3-Dichloropropene	50.00	41.1	82.2	55 - 140
Ethylbenzene	50.00	49.3	98.6	75 - 125
Hexachlorobutadiene	50.00	44.7	89.4	50 - 140
2-Hexanone	100.0	99.6	99.6	55 - 130
Isopropylbenzene	50.00	46.1	92.2	75 - 125
p-Isopropyltoluene	50.00	44.5	89.0	75 - 130
Methylene chloride	50.00	41.1	82.1	55 - 140
Naphthalene	50.00	40.2	80.5	55 - 140
4-Methyl-2-pentanone	100.0	105	105	60 - 135
Methyl t-Butyl Ether	50.00	43.0	86.1	65 - 125
n-Propylbenzene	50.00	46.9	93.8	70 - 130
Styrene	50.00	49.5	99.0	65 - 135
1,1,2,2-Tetrachloroethane	50.00	42.8	85.6	65 - 130
1,1,1,2-Tetrachloroethane	50.00	45.6	91.1	80 - 130
Tetrachloroethene	50.00	47.1	94.2	45 - 150
Toluene	50.00	47.6	95.3	75 - 120
1,2,3-Trichlorobenzene	50.00	44.6	89.2	55 - 140
1,2,4-Trichlorobenzene	50.00	46.0	92.0	65 - 135
1,1,2-Trichloroethane	50.00	45.2	90.4	75 - 125
1,1,1-Trichloroethane	50.00	45.8	91.7	65 - 130
Trichloroethene	50.00	47.8	95.6	70 - 125
Trichlorofluoromethane	50.00	47.7	95.5	60 - 145
1,2,3-Trichloropropane	50.00	45.4	90.8	75 - 125

LCS / LCS DUPLICATE RECOVERY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H21925	Laboratory ID:	2H21925-BS1
Preparation:	5030B	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
1,3,5-Trimethylbenzene	50.00	48.5	97.0	75 - 130
1,2,4-Trimethylbenzene	50.00	46.2	92.5	75 - 130
Vinyl chloride	50.00	52.4	105	50 - 145
Xylenes (total)	150.0	144	95.9	75 - 130

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8260B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H21925

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Acetone	100.0	ND	101	101		40 - 140
Benzene	50.00	ND	54.3	109		80 - 120
Bromobenzene	50.00	ND	51.2	102		75 - 125
Bromochloromethane	50.00	ND	50.4	101		65 - 130
Bromodichloromethane	50.00	ND	47.3	94.6		75 - 120
Bromoform	50.00	ND	50.4	101		70 - 130
Bromomethane	50.00	ND	25.2	50.5		30 - 145
n-Butylbenzene	50.00	ND	50.4	101		70 - 135
2-Butanone	100.0	ND	112	112		30 - 150
sec-Butylbenzene	50.00	ND	52.5	105		70 - 125
tert-Butylbenzene	50.00	ND	52.8	106		70 - 130
Carbon disulfide	50.00	ND	48.8	97.5		35 - 160
Carbon tetrachloride	50.00	ND	49.2	98.5		65 - 140
Chlorobenzene	50.00	ND	49.8	99.6		80 - 120
Chloroethane	50.00	ND	53.8	108		60 - 135
Chloroform	50.00	ND	48.5	97.1		65 - 135
Chloromethane	50.00	ND	39.5	78.9		40 - 125
2-Chlorotoluene	50.00	ND	52.0	104		75 - 125
4-Chlorotoluene	50.00	ND	49.6	99.3		75 - 130
Dibromochloromethane	50.00	ND	47.7	95.5		60 - 135
1,2-Dibromo-3-chloropropane	50.00	ND	49.5	99.0		50 - 130
1,2-Dibromoethane (EDB)	50.00	ND	49.6	99.3		80 - 120
Dibromomethane	50.00	ND	48.2	96.5		75 - 125
1,2-Dichlorobenzene	50.00	ND	49.7	99.4		70 - 120
1,3-Dichlorobenzene	50.00	ND	50.3	101		75 - 125
1,4-Dichlorobenzene	50.00	ND	50.3	101		75 - 125
Dichlorodifluoromethane	50.00	ND	51.0	102		30 - 155
1,1-Dichloroethane	50.00	ND	50.2	100		70 - 135
1,2-Dichloroethane	50.00	ND	49.9	99.8		70 - 130
1,1-Dichloroethene	50.00	ND	47.5	95.1		70 - 130
cis-1,2-Dichloroethene	50.00	ND	52.7	105		70 - 125
trans-1,2-Dichloroethene	50.00	ND	51.5	103		60 - 140

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8260B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H21925

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
1,2-Dichloropropane	50.00	ND	52.7	105		75 - 125
1,3-Dichloropropane	50.00	ND	50.9	102		75 - 125
2,2-Dichloropropane	50.00	ND	46.0	92.0		70 - 135
1,1-Dichloropropene	50.00	ND	52.0	104		75 - 130
cis-1,3-Dichloropropene	50.00	ND	52.8	106		70 - 130
trans-1,3-Dichloropropene	50.00	ND	45.6	91.1		55 - 140
Ethylbenzene	50.00	ND	52.7	105		75 - 125
Hexachlorobutadiene	50.00	ND	44.3	88.6		50 - 140
2-Hexanone	100.0	ND	115	115		55 - 130
Isopropylbenzene	50.00	ND	51.0	102		75 - 125
p-Isopropyltoluene	50.00	ND	46.5	93.0		75 - 130
Methylene chloride	50.00	ND	46.6	93.2		55 - 140
Naphthalene	50.00	ND	40.5	81.0		55 - 140
4-Methyl-2-pentanone	100.0	ND	116	116		60 - 135
Methyl t-Butyl Ether	50.00	ND	48.1	96.3		65 - 125
n-Propylbenzene	50.00	ND	50.9	102		70 - 130
Styrene	50.00	ND	53.2	106		65 - 135
1,1,2,2-Tetrachloroethane	50.00	ND	50.0	100		65 - 130
1,1,1,2-Tetrachloroethane	50.00	ND	50.2	100		80 - 130
Tetrachloroethene	50.00	ND	50.9	102		45 - 150
Toluene	50.00	ND	52.6	105		75 - 120
1,2,3-Trichlorobenzene	50.00	ND	45.6	91.1		55 - 140
1,2,4-Trichlorobenzene	50.00	ND	46.6	93.3		65 - 135
1,1,2-Trichloroethane	50.00	ND	51.2	102		75 - 125
1,1,1-Trichloroethane	50.00	ND	50.3	101		65 - 130
Trichloroethene	50.00	ND	51.7	103		70 - 125
Trichlorofluoromethane	50.00	ND	51.9	104		60 - 145
1,2,3-Trichloropropane	50.00	ND	51.1	102		75 - 125
1,3,5-Trimethylbenzene	50.00	ND	51.9	104		75 - 130
1,2,4-Trimethylbenzene	50.00	ND	48.8	97.6		75 - 130
Vinyl chloride	50.00	ND	57.7	115		50 - 145
Xylenes (total)	150.0	ND	158	105		75 - 130

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8260B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H21925

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Acetone	100.0	85.2	85.2	16.6		30	40 - 140
Benzene	50.00	52.4	105	3.62		30	80 - 120
Bromobenzene	50.00	49.6	99.2	3.31		30	75 - 125
Bromochloromethane	50.00	48.8	97.6	3.21		30	65 - 130
Bromodichloromethane	50.00	46.0	91.9	2.85		30	75 - 120
Bromoform	50.00	47.1	94.1	6.85		30	70 - 130
Bromomethane	50.00	26.4	52.9	4.72		30	30 - 145
n-Butylbenzene	50.00	48.6	97.1	3.72		30	70 - 135
2-Butanone	100.0	100	100	11.6		30	30 - 150
sec-Butylbenzene	50.00	49.0	98.0	6.95		30	70 - 125
tert-Butylbenzene	50.00	49.8	99.5	5.87		30	70 - 130
Carbon disulfide	50.00	47.1	94.1	3.53		30	35 - 160
Carbon tetrachloride	50.00	46.9	93.8	4.83		30	65 - 140
Chlorobenzene	50.00	48.5	97.0	2.67		30	80 - 120
Chloroethane	50.00	53.8	108	0.0186		30	60 - 135
Chloroform	50.00	48.0	96.0	1.12		30	65 - 135
Chloromethane	50.00	37.3	74.6	5.71		30	40 - 125
2-Chlorotoluene	50.00	48.4	96.8	7.14		30	75 - 125
4-Chlorotoluene	50.00	46.9	93.8	5.68		30	75 - 130
Dibromochloromethane	50.00	46.5	93.0	2.67		30	60 - 135
1,2-Dibromo-3-chloropropane	50.00	44.2	88.4	11.4		30	50 - 130
1,2-Dibromoethane (EDB)	50.00	48.1	96.1	3.21		30	80 - 120
Dibromomethane	50.00	46.7	93.4	3.24		30	75 - 125
1,2-Dichlorobenzene	50.00	47.5	95.1	4.46		30	70 - 120
1,3-Dichlorobenzene	50.00	47.4	94.7	6.02		30	75 - 125
1,4-Dichlorobenzene	50.00	47.6	95.2	5.46		30	75 - 125
Dichlorodifluoromethane	50.00	47.4	94.8	7.38		30	30 - 155
1,1-Dichloroethane	50.00	49.3	98.6	1.81		30	70 - 135
1,2-Dichloroethane	50.00	48.0	96.0	3.84		30	70 - 130
1,1-Dichloroethene	50.00	44.9	89.9	5.65		30	70 - 130
cis-1,2-Dichloroethene	50.00	50.8	102	3.69		30	70 - 125
trans-1,2-Dichloroethene	50.00	50.6	101	1.82		30	60 - 140
1,2-Dichloropropane	50.00	51.6	103	2.19		30	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8260B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H21925

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
1,3-Dichloropropane	50.00	49.4	98.8	2.99		30	75 - 125
2,2-Dichloropropane	50.00	44.2	88.4	4.01		30	70 - 135
1,1-Dichloropropene	50.00	49.5	99.0	4.93		30	75 - 130
cis-1,3-Dichloropropene	50.00	52.6	105	0.361		30	70 - 130
trans-1,3-Dichloropropene	50.00	43.3	86.6	5.06		30	55 - 140
Ethylbenzene	50.00	51.4	103	2.48		30	75 - 125
Hexachlorobutadiene	50.00	41.2	82.4	7.25		30	50 - 140
2-Hexanone	100.0	98.9	98.9	14.9		30	55 - 130
Isopropylbenzene	50.00	48.3	96.6	5.52		30	75 - 125
p-Isopropyltoluene	50.00	44.4	88.9	4.53		30	75 - 130
Methylene chloride	50.00	46.1	92.3	1.06		30	55 - 140
Naphthalene	50.00	38.4	76.8	5.38		30	55 - 140
4-Methyl-2-pentanone	100.0	103	103	11.7		30	60 - 135
Methyl t-Butyl Ether	50.00	47.1	94.1	2.25		30	65 - 125
n-Propylbenzene	50.00	48.3	96.5	5.38		30	70 - 130
Styrene	50.00	51.1	102	3.99		30	65 - 135
1,1,2,2-Tetrachloroethane	50.00	46.1	92.3	8.09		30	65 - 130
1,1,1,2-Tetrachloroethane	50.00	47.4	94.9	5.73		30	80 - 130
Tetrachloroethene	50.00	48.7	97.4	4.32		30	45 - 150
Toluene	50.00	51.1	102	2.95		30	75 - 120
1,2,3-Trichlorobenzene	50.00	43.6	87.2	4.37		30	55 - 140
1,2,4-Trichlorobenzene	50.00	45.2	90.3	3.22		30	65 - 135
1,1,2-Trichloroethane	50.00	49.3	98.7	3.68		30	75 - 125
1,1,1-Trichloroethane	50.00	48.2	96.5	4.26		30	65 - 130
Trichloroethene	50.00	51.0	102	1.34		30	70 - 125
Trichlorofluoromethane	50.00	50.4	101	2.93		30	60 - 145
1,2,3-Trichloropropane	50.00	47.6	95.1	7.26		30	75 - 125
1,3,5-Trimethylbenzene	50.00	49.0	98.0	5.75		30	75 - 130
1,2,4-Trimethylbenzene	50.00	46.2	92.5	5.32		30	75 - 130
Vinyl chloride	50.00	54.6	109	5.54		30	50 - 145
Xylenes (total)	150.0	151	100	4.61		30	75 - 130

PREPARATION BATCH SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H17007 Batch Matrix: Water Preparation: 5030B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW8224-TB	1208091-03	08/17/12 14:18	5.00	5.00
Blank	2H17007-BLK1	08/17/12 12:56	5.00	5.00
LCS	2H17007-BS1	08/17/12 11:35	5.00	5.00

PREPARATION BATCH SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H21925 Batch Matrix: Water Preparation: 5030B

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/21/12 11:28	5.00	5.00
Blank	2H21925-BLK1	08/21/12 09:09	5.00	5.00
LCS	2H21925-BS1	08/21/12 07:47	5.00	5.00
GW0648	2H21925-MS2	08/21/12 16:54	5.00	5.00
GW0648	2H21925-MSD2	08/21/12 17:21	5.00	5.00

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQTUN1.D	Injection Date:	07/30/12
Instrument ID:	MS-VOA3	Injection Time:	08:21
Sequence:	2G21301	Lab Sample ID:	2G21301-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	15.1	PASS
75	30 - 60% of 95	44	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.12	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	107	PASS
175	5 - 9% of 174	7.07	PASS
176	95 - 101% of 174	97.6	PASS
177	5 - 9% of 176	6.17	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQTUN1.D	Injection Date:	08/17/12
Instrument ID:	MS-VOA3	Injection Time:	10:38
Sequence:	2H23310	Lab Sample ID:	2H23310-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	16.2	PASS
75	30 - 60% of 95	45.6	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.58	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	110	PASS
175	5 - 9% of 174	7.59	PASS
176	95 - 101% of 174	96	PASS
177	5 - 9% of 176	6.87	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQTUN1.D	Injection Date:	08/21/12
Instrument ID:	MS-VOA3	Injection Time:	06:50
Sequence:	2H23505	Lab Sample ID:	2H23505-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15 - 40% of 95	16.6	PASS
75	30 - 60% of 95	46	PASS
95	Base peak, 100% relative abundance	100	PASS
96	5 - 9% of 95	6.58	PASS
173	Less than 2% of 174	0	PASS
174	50 - 200% of 95	109	PASS
175	5 - 9% of 174	6.75	PASS
176	95 - 101% of 174	97	PASS
177	5 - 9% of 176	5.97	PASS

ANALYSIS SEQUENCE SUMMARY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2G21301	Instrument:	MS-VOA3
Calibration:	2213002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	2G21301-TUN1	SEQTUN1.D	07/30/12 08:21
Cal Standard	2G21301-CAL1	SEQCAL1.D	07/30/12 09:48
Cal Standard	2G21301-CAL2	SEQCAL2.D	07/30/12 10:17
Cal Standard	2G21301-CAL3	SEQCAL3.D	07/30/12 10:45
Cal Standard	2G21301-CAL4	SEQCAL4.D	07/30/12 11:14
Cal Standard	2G21301-CAL5	SEQCAL5.D	07/30/12 11:42
Cal Standard	2G21301-CAL6	SEQCAL6.D	07/30/12 12:11
Cal Standard	2G21301-CAL7	SEQCAL7.D	07/30/12 12:40
Cal Standard	2G21301-CAL8	SEQCAL8.D	07/30/12 13:08
Cal Standard	2G21301-CAL9	SEQCAL9.D	07/30/12 13:37
Initial Cal Check	2G21301-ICV2	SEQICV2.D	07/30/12 15:03

ANALYSIS SEQUENCE SUMMARY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23310	Instrument:	MS-VOA3
Calibration:	2213002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	2H23310-TUN1	SEQTUN1.D	08/17/12 10:38
Calibration Check	2H23310-CCV1	SEQCCV1.D	08/17/12 11:07
LCS	2H17007-BS1	0817LCS1.D	08/17/12 11:35
Blank	2H17007-BLK1	0817BLK1.D	08/17/12 12:56
GW8224-TB	1208091-03	0809103.D	08/17/12 14:18

ANALYSIS SEQUENCE SUMMARY

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23505	Instrument:	MS-VOA3
Calibration:	2213002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	2H23505-TUN1	SEQTUN1.D	08/21/12 06:50
Calibration Check	2H23505-CCV1	SEQCCV1.D	08/21/12 07:20
LCS	2H21925-BS1	0821LCS1.D	08/21/12 07:47
Blank	2H21925-BLK1	0821BLK1.D	08/21/12 09:09
GW0648	1208091-01	0809101.D	08/21/12 11:28
GW0648	2H21925-MS2	0809101M.D	08/21/12 16:54
GW0648	2H21925-MSD2	0809101S.D	08/21/12 17:21

INTERNAL STANDARD AREA AND RT SUMMARY
SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23310	Instrument:	MS-VOA3
		Calibration:	2213002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (2H23310-CCV1)			Lab File ID: SEQCCV1.D			Analyzed: 08/17/12 11:07			
Fluorobenzene	457804	7.767	424767	7.767	108	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	214769	10.918	180527	10.912	119	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	316520	13.321	265672	13.321	119	50 - 200	0.0000	+/-0.50	
LCS (2H17007-BS1)			Lab File ID: 0817LCS1.D			Analyzed: 08/17/12 11:35			
Fluorobenzene	461143	7.773	457804	7.767	101	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	215840	10.912	214769	10.918	100	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	325794	13.321	316520	13.321	103	50 - 200	0.0000	+/-0.50	
Blank (2H17007-BLK1)			Lab File ID: 0817BLK1.D			Analyzed: 08/17/12 12:56			
Fluorobenzene	413105	7.773	457804	7.767	90	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	193717	10.912	214769	10.918	90	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	274713	13.322	316520	13.321	87	50 - 200	0.0010	+/-0.50	
GW8224-TB (1208091-03)			Lab File ID: 0809103.D			Analyzed: 08/17/12 14:18			
Fluorobenzene	397707	7.773	457804	7.767	87	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	190790	10.912	214769	10.918	89	50 - 200	-0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	267138	13.322	316520	13.321	84	50 - 200	0.0010	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23505	Instrument:	MS-VOA3
		Calibration:	2213002

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (2H23505-CCV1)			Lab File ID: SEQCCV1.D			Analyzed: 08/21/12 07:20			
Fluorobenzene	463315	7.773	424767	7.767	109	50 - 200	0.0060	+/-0.50	
Chlorobenzene-d5	213963	10.912	180527	10.912	119	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	314799	13.322	265672	13.321	118	50 - 200	0.0010	+/-0.50	
LCS (2H21925-BS1)			Lab File ID: 0821LCS1.D			Analyzed: 08/21/12 07:47			
Fluorobenzene	476288	7.773	463315	7.773	103	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	212643	10.918	213963	10.912	99	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	317376	13.321	314799	13.322	101	50 - 200	-0.0010	+/-0.50	
Blank (2H21925-BLK1)			Lab File ID: 0821BLK1.D			Analyzed: 08/21/12 09:09			
Fluorobenzene	427367	7.773	463315	7.773	92	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	198473	10.912	213963	10.912	93	50 - 200	0.0000	+/-0.50	
1,4-Dichlorobenzene-d4	273658	13.321	314799	13.322	87	50 - 200	-0.0010	+/-0.50	
GW0648 (1208091-01)			Lab File ID: 0809101.D			Analyzed: 08/21/12 11:28			
Fluorobenzene	419431	7.773	463315	7.773	91	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	182842	10.918	213963	10.912	85	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	257917	13.321	314799	13.322	82	50 - 200	-0.0010	+/-0.50	
Matrix Spike (2H21925-MS2)			Lab File ID: 0809101M.D			Analyzed: 08/21/12 16:54			
Fluorobenzene	471960	7.773	463315	7.773	102	50 - 200	0.0000	+/-0.50	
Chlorobenzene-d5	209364	10.918	213963	10.912	98	50 - 200	0.0060	+/-0.50	
1,4-Dichlorobenzene-d4	307761	13.321	314799	13.322	98	50 - 200	-0.0010	+/-0.50	
Matrix Spike Dup (2H21925-MSD2)			Lab File ID: 0809101S.D			Analyzed: 08/21/12 17:21			
Fluorobenzene	465895	7.767	463315	7.773	101	50 - 200	-0.0060	+/-0.50	
Chlorobenzene-d5	207382	10.919	213963	10.912	97	50 - 200	0.0070	+/-0.50	
1,4-Dichlorobenzene-d4	310037	13.322	314799	13.322	98	50 - 200	0.0000	+/-0.50	

INITIAL CALIBRATION DATA

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2213002	Instrument:	MS-VOA3
Matrix:	Water	Calibration Dates:	7/30/12 9:48 7/30/12 13:37

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	1	6.737113E-02	2	7.904187E-02	4	7.632403E-02	10	5.797594E-02	20	5.638314E-02	100	5.418886E-02
Acrolein	2.508	3.096123E-02	5.015	3.565937E-02	10.03	3.304684E-02	25.08	0.0328328	50.15	2.978939E-02	250.8	0.0285724
Acrylonitrile	2.498	5.935305E-02	4.997	5.881595E-02	9.994	0.0641555	24.98	6.305579E-02	49.97	6.636471E-02	249.8	6.935443E-02
Benzene	0.5	0.7988065	1	0.9747566	2	0.9465063	5	0.9135744	10	0.9653311	50	0.963034
Bromobenzene	0.5	0.6833619	1	0.6603124	2	0.726477	5	0.7338881	10	0.741921	50	0.748983
Bromochloromethane	0.5	0.1478686	1	0.1873703	2	0.187961	5	0.1819833	10	0.1842307	50	0.1948868
Tert-Amyl Methyl Ether	0.5	0.4806123	1	0.5613928	2	0.557663	5	0.5773934	10	0.6066294	50	0.6630443
Bromodichloromethane	0.5	0.3961612	1	0.4479172	2	0.4552556	5	0.4217324	10	0.432042	50	0.431309
Bromoform	0.5	0.5781258	1	0.6451791	2	0.6886235	5	0.6761026	10	0.6912341	50	0.7403898
Bromomethane	0.5	~~0.2829271~~	1	0.2151407	2	0.1921744	5	0.1537931	10	0.1607115	50	0.1659659
Bromofluorobenzene	30	0.9731723	35	0.994452	40	1.014915	50	1.025684	60	0.9860768	70	1.024169
n-Butylbenzene	0.5	1.053117	1	1.182495	2	1.289355	5	1.274521	10	1.38214	50	1.444652
2-Butanone	1	7.962761E-02	2	6.587487E-02	4	7.943398E-02	10	6.614814E-02	20	7.930151E-02	100	0.0817398
sec-Butylbenzene	0.5	1.401396	1	1.758768	2	1.878556	5	1.802391	10	2.03	50	2.094536
tert-Butylbenzene	0.5	1.261671	1	1.619347	2	1.584052	5	1.623092	10	1.756871	50	1.836203
Carbon disulfide	0.5	0.5870461	1	0.6370431	2	0.5988347	5	0.5691278	10	0.6272106	50	0.6190256
Carbon tetrachloride	0.5	0.440759	1	0.5059318	2	0.5006407	5	0.4730071	10	0.4941267	50	0.5018551
Chlorobenzene	0.5	1.798735	1	2.101293	2	2.064482	5	2.103525	10	2.085467	50	2.185676
Chloroethane	0.5	0.1339515	1	0.1349417	2	0.1339081	5	0.1304751	10	0.1462853	50	0.1414813
Chloroform	0.5	0.5342246	1	0.573682	2	0.5287707	5	0.5028317	10	0.5114676	50	0.5101984
2-Chloroethyl vinyl ether	0.9975	0.1045601	1.995	0.12276	3.99	0.1196004	9.975	0.1294288	19.95	0.140159	99.75	0.1530392
Chloromethane	0.5	0.2285241	1	0.2292653	2	0.2387233	5	0.1941871	10	0.2268271	50	0.2244223
1-Chlorohexane	0.5	0.9362728	1	0.8696212	2	0.8122463	5	0.7623178	10	0.7663316	50	0.8441239
2-Chlorotoluene	0.5	1.266846	1	1.376135	2	1.460227	5	1.430061	10	1.475243	50	1.564272
4-Chlorotoluene	0.5	1.476434	1	1.632256	2	1.613592	5	1.684243	10	1.778305	50	1.829767
Cyclohexane	0.5	0.2611027	1	0.2884769	2	0.2777681	5	0.2685931	10	0.286718	50	0.3118672
Dibromochloromethane	0.5	0.8344645	1	0.9018158	2	0.9626109	5	0.9643477	10	0.9454267	50	1.016624
1,2-Dibromo-3-chloropropane	0.5	~~0.117473~~	1	0.1497483	2	0.1392715	5	0.1554403	10	0.1474965	50	0.1767709
1,2-Dibromoethane (EDB)	0.5	0.7064769	1	0.7060728	2	0.6646577	5	0.707769	10	0.7199009	50	0.7378145
Dibromomethane	0.5	0.1628926	1	0.2008565	2	0.2061391	5	0.1757724	10	0.1914941	50	0.1868574
1,2-Dichlorobenzene	0.5	1.148338	1	1.259951	2	1.249517	5	1.208245	10	1.313284	50	1.334291

INITIAL CALIBRATION DATA

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2213002	Instrument:	MS-VOA3
Matrix:	Water	Calibration Dates:	7/30/12 9:48 7/30/12 13:37

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,3-Dichlorobenzene	0.5	1.138764	1	1.328758	2	1.345283	5	1.298727	10	1.356645	50	1.387766
1,4-Dichlorobenzene	0.5	1.249768	1	1.425707	2	1.399408	5	1.360202	10	1.424354	50	1.437403
Dichlorodifluoromethane	0.5	0.2318452	1	0.2424323	2	0.2427762	5	0.2351415	10	0.3046248	50	0.3009447
1,1-Dichloroethane	0.5	0.3673782	1	0.452386	2	0.4329041	5	0.4187748	10	0.4301661	50	0.4257497
1,2-Dichloroethane	0.5	0.3379627	1	0.392536	2	0.3964275	5	0.3948808	10	0.398492	50	0.3992076
1,1-Dichloroethene	0.5	0.2176119	1	0.2535245	2	0.2174151	5	0.2172405	10	0.2328348	50	0.233644
cis-1,2-Dichloroethene	0.5	0.2541441	1	0.2860829	2	0.3078643	5	0.2899342	10	0.2998496	50	0.2980089
trans-1,2-Dichloroethene	0.5	0.258256	1	0.2603873	2	0.2840683	5	0.2690133	10	0.2705786	50	0.2730673
1,2-Dichloroethene (total)	1	0.2562001	2	0.2732351	4	0.2959663	10	0.2794738	20	0.2852141	100	0.2855381
1,2-Dichloropropane	0.5	0.1821867	1	0.2252753	2	0.2229529	5	0.209364	10	0.2164861	50	0.2334376
1,3-Dichloropropane	0.5	0.8319193	1	0.9222363	2	0.9466028	5	0.941539	10	0.9698545	50	0.9943379
2,2-Dichloropropane	0.5	0.3488749	1	0.3931744	2	0.4049748	5	0.3632194	10	0.3789496	50	0.3884398
1,1-Dichloropropene	0.5	0.2944719	1	0.3294143	2	0.3800552	5	0.3205683	10	0.351477	50	0.3603546
cis-1,3-Dichloropropene	0.5	0.3112356	1	0.3784114	2	0.4030487	5	0.3907714	10	0.3999726	50	0.4279354
trans-1,3-Dichloropropene	0.5	0.8493722	1	0.8486487	2	0.9331857	5	0.9692194	10	1.00488	50	1.076993
Diisopropyl Ether	0.5	0.5388109	1	0.6036868	2	0.6416516	5	0.6374474	10	0.6694815	50	0.6957352
Ethylbenzene	0.5	2.488122	1	2.813989	2	2.813529	5	2.830781	10	3.000395	50	3.202767
Ethyl tert-Butyl Ether	0.5	0.5358061	1	0.6282651	2	0.6451427	5	0.601692	10	0.6697528	50	0.7034257
Ethyl Methacrylate	0.5	0.5199496	1	0.5456519	2	0.5788805	5	0.5936151	10	0.6130114	50	0.7217783
Hexachlorobutadiene	0.5	0.282815	1	0.2744524	2	0.2818252	5	0.2456991	10	0.2753235	50	0.2670567
2-Hexanone	1	0.2125248	2	0.2695145	4	0.244007	10	0.2711755	20	0.2674392	100	0.3079642
Iodomethane	0.5		1	0.1782731	2	0.2205452	5	0.2852799	10	0.3403608	50	0.4275286
Isopropylbenzene	0.5	2.285597	1	2.567103	2	2.600706	5	2.741539	10	2.824425	50	3.135925
p-Isopropyltoluene	0.5	1.57062	1	1.802788	2	1.841357	5	1.861054	10	1.967058	50	2.088742
Methylene chloride	0.5	~~0.403436~~	1	0.3491249	2	0.3074229	5	0.261277	10	0.2616872	50	0.2567152
Methyl Acetate	0.5	8.128817E-02	1	0.1090866	2	0.1105535	5	0.1264901	10	0.1246344	50	0.1267548
Methylcyclohexane	0.5	0.2149234	1	0.3142523	2	0.2792127	5	0.2839724	10	0.2800049	50	0.3134089
Naphthalene	0.5	1.44409	1	1.517363	2	1.713348	5	1.804928	10	1.991279	50	2.205326
Methyl Methacrylate	0.5	0.1478686	1	0.1754003	2	0.1541729	5	0.1607667	10	0.1747114	50	0.1921293
4-Methyl-2-pentanone	1	0.1373517	2	0.1487072	4	0.1491569	10	0.167896	20	0.1669866	100	0.1892885
Methyl t-Butyl Ether	0.5	0.5489324	1	0.5471086	2	0.6012424	5	0.5775179	10	0.585149	50	0.6267588

INITIAL CALIBRATION DATA

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2213002	Instrument:	MS-VOA3
Matrix:	Water	Calibration Dates:	7/30/12 9:48 7/30/12 13:37

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
n-Propylbenzene	0.5	1.879051	1	1.99191	2	2.180847	5	2.115287	10	2.311565	50	2.37068
Styrene	0.5	1.612207	1	1.868205	2	2.059948	5	2.147887	10	2.142549	50	2.43802
1,1,2,2-Tetrachloroethane	0.5	0.4031343	1	0.477129	2	0.4975544	5	0.5032902	10	0.5033644	50	0.4987123
1,1,1,2-Tetrachloroethane	0.5	0.7690163	1	0.9108303	2	0.8212219	5	0.9093929	10	0.9200469	50	0.9402923
tert-Butyl alcohol	2.5		5		10	1.104331E-02	25	0.0112792	50	1.227274E-02	250	1.320429E-02
Tetrachloroethene	0.5	0.8406458	1	0.9318027	2	0.8408387	5	0.8427754	10	0.8749993	50	0.9184061
Toluene	0.5	1.387865	1	1.508545	2	1.552225	5	1.583872	10	1.582992	50	1.648495
1,2,3-Trichlorobenzene	0.5	0.6057365	1	0.6430139	2	0.6495688	5	0.6687813	10	0.7044227	50	0.7614153
1,2,4-Trichlorobenzene	0.5	0.593834	1	0.6978786	2	0.657871	5	0.7440385	10	0.8046492	50	0.8308033
1,1,2-Trichloroethane	0.5	0.4265041	1	0.4069393	2	0.4560905	5	0.4464292	10	0.4369698	50	0.4728798
1,1,1-Trichloroethane	0.5	0.4436057	1	0.4864606	2	0.4953438	5	0.4801675	10	0.4907081	50	0.4994792
Tetrahydrofuran	0.5		1		2	1.308183E-02	5	1.959772E-02	10	1.883701E-02	50	2.367847E-02
Trichloroethene	0.5	0.2413341	1	0.2862425	2	0.2904085	5	0.2889846	10	0.2924621	50	0.2964053
Trichlorofluoromethane	0.5	0.4198834	1	0.4820716	2	0.4655284	5	0.4221682	10	0.4652433	50	0.4649976
1,2,3-Trichloropropane	0.5	0.1897998	1	0.3114594	2	0.3018395	5	0.30179	10	0.2971028	50	0.3206891
1,3,5-Trimethylbenzene	0.5	1.393634	1	1.585653	2	1.66804	5	1.732408	10	1.858598	50	1.87124
1,2,4-Trimethylbenzene	0.5	1.64514	1	1.629803	2	1.755567	5	1.867448	10	1.964536	50	2.008825
1,1,2-Trichloro-1,2,2-trifluoroethan	0.5	0.1957875	1	0.2524073	2	0.2619174	5	0.2312344	10	0.2521292	50	0.2525723
Vinyl chloride	0.5	0.1690604	1	0.2285471	2	0.2195018	5	0.2063909	10	0.2260364	50	0.2270634
m,p-Xylene	1	1.814188	2	2.224644	4	2.331299	10	2.320225	20	2.409944	100	2.579805
o-Xylene	0.5	2.11834	1	2.2045	2	2.336157	5	2.52065	10	2.488508	50	2.708102
Vinyl acetate	0.996	~~0.2947018~~	1.992	0.3172369	3.984	0.3509816	9.96	0.3665926	19.92	0.399567	99.62	0.4436572
Xylenes (total)	1.5	1.915572	3	2.21793	6	2.332918	15	2.387033	30	2.436132	150	2.622571
Dibromofluoromethane	30	0.3035892	35	0.3088054	40	0.3100112	50	0.3109655	60	0.3060666	70	0.2975452
1,2-Dichloroethane-d4	30	6.849135E-02	35	7.104933E-02	40	7.451023E-02	50	7.333501E-02	60	7.339071E-02	70	7.495031E-02
Toluene-d8	30	2.336022	35	2.38849	40	2.398713	50	2.510098	60	2.401292	70	2.389547
tert-Amyl alcohol	2.5		5		10	6.532888E-03	25	7.96673E-03	50	7.779765E-03	250	8.939632E-03
tert-Amyl ethyl ether	0.5	0.4171949	1	0.4590094	2	0.4661304	5	0.4668896	10	0.4960181	50	0.5325136

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2213002	Instrument:	MS-VOA3
Matrix:	Water	Calibration Dates:	7/30/12 9:48 7/30/12 13:37

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Acetone	200	5.253551E-02	300	5.600353E-02	400	5.168798E-02						
Acrolein	501.5	2.756648E-02	752.2	2.922781E-02	1003	2.765782E-02						
Acrylonitrile	499.7	6.901541E-02	749.6	7.205678E-02	999.4	6.910276E-02						
Benzene	100	0.9488527	150	1.007826	200	0.976496						
Bromobenzene	100	0.7523149	150	0.7755237	200	0.7917892						
Bromochloromethane	100	0.1871551	150	0.1910638	200	0.183167						
Tert-Amyl Methyl Ether	100	0.6748695	150	0.7235524	200	0.7013315						
Bromodichloromethane	100	0.4219007	150	0.4429173	200	0.4211149						
Bromoform	100	0.7266243	150	0.7513732	200	0.7546702						
Bromomethane	100	0.1684305	150	0.1826879	200	0.1752945						
Bromofluorobenzene	30	1.035817	30	1.031528	30	1.036249						
n-Butylbenzene	100	1.430885	150	1.482847	200	1.529719						
2-Butanone	200	8.330626E-02	300	8.912438E-02	400	8.631599E-02						
sec-Butylbenzene	100	2.075772	150	2.163535	200	2.239904						
tert-Butylbenzene	100	1.845276	150	1.920163	200	1.999558						
Carbon disulfide	100	0.5838526	150	0.6391866	200	0.6224065						
Carbon tetrachloride	100	0.4718163	150	0.4932535	200	0.4759959						
Chlorobenzene	100	2.119603	150	2.24928	200	2.243936						
Chloroethane	100	0.133497	150	0.1445518	200	0.1360128						
Chloroform	100	0.493063	150	0.5169543	200	0.4936804						
2-Chloroethyl vinyl ether	199.5	0.1485952	299.2	0.1587938	399	0.1565833						
Chloromethane	100	0.2159257	150	0.2300218	200	0.2214303						
1-Chlorohexane	100	0.8008536	150	0.8697595	200	0.8653864						
2-Chlorotoluene	100	1.534676	150	1.60552	200	1.593547						
4-Chlorotoluene	100	1.786224	150	1.868208	200	1.885106						
Cyclohexane	100	0.2883458	150	0.3139392	200	0.3094954						
Dibromochloromethane	100	0.9752896	150	1.020333	200	1.033218						
1,2-Dibromo-3-chloropropane	100	0.1755112	150	0.1872966	200	0.1902087						
1,2-Dibromoethane (EDB)	100	0.738232	150	0.775889	200	0.7784123						
Dibromomethane	100	0.184253	150	0.1936452	200	0.1824758						
1,2-Dichlorobenzene	100	1.39339	150	1.431263	200	1.415746						

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Calibration: 2213002
Instrument: MS-VOA3
Matrix: Water
Calibration Dates: 7/30/12 9:48 7/30/12 13:37

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,3-Dichlorobenzene	100	1.378674	150	1.45289	200	1.451359						
1,4-Dichlorobenzene	100	1.438226	150	1.490508	200	1.500651						
Dichlorodifluoromethane	100	0.267347	150	0.2855424	200	0.2710256						
1,1-Dichloroethane	100	0.4152921	150	0.4353035	200	0.4198495						
1,2-Dichloroethane	100	0.3881679	150	0.4060048	200	0.3796557						
1,1-Dichloroethene	100	0.219962	150	0.2407254	200	0.2361765						
cis-1,2-Dichloroethene	100	0.2894483	150	0.3103318	200	0.2951832						
trans-1,2-Dichloroethene	100	0.2607922	150	0.2835303	200	0.2761394						
1,2-Dichloroethene (total)	200	0.2751202	300	0.296931	400	0.2856613						
1,2-Dichloropropane	100	0.2247321	150	0.2408271	200	0.2326889						
1,3-Dichloropropane	100	0.9695663	150	0.9895869	200	1.014137						
2,2-Dichloropropane	100	0.3762425	150	0.3973504	200	0.3747053						
1,1-Dichloropropene	100	0.3436136	150	0.376008	200	0.3596924						
cis-1,3-Dichloropropene	100	0.4259116	150	0.4495694	200	0.4258076						
trans-1,3-Dichloropropene	100	1.055191	150	1.100522	200	1.09804						
Diisopropyl Ether	100	0.6942905	150	0.7310683	200	0.6971019						
Ethylbenzene	100	3.141936	150	3.316202	200	3.333023						
Ethyl tert-Butyl Ether	100	0.6995925	150	0.7514486	200	0.7181847						
Ethyl Methacrylate	100	0.7173215	150	0.7480546	200	0.7680767						
Hexachlorobutadiene	100	0.2740789	150	0.2915865	200	0.2992581						
2-Hexanone	200	0.3036676	300	0.3194549	400	0.319048						
Iodomethane	100	0.4255338	150	0.4554914	200	0.4369761						
Isopropylbenzene	100	3.021723	150	3.200467	200	3.217561						
p-Isopropyltoluene	100	2.007828	150	2.153997	200	2.146165						
Methylene chloride	100	0.2471329	150	0.2550323	200	0.2474226						
Methyl Acetate	100	0.1277585	150	0.1305362	200	0.1287014						
Methylcyclohexane	100	0.2744556	150	0.3055083	200	0.3063192						
Naphthalene	100	2.255856	150	2.42955	200	2.461145						
Methyl Methacrylate	100	0.1909725	150	0.2049087	200	0.1923744						
4-Methyl-2-pentanone	200	0.1877939	300	0.1966805	400	0.1889982						
Methyl t-Butyl Ether	100	0.6141833	150	0.6673397	200	0.6373129						

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2213002	Instrument:	MS-VOA3
Matrix:	Water	Calibration Dates:	7/30/12 9:48 7/30/12 13:37

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
n-Propylbenzene	100	2.317239	150	2.504254	200	2.543627						
Styrene	100	2.381162	150	2.482839	200	2.522128						
1,1,2,2-Tetrachloroethane	100	0.5024429	150	0.5387855	200	0.5413205						
1,1,1,2-Tetrachloroethane	100	0.9094989	150	0.9582386	200	0.9513637						
tert-Butyl alcohol	500	1.366716E-02	750	1.446934E-02	1000	1.474229E-02						
Tetrachloroethene	100	0.8727797	150	0.931938	200	0.9387236						
Toluene	100	1.588956	150	1.67961	200	1.70926						
1,2,3-Trichlorobenzene	100	0.7932206	150	0.8385999	200	0.846346						
1,2,4-Trichlorobenzene	100	0.8533364	150	0.9092336	200	0.9142508						
1,1,2-Trichloroethane	100	0.4618129	150	0.4745051	200	0.4849631						
1,1,1-Trichloroethane	100	0.4638609	150	0.4973436	200	0.4703412						
Tetrahydrofuran	100	2.350183E-02	150	2.570679E-02	200	0.0256481						
Trichloroethene	100	0.2867405	150	0.3094295	200	0.296094						
Trichlorofluoromethane	100	0.4276914	150	0.4499825	200	0.4380518						
1,2,3-Trichloropropane	100	0.3040515	150	0.3164269	200	0.3087402						
1,3,5-Trimethylbenzene	100	1.88059	150	1.965238	200	2.031861						
1,2,4-Trimethylbenzene	100	1.97451	150	2.075283	200	2.120183						
1,1,2-Trichloro-1,2,2-trifluoroethan	100	0.2272888	150	0.2437857	200	0.2406732						
Vinyl chloride	100	0.2112459	150	0.224359	200	0.2107088						
m,p-Xylene	200	2.512507	300	2.611275	400	2.626766						
o-Xylene	100	2.581849	150	2.717943	200	2.713176						
Vinyl acetate	199.2	0.4377953	298.9	0.4639062	398.5	0.4400004						
Xylenes (total)	300	2.535621	450	2.646831	600	2.655569						
Dibromofluoromethane	30	0.2873976	30	0.297783	30	0.2870823						
1,2-Dichloroethane-d4	30	7.127202E-02	30	6.918436E-02	30	6.858859E-02						
Toluene-d8	30	2.362588	30	2.37198	30	2.453073						
tert-Amyl alcohol	500	9.196477E-03	750	1.079645E-02	1000	1.076468E-02						
tert-Amyl ethyl ether	100	0.5223287	150	0.5618969	200	0.5457975						

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2213002	Instrument:	MS-VOA3
Matrix:	Water	Calibration Dates:	7/30/12 9:48 7/30/12 13:37

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acetone	6.127911E-02	16.92363	3.489556	0.2769129		0.9983323	0.99	
Acrolein	3.059046E-02	9.042267	3.376333	7.786118E-02			15	
Acrylonitrile	6.569715E-02	7.095252	4.357333	0.1704013			15	
Benzene	0.9439093	6.370831	7.5	2.781251E-02			15	
Bromobenzene	0.7349524	5.636576	12.27633	1.968109E-02			15	
Bromochloromethane	0.1828541	7.498248	6.580333	5.424699E-02			15	
Tert-Amyl Methyl Ether	0.6162765	12.93296	7.694666	0.0240391			15	
Bromodichloromethane	0.4300389	4.102128	8.496333	2.508591E-02			15	
Bromoform	0.6947025	8.261521	11.67967	1.393066E-02			SPCC (0.1)	
Bromomethane	0.1767748	11.14876	2.549625	0.1425364			15	
Bromofluorobenzene	1.013563	2.299563	12.11633	2.469625E-02			15	
n-Butylbenzene	1.341081	11.53189	13.71633	1.319746E-02			15	
2-Butanone	7.898584E-02	10.20907	6.031	0.1725912			15	
sec-Butylbenzene	1.938318	13.35342	13.16967	1.150339E-02			15	
tert-Butylbenzene	1.716248	12.97525	12.938	2.081815E-02			15	
Carbon disulfide	0.6093037	4.150462	4.533667	7.199769E-02			15	
Carbon tetrachloride	0.484154	4.30031	7.468333	2.016041E-02			15	
Chlorobenzene	2.105777	6.341832	10.949	1.081874E-02			SPCC (0.3)	
Chloroethane	0.1372338	4.005678	2.682333	9.791205E-02			15	
Chloroform	0.5183192	4.836199	6.555	4.631319E-02			CCC (20)	
2-Chloroethyl vinyl ether	0.1370578	13.8323	8.861334	1.149182E-02			15	
Chloromethane	0.2232586	5.632496	1.957	1.354336E-02			SPCC (0.1)	
1-Chlorohexane	0.8363237	6.728935	10.91744	1.891962E-02			15	
2-Chlorotoluene	1.478503	7.480181	12.5	0			15	
4-Chlorotoluene	1.728237	7.872081	12.561	7.068191E-03			15	
Cyclohexane	0.2895896	6.561665	7.401333	2.945346E-02			15	
Dibromochloromethane	0.96157	6.556881	10.178	3.269395E-02			15	
1,2-Dibromo-3-chloropropane	0.165218	11.82885	14.32125	1.750125E-02			15	
1,2-Dibromoethane (EDB)	0.7261361	4.973904	10.395	1.877545E-02			15	
Dibromomethane	0.187154	6.960802	8.433333	0.0332705			15	
1,2-Dichlorobenzene	1.306003	7.460591	13.674	8.933889E-03			15	
1,3-Dichlorobenzene	1.348763	6.977902	13.26078	8.708723E-03			15	

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061		
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011		
Calibration:	2213002	Instrument:	MS-VOA3		
Matrix:	Water	Calibration Dates:	7/30/12 9:48	7/30/12 13:37	

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,4-Dichlorobenzene	1.414025	5.293393	13.352	7.502474E-03			15	
Dichlorodifluoromethane	0.2646311	10.62008	1.750222	2.540826E-02			15	
1,1-Dichloroethane	0.4219782	5.521849	5.567667	5.428684E-02			SPCC (0.1)	
1,2-Dichloroethane	0.3881483	5.21031	7.329	4.188113E-03			15	
1,1-Dichloroethene	0.2299039	5.551603	3.971667	9.159627E-02			CCC (20)	
cis-1,2-Dichloroethene	0.2923164	5.638785	6.294333	3.025872E-02			15	
trans-1,2-Dichloroethene	0.2706481	3.555312	5.181111	4.764946E-02			15	
1,2-Dichloroethene (total)	0.2814822	4.437246	6.294333	3.025872E-02			15	
1,2-Dichloropropane	0.2208834	7.812962	8.319667	3.633876E-02			CCC (20)	
1,3-Dichloropropane	0.9533089	5.639417	9.920222	2.212023E-02			15	
2,2-Dichloropropane	0.380659	4.60598	6.404111	2.180096E-02			15	
1,1-Dichloropropene	0.3461839	7.954365	7.347778	0.0317453			15	
cis-1,3-Dichloropropene	0.4014071	10.04126	9.075	5.230454E-03			15	
trans-1,3-Dichloropropene	0.9928947	10.02535	9.550556	2.770872E-02			15	
Diisopropyl Ether	0.656586	8.940648	5.949333	4.557293E-02			15	
Ethylbenzene	2.993416	9.387991	11.101	1.748548E-02			CCC (20)	
Ethyl tert-Butyl Ether	0.6614789	10.04625	6.425	6.832556E-02			15	
Ethyl Methacrylate	0.6451489	14.54432	9.743334	1.069978E-02			15	
Hexachlorobutadiene	0.2768995	5.50911	15.688	1.776325E-02			15	
2-Hexanone	0.2794217	13.03604	9.856	0.0333086			15	
Iodomethane	0.3462486	31.03425	4.1735	7.085955E-02	0.9990374		0.995	
Isopropylbenzene	2.843894	11.40757	12.001	0.0227546			15	
p-Isopropyltoluene	1.937734	9.773661	13.309	1.723665E-02			15	
Methylene chloride	0.2732269	13.23693	4.4805	6.443989E-02			15	
Methyl Acetate	0.1184226	13.48682	4.342667	0.1609046			15	
Methylcyclohexane	0.2857842	10.79483	8.649	0.0189802			15	
Naphthalene	1.980321	19.25825	15.56	1.343556E-02		0.9997546	0.99	
Methyl Methacrylate	0.1770339	11.08417	8.454	2.482942E-02			15	
4-Methyl-2-pentanone	0.1703177	12.6742	9.002667	0.0546286			15	
Methyl t-Butyl Ether	0.6006161	6.704845	5.172778	6.088712E-02			15	
n-Propylbenzene	2.246051	9.964759	12.415	0.022024			15	
Styrene	2.183883	14.04007	11.57456	2.092247E-02			15	

INITIAL CALIBRATION DATA (Continued)

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061		
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011		
Calibration:	2213002	Instrument:	MS-VOA3		
Matrix:	Water	Calibration Dates:	7/30/12 9:48	7/30/12 13:37	

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,1,2,2-Tetrachloroethane	0.4961926	8.131299	11.92733	3.235038E-04			SPCC (0.3)	
1,1,1,2-Tetrachloroethane	0.898878	7.003265	10.99178	2.130655E-02			15	
tert-Butyl alcohol	1.295405E-02	11.35649	4.120429	0.1656188			15	
Tetrachloroethene	0.888101	4.753778	10.29267	2.470326E-02			15	
Toluene	1.582424	6.084639	9.554555	3.006621E-02			CCC (20)	
1,2,3-Trichlorobenzene	0.7234561	12.34467	15.84733	8.158592E-03			15	
1,2,4-Trichlorobenzene	0.7784328	14.42566	15.40733	1.305204E-02			15	
1,1,2-Trichloroethane	0.4518993	5.575963	9.708	1.627961E-02			15	
1,1,1-Trichloroethane	0.4808123	3.852205	7.122667	3.367217E-02			15	
Tetrahydrofuran	2.143596E-02	21.31035	6.771714	0.1294004	0.9985781		0.995	
Trichloroethene	0.2875668	6.508933	8.270667	2.727798E-02			15	
Trichlorofluoromethane	0.448402	5.002987	3.184	0.1325704			15	
1,2,3-Trichloropropane	0.2946555	13.58789	12.05467	2.887739E-02			15	
1,3,5-Trimethylbenzene	1.776362	11.33083	12.59111	0.0191309			15	
1,2,4-Trimethylbenzene	1.893477	9.525768	12.96878	1.605514E-02			15	
1,1,2-Trichloro-1,2,2-trifluoroethane	0.2397551	8.27233	4.056	7.263164E-02			15	
Vinyl chloride	0.2136571	8.692742	2.111111	0.1383994			CCC (20)	
m,p-Xylene	2.381184	10.73742	11.21011	2.506495E-03			15	
o-Xylene	2.487692	9.010655	11.60533	1.667237E-02			15	
Vinyl acetate	0.4024672	13.05969	5.64475	3.612669E-02			15	
Xylenes (total)	2.416686	9.981037	11.60533	1.667237E-02			15	
Dibromofluoromethane	0.3010273	3.051016	6.729	4.596158E-02			15	
1,2-Dichloroethane-d4	7.164132E-02	3.519973	7.236667	3.348431E-02			15	
Toluene-d8	2.401311	2.156175	9.476778	1.932701E-02			15	
tert-Amyl alcohol	8.853803E-03	17.78507	6.931429	4.807711E-02	0.9950466		0.995	
tert-Amyl ethyl ether	0.4964199	9.599005	8.588889	2.096708E-02			15	

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQICV2.D	Calibration Date:	07/30/12 09:48
Sequence:	2G21301	Injection Date:	07/30/12
Lab Sample ID:	2G21301-ICV2	Injection Time:	15:03

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Acetone	Q	200.0	183.7	6.127911E-02	5.039898E-02		-8.2	20
Benzene	A	100.0	98.12	0.9439093	0.9261312		-1.9	20
Bromobenzene	A	100.0	99.75	0.7349524	0.7331288		-0.2	20
Bromochloromethane	A	100.0	95.84	0.1828541	0.1752508		-4.2	20
Bromodichloromethane	A	100.0	88.61	0.4300389	0.3810484		-11.4	20
Bromoform	A	100.0	100.1	0.6947025	0.6956394	0.1	0.1	20
Bromomethane	A	100.0	91.96	0.1767748	0.162559		-8.0	20
n-Butylbenzene	A	100.0	102.8	1.341081	1.378312		2.8	20
2-Butanone	A	200.0	207.8	7.898584E-02	8.208541E-02		3.9	20
sec-Butylbenzene	A	100.0	102.3	1.938318	1.983453		2.3	20
tert-Butylbenzene	A	100.0	102.2	1.716248	1.754041		2.2	20
Carbon disulfide	A	100.0	85.74	0.6093037	0.5224242		-14.3	20
Carbon tetrachloride	A	100.0	91.42	0.484154	0.4426293		-8.6	20
Chlorobenzene	A	100.0	96.64	2.105777	2.034926	0.3	-3.4	20
Chloroethane	A	100.0	98.85	0.1372338	0.135659		-1.1	20
Chloroform	A	100.0	88.60	0.5183192	0.4592401		-11.4	20
Chloromethane	A	100.0	84.03	0.2232586	0.1876022	0.1	-16.0	20
2-Chlorotoluene	A	100.0	98.52	1.478503	1.456692		-1.5	20
4-Chlorotoluene	A	100.0	96.97	1.728237	1.675835		-3.0	20
Dibromochloromethane	A	100.0	96.45	0.96157	0.9274602		-3.5	20
1,2-Dibromo-3-chloropropane	A	100.0	99.47	0.165218	0.1643396		-0.5	20
1,2-Dibromoethane (EDB)	A	100.0	98.03	0.7261361	0.7118423		-2.0	20
Dibromomethane	A	100.0	89.54	0.187154	0.1675726		-10.5	20
1,2-Dichlorobenzene	A	100.0	98.65	1.306003	1.288358		-1.4	20
1,3-Dichlorobenzene	A	100.0	96.97	1.348763	1.307847		-3.0	20
1,4-Dichlorobenzene	A	100.0	97.31	1.414025	1.376001		-2.7	20
Dichlorodifluoromethane	A	100.0	90.15	0.2646311	0.2385575		-9.9	20
1,1-Dichloroethane	A	100.0	91.90	0.4219782	0.3877804	0.1	-8.1	20
1,2-Dichloroethane	A	100.0	91.49	0.3881483	0.3551092		-8.5	20

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQICV2.D	Calibration Date:	07/30/12 09:48
Sequence:	2G21301	Injection Date:	07/30/12
Lab Sample ID:	2G21301-ICV2	Injection Time:	15:03

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
1,1-Dichloroethene	A	100.0	90.10	0.2299039	0.2071465		-9.9	20
cis-1,2-Dichloroethene	A	100.0	96.15	0.2923164	0.2810583		-3.9	20
trans-1,2-Dichloroethene	A	100.0	95.30	0.2706481	0.2579408		-4.7	20
1,2-Dichloropropane	A	100.0	100.7	0.2208834	0.2225275		0.7	20
1,3-Dichloropropane	A	100.0	101.6	0.9533089	0.9689208		1.6	20
2,2-Dichloropropane	A	100.0	87.96	0.380659	0.3348087		-12.0	20
1,1-Dichloropropene	A	100.0	96.64	0.3461839	0.3345491		-3.4	20
cis-1,3-Dichloropropene	A	100.0	101.6	0.4014071	0.4077756		1.6	20
trans-1,3-Dichloropropene	A	100.0	92.23	0.9928947	0.9157918		-7.8	20
Ethylbenzene	A	100.0	103.2	2.993416	3.090646		3.2	20
Hexachlorobutadiene	A	100.0	93.41	0.2768995	0.2586445		-6.6	20
2-Hexanone	A	200.0	215.6	0.2794217	0.3012799		7.8	20
Isopropylbenzene	A	100.0	98.25	2.843894	2.794159		-1.7	20
p-Isopropyltoluene	A	100.0	94.76	1.937734	1.836263		-5.2	20
Methylene chloride	A	100.0	85.85	0.2732269	0.2345743		-14.1	20
Naphthalene	Q	100.0	92.84	1.980321	2.1244		-7.2	20
4-Methyl-2-pentanone	A	200.0	210.9	0.1703177	0.1796329		5.5	20
Methyl t-Butyl Ether	A	100.0	97.87	0.6006161	0.5877969		-2.1	20
n-Propylbenzene	A	100.0	98.78	2.246051	2.218608		-1.2	20
Styrene	A	100.0	104.4	2.183883	2.278802		4.3	20
1,1,2,2-Tetrachloroethane	A	100.0	98.11	0.4961926	0.4868005	0.3	-1.9	20
1,1,1,2-Tetrachloroethane	A	100.0	97.08	0.898878	0.8726047		-2.9	20
Tetrachloroethene	A	100.0	98.09	0.888101	0.8711469		-1.9	20
Toluene	A	100.0	100.3	1.582424	1.587772		0.3	20
1,2,3-Trichlorobenzene	A	100.0	104.0	0.7234561	0.7525423		4.0	20
1,2,4-Trichlorobenzene	A	100.0	104.5	0.7784328	0.8132379		4.5	20
1,1,2-Trichloroethane	A	100.0	101.9	0.4518993	0.4606312		1.9	20
1,1,1-Trichloroethane	A	100.0	94.05	0.4808123	0.4521803		-6.0	20
Trichloroethene	A	100.0	97.40	0.2875668	0.2800962		-2.6	20

INITIAL CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQICV2.D	Calibration Date:	07/30/12 09:48
Sequence:	2G21301	Injection Date:	07/30/12
Lab Sample ID:	2G21301-ICV2	Injection Time:	15:03

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Trichlorofluoromethane	A	100.0	92.42	0.448402	0.4144215		-7.6	20
1,2,3-Trichloropropane	A	100.0	98.17	0.2946555	0.2892708		-1.8	20
1,3,5-Trimethylbenzene	A	100.0	106.0	1.776362	1.882185		6.0	20
1,2,4-Trimethylbenzene	A	100.0	100.3	1.893477	1.899645		0.3	20
Vinyl chloride	A	100.0	103.4	0.2136571	0.2210024		3.4	20
Xylenes (total)	A	300.0	307.1	2.416686	2.474198		2.4	20
Bromofluorobenzene	A	30.00	30.06	1.013563	1.015605		0.2	20
Dibromofluoromethane	A	30.00	28.49	0.3010273	0.2858489		-5.0	20
1,2-Dichloroethane-d4	A	30.00	28.50	7.164132E-02	6.806127E-02		-5.0	20
Toluene-d8	A	30.00	30.27	2.401311	2.422749		0.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQCCV1.D	Calibration Date:	07/30/12 09:48
Sequence:	2H23310	Injection Date:	08/17/12
Lab Sample ID:	2H23310-CCV1	Injection Time:	11:07

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetone	Q	200.0	191.6	6.127911E-02	0.0525002		-4.2	20
Benzene	A	100.0	100.8	0.9439093	0.9515487		0.8	20
Bromobenzene	A	100.0	98.01	0.7349524	0.7203099		-2.0	20
Bromochloromethane	A	100.0	97.12	0.1828541	0.1775863		-2.9	20
Bromodichloromethane	A	100.0	99.97	0.4300389	0.4298993		-0.03	20
Bromoform	A	100.0	96.39	0.6947025	0.6696302	0.1	-3.6	20
Bromomethane	A	100.0	135.2	0.1767748	0.2389828		35.2	20 *
n-Butylbenzene	A	100.0	103.5	1.341081	1.38797		3.5	20
2-Butanone	A	200.0	229.1	7.898584E-02	9.049593E-02		14.6	20
sec-Butylbenzene	A	100.0	104.2	1.938318	2.020116		4.2	20
tert-Butylbenzene	A	100.0	102.0	1.716248	1.751063		2.0	20
Carbon disulfide	A	100.0	105.5	0.6093037	0.6429682		5.5	20
Carbon tetrachloride	A	100.0	98.25	0.484154	0.4756741		-1.8	20
Chlorobenzene	A	100.0	94.27	2.105777	1.985115	0.3	-5.7	20
Chloroethane	A	100.0	103.2	0.1372338	0.1416993		3.3	20
Chloroform	A	100.0	96.19	0.5183192	0.4985494		-3.8	20
Chloromethane	A	100.0	92.27	0.2232586	0.2059982	0.1	-7.7	20
2-Chlorotoluene	A	100.0	98.76	1.478503	1.460193		-1.2	20
4-Chlorotoluene	A	100.0	95.59	1.728237	1.651982		-4.4	20
Dibromochloromethane	A	100.0	92.48	0.96157	0.8892471		-7.5	20
1,2-Dibromo-3-chloropropane	A	100.0	95.88	0.165218	0.1584089		-4.1	20
1,2-Dibromoethane (EDB)	A	100.0	92.67	0.7261361	0.6729295		-7.3	20
Dibromomethane	A	100.0	96.76	0.187154	0.1810993		-3.2	20
1,2-Dichlorobenzene	A	100.0	98.48	1.306003	1.286179		-1.5	20
1,3-Dichlorobenzene	A	100.0	99.68	1.348763	1.34449		-0.3	20
1,4-Dichlorobenzene	A	100.0	96.23	1.414025	1.360778		-3.8	20
Dichlorodifluoromethane	A	100.0	113.8	0.2646311	0.3011389		13.8	20
1,1-Dichloroethane	A	100.0	96.47	0.4219782	0.4070751	0.1	-3.5	20
1,2-Dichloroethane	A	100.0	101.5	0.3881483	0.3938917		1.5	20

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQCCV1.D	Calibration Date:	07/30/12 09:48
Sequence:	2H23310	Injection Date:	08/17/12
Lab Sample ID:	2H23310-CCV1	Injection Time:	11:07

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1-Dichloroethene	A	100.0	95.36	0.2299039	0.2192307		-4.6	20
cis-1,2-Dichloroethene	A	100.0	97.19	0.2923164	0.2841089		-2.8	20
trans-1,2-Dichloroethene	A	100.0	98.31	0.2706481	0.266075		-1.7	20
1,2-Dichloropropane	A	100.0	101.6	0.2208834	0.2244469		1.6	20
1,3-Dichloropropane	A	100.0	93.21	0.9533089	0.8885877		-6.8	20
2,2-Dichloropropane	A	100.0	109.2	0.380659	0.4158627		9.2	20
1,1-Dichloropropene	A	100.0	106.3	0.3461839	0.3679581		6.3	20
cis-1,3-Dichloropropene	A	100.0	107.2	0.4014071	0.4300965		7.1	20
trans-1,3-Dichloropropene	A	100.0	97.32	0.9928947	0.9662931		-2.7	20
Ethylbenzene	A	100.0	102.6	2.993416	3.072555		2.6	20
Hexachlorobutadiene	A	100.0	96.28	0.2768995	0.2666106		-3.7	20
2-Hexanone	A	200.0	226.2	0.2794217	0.315973		13.1	20
Isopropylbenzene	A	100.0	104.1	2.843894	2.960804		4.1	20
p-Isopropyltoluene	A	100.0	100.2	1.937734	1.941809		0.2	20
Methylene chloride	A	100.0	87.60	0.2732269	0.2393433		-12.4	20
Naphthalene	Q	100.0	86.31	1.980321	1.964853		-13.7	20
4-Methyl-2-pentanone	A	200.0	249.6	0.1703177	0.2125211		24.8	20 *
Methyl t-Butyl Ether	A	100.0	95.66	0.6006161	0.5745264		-4.3	20
n-Propylbenzene	A	100.0	99.62	2.246051	2.23759		-0.4	20
Styrene	A	100.0	103.1	2.183883	2.252032		3.1	20
1,1,2,2-Tetrachloroethane	A	100.0	87.96	0.4961926	0.4364359	0.3	-12.0	20
1,1,1,2-Tetrachloroethane	A	100.0	94.35	0.898878	0.8480484		-5.7	20
Tetrachloroethene	A	100.0	98.89	0.888101	0.878258		-1.1	20
Toluene	A	100.0	95.87	1.582424	1.517063		-4.1	20
1,2,3-Trichlorobenzene	A	100.0	98.23	0.7234561	0.7106631		-1.8	20
1,2,4-Trichlorobenzene	A	100.0	101.2	0.7784328	0.7880412		1.2	20
1,1,2-Trichloroethane	A	100.0	92.99	0.4518993	0.4202129		-7.0	20
1,1,1-Trichloroethane	A	100.0	102.6	0.4808123	0.493398		2.6	20
Trichloroethene	A	100.0	107.3	0.2875668	0.3086271		7.3	20

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQCCV1.D	Calibration Date:	07/30/12 09:48
Sequence:	2H23310	Injection Date:	08/17/12
Lab Sample ID:	2H23310-CCV1	Injection Time:	11:07

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Trichlorofluoromethane	A	100.0	106.2	0.448402	0.4762757		6.2	20
1,2,3-Trichloropropane	A	100.0	96.56	0.2946555	0.2845061		-3.4	20
1,3,5-Trimethylbenzene	A	100.0	98.19	1.776362	1.744242		-1.8	20
1,2,4-Trimethylbenzene	A	100.0	99.27	1.893477	1.879735		-0.7	20
Vinyl chloride	A	100.0	106.9	0.2136571	0.2283132		6.9	20
Xylenes (total)	A	300.0	302.6	2.416686	2.43749		0.9	20
Bromofluorobenzene	A	30.00	31.35	1.013563	1.059278		4.5	20
Dibromofluoromethane	A	30.00	28.18	0.3010273	0.2827323		-6.1	20
1,2-Dichloroethane-d4	A	30.00	27.36	7.164132E-02	6.532927E-02		-8.8	20
Toluene-d8	A	30.00	27.78	2.401311	2.223692		-7.4	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQCCV1.D	Calibration Date:	07/30/12 09:48
Sequence:	2H23505	Injection Date:	08/21/12
Lab Sample ID:	2H23505-CCV1	Injection Time:	07:20

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT		
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)	
Acetone	Q	200.0	173.7	6.127911E-02	0.0477647		-13.1	20	
Benzene	A	100.0	103.8	0.9439093	0.9794181		3.8	20	
Bromobenzene	A	100.0	99.20	0.7349524	0.7290719		-0.8	20	
Bromochloromethane	A	100.0	95.35	0.1828541	0.1743466		-4.7	20	
Bromodichloromethane	A	100.0	99.20	0.4300389	0.4265877		-0.8	20	
Bromoform	A	100.0	95.48	0.6947025	0.6632801	0.1	-4.5	20	
Bromomethane	A	100.0	66.85	0.1767748	0.1181682		-33.2	20	*
n-Butylbenzene	A	100.0	103.8	1.341081	1.39211		3.8	20	
2-Butanone	A	200.0	194.9	7.898584E-02	7.697247E-02		-2.5	20	
sec-Butylbenzene	A	100.0	105.4	1.938318	2.042276		5.4	20	
tert-Butylbenzene	A	100.0	105.6	1.716248	1.812346		5.6	20	
Carbon disulfide	A	100.0	105.7	0.6093037	0.6442798		5.7	20	
Carbon tetrachloride	A	100.0	101.6	0.484154	0.4920941		1.6	20	
Chlorobenzene	A	100.0	95.92	2.105777	2.019941	0.3	-4.1	20	
Chloroethane	A	100.0	99.82	0.1372338	0.1369861		-0.2	20	
Chloroform	A	100.0	94.32	0.5183192	0.488878		-5.7	20	
Chloromethane	A	100.0	81.10	0.2232586	0.1810548	0.1	-18.9	20	
2-Chlorotoluene	A	100.0	99.01	1.478503	1.463863		-1.0	20	
4-Chlorotoluene	A	100.0	98.09	1.728237	1.695243		-1.9	20	
Dibromochloromethane	A	100.0	92.84	0.96157	0.8927539		-7.2	20	
1,2-Dibromo-3-chloropropane	A	100.0	92.73	0.165218	0.153212		-7.3	20	
1,2-Dibromoethane (EDB)	A	100.0	93.39	0.7261361	0.6781663		-6.6	20	
Dibromomethane	A	100.0	94.11	0.187154	0.1761273		-5.9	20	
1,2-Dichlorobenzene	A	100.0	99.10	1.306003	1.29427		-0.9	20	
1,3-Dichlorobenzene	A	100.0	99.49	1.348763	1.341867		-0.5	20	
1,4-Dichlorobenzene	A	100.0	97.21	1.414025	1.374594		-2.8	20	
Dichlorodifluoromethane	A	100.0	98.98	0.2646311	0.2619291		-1.0	20	
1,1-Dichloroethane	A	100.0	95.53	0.4219782	0.4031072	0.1	-4.5	20	
1,2-Dichloroethane	A	100.0	97.28	0.3881483	0.3775747		-2.7	20	

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQCCV1.D	Calibration Date:	07/30/12 09:48
Sequence:	2H23505	Injection Date:	08/21/12
Lab Sample ID:	2H23505-CCV1	Injection Time:	07:20

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,1-Dichloroethene	A	100.0	95.59	0.2299039	0.2197686		-4.4	20
cis-1,2-Dichloroethene	A	100.0	98.07	0.2923164	0.2866756		-1.9	20
trans-1,2-Dichloroethene	A	100.0	96.14	0.2706481	0.2602042		-3.9	20
1,2-Dichloropropane	A	100.0	102.9	0.2208834	0.2273535		2.9	20
1,3-Dichloropropane	A	100.0	92.72	0.9533089	0.8839444		-7.3	20
2,2-Dichloropropane	A	100.0	106.4	0.380659	0.4049189		6.4	20
1,1-Dichloropropene	A	100.0	103.4	0.3461839	0.3577939		3.4	20
cis-1,3-Dichloropropene	A	100.0	105.1	0.4014071	0.4217554		5.1	20
trans-1,3-Dichloropropene	A	100.0	96.16	0.9928947	0.9548113		-3.8	20
Ethylbenzene	A	100.0	101.5	2.993416	3.037558		1.5	20
Hexachlorobutadiene	A	100.0	90.02	0.2768995	0.2492772		-10.0	20
2-Hexanone	A	200.0	198.2	0.2794217	0.2768729		-0.9	20
Isopropylbenzene	A	100.0	104.9	2.843894	2.984378		4.9	20
p-Isopropyltoluene	A	100.0	100.6	1.937734	1.948805		0.6	20
Methylene chloride	A	100.0	87.52	0.2732269	0.2391233		-12.5	20
Naphthalene	Q	100.0	83.98	1.980321	1.908122		-16.0	20
4-Methyl-2-pentanone	A	200.0	215.0	0.1703177	0.1831016		7.5	20
Methyl t-Butyl Ether	A	100.0	90.36	0.6006161	0.5427292		-9.6	20
n-Propylbenzene	A	100.0	101.2	2.246051	2.274237		1.3	20
Styrene	A	100.0	104.3	2.183883	2.276907		4.3	20
1,1,2,2-Tetrachloroethane	A	100.0	88.98	0.4961926	0.4415246	0.3	-11.0	20
1,1,1,2-Tetrachloroethane	A	100.0	95.09	0.898878	0.854737		-4.9	20
Tetrachloroethene	A	100.0	99.55	0.888101	0.8841127		-0.4	20
Toluene	A	100.0	96.78	1.582424	1.531413		-3.2	20
1,2,3-Trichlorobenzene	A	100.0	92.47	0.7234561	0.6689507		-7.5	20
1,2,4-Trichlorobenzene	A	100.0	97.79	0.7784328	0.7612429		-2.2	20
1,1,2-Trichloroethane	A	100.0	90.83	0.4518993	0.4104387		-9.2	20
1,1,1-Trichloroethane	A	100.0	100.4	0.4808123	0.4828749		0.4	20
Trichloroethene	A	100.0	105.8	0.2875668	0.3042405		5.8	20

CONTINUING CALIBRATION CHECK

SW8260B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-VOA3	Calibration:	2213002
Lab File ID:	SEQCCV1.D	Calibration Date:	07/30/12 09:48
Sequence:	2H23505	Injection Date:	08/21/12
Lab Sample ID:	2H23505-CCV1	Injection Time:	07:20

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Trichlorofluoromethane	A	100.0	98.88	0.448402	0.443366		-1.1	20
1,2,3-Trichloropropane	A	100.0	95.21	0.2946555	0.2805555		-4.8	20
1,3,5-Trimethylbenzene	A	100.0	101.0	1.776362	1.793694		1.0	20
1,2,4-Trimethylbenzene	A	100.0	100.4	1.893477	1.90071		0.4	20
Vinyl chloride	A	100.0	98.78	0.2136571	0.2110441		-1.2	20
Xylenes (total)	A	300.0	302.5	2.416686	2.436749		0.8	20
Bromofluorobenzene	A	30.00	30.66	1.013563	1.035988		2.2	20
Dibromofluoromethane	A	30.00	29.15	0.3010273	0.2924749		-2.8	20
1,2-Dichloroethane-d4	A	30.00	28.70	7.164132E-02	6.854732E-02		-4.3	20
Toluene-d8	A	30.00	27.94	2.401311	2.236391		-6.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H17007-BLK1 File ID: 0817BLK1.D

Sampled: Prepared: Analyzed: 08/17/12 12:56

Solids: Preparation: 5030B Dilution:

Batch: 2H17007 Sequence: 2H23310 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		2.50	5.00	10.0	U
71-43-2	Benzene		0.250	0.500	1.00	U
108-86-1	Bromobenzene		0.250	0.500	1.00	U
74-97-5	Bromochloromethane		0.250	0.500	1.00	U
75-27-4	Bromodichloromethane		0.250	0.500	1.00	U
75-25-2	Bromoform		0.250	0.500	1.00	U
74-83-9	Bromomethane		0.500	1.00	2.00	X, U
104-51-8	n-Butylbenzene		0.250	0.500	1.00	U
78-93-3	2-Butanone		2.50	5.00	10.0	U
135-98-8	sec-Butylbenzene		0.250	0.500	1.00	U
98-06-6	tert-Butylbenzene		0.250	0.500	1.00	U
75-15-0	Carbon disulfide		0.250	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.250	0.500	1.00	U
108-90-7	Chlorobenzene		0.250	0.500	1.00	U
75-00-3	Chloroethane		0.500	1.00	2.00	U
67-66-3	Chloroform		0.250	0.500	1.00	U
74-87-3	Chloromethane		0.250	0.500	1.00	U
95-49-8	2-Chlorotoluene		0.250	0.500	1.00	U
106-43-4	4-Chlorotoluene		0.250	0.500	1.00	U
124-48-1	Dibromochloromethane		0.250	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.500	1.00	2.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.250	0.500	1.00	U
74-95-3	Dibromomethane		0.250	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene		0.250	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	0.500	1.00	U
75-71-8	Dichlorodifluoromethane		0.500	1.00	2.00	U
75-34-3	1,1-Dichloroethane		0.250	0.500	1.00	U
107-06-2	1,2-Dichloroethane		0.250	0.500	1.00	U
75-35-4	1,1-Dichloroethene		0.250	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.250	0.500	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.250	0.500	1.00	U
78-87-5	1,2-Dichloropropane		0.250	0.500	1.00	U
142-28-9	1,3-Dichloropropane		0.250	0.500	1.00	U
594-20-7	2,2-Dichloropropane		0.250	0.500	1.00	U
563-58-6	1,1-Dichloropropene		0.250	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.250	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.250	0.500	1.00	U
100-41-4	Ethylbenzene		0.250	0.500	1.00	U
87-68-3	Hexachlorobutadiene		0.250	0.500	2.00	U

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H17007-BLK1 File ID: 0817BLK1.D

Sampled: Prepared: Analyzed: 08/17/12 12:56

Solids: Preparation: 5030B Dilution:

Batch: 2H17007 Sequence: 2H23310 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		1.25	2.50	5.00	U
98-82-8	Isopropylbenzene		0.250	0.500	1.00	U
99-87-6	p-Isopropyltoluene		0.250	0.500	1.00	U
75-09-2	Methylene chloride		0.500	1.00	2.00	U
91-20-3	Naphthalene		0.250	0.500	2.00	U
108-10-1	4-Methyl-2-pentanone		1.25	2.50	5.00	X, U
1634-04-4	Methyl t-Butyl Ether		0.250	0.500	1.00	U
103-65-1	n-Propylbenzene		0.250	0.500	1.00	U
100-42-5	Styrene		0.250	0.500	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.250	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.250	0.500	1.00	U
127-18-4	Tetrachloroethene		0.250	0.500	1.00	U
108-88-3	Toluene		0.250	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.250	0.500	2.00	U
120-82-1	1,2,4-Trichlorobenzene		0.250	0.500	2.00	U
79-00-5	1,1,2-Trichloroethane		0.250	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane		0.250	0.500	1.00	U
79-01-6	Trichloroethene		0.250	0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.500	1.00	2.00	U
96-18-4	1,2,3-Trichloropropane		0.500	1.00	2.00	U
108-67-8	1,3,5-Trimethylbenzene		0.250	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene		0.250	0.500	1.00	U
75-01-4	Vinyl chloride		0.250	0.500	1.00	U
1330-20-7	Xylenes (total)		0.750	1.50	3.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.75	95.8	75 - 120	
Dibromofluoromethane	30.00	29.55	98.5	85 - 115	
1,2-Dichloroethane-d4	30.00	28.21	94.0	70 - 120	
Toluene-d8	30.00	28.70	95.7	85 - 120	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H17007-BS1 File ID: 0817LCS1.D

Sampled: Prepared: Analyzed: 08/17/12 11:35

Solids: Preparation: 5030B Dilution:

Batch: 2H17007 Sequence: 2H23310 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	85.1	2.50	5.00	10.0	
71-43-2	Benzene	50.5	0.250	0.500	1.00	
108-86-1	Bromobenzene	46.7	0.250	0.500	1.00	
74-97-5	Bromochloromethane	48.4	0.250	0.500	1.00	
75-27-4	Bromodichloromethane	44.7	0.250	0.500	1.00	
75-25-2	Bromoform	46.2	0.250	0.500	1.00	
74-83-9	Bromomethane	67.1	0.500	1.00	2.00	X
104-51-8	n-Butylbenzene	48.7	0.250	0.500	1.00	
78-93-3	2-Butanone	102	2.50	5.00	10.0	
135-98-8	sec-Butylbenzene	48.4	0.250	0.500	1.00	
98-06-6	tert-Butylbenzene	49.0	0.250	0.500	1.00	
75-15-0	Carbon disulfide	45.9	0.250	0.500	1.00	
56-23-5	Carbon tetrachloride	44.8	0.250	0.500	1.00	
108-90-7	Chlorobenzene	46.2	0.250	0.500	1.00	
75-00-3	Chloroethane	51.7	0.500	1.00	2.00	
67-66-3	Chloroform	46.8	0.250	0.500	1.00	
74-87-3	Chloromethane	44.7	0.250	0.500	1.00	
95-49-8	2-Chlorotoluene	46.4	0.250	0.500	1.00	
106-43-4	4-Chlorotoluene	46.0	0.250	0.500	1.00	
124-48-1	Dibromochloromethane	44.2	0.250	0.500	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	44.0	0.500	1.00	2.00	
106-93-4	1,2-Dibromoethane (EDB)	45.1	0.250	0.500	1.00	
74-95-3	Dibromomethane	45.8	0.250	0.500	1.00	
95-50-1	1,2-Dichlorobenzene	46.3	0.250	0.500	1.00	
541-73-1	1,3-Dichlorobenzene	45.9	0.250	0.500	1.00	
106-46-7	1,4-Dichlorobenzene	46.3	0.250	0.500	1.00	
75-71-8	Dichlorodifluoromethane	51.0	0.500	1.00	2.00	
75-34-3	1,1-Dichloroethane	46.8	0.250	0.500	1.00	
107-06-2	1,2-Dichloroethane	47.6	0.250	0.500	1.00	
75-35-4	1,1-Dichloroethene	44.1	0.250	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	48.2	0.250	0.500	1.00	
156-60-5	trans-1,2-Dichloroethene	49.2	0.250	0.500	1.00	
78-87-5	1,2-Dichloropropane	49.0	0.250	0.500	1.00	
142-28-9	1,3-Dichloropropane	46.2	0.250	0.500	1.00	
594-20-7	2,2-Dichloropropane	49.7	0.250	0.500	1.00	
563-58-6	1,1-Dichloropropene	48.7	0.250	0.500	1.00	
10061-01-5	cis-1,3-Dichloropropene	52.1	0.250	0.500	1.00	
10061-02-6	trans-1,3-Dichloropropene	42.5	0.250	0.500	1.00	
100-41-4	Ethylbenzene	49.1	0.250	0.500	1.00	
87-68-3	Hexachlorobutadiene	47.6	0.250	0.500	2.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H17007-BS1 File ID: 0817LCS1.D

Sampled: Prepared: Analyzed: 08/17/12 11:35

Solids: Preparation: 5030B Dilution:

Batch: 2H17007 Sequence: 2H23310 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone	107	1.25	2.50	5.00	
98-82-8	Isopropylbenzene	46.5	0.250	0.500	1.00	
99-87-6	p-Isopropyltoluene	44.9	0.250	0.500	1.00	
75-09-2	Methylene chloride	44.6	0.500	1.00	2.00	
91-20-3	Naphthalene	42.8	0.250	0.500	2.00	
108-10-1	4-Methyl-2-pentanone	117	1.25	2.50	5.00	X
1634-04-4	Methyl t-Butyl Ether	47.1	0.250	0.500	1.00	
103-65-1	n-Propylbenzene	46.5	0.250	0.500	1.00	
100-42-5	Styrene	50.3	0.250	0.500	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	42.8	0.250	0.500	1.00	
630-20-6	1,1,1,2-Tetrachloroethane	46.0	0.250	0.500	1.00	
127-18-4	Tetrachloroethene	47.7	0.250	0.500	1.00	
108-88-3	Toluene	48.1	0.250	0.500	1.00	
87-61-6	1,2,3-Trichlorobenzene	47.1	0.250	0.500	2.00	
120-82-1	1,2,4-Trichlorobenzene	46.8	0.250	0.500	2.00	
79-00-5	1,1,2-Trichloroethane	46.1	0.250	0.500	1.00	
71-55-6	1,1,1-Trichloroethane	47.9	0.250	0.500	1.00	
79-01-6	Trichloroethene	51.0	0.250	0.500	1.00	
75-69-4	Trichlorofluoromethane	50.9	0.500	1.00	2.00	
96-18-4	1,2,3-Trichloropropane	45.7	0.500	1.00	2.00	
108-67-8	1,3,5-Trimethylbenzene	48.3	0.250	0.500	1.00	
95-63-6	1,2,4-Trimethylbenzene	47.6	0.250	0.500	1.00	
75-01-4	Vinyl chloride	57.9	0.250	0.500	1.00	
1330-20-7	Xylenes (total)	146	0.750	1.50	3.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.06	100	75 - 120	
Dibromofluoromethane	30.00	28.95	96.5	85 - 115	
1,2-Dichloroethane-d4	30.00	26.85	89.5	70 - 120	
Toluene-d8	30.00	28.33	94.4	85 - 120	

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-BLK1 File ID: 0821BLK1.D

Sampled: Prepared: Analyzed: 08/21/12 09:09

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone		2.50	5.00	10.0	U
71-43-2	Benzene		0.250	0.500	1.00	U
108-86-1	Bromobenzene		0.250	0.500	1.00	U
74-97-5	Bromochloromethane		0.250	0.500	1.00	U
75-27-4	Bromodichloromethane		0.250	0.500	1.00	U
75-25-2	Bromoform		0.250	0.500	1.00	U
74-83-9	Bromomethane		0.500	1.00	2.00	Y, U
104-51-8	n-Butylbenzene		0.250	0.500	1.00	U
78-93-3	2-Butanone		2.50	5.00	10.0	U
135-98-8	sec-Butylbenzene		0.250	0.500	1.00	U
98-06-6	tert-Butylbenzene		0.250	0.500	1.00	U
75-15-0	Carbon disulfide		0.250	0.500	1.00	U
56-23-5	Carbon tetrachloride		0.250	0.500	1.00	U
108-90-7	Chlorobenzene		0.250	0.500	1.00	U
75-00-3	Chloroethane		0.500	1.00	2.00	U
67-66-3	Chloroform		0.250	0.500	1.00	U
74-87-3	Chloromethane		0.250	0.500	1.00	U
95-49-8	2-Chlorotoluene		0.250	0.500	1.00	U
106-43-4	4-Chlorotoluene		0.250	0.500	1.00	U
124-48-1	Dibromochloromethane		0.250	0.500	1.00	U
96-12-8	1,2-Dibromo-3-chloropropane		0.500	1.00	2.00	U
106-93-4	1,2-Dibromoethane (EDB)		0.250	0.500	1.00	U
74-95-3	Dibromomethane		0.250	0.500	1.00	U
95-50-1	1,2-Dichlorobenzene		0.250	0.500	1.00	U
541-73-1	1,3-Dichlorobenzene		0.250	0.500	1.00	U
106-46-7	1,4-Dichlorobenzene		0.250	0.500	1.00	U
75-71-8	Dichlorodifluoromethane		0.500	1.00	2.00	U
75-34-3	1,1-Dichloroethane		0.250	0.500	1.00	U
107-06-2	1,2-Dichloroethane		0.250	0.500	1.00	U
75-35-4	1,1-Dichloroethene		0.250	0.500	1.00	U
156-59-2	cis-1,2-Dichloroethene		0.250	0.500	1.00	U
156-60-5	trans-1,2-Dichloroethene		0.250	0.500	1.00	U
78-87-5	1,2-Dichloropropane		0.250	0.500	1.00	U
142-28-9	1,3-Dichloropropane		0.250	0.500	1.00	U
594-20-7	2,2-Dichloropropane		0.250	0.500	1.00	U
563-58-6	1,1-Dichloropropene		0.250	0.500	1.00	U
10061-01-5	cis-1,3-Dichloropropene		0.250	0.500	1.00	U
10061-02-6	trans-1,3-Dichloropropene		0.250	0.500	1.00	U
100-41-4	Ethylbenzene		0.250	0.500	1.00	U
87-68-3	Hexachlorobutadiene		0.250	0.500	2.00	U

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-BLK1 File ID: 0821BLK1.D

Sampled: Prepared: Analyzed: 08/21/12 09:09

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone		1.25	2.50	5.00	U
98-82-8	Isopropylbenzene		0.250	0.500	1.00	U
99-87-6	p-Isopropyltoluene		0.250	0.500	1.00	U
75-09-2	Methylene chloride		0.500	1.00	2.00	U
91-20-3	Naphthalene		0.250	0.500	2.00	U
108-10-1	4-Methyl-2-pentanone		1.25	2.50	5.00	U
1634-04-4	Methyl t-Butyl Ether		0.250	0.500	1.00	U
103-65-1	n-Propylbenzene		0.250	0.500	1.00	U
100-42-5	Styrene		0.250	0.500	1.00	U
79-34-5	1,1,2,2-Tetrachloroethane		0.250	0.500	1.00	U
630-20-6	1,1,1,2-Tetrachloroethane		0.250	0.500	1.00	U
127-18-4	Tetrachloroethene		0.250	0.500	1.00	U
108-88-3	Toluene		0.250	0.500	1.00	U
87-61-6	1,2,3-Trichlorobenzene		0.250	0.500	2.00	U
120-82-1	1,2,4-Trichlorobenzene		0.250	0.500	2.00	U
79-00-5	1,1,2-Trichloroethane		0.250	0.500	1.00	U
71-55-6	1,1,1-Trichloroethane		0.250	0.500	1.00	U
79-01-6	Trichloroethene		0.250	0.500	1.00	U
75-69-4	Trichlorofluoromethane		0.500	1.00	2.00	U
96-18-4	1,2,3-Trichloropropane		0.500	1.00	2.00	U
108-67-8	1,3,5-Trimethylbenzene		0.250	0.500	1.00	U
95-63-6	1,2,4-Trimethylbenzene		0.250	0.500	1.00	U
75-01-4	Vinyl chloride		0.250	0.500	1.00	U
1330-20-7	Xylenes (total)		0.750	1.50	3.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	28.95	96.5	75 - 120	
Dibromofluoromethane	30.00	30.41	101	85 - 115	
1,2-Dichloroethane-d4	30.00	27.20	90.7	70 - 120	
Toluene-d8	30.00	29.12	97.1	85 - 120	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-BS1 File ID: 0821LCS1.D

Sampled: Prepared: Analyzed: 08/21/12 07:47

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	82.6	2.50	5.00	10.0	
71-43-2	Benzene	49.0	0.250	0.500	1.00	
108-86-1	Bromobenzene	46.7	0.250	0.500	1.00	
74-97-5	Bromochloromethane	46.0	0.250	0.500	1.00	
75-27-4	Bromodichloromethane	42.4	0.250	0.500	1.00	
75-25-2	Bromoform	45.4	0.250	0.500	1.00	
74-83-9	Bromomethane	36.5	0.500	1.00	2.00	Y
104-51-8	n-Butylbenzene	48.9	0.250	0.500	1.00	
78-93-3	2-Butanone	92.2	2.50	5.00	10.0	
135-98-8	sec-Butylbenzene	48.8	0.250	0.500	1.00	
98-06-6	tert-Butylbenzene	47.9	0.250	0.500	1.00	
75-15-0	Carbon disulfide	44.2	0.250	0.500	1.00	
56-23-5	Carbon tetrachloride	45.3	0.250	0.500	1.00	
108-90-7	Chlorobenzene	46.3	0.250	0.500	1.00	
75-00-3	Chloroethane	50.2	0.500	1.00	2.00	
67-66-3	Chloroform	44.4	0.250	0.500	1.00	
74-87-3	Chloromethane	39.2	0.250	0.500	1.00	
95-49-8	2-Chlorotoluene	46.0	0.250	0.500	1.00	
106-43-4	4-Chlorotoluene	45.5	0.250	0.500	1.00	
124-48-1	Dibromochloromethane	43.2	0.250	0.500	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	40.6	0.500	1.00	2.00	
106-93-4	1,2-Dibromoethane (EDB)	44.9	0.250	0.500	1.00	
74-95-3	Dibromomethane	43.5	0.250	0.500	1.00	
95-50-1	1,2-Dichlorobenzene	45.7	0.250	0.500	1.00	
541-73-1	1,3-Dichlorobenzene	46.4	0.250	0.500	1.00	
106-46-7	1,4-Dichlorobenzene	45.1	0.250	0.500	1.00	
75-71-8	Dichlorodifluoromethane	46.0	0.500	1.00	2.00	
75-34-3	1,1-Dichloroethane	45.9	0.250	0.500	1.00	
107-06-2	1,2-Dichloroethane	45.0	0.250	0.500	1.00	
75-35-4	1,1-Dichloroethene	42.6	0.250	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	46.8	0.250	0.500	1.00	
156-60-5	trans-1,2-Dichloroethene	47.6	0.250	0.500	1.00	
78-87-5	1,2-Dichloropropane	47.6	0.250	0.500	1.00	
142-28-9	1,3-Dichloropropane	45.2	0.250	0.500	1.00	
594-20-7	2,2-Dichloropropane	47.5	0.250	0.500	1.00	
563-58-6	1,1-Dichloropropene	47.2	0.250	0.500	1.00	
10061-01-5	cis-1,3-Dichloropropene	50.3	0.250	0.500	1.00	
10061-02-6	trans-1,3-Dichloropropene	41.1	0.250	0.500	1.00	
100-41-4	Ethylbenzene	49.3	0.250	0.500	1.00	
87-68-3	Hexachlorobutadiene	44.7	0.250	0.500	2.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-BS1 File ID: 0821LCS1.D

Sampled: Prepared: Analyzed: 08/21/12 07:47

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone	99.6	1.25	2.50	5.00	
98-82-8	Isopropylbenzene	46.1	0.250	0.500	1.00	
99-87-6	p-Isopropyltoluene	44.5	0.250	0.500	1.00	
75-09-2	Methylene chloride	41.1	0.500	1.00	2.00	
91-20-3	Naphthalene	40.2	0.250	0.500	2.00	
108-10-1	4-Methyl-2-pentanone	105	1.25	2.50	5.00	
1634-04-4	Methyl t-Butyl Ether	43.0	0.250	0.500	1.00	
103-65-1	n-Propylbenzene	46.9	0.250	0.500	1.00	
100-42-5	Styrene	49.5	0.250	0.500	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	42.8	0.250	0.500	1.00	
630-20-6	1,1,1,2-Tetrachloroethane	45.6	0.250	0.500	1.00	
127-18-4	Tetrachloroethene	47.1	0.250	0.500	1.00	
108-88-3	Toluene	47.6	0.250	0.500	1.00	
87-61-6	1,2,3-Trichlorobenzene	44.6	0.250	0.500	2.00	
120-82-1	1,2,4-Trichlorobenzene	46.0	0.250	0.500	2.00	
79-00-5	1,1,2-Trichloroethane	45.2	0.250	0.500	1.00	
71-55-6	1,1,1-Trichloroethane	45.8	0.250	0.500	1.00	
79-01-6	Trichloroethene	47.8	0.250	0.500	1.00	
75-69-4	Trichlorofluoromethane	47.7	0.500	1.00	2.00	
96-18-4	1,2,3-Trichloropropane	45.4	0.500	1.00	2.00	
108-67-8	1,3,5-Trimethylbenzene	48.5	0.250	0.500	1.00	
95-63-6	1,2,4-Trimethylbenzene	46.2	0.250	0.500	1.00	
75-01-4	Vinyl chloride	52.4	0.250	0.500	1.00	
1330-20-7	Xylenes (total)	144	0.750	1.50	3.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.16	101	75 - 120	
Dibromofluoromethane	30.00	28.69	95.6	85 - 115	
1,2-Dichloroethane-d4	30.00	27.76	92.5	70 - 120	
Toluene-d8	30.00	28.96	96.5	85 - 120	

ANALYSIS DATA SHEET

Matrix Spike

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-MS2 File ID: 0809101M.D

Sampled: Prepared: Analyzed: 08/21/12 16:54

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	101	2.50	5.00	10.0	
71-43-2	Benzene	54.3	0.250	0.500	1.00	
108-86-1	Bromobenzene	51.2	0.250	0.500	1.00	
74-97-5	Bromochloromethane	50.4	0.250	0.500	1.00	
75-27-4	Bromodichloromethane	47.3	0.250	0.500	1.00	
75-25-2	Bromoform	50.4	0.250	0.500	1.00	
74-83-9	Bromomethane	25.2	0.500	1.00	2.00	Y
104-51-8	n-Butylbenzene	50.4	0.250	0.500	1.00	
78-93-3	2-Butanone	112	2.50	5.00	10.0	
135-98-8	sec-Butylbenzene	52.5	0.250	0.500	1.00	
98-06-6	tert-Butylbenzene	52.8	0.250	0.500	1.00	
75-15-0	Carbon disulfide	48.8	0.250	0.500	1.00	
56-23-5	Carbon tetrachloride	49.2	0.250	0.500	1.00	
108-90-7	Chlorobenzene	49.8	0.250	0.500	1.00	
75-00-3	Chloroethane	53.8	0.500	1.00	2.00	
67-66-3	Chloroform	48.5	0.250	0.500	1.00	
74-87-3	Chloromethane	39.5	0.250	0.500	1.00	
95-49-8	2-Chlorotoluene	52.0	0.250	0.500	1.00	
106-43-4	4-Chlorotoluene	49.6	0.250	0.500	1.00	
124-48-1	Dibromochloromethane	47.7	0.250	0.500	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	49.5	0.500	1.00	2.00	
106-93-4	1,2-Dibromoethane (EDB)	49.6	0.250	0.500	1.00	
74-95-3	Dibromomethane	48.2	0.250	0.500	1.00	
95-50-1	1,2-Dichlorobenzene	49.7	0.250	0.500	1.00	
541-73-1	1,3-Dichlorobenzene	50.3	0.250	0.500	1.00	
106-46-7	1,4-Dichlorobenzene	50.3	0.250	0.500	1.00	
75-71-8	Dichlorodifluoromethane	51.0	0.500	1.00	2.00	
75-34-3	1,1-Dichloroethane	50.2	0.250	0.500	1.00	
107-06-2	1,2-Dichloroethane	49.9	0.250	0.500	1.00	
75-35-4	1,1-Dichloroethene	47.5	0.250	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	52.7	0.250	0.500	1.00	
156-60-5	trans-1,2-Dichloroethene	51.5	0.250	0.500	1.00	
78-87-5	1,2-Dichloropropane	52.7	0.250	0.500	1.00	
142-28-9	1,3-Dichloropropane	50.9	0.250	0.500	1.00	
594-20-7	2,2-Dichloropropane	46.0	0.250	0.500	1.00	
563-58-6	1,1-Dichloropropene	52.0	0.250	0.500	1.00	
10061-01-5	cis-1,3-Dichloropropene	52.8	0.250	0.500	1.00	
10061-02-6	trans-1,3-Dichloropropene	45.6	0.250	0.500	1.00	
100-41-4	Ethylbenzene	52.7	0.250	0.500	1.00	
87-68-3	Hexachlorobutadiene	44.3	0.250	0.500	2.00	

ANALYSIS DATA SHEET

Matrix Spike

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-MS2 File ID: 0809101M.D

Sampled: Prepared: Analyzed: 08/21/12 16:54

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone	115	1.25	2.50	5.00	
98-82-8	Isopropylbenzene	51.0	0.250	0.500	1.00	
99-87-6	p-Isopropyltoluene	46.5	0.250	0.500	1.00	
75-09-2	Methylene chloride	46.6	0.500	1.00	2.00	
91-20-3	Naphthalene	40.5	0.250	0.500	2.00	
108-10-1	4-Methyl-2-pentanone	116	1.25	2.50	5.00	
1634-04-4	Methyl t-Butyl Ether	48.1	0.250	0.500	1.00	
103-65-1	n-Propylbenzene	50.9	0.250	0.500	1.00	
100-42-5	Styrene	53.2	0.250	0.500	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	50.0	0.250	0.500	1.00	
630-20-6	1,1,1,2-Tetrachloroethane	50.2	0.250	0.500	1.00	
127-18-4	Tetrachloroethene	50.9	0.250	0.500	1.00	
108-88-3	Toluene	52.6	0.250	0.500	1.00	
87-61-6	1,2,3-Trichlorobenzene	45.6	0.250	0.500	2.00	
120-82-1	1,2,4-Trichlorobenzene	46.6	0.250	0.500	2.00	
79-00-5	1,1,2-Trichloroethane	51.2	0.250	0.500	1.00	
71-55-6	1,1,1-Trichloroethane	50.3	0.250	0.500	1.00	
79-01-6	Trichloroethene	51.7	0.250	0.500	1.00	
75-69-4	Trichlorofluoromethane	51.9	0.500	1.00	2.00	
96-18-4	1,2,3-Trichloropropane	51.1	0.500	1.00	2.00	
108-67-8	1,3,5-Trimethylbenzene	51.9	0.250	0.500	1.00	
95-63-6	1,2,4-Trimethylbenzene	48.8	0.250	0.500	1.00	
75-01-4	Vinyl chloride	57.7	0.250	0.500	1.00	
1330-20-7	Xylenes (total)	158	0.750	1.50	3.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.30	101	75 - 120	
Dibromofluoromethane	30.00	28.81	96.0	85 - 115	
1,2-Dichloroethane-d4	30.00	27.87	92.9	70 - 120	
Toluene-d8	30.00	28.87	96.2	85 - 120	

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-MSD2 File ID: 0809101S.D

Sampled: Prepared: Analyzed: 08/21/12 17:21

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
67-64-1	Acetone	85.2	2.50	5.00	10.0	
71-43-2	Benzene	52.4	0.250	0.500	1.00	
108-86-1	Bromobenzene	49.6	0.250	0.500	1.00	
74-97-5	Bromochloromethane	48.8	0.250	0.500	1.00	
75-27-4	Bromodichloromethane	46.0	0.250	0.500	1.00	
75-25-2	Bromoform	47.1	0.250	0.500	1.00	
74-83-9	Bromomethane	26.4	0.500	1.00	2.00	Y
104-51-8	n-Butylbenzene	48.6	0.250	0.500	1.00	
78-93-3	2-Butanone	100	2.50	5.00	10.0	
135-98-8	sec-Butylbenzene	49.0	0.250	0.500	1.00	
98-06-6	tert-Butylbenzene	49.8	0.250	0.500	1.00	
75-15-0	Carbon disulfide	47.1	0.250	0.500	1.00	
56-23-5	Carbon tetrachloride	46.9	0.250	0.500	1.00	
108-90-7	Chlorobenzene	48.5	0.250	0.500	1.00	
75-00-3	Chloroethane	53.8	0.500	1.00	2.00	
67-66-3	Chloroform	48.0	0.250	0.500	1.00	
74-87-3	Chloromethane	37.3	0.250	0.500	1.00	
95-49-8	2-Chlorotoluene	48.4	0.250	0.500	1.00	
106-43-4	4-Chlorotoluene	46.9	0.250	0.500	1.00	
124-48-1	Dibromochloromethane	46.5	0.250	0.500	1.00	
96-12-8	1,2-Dibromo-3-chloropropane	44.2	0.500	1.00	2.00	
106-93-4	1,2-Dibromoethane (EDB)	48.1	0.250	0.500	1.00	
74-95-3	Dibromomethane	46.7	0.250	0.500	1.00	
95-50-1	1,2-Dichlorobenzene	47.5	0.250	0.500	1.00	
541-73-1	1,3-Dichlorobenzene	47.4	0.250	0.500	1.00	
106-46-7	1,4-Dichlorobenzene	47.6	0.250	0.500	1.00	
75-71-8	Dichlorodifluoromethane	47.4	0.500	1.00	2.00	
75-34-3	1,1-Dichloroethane	49.3	0.250	0.500	1.00	
107-06-2	1,2-Dichloroethane	48.0	0.250	0.500	1.00	
75-35-4	1,1-Dichloroethene	44.9	0.250	0.500	1.00	
156-59-2	cis-1,2-Dichloroethene	50.8	0.250	0.500	1.00	
156-60-5	trans-1,2-Dichloroethene	50.6	0.250	0.500	1.00	
78-87-5	1,2-Dichloropropane	51.6	0.250	0.500	1.00	
142-28-9	1,3-Dichloropropane	49.4	0.250	0.500	1.00	
594-20-7	2,2-Dichloropropane	44.2	0.250	0.500	1.00	
563-58-6	1,1-Dichloropropene	49.5	0.250	0.500	1.00	
10061-01-5	cis-1,3-Dichloropropene	52.6	0.250	0.500	1.00	
10061-02-6	trans-1,3-Dichloropropene	43.3	0.250	0.500	1.00	
100-41-4	Ethylbenzene	51.4	0.250	0.500	1.00	
87-68-3	Hexachlorobutadiene	41.2	0.250	0.500	2.00	

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H21925-MSD2 File ID: 0809101S.D

Sampled: Prepared: Analyzed: 08/21/12 17:21

Solids: Preparation: 5030B Dilution:

Batch: 2H21925 Sequence: 2H23505 Calibration: 2213002 Instrument: MS-VOA3

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
591-78-6	2-Hexanone	98.9	1.25	2.50	5.00	
98-82-8	Isopropylbenzene	48.3	0.250	0.500	1.00	
99-87-6	p-Isopropyltoluene	44.4	0.250	0.500	1.00	
75-09-2	Methylene chloride	46.1	0.500	1.00	2.00	
91-20-3	Naphthalene	38.4	0.250	0.500	2.00	
108-10-1	4-Methyl-2-pentanone	103	1.25	2.50	5.00	
1634-04-4	Methyl t-Butyl Ether	47.1	0.250	0.500	1.00	
103-65-1	n-Propylbenzene	48.3	0.250	0.500	1.00	
100-42-5	Styrene	51.1	0.250	0.500	1.00	
79-34-5	1,1,2,2-Tetrachloroethane	46.1	0.250	0.500	1.00	
630-20-6	1,1,1,2-Tetrachloroethane	47.4	0.250	0.500	1.00	
127-18-4	Tetrachloroethene	48.7	0.250	0.500	1.00	
108-88-3	Toluene	51.1	0.250	0.500	1.00	
87-61-6	1,2,3-Trichlorobenzene	43.6	0.250	0.500	2.00	
120-82-1	1,2,4-Trichlorobenzene	45.2	0.250	0.500	2.00	
79-00-5	1,1,2-Trichloroethane	49.3	0.250	0.500	1.00	
71-55-6	1,1,1-Trichloroethane	48.2	0.250	0.500	1.00	
79-01-6	Trichloroethene	51.0	0.250	0.500	1.00	
75-69-4	Trichlorofluoromethane	50.4	0.500	1.00	2.00	
96-18-4	1,2,3-Trichloropropane	47.6	0.500	1.00	2.00	
108-67-8	1,3,5-Trimethylbenzene	49.0	0.250	0.500	1.00	
95-63-6	1,2,4-Trimethylbenzene	46.2	0.250	0.500	1.00	
75-01-4	Vinyl chloride	54.6	0.250	0.500	1.00	
1330-20-7	Xylenes (total)	151	0.750	1.50	3.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	30.00	30.33	101	75 - 120	
Dibromofluoromethane	30.00	28.58	95.3	85 - 115	
1,2-Dichloroethane-d4	30.00	28.58	95.3	70 - 120	
Toluene-d8	30.00	29.63	98.8	85 - 120	

HOLDING TIME SUMMARY

SW8260B

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
GW0648	08/13/12 10:53	08/14/12 08:20	08/21/12 11:28	N/A	14.00	08/21/12 11:28	7.98	14.00	
GW8224-TB	08/13/12 08:00	08/14/12 08:20	08/17/12 14:18	N/A	14.00	08/17/12 14:18	4.22	14.00	

Data for SW8270D Forms

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	0809101.D
Sampled:	08/13/12 10:53	Prepared:	08/15/12 11:42	Analyzed:	08/27/12 20:47
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		1.25	2.50	5.00	U
208-96-8	Acenaphthylene		1.25	2.50	5.00	U
98-86-2	Acetophenone		1.25	2.50	5.00	U
120-12-7	Anthracene		1.25	2.50	5.00	U
1912-24-9	Atrazine		1.25	2.50	5.00	U
100-52-7	Benzaldehyde		1.25	2.50	5.00	U
92-87-5	Benzidine		12.5	50.0	100	U
56-55-3	Benzo(a)anthracene		1.25	2.50	5.00	U
50-32-8	Benzo(a)pyrene		1.25	2.50	5.00	U
205-99-2	Benzo(b)fluoranthene		1.25	2.50	5.00	U
191-24-2	Benzo(g,h,i)perylene		1.25	2.50	5.00	U
65-85-0	Benzoic acid		12.5	50.0	100	U
207-08-9	Benzo(k)fluoranthene		1.25	2.50	5.00	U
92-52-4	1,1-Biphenyl		1.25	2.50	5.00	U
101-55-3	4-Bromophenyl-phenylether		1.25	2.50	5.00	U
85-68-7	Butylbenzylphthalate		1.25	2.50	5.00	U
105-60-2	Caprolactam		1.25	2.50	5.00	U
86-74-8	Carbazole		1.25	2.50	5.00	U
59-50-7	4-Chloro-3-methylphenol		1.25	2.50	5.00	U
106-47-8	4-Chloroaniline		1.25	2.50	5.00	U
111-91-1	Bis(2-chloroethoxy)methane		1.25	2.50	5.00	U
111-44-4	Bis(2-chloroethyl)ether		1.25	2.50	5.00	U
108-60-1	2,2'-Oxybis-1-chloropropane		1.25	2.50	5.00	U
91-58-7	2-Chloronaphthalene		1.25	2.50	5.00	U
95-57-8	2-Chlorophenol		1.25	2.50	5.00	N, U
7005-72-3	4-Chlorophenyl phenyl ether		1.25	2.50	5.00	U
218-01-9	Chrysene		1.25	2.50	5.00	U
53-70-3	Dibenz(a,h)anthracene		1.25	2.50	5.00	U
132-64-9	Dibenzofuran		1.25	2.50	5.00	U
84-74-2	Di-n-butylphthalate		1.25	2.50	5.00	U
91-94-1	3,3'-Dichlorobenzidine		1.25	2.50	5.00	U
120-83-2	2,4-Dichlorophenol		1.25	2.50	5.00	U
84-66-2	Diethylphthalate		1.25	2.50	5.00	U
105-67-9	2,4-Dimethylphenol		5.00	10.0	20.0	U
131-11-3	Dimethyl phthalate		1.25	2.50	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol		5.00	10.0	20.0	N, U
51-28-5	2,4-Dinitrophenol		8.33	25.0	50.0	N, U
121-14-2	2,4-Dinitrotoluene		1.25	2.50	5.00	U
606-20-2	2,6-Dinitrotoluene		1.25	2.50	5.00	U
117-84-0	Di-n-octylphthalate		1.25	2.50	5.00	U

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	0809101.D
Sampled:	08/13/12 10:53	Prepared:	08/15/12 11:42	Analyzed:	08/27/12 20:47
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		1.25	2.50	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	2.50	5.00	U
206-44-0	Fluoranthene		1.25	2.50	5.00	U
86-73-7	Fluorene		1.25	2.50	5.00	U
118-74-1	Hexachlorobenzene		1.25	2.50	5.00	U
87-68-3	Hexachlorobutadiene		1.25	2.50	5.00	U
77-47-4	Hexachlorocyclopentadiene		1.25	5.00	10.0	U
67-72-1	Hexachloroethane		1.25	2.50	5.00	U
193-39-5	Indeno(1,2,3-cd)pyrene		1.25	2.50	5.00	U
78-59-1	Isophorone		1.25	2.50	5.00	U
90-12-0	1-Methylnaphthalene		1.25	2.50	5.00	U
91-57-6	2-Methylnaphthalene		1.25	2.50	5.00	U
95-48-7	2-Methylphenol		1.25	2.50	5.00	U
108-39-4/106	3-Methylphenol/4-Methylphenol		1.25	2.50	5.00	U
91-20-3	Naphthalene		1.25	2.50	5.00	U
100-01-6	4-Nitroaniline		5.00	10.0	20.0	U
99-09-2	3-Nitroaniline		5.00	10.0	20.0	U
88-74-4	2-Nitroaniline		5.00	10.0	20.0	U
98-95-3	Nitrobenzene		1.25	2.50	5.00	U
100-02-7	4-Nitrophenol		5.00	10.0	20.0	N, U
88-75-5	2-Nitrophenol		1.25	2.50	5.00	U
86-30-6	N-Nitrosodiphenylamine		1.25	2.50	5.00	U
621-64-7	N-Nitroso-di-n-propylamine		1.25	2.50	5.00	U
87-86-5	Pentachlorophenol		5.00	10.0	20.0	N, U
85-01-8	Phenanthrene		1.25	2.50	5.00	U
108-95-2	Phenol		1.25	2.50	5.00	U
129-00-0	Pyrene		1.25	2.50	5.00	U
88-06-2	2,4,6-Trichlorophenol		1.25	2.50	5.00	U
95-95-4	2,4,5-Trichlorophenol		1.25	2.50	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	35.61	71.2	50 - 110	
2-Fluorophenol	100.0	14.98	15.0	20 - 110	*
Nitrobenzene-d5	50.00	32.18	64.4	40 - 110	
Phenol-d6	100.0	11.51	11.5	0 - 110	
Terphenyl-d14	50.00	45.22	90.4	50 - 135	X
2,4,6-Tribromophenol	100.0	48.77	48.8	40 - 125	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24101	Instrument:	MS-BNA1
		Calibration:	2156006

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (2H24101-CCV1) ug/mL				Lab File ID: SEQ-CCV1.D		Analyzed: 08/27/12 11:57		
2-Fluorobiphenyl	50.00	104	80 - 120	8.163	8.163	0.0000	+/-0.500	
2-Fluorophenol	100.0	99.1	80 - 120	3.516	3.516	0.0000	+/-0.500	
Nitrobenzene-d5	50.00	93.1	80 - 120	5.821	5.821	0.0000	+/-0.500	
Phenol-d6	100.0	92.7	80 - 120	4.659	4.659	0.0000	+/-0.500	
Terphenyl-d14	50.00	122	80 - 120	12.729	12.729	0.0000	+/-0.500	*
2,4,6-Tribromophenol	100.0	108	80 - 120	9.964	9.964	0.0000	+/-0.500	
Blank (2H14019-BLK1) ug/L				Lab File ID: H14019B1.D		Analyzed: 08/27/12 17:36		
2-Fluorobiphenyl	50.00	69.1	50 - 110	8.162	8.163	-0.0010	+/-0.500	
2-Fluorophenol	100.0	19.0	20 - 110	3.526	3.516	0.0100	+/-0.500	*
Nitrobenzene-d5	50.00	62.3	40 - 110	5.815	5.821	-0.0060	+/-0.500	
Phenol-d6	100.0	13.6	0 - 110	4.661	4.659	0.0020	+/-0.500	
Terphenyl-d14	50.00	87.8	50 - 135	12.732	12.729	0.0030	+/-0.500	
2,4,6-Tribromophenol	100.0	48.2	40 - 125	9.963	9.964	-0.0010	+/-0.500	
LCS (2H14019-BS1) ug/L				Lab File ID: H14019L1.D		Analyzed: 08/27/12 18:04		
2-Fluorobiphenyl	50.00	83.1	50 - 110	8.172	8.163	0.0090	+/-0.500	
2-Fluorophenol	100.0	24.3	20 - 110	3.527	3.516	0.0110	+/-0.500	
Nitrobenzene-d5	50.00	73.0	40 - 110	5.817	5.821	-0.0040	+/-0.500	
Phenol-d6	100.0	15.8	0 - 110	4.661	4.659	0.0020	+/-0.500	
Terphenyl-d14	50.00	91.6	50 - 135	12.731	12.729	0.0020	+/-0.500	
2,4,6-Tribromophenol	100.0	63.5	40 - 125	9.964	9.964	0.0000	+/-0.500	
GW0648 (1208091-01) ug/L				Lab File ID: 0809101.D		Analyzed: 08/27/12 20:47		
2-Fluorobiphenyl	50.00	71.2	50 - 110	8.165	8.163	0.0020	+/-0.500	
2-Fluorophenol	100.0	15.0	20 - 110	3.526	3.516	0.0100	+/-0.500	*
Nitrobenzene-d5	50.00	64.4	40 - 110	5.822	5.821	0.0010	+/-0.500	
Phenol-d6	100.0	11.5	0 - 110	4.659	4.659	0.0000	+/-0.500	
Terphenyl-d14	50.00	90.4	50 - 135	12.729	12.729	0.0000	+/-0.500	
2,4,6-Tribromophenol	100.0	48.8	40 - 125	9.962	9.964	-0.0020	+/-0.500	
Matrix Spike (2H14019-MS1) ug/L				Lab File ID: 0809101M.D		Analyzed: 08/27/12 21:14		
2-Fluorobiphenyl	49.02	84.4	50 - 110	8.171	8.163	0.0080	+/-0.500	
2-Fluorophenol	98.04	37.1	20 - 110	3.517	3.516	0.0010	+/-0.500	
Nitrobenzene-d5	49.02	74.8	40 - 110	5.817	5.821	-0.0040	+/-0.500	
Phenol-d6	98.04	20.7	0 - 110	4.662	4.659	0.0030	+/-0.500	
Terphenyl-d14	49.02	98.7	50 - 135	12.729	12.729	0.0000	+/-0.500	
2,4,6-Tribromophenol	98.04	95.8	40 - 125	9.966	9.964	0.0020	+/-0.500	

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24101	Instrument:	MS-BNA1
		Calibration:	2156006

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Matrix Spike Dup (2H14019-MSD1) ug/L				Lab File ID: 0809101S.D		Analyzed: 08/27/12 21:41		
2-Fluorobiphenyl	48.08	71.0	50 - 110	8.169	8.163	0.0060	+/-0.500	
2-Fluorophenol	96.15	25.0	20 - 110	3.523	3.516	0.0070	+/-0.500	
Nitrobenzene-d5	48.08	59.1	40 - 110	5.822	5.821	0.0010	+/-0.500	
Phenol-d6	96.15	15.5	0 - 110	4.657	4.659	-0.0020	+/-0.500	
Terphenyl-d14	48.08	90.2	50 - 135	12.731	12.729	0.0020	+/-0.500	
2,4,6-Tribromophenol	96.15	82.3	40 - 125	9.966	9.964	0.0020	+/-0.500	

LCS / LCS DUPLICATE RECOVERY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H14019	Laboratory ID:	2H14019-BS1
Preparation:	EXT_3510	Initial/Final:	1000 mL / 1 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Acenaphthene	50.00	36.53	73.1	45 - 110
Acenaphthylene	50.00	40.09	80.2	50 - 105
Acetophenone	50.00	38.37	76.7	50 - 110
Anthracene	50.00	40.09	80.2	55 - 110
Atrazine	50.00	46.31	92.6	70 - 115
Benzaldehyde	50.00	35.21	70.4	10 - 180
Benzidine	50.00	100 U	0	0 - 200
Benzo(a)anthracene	50.00	42.89	85.8	55 - 110
Benzo(a)pyrene	50.00	42.71	85.4	55 - 110
Benzo(b)fluoranthene	50.00	42.97	85.9	45 - 120
Benzo(g,h,i)perylene	50.00	43.65	87.3	40 - 125
Benzoic acid	100.0	12.85	12.8	0 - 125
Benzo(k)fluoranthene	50.00	46.21	92.4	45 - 125
1,1-Biphenyl	50.00	45.30	90.6	50 - 110
4-Bromophenyl-phenylether	50.00	41.07	82.1	50 - 115
Butylbenzylphthalate	50.00	48.25	96.5	45 - 115
Caprolactam	50.00	8.600	17.2	10 - 110
Carbazole	50.00	49.12	98.2	50 - 115
4-Chloro-3-methylphenol	100.0	74.28	74.3	45 - 110
4-Chloroaniline	50.00	43.41	86.8	15 - 110
Bis(2-chloroethoxy)methane	50.00	35.91	71.8	45 - 105
Bis(2-chloroethyl)ether	50.00	31.19	62.4	35 - 110
2,2'-Oxybis-1-chloropropane	50.00	31.44	62.9	25 - 130
2-Chloronaphthalene	50.00	33.84	67.7	50 - 105
2-Chlorophenol	100.0	52.17	52.2	35 - 105
4-Chlorophenyl phenyl ether	50.00	40.55	81.1	50 - 110
Chrysene	50.00	44.39	88.8	55 - 110
Dibenz(a,h)anthracene	50.00	42.61	85.2	40 - 125
Dibenzofuran	50.00	36.54	73.1	55 - 105
Di-n-butylphthalate	50.00	46.44	92.9	55 - 115

LCS / LCS DUPLICATE RECOVERY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H14019	Laboratory ID:	2H14019-BS1
Preparation:	EXT_3510	Initial/Final:	1000 mL / 1 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
3,3'-Dichlorobenzidine	50.00	45.93	91.9	20 - 110
2,4-Dichlorophenol	100.0	65.66	65.7	40 - 110
Diethylphthalate	50.00	43.93	87.9	40 - 120
2,4-Dimethylphenol	100.0	79.80	79.8	30 - 110
Dimethyl phthalate	50.00	42.35	84.7	25 - 125
4,6-Dinitro-2-methylphenol	100.0	50.46	50.5	40 - 130
2,4-Dinitrophenol	100.0	43.63	43.6	15 - 140
2,4-Dinitrotoluene	50.00	42.67	85.3	50 - 120
2,6-Dinitrotoluene	50.00	43.06	86.1	50 - 115
Di-n-octylphthalate	50.00	46.78	93.6	35 - 135
1,2-Diphenylhydrazine	50.00	39.73	79.5	55 - 115
Bis(2-ethylhexyl)phthalate	50.00	45.49	91.0	40 - 125
Fluoranthene	50.00	44.88	89.8	55 - 115
Fluorene	50.00	42.46	84.9	50 - 110
Hexachlorobenzene	50.00	41.52	83.0	50 - 110
Hexachlorobutadiene	50.00	24.04	48.1	25 - 105
Hexachlorocyclopentadiene	50.00	21.93	43.9	10 - 110
Hexachloroethane	50.00	20.22	40.4	30 - 95
Indeno(1,2,3-cd)pyrene	50.00	43.02	86.0	45 - 125
Isophorone	50.00	32.78	65.6	50 - 110
1-Methylnaphthalene	50.00	38.92	77.8	30 - 115
2-Methylnaphthalene	50.00	32.02	64.0	45 - 105
2-Methylphenol	100.0	55.06	55.1	40 - 110
3-Methylphenol/4-Methylphenol	100.0	47.78	47.8	30 - 110
Naphthalene	50.00	31.98	64.0	40 - 100
4-Nitroaniline	50.00	51.21	102	35 - 120
3-Nitroaniline	50.00	46.55	93.1	20 - 125
2-Nitroaniline	50.00	48.85	97.7	50 - 115
Nitrobenzene	50.00	32.57	65.1	30 - 110
4-Nitrophenol	100.0	13.32	13.3	0 - 125

LCS / LCS DUPLICATE RECOVERY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H14019	Laboratory ID:	2H14019-BS1
Preparation:	EXT_3510	Initial/Final:	1000 mL / 1 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
2-Nitrophenol	100.0	64.45	64.5	40 - 115
N-Nitrosodiphenylamine	50.00	35.47	70.9	50 - 110
N-Nitroso-di-n-propylamine	50.00	35.00	70.0	35 - 130
Pentachlorophenol	100.0	54.37	54.4	40 - 115
Phenanthrene	50.00	41.40	82.8	50 - 115
Phenol	100.0	17.84	17.8	0 - 115
Pyrene	50.00	44.11	88.2	50 - 130
2,4,6-Trichlorophenol	100.0	57.55	57.5	50 - 115
2,4,5-Trichlorophenol	100.0	63.63	63.6	50 - 110

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8270D

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14019

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Acenaphthene	49.02	ND	33.06	67.4		45 - 110
Acenaphthylene	49.02	ND	35.47	72.4		50 - 105
Acetophenone	49.02	ND	40.17	82.0		50 - 110
Anthracene	49.02	ND	41.34	84.3		55 - 110
Atrazine	49.02	ND	46.33	94.5		70 - 115
Benzaldehyde	49.02	ND	36.37	74.2		10 - 180
Benzidine	49.02	ND	98.0 U	0		0 - 200
Benzo(a)anthracene	49.02	ND	40.32	82.3		55 - 110
Benzo(a)pyrene	49.02	ND	41.19	84.0		55 - 110
Benzo(b)fluoranthene	49.02	ND	44.47	90.7		45 - 120
Benzo(g,h,i)perylene	49.02	ND	42.03	85.7		40 - 125
Benzoic acid	98.04	ND	17.67	18.0		0 - 125
Benzo(k)fluoranthene	49.02	ND	41.62	84.9		45 - 125
1,1-Biphenyl	49.02	ND	43.47	88.7		50 - 110
4-Bromophenyl-phenylether	49.02	ND	42.32	86.3		50 - 115
Butylbenzylphthalate	49.02	ND	46.38	94.6		45 - 115
Caprolactam	49.02	ND	7.282	14.9		10 - 110
Carbazole	49.02	ND	50.76	104		50 - 115
4-Chloro-3-methylphenol	98.04	ND	78.83	80.4		45 - 110
4-Chloroaniline	49.02	ND	41.73	85.1		15 - 110
Bis(2-chloroethoxy)methane	49.02	ND	35.42	72.3		45 - 105
Bis(2-chloroethyl)ether	49.02	ND	32.44	66.2		35 - 110
2,2'-Oxybis-1-chloropropane	49.02	ND	32.31	65.9		25 - 130
2-Chloronaphthalene	49.02	ND	30.08	61.4		50 - 105
2-Chlorophenol	98.04	ND	73.01	74.5		35 - 105
4-Chlorophenyl phenyl ether	49.02	ND	36.56	74.6		50 - 110
Chrysene	49.02	ND	41.87	85.4		55 - 110
Dibenz(a,h)anthracene	49.02	ND	41.49	84.6		40 - 125
Dibenzofuran	49.02	ND	35.90	73.2		55 - 105
Di-n-butylphthalate	49.02	ND	45.05	91.9		55 - 115
3,3'-Dichlorobenzidine	49.02	ND	43.40	88.5		20 - 110
2,4-Dichlorophenol	98.04	ND	84.21	85.9		40 - 110

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8270D

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14019

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Diethylphthalate	49.02	ND	41.02	83.7		40 - 120
2,4-Dimethylphenol	98.04	ND	74.61	76.1		30 - 110
Dimethyl phthalate	49.02	ND	41.65	85.0		25 - 125
4,6-Dinitro-2-methylphenol	98.04	ND	88.11	89.9		40 - 130
2,4-Dinitrophenol	98.04	ND	83.89	85.6		15 - 140
2,4-Dinitrotoluene	49.02	ND	40.76	83.1		50 - 120
2,6-Dinitrotoluene	49.02	ND	39.28	80.1		50 - 115
Di-n-octylphthalate	49.02	ND	44.71	91.2		35 - 135
1,2-Diphenylhydrazine	49.02	ND	42.81	87.3		55 - 115
Bis(2-ethylhexyl)phthalate	49.02	ND	44.75	91.3		40 - 125
Fluoranthene	49.02	ND	43.49	88.7		55 - 115
Fluorene	49.02	ND	41.15	84.0		50 - 110
Hexachlorobenzene	49.02	ND	40.60	82.8		50 - 110
Hexachlorobutadiene	49.02	ND	26.46	54.0		25 - 105
Hexachlorocyclopentadiene	49.02	ND	24.03	49.0		10 - 110
Hexachloroethane	49.02	ND	22.45	45.8		30 - 95
Indeno(1,2,3-cd)pyrene	49.02	ND	41.56	84.8		45 - 125
Isophorone	49.02	ND	32.87	67.1		50 - 110
1-Methylnaphthalene	49.02	ND	36.58	74.6		30 - 115
2-Methylnaphthalene	49.02	ND	31.89	65.1		45 - 105
2-Methylphenol	98.04	ND	55.00	56.1		40 - 110
3-Methylphenol/4-Methylphenol	98.04	ND	52.27	53.3		30 - 110
Naphthalene	49.02	ND	31.40	64.1		40 - 100
4-Nitroaniline	49.02	ND	49.29	101		35 - 120
3-Nitroaniline	49.02	ND	42.76	87.2		20 - 125
2-Nitroaniline	49.02	ND	44.15	90.1		50 - 115
Nitrobenzene	49.02	ND	32.20	65.7		30 - 110
4-Nitrophenol	98.04	ND	23.90	24.4		0 - 125
2-Nitrophenol	98.04	ND	85.62	87.3		40 - 115
N-Nitrosodiphenylamine	49.02	ND	34.29	70.0		50 - 110
N-Nitroso-di-n-propylamine	49.02	ND	37.06	75.6		35 - 130
Pentachlorophenol	98.04	ND	93.30	95.2		40 - 115

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8270D

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14019

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Phenanthrene	49.02	ND	41.42	84.5		50 - 115
Phenol	98.04	ND	21.87	22.3		0 - 115
Pyrene	49.02	ND	42.88	87.5		50 - 130
2,4,6-Trichlorophenol	98.04	ND	82.44	84.1		50 - 115
2,4,5-Trichlorophenol	98.04	ND	90.07	91.9		50 - 110

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8270D

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14019

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Acenaphthene	48.08	32.12	66.8	2.87		30	45 - 110
Acenaphthylene	48.08	33.30	69.3	6.30		30	50 - 105
Acetophenone	48.08	31.60	65.7	23.9		30	50 - 110
Anthracene	48.08	38.00	79.0	8.41		30	55 - 110
Atrazine	48.08	43.42	90.3	6.50		30	70 - 115
Benzaldehyde	48.08	27.83	57.9	26.6		30	10 - 180
Benzidine	48.08	96.2 U	0			30	0 - 200
Benzo(a)anthracene	48.08	39.41	82.0	2.28		30	55 - 110
Benzo(a)pyrene	48.08	40.61	84.5	1.41		30	55 - 110
Benzo(b)fluoranthene	48.08	40.65	84.5	8.99		30	45 - 120
Benzo(g,h,i)perylene	48.08	41.17	85.6	2.07		30	40 - 125
Benzoic acid	96.15	13.14	13.7	29.4		30	0 - 125
Benzo(k)fluoranthene	48.08	43.23	89.9	3.79		30	45 - 125
1,1-Biphenyl	48.08	37.77	78.6	14.0		30	50 - 110
4-Bromophenyl-phenylether	48.08	40.95	85.2	3.31		30	50 - 115
Butylbenzylphthalate	48.08	44.71	93.0	3.66		30	45 - 115
Caprolactam	48.08	6.655	13.8	9.00		30	10 - 110
Carbazole	48.08	48.32	101	4.92		30	50 - 115
4-Chloro-3-methylphenol	96.15	69.04	71.8	13.2		30	45 - 110
4-Chloroaniline	48.08	36.22	75.3	14.1		30	15 - 110
Bis(2-chloroethoxy)methane	48.08	29.59	61.6	17.9		30	45 - 105
Bis(2-chloroethyl)ether	48.08	25.32	52.7	24.7		30	35 - 110
2,2'-Oxybis-1-chloropropane	48.08	25.71	53.5	22.8		30	25 - 130
2-Chloronaphthalene	48.08	28.23	58.7	6.35		30	50 - 105
2-Chlorophenol	96.15	53.81	56.0	30.3	*	30	35 - 105
4-Chlorophenyl phenyl ether	48.08	35.66	74.2	2.49		30	50 - 110
Chrysene	48.08	40.22	83.7	4.03		30	55 - 110
Dibenz(a,h)anthracene	48.08	40.56	84.4	2.26		30	40 - 125
Dibenzofuran	48.08	32.90	68.4	8.71		30	55 - 105
Di-n-butylphthalate	48.08	45.28	94.2	0.505		30	55 - 115
3,3'-Dichlorobenzidine	48.08	43.38	90.2	0.0438		30	20 - 110
2,4-Dichlorophenol	96.15	65.46	68.1	25.0		30	40 - 110
Diethylphthalate	48.08	40.66	84.6	0.899		30	40 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8270D

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14019

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
2,4-Dimethylphenol	96.15	62.13	64.6	18.3		30	30 - 110
Dimethyl phthalate	48.08	39.18	81.5	6.12		30	25 - 125
4,6-Dinitro-2-methylphenol	96.15	61.55	64.0	35.5	*	30	40 - 130
2,4-Dinitrophenol	96.15	46.69	48.6	57.0	*	30	15 - 140
2,4-Dinitrotoluene	48.08	39.09	81.3	4.19		30	50 - 120
2,6-Dinitrotoluene	48.08	37.41	77.8	4.87		30	50 - 115
Di-n-octylphthalate	48.08	43.98	91.5	1.64		30	35 - 135
1,2-Diphenylhydrazine	48.08	38.96	81.0	9.41		30	55 - 115
Bis(2-ethylhexyl)phthalate	48.08	43.08	89.6	3.80		30	40 - 125
Fluoranthene	48.08	41.04	85.4	5.80		30	55 - 115
Fluorene	48.08	36.63	76.2	11.6		30	50 - 110
Hexachlorobenzene	48.08	38.38	79.8	5.62		30	50 - 110
Hexachlorobutadiene	48.08	21.37	44.5	21.3		30	25 - 105
Hexachlorocyclopentadiene	48.08	20.54	42.7	15.7		30	10 - 110
Hexachloroethane	48.08	18.11	37.7	21.4		30	30 - 95
Indeno(1,2,3-cd)pyrene	48.08	40.49	84.2	2.62		30	45 - 125
Isophorone	48.08	26.62	55.4	21.0		30	50 - 110
1-Methylnaphthalene	48.08	30.43	63.3	18.4		30	30 - 115
2-Methylnaphthalene	48.08	26.39	54.9	18.9		30	45 - 105
2-Methylphenol	96.15	45.35	47.2	19.2		30	40 - 110
3-Methylphenol/4-Methylphenol	96.15	40.53	42.1	25.3		30	30 - 110
Naphthalene	48.08	24.99	52.0	22.7		30	40 - 100
4-Nitroaniline	48.08	45.90	95.5	7.12		30	35 - 120
3-Nitroaniline	48.08	43.43	90.3	1.54		30	20 - 125
2-Nitroaniline	48.08	45.51	94.7	3.04		30	50 - 115
Nitrobenzene	48.08	25.65	53.4	22.6		30	30 - 110
4-Nitrophenol	96.15	14.99	15.6	45.8	*	30	0 - 125
2-Nitrophenol	96.15	66.41	69.1	25.3		30	40 - 115
N-Nitrosodiphenylamine	48.08	33.36	69.4	2.76		30	50 - 110
N-Nitroso-di-n-propylamine	48.08	28.14	58.5	27.4		30	35 - 130
Pentachlorophenol	96.15	66.51	69.2	33.5	*	30	40 - 115
Phenanthrene	48.08	39.13	81.4	5.70		30	50 - 115
Phenol	96.15	16.34	17.0	28.9		30	0 - 115

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8270D

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14019

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Pyrene	48.08	39.69	82.6	7.71		30	50 - 130
2,4,6-Trichlorophenol	96.15	64.42	67.0	24.5		30	50 - 115
2,4,5-Trichlorophenol	96.15	73.24	76.2	20.6		30	50 - 110

PREPARATION BATCH SUMMARY

SW8270D

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H14019 Batch Matrix: Water Preparation: EXT_3510

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/15/12 11:42	1,000.00	1.00
Blank	2H14019-BLK1	08/15/12 11:42	1,000.00	1.00
LCS	2H14019-BS1	08/15/12 11:42	1,000.00	1.00
GW0648	2H14019-MS1	08/15/12 11:42	1,020.00	1.00
GW0648	2H14019-MSD1	08/15/12 11:42	1,040.00	1.00

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQ-TUN1.D	Injection Date:	05/31/12
Instrument ID:	MS-BNA1	Injection Time:	17:57
Sequence:	2F15401	Lab Sample ID:	2F15401-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	45	PASS
68	Less than 2% of 69	1.69	PASS
69	Less than 200% of 198	63.1	PASS
70	Less than 2% of 69	0.87	PASS
127	40 - 60% of 198	51	PASS
197	Less than 1% of 198	0.546	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.32	PASS
275	10 - 30% of 198	18.3	PASS
365	1 - 200% of 198	1.92	PASS
441	0.001 - 100% of 443	77.9	PASS
442	40 - 200% of 198	70.6	PASS
443	17 - 23% of 442	18.8	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQ-TUN2.D	Injection Date:	06/01/12
Instrument ID:	MS-BNA1	Injection Time:	16:21
Sequence:	2F15401	Lab Sample ID:	2F15401-TUN2

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	41.8	PASS
68	Less than 2% of 69	1.57	PASS
69	Less than 200% of 198	61.3	PASS
70	Less than 2% of 69	1.29	PASS
127	40 - 60% of 198	50.3	PASS
197	Less than 1% of 198	0.0816	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.99	PASS
275	10 - 30% of 198	19	PASS
365	1 - 200% of 198	2	PASS
441	0.001 - 100% of 443	72.1	PASS
442	40 - 200% of 198	76	PASS
443	17 - 23% of 442	19.5	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQ-TUN1.D	Injection Date:	06/04/12
Instrument ID:	MS-BNA1	Injection Time:	13:05
Sequence:	2F15401	Lab Sample ID:	2F15401-TUN3

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	42.4	PASS
68	Less than 2% of 69	0.682	PASS
69	Less than 200% of 198	62.2	PASS
70	Less than 2% of 69	0.95	PASS
127	40 - 60% of 198	52.3	PASS
197	Less than 1% of 198	0.0494	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.36	PASS
275	10 - 30% of 198	18.7	PASS
365	1 - 200% of 198	2.06	PASS
441	0.001 - 100% of 443	73.7	PASS
442	40 - 200% of 198	74.7	PASS
443	17 - 23% of 442	18.9	PASS

MASS SPECTROMETER INSTRUMENT PERFORMANCE CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Lab File ID:	SEQ-TUN1.D	Injection Date:	08/27/12
Instrument ID:	MS-BNA1	Injection Time:	11:33
Sequence:	2H24101	Lab Sample ID:	2H24101-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	30 - 60% of 198	42.3	PASS
68	Less than 2% of 69	1.66	PASS
69	Less than 200% of 198	59.1	PASS
70	Less than 2% of 69	0.806	PASS
127	40 - 60% of 198	56.2	PASS
197	Less than 1% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	6.27	PASS
275	10 - 30% of 198	19.7	PASS
365	1 - 200% of 198	2.26	PASS
441	0.001 - 100% of 443	82.3	PASS
442	40 - 200% of 198	82.6	PASS
443	17 - 23% of 442	18.4	PASS

ANALYSIS SEQUENCE SUMMARY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2F15401	Instrument:	MS-BNA1
Calibration:	2156006		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	2F15401-TUN1	SEQ-TUN1.D	05/31/12 17:57
Cal Standard	2F15401-CAL1	SEQ-CAL1.D	05/31/12 18:21
Cal Standard	2F15401-CAL2	SEQ-CAL2.D	05/31/12 18:49
Cal Standard	2F15401-CAL3	SEQ-CAL3.D	05/31/12 19:17
Cal Standard	2F15401-CAL4	SEQ-CAL4.D	05/31/12 19:44
Cal Standard	2F15401-CAL5	SEQ-CAL5.D	05/31/12 20:12
Cal Standard	2F15401-CAL6	SEQ-CAL6.D	05/31/12 20:40
Cal Standard	2F15401-CAL7	SEQ-CAL7.D	05/31/12 21:07
Cal Standard	2F15401-CAL8	SEQ-CAL8.D	05/31/12 21:35
Cal Standard	2F15401-CAL9	SEQ-CAL9.D	05/31/12 22:02
Cal Standard	2F15401-CALA	SEQ-CALA.D	05/31/12 22:30
Cal Standard	2F15401-CALB	SEQ-CALB.D	05/31/12 22:58
Cal Standard	2F15401-CALC	SEQ-CALC.D	05/31/12 23:25
Cal Standard	2F15401-CALD	SEQ-CALD.D	05/31/12 23:53
Cal Standard	2F15401-CALE	SEQ-CALE.D	06/01/12 00:21
Cal Standard	2F15401-CALF	SEQ-CALF.D	06/01/12 00:49
Cal Standard	2F15401-CALG	SEQ-CALG.D	06/01/12 01:16
Initial Cal Check	2F15401-ICV1	SEQ-ICV1.D	06/01/12 01:44
Initial Cal Check	2F15401-ICV2	SEQ-ICV2.D	06/01/12 02:12
MS Tune	2F15401-TUN2	SEQ-TUN2.D	06/01/12 16:21
Initial Cal Check	2F15401-ICV3	SEQ-ICV3.D	06/01/12 16:44
Initial Cal Check	2F15401-ICV4	SEQ-ICV4.D	06/01/12 17:11
MS Tune	2F15401-TUN3	SEQ-TUN1.D	06/04/12 13:05
Initial Cal Check	2F15401-ICV5	SEQ-ICV6.D	06/04/12 15:03

ANALYSIS SEQUENCE SUMMARY

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24101	Instrument:	MS-BNA1
Calibration:	2156006		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
MS Tune	2H24101-TUN1	SEQ-TUN1.D	08/27/12 11:33
Calibration Check	2H24101-CCV1	SEQ-CCV1.D	08/27/12 11:57
Calibration Check	2H24101-CCV2	SEQ-CCV2.D	08/27/12 12:25
Blank	2H14019-BLK1	H14019B1.D	08/27/12 17:36
LCS	2H14019-BS1	H14019L1.D	08/27/12 18:04
GW0648	1208091-01	0809101.D	08/27/12 20:47
GW0648	2H14019-MS1	0809101M.D	08/27/12 21:14
GW0648	2H14019-MSD1	0809101S.D	08/27/12 21:41

INTERNAL STANDARD AREA AND RT SUMMARY
SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24101	Instrument:	MS-BNA1
		Calibration:	2156006

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Calibration Check (2H24101-CCV1)			Lab File ID: SEQ-CCV1.D			Analyzed: 08/27/12 11:57			
1,4-Dichlorobenzene-d4	434607	5.03	567077	5.575	77	50 - 200	-0.5450	+/-0.50	
Naphthalene-d8	1752719	6.73	2257819	7.266	78	50 - 200	-0.5360	+/-0.50	
Acenaphthene-d10	862110	8.984	1041422	9.511	83	50 - 200	-0.5270	+/-0.50	
Phenanthrene-d10	1400013	10.767	1729504	11.304	81	50 - 200	-0.5370	+/-0.50	
Chrysene-d12	1277186	14.032	1493143	14.683	86	50 - 200	-0.6510	+/-0.50	
Perylene-d12	1104000	16.141	1350302	16.936	82	50 - 200	-0.7950	+/-0.50	
Calibration Check (2H24101-CCV2)			Lab File ID: SEQ-CCV2.D			Analyzed: 08/27/12 12:25			
1,4-Dichlorobenzene-d4	437921	5.032	434607	5.03	101	50 - 200	0.0020	+/-0.50	
Naphthalene-d8	1837480	6.733	1752719	6.73	105	50 - 200	0.0030	+/-0.50	
Acenaphthene-d10	834469	8.981	862110	8.984	97	50 - 200	-0.0030	+/-0.50	
Phenanthrene-d10	1310698	10.767	1400013	10.767	94	50 - 200	0.0000	+/-0.50	
Chrysene-d12	1278509	14.032	1277186	14.032	100	50 - 200	0.0000	+/-0.50	
Perylene-d12	1084568	16.143	1104000	16.141	98	50 - 200	0.0020	+/-0.50	
Blank (2H14019-BLK1)			Lab File ID: H14019B1.D			Analyzed: 08/27/12 17:36			
1,4-Dichlorobenzene-d4	518883	5.033	434607	5.03	119	50 - 200	0.0030	+/-0.50	
Naphthalene-d8	2166653	6.736	1752719	6.73	124	50 - 200	0.0060	+/-0.50	
Acenaphthene-d10	978533	8.985	862110	8.984	114	50 - 200	0.0010	+/-0.50	
Phenanthrene-d10	1634420	10.765	1400013	10.767	117	50 - 200	-0.0020	+/-0.50	
Chrysene-d12	1442454	14.039	1277186	14.032	113	50 - 200	0.0070	+/-0.50	
Perylene-d12	1229231	16.144	1104000	16.141	111	50 - 200	0.0030	+/-0.50	
LCS (2H14019-BS1)			Lab File ID: H14019L1.D			Analyzed: 08/27/12 18:04			
1,4-Dichlorobenzene-d4	497690	5.033	434607	5.03	115	50 - 200	0.0030	+/-0.50	
Naphthalene-d8	1926339	6.737	1752719	6.73	110	50 - 200	0.0070	+/-0.50	
Acenaphthene-d10	887345	8.983	862110	8.984	103	50 - 200	-0.0010	+/-0.50	
Phenanthrene-d10	1494937	10.767	1400013	10.767	107	50 - 200	0.0000	+/-0.50	
Chrysene-d12	1354784	14.042	1277186	14.032	106	50 - 200	0.0100	+/-0.50	
Perylene-d12	1168646	16.151	1104000	16.141	106	50 - 200	0.0100	+/-0.50	
GW0648 (1208091-01)			Lab File ID: 0809101.D			Analyzed: 08/27/12 20:47			
1,4-Dichlorobenzene-d4	575284	5.03	434607	5.03	132	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	2263282	6.739	1752719	6.73	129	50 - 200	0.0090	+/-0.50	
Acenaphthene-d10	1068928	8.985	862110	8.984	124	50 - 200	0.0010	+/-0.50	
Phenanthrene-d10	1655124	10.765	1400013	10.767	118	50 - 200	-0.0020	+/-0.50	
Chrysene-d12	1579191	14.038	1277186	14.032	124	50 - 200	0.0060	+/-0.50	
Perylene-d12	1350886	16.151	1104000	16.141	122	50 - 200	0.0100	+/-0.50	

INTERNAL STANDARD AREA AND RT SUMMARY
SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24101	Instrument:	MS-BNA1
		Calibration:	2156006

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Matrix Spike (2H14019-MS1)			Lab File ID: 0809101M.D			Analyzed: 08/27/12 21:14			
1,4-Dichlorobenzene-d4	456900	5.034	434607	5.03	105	50 - 200	0.0040	+/-0.50	
Naphthalene-d8	1829363	6.737	1752719	6.73	104	50 - 200	0.0070	+/-0.50	
Acenaphthene-d10	875292	8.982	862110	8.984	102	50 - 200	-0.0020	+/-0.50	
Phenanthrene-d10	1391507	10.766	1400013	10.767	99	50 - 200	-0.0010	+/-0.50	
Chrysene-d12	1271453	14.039	1277186	14.032	100	50 - 200	0.0070	+/-0.50	
Perylene-d12	1088725	16.144	1104000	16.141	99	50 - 200	0.0030	+/-0.50	
Matrix Spike Dup (2H14019-MSD1)			Lab File ID: 0809101S.D			Analyzed: 08/27/12 21:41			
1,4-Dichlorobenzene-d4	526372	5.03	434607	5.03	121	50 - 200	0.0000	+/-0.50	
Naphthalene-d8	2096195	6.731	1752719	6.73	120	50 - 200	0.0010	+/-0.50	
Acenaphthene-d10	940280	8.98	862110	8.984	109	50 - 200	-0.0040	+/-0.50	
Phenanthrene-d10	1516482	10.767	1400013	10.767	108	50 - 200	0.0000	+/-0.50	
Chrysene-d12	1391001	14.04	1277186	14.032	109	50 - 200	0.0080	+/-0.50	
Perylene-d12	1173512	16.149	1104000	16.141	106	50 - 200	0.0080	+/-0.50	

INITIAL CALIBRATION DATA

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Acenaphthene	5	1.126373	10	1.126661	20	1.136371	40	1.207778	50	1.183683	60	1.180749
Acenaphthylene	5	1.810842	10	1.826999	20	1.946601	40	1.95698	50	1.93577	60	1.957812
Acetophenone												
Aniline	5	2.461105	10	2.59521	20	2.791143	40	2.610428	50	2.69129	60	2.589195
Anthracene	5	1.014193	10	1.004991	20	1.0912	40	1.07423	50	1.02393	60	1.072449
Atrazine												
Benzaldehyde												
Benzidine												
Benzo(a)anthracene	5	1.023662	10	1.064105	20	1.135045	40	1.146272	50	1.143449	60	1.173419
Benzo(a)pyrene	5	0.9256968	10	1.009923	20	1.044091	40	1.053488	50	1.090938	60	1.062997
Benzo(b)fluoranthene	5	1.049749	10	1.119984	20	1.110806	40	1.136291	50	1.228656	60	1.099329
Benzo(g,h,i)perylene	5	0.8228635	10	0.9017828	20	0.9584962	40	0.9613374	50	0.9745618	60	0.9591791
Benzoic acid	5	~~8.240963E-02~~	10	~~0.1021864~~	20	0.1472441	40	0.1907186	50	0.2085996	60	0.2242009
Benzo(k)fluoranthene	5	1.062616	10	1.151443	20	1.247663	40	1.19235	50	1.198395	60	1.276877
Benzyl alcohol	5	0.9754856	10	0.9854316	20	1.03627	40	1.043161	50	1.014095	60	1.001162
1,1-Biphenyl												
4-Bromophenyl-phenylether	5	0.1781673	10	0.1784268	20	0.1945771	40	0.1931838	50	0.1904274	60	0.1941092
Butylbenzylphthalate	5	0.540657	10	0.5849321	20	0.6844322	40	0.6688168	50	0.7151465	60	0.7108238
Caprolactam												
Carbazole	5	1.013438	10	0.9751917	20	1.063112	40	1.032205	50	1.009288	60	1.016735
4-Chloro-3-methylphenol	5	0.2681562	10	0.2746706	20	0.3034465	40	0.3014856	50	0.3057008	60	0.295067
4-Chloroaniline	5	0.4179676	10	0.4118575	20	0.4561695	40	0.4481711	50	0.4411264	60	0.4383111
Bis(2-chloroethoxy)methane	5	0.5149505	10	0.5117899	20	0.5567584	40	0.5304999	50	0.5252526	60	0.5183715
Bis(2-chloroethyl)ether	5	1.79464	10	1.92201	20	1.933689	40	1.82667	50	1.849083	60	1.801492
2,2'-Oxybis-1-chloropropane	5	2.363796	10	2.476656	20	2.412512	40	2.300807	50	2.318796	60	2.222365
2-Chloronaphthalene	5	1.13273	10	1.117619	20	1.175043	40	1.176633	50	1.145012	60	1.229649
2-Chlorophenol	5	1.392984	10	1.416555	20	1.534166	40	1.524408	50	1.506707	60	1.496356
4-Chlorophenyl phenyl ether	5	0.5904094	10	0.5813123	20	0.5912155	40	0.578043	50	0.5830776	60	0.5832737
Chrysene	5	1.046865	10	1.023335	20	1.081624	40	1.06487	50	1.081586	60	1.04815
Dibenz(a,h)anthracene	5	0.7885676	10	0.9019827	20	0.9510476	40	0.9365455	50	0.9787881	60	0.9711654
Dibenzofuran	5	1.526746	10	1.532649	20	1.563857	40	1.629439	50	1.595734	60	1.561346

INITIAL CALIBRATION DATA

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Di-n-butylphthalate	5	1.305877	10	1.277559	20	1.478226	40	1.504704	50	1.450457	60	1.566813
1,4-Dichlorobenzene	5	1.408334	10	1.40895	20	1.512679	40	1.46844	50	1.495222	60	1.444385
1,3-Dichlorobenzene	5	1.376031	10	1.431382	20	1.502069	40	1.43419	50	1.465406	60	1.413851
1,2-Dichlorobenzene	5	1.336277	10	1.327384	20	1.422078	40	1.364305	50	1.383533	60	1.348974
3,3'-Dichlorobenzidine												
2,6-Dichlorophenol												
2,4-Dichlorophenol	5	0.2154991	10	0.223946	20	0.2462342	40	0.2558014	50	0.2492882	60	0.2506124
Diethylphthalate	5	1.270876	10	1.320807	20	1.381461	40	1.377271	50	1.385767	60	1.415821
2,4-Dimethylphenol	5	0.346181	10	0.3487812	20	0.3705044	40	0.3578533	50	0.3502636	60	0.3508821
Dimethyl phthalate	5	1.283415	10	1.306138	20	1.340225	40	1.37046	50	1.306569	60	1.358887
4,6-Dinitro-2-methylphenol	5	~~8.258835E-02~~	10	9.743835E-02	20	0.1195989	40	0.1417304	50	0.1474593	60	0.1594134
2,4-Dinitrophenol	5	~~0.1057435~~	10	0.1257444	20	0.1586353	40	0.1914349	50	0.2020648	60	0.2157894
2,4-Dinitrotoluene	5	0.3259939	10	0.370293	20	0.3950459	40	0.4356606	50	0.4180124	60	0.4246641
2,6-Dinitrotoluene	5	0.2872698	10	0.2920352	20	0.3201515	40	0.3141573	50	0.3178789	60	0.3327001
Di-n-octylphthalate	5	1.13257	10	1.356646	20	1.581187	40	1.78149	50	1.89801	60	1.912101
1,4-Dioxane												
1,2-Diphenylhydrazine	5	1.190229	10	1.219457	20	1.302156	40	1.200231	50	1.172083	60	1.253691
Bis(2-ethylhexyl)phthalate	5	0.7668985	10	0.8121303	20	0.9357354	40	0.9596238	50	0.9817301	60	0.976526
Fluoranthene	5	1.062951	10	1.074676	20	1.198513	40	1.177869	50	1.103442	60	1.103923
Fluorene	5	1.223545	10	1.234006	20	1.271113	40	1.239998	50	1.213156	60	1.229349
2-Fluorobiphenyl	5	1.240671	10	1.280891	20	1.29841	40	1.294668	50	1.297831	60	1.364536
2-Fluorophenol	10	1.425017	20	1.467693	40	1.586937	80	1.540058	100	1.517234	120	1.490853
Hexachlorobenzene	5	0.2033176	10	0.1971483	20	0.2152024	40	0.2116395	50	0.2081886	60	0.2112997
Hexachlorobutadiene	5	0.1370517	10	0.1355859	20	0.1482413	40	0.1409609	50	0.141565	60	0.1404629
Hexachlorocyclopentadiene	5	0.2927981	10	0.3220645	20	0.3316502	40	0.340652	50	0.3455415	60	0.370985
Hexachloroethane	5	0.7054781	10	0.6586897	20	0.7333452	40	0.6590675	50	0.6797874	60	0.665835
Indeno(1,2,3-cd)pyrene	5	0.9780185	10	1.036435	20	1.131378	40	1.125406	50	1.155951	60	1.143272
Isophorone	5	0.8400887	10	0.8101089	20	0.8968455	40	0.8736712	50	0.8802044	60	0.8739238
1-Methylnaphthalene	5	0.4867605	10	0.4715883	20	0.5151534	40	0.5068099	50	0.4944881	60	0.4903482
2-Methylnaphthalene	5	0.4979257	10	0.4933083	20	0.5283806	40	0.5154121	50	0.5210468	60	0.5090314
2-Methylphenol	5	1.360867	10	1.390202	20	1.449519	40	1.444984	50	1.436217	60	1.358288

INITIAL CALIBRATION DATA

SW8270D

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_061	
Client:	Shaw E & I (I700)		Project:	Kirtland AFB 2011	
Calibration:	2156006		Instrument:	MS-BNA1	
Matrix:	Water		Calibration Dates:	5/31/12 18:21	6/1/12 1:16

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3-Methylphenol	5	1.340828	10	1.421969	20	1.555837	40	1.455048	50	1.481826	60	1.43736
4-Methylphenol	5	1.340828	10	1.421969	20	1.555837	40	1.455048	50	1.481826	60	1.43736
3-Methylphenol/4-Methylphenol	5	1.340828	10	1.421969	20	1.555837	40	1.455048	50	1.481826	60	1.43736
Naphthalene	5	1.04581	10	1.008543	20	1.131666	40	1.05418	50	1.066415	60	1.061675
4-Nitroaniline	5	0.3425526	10	0.3790494	20	0.4144153	40	0.4387588	50	0.4386155	60	0.4528719
3-Nitroaniline	5	0.3778062	10	0.4018527	20	0.427857	40	0.4563724	50	0.4511324	60	0.4552402
2-Nitroaniline	5	0.3348095	10	0.3794587	20	0.4097382	40	0.3964288	50	0.4169248	60	0.4094302
Nitrobenzene	5	0.4676748	10	0.4263656	20	0.4549903	40	0.4449821	50	0.4400608	60	0.4364229
Nitrobenzene-d5	5	0.4391221	10	0.4112926	20	0.4614935	40	0.4362959	50	0.44672	60	0.4445621
4-Nitrophenol	5	0.2405149	10	0.262735	20	0.2735694	40	0.2895708	50	0.2836056	60	0.3122808
2-Nitrophenol	5	0.1700531	10	0.1738362	20	0.1976594	40	0.1932137	50	0.1998064	60	0.2032045
N-Nitrosodimethylamine	5	0.6269734	10	0.59035	20	0.6517906	40	0.6216008	50	0.6093813	60	0.5738985
N-Nitrosodiphenylamine	5	0.5884764	10	0.6014375	20	0.6492499	40	0.6089782	50	0.6264034	60	0.6216496
N-Nitroso-di-n-propylamine	5	1.189603	10	1.156485	20	1.190885	40	1.171331	50	1.192116	60	1.134954
Pentachlorophenol	5	~~8.153637E-02~~	10	9.572368E-02	20	0.1293694	40	0.1371883	50	0.1373123	60	0.1416215
Phenanthrene	5	1.014155	10	1.006672	20	1.061624	40	1.065084	50	1.016924	60	1.03761
Phenol	5	2.439416	10	2.384831	20	2.521563	40	2.386374	50	2.341627	60	2.276088
Phenol-d6	10	1.976918	20	1.970167	40	2.125538	80	2.024099	100	2.06832	120	1.968604
Pyrene	5	1.217607	10	1.246171	20	1.316716	40	1.285709	50	1.335394	60	1.32673
Pyridine	5	2.217909	10	2.319321	20	2.362185	40	2.245072	50	2.304893	60	2.132767
Terphenyl-d14	5	0.6870783	10	0.7499243	20	0.7736616	40	0.7546076	50	0.7667226	60	0.7702226
1,2,4,5-Tetrachlorobenzene												
2,3,4,6-Tetrachlorophenol	5	0.2713826	10	0.2770377	20	0.2900389	40	0.3048646	50	0.3105629	60	0.313908
2,4,6-Tribromophenol	10	9.588103E-02	20	9.818431E-02	40	0.1149666	80	0.1157648	100	0.111198	120	0.116375
1,2,4-Trichlorobenzene	5	0.2466628	10	0.2378432	20	0.2632445	40	0.255608	50	0.2597381	60	0.2527829
2,4,6-Trichlorophenol	5	0.3270577	10	0.3414148	20	0.3497186	40	0.3710868	50	0.3712814	60	0.3860436
2,4,5-Trichlorophenol	5	0.3185211	10	0.3294909	20	0.365739	40	0.3767376	50	0.3831701	60	0.3975717

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Acenaphthene	80	1.058327	100	1.075952								
Acenaphthylene	80	1.766561	100	1.807569								
Acetophenone					5	1.909817	10	2.031129	20	2.039047	40	2.018201
Aniline	80	2.56114	100	2.442012								
Anthracene	80	1.093431	100	1.063954								
Atrazine					5	0.1668844	10	0.1757564	20	0.1836768	40	0.1907388
Benzaldehyde					5	1.357752	10	1.334678	20	1.373112	40	1.372376
Benzidine					5	0.6830456	10	0.7212548	20	0.8033707	40	0.8249081
Benzo(a)anthracene	80	1.184845	100	1.145572								
Benzo(a)pyrene	80	1.077988	100	1.036302								
Benzo(b)fluoranthene	80	1.131156	100	1.080335								
Benzo(g,h,i)perylene	80	0.9573059	100	0.9263243								
Benzoic acid	80	0.2406599	100	0.2603454								
Benzo(k)fluoranthene	80	1.16585	100	1.171508								
Benzyl alcohol	80	1.029513	100	1.035805								
1,1-Biphenyl					5	1.43531	10	1.485164	20	1.474266	40	1.495622
4-Bromophenyl-phenylether	80	0.1927913	100	0.1887663								
Butylbenzylphthalate	80	0.7341818	100	0.7261509								
Caprolactam					5	9.768377E-02	10	0.104025	20	0.1135163	40	0.1237562
Carbazole	80	1.012087	100	0.9890369								
4-Chloro-3-methylphenol	80	0.2932545	100	0.2890361								
4-Chloroaniline	80	0.4483115	100	0.4320235								
Bis(2-chloroethoxy)methane	80	0.4905203	100	0.497847								
Bis(2-chloroethyl)ether	80	1.844531	100	1.824293								
2,2'-Oxybis-1-chloropropane	80	2.233244	100	2.249014								
2-Chloronaphthalene	80	1.06362	100	1.133535								
2-Chlorophenol	80	1.532319	100	1.543943								
4-Chlorophenyl phenyl ether	80	0.5067925	100	0.5106141								
Chrysene	80	1.066935	100	1.042461								
Dibenz(a,h)anthracene	80	0.9601124	100	0.9315984								
Dibenzofuran	80	1.516069	100	1.529287								

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Di-n-butylphthalate	80	1.478792	100	1.316343								
1,4-Dichlorobenzene	80	1.440058	100	1.424768								
1,3-Dichlorobenzene	80	1.419489	100	1.428808								
1,2-Dichlorobenzene	80	1.360182	100	1.328803								
3,3'-Dichlorobenzidine					5	0.3313013	10	0.3525136	20	0.3766457	40	0.4004942
2,6-Dichlorophenol					5	0.2116836	10	0.2297115	20	0.2340374	40	0.2438428
2,4-Dichlorophenol	80	0.2419917	100	0.2447231								
Diethylphthalate	80	1.341489	100	1.411306								
2,4-Dimethylphenol	80	0.3388421	100	0.3521381								
Dimethyl phthalate	80	1.239793	100	1.297666								
4,6-Dinitro-2-methylphenol	80	0.1657449	100	0.1650316								
2,4-Dinitrophenol	80	0.2095114	100	0.221143								
2,4-Dinitrotoluene	80	0.4230432	100	0.4283516								
2,6-Dinitrotoluene	80	0.2957203	100	0.3063496								
Di-n-octylphthalate	80	1.966801	100	1.903473								
1,4-Dioxane					5	1.144446	10	0.804527	20	0.7823947	40	0.8116822
1,2-Diphenylhydrazine	80	1.16861	100	1.146099								
Bis(2-ethylhexyl)phthalate	80	0.9999323	100	0.9773898								
Fluoranthene	80	1.156661	100	1.055531								
Fluorene	80	1.040954	100	1.08819								
2-Fluorobiphenyl	80	1.183214	100	1.241869								
2-Fluorophenol	160	1.462558	200	1.470653								
Hexachlorobenzene	80	0.2160123	100	0.2064807								
Hexachlorobutadiene	80	0.1374434	100	0.1396075								
Hexachlorocyclopentadiene	80	0.3430654	100	0.3549931								
Hexachloroethane	80	0.6555376	100	0.6572187								
Indeno(1,2,3-cd)pyrene	80	1.137759	100	1.102703								
Isophorone	80	0.8661524	100	0.8720059								
1-Methylnaphthalene	80	0.4699895	100	0.4694343								
2-Methylnaphthalene	80	0.4913134	100	0.4928645								
2-Methylphenol	80	1.375262	100	1.360828								

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3-Methylphenol	80	1.429646	100	1.419856								
4-Methylphenol	80	1.429646	100	1.419856								
3-Methylphenol/4-Methylphenol	80	1.429646	100	1.419856								
Naphthalene	80	1.018101	100	1.016697								
4-Nitroaniline	80	0.4391007	100	0.4375337								
3-Nitroaniline	80	0.4129324	100	0.4211253								
2-Nitroaniline	80	0.383058	100	0.4032748								
Nitrobenzene	80	0.4299797	100	0.4398174								
Nitrobenzene-d5	80	0.4348711	100	0.4433668								
4-Nitrophenol	80	0.2820391	100	0.2887068								
2-Nitrophenol	80	0.2000968	100	0.2043441								
N-Nitrosodimethylamine	80	0.5785712	100	0.5806788								
N-Nitrosodiphenylamine	80	0.6195758	100	0.6132362								
N-Nitroso-di-n-propylamine	80	1.117607	100	1.115744								
Pentachlorophenol	80	0.1436813	100	0.1432464								
Phenanthrene	80	1.058948	100	0.9871006								
Phenol	80	2.166796	100	2.084501								
Phenol-d6	160	1.945001	200	1.906219								
Pyrene	80	1.319631	100	1.31167								
Pyridine	80	2.152654	100	2.199151								
Terphenyl-d14	80	0.7576691	100	0.7481279								
1,2,4,5-Tetrachlorobenzene					5	0.2673972	10	0.2585537	20	0.2568752	40	0.2752239
2,3,4,6-Tetrachlorophenol	80	0.3015184	100	0.3140667								
2,4,6-Tribromophenol	160	0.115848	200	0.1109646								
1,2,4-Trichlorobenzene	80	0.245253	100	0.2497424								
2,4,6-Trichlorophenol	80	0.3535512	100	0.3693888								
2,4,5-Trichlorophenol	80	0.3697035	100	0.3711222								

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Acenaphthene												
Acenaphthylene												
Acetophenone	50	1.970584	60	2.005776	80	1.939757	100	1.940128				
Aniline												
Anthracene												
Atrazine	50	0.1992863	60	0.203983	80	0.1849645	100	0.1915681				
Benzaldehyde	50	1.310853	60	1.34766	80	1.279366	100	1.261819				
Benzidine	50	0.8559782	60	0.8868889	80	0.8803441	100	0.8857341				
Benzo(a)anthracene												
Benzo(a)pyrene												
Benzo(b)fluoranthene												
Benzo(g,h,i)perylene												
Benzoic acid												
Benzo(k)fluoranthene												
Benzyl alcohol												
1,1-Biphenyl	50	1.477857	60	1.508824	80	1.447525	100	1.35277				
4-Bromophenyl-phenylether												
Butylbenzylphthalate												
Caprolactam	50	0.1217425	60	0.1291279	80	0.1187536	100	0.1252729				
Carbazole												
4-Chloro-3-methylphenol												
4-Chloroaniline												
Bis(2-chloroethoxy)methane												
Bis(2-chloroethyl)ether												
2,2'-Oxybis-1-chloropropane												
2-Chloronaphthalene												
2-Chlorophenol												
4-Chlorophenyl phenyl ether												
Chrysene												
Dibenz(a,h)anthracene												
Dibenzofuran												

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Di-n-butylphthalate												
1,4-Dichlorobenzene												
1,3-Dichlorobenzene												
1,2-Dichlorobenzene												
3,3'-Dichlorobenzidine	50	0.4015406	60	0.4031838	80	0.4021314	100	0.4067897				
2,6-Dichlorophenol	50	0.239802	60	0.2546334	80	0.242233	100	0.245765				
2,4-Dichlorophenol												
Diethylphthalate												
2,4-Dimethylphenol												
Dimethyl phthalate												
4,6-Dinitro-2-methylphenol												
2,4-Dinitrophenol												
2,4-Dinitrotoluene												
2,6-Dinitrotoluene												
Di-n-octylphthalate												
1,4-Dioxane	50	0.7646333	60	0.7828108	80	0.7489522	100	0.7514672				
1,2-Diphenylhydrazine												
Bis(2-ethylhexyl)phthalate												
Fluoranthene												
Fluorene												
2-Fluorobiphenyl												
2-Fluorophenol												
Hexachlorobenzene												
Hexachlorobutadiene												
Hexachlorocyclopentadiene												
Hexachloroethane												
Indeno(1,2,3-cd)pyrene												
Isophorone												
1-Methylnaphthalene												
2-Methylnaphthalene												
2-Methylphenol												

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Level 13		Level 14		Level 15		Level 16		Level 17		Level 18	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
3-Methylphenol												
4-Methylphenol												
3-Methylphenol/4-Methylphenol												
Naphthalene												
4-Nitroaniline												
3-Nitroaniline												
2-Nitroaniline												
Nitrobenzene												
Nitrobenzene-d5												
4-Nitrophenol												
2-Nitrophenol												
N-Nitrosodimethylamine												
N-Nitrosodiphenylamine												
N-Nitroso-di-n-propylamine												
Pentachlorophenol												
Phenanthrene												
Phenol												
Phenol-d6												
Pyrene												
Pyridine												
Terphenyl-d14												
1,2,4,5-Tetrachlorobenzene	50	0.256451	60	0.2609758	80	0.253498	100	0.2489809				
2,3,4,6-Tetrachlorophenol												
2,4,6-Tribromophenol												
1,2,4-Trichlorobenzene												
2,4,6-Trichlorophenol												
2,4,5-Trichlorophenol												

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Acenaphthene	1.136987	4.610921	9.54875	2.537973E-02			CCC (20)	
Acenaphthylene	1.876142	4.278989	9.3145	2.862828E-02			CCC (20)	
Acetophenone	1.981805	2.443984	6.14725	2.928372E-02			CCC (20)	
Aniline	2.59269	4.384402	5.211375	3.113529E-02			CCC (20)	
Anthracene	1.054797	3.337087	11.38587	3.183207E-02			CCC (20)	
Atrazine	0.1871073	6.452663	11.01525	3.267773E-02			CCC (20)	
Benzaldehyde	1.329702	3.157148	5.021375	0.1027376			CCC (20)	
Benzidine	0.8176906	9.528755	12.95575	2.858378E-02			CCC (20)	
Benzo(a)anthracene	1.127046	4.881377	14.65812	2.460934E-02			CCC (20)	
Benzo(a)pyrene	1.037678	4.981683	16.838	3.725826E-02			CCC (20)	
Benzo(b)fluoranthene	1.119538	4.679822	16.32837	2.557249E-02			CCC (20)	
Benzo(g,h,i)perylene	0.9327314	5.376684	19.03263	4.978478E-02			CCC (20)	
Benzoic acid	0.2119614	18.8304	7.0335	0.3891312	0.9954999		CCC (20)	
Benzo(k)fluoranthene	1.183338	5.460999	16.36925	3.987242E-02			CCC (20)	
Benzyl alcohol	1.015115	2.502371	5.797875	4.476311E-02			CCC (20)	
1,1-Biphenyl	1.459667	3.383217	8.780125	3.729296E-02			CCC (20)	
4-Bromophenyl-phenylether	0.1888061	3.581119	10.76175	2.470838E-02			CCC (20)	
Butylbenzylphthalate	0.6706426	10.56623	13.936	2.374556E-02			CCC (20)	
Caprolactam	0.1167348	9.382822	7.773375	0.1378084			CCC (20)	
Carbazole	1.013887	2.61118	11.59225	3.206885E-02			CCC (20)	
4-Chloro-3-methylphenol	0.2913522	4.666513	8.03675	4.274257E-02			CCC (20)	
4-Chloroaniline	0.4367423	3.523411	7.40025	3.757596E-02			CCC (20)	
Bis(2-chloroethoxy)methane	0.5182488	3.940866	6.9935	4.402514E-02			CCC (20)	
Bis(2-chloroethyl)ether	1.849551	2.805056	5.289375	3.462935E-02			CCC (20)	
2,2'-Oxybis-1-chloropropane	2.322149	3.901215	6.005625	4.703934E-02			CCC (20)	
2-Chloronaphthalene	1.14673	4.259283	8.787375	2.466258E-02			CCC (20)	
2-Chlorophenol	1.49343	3.827145	5.348	3.591251E-02			CCC (20)	
4-Chlorophenyl phenyl ether	0.5655923	6.259231	10.17075	3.352785E-02			CCC (20)	
Chrysene	1.056978	1.924721	14.72312	2.782504E-02			CCC (20)	
Dibenz(a,h)anthracene	0.927476	6.59718	18.62625	4.077529E-02			CCC (20)	
Dibenzofuran	1.556891	2.518876	9.742375	3.108054E-02			CCC (20)	
Di-n-butylphthalate	1.422346	7.540338	12.08013	0.0246113			CCC (20)	

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,4-Dichlorobenzene	1.450355	2.670476	5.603125	4.683992E-02			CCC (20)	
1,3-Dichlorobenzene	1.433903	2.586767	5.5345	4.321722E-02			CCC (20)	
1,2-Dichlorobenzene	1.358942	2.349938	5.850625	6.495423E-02			CCC (20)	
3,3'-Dichlorobenzidine	0.384325	7.371056	14.655	2.221076E-02			CCC (20)	
2,6-Dichlorophenol	0.2377136	5.435301	7.404625	0.0297561			15	
2,4-Dichlorophenol	0.241012	5.790922	7.105625	0.0379082			CCC (20)	
Diethylphthalate	1.3631	3.60638	10.1085	4.833197E-02			CCC (20)	
2,4-Dimethylphenol	0.3519307	2.6269	6.8725	3.935577E-02			CCC (20)	
Dimethyl phthalate	1.312894	3.245142	9.238625	5.225678E-02			CCC (20)	
4,6-Dinitro-2-methylphenol	0.1423453	17.94308	10.29343	4.115558E-02	0.9980523		CCC (20)	
2,4-Dinitrophenol	0.189189	18.4006	9.607429	0.0282888	0.9981513		CCC (20)	
2,4-Dinitrotoluene	0.4026331	9.32502	9.79725	0.0617772			CCC (20)	
2,6-Dinitrotoluene	0.3082828	5.100586	9.322875	3.375428E-02			CCC (20)	
Di-n-octylphthalate	1.691535	18.1091	15.73738	8.920026E-03	0.998712		CCC (20)	
1,4-Dioxane	0.8238642	15.96241	2.38425	0.2127164	0.9987984		0.995	
1,2-Diphenylhydrazine	1.206569	4.216433	10.35925	3.046759E-02			CCC (20)	
Bis(2-ethylhexyl)phthalate	0.9262458	9.418168	14.78912	2.073609E-02			CCC (20)	
Fluoranthene	1.116696	4.877621	12.78262	2.488438E-02			CCC (20)	
Fluorene	1.192539	6.8531	10.1635	1.831758E-02			CCC (20)	
2-Fluorobiphenyl	1.275261	4.213199	8.675375	0.0388525			CCC (20)	
2-Fluorophenol	1.495125	3.418147	4.023	8.822776E-02			CCC (20)	
Hexachlorobenzene	0.2086611	3.024166	10.94213	3.344562E-02			CCC (20)	
Hexachlorobutadiene	0.1401148	2.780776	7.536625	3.397306E-02			CCC (20)	
Hexachlorocyclopentadiene	0.3377187	6.901918	8.47325	4.298849E-02			CCC (20)	
Hexachloroethane	0.6768699	4.188695	6.2545	5.956743E-02			CCC (20)	
Indeno(1,2,3-cd)pyrene	1.101365	5.635983	18.5995	4.070788E-02			CCC (20)	
Isophorone	0.8641251	3.116903	6.678	4.714209E-02			CCC (20)	
1-Methylnaphthalene	0.4880715	3.530661	8.31475	3.359849E-02			CCC (20)	
2-Methylnaphthalene	0.5061603	2.833051	8.176375	3.303677E-02			CCC (20)	
2-Methylphenol	1.397021	2.867079	5.980125	0.0642539			CCC (20)	
3-Methylphenol	1.442796	4.225024	6.17775	5.592369E-02			CCC (20)	
4-Methylphenol	1.442796	4.225024	6.17775	5.592369E-02			CCC (20)	

INITIAL CALIBRATION DATA (Continued)

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2156006	Instrument:	MS-BNA1
Matrix:	Water	Calibration Dates:	5/31/12 18:21 6/1/12 1:16

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
3-Methylphenol/4-Methylphenol	1.442796	4.225024	6.17775	5.592369E-02			15	
Naphthalene	1.050386	3.766123	7.291375	3.582831E-02	0.9987203		CCC (20)	
4-Nitroaniline	0.4178622	9.099725	10.24962	7.654662E-02			CCC (20)	
3-Nitroaniline	0.4255398	6.59374	9.490375	2.393136E-02			CCC (20)	
2-Nitroaniline	0.3916404	6.751009	8.97175	3.005722E-02			CCC (20)	
Nitrobenzene	0.4425367	3.03541	6.375375	3.630387E-02			CCC (20)	
Nitrobenzene-d5	0.4397155	3.220291	6.35475	3.087934E-02			CCC (20)	
4-Nitrophenol	0.2791278	7.562366	9.705	0.0308043			CCC (20)	
2-Nitrophenol	0.1927768	6.917105	6.80025	5.004085E-02			CCC (20)	
N-Nitrosodimethylamine	0.6041556	4.611359	2.67875	0.1737974			CCC (20)	
N-Nitrosodiphenylamine	0.6161259	2.932406	10.329	4.367276E-02			CCC (20)	
N-Nitroso-di-n-propylamine	1.158591	2.800488	6.19	6.883484E-02			CCC (20)	
Pentachlorophenol	0.1325918	12.81054	11.16014	1.113155E-02	0.999758		CCC (20)	
Phenanthrene	1.031015	2.821899	11.33125	1.322467E-02			CCC (20)	
Phenol	2.325149	6.181608	5.19525	0.1100308			CCC (20)	
Phenol-d6	1.998108	3.54938	5.180875	5.928961E-02			CCC (20)	
Pyrene	1.294953	3.257355	13.05513	2.380264E-02			CCC (20)	
Pyridine	2.241744	3.644244	2.689625	0.2590654			CCC (20)	
Terphenyl-d14	0.7510018	3.658113	13.261	2.512336E-02			CCC (20)	
1,2,4,5-Tetrachlorobenzene	0.2597445	3.171612	8.44075	0.0181102			CCC (20)	
2,3,4,6-Tetrachlorophenol	0.2979225	5.587562	9.953375	3.236325E-02			CCC (20)	
2,4,6-Tribromophenol	0.1098978	7.487575	10.48813	3.709326E-02			CCC (20)	
1,2,4-Trichlorobenzene	0.2513594	3.281268	7.214625	4.030846E-02			CCC (20)	
2,4,6-Trichlorophenol	0.3586929	5.353135	8.578	0.0371309			CCC (20)	
2,4,5-Trichlorophenol	0.364007	7.343881	8.621625	0.0356141			CCC (20)	

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV1.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/01/12
Lab Sample ID:	2F15401-ICV1	Injection Time:	01:44

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Acenaphthene	A	50.00	52.28	1.136987	1.18891	0.9	4.6	20
Acenaphthylene	A	50.00	52.97	1.876142	1.987563	0.9	5.9	20
Anthracene	A	50.00	56.85	1.054797	1.199221	0.7	13.7	20
Benzo(a)anthracene	A	50.00	55.91	1.127046	1.260227	0.8	11.8	20
Benzo(a)pyrene	A	50.00	55.56	1.037678	1.15312	0.7	11.1	20
Benzo(b)fluoranthene	A	50.00	56.27	1.119538	1.259969	0.7	12.5	20
Benzo(g,h,i)perylene	A	50.00	56.39	0.9327314	1.051889	0.5	12.8	20
Benzoic acid	L	50.00	50.34	0.2119614	0.2192291	0.01	0.7	20
Benzo(k)fluoranthene	A	50.00	58.47	1.183338	1.383682	0.7	16.9	20
4-Bromophenyl-phenylether	A	50.00	56.88	0.1888061	0.2147915	0.1	13.8	20
Butylbenzylphthalate	A	50.00	55.94	0.6706426	0.7502704	0.01	11.9	20
Carbazole	A	50.00	59.92	1.013887	1.214997	0.01	19.8	20
4-Chloro-3-methylphenol	A	50.00	55.75	0.2913522	0.3248366	0.2	11.5	20
4-Chloroaniline	A	50.00	53.60	0.4367423	0.4682288	0.01	7.2	20
Bis(2-chloroethoxy)methane	A	50.00	56.04	0.5182488	0.5808419	0.3	12.1	20
Bis(2-chloroethyl)ether	A	50.00	54.62	1.849551	2.020398	0.7	9.2	20
2,2'-Oxybis-1-chloropropane	A	50.00	55.20	2.322149	2.56365	0.01	10.4	20
2-Chloronaphthalene	A	50.00	52.86	1.14673	1.212368	0.8	5.7	20
2-Chlorophenol	A	50.00	55.72	1.49343	1.664365	0.8	11.4	20
4-Chlorophenyl phenyl ether	A	50.00	53.75	0.5655923	0.6079644	0.4	7.5	20
Chrysene	A	50.00	57.18	1.056978	1.208818	0.7	14.4	20
Dibenz(a,h)anthracene	A	50.00	56.43	0.927476	1.046834	0.4	12.9	20
Dibenzofuran	A	50.00	54.71	1.556891	1.703596	0.8	9.4	20
Di-n-butylphthalate	A	50.00	53.90	1.422346	1.533229	0.01	7.8	20
2,4-Dichlorophenol	A	50.00	57.15	0.241012	0.2754647	0.2	14.3	20
Diethylphthalate	A	50.00	51.62	1.3631	1.407182	0.01	3.2	20
2,4-Dimethylphenol	A	50.00	56.37	0.3519307	0.3967907	0.2	12.7	20
Dimethyl phthalate	A	50.00	53.43	1.312894	1.40299	0.01	6.9	20
4,6-Dinitro-2-methylphenol	L	50.00	56.94	0.1423453	0.1787024	0.01	13.9	20

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV1.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/01/12
Lab Sample ID:	2F15401-ICV1	Injection Time:	01:44

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
2,4-Dinitrophenol	L	50.00	49.86	0.189189	0.204172	0.01	-0.3	20
2,4-Dinitrotoluene	A	50.00	56.18	0.4026331	0.4523617	0.2	12.4	20
2,6-Dinitrotoluene	A	50.00	53.37	0.3082828	0.3290546	0.2	6.7	20
Di-n-octylphthalate	L	50.00	53.80	1.691535	2.025073	0.01	7.6	20
1,2-Diphenylhydrazine	A	50.00	58.61	1.206569	1.414303	0.01	17.2	20
Bis(2-ethylhexyl)phthalate	A	50.00	55.82	0.9262458	1.034102	0.01	11.6	20
Fluoranthene	A	50.00	57.49	1.116696	1.284003	0.6	15.0	20
Fluorene	A	50.00	53.38	1.192539	1.273271	0.9	6.8	20
Hexachlorobenzene	A	50.00	57.79	0.2086611	0.2411885	0.1	15.6	20
Hexachlorobutadiene	A	50.00	59.70	0.1401148	0.167303	0.01	19.4	20
Hexachlorocyclopentadiene	A	50.00	43.19	0.3377187	0.291715	0.05	-13.6	20
Hexachloroethane	A	50.00	52.64	0.6768699	0.7125546	0.3	5.3	20
Indeno(1,2,3-cd)pyrene	A	50.00	56.43	1.101365	1.242899	0.5	12.9	20
Isophorone	A	50.00	55.82	0.8641251	0.9647871	0.4	11.6	20
1-Methylnaphthalene	A	50.00	55.32	0.4880715	0.5400463	0.01	10.6	20
2-Methylnaphthalene	A	50.00	53.82	0.5061603	0.5448451	0.4	7.6	20
2-Methylphenol	A	50.00	56.69	1.397021	1.58382	0.7	13.4	20
3-Methylphenol/4-Methylphenol	A	50.00	55.23	1.442796	1.593735		10.5	20
4-Nitroaniline	A	50.00	55.74	0.4178622	0.4658575	0.01	11.5	20
3-Nitroaniline	A	50.00	54.25	0.4255398	0.4617218	0.01	8.5	20
2-Nitroaniline	A	50.00	59.60	0.3916404	0.4668146	0.01	19.2	20
Nitrobenzene	A	50.00	55.56	0.4425367	0.4917633	0.2	11.1	20
4-Nitrophenol	A	50.00	53.18	0.2791278	0.2968784	0.01	6.4	20
2-Nitrophenol	A	50.00	55.62	0.1927768	0.2144334	0.1	11.2	20
N-Nitrosodiphenylamine	A	50.00	56.94	0.6161259	0.7016204	0.01	13.9	20
N-Nitroso-di-n-propylamine	A	50.00	55.53	1.158591	1.286832	0.5	11.1	20
Phenanthrene	A	50.00	59.85	1.031015	1.234194	0.7	19.7	20
Phenol	A	50.00	55.06	2.325149	2.56064	0.8	10.1	20
Pyrene	A	50.00	55.24	1.294953	1.430664	0.6	10.5	20

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV1.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/01/12
Lab Sample ID:	2F15401-ICV1	Injection Time:	01:44

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
2,4,6-Trichlorophenol	A	50.00	54.83	0.3586929	0.393337	0.2	9.7	20
2,4,5-Trichlorophenol	A	50.00	55.16	0.364007	0.4015604	0.2	10.3	20
2-Fluorobiphenyl	A	50.00	50.86	1.275261	1.297282	0.01	1.7	20
2-Fluorophenol	A	100.0	113.2	1.495125	1.692861	0.01	13.2	20
Nitrobenzene-d5	A	50.00	53.39	0.4397155	0.4695129	0.01	6.8	20
Phenol-d6	A	100.0	105.1	1.998108	2.100183	0.01	5.1	20
Terphenyl-d14	A	50.00	56.97	0.7510018	0.8556918	0.01	13.9	20
2,4,6-Tribromophenol	A	100.0	112.7	0.1098978	0.1238618	0.01	12.7	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV2.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/01/12
Lab Sample ID:	2F15401-ICV2	Injection Time:	02:12

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Acetophenone	A	50.00	48.73	1.981805	1.931304	0.01	-2.5	20
Atrazine	A	50.00	49.17	0.1871073	0.1839875	0.01	-1.7	20
Benzaldehyde	A	50.00	42.00	1.329702	1.116907	0.01	-16.0	20
1,1-Biphenyl	A	50.00	52.43	1.459667	1.530492	0.01	4.9	20
Caprolactam	A	50.00	56.08	0.1167348	0.1309352	0.01	12.2	20
3,3'-Dichlorobenzidine	A	50.00	52.39	0.384325	0.4026831	0.01	4.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV3.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/01/12
Lab Sample ID:	2F15401-ICV3	Injection Time:	16:44

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Naphthalene	L	50.00	59.82	1.050386	1.239127	0.7	19.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV4.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/01/12
Lab Sample ID:	2F15401-ICV4	Injection Time:	17:11

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Benzidine	A	50.00	55.53	0.8176906	0.9080606	0.01	11.1	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

INITIAL CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-ICV6.D	Calibration Date:	05/31/12 00:00
Sequence:	2F15401	Injection Date:	06/04/12
Lab Sample ID:	2F15401-ICV5	Injection Time:	15:03

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Pentachlorophenol	L	50.00	49.91	0.1325918	0.1389722	0.05	-0.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-CCV1.D	Calibration Date:	05/31/12 00:00
Sequence:	2H24101	Injection Date:	08/27/12
Lab Sample ID:	2H24101-CCV1	Injection Time:	11:57

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acenaphthene	A	50.00	51.33	1.136987	1.167222	0.9	2.7	20
Acenaphthylene	A	50.00	53.50	1.876142	2.007448	0.9	7.0	20
Anthracene	A	50.00	53.00	1.054797	1.118043	0.7	6.0	20
Benzo(a)anthracene	A	50.00	53.19	1.127046	1.198912	0.8	6.4	20
Benzo(a)pyrene	A	50.00	54.11	1.037678	1.122962	0.7	8.2	20
Benzo(b)fluoranthene	A	50.00	54.54	1.119538	1.221191	0.7	9.1	20
Benzo(g,h,i)perylene	A	50.00	55.42	0.9327314	1.033851	0.5	10.8	20
Benzoic acid	L	50.00	40.78	0.2119614	0.1634836	0.01	-18.4	20
Benzo(k)fluoranthene	A	50.00	56.93	1.183338	1.347257	0.7	13.9	20
4-Bromophenyl-phenylether	A	50.00	54.71	0.1888061	0.2066095	0.1	9.4	20
Butylbenzylphthalate	A	50.00	52.98	0.6706426	0.7106304	0.01	6.0	20
Carbazole	A	50.00	52.33	1.013887	1.061089	0.01	4.7	20
4-Chloro-3-methylphenol	A	50.00	49.99	0.2913522	0.2912937	0.2	-0.02	20
4-Chloroaniline	A	50.00	52.67	0.4367423	0.4600975	0.01	5.3	20
Bis(2-chloroethoxy)methane	A	50.00	45.80	0.5182488	0.4747234	0.3	-8.4	20
Bis(2-chloroethyl)ether	A	50.00	46.71	1.849551	1.727937	0.7	-6.6	20
2,2'-Oxybis-1-chloropropane	A	50.00	47.29	2.322149	2.196421	0.01	-5.4	20
2-Chloronaphthalene	A	50.00	51.33	1.14673	1.177183	0.8	2.7	20
2-Chlorophenol	A	50.00	53.00	1.49343	1.583015	0.8	6.0	20
4-Chlorophenyl phenyl ether	A	50.00	55.05	0.5655923	0.6227456	0.4	10.1	20
Chrysene	A	50.00	53.95	1.056978	1.140525	0.7	7.9	20
Dibenz(a,h)anthracene	A	50.00	55.44	0.927476	1.028445	0.4	10.9	20
Dibenzofuran	A	50.00	50.25	1.556891	1.564743	0.8	0.5	20
Di-n-butylphthalate	A	50.00	55.20	1.422346	1.570159	0.01	10.4	20
2,4-Dichlorophenol	A	50.00	55.10	0.241012	0.2656134	0.2	10.2	20
Diethylphthalate	A	50.00	54.04	1.3631	1.473373	0.01	8.1	20
2,4-Dimethylphenol	A	50.00	49.14	0.3519307	0.3458823	0.2	-1.7	20
Dimethyl phthalate	A	50.00	51.03	1.312894	1.339884	0.01	2.1	20
4,6-Dinitro-2-methylphenol	L	50.00	49.57	0.1423453	0.1527049	0.01	-0.9	20

CONTINUING CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-CCV1.D	Calibration Date:	05/31/12 00:00
Sequence:	2H24101	Injection Date:	08/27/12
Lab Sample ID:	2H24101-CCV1	Injection Time:	11:57

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
2,4-Dinitrophenol	L	50.00	51.52	0.189189	0.2119015	0.01	3.0	20
2,4-Dinitrotoluene	A	50.00	52.91	0.4026331	0.426096	0.2	5.8	20
2,6-Dinitrotoluene	A	50.00	55.40	0.3082828	0.3415573	0.2	10.8	20
Di-n-octylphthalate	L	50.00	48.94	1.691535	1.830977	0.01	-2.1	20
1,2-Diphenylhydrazine	A	50.00	43.23	1.206569	1.043301	0.01	-13.5	20
Bis(2-ethylhexyl)phthalate	A	50.00	49.72	0.9262458	0.9209672	0.01	-0.6	20
Fluoranthene	A	50.00	54.23	1.116696	1.211088	0.6	8.5	20
Fluorene	A	50.00	52.96	1.192539	1.26307	0.9	5.9	20
Hexachlorobenzene	A	50.00	53.90	0.2086611	0.2249265	0.1	7.8	20
Hexachlorobutadiene	A	50.00	54.23	0.1401148	0.1519605	0.01	8.5	20
Hexachlorocyclopentadiene	A	50.00	53.74	0.3377187	0.3630015	0.05	7.5	20
Hexachloroethane	A	50.00	51.07	0.6768699	0.6913243	0.3	2.1	20
Indeno(1,2,3-cd)pyrene	A	50.00	53.87	1.101365	1.186603	0.5	7.7	20
Isophorone	A	50.00	44.77	0.8641251	0.7737669	0.4	-10.5	20
1-Methylnaphthalene	A	50.00	57.32	0.4880715	0.5595763	0.01	14.7	20
2-Methylnaphthalene	A	50.00	57.58	0.5061603	0.5829001	0.4	15.2	20
2-Methylphenol	A	50.00	50.31	1.397021	1.405756	0.7	0.6	20
3-Methylphenol/4-Methylphenol	A	50.00	48.80	1.442796	1.408101		-2.4	20
Naphthalene	L	50.00	54.72	1.050386	1.135423	0.7	9.4	20
4-Nitroaniline	A	50.00	48.67	0.4178622	0.4067277	0.01	-2.7	20
3-Nitroaniline	A	50.00	48.47	0.4255398	0.4125088	0.01	-3.1	20
2-Nitroaniline	A	50.00	43.18	0.3916404	0.338264	0.01	-13.6	20
Nitrobenzene	A	50.00	47.54	0.4425367	0.4207296	0.2	-4.9	20
4-Nitrophenol	A	50.00	45.52	0.2791278	0.2541513	0.01	-8.9	20
2-Nitrophenol	A	50.00	55.80	0.1927768	0.2151596	0.1	11.6	20
N-Nitrosodiphenylamine	A	50.00	51.28	0.6161259	0.6318724	0.01	2.6	20
N-Nitroso-di-n-propylamine	A	50.00	46.70	1.158591	1.082009	0.5	-6.6	20
Pentachlorophenol	L	50.00	53.21	0.1325918	0.1487575	0.05	6.4	20
Phenanthrene	A	50.00	51.40	1.031015	1.059947	0.7	2.8	20

CONTINUING CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-CCV1.D	Calibration Date:	05/31/12 00:00
Sequence:	2H24101	Injection Date:	08/27/12
Lab Sample ID:	2H24101-CCV1	Injection Time:	11:57

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Phenol	A	50.00	46.68	2.325149	2.170787	0.8	-6.6	20
Pyrene	A	50.00	52.52	1.294953	1.360349	0.6	5.1	20
2,4,6-Trichlorophenol	A	50.00	50.17	0.3586929	0.3598937	0.2	0.3	20
2,4,5-Trichlorophenol	A	50.00	48.77	0.364007	0.3550331	0.2	-2.5	20
2-Fluorobiphenyl	A	50.00	52.06	1.275261	1.327827	0.01	4.1	20
2-Fluorophenol	A	100.0	99.12	1.495125	1.482047	0.01	-0.9	20
Nitrobenzene-d5	A	50.00	46.54	0.4397155	0.4092763	0.01	-6.9	20
Phenol-d6	A	100.0	92.68	1.998108	1.851905	0.01	-7.3	20
Terphenyl-d14	A	50.00	60.77	0.7510018	0.9127992	0.01	21.5	20 *
2,4,6-Tribromophenol	A	100.0	108.5	0.1098978	0.1192709	0.01	8.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8270D

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	MS-BNA1	Calibration:	2156006
Lab File ID:	SEQ-CCV2.D	Calibration Date:	05/31/12 00:00
Sequence:	2H24101	Injection Date:	08/27/12
Lab Sample ID:	2H24101-CCV2	Injection Time:	12:25

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Acetophenone	A	50.00	48.25	1.981805	1.912447	0.01	-3.5	20
Atrazine	A	50.00	55.51	0.1871073	0.2077275	0.01	11.0	20
Benzaldehyde	A	50.00	45.30	1.329702	1.204857	0.01	-9.4	20
Benzidine	A	50.00	49.42	0.8176906	0.8082584	0.01	-1.2	20
1,1-Biphenyl	A	50.00	54.50	1.459667	1.591023	0.01	9.0	20
Caprolactam	A	50.00	45.71	0.1167348	0.1067118	0.01	-8.6	20
3,3'-Dichlorobenzidine	A	50.00	53.74	0.384325	0.4130699	0.01	7.5	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-BLK1 File ID: H14019B1.D

Sampled: Prepared: Analyzed: 08/27/12 17:36

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene		1.25	2.50	5.00	U
208-96-8	Acenaphthylene		1.25	2.50	5.00	U
98-86-2	Acetophenone		1.25	2.50	5.00	U
120-12-7	Anthracene		1.25	2.50	5.00	U
1912-24-9	Atrazine		1.25	2.50	5.00	U
100-52-7	Benzaldehyde		1.25	2.50	5.00	U
92-87-5	Benzidine		12.5	50.0	100	U
56-55-3	Benzo(a)anthracene		1.25	2.50	5.00	U
50-32-8	Benzo(a)pyrene		1.25	2.50	5.00	U
205-99-2	Benzo(b)fluoranthene		1.25	2.50	5.00	U
191-24-2	Benzo(g,h,i)perylene		1.25	2.50	5.00	U
65-85-0	Benzoic acid		12.5	50.0	100	U
207-08-9	Benzo(k)fluoranthene		1.25	2.50	5.00	U
92-52-4	1,1-Biphenyl		1.25	2.50	5.00	U
101-55-3	4-Bromophenyl-phenylether		1.25	2.50	5.00	U
85-68-7	Butylbenzylphthalate		1.25	2.50	5.00	U
105-60-2	Caprolactam		1.25	2.50	5.00	U
86-74-8	Carbazole		1.25	2.50	5.00	U
59-50-7	4-Chloro-3-methylphenol		1.25	2.50	5.00	U
106-47-8	4-Chloroaniline		1.25	2.50	5.00	U
111-91-1	Bis(2-chloroethoxy)methane		1.25	2.50	5.00	U
111-44-4	Bis(2-chloroethyl)ether		1.25	2.50	5.00	U
108-60-1	2,2'-Oxybis-1-chloropropane		1.25	2.50	5.00	U
91-58-7	2-Chloronaphthalene		1.25	2.50	5.00	U
95-57-8	2-Chlorophenol		1.25	2.50	5.00	U
7005-72-3	4-Chlorophenyl phenyl ether		1.25	2.50	5.00	U
218-01-9	Chrysene		1.25	2.50	5.00	U
53-70-3	Dibenz(a,h)anthracene		1.25	2.50	5.00	U
132-64-9	Dibenzofuran		1.25	2.50	5.00	U
84-74-2	Di-n-butylphthalate		1.25	2.50	5.00	U
91-94-1	3,3'-Dichlorobenzidine		1.25	2.50	5.00	U
120-83-2	2,4-Dichlorophenol		1.25	2.50	5.00	U
84-66-2	Diethylphthalate		1.25	2.50	5.00	U
105-67-9	2,4-Dimethylphenol		5.00	10.0	20.0	U
131-11-3	Dimethyl phthalate		1.25	2.50	5.00	U
534-52-1	4,6-Dinitro-2-methylphenol		5.00	10.0	20.0	U
51-28-5	2,4-Dinitrophenol		8.33	25.0	50.0	U
121-14-2	2,4-Dinitrotoluene		1.25	2.50	5.00	U
606-20-2	2,6-Dinitrotoluene		1.25	2.50	5.00	U
117-84-0	Di-n-octylphthalate		1.25	2.50	5.00	U

ANALYSIS DATA SHEET

Blank

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-BLK1 File ID: H14019B1.D

Sampled: Prepared: Analyzed: 08/27/12 17:36

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine		1.25	2.50	5.00	U
117-81-7	Bis(2-ethylhexyl)phthalate		1.25	2.50	5.00	U
206-44-0	Fluoranthene		1.25	2.50	5.00	U
86-73-7	Fluorene		1.25	2.50	5.00	U
118-74-1	Hexachlorobenzene		1.25	2.50	5.00	U
87-68-3	Hexachlorobutadiene		1.25	2.50	5.00	U
77-47-4	Hexachlorocyclopentadiene		1.25	5.00	10.0	U
67-72-1	Hexachloroethane		1.25	2.50	5.00	U
193-39-5	Indeno(1,2,3-cd)pyrene		1.25	2.50	5.00	U
78-59-1	Isophorone		1.25	2.50	5.00	U
90-12-0	1-Methylnaphthalene		1.25	2.50	5.00	U
91-57-6	2-Methylnaphthalene		1.25	2.50	5.00	U
95-48-7	2-Methylphenol		1.25	2.50	5.00	U
108-39-4/106	3-Methylphenol/4-Methylphenol		1.25	2.50	5.00	U
91-20-3	Naphthalene		1.25	2.50	5.00	U
100-01-6	4-Nitroaniline		5.00	10.0	20.0	U
99-09-2	3-Nitroaniline		5.00	10.0	20.0	U
88-74-4	2-Nitroaniline		5.00	10.0	20.0	U
98-95-3	Nitrobenzene		1.25	2.50	5.00	U
100-02-7	4-Nitrophenol		5.00	10.0	20.0	U
88-75-5	2-Nitrophenol		1.25	2.50	5.00	U
86-30-6	N-Nitrosodiphenylamine		1.25	2.50	5.00	U
621-64-7	N-Nitroso-di-n-propylamine		1.25	2.50	5.00	U
87-86-5	Pentachlorophenol		5.00	10.0	20.0	U
85-01-8	Phenanthrene		1.25	2.50	5.00	U
108-95-2	Phenol		1.25	2.50	5.00	U
129-00-0	Pyrene		1.25	2.50	5.00	U
88-06-2	2,4,6-Trichlorophenol		1.25	2.50	5.00	U
95-95-4	2,4,5-Trichlorophenol		1.25	2.50	5.00	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	34.55	69.1	50 - 110	
2-Fluorophenol	100.0	19.01	19.0	20 - 110	
Nitrobenzene-d5	50.00	31.14	62.3	40 - 110	
Phenol-d6	100.0	13.61	13.6	0 - 110	
Terphenyl-d14	50.00	43.89	87.8	50 - 135	X
2,4,6-Tribromophenol	100.0	48.17	48.2	40 - 125	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-BS1 File ID: H14019L1.D

Sampled: Prepared: Analyzed: 08/27/12 18:04

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene	36.53	1.25	2.50	5.00	
208-96-8	Acenaphthylene	40.09	1.25	2.50	5.00	
98-86-2	Acetophenone	38.37	1.25	2.50	5.00	
120-12-7	Anthracene	40.09	1.25	2.50	5.00	
1912-24-9	Atrazine	46.31	1.25	2.50	5.00	
100-52-7	Benzaldehyde	35.21	1.25	2.50	5.00	
92-87-5	Benzidine		12.5	50.0	100	U
56-55-3	Benzo(a)anthracene	42.89	1.25	2.50	5.00	
50-32-8	Benzo(a)pyrene	42.71	1.25	2.50	5.00	
205-99-2	Benzo(b)fluoranthene	42.97	1.25	2.50	5.00	
191-24-2	Benzo(g,h,i)perylene	43.65	1.25	2.50	5.00	
65-85-0	Benzoic acid	12.85	12.5	50.0	100	J
207-08-9	Benzo(k)fluoranthene	46.21	1.25	2.50	5.00	
92-52-4	1,1-Biphenyl	45.30	1.25	2.50	5.00	
101-55-3	4-Bromophenyl-phenylether	41.07	1.25	2.50	5.00	
85-68-7	Butylbenzylphthalate	48.25	1.25	2.50	5.00	
105-60-2	Caprolactam	8.600	1.25	2.50	5.00	
86-74-8	Carbazole	49.12	1.25	2.50	5.00	
59-50-7	4-Chloro-3-methylphenol	74.28	1.25	2.50	5.00	
106-47-8	4-Chloroaniline	43.41	1.25	2.50	5.00	
111-91-1	Bis(2-chloroethoxy)methane	35.91	1.25	2.50	5.00	
111-44-4	Bis(2-chloroethyl)ether	31.19	1.25	2.50	5.00	
108-60-1	2,2'-Oxybis-1-chloropropane	31.44	1.25	2.50	5.00	
91-58-7	2-Chloronaphthalene	33.84	1.25	2.50	5.00	
95-57-8	2-Chlorophenol	52.17	1.25	2.50	5.00	
7005-72-3	4-Chlorophenyl phenyl ether	40.55	1.25	2.50	5.00	
218-01-9	Chrysene	44.39	1.25	2.50	5.00	
53-70-3	Dibenz(a,h)anthracene	42.61	1.25	2.50	5.00	
132-64-9	Dibenzofuran	36.54	1.25	2.50	5.00	
84-74-2	Di-n-butylphthalate	46.44	1.25	2.50	5.00	
91-94-1	3,3'-Dichlorobenzidine	45.93	1.25	2.50	5.00	
120-83-2	2,4-Dichlorophenol	65.66	1.25	2.50	5.00	
84-66-2	Diethylphthalate	43.93	1.25	2.50	5.00	
105-67-9	2,4-Dimethylphenol	79.80	5.00	10.0	20.0	
131-11-3	Dimethyl phthalate	42.35	1.25	2.50	5.00	
534-52-1	4,6-Dinitro-2-methylphenol	50.46	5.00	10.0	20.0	
51-28-5	2,4-Dinitrophenol	43.63	8.33	25.0	50.0	J
121-14-2	2,4-Dinitrotoluene	42.67	1.25	2.50	5.00	
606-20-2	2,6-Dinitrotoluene	43.06	1.25	2.50	5.00	
117-84-0	Di-n-octylphthalate	46.78	1.25	2.50	5.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-BS1 File ID: H14019L1.D

Sampled: Prepared: Analyzed: 08/27/12 18:04

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine	39.73	1.25	2.50	5.00	
117-81-7	Bis(2-ethylhexyl)phthalate	45.49	1.25	2.50	5.00	
206-44-0	Fluoranthene	44.88	1.25	2.50	5.00	
86-73-7	Fluorene	42.46	1.25	2.50	5.00	
118-74-1	Hexachlorobenzene	41.52	1.25	2.50	5.00	
87-68-3	Hexachlorobutadiene	24.04	1.25	2.50	5.00	
77-47-4	Hexachlorocyclopentadiene	21.93	1.25	5.00	10.0	
67-72-1	Hexachloroethane	20.22	1.25	2.50	5.00	
193-39-5	Indeno(1,2,3-cd)pyrene	43.02	1.25	2.50	5.00	
78-59-1	Isophorone	32.78	1.25	2.50	5.00	
90-12-0	1-Methylnaphthalene	38.92	1.25	2.50	5.00	
91-57-6	2-Methylnaphthalene	32.02	1.25	2.50	5.00	
95-48-7	2-Methylphenol	55.06	1.25	2.50	5.00	
108-39-4/106	3-Methylphenol/4-Methylphenol	47.78	1.25	2.50	5.00	
91-20-3	Naphthalene	31.98	1.25	2.50	5.00	
100-01-6	4-Nitroaniline	51.21	5.00	10.0	20.0	
99-09-2	3-Nitroaniline	46.55	5.00	10.0	20.0	
88-74-4	2-Nitroaniline	48.85	5.00	10.0	20.0	
98-95-3	Nitrobenzene	32.57	1.25	2.50	5.00	
100-02-7	4-Nitrophenol	13.32	5.00	10.0	20.0	J
88-75-5	2-Nitrophenol	64.45	1.25	2.50	5.00	
86-30-6	N-Nitrosodiphenylamine	35.47	1.25	2.50	5.00	
621-64-7	N-Nitroso-di-n-propylamine	35.00	1.25	2.50	5.00	
87-86-5	Pentachlorophenol	54.37	5.00	10.0	20.0	
85-01-8	Phenanthrene	41.40	1.25	2.50	5.00	
108-95-2	Phenol	17.84	1.25	2.50	5.00	
129-00-0	Pyrene	44.11	1.25	2.50	5.00	
88-06-2	2,4,6-Trichlorophenol	57.55	1.25	2.50	5.00	
95-95-4	2,4,5-Trichlorophenol	63.63	1.25	2.50	5.00	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	50.00	41.57	83.1	50 - 110	
2-Fluorophenol	100.0	24.25	24.3	20 - 110	
Nitrobenzene-d5	50.00	36.49	73.0	40 - 110	
Phenol-d6	100.0	15.78	15.8	0 - 110	
Terphenyl-d14	50.00	45.78	91.6	50 - 135	X
2,4,6-Tribromophenol	100.0	63.50	63.5	40 - 125	

ANALYSIS DATA SHEET

Matrix Spike

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-MS1 File ID: 0809101M.D

Sampled: Prepared: Analyzed: 08/27/12 21:14

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene	33.06	1.23	2.45	4.90	
208-96-8	Acenaphthylene	35.47	1.23	2.45	4.90	
98-86-2	Acetophenone	40.17	1.23	2.45	4.90	
120-12-7	Anthracene	41.34	1.23	2.45	4.90	
1912-24-9	Atrazine	46.33	1.23	2.45	4.90	
100-52-7	Benzaldehyde	36.37	1.23	2.45	4.90	
92-87-5	Benzidine		12.3	49.0	98.0	U
56-55-3	Benzo(a)anthracene	40.32	1.23	2.45	4.90	
50-32-8	Benzo(a)pyrene	41.19	1.23	2.45	4.90	
205-99-2	Benzo(b)fluoranthene	44.47	1.23	2.45	4.90	
191-24-2	Benzo(g,h,i)perylene	42.03	1.23	2.45	4.90	
65-85-0	Benzoic acid	17.67	12.3	49.0	98.0	J
207-08-9	Benzo(k)fluoranthene	41.62	1.23	2.45	4.90	
92-52-4	1,1-Biphenyl	43.47	1.23	2.45	4.90	
101-55-3	4-Bromophenyl-phenylether	42.32	1.23	2.45	4.90	
85-68-7	Butylbenzylphthalate	46.38	1.23	2.45	4.90	
105-60-2	Caprolactam	7.282	1.23	2.45	4.90	
86-74-8	Carbazole	50.76	1.23	2.45	4.90	
59-50-7	4-Chloro-3-methylphenol	78.83	1.23	2.45	4.90	
106-47-8	4-Chloroaniline	41.73	1.23	2.45	4.90	
111-91-1	Bis(2-chloroethoxy)methane	35.42	1.23	2.45	4.90	
111-44-4	Bis(2-chloroethyl)ether	32.44	1.23	2.45	4.90	
108-60-1	2,2'-Oxybis-1-chloropropane	32.31	1.23	2.45	4.90	
91-58-7	2-Chloronaphthalene	30.08	1.23	2.45	4.90	
95-57-8	2-Chlorophenol	73.01	1.23	2.45	4.90	
7005-72-3	4-Chlorophenyl phenyl ether	36.56	1.23	2.45	4.90	
218-01-9	Chrysene	41.87	1.23	2.45	4.90	
53-70-3	Dibenz(a,h)anthracene	41.49	1.23	2.45	4.90	
132-64-9	Dibenzofuran	35.90	1.23	2.45	4.90	
84-74-2	Di-n-butylphthalate	45.05	1.23	2.45	4.90	
91-94-1	3,3'-Dichlorobenzidine	43.40	1.23	2.45	4.90	
120-83-2	2,4-Dichlorophenol	84.21	1.23	2.45	4.90	
84-66-2	Diethylphthalate	41.02	1.23	2.45	4.90	
105-67-9	2,4-Dimethylphenol	74.61	4.90	9.80	19.6	
131-11-3	Dimethyl phthalate	41.65	1.23	2.45	4.90	
534-52-1	4,6-Dinitro-2-methylphenol	88.11	4.90	9.80	19.6	
51-28-5	2,4-Dinitrophenol	83.89	8.17	24.5	49.0	
121-14-2	2,4-Dinitrotoluene	40.76	1.23	2.45	4.90	
606-20-2	2,6-Dinitrotoluene	39.28	1.23	2.45	4.90	
117-84-0	Di-n-octylphthalate	44.71	1.23	2.45	4.90	

ANALYSIS DATA SHEET

Matrix Spike

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-MS1 File ID: 0809101M.D

Sampled: Prepared: Analyzed: 08/27/12 21:14

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine	42.81	1.23	2.45	4.90	
117-81-7	Bis(2-ethylhexyl)phthalate	44.75	1.23	2.45	4.90	
206-44-0	Fluoranthene	43.49	1.23	2.45	4.90	
86-73-7	Fluorene	41.15	1.23	2.45	4.90	
118-74-1	Hexachlorobenzene	40.60	1.23	2.45	4.90	
87-68-3	Hexachlorobutadiene	26.46	1.23	2.45	4.90	
77-47-4	Hexachlorocyclopentadiene	24.03	1.23	4.90	9.80	
67-72-1	Hexachloroethane	22.45	1.23	2.45	4.90	
193-39-5	Indeno(1,2,3-cd)pyrene	41.56	1.23	2.45	4.90	
78-59-1	Isophorone	32.87	1.23	2.45	4.90	
90-12-0	1-Methylnaphthalene	36.58	1.23	2.45	4.90	
91-57-6	2-Methylnaphthalene	31.89	1.23	2.45	4.90	
95-48-7	2-Methylphenol	55.00	1.23	2.45	4.90	
108-39-4/106	3-Methylphenol/4-Methylphenol	52.27	1.23	2.45	4.90	
91-20-3	Naphthalene	31.40	1.23	2.45	4.90	
100-01-6	4-Nitroaniline	49.29	4.90	9.80	19.6	
99-09-2	3-Nitroaniline	42.76	4.90	9.80	19.6	
88-74-4	2-Nitroaniline	44.15	4.90	9.80	19.6	
98-95-3	Nitrobenzene	32.20	1.23	2.45	4.90	
100-02-7	4-Nitrophenol	23.90	4.90	9.80	19.6	
88-75-5	2-Nitrophenol	85.62	1.23	2.45	4.90	
86-30-6	N-Nitrosodiphenylamine	34.29	1.23	2.45	4.90	
621-64-7	N-Nitroso-di-n-propylamine	37.06	1.23	2.45	4.90	
87-86-5	Pentachlorophenol	93.30	4.90	9.80	19.6	
85-01-8	Phenanthrene	41.42	1.23	2.45	4.90	
108-95-2	Phenol	21.87	1.23	2.45	4.90	
129-00-0	Pyrene	42.88	1.23	2.45	4.90	
88-06-2	2,4,6-Trichlorophenol	82.44	1.23	2.45	4.90	
95-95-4	2,4,5-Trichlorophenol	90.07	1.23	2.45	4.90	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	49.02	41.38	84.4	50 - 110	
2-Fluorophenol	98.04	36.35	37.1	20 - 110	
Nitrobenzene-d5	49.02	36.67	74.8	40 - 110	
Phenol-d6	98.04	20.25	20.7	0 - 110	
Terphenyl-d14	49.02	48.36	98.7	50 - 135	X
2,4,6-Tribromophenol	98.04	93.95	95.8	40 - 125	

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-MSD1 File ID: 0809101S.D

Sampled: Prepared: Analyzed: 08/27/12 21:41

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
83-32-9	Acenaphthene	32.12	1.20	2.40	4.81	
208-96-8	Acenaphthylene	33.30	1.20	2.40	4.81	
98-86-2	Acetophenone	31.60	1.20	2.40	4.81	
120-12-7	Anthracene	38.00	1.20	2.40	4.81	
1912-24-9	Atrazine	43.42	1.20	2.40	4.81	
100-52-7	Benzaldehyde	27.83	1.20	2.40	4.81	
92-87-5	Benzidine		12.0	48.1	96.2	U
56-55-3	Benzo(a)anthracene	39.41	1.20	2.40	4.81	
50-32-8	Benzo(a)pyrene	40.61	1.20	2.40	4.81	
205-99-2	Benzo(b)fluoranthene	40.65	1.20	2.40	4.81	
191-24-2	Benzo(g,h,i)perylene	41.17	1.20	2.40	4.81	
65-85-0	Benzoic acid	13.14	12.0	48.1	96.2	J
207-08-9	Benzo(k)fluoranthene	43.23	1.20	2.40	4.81	
92-52-4	1,1-Biphenyl	37.77	1.20	2.40	4.81	
101-55-3	4-Bromophenyl-phenylether	40.95	1.20	2.40	4.81	
85-68-7	Butylbenzylphthalate	44.71	1.20	2.40	4.81	
105-60-2	Caprolactam	6.655	1.20	2.40	4.81	
86-74-8	Carbazole	48.32	1.20	2.40	4.81	
59-50-7	4-Chloro-3-methylphenol	69.04	1.20	2.40	4.81	
106-47-8	4-Chloroaniline	36.22	1.20	2.40	4.81	
111-91-1	Bis(2-chloroethoxy)methane	29.59	1.20	2.40	4.81	
111-44-4	Bis(2-chloroethyl)ether	25.32	1.20	2.40	4.81	
108-60-1	2,2'-Oxybis-1-chloropropane	25.71	1.20	2.40	4.81	
91-58-7	2-Chloronaphthalene	28.23	1.20	2.40	4.81	
95-57-8	2-Chlorophenol	53.81	1.20	2.40	4.81	
7005-72-3	4-Chlorophenyl phenyl ether	35.66	1.20	2.40	4.81	
218-01-9	Chrysene	40.22	1.20	2.40	4.81	
53-70-3	Dibenz(a,h)anthracene	40.56	1.20	2.40	4.81	
132-64-9	Dibenzofuran	32.90	1.20	2.40	4.81	
84-74-2	Di-n-butylphthalate	45.28	1.20	2.40	4.81	
91-94-1	3,3'-Dichlorobenzidine	43.38	1.20	2.40	4.81	
120-83-2	2,4-Dichlorophenol	65.46	1.20	2.40	4.81	
84-66-2	Diethylphthalate	40.66	1.20	2.40	4.81	
105-67-9	2,4-Dimethylphenol	62.13	4.81	9.62	19.2	
131-11-3	Dimethyl phthalate	39.18	1.20	2.40	4.81	
534-52-1	4,6-Dinitro-2-methylphenol	61.55	4.81	9.62	19.2	
51-28-5	2,4-Dinitrophenol	46.69	8.01	24.0	48.1	J
121-14-2	2,4-Dinitrotoluene	39.09	1.20	2.40	4.81	
606-20-2	2,6-Dinitrotoluene	37.41	1.20	2.40	4.81	
117-84-0	Di-n-octylphthalate	43.98	1.20	2.40	4.81	

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Matrix: Laboratory ID: 2H14019-MSD1 File ID: 0809101S.D

Sampled: Prepared: Analyzed: 08/27/12 21:41

Solids: Preparation: EXT_3510 Dilution:

Batch: 2H14019 Sequence: 2H24101 Calibration: 2156006 Instrument: MS-BNA1

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
122-66-7	1,2-Diphenylhydrazine	38.96	1.20	2.40	4.81	
117-81-7	Bis(2-ethylhexyl)phthalate	43.08	1.20	2.40	4.81	
206-44-0	Fluoranthene	41.04	1.20	2.40	4.81	
86-73-7	Fluorene	36.63	1.20	2.40	4.81	
118-74-1	Hexachlorobenzene	38.38	1.20	2.40	4.81	
87-68-3	Hexachlorobutadiene	21.37	1.20	2.40	4.81	
77-47-4	Hexachlorocyclopentadiene	20.54	1.20	4.81	9.62	
67-72-1	Hexachloroethane	18.11	1.20	2.40	4.81	
193-39-5	Indeno(1,2,3-cd)pyrene	40.49	1.20	2.40	4.81	
78-59-1	Isophorone	26.62	1.20	2.40	4.81	
90-12-0	1-Methylnaphthalene	30.43	1.20	2.40	4.81	
91-57-6	2-Methylnaphthalene	26.39	1.20	2.40	4.81	
95-48-7	2-Methylphenol	45.35	1.20	2.40	4.81	
108-39-4/106	3-Methylphenol/4-Methylphenol	40.53	1.20	2.40	4.81	
91-20-3	Naphthalene	24.99	1.20	2.40	4.81	
100-01-6	4-Nitroaniline	45.90	4.81	9.62	19.2	
99-09-2	3-Nitroaniline	43.43	4.81	9.62	19.2	
88-74-4	2-Nitroaniline	45.51	4.81	9.62	19.2	
98-95-3	Nitrobenzene	25.65	1.20	2.40	4.81	
100-02-7	4-Nitrophenol	14.99	4.81	9.62	19.2	J
88-75-5	2-Nitrophenol	66.41	1.20	2.40	4.81	
86-30-6	N-Nitrosodiphenylamine	33.36	1.20	2.40	4.81	
621-64-7	N-Nitroso-di-n-propylamine	28.14	1.20	2.40	4.81	
87-86-5	Pentachlorophenol	66.51	4.81	9.62	19.2	
85-01-8	Phenanthrene	39.13	1.20	2.40	4.81	
108-95-2	Phenol	16.34	1.20	2.40	4.81	
129-00-0	Pyrene	39.69	1.20	2.40	4.81	
88-06-2	2,4,6-Trichlorophenol	64.42	1.20	2.40	4.81	
95-95-4	2,4,5-Trichlorophenol	73.24	1.20	2.40	4.81	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
2-Fluorobiphenyl	48.08	34.13	71.0	50 - 110	
2-Fluorophenol	96.15	24.05	25.0	20 - 110	
Nitrobenzene-d5	48.08	28.43	59.1	40 - 110	
Phenol-d6	96.15	14.95	15.5	0 - 110	
Terphenyl-d14	48.08	43.37	90.2	50 - 135	X
2,4,6-Tribromophenol	96.15	79.09	82.3	40 - 125	

HOLDING TIME SUMMARY

SW8270D

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
GW0648	08/13/12 10:53	08/14/12 08:20	08/15/12 11:42	1.99	7.00	08/27/12 20:47	12.38	40.00	

SW8015B (DRO)
Forms

ANALYSIS SEQUENCE SUMMARY

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H21404	Instrument:	GL-GCFID2
Calibration:	2214001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H21404-CAL6	002F0201.D	07/31/12 16:00
Cal Standard	2H21404-CAL5	003F0301.D	07/31/12 16:34
Cal Standard	2H21404-CAL4	004F0401.D	07/31/12 17:08
Cal Standard	2H21404-CAL3	005F0501.D	07/31/12 17:42
Cal Standard	2H21404-CAL2	006F0601.D	07/31/12 18:15
Cal Standard	2H21404-CAL1	007F0701.D	07/31/12 18:48
Initial Cal Check	2H21404-ICV1	008F0801.D	07/31/12 19:22

ANALYSIS SEQUENCE SUMMARY

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23626	Instrument:	GL-GCFID2
Calibration:	2214001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2H23626-CCV1	003F0301.D	08/21/12 16:12
Blank	2H14020-BLK1	004F0401.D	08/21/12 16:46
LCS	2H14020-BS1	005F0501.D	08/21/12 17:19
GW0648	1208091-01	011F1101.D	08/21/12 20:38
GW0648	2H14020-MS1	012F1201.D	08/21/12 21:11
GW0648	2H14020-MSD1	013F1301.D	08/21/12 21:44
Calibration Check	2H23626-CCV2	014F1401.D	08/21/12 22:17

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	011F1101.D
Sampled:	08/13/12 10:53	Prepared:	08/16/12 10:37	Analyzed:	08/21/12 20:38
Solids:		Preparation:	EXT_3510	Dilution:	1

Batch: 2H14020 Sequence: 2H23626 Calibration: 2214001 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)		0.100	0.200	0.400	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.01574	78.7	30 - 140	

LCS / LCS DUPLICATE RECOVERY

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H14020	Laboratory ID:	2H14020-BS1
Preparation:	EXT_3510	Initial/Final:	1000 mL / 1 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Diesel Range Organics (C10-C28)	1.000	1.026	103	50 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8015B DRO

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14020

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Diesel Range Organics (C10-C28)	0.9804	ND	0.8701	88.8		50 - 150

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Diesel Range Organics (C10-C28)	1.000	1.039	104	17.7		50	50 - 150

PREPARATION BATCH SUMMARY

SW8015B DRO

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H14020 Batch Matrix: Water Preparation: EXT_3510

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/16/12 10:37	1,000.00	1.00
Blank	2H14020-BLK1	08/16/12 10:37	1,000.00	1.00
LCS	2H14020-BS1	08/16/12 10:37	1,000.00	1.00
GW0648	2H14020-MS1	08/16/12 10:37	1,020.00	1.00
GW0648	2H14020-MSD1	08/16/12 10:37	1,000.00	1.00

INITIAL CALIBRATION STANDARDS

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H21404	Instrument:	GL-GCFID2
Calibration:	2214001		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
12F0241	DRO ICAL6@100ppm	2H21404-CAL6	002F0201.D	07/31/12 16:00
12F0242	DRO ICAL5@250ppm	2H21404-CAL5	003F0301.D	07/31/12 16:34
12F0243	DRO ICAL4@500ppm	2H21404-CAL4	004F0401.D	07/31/12 17:08
12F0211	DRO ICAL3@1000ppm	2H21404-CAL3	005F0501.D	07/31/12 17:42
12F0244	DRO ICAL2@2500ppm	2H21404-CAL2	006F0601.D	07/31/12 18:15
12F0245	DRO ICAL1@5000ppm	2H21404-CAL1	007F0701.D	07/31/12 18:48

INITIAL CALIBRATION DATA

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2214001	Instrument:	GL-GCFID2	
Matrix:	Water	Calibration Dates:	7/31/12 16:00	7/31/12 18:48

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	mg/L	RF	mg/L	RF	mg/L	RF	mg/L	RF	mg/L	RF	mg/L	RF
Diesel Range Organics (C10-C28)	100	764.1	250	904.512	500	926.532	1000	1062.126	2500	1084.265	5000	1373.83
o-Terphenyl	5	1319.2	12.5	1379.6	25	1341.32	50	1377.1	125	1331.232	250	1397.108

INITIAL CALIBRATION DATA (Continued)

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2214001	Instrument:	GL-GCFID2	
Matrix:	Water	Calibration Dates:	7/31/12 16:00	7/31/12 18:48

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Diesel Range Organics (C10-C28)	1019.228	20.51747	5.947	0.0133767		0.9997707	0.99	
o-Terphenyl	1357.593	2.296485	11.13583	9.623485E-02			20	

INITIAL CALIBRATION CHECK

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-GCFID2	Calibration:	2214001
Lab File ID:	008F0801.D	Calibration Date:	07/31/12 11:55
Sequence:	2H21404	Injection Date:	07/31/12
Lab Sample ID:	2H21404-ICV1	Injection Time:	19:22

		CONC. (mg/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Diesel Range Organics (C10-C28)	Q	1000	1058	1019.228	1065.399		5.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-GCFID2	Calibration:	2214001
Lab File ID:	003F0301.D	Calibration Date:	07/31/12 11:55
Sequence:	2H23626	Injection Date:	08/21/12
Lab Sample ID:	2H23626-CCV1	Injection Time:	16:12

		CONC. (mg/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Diesel Range Organics (C10-C28)	Q	1000	1126	1019.228	1137.954		12.6	20
o-Terphenyl	A	50.00	48.70	1357.593	1322.36		-2.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-GCFID2	Calibration:	2214001
Lab File ID:	014F1401.D	Calibration Date:	07/31/12 11:55
Sequence:	2H23626	Injection Date:	08/21/12
Lab Sample ID:	2H23626-CCV2	Injection Time:	22:17

		CONC. (mg/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Diesel Range Organics (C10-C28)	Q	1000	1100	1019.228	1110.156		10.0	20
o-Terphenyl	A	50.00	51.06	1357.593	1386.24		2.1	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8015B DRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23626	Instrument:	GL-GCFID2
		Calibration:	2214001

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (2H23626-CCV1) mg/L				Lab File ID: 003F0301.D		Analyzed: 08/21/12 16:12		
o-Terphenyl	50.00	97.4	80 - 120	11.15	11.15	0.0000	+/-0.050	
Blank (2H14020-BLK1) mg/L				Lab File ID: 004F0401.D		Analyzed: 08/21/12 16:46		
o-Terphenyl	0.02000	80.1	30 - 140	11.136	11.15	-0.0140	+/-0.050	
LCS (2H14020-BS1) mg/L				Lab File ID: 005F0501.D		Analyzed: 08/21/12 17:19		
o-Terphenyl	0.02000	97.1	30 - 140	11.153	11.15	0.0030	+/-0.050	
GW0648 (1208091-01) mg/L				Lab File ID: 011F1101.D		Analyzed: 08/21/12 20:38		
o-Terphenyl	0.02000	78.7	30 - 140	11.126	11.15	-0.0240	+/-0.050	
Matrix Spike (2H14020-MS1) mg/L				Lab File ID: 012F1201.D		Analyzed: 08/21/12 21:11		
o-Terphenyl	0.01961	89.6	30 - 140	11.113	11.15	-0.0370	+/-0.050	
Matrix Spike Dup (2H14020-MSD1) mg/L				Lab File ID: 013F1301.D		Analyzed: 08/21/12 21:44		
o-Terphenyl	0.02000	101	30 - 140	11.116	11.15	-0.0340	+/-0.050	
Calibration Check (2H23626-CCV2) mg/L				Lab File ID: 014F1401.D		Analyzed: 08/21/12 22:17		
o-Terphenyl	50.00	102	80 - 120	11.12	11.15	-0.0300	+/-0.050	

HOLDING TIME SUMMARY

SW8015B DRO

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
GW0648	08/13/12 10:53	08/14/12 08:20	08/16/12 10:37	2.95	7.00	08/21/12 20:38	5.42	40.00	

ANALYSIS DATA SHEET

Blank

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H14020-BLK1	File ID:	004F0401.D
Sampled:		Prepared:		Analyzed:	08/21/12 16:46
Solids:		Preparation:	EXT_3510	Dilution:	

Batch:	2H14020	Sequence:	2H23626	Calibration:	2214001	Instrument:	GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)		0.100	0.200	0.400	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.01603	80.1	30 - 140	

ANALYSIS DATA SHEET

LCS

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H14020-BS1	File ID:	005F0501.D
Sampled:		Prepared:		Analyzed:	08/21/12 17:19
Solids:		Preparation:	EXT_3510	Dilution:	

Batch:	2H14020	Sequence:	2H23626	Calibration:	2214001	Instrument:	GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	1.026	0.100	0.200	0.400	

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.01941	97.1	30 - 140	

ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_061	
Client:	Shaw E & I (I700)		Project:	Kirtland AFB 2011	
Matrix:		Laboratory ID:	2H14020-MS1	File ID:	012F1201.D
Sampled:		Prepared:		Analyzed:	08/21/12 21:11
Solids:		Preparation:	EXT_3510	Dilution:	

Batch: 2H14020 Sequence: 2H23626 Calibration: 2214001 Instrument: GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	0.8701	0.0980	0.196	0.392	

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.01961	0.01757	89.6	30 - 140	

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H14020-MSD1	File ID:	013F1301.D
Sampled:		Prepared:		Analyzed:	08/21/12 21:44
Solids:		Preparation:	EXT_3510	Dilution:	

Batch:	2H14020	Sequence:	2H23626	Calibration:	2214001	Instrument:	GL-GCFID2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
11-84-7	Diesel Range Organics (C10-C28)	1.039	0.100	0.200	0.400	

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
o-Terphenyl	0.02000	0.02022	101	30 - 140	

SW8015B (GRO)
Forms

ANALYSIS SEQUENCE SUMMARY

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H21611	Instrument:	GL-GCVOA2
Calibration:	2216001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H21611-CAL1	003F0301.D	07/31/12 15:05
Cal Standard	2H21611-CAL2	004F0401.D	07/31/12 15:45
Cal Standard	2H21611-CAL3	005F0501.D	07/31/12 16:25
Cal Standard	2H21611-CAL4	006F0601.D	07/31/12 17:05
Cal Standard	2H21611-CAL5	007F0701.D	07/31/12 17:44
Cal Standard	2H21611-CAL6	008F0801.D	07/31/12 18:24
Initial Cal Check	2H21611-ICV1	003F0301.D	08/02/12 14:13

ANALYSIS SEQUENCE SUMMARY

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23307	Instrument:	GL-GCVOA2
Calibration:	2216001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2H23307-CCV1	003F0301.D	08/17/12 18:42
Blank	2H14018-BLK1	004F0401.D	08/17/12 19:20
LCS	2H14018-BS1	005F0501.D	08/17/12 19:59
GW0648	1208091-01	015F1501.D	08/18/12 02:20
GW0648	2H14018-MS1	016F1601.D	08/18/12 02:58
GW0648	2H14018-MSD1	017F1701.D	08/18/12 03:36
Calibration Check	2H23307-CCV2	018F1801.D	08/18/12 04:14

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	015F1501.D
Sampled:	08/13/12 10:53	Prepared:	08/18/12 02:20	Analyzed:	08/18/12 02:20
Solids:		Preparation:	8015GRO	Dilution:	1

Batch: 2H14018 Sequence: 2H23307 Calibration: 2216001 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)		0.0500	0.100	0.150	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05574	111	50 - 150	

LCS / LCS DUPLICATE RECOVERY

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H14018	Laboratory ID:	2H14018-BS1
Preparation:	8015GRO	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Gasoline Range Organics (C6-C10)	0.5000	0.4891	97.8	50 - 150

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8015B GRO

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H14018

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Gasoline Range Organics (C6-C10)	0.5000	ND	0.4703	94.1		50 - 150

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Gasoline Range Organics (C6-C10)	0.5000	0.4923	98.5	4.57		50	50 - 150

PREPARATION BATCH SUMMARY

SW8015B GRO

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H14018 Batch Matrix: Water Preparation: 8015GRO

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/18/12 02:20	5.00	5.00
Blank	2H14018-BLK1	08/17/12 19:20	5.00	5.00
LCS	2H14018-BS1	08/17/12 19:59	5.00	5.00
GW0648	2H14018-MS1	08/18/12 02:58	5.00	5.00
GW0648	2H14018-MSD1	08/18/12 03:36	5.00	5.00

INITIAL CALIBRATION STANDARDS

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H21611	Instrument:	GL-GCVOA2
Calibration:	2216001		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
12H0009	GRO Cal 0.1ppm	2H21611-CAL1	003F0301.D	07/31/12 15:05
12H0010	GRO Cal 0.2ppm	2H21611-CAL2	004F0401.D	07/31/12 15:45
12H0011	GRO Cal 0.5ppm	2H21611-CAL3	005F0501.D	07/31/12 16:25
12H0012	GRO Cal 1.0ppm	2H21611-CAL4	006F0601.D	07/31/12 17:05
12H0013	GRO Cal 2.0ppm	2H21611-CAL5	007F0701.D	07/31/12 17:44
12H0014	GRO Cal 5.0ppm	2H21611-CAL6	008F0801.D	07/31/12 18:24

INITIAL CALIBRATION DATA

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2216001	Instrument:	GL-GCVOA2	
Matrix:	Water	Calibration Dates:	7/31/12_15:05	7/31/12_18:24

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF	ug/mL	RF
Gasoline Range Organics (C6-C10	0.1	2233630	0.2	1477410	0.5	1120412	1	946984	2	1011274	5	961363.4
Bromofluorobenzene	0.01	1563200	0.02	941550	0.05	566820	0.1	481890	0.2	490520	0.5	412342

INITIAL CALIBRATION DATA (Continued)

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2216001	Instrument:	GL-GCVOA2	
Matrix:	Water	Calibration Dates:	7/31/12 15:05	7/31/12 18:24

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Gasoline Range Organics (C6-C10)	1291846	38.82256	7.807	0.017641	0.9992676		0.995	
Bromofluorobenzene	742720.3	59.74288	20.3135	9.003825E-03	0.9969704		0.995	

INITIAL CALIBRATION CHECK

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-GCVOA2	Calibration:	2216001
Lab File ID:	003F0301.D	Calibration Date:	07/31/12 15:05
Sequence:	2H21611	Injection Date:	08/02/12
Lab Sample ID:	2H21611-ICV1	Injection Time:	14:13

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
Gasoline Range Organics (C6-C10)	L	0.5000	0.4958	1291846	1119582		-0.8	20
Bromofluorobenzene	L	0.05000	0.04848	742720.3	607700		-3.0	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-GCVOA2	Calibration:	2216001
Lab File ID:	003F0301.D	Calibration Date:	07/31/12 15:05
Sequence:	2H23307	Injection Date:	08/17/12
Lab Sample ID:	2H23307-CCV1	Injection Time:	18:42

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Gasoline Range Organics (C6-C10)	L	0.5000	0.5542	1291846	1229900		10.8	20
Bromofluorobenzene	L	0.05000	0.04768	742720.3	601420		-4.6	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-GCVOA2	Calibration:	2216001
Lab File ID:	018F1801.D	Calibration Date:	07/31/12 15:05
Sequence:	2H23307	Injection Date:	08/18/12
Lab Sample ID:	2H23307-CCV2	Injection Time:	04:14

		CONC. (ug/mL)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
Gasoline Range Organics (C6-C10)	L	0.5000	0.4752	1291846	1080714		-5.0	20
Bromofluorobenzene	L	0.05000	0.05446	742720.3	655000		8.9	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8015B GRO

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23307	Instrument:	GL-GCVOA2
		Calibration:	2216001

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (2H23307-CCV1) ug/mL				Lab File ID: 003F0301.D		Analyzed: 08/17/12 18:42		
Bromofluorobenzene	0.05000	95.4	80 - 120	20.326	20.326	0.0000	+/-0.210	
Blank (2H14018-BLK1) mg/L				Lab File ID: 004F0401.D		Analyzed: 08/17/12 19:20		
Bromofluorobenzene	0.05000	116	50 - 150	20.32	20.326	-0.0060	+/-0.210	
LCS (2H14018-BS1) mg/L				Lab File ID: 005F0501.D		Analyzed: 08/17/12 19:59		
Bromofluorobenzene	0.05000	92.7	50 - 150	20.323	20.326	-0.0030	+/-0.210	
GW0648 (1208091-01) mg/L				Lab File ID: 015F1501.D		Analyzed: 08/18/12 02:20		
Bromofluorobenzene	0.05000	111	50 - 150	20.333	20.326	0.0070	+/-0.210	
Matrix Spike (2H14018-MS1) mg/L				Lab File ID: 016F1601.D		Analyzed: 08/18/12 02:58		
Bromofluorobenzene	0.05000	95.1	50 - 150	20.333	20.326	0.0070	+/-0.210	
Matrix Spike Dup (2H14018-MSD1) mg/L				Lab File ID: 017F1701.D		Analyzed: 08/18/12 03:36		
Bromofluorobenzene	0.05000	104	50 - 150	20.333	20.326	0.0070	+/-0.210	
Calibration Check (2H23307-CCV2) ug/mL				Lab File ID: 018F1801.D		Analyzed: 08/18/12 04:14		
Bromofluorobenzene	0.05000	109	80 - 120	20.333	20.326	0.0070	+/-0.210	

HOLDING TIME SUMMARY

SW8015B GRO

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
GW0648	08/13/12 10:53	08/14/12 08:20	08/18/12 02:20	N/A	14.00	08/18/12 02:20	4.60	14.00	

ANALYSIS DATA SHEET

Blank

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:		Laboratory ID:	2H14018-BLK1	File ID:	004F0401.D
Sampled:		Prepared:		Analyzed:	08/17/12 19:20
Solids:		Preparation:	8015GRO	Dilution:	

Batch: 2H14018 Sequence: 2H23307 Calibration: 2216001 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)		0.0500	0.100	0.150	U

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05776	116	50 - 150	

ANALYSIS DATA SHEET

LCS

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H14018-BS1	File ID:	005F0501.D
Sampled:		Prepared:		Analyzed:	08/17/12 19:59
Solids:		Preparation:	8015GRO	Dilution:	

Batch:	2H14018	Sequence:	2H23307	Calibration:	2216001	Instrument:	GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	0.4891	0.0500	0.100	0.150	

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.04635	92.7	50 - 150	

ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_061	
Client:	Shaw E & I (I700)		Project:	Kirtland AFB 2011	
Matrix:		Laboratory ID:	2H14018-MS1	File ID:	016F1601.D
Sampled:		Prepared:		Analyzed:	08/18/12 02:58
Solids:		Preparation:	8015GRO	Dilution:	

Batch: 2H14018 Sequence: 2H23307 Calibration: 2216001 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	0.4703	0.0500	0.100	0.150	

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.04755	95.1	50 - 150	

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:		Laboratory ID:	2H14018-MSD1	File ID:	017F1701.D
Sampled:		Prepared:		Analyzed:	08/18/12 03:36
Solids:		Preparation:	8015GRO	Dilution:	

Batch: 2H14018 Sequence: 2H23307 Calibration: 2216001 Instrument: GL-GCVOA2

CAS NO.	COMPOUND	CONC. (mg/L)	DL	LOD	LOQ	Q
8006-61-9	Gasoline Range Organics (C6-C10)	0.4923	0.0500	0.100	0.150	

SYSTEM MONITORING COMPOUND	ADDED (mg/L)	CONC (mg/L)	% REC	QC LIMITS	Q
Bromofluorobenzene	0.05000	0.05219	104	50 - 150	

Data for SW8011 Forms

ANALYSIS SEQUENCE SUMMARY

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H21615	Instrument:	GL-ECD2
Calibration:	2216002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H21615-CAL1	002R0101.D	08/02/12 15:07
Cal Standard	2H21615-CAL1	002F0101.D	08/02/12 15:07
Cal Standard	2H21615-CAL2	003R0101.D	08/02/12 15:29
Cal Standard	2H21615-CAL3	004R0101.D	08/02/12 15:51
Cal Standard	2H21615-CAL3	004F0101.D	08/02/12 15:51
Cal Standard	2H21615-CAL4	005R0101.D	08/02/12 16:13
Cal Standard	2H21615-CAL4	005F0101.D	08/02/12 16:13
Cal Standard	2H21615-CAL5	006R0101.D	08/02/12 16:35
Cal Standard	2H21615-CAL5	006F0101.D	08/02/12 16:35
Cal Standard	2H21615-CAL6	007R0101.D	08/02/12 16:57
Cal Standard	2H21615-CAL6	007F0101.D	08/02/12 16:57
Initial Cal Check	2H21615-ICV1	008R0101.D	08/02/12 17:19
Initial Cal Check	2H21615-ICV1	008F0101.D	08/02/12 17:19

ANALYSIS SEQUENCE SUMMARY

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23515	Instrument:	GL-ECD2
Calibration:	2216002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2H23515-CCV1	002R0101.D	08/21/12 13:59
Calibration Check	2H23515-CCV1	002F0101.D	08/21/12 13:59
Blank	2H21929-BLK1	003R0101.D	08/21/12 14:20
Blank	2H21929-BLK1	003F0101.D	08/21/12 14:20
LCS	2H21929-BS1	004R0101.D	08/21/12 14:42
LCS	2H21929-BS1	004F0101.D	08/21/12 14:42
GW0648	1208091-01	011R0101.D	08/21/12 17:11
GW0648	1208091-01	011F0101.D	08/21/12 17:11
GW0648	2H21929-MS1	012R0101.D	08/21/12 17:32
GW0648	2H21929-MS1	012F0101.D	08/21/12 17:32
GW0648	2H21929-MSD1	013R0101.D	08/21/12 17:53
GW0648	2H21929-MSD1	013F0101.D	08/21/12 17:53
Calibration Check	2H23515-CCV2	014R0101.D	08/21/12 18:15
Calibration Check	2H23515-CCV2	014F0101.D	08/21/12 18:15

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01	File ID:	011F0101.D
Sampled:	08/13/12 10:53	Prepared:	08/21/12 12:09	Analyzed:	08/21/12 17:11
Solids:		Preparation:	EDB	Dilution:	1

Batch: 2H21929 Sequence: 2H23515 Calibration: 2216002 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.0376	0.00954	0.0191	0.0286	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.907	2.561	134	30 - 130	*X
1,3-Dibromopropane [2C]	1.907	2.194	115	30 - 130	X

* Values outside of QC limits

LCS / LCS DUPLICATE RECOVERY

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H21929	Laboratory ID:	2H21929-BS1
Preparation:	EDB	Initial/Final:	35 mL / 35 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
1,2-Dibromoethane	0.5000	0.5779	116	70 - 130
1,2-Dibromoethane [2C]	0.5000	0.6413	128	70 - 130

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW8011

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H21929

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
1,2-Dibromoethane	0.4780	0.03757	0.5316	103		70 - 130
1,2-Dibromoethane [2C]	0.4780	0.03338	0.5543	109		70 - 130

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
1,2-Dibromoethane	0.4695	0.4527	88.4	16.0		20	70 - 130
1,2-Dibromoethane [2C]	0.4695	0.4750	94.1	15.4		20	70 - 130

PREPARATION BATCH SUMMARY

SW8011

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H21929 Batch Matrix: Water Preparation: EDB

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/21/12 12:09	36.70	35.00
Blank	2H21929-BLK1	08/21/12 12:09	35.00	35.00
LCS	2H21929-BS1	08/21/12 12:09	35.00	35.00
GW0648	2H21929-MS1	08/21/12 12:09	36.61	35.00
GW0648	2H21929-MSD1	08/21/12 12:09	37.27	35.00

ANALYSIS DATA SHEET

Blank

Laboratory:	Empirical Laboratories, LLC			SDG:	Kirtland_061
Client:	Shaw E & I (I700)			Project:	Kirtland AFB 2011
Matrix:		Laboratory ID:	2H21929-BLK1	File ID:	003R0101.D
Sampled:		Prepared:	08/21/12 12:09	Analyzed:	08/21/12 14:20
Solids:		Preparation:	EDB	Dilution:	

Batch: 2H21929 Sequence: 2H23515 Calibration: 2216002 Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane		0.0100	0.0200	0.0300	U

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	2.000	2.751	138	30 - 130	*X
1,3-Dibromopropane [2C]	2.000	2.419	121	30 - 130	X

* Values outside of QC limits

INITIAL CALIBRATION STANDARDS

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H21615	Instrument:	GL-ECD2
Calibration:	2216002		

Standard ID	Description	Lab Sample ID	Lab File ID	Analysis Date/Time
12H0104	EDB ICAL 1 (0.02ppb)	2H21615-CAL1	002R0101.D	08/02/12 15:07
12H0104	EDB ICAL 1 (0.02ppb)	2H21615-CAL1	002F0101.D	08/02/12 15:07
12H0105	EDB ICAL 2 (0.05ppb)	2H21615-CAL2	003R0101.D	08/02/12 15:29
12H0106	EDB ICAL 3 (0.10ppb)	2H21615-CAL3	004R0101.D	08/02/12 15:51
12H0106	EDB ICAL 3 (0.10ppb)	2H21615-CAL3	004F0101.D	08/02/12 15:51
12H0107	EDB ICAL 4 (0.20ppb)	2H21615-CAL4	005R0101.D	08/02/12 16:13
12H0107	EDB ICAL 4 (0.20ppb)	2H21615-CAL4	005F0101.D	08/02/12 16:13
12H0108	EDB ICAL 5 (0.5ppb)	2H21615-CAL5	006R0101.D	08/02/12 16:35
12H0108	EDB ICAL 5 (0.5ppb)	2H21615-CAL5	006F0101.D	08/02/12 16:35
12H0109	EDB ICAL 6 (1.0ppb)	2H21615-CAL6	007R0101.D	08/02/12 16:57
12H0109	EDB ICAL 6 (1.0ppb)	2H21615-CAL6	007F0101.D	08/02/12 16:57

INITIAL CALIBRATION DATA

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2216002	Instrument:	GL-ECD2	
Matrix:	Water	Calibration Dates:	8/2/12_15:07	8/2/12_16:57

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
1,2-Dibromoethane	0.02	43750	0.5		0.1	16280	0.2	14565	0.5	11758	1	10534
1,2-Dibromoethane [2C]	0.02	45750	0.5		0.1	34170	0.2	31895	0.5	30424	1	28172
1,2-Dibromo-3-chloropropane	0.02	60200	0.5		0.1	25410	0.2	22470	0.5	18706	1	16802
1,2-Dibromo-3-chloropropane [2C]	0.02	526550	0.5		0.1	135080	0.2	94485	0.5	71130	1	59251
1,3-Dibromopropane	0.1	23890	0.2		0.5	30890	1	28945	2	29173.5	4	27095.75
1,3-Dibromopropane [2C]	0.1	131790	0.2		0.5	119632	1	120012	2	114218	4	106049

INITIAL CALIBRATION DATA (Continued)

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2216002	Instrument:	GL-ECD2	
Matrix:	Water	Calibration Dates:	8/2/12 15:07	8/2/12 16:57

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
1,2-Dibromoethane	19377.4	71.27668	2.4076	9.018324E-02	0.9984684		0.995	
1,2-Dibromoethane [2C]	34082.2	20.18139	2.2744	0.1390909	0.9987498		0.995	
1,2-Dibromo-3-chloropropane	28717.6	62.37215	8.5068	1.954159E-02	0.9984851		0.995	
1,2-Dibromo-3-chloropropane [2C]	177299.2	111.3219	8.6948	4.920545E-03	0.9986171		0.995	
1,3-Dibromopropane	27998.85	9.505355	5.7244	5.988388E-02			20	
1,3-Dibromopropane [2C]	118340.2	7.943054	5.6374	5.560242E-02			20	

INITIAL CALIBRATION CHECK

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-ECD2	Calibration:	2216002
Lab File ID:	008F0101.D	Calibration Date:	08/02/12 15:07
Sequence:	2H21615	Injection Date:	08/02/12
Lab Sample ID:	2H21615-ICV1	Injection Time:	17:19

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	ICV	ICAL	ICV	MIN (#)	ICV	LIMIT (#)
1,2-Dibromoethane	L	0.5000	0.5522	19377.4	12450		10.4	20
1,2-Dibromoethane [2C]	L	0.5000	0.5721	34082.2	33216		14.4	20
1,3-Dibromopropane	A	2.000	2.135	27998.85	29886.5		6.7	20
1,3-Dibromopropane [2C]	A	2.000	1.965	118340.2	116265		-1.8	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-ECD2	Calibration:	2216002
Lab File ID:	002F0101.D	Calibration Date:	08/02/12 15:07
Sequence:	2H23515	Injection Date:	08/21/12
Lab Sample ID:	2H23515-CCV1	Injection Time:	13:59

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,2-Dibromoethane	L	0.5000	0.5775	19377.4	12948		15.5	20
1,2-Dibromoethane [2C]	L	0.5000	0.5781	34082.2	33548		15.6	20
1,3-Dibromopropane	A	2.000	2.773	27998.85	38815.5		38.6	20 *
1,3-Dibromopropane [2C]	A	2.000	2.406	118340.2	142363		20.3	20 *

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

CONTINUING CALIBRATION CHECK

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Instrument ID:	GL-ECD2	Calibration:	2216002
Lab File ID:	014F0101.D	Calibration Date:	08/02/12 15:07
Sequence:	2H23515	Injection Date:	08/21/12
Lab Sample ID:	2H23515-CCV2	Injection Time:	18:15

		CONC. (ug/L)		RESPONSE FACTOR			% DIFF / DRIFT	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN (#)	CCV	LIMIT (#)
1,2-Dibromoethane	L	0.5000	0.5263	19377.4	11938		5.3	20
1,2-Dibromoethane [2C]	L	0.5000	0.5945	34082.2	34464		18.9	20
1,3-Dibromopropane	A	2.000	2.707	27998.85	37901.5		35.4	20 *
1,3-Dibromopropane [2C]	A	2.000	2.304	118340.2	136350.5		15.2	20

Column to be used to flag Response Factor and %Diff/Drift values with an asterisk

* Values outside of QC limits

SURROGATE STANDARD RECOVERY AND RT SUMMARY

SW8011

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23515	Instrument:	GL-ECD2
		Calibration:	2216002

Surrogate Compound	Spike Level	% Recovery	Recovery Limits	RT	CCV RT	RT Diff	RT Diff Limit	Q
Calibration Check (2H23515-CCV1) ug/L				Lab File ID: 002F0101.D		Analyzed: 08/21/12 13:59		
1,3-Dibromopropane	2.000	139	80 - 120	5.73	5.73	0.0000	+/-0.030	*
1,3-Dibromopropane [2C]	2.000	120	80 - 120	5.643	5.643	0.0000	+/-0.030	
Blank (2H21929-BLK1) ug/L				Lab File ID: 003F0101.D		Analyzed: 08/21/12 14:20		
1,3-Dibromopropane	2.000	138	30 - 130	5.74	5.73	0.0100	+/-0.030	*
1,3-Dibromopropane [2C]	2.000	121	30 - 130	5.653	5.643	0.0100	+/-0.030	
LCS (2H21929-BS1) ug/L				Lab File ID: 004F0101.D		Analyzed: 08/21/12 14:42		
1,3-Dibromopropane	2.000	142	30 - 130	5.746	5.73	0.0160	+/-0.030	*
1,3-Dibromopropane [2C]	2.000	124	30 - 130	5.66	5.643	0.0170	+/-0.030	
GW0648 (1208091-01) ug/L				Lab File ID: 011F0101.D		Analyzed: 08/21/12 17:11		
1,3-Dibromopropane	1.907	134	30 - 130	5.76	5.73	0.0300	+/-0.030	*
1,3-Dibromopropane [2C]	1.907	115	30 - 130	5.673	5.643	0.0300	+/-0.030	
Matrix Spike (2H21929-MS1) ug/L				Lab File ID: 012F0101.D		Analyzed: 08/21/12 17:32		
1,3-Dibromopropane	1.912	130	30 - 130	5.773	5.73	0.0430	+/-0.030	*
1,3-Dibromopropane [2C]	1.912	111	30 - 130	5.686	5.643	0.0430	+/-0.030	*
Matrix Spike Dup (2H21929-MSD1) ug/L				Lab File ID: 013F0101.D		Analyzed: 08/21/12 17:53		
1,3-Dibromopropane	1.878	112	30 - 130	5.773	5.73	0.0430	+/-0.030	*
1,3-Dibromopropane [2C]	1.878	94.9	30 - 130	5.686	5.643	0.0430	+/-0.030	*
Calibration Check (2H23515-CCV2) ug/L				Lab File ID: 014F0101.D		Analyzed: 08/21/12 18:15		
1,3-Dibromopropane	2.000	135	80 - 120	5.766	5.73	0.0360	+/-0.030	*
1,3-Dibromopropane [2C]	2.000	115	80 - 120	5.683	5.643	0.0400	+/-0.030	*

HOLDING TIME SUMMARY

SW8011

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
GW0648	08/13/12 10:53	08/14/12 08:20	08/21/12 12:09	N/A	14.00	08/21/12 17:11	8.22	14.00	

ANALYSIS DATA SHEET

LCS

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Matrix:
Laboratory ID: 2H21929-BS1
File ID: 004F0101.D
Sampled:
Prepared:
Analyzed: 08/21/12 14:42
Solids:
Preparation: EDB
Dilution:
Batch: 2H21929
Sequence: 2H23515
Calibration: 2216002
Instrument: GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.5779	0.0100	0.0200	0.0300	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	2.000	2.838	142	30 - 130	X

ANALYSIS DATA SHEET

LCS

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H21929-BS1	File ID:	004R0101.D
Sampled:		Prepared:		Analyzed:	08/21/12 14:42
Solids:		Preparation:	EDB	Dilution:	

Batch:	2H21929	Sequence:	2H23515	Calibration:	2216002	Instrument:	GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane [2C]	0.6413	0.0100	0.0200	0.0300	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane [2C]	2.000	2.486	124	30 - 130	X

ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H21929-MS1	File ID:	012F0101.D
Sampled:		Prepared:		Analyzed:	08/21/12 17:32
Solids:		Preparation:	EDB	Dilution:	

Batch:	2H21929	Sequence:	2H23515	Calibration:	2216002	Instrument:	GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.5316	0.00956	0.0191	0.0287	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.912	2.478	130	30 - 130	X

ANALYSIS DATA SHEET

Matrix Spike

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H21929-MS1	File ID:	012R0101.D
Sampled:		Prepared:		Analyzed:	08/21/12 17:32
Solids:		Preparation:	EDB	Dilution:	

Batch:	2H21929	Sequence:	2H23515	Calibration:	2216002	Instrument:	GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane [2C]	0.5543	0.00956	0.0191	0.0287	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane [2C]	1.912	2.117	111	30 - 130	X

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H21929-MSD1	File ID:	013F0101.D
Sampled:		Prepared:		Analyzed:	08/21/12 17:53
Solids:		Preparation:	EDB	Dilution:	

Batch:	2H21929	Sequence:	2H23515	Calibration:	2216002	Instrument:	GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane	0.4527	0.00939	0.0188	0.0282	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane	1.878	2.112	112	30 - 130	X

ANALYSIS DATA SHEET

Matrix Spike Dup

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011

Matrix:		Laboratory ID:	2H21929-MSD1	File ID:	013R0101.D
Sampled:		Prepared:		Analyzed:	08/21/12 17:53
Solids:		Preparation:	EDB	Dilution:	

Batch:	2H21929	Sequence:	2H23515	Calibration:	2216002	Instrument:	GL-ECD2

CAS NO.	COMPOUND	CONC. (ug/L)	DL	LOD	LOQ	Q
106-93-4	1,2-Dibromoethane [2C]	0.4750	0.00939	0.0188	0.0282	

SYSTEM MONITORING COMPOUND	ADDED (ug/L)	CONC (ug/L)	% REC	QC LIMITS	Q
1,3-Dibromopropane [2C]	1.878	1.783	94.9	30 - 130	X

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

GW0648

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 1208091-01 Date(s) Analyzed: 08/21/2012 08/21/2012

Instrument ID (1): GL-ECD2 Instrument ID (2): GL-ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
1,2-Dibromoethane	1	2.44	2.38	2.44	0.0376	
	2	2.31	2.24	2.30	0.0334	12

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

LCS

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 2H21929-BS1 Date(s) Analyzed: 08/21/2012 08/21/2012

Instrument ID (1): GL-ECD2 Instrument ID (2): GL-ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
1,2-Dibromoethane	1	2.43	2.38	2.44	0.5779	
	2	2.30	2.24	2.30	0.6413	10

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Matrix Spike

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 2H21929-MS1

Date(s) Analyzed: 08/21/2012 08/21/2012

Instrument ID (1): GL-ECD2

Instrument ID (2): GL-ECD2

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
1,2-Dibromoethane	1	2.45	2.38	2.44	0.5316	
	2	2.32	2.24	2.30	0.5543	4

FORM X
IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES

Matrix Spike Dup

Lab Name: Empirical Laboratories, LLC

Lab Sample ID: 2H21929-MSD1 Date(s) Analyzed: 08/21/2012 08/21/2012

Instrument ID (1): GL-ECD2 Instrument ID (2): GL-ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
1,2-Dibromoethane	1	2.45	2.38	2.44	0.4527	
	2	2.32	2.24	2.30	0.4750	5

Data for SW6010B Forms

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01
Sampled:	08/13/12 10:53	Received:	08/14/12 08:20
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7440-70-2	Calcium	72400	1000	2000	5000	1		SW6010B	2H15015	08/22/12 16:24
7439-92-1	Lead		1.50	3.00	3.00	1	U	SW6010B	2H15015	08/22/12 16:24
7439-95-4	Magnesium	10300	1000	3000	5000	1		SW6010B	2H15015	08/22/12 16:24
7440-09-7	Potassium	3110	1000	3000	5000	1	J	SW6010B	2H15015	08/22/12 16:24
7440-23-5	Sodium	31000	1000	3000	5000	1		SW6010B	2H15015	08/22/12 16:24

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-02
Sampled:	08/13/12 10:53	Received:	08/14/12 08:20
% Solids:	0.00		

CAS NO.	Analyte	Conc. (ug/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7439-89-6	Iron (dissolved)	40.2	30.0	60.0	100	1	J	SW6010B	2H27018	08/28/12 14:09
7439-96-5	Manganese (dissolved)	17.9	3.00	6.00	15.0	1		SW6010B	2H27018	08/28/12 14:09

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: ME-ICP

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2234004
Sequence: 2H22909

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2H22909-ICV1	Calcium	50000	52700	105	ug/L	+/- 10.00%
	Lead	1000	951.5	95.1	ug/L	+/- 10.00%
	Magnesium	50000	50800	102	ug/L	+/- 10.00%
	Potassium	10000	10070	101	ug/L	+/- 10.00%
	Sodium	50000	50900	102	ug/L	+/- 10.00%
2H22909-CCV1	Calcium	50000	50910	102	ug/L	+/- 10.00%
	Lead	1000	975.6	97.6	ug/L	+/- 10.00%
	Magnesium	50000	50710	101	ug/L	+/- 10.00%
	Potassium	10000	10200	102	ug/L	+/- 10.00%
	Sodium	50000	52390	105	ug/L	+/- 10.00%
2H22909-CCV2	Calcium	50000	49130	98.3	ug/L	+/- 10.00%
	Lead	1000	988.2	98.8	ug/L	+/- 10.00%
	Magnesium	50000	49130	98.3	ug/L	+/- 10.00%
	Potassium	10000	10370	104	ug/L	+/- 10.00%
	Sodium	50000	51380	103	ug/L	+/- 10.00%
2H22909-CCV3	Calcium	50000	51700	103	ug/L	+/- 10.00%
	Lead	1000	980.3	98.0	ug/L	+/- 10.00%
	Magnesium	50000	49630	99.3	ug/L	+/- 10.00%
	Potassium	10000	10530	105	ug/L	+/- 10.00%
	Sodium	50000	52880	106	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: ME-ICP

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2235004
Sequence: 2H23510

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2H23510-ICV1	Calcium	50000	51680	103	ug/L	+/- 10.00%
	Lead	1000	953.6	95.4	ug/L	+/- 10.00%
	Magnesium	50000	48380	96.8	ug/L	+/- 10.00%
	Potassium	10000	9926	99.3	ug/L	+/- 10.00%
	Sodium	50000	50970	102	ug/L	+/- 10.00%
2H23510-CCV1	Calcium	50000	51070	102	ug/L	+/- 10.00%
	Lead	1000	949.2	94.9	ug/L	+/- 10.00%
	Magnesium	50000	48320	96.6	ug/L	+/- 10.00%
	Potassium	10000	9899	99.0	ug/L	+/- 10.00%
	Sodium	50000	50510	101	ug/L	+/- 10.00%
2H23510-CCV5	Calcium	50000	49000	98.0	ug/L	+/- 10.00%
	Lead	1000	938.1	93.8	ug/L	+/- 10.00%
	Magnesium	50000	47560	95.1	ug/L	+/- 10.00%
	Potassium	10000	9595	96.0	ug/L	+/- 10.00%
	Sodium	50000	49170	98.3	ug/L	+/- 10.00%
2H23510-CCV6	Calcium	50000	50400	101	ug/L	+/- 10.00%
	Lead	1000	943.7	94.4	ug/L	+/- 10.00%
	Magnesium	50000	46680	93.4	ug/L	+/- 10.00%
	Potassium	10000	9838	98.4	ug/L	+/- 10.00%
	Sodium	50000	49780	99.6	ug/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SW6010B

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: ME-ICP

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2241002
Sequence: 2H24103

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2H24103-ICV1	Iron (dissolved)	10000	10750	108	ug/L	+/- 10.00%
	Manganese (dissolved)	1000	1067	107	ug/L	+/- 10.00%
2H24103-CCV1	Iron (dissolved)	10000	10590	106	ug/L	+/- 10.00%
	Manganese (dissolved)	1000	1044	104	ug/L	+/- 10.00%
2H24103-CCV8	Iron (dissolved)	10000	10280	103	ug/L	+/- 10.00%
	Manganese (dissolved)	1000	999.7	100	ug/L	+/- 10.00%
2H24103-CCV9	Iron (dissolved)	10000	10280	103	ug/L	+/- 10.00%
	Manganese (dissolved)	1000	1014	101	ug/L	+/- 10.00%
2H24103-CCVE	Iron (dissolved)	10000	10460	105	ug/L	+/- 10.00%
	Manganese (dissolved)	1000	1032	103	ug/L	+/- 10.00%
2H24103-CCVF	Iron (dissolved)	10000	10360	104	ug/L	+/- 10.00%
	Manganese (dissolved)	1000	1013	101	ug/L	+/- 10.00%

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Instrument ID: ME-ICP

Calibration: 2234004

Sequence: 2H22909

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2H22909-CRL1	Calcium	2000	2085	104	ug/L	80 - 120
	Lead	3.000	3.221	107	ug/L	80 - 120
	Magnesium	3000	3109	104	ug/L	80 - 120
	Potassium	3000	3103	103	ug/L	80 - 120
	Sodium	3000	3182	106	ug/L	80 - 120

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Instrument ID: ME-ICP

Calibration: 2235004

Sequence: 2H23510

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2H23510-CRL1	Calcium	2000	2067	103	ug/L	80 - 120
	Magnesium	3000	3011	100	ug/L	80 - 120
	Potassium	3000	2975	99.2	ug/L	80 - 120
	Sodium	3000	3066	102	ug/L	80 - 120
2H23510-CRL2	Lead	3.000	3.061	102	ug/L	80 - 120

CRDL STANDARD

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Instrument ID: ME-ICP

Calibration: 2241002

Sequence: 2H24103

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2H24103-CRL1	Iron (dissolved)	60.00	68.16	114	ug/L	80 - 120
	Manganese (dissolved)	6.000	6.807	113	ug/L	80 - 120
2H24103-CRL3	Iron (dissolved)	60.00	66.96	112	ug/L	80 - 120
	Manganese (dissolved)	6.000	6.338	106	ug/L	80 - 120

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Instrument ID: ME-ICP
Project: Kirtland AFB 2011
Sequence: 2H22909
Calibration: 2234004

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H22909-ICB1	Calcium	-1.450	1000	5000	ug/L	U	SW6010B
	Lead	-0.3261	1.50	3.00	ug/L	U	SW6010B
	Magnesium	-12.40	1000	5000	ug/L	U	SW6010B
	Potassium	-14.27	1000	5000	ug/L	U	SW6010B
	Sodium	-24.25	1000	5000	ug/L	U	SW6010B
2H22909-CCB1	Calcium	-3.71	1000	5000	ug/L	U	SW6010B
	Lead	1.23	1.50	3.00	ug/L	U	SW6010B
	Magnesium	-14.2	1000	5000	ug/L	U	SW6010B
	Potassium	-3.73	1000	5000	ug/L	U	SW6010B
	Sodium	-4.75	1000	5000	ug/L	U	SW6010B
2H22909-CCB2	Calcium	16.8	1000	5000	ug/L	U	SW6010B
	Lead	0.616	1.50	3.00	ug/L	U	SW6010B
	Magnesium	11.7	1000	5000	ug/L	U	SW6010B
	Potassium	67.8	1000	5000	ug/L	U	SW6010B
	Sodium	550	1000	5000	ug/L	U	SW6010B
2H15015-BLK1	Calcium	26.0	1000	5000	ug/L	U	SW6010B
	Lead	0.409	1.50	3.00	ug/L	U	SW6010B
	Magnesium	-3.04	1000	5000	ug/L	U	SW6010B
	Potassium	21.9	1000	5000	ug/L	U	SW6010B
	Sodium	169	1000	5000	ug/L	U	SW6010B
2H22909-CCB3	Calcium	1.27	1000	5000	ug/L	U	SW6010B
	Lead	0.199	1.50	3.00	ug/L	U	SW6010B
	Magnesium	-15.8	1000	5000	ug/L	U	SW6010B
	Potassium	13.4	1000	5000	ug/L	U	SW6010B
	Sodium	79.8	1000	5000	ug/L	U	SW6010B

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Instrument ID: ME-ICP
Project: Kirtland AFB 2011
Sequence: 2H23510
Calibration: 2235004

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H23510-ICB1	Calcium	-1.780	1000	5000	ug/L	U	SW6010B
	Lead	0.3451	1.50	3.00	ug/L	U	SW6010B
	Magnesium	9.990	1000	5000	ug/L	U	SW6010B
	Potassium	31.79	1000	5000	ug/L	U	SW6010B
	Sodium	13.76	1000	5000	ug/L	U	SW6010B
2H23510-CCB1	Calcium	0.480	1000	5000	ug/L	U	SW6010B
	Lead	-0.242	1.50	3.00	ug/L	U	SW6010B
	Magnesium	3.88	1000	5000	ug/L	U	SW6010B
	Potassium	30.3	1000	5000	ug/L	U	SW6010B
	Sodium	16.3	1000	5000	ug/L	U	SW6010B
2H23510-CCB5	Calcium	13.8	1000	5000	ug/L	U	SW6010B
	Lead	0.102	1.50	3.00	ug/L	U	SW6010B
	Magnesium	10.9	1000	5000	ug/L	U	SW6010B
	Potassium	0.170	1000	5000	ug/L	U	SW6010B
	Sodium	18.8	1000	5000	ug/L	U	SW6010B
2H23510-CCB6	Calcium	35.3	1000	5000	ug/L	U	SW6010B
	Lead	0.410	1.50	3.00	ug/L	U	SW6010B
	Magnesium	32.1	1000	5000	ug/L	U	SW6010B
	Potassium	40.8	1000	5000	ug/L	U	SW6010B
	Sodium	345	1000	5000	ug/L	U	SW6010B

BLANKS
SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Instrument ID: ME-ICP
Project: Kirtland AFB 2011
Sequence: 2H24103
Calibration: 2241002

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H24103-ICB1	Iron (dissolved)	19.33	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	0.1023	3.00	15.0	ug/L	U	SW6010B
2H24103-CCB1	Iron (dissolved)	-1.50	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	0.0967	3.00	15.0	ug/L	U	SW6010B
2H24103-CCB8	Iron (dissolved)	6.88	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	2.09	3.00	15.0	ug/L	U	SW6010B
2H24103-CCB9	Iron (dissolved)	0.0867	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	0.195	3.00	15.0	ug/L	U	SW6010B
2H24103-CCBE	Iron (dissolved)	0.969	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	0.0910	3.00	15.0	ug/L	U	SW6010B
2H27018-BLK1	Iron (dissolved)	-2.03	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	0.0700	3.00	15.0	ug/L	U	SW6010B
2H24103-CCBF	Iron (dissolved)	1.20	30.0	100	ug/L	U	SW6010B
	Manganese (dissolved)	0.256	3.00	15.0	ug/L	U	SW6010B

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Instrument ID: ME-ICP
Calibration: 2234004
Sequence: 2H22909

Lab Sample ID	Analyte	True	Found	%R	Units
2H22909-IFA1	Calcium	500000	486,810.00	97.4	ug/L
	Lead		5.76		ug/L
	Magnesium	500000	489,090.00	97.8	ug/L
	Potassium		-61.39		ug/L
	Sodium		75.87		ug/L
2H22909-IFB1	Calcium	500000	505,640.00	101	ug/L
	Lead	50.00	52.72	105	ug/L
	Magnesium	500000	498,280.00	99.7	ug/L
	Potassium		-35.41		ug/L
	Sodium		59.58		ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Instrument ID: ME-ICP
Calibration: 2235004
Sequence: 2H23510

Lab Sample ID	Analyte	True	Found	%R	Units
2H23510-IFA1	Calcium	500000	486,460.00	97.3	ug/L
	Lead		-0.42		ug/L
	Magnesium	500000	479,040.00	95.8	ug/L
	Potassium		-23.30		ug/L
	Sodium		80.04		ug/L
2H23510-IFB1	Calcium	500000	483,700.00	96.7	ug/L
	Lead	50.00	47.99	96.0	ug/L
	Magnesium	500000	478,130.00	95.6	ug/L
	Potassium		-26.99		ug/L
	Sodium		68.71		ug/L

ICP INTERFERENCE CHECK SAMPLE

SW6010B

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Instrument ID: ME-ICP

Calibration: 2241002

Sequence: 2H24103

Lab Sample ID	Analyte	True	Found	%R	Units
2H24103-IFA1	Iron (dissolved)	200000	206,880.00	103	ug/L
	Manganese (dissolved)		-4.79		ug/L
2H24103-IFB1	Iron (dissolved)	200000	205,320.00	103	ug/L
	Manganese (dissolved)	500.0	474.84	95.0	ug/L

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H15015

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Calcium	5000	72380	75470	61.8	4x	80 - 120
Lead	250.0	ND	244.8	97.9		80 - 120
Magnesium	5000	10270	14840	91.3		80 - 120
Potassium	5000	3107	8077	99.4		80 - 120
Sodium	5000	30980	34380	68.1	4x	80 - 120

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Calcium	5000	77670	106	2.87		20	80 - 120
Lead	250.0	242.2	96.9	1.07		20	80 - 120
Magnesium	5000	14640	87.4	1.32		20	80 - 120
Potassium	5000	8040	98.7	0.462		20	80 - 120
Sodium	5000	34920	78.9	1.56	4x	20	80 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SW6010B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H27018

% Solids:

Source Sample Name: **1208091-02**

ANALYTE	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC.	Q	QC LIMITS REC.
Iron (dissolved)	1000	40.19	1123	108		80 - 120
Manganese (dissolved)	500.0	17.85	545.1	105		80 - 120

ANALYTE	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Iron (dissolved)	1000	1117	108	0.536		20	80 - 120
Manganese (dissolved)	500.0	537.3	104	1.44		20	80 - 120

POST DIGEST SPIKE SAMPLE RECOVERY

SW6010B

GW0648

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Matrix: Water
Laboratory ID: 2H15015-PS2
Batch: 2H15015
Lab Source ID: 1208091-01
Preparation: MET_3005A
Initial/Final: 20 mL / 20 mL

Analyte	Spike Sample Result (SSR) (ug/L)	Sample Result (SR) (ug/L)	Spike Added (SA) (ug/L)	%R	Control Limit %R
Calcium	**78460**	**72380**	**5000**	**122**	**80 - 120**
Lead	243.7	ND	250.0	97.5	80 - 120
Magnesium	14570	10270	5000	86.0	80 - 120
Potassium	8096	3107	5000	99.8	80 - 120
Sodium	35470	30980	5000	89.9	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H15015	Laboratory ID:	2H15015-BS1
Preparation:	MET_3005A	Initial/Final:	50 mL / 50 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Calcium	5000	5366	107	80 - 120
Lead	250.0	252.6	101	80 - 120
Magnesium	5000	5093	102	80 - 120
Potassium	5000	5392	108	80 - 120
Sodium	5000	5498	110	80 - 120

LCS / LCS DUPLICATE RECOVERY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H27018	Laboratory ID:	2H27018-BS1
Preparation:	MET_3005A	Initial/Final:	50 mL / 50 mL

ANALYTE	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC.	QC LIMITS REC.
Iron (dissolved)	1000	1078	108	80 - 120
Manganese (dissolved)	500.0	529.2	106	80 - 120

SERIAL DILUTION

SW6010B

GW0648

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Matrix: Water
Sequence: 2H23510
Preparation: MET_3005A

SDG: Kirtland_061
Project: Kirtland AFB 2011
Laboratory ID: 2H15015-DUP2
Lab Source ID: 1208091-01
Initial/Final: 50 / 50

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Calcium	72382	74670	3.16		SW6010B	10.00
Lead	ND	ND			SW6010B	10.00
Magnesium	10273	10426	1.48		SW6010B	10.00
Potassium	3107	ND			SW6010B	10.00
Sodium	30976	33261	7.38		SW6010B	10.00

SERIAL DILUTION

SW6010B

GW0648

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Matrix: Water
Sequence: 2H24103
Preparation: MET_3005A

SDG: Kirtland_061
Project: Kirtland AFB 2011
Laboratory ID: 2H27018-DUP1
Lab Source ID: 1208091-02
Initial/Final: 50 / 50

Analyte	Initial Sample Result (I) ug/L	Serial Dilution Result (S) ug/L	% Difference	Q	Method	QC Limits % Difference
Iron (dissolved)	40.194	ND			SW6010B	10.00
Manganese (dissolved)	17.851	20.805	16.5		SW6010B	10.00

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Shaw E & I (I700)

SDG No.: Kirtland_061

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 12/30/2011

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Al	Ca	Fe	Mg	Ag
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.000274	0.002914	0.000021	0.000325	0.0000000
Magnesium	279.0	0.0000000	0.0000000	-0.000001	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.000032	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Shaw E & I (I700)

SDG No.: Kirtland_061

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 12/30/2011

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	B	Ba	Be	Cd
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Shaw E & I (I700)

SDG No.: Kirtland_061

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 12/30/2011

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Co	Cr	Cu	K	Mn
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	-0.000701	0.0000000	0.0000000	-0.000794
Lead	220.3	-0.000077	0.0000000	0.000101	0.0000000	0.000116
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Shaw E & I (I700)

SDG No.: Kirtland_061

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 12/30/2011

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Mo	Na	Ni	Pb	Sb
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	-0.002028	0.0000000	0.000100	0.0000000	0.0000000
Magnesium	279.0	-0.000013	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Shaw E & I (I700)

SDG No.: Kirtland_061

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 12/30/2011

Analyte	Wave-length (nm)	Interelement Correction Factors for:				
		Se	Sn	Ti	Tl	V
Calcium	317.9	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Iron	261.1	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.3	0.0000000	0.0000000	-0.000006	0.0000000	-0.000072
Magnesium	279.0	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.4	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.6	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Comments:

FORM XA-IN

USEPA - CLP

10A-IN
ICP-AES INTERELEMENT CORRECTION FACTORS (ANNUALLY)

Lab Name: Empirical Laboratories, LLC Contract: Shaw E & I (I700)

SDG No.: Kirtland_061

ICP-AES Instrument ID: Thermo Jarrell Ashe ICAP Date: 12/30/2011

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Calcium	317.9	0.0000000				
Iron	261.1	0.0000000				
Lead	220.3	0.0000000				
Magnesium	279.0	0.0000000				
Manganese	257.6	0.0000000				
Potassium	766.4	0.0000000				
Sodium	589.6	0.0000000				

Comments:

FORM XA-IN

ICP-AES AND ICP-MS LINEAR RANGES (QUARTERLY)

Lab Name: Empirical Laboratories, LLC

Client: Shaw E & I (I700) SDG: Kirtland_061

Project: Kirtland AFB 2011

ICP Instrument ID: ME-ICP Date: 12/30/2011

Analyte	Integ. Time (Sec.)	Concentration ug/L	M
Calcium	15	500000	P
Iron	15	500000	P
Lead	15	10000	P
Magnesium	15	500000	P
Manganese	15	10000	P
Potassium	15	100000	P
Sodium	15	500000	P

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H15015 Batch Matrix: Water Preparation: MET_3005A

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/15/12 09:48	50.00	50.00
Blank	2H15015-BLK1	08/15/12 09:48	50.00	50.00
LCS	2H15015-BS1	08/15/12 09:48	50.00	50.00
GW0648	2H15015-DUP2	08/15/12 09:48	50.00	50.00
GW0648	2H15015-MS2	08/15/12 09:48	50.00	50.00
GW0648	2H15015-MSD2	08/15/12 09:48	50.00	50.00
GW0648	2H15015-PS2	08/15/12 09:48	20.00	20.00

PREPARATION BATCH SUMMARY

SW6010B

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H27018 Batch Matrix: Water Preparation: MET_3005A

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-02	08/27/12 13:18	50.00	50.00
Blank	2H27018-BLK1	08/27/12 13:18	50.00	50.00
LCS	2H27018-BS1	08/27/12 13:18	50.00	50.00
GW0648	2H27018-DUP1	08/27/12 13:18	50.00	50.00
GW0648	2H27018-MS1	08/27/12 13:18	50.00	50.00
GW0648	2H27018-MSD1	08/27/12 13:18	50.00	50.00

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H22909	Instrument:	ME-ICP
Calibration:	2234004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H22909-CAL1	081612A-001	08/16/12 09:32
Cal Standard	2H22909-CAL2	081612A-002	08/16/12 09:36
Cal Standard	2H22909-CAL3	081612A-003	08/16/12 09:40
Cal Standard	2H22909-CAL5	081612A-005	08/16/12 09:49
Cal Standard	2H22909-CAL6	081612A-006	08/16/12 09:54
Cal Standard	2H22909-CAL7	081612A-007	08/16/12 09:59
Cal Standard	2H22909-CAL8	081612A-008	08/16/12 10:03
Initial Cal Check	2H22909-ICV1	081612B-001	08/16/12 10:34
Initial Cal Blank	2H22909-ICB1	081612B-002	08/16/12 10:41
Instrument RL Check	2H22909-CRL1	081612B-003	08/16/12 10:46
Interference Check A	2H22909-IFA1	081612B-008	08/16/12 11:21
Interference Check B	2H22909-IFB1	081612B-009	08/16/12 11:27
Calibration Check	2H22909-CCV1	081612C-001	08/16/12 11:37
Calibration Blank	2H22909-CCB1	081612C-002	08/16/12 11:44
Calibration Check	2H22909-CCV2	081612C-015	08/16/12 12:46
Calibration Blank	2H22909-CCB2	081612C-016	08/16/12 12:54
Blank	2H15015-BLK1	081612C-024	08/16/12 13:33
LCS	2H15015-BS1	081612C-025	08/16/12 13:37
Calibration Check	2H22909-CCV3	081612C-028	08/16/12 13:56
Calibration Blank	2H22909-CCB3	081612C-029	08/16/12 14:03

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23510	Instrument:	ME-ICP
Calibration:	2235004		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H23510-CAL1	082212A-001	08/22/12 09:03
Cal Standard	2H23510-CAL2	082212A-002	08/22/12 09:07
Cal Standard	2H23510-CAL3	082212A-003	08/22/12 09:11
Cal Standard	2H23510-CAL5	082212A-005	08/22/12 09:20
Cal Standard	2H23510-CAL6	082212A-006	08/22/12 09:25
Cal Standard	2H23510-CAL7	082212A-007	08/22/12 09:30
Cal Standard	2H23510-CAL8	082212A-009	08/22/12 09:39
Initial Cal Check	2H23510-ICV1	082212B-001	08/22/12 10:08
Initial Cal Blank	2H23510-ICB1	082212B-002	08/22/12 10:15
Instrument RL Check	2H23510-CRL1	082212B-004	08/22/12 10:25
Instrument RL Check	2H23510-CRL2	082212B-006	08/22/12 10:34
Interference Check A	2H23510-IFA1	082212B-007	08/22/12 10:39
Interference Check B	2H23510-IFB1	082212B-008	08/22/12 10:44
Calibration Check	2H23510-CCV1	082212B-010	08/22/12 10:54
Calibration Blank	2H23510-CCB1	082212B-011	08/22/12 11:02
Calibration Check	2H23510-CCV5	082212C-038	08/22/12 15:43
Calibration Blank	2H23510-CCB5	082212C-039	08/22/12 15:50
GW0648	1208091-01	082212C-046	08/22/12 16:24
GW0648	2H15015-MS2	082212C-047	08/22/12 16:28
GW0648	2H15015-MSD2	082212C-048	08/22/12 16:32
GW0648	2H15015-PS2	082212C-049	08/22/12 16:37
GW0648	2H15015-DUP2	082212C-050	08/22/12 16:42
Calibration Check	2H23510-CCV6	082212C-051	08/22/12 16:47
Calibration Blank	2H23510-CCB6	082212C-052	08/22/12 16:55

ANALYSIS SEQUENCE SUMMARY

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24103	Instrument:	ME-ICP
Calibration:	2241002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H24103-CAL1	082712A-001	08/27/12 09:35
Cal Standard	2H24103-CAL2	082712A-002	08/27/12 09:39
Cal Standard	2H24103-CAL3	082712A-003	08/27/12 09:43
Cal Standard	2H24103-CAL4	082712A-004	08/27/12 09:49
Cal Standard	2H24103-CAL5	082712A-005	08/27/12 09:53
Cal Standard	2H24103-CAL6	082712A-006	08/27/12 09:58
Initial Cal Check	2H24103-ICV1	082712B-001	08/27/12 10:40
Initial Cal Blank	2H24103-ICB1	082712B-002	08/27/12 10:47
Instrument RL Check	2H24103-CRL1	082712B-004	08/27/12 11:00
Interference Check A	2H24103-IFA1	082712B-006	08/27/12 11:09
Interference Check B	2H24103-IFB1	082712B-007	08/27/12 11:15
Calibration Check	2H24103-CCV1	082712B-009	08/27/12 11:26
Calibration Blank	2H24103-CCB1	082712B-010	08/27/12 11:35
Calibration Check	2H24103-CCV8	082712C-061	08/27/12 20:03
Calibration Blank	2H24103-CCB8	082712C-062	08/27/12 20:10
Instrument RL Check	2H24103-CRL3	082712C-064	08/27/12 20:19
Calibration Check	2H24103-CCV9	082712C-067	08/27/12 20:34
Calibration Blank	2H24103-CCB9	082712C-068	08/27/12 20:41
Calibration Check	2H24103-CCVE	082712E-036	08/28/12 13:23
Calibration Blank	2H24103-CCBE	082712E-037	08/28/12 13:31
Blank	2H27018-BLK1	082712E-038	08/28/12 13:35
LCS	2H27018-BS1	082712E-039	08/28/12 13:40
GW0648	1208091-02	082712E-045	08/28/12 14:09
GW0648	2H27018-MS1	082712E-046	08/28/12 14:14
GW0648	2H27018-MSD1	082712E-047	08/28/12 14:18
GW0648	2H27018-DUP1	082712E-048	08/28/12 14:23
Calibration Check	2H24103-CCVF	082712E-049	08/28/12 14:29
Calibration Blank	2H24103-CCBF	082712E-050	08/28/12 14:36

INITIAL CALIBRATION DATA

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2234004	Instrument:	ME-ICP
Matrix:	Water	Calibration Dates:	8/16/12 9:32 8/16/12 10:03

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	2.2212E-05	10000	2.1996E-05			500000	2.171E-05		
Antimony	0	0	100	0.0005192	1000	5.4215E-04					10000	0.0005502
Arsenic	0	0	100	0.0002743	1000	2.9155E-04					10000	2.9023E-04
Barium	0	0	50	0.0101404	1000	9.495401E-03	5000	0.0099604				
Beryllium	0	0	100	0.0023103	1000	0.0022817					10000	0.00216
Boron	0	0	50	0.0000154	1000	1.471E-05					5000	1.4114E-05
Cadmium	0	0	100	0.017455	1000	0.017254					10000	0.016841
Calcium	0	0	1100	6.170909E-05	50000	5.7408E-05					10000	
Chromium	0	0	100	0.0000513	1000	4.861E-05					10000	4.8847E-05
Cobalt	0	0	100	0.004627	1000	0.0044689					10000	0.0046031
Copper	0	0	100	0.0000644	1000	5.648E-05					10000	5.4617E-05
Iron	0	0	5100	1.956275E-05	10000	1.8644E-05			500000	1.80774E-05	10000	
Lead	0	0	100	0.0011706	1000	0.0011325					10000	0.001173
Magnesium	0	0	5100		50000	2.0514E-06			500000	2.0188E-06	10000	
Manganese	0	0	100	0.000274	1000	2.5685E-04	10000	0.0002518			10000	
Molybdenum	0	0	100	0.0030612	1000	0.0031328					10000	0.0031419
Nickel	0	0	100	0.0030501	1000	0.0029513					10000	0.0030384
Potassium	0	0	1000	1.331E-05	10000	1.5952E-05						
Selenium	0	0	100	0.0003407	1000	3.3652E-04					10000	3.3181E-04
Silver	0	0	20	0.0000605	500	5.476E-05	2000	5.6505E-05				
Sodium	0	0	1000		50000	5.0418E-05						
Strontium	0	0	100	0.00159	1000	0.001554					10000	0.001518
Thallium	0	0	100	0.000671	1000	6.7282E-04					10000	0.0006887
Tin	0	0	50	0.0011948	1000	0.0012192					5000	1.24824E-03
Titanium	0	0	100	0.0001818	1000	1.7921E-04					10000	0.000172
Vanadium	0	0	100	0.0000461	1000	4.397E-05					10000	4.3488E-05
Zinc	0	0	100	0.0068686	1000	0.0068232					10000	0.0068385

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2234004	Instrument:	ME-ICP
Matrix:	Water	Calibration Dates:	8/16/12 9:32 8/16/12 10:03

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	5.5562E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.9495E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.5901E-05										
Selenium												
Silver												
Sodium	100000	4.9368E-05	500000	4.7894E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_061	
Client:	Shaw E & I (I700)		Project:	Kirtland AFB 2011	
Calibration:	2234004		Instrument:	ME-ICP	
Matrix:	Water		Calibration Dates:	8/16/12 9:32	8/16/12 10:03

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.64795E-05	66.67834	3.459053	165.6481	0.9999999		0.998	
Antimony	4.028875E-04	66.74632	4.085408	169.8821	0.9999989		0.998	
Arsenic	2.1402E-04	66.76721	1.57651	109.6515	0.9999991		0.998	
Barium	7.39905E-03	66.76776	1.02519	147.1474	0.9999023		0.998	
Beryllium	0.001688	66.77835	132.2839	199.0348	0.9999711		0.998	
Boron	1.1056E-05	66.83587	1.674725	79.25478	0.9999345		0.998	
Cadmium	0.0128875	66.69616	4.86121	186.537	0.9999947		0.998	
Calcium	4.366977E-05	66.92701	2.450252	153.2746	0.9999897		0.998	
Chromium	3.718925E-05	66.74681	37.84135	197.2784	0.9999993		0.998	
Cobalt	3.42475E-03	66.69762	2.443747	174.6091	0.999991		0.998	
Copper	4.387425E-05	67.36392	1.583248	66.29448	0.9999952		0.998	
Iron	1.407104E-05	66.8084	27.29817	196.3338	0.9999995		0.998	
Lead	8.69025E-04	66.70084	110.0621	199.2438	0.9999882		0.998	
Magnesium	1.504925E-06	66.72643	281.2482	199.6462	0.9999324		0.998	
Manganese	1.956625E-04	66.84328	1.722585	118.5675	0.9999969		0.998	
Molybdenum	2.333975E-03	66.6846	4.367412	182.769	1		0.998	
Nickel	2.25995E-03	66.69519	23.53813	196.4841	0.9999916		0.998	
Potassium	1.129075E-05	67.55603	3.12291	138.2311	0.9999962		0.998	
Selenium	2.522575E-04	66.6822	4.098933	177.2178	0.9999987		0.998	
Silver	4.294125E-05	66.90104	7.16047	161.4133	0.9999251		0.998	
Sodium	3.692E-05	66.72561	3.790595	154.6202	0.9999559		0.998	
Strontium	0.0011655	66.71435	1.822475	101.6252	0.9999948		0.998	
Thallium	5.0813E-04	66.68502	5.030777	180.2699	0.9999958		0.998	
Tin	9.1556E-04	66.70935	3.10082	167.8387	0.9999792		0.998	
Titanium	1.332525E-04	66.73925	20.4752	194.8604	0.999984		0.998	
Vanadium	3.33895E-05	66.75326	7.552527	184.6037	0.9999992		0.998	
Zinc	5.132575E-03	66.66768	12.23962	194.7515	0.9999999		0.998	

INITIAL CALIBRATION DATA

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2235004	Instrument:	ME-ICP
Matrix:	Water	Calibration Dates:	8/22/12 9:03 8/22/12 9:39

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	2.3914E-05	10000	2.3513E-05			500000	2.2974E-05		
Antimony	0	0	100	0.0006319	1000	6.5509E-04					10000	6.6137E-04
Arsenic	0	0	100	0.0003508	1000	3.6655E-04					10000	3.6271E-04
Barium	0	0	50	0.0116368	1000	0.010893	5000	0.0113608				
Beryllium	0	0	100	0.0025685	1000	0.002506					10000	0.0023937
Boron	0	0	50	0.000015	1000	1.637E-05					5000	1.6034E-05
Cadmium	0	0	100	0.018426	1000	0.018062					10000	0.017069
Calcium	0	0	1100	6.003636E-05	50000	5.7886E-05					10000	
Chromium	0	0	100	0.000054	1000	5.094E-05					10000	5.0438E-05
Cobalt	0	0	100	0.005068	1000	0.0048879					10000	0.0049275
Copper	0	0	100	0.0000766	1000	6.842E-05					10000	6.5657E-05
Iron	0	0	5100	2.094902E-05	10000	1.9556E-05			500000	1.87308E-05	10000	
Lead	0	0	100	0.0012419	1000	0.0011975					10000	0.0012106
Magnesium	0	0	5100		50000	2.0754E-06			500000	2.0802E-06	10000	
Manganese	0	0	100	0.0002695	1000	2.6019E-04	10000	2.4848E-04			10000	
Molybdenum	0	0	100	0.0038172	1000	0.0038486					10000	0.0038173
Nickel	0	0	100	0.0034192	1000	0.0033113					10000	0.0033844
Potassium	0	0	1000	0.000015	10000	1.6917E-05						
Selenium	0	0	100	0.0003813	1000	3.8018E-04					10000	3.6967E-04
Silver	0	0	20	0.0000655	500	0.0000609	2000	6.133E-05				
Sodium	0	0	1000		50000	5.6934E-05						
Strontium	0	0	100	0.001751	1000	0.001692					10000	0.001647
Thallium	0	0	100	0.0007613	1000	7.5239E-04					10000	7.6384E-04
Tin	0	0	50	0.0013044	1000	0.0013148					5000	0.0013198
Titanium	0	0	100	0.0001772	1000	1.7832E-04					10000	1.7413E-04
Vanadium	0	0	100	0.0000489	1000	4.649E-05					10000	4.5855E-05
Zinc	0	0	100	0.0075027	1000	0.0073866					10000	0.0072869

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2235004	Instrument:	ME-ICP	
Matrix:	Water	Calibration Dates:	8/22/12 9:03	8/22/12 9:39

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	5.3798E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.9601E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.6473E-05										
Selenium												
Silver												
Sodium	100000	5.3932E-05	500000	5.2012E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2235004	Instrument:	ME-ICP
Matrix:	Water	Calibration Dates:	8/22/12 9:03 8/22/12 9:39

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.760025E-05	66.70257	13.09067	188.9852	0.9999998		0.998	
Antimony	4.8709E-04	66.71742	6.5492	180.7009	0.9999996		0.998	
Arsenic	2.70015E-04	66.7129	5.645143	185.6439	0.9999983		0.998	
Barium	8.47265E-03	66.76506	1.482083	155.4183	0.9999236		0.998	
Beryllium	1.86705E-03	66.77911	99.55647	198.3025	0.9999804		0.998	
Boron	1.1851E-05	66.84792	6.495058	186.1036	0.9999777		0.998	
Cadmium	1.338925E-02	66.80412	3.244217	185.5412	0.9999697		0.998	
Calcium	4.293009E-05	66.93856	6.785525	163.7547	0.9999439		0.998	
Chromium	3.88445E-05	66.78973	10.31662	188.0059	0.9999992		0.998	
Cobalt	3.72085E-03	66.69901	3.590092	182.5199	0.999999		0.998	
Copper	5.266925E-05	67.24781	1.064627	112.3243	0.9999915		0.998	
Iron	1.480895E-05	66.95266	43.62551	196.9125	0.9999989		0.998	
Lead	0.0009125	66.69791	56.58888	198.38	0.9999985		0.998	
Magnesium	1.528925E-06	66.76548	46.14677	195.3848	0.9998492		0.998	
Manganese	1.945425E-04	66.81307	8.575058	189.5525	0.9999805		0.998	
Molybdenum	2.870775E-03	66.66865	11.31902	193.8343	0.9999993		0.998	
Nickel	2.528725E-03	66.69038	16.28179	196.2178	0.9999951		0.998	
Potassium	1.20975E-05	67.00981	1.866577	82.43504	0.9999859		0.998	
Selenium	2.827875E-04	66.6924	11.31735	188.9763	0.9999929		0.998	
Silver	4.69325E-05	66.81305	9.171013	191.5884	0.9999945		0.998	
Sodium	4.07195E-05	66.85199	4.463102	145.5655	0.9999056		0.998	
Strontium	0.0012725	66.75061	3.220925	162.0785	0.9999934		0.998	
Thallium	5.693825E-04	66.67224	3.781987	176.4695	0.9999981		0.998	
Tin	9.8475E-04	66.66985	4.412872	179.3092	0.9999996		0.998	
Titanium	1.324125E-04	66.68008	11657.04	199.9876	0.9999945		0.998	
Vanadium	3.531125E-05	66.77007	1.239835	101.1214	0.9999987		0.998	
Zinc	5.54405E-03	66.68564	10.77251	195.6993	0.9999984		0.998	

INITIAL CALIBRATION DATA

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Calibration:	2241002	Instrument:	ME-ICP
Matrix:	Water	Calibration Dates:	8/27/12 9:35 8/27/12 10:09

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum	0	0	5000	2.1798E-05	10000	2.1304E-05			500000	2.1124E-05		
Antimony	0	0	100	0.000648	1000	0.0006842					10000	0.0006945
Arsenic	0	0	100	0.0003211	1000	3.4081E-04					10000	3.3926E-04
Barium	0	0	50	0.012008	1000	0.011271	5000	0.0118224				
Beryllium	0	0	100	0.0022581	1000	0.0022886					10000	0.0022071
Boron	0	0	50	0.0000138	1000	1.359E-05					5000	1.3204E-05
Cadmium	0	0	100	0.018682	1000	0.01838					10000	0.017538
Calcium	0	0	1100	5.224546E-05	50000	5.106E-05					10000	
Chromium	0	0	100	0.0000484	1000	0.0000464					10000	4.6192E-05
Cobalt	0	0	100	0.0051869	1000	0.0050069					10000	0.0051232
Copper	0	0	100	0.0000594	1000	5.433E-05					10000	5.188E-05
Iron	0	0	5100	1.828039E-05	10000	1.7436E-05			500000	1.65944E-05	10000	
Lead	0	0	100	0.0012706	1000	0.0012207					10000	0.0012539
Magnesium	0	0	5100		50000	1.8346E-06			500000	1.87652E-06	10000	
Manganese	0	0	100	0.0002343	1000	2.2541E-04	10000	2.1752E-04			10000	
Molybdenum	0	0	100	0.0035021	1000	0.0035565					10000	0.0035749
Nickel	0	0	100	0.0035068	1000	0.003418					10000	0.003517
Potassium	0	0	1000	1.383E-05	10000	1.5196E-05						
Selenium	0	0	100	0.0003915	1000	3.9308E-04					10000	3.8757E-04
Silver	0	0	20	0.0000595	500	5.604E-05	2000	5.6735E-05				
Sodium	0	0	1000		50000	4.3204E-05						
Strontium	0	0	100	0.001431	1000	0.001429					10000	0.001383
Thallium	0	0	100	0.0007776	1000	7.7469E-04					10000	0.0007928
Tin	0	0	50	0.0013446	1000	0.0013553					5000	1.37024E-03
Titanium	0	0	100	0.000163	1000	1.6381E-04					10000	1.6041E-04
Vanadium	0	0	100	0.0000431	1000	4.253E-05					10000	4.1947E-05
Zinc	0	0	100	0.0071157	1000	0.0070386					10000	0.006989

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061	
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011	
Calibration:	2241002	Instrument:	ME-ICP	
Matrix:	Water	Calibration Dates:	8/27/12 9:35	8/27/12 10:09

Compound	Level 07		Level 08		Level 09		Level 10		Level 11		Level 12	
	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF	ug/L	RF
Aluminum												
Antimony												
Arsenic												
Barium												
Beryllium												
Boron												
Cadmium												
Calcium	100000		500000	4.7872E-05								
Chromium												
Cobalt												
Copper												
Iron												
Lead												
Magnesium			100000	1.786E-06								
Manganese												
Molybdenum												
Nickel												
Potassium	100000	1.5225E-05										
Selenium												
Silver												
Sodium	100000	4.1344E-05	500000	4.1444E-05								
Strontium												
Thallium												
Tin												
Titanium												
Vanadium												
Zinc												

INITIAL CALIBRATION DATA (Continued)

SW6010B

Laboratory:	Empirical Laboratories, LLC		SDG:	Kirtland_061	
Client:	Shaw E & I (I700)		Project:	Kirtland AFB 2011	
Calibration:	2241002		Instrument:	ME-ICP	
Matrix:	Water		Calibration Dates:	8/27/12 9:35	8/27/12 10:09

Compound	Mean RF	RF RSD	Mean RT	RT RSD	Linear r	Quad COD	LIMIT	Q
Aluminum	1.60565E-05	66.69028	9.269565	191.0685	0.9999999		0.998	
Antimony	5.06675E-04	66.78274	4.330428	168.0958	0.999999		0.998	
Arsenic	2.502925E-04	66.76246	2.562045	148.9123	0.9999992		0.998	
Barium	8.77535E-03	66.76201	0.78406	126.3424	0.9999033		0.998	
Beryllium	1.68845E-03	66.6964	114.1882	198.5977	0.999987		0.998	
Boron	1.01485E-05	66.71101	2.703505	134.7586	0.9999685		0.998	
Cadmium	0.01365	66.76092	5.318435	189.1681	0.9999794		0.998	
Calcium	3.779436E-05	66.84551	1.476715	83.67614	0.9999568		0.998	
Chromium	3.5248E-05	66.72646	12.14137	185.3944	0.9999998		0.998	
Cobalt	3.82925E-03	66.69506	1.232105	156.4007	0.9999944		0.998	
Copper	4.14025E-05	67.09435	1.090015	51.79519	0.9999869		0.998	
Iron	1.30777E-05	66.8741	10.47089	190.0758	0.999999		0.998	
Lead	0.0009363	66.70345	10.01668	192.5687	0.9999929		0.998	
Magnesium	1.37428E-06	66.72097	1269.795	199.959	0.9999079		0.998	
Manganese	1.693075E-04	66.78948	3.672925	158.9466	0.9999888		0.998	
Molybdenum	2.658375E-03	66.6768	4.89032	187.2002	0.9999998		0.998	
Nickel	2.61045E-03	66.68842	5.351135	188.6762	0.999992		0.998	
Potassium	1.106275E-05	66.92579	2.685097	134.2841	0.9999994		0.998	
Selenium	2.930375E-04	66.67135	18.46008	194.4996	0.9999983		0.998	
Silver	4.306875E-05	66.7569	3.802022	150.8544	0.999987		0.998	
Sodium	3.1498E-05	66.72181	2.714592	137.7174	0.999979		0.998	
Strontium	1.06075E-03	66.69942	3.463225	138.422	0.9999895		0.998	
Thallium	5.862725E-04	66.68042	5.153847	182.8015	0.9999957		0.998	
Tin	1.017535E-03	66.67468	8.27308	192.0856	0.9999956		0.998	
Titanium	1.21805E-04	66.67729	63.31169	198.2661	0.9999958		0.998	
Vanadium	3.189425E-05	66.683	2.277507	127.8775	0.9999984		0.998	
Zinc	5.285825E-03	66.67396	2.275002	181.8257	0.9999996		0.998	

Data for Wet Chemistry Forms

ANALYSIS DATA SHEET

GW0648

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water	Laboratory ID:	1208091-01
Sampled:	08/13/12 10:53	Received:	08/14/12 08:20
% Solids:	0.00		

CAS NO.	Analyte	Conc. (mg/L)	DL	LOD	LOQ	D.F.	Q	Method	Batch	Analyzed
7664-41-7	Ammonia as N		0.110	0.150	0.300	1	U	SM4500NH3BG	2H27002	08/29/12 13:45
18496-25-8	Sulfide		0.870	2.17	4.35	1	U	SM4500S2CF	2H15017	08/15/12 11:09
71-52-3	Alkalinity, Bicarbonate (as CACO3)	108	1.00	1.00	1.00	1		SM2320B	2H23603	08/23/12 08:50
16887-00-6	Chloride	56.1	0.170	0.330	0.500	1		E300.0	2H22921	08/22/12 21:31
NA	Nitrate/Nitrite as N	1.19	0.250	0.750	1.50	1	J	E353.2	2H29003	08/29/12 09:42
3812-32-6	Alkalinity, Carbonate (as CACO3)		1.00	1.00	1.00	1	U	SM2320B	2H23603	08/23/12 08:50
14808-79-8	Sulfate as SO4	84.9	0.330	1.00	2.50	1	M	E300.0	2H22921	08/22/12 21:31

INITIAL AND CONTINUING CALIBRATION CHECK

E300.0

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: WC-IC

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2136002
Sequence: 2E13609

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2E13609-ICV1	Chloride	4.800	4.613	96.1	mg/L	+/- 10.00%
	Sulfate as SO4	24.00	23.62	98.4	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

E300.0

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: WC-IC

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2136002
Sequence: 2H23702

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2H23702-CCV1	Chloride	25.00	25.88	104	mg/L	+/- 10.00%
	Sulfate as SO4	25.00	25.98	104	mg/L	+/- 10.00%
2H23702-CCV2	Chloride	25.00	25.81	103	mg/L	+/- 10.00%
	Sulfate as SO4	25.00	26.02	104	mg/L	+/- 10.00%
2H23702-CCV3	Chloride	25.00	25.76	103	mg/L	+/- 10.00%
	Sulfate as SO4	25.00	25.86	103	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

E353.2

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: WC-Lachat

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2242001
Sequence: 2H24202

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2H24202-ICV1	Nitrate/Nitrite as N	1.200	1.231	103	mg/L	+/- 10.00%
2H24202-CCV1	Nitrate/Nitrite as N	1.200	1.161	96.8	mg/L	+/- 10.00%
2H24202-CCV2	Nitrate/Nitrite as N	1.200	1.165	97.1	mg/L	+/- 10.00%

INITIAL AND CONTINUING CALIBRATION CHECK

SM4500NH3BG

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Instrument ID: WC-Lachat

SDG: Kirtland_061
Project: Kirtland AFB 2011
Calibration: 2242003
Sequence: 2H24208

Lab Sample ID	Analyte	True	Found	%R	Units	Control Limit
2H24208-ICV1	Ammonia as N	2.000	2.050	102	mg/L	+/- 10.00%
2H24208-CCV1	Ammonia as N	2.000	2.133	107	mg/L	+/- 10.00%

CRDL STANDARD

E300.0

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Instrument ID: WC-IC

Calibration: 2136002

Sequence: 2H23702

Lab Sample ID	Analyte	True	Found	%R	Units	QC Limts
2H23702-CRL1	Chloride	0.5000	0.5970	119	mg/L	75 - 125
2H23702-CRL3	Sulfate as SO4	2.500	2.115	84.6	mg/L	75 - 125

METHOD BLANKS
SM4500S2CF

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Batch: 2H15017

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H15017-BLK1	Sulfide	0.00	0.800	4.00	mg/L	U	SM4500S2CF

METHOD BLANKS
E300.0

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Batch: 2H22921

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H22921-BLK1	Chloride	0.00	0.170	0.500	mg/L	U	E300.0
	Sulfate as SO4	0.00	0.330	2.00	mg/L	U	E300.0

METHOD BLANKS
SM2320B

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Batch: 2H23603

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H23603-BLK1	Alkalinity, Total (as CACO3)	0.00	1.00	1.00	mg/L	U	SM2320B

METHOD BLANKS
SM4500NH3BG

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Batch: 2H27002

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H27002-BLK1	Ammonia as N	0.0452	0.110	0.300	mg/L	U	SM4500NH3BG

METHOD BLANKS
E353.2

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Batch: 2H29003

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H29003-BLK1	Nitrate/Nitrite as N	-0.0388	0.0500	0.300	mg/L	U	E353.2

BLANKS
E300.0

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Sequence: 2E13609
Calibration: 2136002
Instrument ID: WC-IC

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2E13609-ICB1	Chloride	0.000	0.170	0.500	mg/L	U	E300.0
	Sulfate as SO4	0.000	0.330	2.00	mg/L	U	E300.0

BLANKS
E300.0

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Sequence: 2H23702
Calibration: 2136002
Instrument ID: WC-IC

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H23702-CCB1	Chloride	0.00	0.170	0.500	mg/L	U	E300.0
	Sulfate as SO4	0.00	0.330	2.00	mg/L	U	E300.0
2H23702-CCB2	Chloride	0.00	0.170	0.500	mg/L	U	E300.0
	Sulfate as SO4	0.00	0.330	2.00	mg/L	U	E300.0
2H23702-CCB3	Chloride	0.00	0.170	0.500	mg/L	U	E300.0
	Sulfate as SO4	0.00	0.330	2.00	mg/L	U	E300.0

BLANKS
E353.2

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Sequence: 2H24202
Calibration: 2242001
Instrument ID: WC-Lachat

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H24202-ICB1	Nitrate/Nitrite as N	-0.03600	0.0500	0.300	mg/L	U	E353.2
2H24202-CCB1	Nitrate/Nitrite as N	-0.0428	0.0500	0.300	mg/L	U	E353.2
2H24202-CCB2	Nitrate/Nitrite as N	-0.0345	0.0500	0.300	mg/L	U	E353.2

BLANKS
SM4500NH3BG

Laboratory: Empirical Laboratories, LLC
SDG: Kirtland_061
Client: Shaw E & I (I700)
Project: Kirtland AFB 2011
Sequence: 2H24208
Calibration: 2242003
Instrument ID: WC-Lachat

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C	Method
2H24208-ICB1	Ammonia as N	-0.008698	0.110	0.300	mg/L	U	SM4500NH3BG
2H24208-CCB1	Ammonia as N	-0.00866	0.110	0.300	mg/L	U	SM4500NH3BG

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SM4500S2CF

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H15017

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Sulfide	1266	ND	1183	93.4		75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Sulfide	1266	1167	92.2	1.36		20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

E300.0

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H22921

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Chloride	27.78	56.07	84.50	102		80 - 120
Sulfate as SO4	27.78	84.92	113.7	103		80 - 120

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Chloride	27.78	84.26	101	0.282		20	80 - 120
Sulfate as SO4	27.78	113.6	103	0.0626		20	80 - 120

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SM2320B

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H23603

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Alkalinity, Total (as CACO3)	111.1	108.4	217.5	98.2		75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Alkalinity, Total (as CACO3)	111.1	218.8	99.4	0.618		20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

SM4500NH3BG

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H27002

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Ammonia as N	5.000	ND	5.653	113		75 - 125

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Ammonia as N	5.000	5.067	101	10.9		20	75 - 125

MATRIX SPIKE / MATRIX SPIKE DUPLICATE RECOVERY

E353.2

GW0648

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Matrix: Water

Batch: 2H29003

% Solids:

Source Sample Name: **1208091-01**

ANALYTE	SPIKE ADDED (mg/L)	SAMPLE CONCENTRATION (mg/L)	MS CONCENTRATION (mg/L)	MS % REC.	Q	QC LIMITS REC.
Nitrate/Nitrite as N	2.500	1.188	3.686	99.9		90 - 110

ANALYTE	SPIKE ADDED (mg/L)	MSD CONCENTRATION (mg/L)	MSD % REC. #	% RPD	Q	QC LIMITS RPD	QC LIMITS REC.
Nitrate/Nitrite as N	2.500	3.698	100	0.312		20	90 - 110

GW0648

DUPLICATES

E300.0

Laboratory: Empirical Laboratories, LLC
Client: Shaw E & I (I700)
Matrix: Water
Batch: 2H22921
Preparation: WC_PREP_ANIONS_W
Source Sample Name: GW0648

SDG: Kirtland_061
Project: Kirtland AFB 2011
Laboratory ID: 2H22921-DUP1
Lab Source ID: 1208091-01
Initial/Final: 5 mL / 5 mL
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/L)	DUPLICATE CONCENTRATION (mg/L)	RPD %	Q	METHOD
Chloride	20	56.1	55.72	0.626		E300.0
Sulfate as SO4	20	84.9	84.56	0.422		E300.0

LCS / LCS DUPLICATE RECOVERY

SM4500S2CF

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H15017	Laboratory ID:	2H15017-BS1
Preparation:	pNone	Initial/Final:	3 mL / 250 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Sulfide	1266	1150	90.9	80 - 120

LCS / LCS DUPLICATE RECOVERY

E300.0

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H22921	Laboratory ID:	2H22921-BS1
Preparation:	WC_PREP_ANIONS_W	Initial/Final:	5 mL / 5 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Chloride	4.800	4.891	102	90 - 110
Sulfate as SO4	24.00	24.63	103	90 - 110

LCS / LCS DUPLICATE RECOVERY

SM2320B

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H23603	Laboratory ID:	2H23603-BS1
Preparation:	pNone	Initial/Final:	5 mL / 25 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Alkalinity, Total (as CACO3)	1000	1017	102	80 - 120

LCS / LCS DUPLICATE RECOVERY

SM4500NH3BG

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H27002	Laboratory ID:	2H27002-BS1
Preparation:	pNone	Initial/Final:	100 mL / 100 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Ammonia as N	5.000	5.263	105	80 - 120

LCS / LCS DUPLICATE RECOVERY

E353.2

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Matrix:	Water		
Batch:	2H29003	Laboratory ID:	2H29003-BS1
Preparation:	pNone	Initial/Final:	1 mL / 20 mL

ANALYTE	SPIKE ADDED (mg/L)	LCS CONCENTRATION (mg/L)	LCS % REC.	QC LIMITS REC.
Nitrate/Nitrite as N	14.10	14.51	103	90 - 110

PREPARATION BATCH SUMMARY

SM4500S2CF

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H15017 Batch Matrix: Water Preparation: pNone

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/15/12 10:39	230.00	200.00
Blank	2H15017-BLK1	08/15/12 10:39	250.00	200.00
LCS	2H15017-BS1	08/15/12 10:39	3.00	250.00
GW0648	2H15017-MS1	08/15/12 10:39	3.00	250.00
GW0648	2H15017-MSD1	08/15/12 10:39	3.00	250.00

PREPARATION BATCH SUMMARY

E300.0

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H22921 Batch Matrix: Water Preparation: WC_PREP_ANIONS_W

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/22/12 12:14	5.00	5.00
Blank	2H22921-BLK1	08/22/12 12:14	5.00	5.00
LCS	2H22921-BS1	08/22/12 12:14	5.00	5.00
GW0648	2H22921-DUP1	08/22/12 12:14	5.00	5.00
GW0648	2H22921-MS1	08/22/12 12:14	22.50	25.00
GW0648	2H22921-MSD1	08/22/12 12:14	22.50	25.00

PREPARATION BATCH SUMMARY

SM2320B

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H23603 Batch Matrix: Water Preparation: pNone

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/23/12 07:17	25.00	25.00
Blank	2H23603-BLK1	08/23/12 07:17	25.00	25.00
LCS	2H23603-BS1	08/23/12 07:17	5.00	25.00
GW0648	2H23603-MS1	08/23/12 07:17	22.50	25.00
GW0648	2H23603-MSD1	08/23/12 07:17	22.50	25.00

PREPARATION BATCH SUMMARY

SM4500NH3BG

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H27002 Batch Matrix: Water Preparation: pNone

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/27/12 06:28	100.00	100.00
Blank	2H27002-BLK1	08/27/12 06:28	100.00	100.00
LCS	2H27002-BS1	08/27/12 06:28	100.00	100.00
GW0648	2H27002-MS1	08/27/12 06:28	100.00	100.00
GW0648	2H27002-MSD1	08/27/12 06:28	100.00	100.00

PREPARATION BATCH SUMMARY

E353.2

Laboratory: Empirical Laboratories, LLC SDG: Kirtland_061

Client: Shaw E & I (I700) Project: Kirtland AFB 2011

Batch: 2H29003 Batch Matrix: Water Preparation: pNone

SAMPLE NAME	LAB SAMPLE ID	DATE PREPARED	INITIAL VOL./WEIGHT	FINAL VOL.
GW0648	1208091-01	08/29/12 08:18	4.00	20.00
Blank	2H29003-BLK1	08/29/12 08:18	20.00	20.00
LCS	2H29003-BS1	08/29/12 08:18	1.00	20.00
GW0648	2H29003-MS1	08/29/12 08:18	4.00	20.00
GW0648	2H29003-MSD1	08/29/12 08:18	4.00	20.00

ANALYSIS SEQUENCE SUMMARY

SM2320B

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	2H23603-BS1	082312-002	08/23/12 07:41
Blank	2H23603-BLK1	082312-003	08/23/12 07:49
GW0648	2H23603-MS1	082312-004	08/23/12 07:55
GW0648	2H23603-MSD1	082312-005	08/23/12 08:05

ANALYSIS SEQUENCE SUMMARY

SM4500S2CF

Laboratory: Empirical Laboratories, LLC

SDG: Kirtland_061

Client: Shaw E & I (I700)

Project: Kirtland AFB 2011

Sequence:

Instrument:

Calibration:

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
LCS	2H15017-BS1	081512-001	08/15/12 11:00
Blank	2H15017-BLK1	081512-002	08/15/12 11:01
GW0648	2H15017-MS1	081512-003	08/15/12 11:02
GW0648	2H15017-MSD1	081512-004	08/15/12 11:03

ANALYSIS SEQUENCE SUMMARY

E300.0

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2E13609	Instrument:	WC-IC
Calibration:	2136002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2E13609-CAL1	051412-010	05/14/12 18:29
Cal Standard	2E13609-CAL2	051412-011	05/14/12 18:46
Cal Standard	2E13609-CAL3	051412-012	05/14/12 19:04
Cal Standard	2E13609-CAL4	051412-013	05/14/12 19:21
Cal Standard	2E13609-CAL5	051412-014	05/14/12 19:38
Cal Standard	2E13609-CAL6	051412-015	05/14/12 19:56
Cal Standard	2E13609-CAL7	051412-016	05/14/12 20:13
Cal Standard	2E13609-CAL8	051412-017	05/14/12 20:31
Initial Cal Check	2E13609-ICV1	051412-018	05/14/12 20:48
Initial Cal Blank	2E13609-ICB1	051412-019	05/14/12 21:06

ANALYSIS SEQUENCE SUMMARY

E300.0

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H23702	Instrument:	WC-IC
Calibration:	2136002		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Calibration Check	2H23702-CCV1	082212-003	08/22/12 16:18
Calibration Blank	2H23702-CCB1	082212-004	08/22/12 16:35
Instrument RL Check	2H23702-CRL1	082212-005	08/22/12 16:53
Instrument RL Check	2H23702-CRL3	082212-007	08/22/12 17:27
LCS	2H22921-BS1	082212-008	08/22/12 17:45
Blank	2H22921-BLK1	082212-009	08/22/12 18:02
Calibration Check	2H23702-CCV2	082212-015	08/22/12 19:47
Calibration Blank	2H23702-CCB2	082212-016	08/22/12 20:04
GW0648	1208091-01	082212-021	08/22/12 21:31
GW0648	2H22921-MS1	082212-022	08/22/12 21:48
GW0648	2H22921-MSD1	082212-023	08/22/12 22:06
GW0648	2H22921-DUP1	082212-024	08/22/12 22:23
Calibration Check	2H23702-CCV3	082212-030	08/23/12 00:08
Calibration Blank	2H23702-CCB3	082212-031	08/23/12 00:25

ANALYSIS SEQUENCE SUMMARY

E353.2

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24202	Instrument:	WC-Lachat
Calibration:	2242001		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H24202-CAL1	M_8-29-2012_09-01-08AM-00	08/29/12 09:03
Cal Standard	2H24202-CAL2	M_8-29-2012_09-01-08AM-00	08/29/12 09:04
Cal Standard	2H24202-CAL3	M_8-29-2012_09-01-08AM-00	08/29/12 09:06
Cal Standard	2H24202-CAL4	M_8-29-2012_09-01-08AM-00	08/29/12 09:07
Cal Standard	2H24202-CAL5	M_8-29-2012_09-01-08AM-00	08/29/12 09:08
Cal Standard	2H24202-CAL6	M_8-29-2012_09-01-08AM-00	08/29/12 09:10
Cal Standard	2H24202-CAL7	M_8-29-2012_09-01-08AM-00	08/29/12 09:11
Cal Standard	2H24202-CAL8	M_8-29-2012_09-01-08AM-00	08/29/12 09:13
Initial Cal Check	2H24202-ICV1	M_8-29-2012_09-01-08AM-00	08/29/12 09:14
Initial Cal Blank	2H24202-ICB1	M_8-29-2012_09-01-08AM-01	08/29/12 09:16
Blank	2H29003-BLK1	M_8-29-2012_09-01-08AM-01	08/29/12 09:19
LCS	2H29003-BS1	M_8-29-2012_09-01-08AM-01	08/29/12 09:20
Calibration Check	2H24202-CCV1	M_8-29-2012_09-01-08AM-02	08/29/12 09:36
Calibration Blank	2H24202-CCB1	M_8-29-2012_09-01-08AM-02	08/29/12 09:37
GW0648	1208091-01	M_8-29-2012_09-01-08AM-02	08/29/12 09:42
GW0648	2H29003-MS1	M_8-29-2012_09-01-08AM-02	08/29/12 09:43
GW0648	2H29003-MSD1	M_8-29-2012_09-01-08AM-03	08/29/12 09:45
Calibration Check	2H24202-CCV2	M_8-29-2012_09-01-08AM-03	08/29/12 09:49
Calibration Blank	2H24202-CCB2	M_8-29-2012_09-01-08AM-03	08/29/12 09:51

ANALYSIS SEQUENCE SUMMARY

SM4500NH3BG

Laboratory:	Empirical Laboratories, LLC	SDG:	Kirtland_061
Client:	Shaw E & I (I700)	Project:	Kirtland AFB 2011
Sequence:	2H24208	Instrument:	WC-Lachat
Calibration:	2242003		

Sample Name	Lab Sample ID	Lab File ID	Analysis Date/Time
Cal Standard	2H24208-CAL1	M_8-29-2012_01-27-57PM-00	08/29/12 13:29
Cal Standard	2H24208-CAL2	M_8-29-2012_01-27-57PM-00	08/29/12 13:30
Cal Standard	2H24208-CAL3	M_8-29-2012_01-27-57PM-00	08/29/12 13:31
Cal Standard	2H24208-CAL4	M_8-29-2012_01-27-57PM-00	08/29/12 13:32
Cal Standard	2H24208-CAL5	M_8-29-2012_01-27-57PM-00	08/29/12 13:33
Cal Standard	2H24208-CAL6	M_8-29-2012_01-27-57PM-00	08/29/12 13:34
Cal Standard	2H24208-CAL7	M_8-29-2012_01-27-57PM-00	08/29/12 13:35
Cal Standard	2H24208-CAL8	M_8-29-2012_01-27-57PM-00	08/29/12 13:36
Initial Cal Check	2H24208-ICV1	M_8-29-2012_01-27-57PM-00	08/29/12 13:36
Initial Cal Blank	2H24208-ICB1	M_8-29-2012_01-27-57PM-01	08/29/12 13:37
Blank	2H27002-BLK1	M_8-29-2012_01-27-57PM-01	08/29/12 13:38
LCS	2H27002-BS1	M_8-29-2012_01-27-57PM-01	08/29/12 13:39
GW0648	1208091-01	M_8-29-2012_01-27-57PM-01	08/29/12 13:45
GW0648	2H27002-MS1	M_8-29-2012_01-27-57PM-01	08/29/12 13:46
GW0648	2H27002-MSD1	M_8-29-2012_01-27-57PM-02	08/29/12 13:47
Calibration Check	2H24208-CCV1	M_8-29-2012_01-27-57PM-02	08/29/12 13:52
Calibration Blank	2H24208-CCB1	M_8-29-2012_01-27-57PM-02	08/29/12 13:53