

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Terri Choy
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813
Generated 3/27/2023 4:25:17 PM

JOB DESCRIPTION

Red Hill - AFFF Assessment Sampling

JOB NUMBER

580-125072-1

Job Notes

This report is issued solely for the use of the person or company to whom it is addressed. Any use, copying or disclosure other than by the intended recipient is unauthorized. If you have received this report in error, please notify the sender and destroy this report immediately. This report shall not be reproduced except in full, without prior express written approval by the laboratory.

The data in the report relate to the field sample(s) as received by the laboratory and associated QC. All results have been reviewed and have been found to be compliant with laboratory and accreditation requirements, with the exception of the noted deviation(s). For questions, please contact the Project Manager.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing Northwest, LLC Project Manager.

Authorization



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Authorized for release by
Marie Walker, Senior Project Manager
M.Elaine.Walker@et.eurofinsus.com
(253)248-4972



Table of Contents

| | |
|---------------------------------|----|
| Cover Page | 1 |
| Table of Contents | 3 |
| Case Narrative | 4 |
| Definitions | 5 |
| Client Sample Results | 6 |
| QC Sample Results | 11 |
| Chronicle | 12 |
| Certification Summary | 13 |
| Sample Summary | 14 |
| Chain of Custody | 15 |
| Receipt Checklists | 23 |

Case Narrative

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Job ID: 580-125072-1

Laboratory: Eurofins Seattle

Narrative

CASE NARRATIVE

Client: AECOM

Project: Red Hill - AFFF Assessment Sampling

Report Number: 580-125072-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Five samples were received on 3/22/2023 10:30 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 4.5° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

GLYCOLS

Samples AF-RHMW04-WGN01LF-2303W3 (580-125072-1), AF-RHMW06-WGN01LF-2303W3 (580-125072-2), AF-RHMW16-WGN01LF-2303W3 (580-125072-3), AF-RHMW12A-WGN01LF-2303W3 (580-125072-4) and AF-RHMW12A-WGFD01LF-2303W3 (580-125072-5) were analyzed for glycols in accordance with EPA SW-846 Method 8015B - DAI. The samples were analyzed on 03/26/2023.

The closing continuing calibration verification (CCV) associated with batch 680-769675 recovered above the upper control limit for 2-(2-Butoxyethoxy)ethanol. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated sample is impacted: (CCV 680-769675/26).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: AECOM

Job ID: 580-125072-1

Project/Site: Red Hill - AFFF Assessment Sampling

Qualifiers

GC Semi VOA

| Qualifier | Qualifier Description |
|-----------|--|
| M | Manual integrated compound. |
| Q | One or more quality control criteria failed. |
| U | Undetected at the Limit of Detection. |

Glossary

| Abbreviation | These commonly used abbreviations may or may not be present in this report. |
|----------------|---|
| α | Listed under the "D" column to designate that the result is reported on a dry weight basis |
| %R | Percent Recovery |
| CFL | Contains Free Liquid |
| CFU | Colony Forming Unit |
| CNF | Contains No Free Liquid |
| DER | Duplicate Error Ratio (normalized absolute difference) |
| Dil Fac | Dilution Factor |
| DL | Detection Limit (DoD/DOE) |
| DL, RA, RE, IN | Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample |
| DLC | Decision Level Concentration (Radiochemistry) |
| EDL | Estimated Detection Limit (Dioxin) |
| LOD | Limit of Detection (DoD/DOE) |
| LOQ | Limit of Quantitation (DoD/DOE) |
| MCL | EPA recommended "Maximum Contaminant Level" |
| MDA | Minimum Detectable Activity (Radiochemistry) |
| MDC | Minimum Detectable Concentration (Radiochemistry) |
| MDL | Method Detection Limit |
| ML | Minimum Level (Dioxin) |
| MPN | Most Probable Number |
| MQL | Method Quantitation Limit |
| NC | Not Calculated |
| ND | Not Detected at the reporting limit (or MDL or EDL if shown) |
| NEG | Negative / Absent |
| POS | Positive / Present |
| PQL | Practical Quantitation Limit |
| PRES | Presumptive |
| QC | Quality Control |
| RER | Relative Error Ratio (Radiochemistry) |
| RL | Reporting Limit or Requested Limit (Radiochemistry) |
| RPD | Relative Percent Difference, a measure of the relative difference between two points |
| TEF | Toxicity Equivalent Factor (Dioxin) |
| TEQ | Toxicity Equivalent Quotient (Dioxin) |
| TNTC | Too Numerous To Count |

Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Client Sample ID: AF-RHMW04-WGN01LF-2303W3

Lab Sample ID: 580-125072-1

Date Collected: 03/20/23 10:20

Matrix: Water

Date Received: 03/22/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M Q | 5.0 | 1.1 | mg/L | | | 03/26/23 17:20 | 1 |

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Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Client Sample ID: AF-RHMW06-WGN01LF-2303W3

Lab Sample ID: 580-125072-2

Date Collected: 03/20/23 12:10

Matrix: Water

Date Received: 03/22/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M Q | 5.0 | 1.1 | mg/L | | | 03/26/23 17:44 | 1 |

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Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Client Sample ID: AF-RHMW16-WGN01LF-2303W3

Lab Sample ID: 580-125072-3

Date Collected: 03/20/23 12:00

Matrix: Water

Date Received: 03/22/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M Q | 5.0 | 1.1 | mg/L | | | 03/26/23 18:54 | 1 |

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Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Client Sample ID: AF-RHMW12A-WGN01LF-2303W3

Lab Sample ID: 580-125072-4

Date Collected: 03/20/23 09:30

Matrix: Water

Date Received: 03/22/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U Q | 5.0 | 1.1 | mg/L | | | 03/26/23 19:17 | 1 |

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Client Sample Results

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W3

Lab Sample ID: 580-125072-5

Date Collected: 03/20/23 09:30

Matrix: Water

Date Received: 03/22/23 10:30

Method: SW846 8015C GLY - Glycols- Direct Injection (GC/FID)

| Analyte | Result | Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|--------|-----------|-----|-----|------|---|----------|----------------|---------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M Q | 5.0 | 1.1 | mg/L | | | 03/26/23 19:41 | 1 |

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QC Sample Results

Client: AECOM
 Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Method: 8015C GLY - Glycols - Direct Injection (GC/FID)

Lab Sample ID: MB 680-769675/10
Matrix: Water
Analysis Batch: 769675

Client Sample ID: Method Blank
Prep Type: Total/NA

| Analyte | MB Result | MB Qualifier | LOQ | DL | Unit | D | Prepared | Analyzed | Dil Fac |
|---------------------------|-----------|--------------|-----|-----|------|---|----------|----------------|---------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M | 5.0 | 1.1 | mg/L | | | 03/26/23 14:36 | 1 |

Lab Sample ID: LCS 680-769675/6
Matrix: Water
Analysis Batch: 769675

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

| Analyte | Spike Added | LCS Result | LCS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------|-------------|------------|---------------|------|---|------|-------------|
| 2-(2-Butoxyethoxy)ethanol | 20.0 | 19.8 | | mg/L | | 99 | 50 - 150 |

Lab Sample ID: LCSD 680-769675/7
Matrix: Water
Analysis Batch: 769675

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

| Analyte | Spike Added | LCSD Result | LCSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------------|-------------|-------------|----------------|------|---|------|-------------|-----|-----------|
| 2-(2-Butoxyethoxy)ethanol | 20.0 | 19.5 | | mg/L | | 97 | 50 - 150 | 2 | 50 |

Lab Sample ID: 580-125072-2 MS
Matrix: Water
Analysis Batch: 769675

Client Sample ID: AF-RHMW06-WGN01LF-2303W3
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MS Result | MS Qualifier | Unit | D | %Rec | %Rec Limits |
|---------------------------|---------------|------------------|-------------|-----------|--------------|------|---|------|-------------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M Q | 20.0 | 21.3 | | mg/L | | 107 | 50 - 150 |

Lab Sample ID: 580-125072-2 MSD
Matrix: Water
Analysis Batch: 769675

Client Sample ID: AF-RHMW06-WGN01LF-2303W3
Prep Type: Total/NA

| Analyte | Sample Result | Sample Qualifier | Spike Added | MSD Result | MSD Qualifier | Unit | D | %Rec | %Rec Limits | RPD | RPD Limit |
|---------------------------|---------------|------------------|-------------|------------|---------------|------|---|------|-------------|-----|-----------|
| 2-(2-Butoxyethoxy)ethanol | 3.0 | U M Q | 20.0 | 20.4 | | mg/L | | 102 | 50 - 150 | 4 | 50 |

Lab Chronicle

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Client Sample ID: AF-RHMW04-WGN01LF-2303W3

Lab Sample ID: 580-125072-1

Date Collected: 03/20/23 10:20

Matrix: Water

Date Received: 03/22/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA | Analysis | 8015C GLY | | 1 | 769675 | JCK | EET SAV | 03/26/23 17:20 |

Client Sample ID: AF-RHMW06-WGN01LF-2303W3

Lab Sample ID: 580-125072-2

Date Collected: 03/20/23 12:10

Matrix: Water

Date Received: 03/22/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA | Analysis | 8015C GLY | | 1 | 769675 | JCK | EET SAV | 03/26/23 17:44 |

Client Sample ID: AF-RHMW16-WGN01LF-2303W3

Lab Sample ID: 580-125072-3

Date Collected: 03/20/23 12:00

Matrix: Water

Date Received: 03/22/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA | Analysis | 8015C GLY | | 1 | 769675 | JCK | EET SAV | 03/26/23 18:54 |

Client Sample ID: AF-RHMW12A-WGN01LF-2303W3

Lab Sample ID: 580-125072-4

Date Collected: 03/20/23 09:30

Matrix: Water

Date Received: 03/22/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA | Analysis | 8015C GLY | | 1 | 769675 | JCK | EET SAV | 03/26/23 19:17 |

Client Sample ID: AF-RHMW12A-WGFD01LF-2303W3

Lab Sample ID: 580-125072-5

Date Collected: 03/20/23 09:30

Matrix: Water

Date Received: 03/22/23 10:30

| Prep Type | Batch Type | Batch Method | Run | Dilution Factor | Batch Number | Analyst | Lab | Prepared or Analyzed |
|-----------|------------|--------------|-----|-----------------|--------------|---------|---------|----------------------|
| Total/NA | Analysis | 8015C GLY | | 1 | 769675 | JCK | EET SAV | 03/26/23 19:41 |

Laboratory References:

EET SAV = Eurofins Savannah, 5102 LaRoche Avenue, Savannah, GA 31404, TEL (912)354-7858

Accreditation/Certification Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

Laboratory: Eurofins Savannah

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

| Authority | Program | Identification Number | Expiration Date |
|-----------|-----------------------|-----------------------|-----------------|
| ANAB | Dept. of Defense ELAP | L2463 | 09-22-24 |

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

| Analysis Method | Prep Method | Matrix | Analyte |
|-----------------|-------------|--------|---------------------------|
| 8015C GLY | | Water | 2-(2-Butoxyethoxy)ethanol |



Sample Summary

Client: AECOM
Project/Site: Red Hill - AFFF Assessment Sampling

Job ID: 580-125072-1

| Lab Sample ID | Client Sample ID | Matrix | Collected | Received |
|---------------|----------------------------|--------|----------------|----------------|
| 580-125072-1 | AF-RHMW04-WGN01LF-2303W3 | Water | 03/20/23 10:20 | 03/22/23 10:30 |
| 580-125072-2 | AF-RHMW06-WGN01LF-2303W3 | Water | 03/20/23 12:10 | 03/22/23 10:30 |
| 580-125072-3 | AF-RHMW16-WGN01LF-2303W3 | Water | 03/20/23 12:00 | 03/22/23 10:30 |
| 580-125072-4 | AF-RHMW12A-WGN01LF-2303W3 | Water | 03/20/23 09:30 | 03/22/23 10:30 |
| 580-125072-5 | AF-RHMW12A-WGFD01LF-2303W3 | Water | 03/20/23 09:30 | 03/22/23 10:30 |

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Eurofins FGS, Seattle
 5755 8th Street East
 Tacoma, WA 98424

Chain of Custody Record

eurofins Environment Testing
 America

| Client Information | | Sampler: GABRIEL ALLEN | | Lab PM: Elaine Walker | | Carrier Tracking No(s): FedEx | | COC No: 2303W3AFEA05 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---------------------------|--|--|--|---|-------------------------------|---|----------------------|--|-----------------------------------|---------------------------|--|--|-----------------------------------|---------------------------|--|----------------------------|----------------------------|----------------------------|---|--|---|---|--|------------------------------------|--|--|---------------------------|----------|------|-----|-----|---|--|---|--|----------------------------|--|------|-----|-----|---|--|---|--|
| Client Contact: | | Phone: 808-639-8434 | | E-Mail: M.Elaine.Walker@EurofinsET.com | | State of Origin: Hawaii | | Page: Page 1 of 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Company: AECOM | | PWSID: | | Analysis Requested | | | | | | Job #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address: 1001 Bishop St. Suite 1600 | | Due Date Requested: see subcontract | | <table border="1"> <tr> <td rowspan="5">Field Filtered Sample (Yes or No)</td> <td rowspan="5">Perform MMSMP (Yes or No)</td> <td rowspan="5">8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol</td> <td colspan="6" rowspan="5"> </td> <td rowspan="5">Total Number of Containers</td> <td colspan="2" rowspan="5"> Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other: </td> </tr> </table> | | | | | | Field Filtered Sample (Yes or No) | Perform MMSMP (Yes or No) | 8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol | | | | | | | Total Number of Containers | Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other: | | Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other: | | | | | | | | | | | | | | | | | | | | | | | |
| Field Filtered Sample (Yes or No) | Perform MMSMP (Yes or No) | 8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol | | | | | | | | | | | | | | | | | | | | Total Number of Containers | Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - pH 4-5 L - EDA Z - other (specify) Other: | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | City: Honolulu | | TAT Requested (days): Rush - ASAP | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | State, Zip: Hawaii 96813 | | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | Phone: 808-954-4512 / 770-331-0794 | | PO #: | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | Email: Watson Tanji (watson.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com) | | WO #: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Project Name: CTO N6274223F0104 | | Project #: 60697810 | | <table border="1"> <thead> <tr> <th>Sample Date</th> <th>Sample Time</th> <th>Sample Type (C=comp, G=grab)</th> <th>Matrix (W=water, S=sediment, O=organic, BT=BTSLU, AM=AM)</th> <th>Field Filtered Sample (Yes or No)</th> <th>Perform MMSMP (Yes or No)</th> <th>8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol</th> <th>Total Number of Containers</th> <th>Special Instructions/Note:</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>AF-RHMW12A-WGN01LF-2303W3</td> <td>03/20/23</td> <td>0930</td> <td>G W</td> <td>N N</td> <td>X</td> <td></td> <td>3</td> <td></td> </tr> <tr> <td>AF-RHMW12A-WGFD01LF-2303W3</td> <td></td> <td>0930</td> <td>G W</td> <td>N N</td> <td>X</td> <td></td> <td>3</td> <td></td> </tr> </tbody> </table> | | | | | | Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=sediment, O=organic, BT=BTSLU, AM=AM) | Field Filtered Sample (Yes or No) | Perform MMSMP (Yes or No) | 8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol | Total Number of Containers | Special Instructions/Note: | | | | | | | | | | AF-RHMW12A-WGN01LF-2303W3 | 03/20/23 | 0930 | G W | N N | X | | 3 | | AF-RHMW12A-WGFD01LF-2303W3 | | 0930 | G W | N N | X | | 3 | |
| Sample Date | Sample Time | Sample Type (C=comp, G=grab) | Matrix (W=water, S=sediment, O=organic, BT=BTSLU, AM=AM) | | | | | | | Field Filtered Sample (Yes or No) | Perform MMSMP (Yes or No) | 8015C_DAL_GL_D512-(2-butoxyethoxy)-ethanol | Total Number of Containers | Special Instructions/Note: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AF-RHMW12A-WGN01LF-2303W3 | 03/20/23 | 0930 | G W | N N | X | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| AF-RHMW12A-WGFD01LF-2303W3 | | 0930 | G W | N N | X | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Site: RH5F | | SSOW#: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | |
|--|--|---|--|
| Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological | | Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input checked="" type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | |
| Deliverable Requested: I, II, III, IV, Other (specify) | | Prelim data (Level 1or2)=see TAT above. DoD Stage 4 report standard TAT. AECOM EQUIS EDD. | |

| | | | |
|---|--|--|--|
| Empty Kit Relinquished by: Relinquished by: GABRIEL ALLEN Date/Time: 03/20/23 1310 Company: AECOM | | Received by: ALEX FLORES Date/Time: 3/22/23 1300 Company: | |
| Relinquished by: ALEX FLORES Date/Time: 3/20/23 1320 Company: | | Received by: [Signature] Date/Time: 3/22/23 1000 Company: | |
| Relinquished by: _____ Date/Time: _____ Company: | | Received by: _____ Date/Time: _____ Company: | |

Custody Seals Intact: Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks: _____

4.5/4.5

Ver. 01/16/2019

Chain of Custody Record

| | | | | | |
|--|--|--|--|---|--|
| Client Information | | Lab P.M.: Elaine Walker | | Carrier Tracking No(s): 2303W3AFE08 | |
| Client Contact: TESSA MURPHY | | E-Mail: Elaine.Walker@EurofinsET.com | | Page: Page 1 of 1 | |
| Phone: 253-582-5207 | | M: Elaine Walker | | Job #: | |
| Address: 1001 Bishop St. Suite 1600 | | State of Origin: Hawaii | | Preservation Codes: | |
| City: Honolulu | | Analysis Requested | | A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: | |
| State/Zip: Hawaii 96813 | | Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No | | M - Hexane N - None O - AsNaO2 P - Na2OAS Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) | |
| Phone: 808-954-4512 / 770-331-0794 | | Project #: 60697810 | | Total Number of Containers: 3 | |
| Email: Watson.Tanji@aeocom.com / Mark.Kromis@aeocom.com | | SSOW#: _____ | | Special Instructions/Note: | |
| Project Name: CTO N6274223F0104 | | Site: RHSF | | 580-125072 Chain of Custody | |
| Due Date Requested: see subcontract | | Sample Date: 3/20/23 | | Barcode | |
| TAT Requested (days): Rush - ASAP | | Sample Time: 1020 | | 580-125072 Chain of Custody | |
| Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> A | | Sample Type (C=Comp, G=grab) G | | 580-125072 Chain of Custody | |
| Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N | | Matrix (Liquid, Solid, Other) _____ | | 580-125072 Chain of Custody | |
| 8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol | | Preservation Code: W | | 580-125072 Chain of Custody | |
| Return To Client <input type="checkbox"/> | | Sample Date: 3/20/23 | | 580-125072 Chain of Custody | |
| Disposal By Lab <input type="checkbox"/> | | Sample Time: 1020 | | 580-125072 Chain of Custody | |
| Archive For _____ Months | | Sample Date: 3/20/23 | | 580-125072 Chain of Custody | |
| Special Instructions/QC Requirements: DOD QSM project | | Sample Time: 1020 | | 580-125072 Chain of Custody | |
| Empty Kit Relinquished by _____ | | Sample Date: 3/20/23 | | 580-125072 Chain of Custody | |
| Relinquished by _____ | | Sample Time: 1020 | | 580-125072 Chain of Custody | |
| Relinquished by _____ | | Sample Date: 3/20/23 | | 580-125072 Chain of Custody | |
| Relinquished by _____ | | Sample Time: 1020 | | 580-125072 Chain of Custody | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No | | Sample Date: 3/20/23 | | 580-125072 Chain of Custody | |
| Custody Seal No _____ | | Sample Time: 1020 | | 580-125072 Chain of Custody | |
| Cooler Temperature(s) °C and Other Remarks: 4.5/4.5 | | Sample Date: 3/20/23 | | 580-125072 Chain of Custody | |
| Cooler Temperature(s) °C and Other Remarks: _____ | | Sample Time: 1020 | | 580-125072 Chain of Custody | |



Chain of Custody Record

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|---|--|---|--|
| Client Information Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Waiwon Tanji (waiwon.tanji@aecom.com) / Mark Kromis (mark.kromis@aecom.com) Project Name: CTO N6274223F0104 Site: RHSF | | Lab PM: Elaine Walker E-Mail: M.Elaine.Walker@EurofinsET.com Carrier Tracking No(s): 2303W3AFE09 State of Origin: Hawaii Page 1 of 1 Job #: | |
| Due Date Requested: see subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SSOW#: | | Analysis Requested Total Number of Containers: <input checked="" type="checkbox"/> 3 Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> A Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> N 8015C_DAL_GL_DS/2-(2-butoxyethoxy)-ethanol | |
| Sample Identification AF-RHMM06-WGN01F-2303W3 Sample Date: 07/23/2019 Sample Time: 12:10 Sample Type: G Matrix: W (Water), S (Solid), O (Other), D (Dust), A (Air) | | Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - H2SO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other: | |
| Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological | | Special Instructions/Note: Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months | |
| Deliverable Requested I II III IV Other (specify) 4-report standard IAT, AECOM, EQUIS, EDD. | | Prelim data (Level 1 or 2) - see TAT above. DoD Stage 4-report standard IAT, AECOM, EQUIS, EDD. | |
| Empty Kit Relinquished by Relinquished by: <i>Maria M...</i> Relinquished by: <i>we rns</i> Relinquished by: | | Date: 03/20/23 3:30 Date/Time: 03/20/23 15:30 Date/Time: | |
| Custody Seals Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | | Cooler Temperature: 4.5/4.5 Date: 01/16/2019 | |



Chain of Custody Record



| | | | |
|--|--|---|--|
| Client Information Company: AECOM Address: 1001 Bishop St. Suite 1600 City: Honolulu State, Zip: Hawaii 96813 Phone: 808-954-4512 / 770-331-0794 Email: Watson.Tanji@aecom.com / Mark.Kromis@aecom.com Project Name: CTO N6274223F0104 Site: RHSF | | Lab PM: Elaine Walker E-Mail: Elaine.Walker@EurofinsET.com Carrier Tracking No(s): 2303W3AFE06 State of Origin: Hawaii Page 1 of 1 Job #: | |
| Due Date Requested: see subcontract TAT Requested (days): Rush - ASAP Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No PO #: WO #: Project #: 60697810 SSOW#: | | Analysis Requested 801SC_DAI_GL_DS/2-(2-butoxyethoxy)-ethanol Total Number of Containers: 3 | |
| Sample Identification Sample ID: AF-FRHMW16-WGN01LF-2303W3 Sample Date: 5/20/20 Sample Time: 12:00 Sample Type: G (grab) Matrix: W (Water) Preservation Code: | | Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Special Instructions/Note: | |
| Possible Hazard Identification <input checked="" type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I II III IV Other (specify) | | | |
| Empty Kit Relinquished by: Relinquished by: Relinquished by: Relinquished by: | | | |
| Date/Time: 5/20/20 13:00 Date/Time: 5/20/20 13:20 Date/Time: | | Date/Time: 5/20/20 10:20 Date/Time: | |
| Company: AECOM Company: AECOM Company: AECOM | | Company: AECOM Company: AECOM Company: AECOM | |
| Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | | Cooler Temperature(s) °C and Other Remarks: 4-5/4-5 | |

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements: DOD QSM project.

Method of Shipment: _____

Ver: 01/16/2019



Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-125072-1

Login Number: 125072

List Number: 2

Creator: Johnson, Corey M

List Source: Eurofins Savannah

List Creation: 03/23/23 07:55 PM

| Question | Answer | Comment |
|--|--------|---------|
| Radioactivity wasn't checked or is </= background as measured by a survey meter. | N/A | |
| The cooler's custody seal, if present, is intact. | True | |
| Sample custody seals, if present, are intact. | True | |
| The cooler or samples do not appear to have been compromised or tampered with. | True | |
| Samples were received on ice. | True | |
| Cooler Temperature is acceptable. | True | |
| Cooler Temperature is recorded. | True | |
| COC is present. | True | |
| COC is filled out in ink and legible. | True | |
| COC is filled out with all pertinent information. | True | |
| Is the Field Sampler's name present on COC? | True | |
| There are no discrepancies between the containers received and the COC. | True | |
| Samples are received within Holding Time (excluding tests with immediate HTs) | True | |
| Sample containers have legible labels. | True | |
| Containers are not broken or leaking. | True | |
| Sample collection date/times are provided. | True | |
| Appropriate sample containers are used. | True | |
| Sample bottles are completely filled. | True | |
| Sample Preservation Verified. | N/A | |
| There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs | True | |
| Containers requiring zero headspace have no headspace or bubble is <6mm (1/4"). | N/A | |
| Multiphasic samples are not present. | True | |
| Samples do not require splitting or compositing. | True | |
| Residual Chlorine Checked. | N/A | |