

SAF-RC-155
618-10 & 618-11 Field Remediation –
Other
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

No Distribution Required

KW 9/14/15
INITIAL/DATE

COMMENTS:

SDG JP0992

SAF-RC-155

Rad only

Chem only

Rad & Chem

Complete

Partial

Sample Location: 618-10 uranium oxide grout batch #GR-124S

ANALYTICAL REPORT

Job Number: 280-73775-1

SDG Number: JP0992

Job Description: SAF# RC-155

For:

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner



Approved for release.
Kae E Yoder
Senior Project Manager
9/10/2015 12:51 PM

Kae E Yoder, Senior Project Manager
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09/10/2015

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

TestAmerica Laboratories, Inc.

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Table of Contents

| | |
|------------------------------------|----|
| Cover Title Page | 1 |
| Report Narrative | 3 |
| Data Qualifiers | 4 |
| Sample Summary | 5 |
| Method Summary | 6 |
| Method / Analyst Summary | 7 |
| Sample Results | 8 |
| Sample Datasheets | 9 |
| QC Results | 10 |
| Qc Reports | 11 |
| Qc Association Summary | 16 |
| Client Chain of Custody | 17 |
| Sample Receipt Checklist | 18 |

CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Job Number: 280-73775-1

SDG #: JP0992

SAF#: RC-155

Date SDG Closed: September 4, 2015

Data Deliverable: 3 Day / Summary

| <u>CLIENT ID</u> | <u>LAB ID</u> | <u>ANALYSES REQUESTED</u> | <u>ANALYSES PERFORMED</u> |
|------------------|---------------|---------------------------|---------------------------|
| J1V817 | 280-73775-1 | 1311-6010-7470 | 1311-6010B-7470A |

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. 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

The sample was received on 9/4/2015 9:30 AM; the sample arrived intact, but at an elevated temperature of 17.0° C. No ice was present in the cooler. The client was notified on 9/9/2015.

TCLP METALS - SW846 1311/6010B/7470A

Sodium was recovered outside the control limits, biased high, in the LCS associated with batch 280-293922, and the associated sample result has been flagged "N". In addition, Sodium is present at a level greater than the reporting limit in the method blank associated with batch 280-293922. The reagent used to make the blank fluid for this TCLP extraction contains Sodium; therefore, data are reported.

Low levels of Barium and Zinc are present in the method blank associated with batch 280-293922. Because the concentrations in the method blank are not present at levels greater than half the reporting limit, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Sodium in the Matrix Spike performed on sample J1V817; therefore, control limits are not applicable.

No other anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-73775-1

Sdg Number: JP0992

| Lab Section | Qualifier | Description |
|-------------|-----------|---|
| Metals | | |
| | U | Analyzed for but not detected. |
| | B | Estimated result. Result is less than the RL, but greater than MDL |
| | 4 | MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable. |
| | N | Recovery exceeds upper or lower control limits |
| | C | The analyte was detected in both the sample and the associated QC blank, and the sample concentration was $\leq 5X$ the blank concentration. |

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

| Lab Sample ID | Client Sample ID | Client Matrix | Date/Time Sampled | Date/Time Received |
|----------------------|-------------------------|----------------------|------------------------------|-------------------------------|
| 280-73775-1 | J1V817 | Solid | 09/01/2015 0810 | 09/04/2015 0930 |

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

| Description | Lab Location | Method | Preparation Method |
|---------------------------|--------------|-------------|--------------------|
| Matrix: Solid | | | |
| TCLP Metals (ICP) | TAL DEN | SW846 6010B | |
| TCLP Extraction | TAL DEN | | SW846 1311 |
| Preparation, Total Metals | TAL DEN | | SW846 3010A |
| TCLP Mercury | TAL DEN | SW846 7470A | |
| TCLP Extraction | TAL DEN | | SW846 1311 |
| Preparation, Mercury | TAL DEN | | SW846 7470A |

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

| Method | Analyst | Analyst ID |
|---------------|----------------------|-------------------|
| SW846 6010B | Trudell, Lynn-Anne M | LMT |
| SW846 7470A | Kelly, Cara M | CMK |

SAMPLE RESULTS

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-73775-1

Sdg Number: JP0992

Client Sample ID: J1V817

Lab Sample ID: 280-73775-1

Date Sampled: 09/01/2015 0810

Client Matrix: Solid

Date Received: 09/04/2015 0930

6010B TCLP Metals (ICP)-TCLP

Analysis Method: 6010B Analysis Batch: 280-294053 Instrument ID: MT_026
Prep Method: 3010A Prep Batch: 280-293922 Lab File ID: 26B090815.asc
Dilution: 1.0 Leach Batch: 280-293769 Initial Weight/Volume: 10 mL
Analysis Date: 09/08/2015 2055 Final Weight/Volume: 50 mL
Prep Date: 09/08/2015 1315
Leach Date: 09/04/2015 1310

| Analyte | DryWt Corrected: N | Result (mg/L) | Qualifier | MDL | RL |
|-----------|--------------------|---------------|-----------|--------|-------|
| Aluminum | | 0.82 | B | 0.090 | 10.0 |
| Antimony | | 0.016 | U | 0.016 | 0.20 |
| Arsenic | | 0.022 | U | 0.022 | 0.50 |
| Barium | | 0.66 | B | 0.0020 | 1.0 |
| Beryllium | | 0.0020 | U | 0.0020 | 0.030 |
| Cadmium | | 0.0020 | U | 0.0020 | 0.10 |
| Chromium | | 0.0056 | B | 0.0030 | 0.50 |
| Lead | | 0.013 | U | 0.013 | 0.50 |
| Nickel | | 0.031 | B | 0.0060 | 0.40 |
| Selenium | | 0.030 | B | 0.024 | 0.10 |
| Silver | | 0.0040 | U | 0.0040 | 0.50 |
| Sodium | | 1460 | C N | 0.46 | 50.0 |
| Thallium | | 0.024 | U | 0.024 | 0.10 |
| Vanadium | | 0.0060 | U | 0.0060 | 0.10 |
| Zinc | | 0.088 | B C | 0.022 | 2.0 |

7470A TCLP Mercury-TCLP

Analysis Method: 7470A Analysis Batch: 280-294278 Instrument ID: MT_034
Prep Method: 7470A Prep Batch: 280-293924 Lab File ID: 150909ba.txt
Dilution: 1.0 Leach Batch: 280-293769 Initial Weight/Volume: 30 mL
Analysis Date: 09/09/2015 1609 Final Weight/Volume: 50 mL
Prep Date: 09/09/2015 1120
Leach Date: 09/04/2015 1310

| Analyte | DryWt Corrected: N | Result (mg/L) | Qualifier | MDL | RL |
|---------|--------------------|---------------|-----------|----------|--------|
| Mercury | | 0.000030 | U | 0.000030 | 0.0020 |

QUALITY CONTROL RESULTS

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

TCLP SPLPE Leachate Blank - Batch: 280-293922

Method: 6010B
Preparation: 3010A
TCLP

| | | |
|----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LB 280-293769/1-B | Analysis Batch: 280-294053 | Instrument ID: MT_026 |
| Client Matrix: Solid | Prep Batch: 280-293922 | Lab File ID: 26B090815.asc |
| Dilution: 1.0 | Leach Batch: 280-293769 | Initial Weight/Volume: 10 mL |
| Analysis Date: 09/08/2015 2050 | Units: mg/L | Final Weight/Volume: 50 mL |
| Prep Date: 09/08/2015 1315 | | |
| Leach Date: 09/04/2015 1310 | | |

| Analyte | Result | Qual | MDL | RL |
|-----------|---------|------|--------|-------|
| Aluminum | 0.090 | U | 0.090 | 10.0 |
| Antimony | 0.016 | U | 0.016 | 0.20 |
| Arsenic | 0.022 | U | 0.022 | 0.50 |
| Barium | 0.00590 | B | 0.0020 | 1.0 |
| Beryllium | 0.0020 | U | 0.0020 | 0.030 |
| Cadmium | 0.0020 | U | 0.0020 | 0.10 |
| Chromium | 0.0030 | U | 0.0030 | 0.50 |
| Lead | 0.013 | U | 0.013 | 0.50 |
| Nickel | 0.0060 | U | 0.0060 | 0.40 |
| Selenium | 0.024 | U | 0.024 | 0.10 |
| Silver | 0.0040 | U | 0.0040 | 0.50 |
| Sodium | 1481 | | 0.46 | 50.0 |
| Thallium | 0.024 | U | 0.024 | 0.10 |
| Vanadium | 0.0060 | U | 0.0060 | 0.10 |
| Zinc | 0.0233 | B | 0.022 | 2.0 |

Lab Control Sample - Batch: 280-293922

Method: 6010B
Preparation: 3010A
TCLP

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 280-293769/2-B | Analysis Batch: 280-294053 | Instrument ID: MT_026 |
| Client Matrix: Solid | Prep Batch: 280-293922 | Lab File ID: 26B090815.asc |
| Dilution: 1.0 | Leach Batch: 280-293769 | Initial Weight/Volume: 10 mL |
| Analysis Date: 09/08/2015 2053 | Units: mg/L | Final Weight/Volume: 50 mL |
| Prep Date: 09/08/2015 1315 | | |
| Leach Date: 09/04/2015 1310 | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------|--------|--------|----------|------|
| Aluminum | 2.00 | 1.97 | 99 | 80 - 120 | B |
| Antimony | 0.500 | 0.457 | 91 | 80 - 120 | |
| Arsenic | 4.00 | 3.98 | 100 | 80 - 120 | |
| Barium | 12.0 | 12.11 | 101 | 80 - 120 | |
| Beryllium | 0.0500 | 0.0482 | 96 | 80 - 120 | |
| Cadmium | 1.10 | 1.13 | 102 | 80 - 120 | |
| Chromium | 5.20 | 5.21 | 100 | 80 - 120 | |
| Lead | 5.50 | 5.25 | 95 | 80 - 120 | |
| Nickel | 0.500 | 0.489 | 98 | 80 - 120 | |
| Selenium | 3.00 | 2.95 | 98 | 80 - 120 | |
| Silver | 1.05 | 1.09 | 104 | 80 - 120 | |
| Sodium | 50.0 | 1446 | 2893 | 80 - 120 | N |
| Thallium | 2.00 | 1.83 | 92 | 80 - 120 | |
| Vanadium | 0.500 | 0.505 | 101 | 80 - 120 | |
| Zinc | 2.50 | 2.64 | 106 | 80 - 120 | |

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

Matrix Spike - Batch: 280-293922

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 280-73775-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 09/08/2015 2103
Prep Date: 09/08/2015 1315
Leach Date: 09/04/2015 1310

Analysis Batch: 280-294053
Prep Batch: 280-293922
Leach Batch: 280-293769
Units: mg/L

Instrument ID: MT_026
Lab File ID: 26B090815.asc
Initial Weight/Volume: 10 mL
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|-----------|--------------------|--------------|--------|--------|----------|------|
| Aluminum | 0.82 B | 2.00 | 2.68 | 93 | 80 - 120 | B |
| Antimony | 0.016 U | 0.500 | 0.477 | 95 | 80 - 120 | |
| Arsenic | 0.022 U | 4.00 | 4.00 | 100 | 80 - 120 | |
| Barium | 0.66 B | 12.0 | 12.62 | 100 | 80 - 120 | |
| Beryllium | 0.0020 U | 0.0500 | 0.0488 | 98 | 80 - 120 | |
| Cadmium | 0.0020 U | 1.10 | 1.12 | 102 | 80 - 120 | |
| Chromium | 0.0056 B | 5.20 | 5.20 | 100 | 80 - 120 | |
| Lead | 0.013 U | 5.50 | 5.22 | 95 | 80 - 120 | |
| Nickel | 0.031 B | 0.500 | 0.519 | 98 | 80 - 120 | |
| Selenium | 0.030 B | 3.00 | 2.95 | 97 | 80 - 120 | |
| Silver | 0.0040 U | 1.05 | 1.07 | 102 | 80 - 120 | |
| Sodium | 1460 | 50.0 | 1411 | -102 | 80 - 120 | C 4 |
| Thallium | 0.024 U | 2.00 | 1.80 | 90 | 80 - 120 | |
| Vanadium | 0.0060 U | 0.500 | 0.502 | 100 | 80 - 120 | |
| Zinc | 0.088 B | 2.50 | 2.68 | 104 | 80 - 120 | |

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

Duplicate - Batch: 280-293922

**Method: 6010B
Preparation: 3010A
TCLP**

Lab Sample ID: 280-73775-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 09/08/2015 2100
Prep Date: 09/08/2015 1315
Leach Date: 09/04/2015 1310

Analysis Batch: 280-294053
Prep Batch: 280-293922
Leach Batch: 280-293769
Units: mg/L

Instrument ID: MT_026
Lab File ID: 26B090815.asc
Initial Weight/Volume: 10 mL
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|-----------|--------------------|---------|-----|-------|------|
| Aluminum | 0.82 B | 0.776 | 6 | 20 | B |
| Antimony | 0.016 U | 0.016 | NC | 20 | U |
| Arsenic | 0.022 U | 0.022 | NC | 20 | U |
| Barium | 0.66 B | 0.612 | 7 | 20 | B |
| Beryllium | 0.0020 U | 0.0020 | NC | 20 | U |
| Cadmium | 0.0020 U | 0.0020 | NC | 20 | U |
| Chromium | 0.0056 B | 0.00470 | 17 | 20 | B |
| Lead | 0.013 U | 0.013 | NC | 20 | U |
| Nickel | 0.031 B | 0.0292 | 7 | 20 | B |
| Selenium | 0.030 B | 0.024 | NC | 20 | U |
| Silver | 0.0040 U | 0.0040 | NC | 20 | U |
| Sodium | 1460 | 1365 | 7 | 20 | C N |
| Thallium | 0.024 U | 0.024 | NC | 20 | U |
| Vanadium | 0.0060 U | 0.0060 | NC | 20 | U |
| Zinc | 0.088 B | 0.0827 | 6 | 20 | B C |

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

TCLP SPLPE Leachate Blank - Batch: 280-293924

Method: 7470A
Preparation: 7470A
TCLP

| | | |
|----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LB 280-293769/1-C | Analysis Batch: 280-294278 | Instrument ID: MT_034 |
| Client Matrix: Solid | Prep Batch: 280-293924 | Lab File ID: 150909ba.txt |
| Dilution: 1.0 | Leach Batch: 280-293769 | Initial Weight/Volume: 30 mL |
| Analysis Date: 09/09/2015 1604 | Units: mg/L | Final Weight/Volume: 50 mL |
| Prep Date: 09/09/2015 1120 | | |
| Leach Date: 09/04/2015 1310 | | |

| Analyte | Result | Qual | MDL | RL |
|---------|----------|------|----------|--------|
| Mercury | 0.000030 | U | 0.000030 | 0.0020 |

Lab Control Sample - Batch: 280-293924

Method: 7470A
Preparation: 7470A
TCLP

| | | |
|-----------------------------------|----------------------------|------------------------------|
| Lab Sample ID: LCS 280-293769/2-C | Analysis Batch: 280-294278 | Instrument ID: MT_034 |
| Client Matrix: Solid | Prep Batch: 280-293924 | Lab File ID: 150909ba.txt |
| Dilution: 1.0 | Leach Batch: 280-293769 | Initial Weight/Volume: 30 mL |
| Analysis Date: 09/09/2015 1606 | Units: mg/L | Final Weight/Volume: 50 mL |
| Prep Date: 09/09/2015 1120 | | |
| Leach Date: 09/04/2015 1310 | | |

| Analyte | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------|---------|--------|----------|------|
| Mercury | 0.00500 | 0.00547 | 109 | 90 - 116 | |

Matrix Spike - Batch: 280-293924

Method: 7470A
Preparation: 7470A
TCLP

| | | |
|--------------------------------|----------------------------|------------------------------|
| Lab Sample ID: 280-73775-1 | Analysis Batch: 280-294278 | Instrument ID: MT_034 |
| Client Matrix: Solid | Prep Batch: 280-293924 | Lab File ID: 150909ba.txt |
| Dilution: 1.0 | Leach Batch: 280-293769 | Initial Weight/Volume: 30 mL |
| Analysis Date: 09/09/2015 1613 | Units: mg/L | Final Weight/Volume: 50 mL |
| Prep Date: 09/09/2015 1120 | | |
| Leach Date: 09/04/2015 1310 | | |

| Analyte | Sample Result/Qual | Spike Amount | Result | % Rec. | Limit | Qual |
|---------|--------------------|--------------|---------|--------|----------|------|
| Mercury | 0.000030 U | 0.00500 | 0.00548 | 110 | 90 - 116 | |

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-73775-1
Sdg Number: JP0992

Duplicate - Batch: 280-293924

Method: 7470A
Preparation: 7470A
TCLP

Lab Sample ID: 280-73775-1
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 09/09/2015 1611
Prep Date: 09/09/2015 1120
Leach Date: 09/04/2015 1310

Analysis Batch: 280-294278
Prep Batch: 280-293924
Leach Batch: 280-293769
Units: mg/L

Instrument ID: MT_034
Lab File ID: 150909ba.txt
Initial Weight/Volume: 30 mL
Final Weight/Volume: 50 mL

| Analyte | Sample Result/Qual | Result | RPD | Limit | Qual |
|---------|--------------------|----------|-----|-------|------|
| Mercury | 0.000030 U | 0.000030 | NC | 20 | U |

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-73775-1

Sdg Number: JP0992

QC Association Summary

| Lab Sample ID | Client Sample ID | Report Basis | Client Matrix | Method | Prep Batch |
|----------------------------------|---------------------------|--------------|---------------|--------|------------|
| Metals | | | | | |
| Prep Batch: 280-293769 | | | | | |
| LCS 280-293769/2-B | Lab Control Sample | P | Solid | 1311 | |
| LCS 280-293769/2-C | Lab Control Sample | P | Solid | 1311 | |
| LB 280-293769/1-B | TCLP SPLPE Leachate Blank | P | Solid | 1311 | |
| LB 280-293769/1-C | TCLP SPLPE Leachate Blank | P | Solid | 1311 | |
| 280-73775-1 | J1V817 | P | Solid | 1311 | |
| 280-73775-1DU | Duplicate | P | Solid | 1311 | |
| 280-73775-1MS | Matrix Spike | P | Solid | 1311 | |
| Prep Batch: 280-293922 | | | | | |
| LCS 280-293769/2-B | Lab Control Sample | P | Solid | 3010A | 280-293769 |
| LB 280-293769/1-B | TCLP SPLPE Leachate Blank | P | Solid | 3010A | 280-293769 |
| 280-73775-1 | J1V817 | P | Solid | 3010A | 280-293769 |
| 280-73775-1DU | Duplicate | P | Solid | 3010A | 280-293769 |
| 280-73775-1MS | Matrix Spike | P | Solid | 3010A | 280-293769 |
| Prep Batch: 280-293924 | | | | | |
| LCS 280-293769/2-C | Lab Control Sample | P | Solid | 7470A | 280-293769 |
| LB 280-293769/1-C | TCLP SPLPE Leachate Blank | P | Solid | 7470A | 280-293769 |
| 280-73775-1 | J1V817 | P | Solid | 7470A | 280-293769 |
| 280-73775-1DU | Duplicate | P | Solid | 7470A | 280-293769 |
| 280-73775-1MS | Matrix Spike | P | Solid | 7470A | 280-293769 |
| Analysis Batch:280-294053 | | | | | |
| LCS 280-293769/2-B | Lab Control Sample | P | Solid | 6010B | 280-293922 |
| LB 280-293769/1-B | TCLP SPLPE Leachate Blank | P | Solid | 6010B | 280-293922 |
| 280-73775-1 | J1V817 | P | Solid | 6010B | 280-293922 |
| 280-73775-1DU | Duplicate | P | Solid | 6010B | 280-293922 |
| 280-73775-1MS | Matrix Spike | P | Solid | 6010B | 280-293922 |
| Analysis Batch:280-294278 | | | | | |
| LCS 280-293769/2-C | Lab Control Sample | P | Solid | 7470A | 280-293924 |
| LB 280-293769/1-C | TCLP SPLPE Leachate Blank | P | Solid | 7470A | 280-293924 |
| 280-73775-1 | J1V817 | P | Solid | 7470A | 280-293924 |
| 280-73775-1DU | Duplicate | P | Solid | 7470A | 280-293924 |
| 280-73775-1MS | Matrix Spike | P | Solid | 7470A | 280-293924 |

Report Basis

P = TCLP

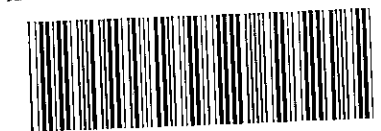
Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-155-163

Page 1 of 1

| | | | | | |
|---|--|----------------------------------|---|-------------------------|----------------------------------|
| Collector F. Farinola | Company Contact Joan Kessner | Telephone No. 375-4688 | Project Coordinator KESSNER, JH | Price Code 9A | Data Turnaround 3 days |
| Project Designation 618-10 & 618-11 Remediation | Sampling Location 618-10 uranium oxide grout batch # ER-1245 | SAF No. RC-155 | | | |
| Ice Chest No. WCH-11-023 | Field Logbook No. EL-1664-01 | COA R618102F20 | Method of Shipment Commercial Carrier | | |
| Shipped To TestAmerica Denver | Offsite Property No. N/A | TRR/9215 | Bill of Lading/Air Bill No. TRR 9-2-15 SEE-OSPC RSR | | |

| | | | | | | | |
|---|----------------------------------|-------------------------------------|-----------------------------------|--|--|---|----------------------------|
| Other Labs Shipped To N/A | Preservation None None | Type of Container GIP GIP | No. of Container(s) 1 0 | Volume 9115 1000ml 500ml 500ml | Sample Analysis See item (1) in Special Instructions RCF Shipping Screen |  | 280-73775 Chain of Custody |
| POSSIBLE SAMPLE HAZARDS/REMARKS Radioactive Special Handling and/or Storage Trans ship RCF to TAD | | | | | | | |

| Sample No. | Matrix | Sample Date | Sample Time | | | | | | | |
|------------|--------|-------------|-------------|---|---|-----|-------|------|--|--|
| J1V817 | OTHER | 09/01/15 | 0810 | X | X | RCF | 39345 | 129g | | |

| CHAIN OF POSSESSION | | Sign/Print Names | |
|--|-----------------------------------|---|---------------------------------|
| Relinquished By/Removed From FRANK FARINOLA | Date/Time 09/01/15 0825 | Received By/Stored In C. Martinez | Date/Time 0825 |
| Relinquished By/Removed From C. Martinez | Date/Time 0840 | Received By/Stored In R. Coffman | Date/Time 0840 |
| Relinquished By/Removed From R. Coffman | Date/Time 9/1/15 0855 | Received By/Stored In T.R. Edmundson | Date/Time 9-1-15 0855 |
| Relinquished By/Removed From T.R. Edmundson | Date/Time 9-1-15 0930 | Received By/Stored In M. G. [Signature] | Date/Time 9-1-15 0930 |
| Relinquished By/Removed From M. G. [Signature] | Date/Time 9-2-15 1020 | Received By/Stored In T.R. Edmundson | Date/Time 9-2-15 1020 |
| Relinquished By/Removed From T.R. Edmundson | Date/Time 9-2-15 1200 | Received By/Stored In Fed Ex | Date/Time 9-2-15 |
| Relinquished By/Removed From | Date/Time | Received By/Stored In [Signature] | Date/Time 9/4/15 9:30 |

SPECIAL INSTRUCTIONS

(1) ICP Metals (TCLP) (Client List) - 1311/6010 (Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Lead, Nickel, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc); Mercury (TCLP) - 1311/7470 (Client List) (Mercury)

16.9 No ILC
ILC 70.1
M7 9/1/15

REVIEWED BY
KW per tel
DATE
9-2-15

JP0992

FINAL SAMPLE DISPOSITION

Disposal Method
Disposed By
Date/Time

Temp 16.9 IR# 5
CF +0.1 Initials (Signature)
Date: 09/04/15
NO ICE

Go with Permission

Project 28002142

Report Due:
TALs TAT: with 3d TAT

Sample Check-in List

Date/Time Received: 9-4-15 930 GM Screen Result 14 microR/hr

Client: Washington Closure Hanford SDG #: JP0992 NA [] SAF #: RC-155 NA []

Job Number: 73775 Chain of Custody # JP0992 RC-155-163

Shipping Container ID: WCH-11-023 Air Bill # 7749 2593 0323

- 1. Custody Seals on shipping container intact? NA [] Yes No []
- 2. Custody Seals dated and signed? NA [] Yes No []
- 3. Chain of Custody record present? NA [] Yes No []
- 4. Cooler Temperature °C: 16.9 + 0.1 ^{SES-0.1} NA [] 5. Vermiculite/packing materials is NA [] Wet [] Dry
- 6. Number of samples in shipping container: 1
- 7. Sample holding times exceeded? NA [] Yes [] No
- 8. Samples have:
 Tape Hazard Labels
 Custody Seals Appropriate Sample Labels
- 9. Samples are:
 In Good Condition Leaking
 Broken Have Air Bubbles
(Only for samples requiring no head space.)
- 10. Sample pH taken? NA pH<2 [] pH>2 [] pH>9 [] Amount HNO₃ Added _____
- 11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed.
- 12. Were any anomalies identified in sample receipt? Yes No
- 13. Description of anomalies (include sample numbers): TOLP moving temp above 6°C.

Sample Custodian: (Signature) Date: 9-4-15

| Client Sample ID | Analysis Requested | Condition | Comments/Action |
|------------------|--------------------|-----------|-----------------|
| | | | |
| | | | |
| | | | |

Client Informed on 9/9/15 by Jessica Detterera Person Contacted Jean Kessner

No action necessary; process as is.

Project Manager (Signature) Date 9/10/15

ORIGIN ID:PSCA (509) 376-6016
JEFF EHLIS
US DOE C/O WASHINGTON CLOSURE HAN
2355 STEVENS DR BLDG 1162

SHIP DATE: 02SEP15
ACTWGT: 17.00 LB
CAD: 105266502/NET3670

RICHLAND, WA 99354
UNITED STATES US

BILL THIRD PARTY

TO KAE YODER
TEST AMERICA
4955 YARROW ST

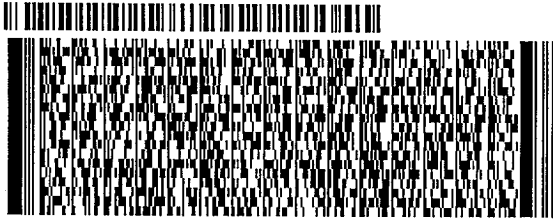
ARVADA CO 80002

(303) 736-0190
INV:
PO:

REF: R618102F20 RMWC-9066

DEPT:

539J2/CB59/31D0



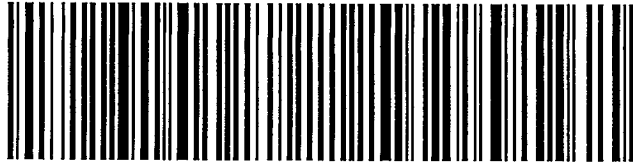
J15201505Z0110V

THU - 03 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 7744 2593 0323
0201

XH WHHA

80002
CO-US DEN



UN2910 RADIOACTIVE MATERIAL,
EXCEPTED PACKAGE-LIMITED
QUANTITY OF MATERIAL

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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