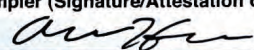


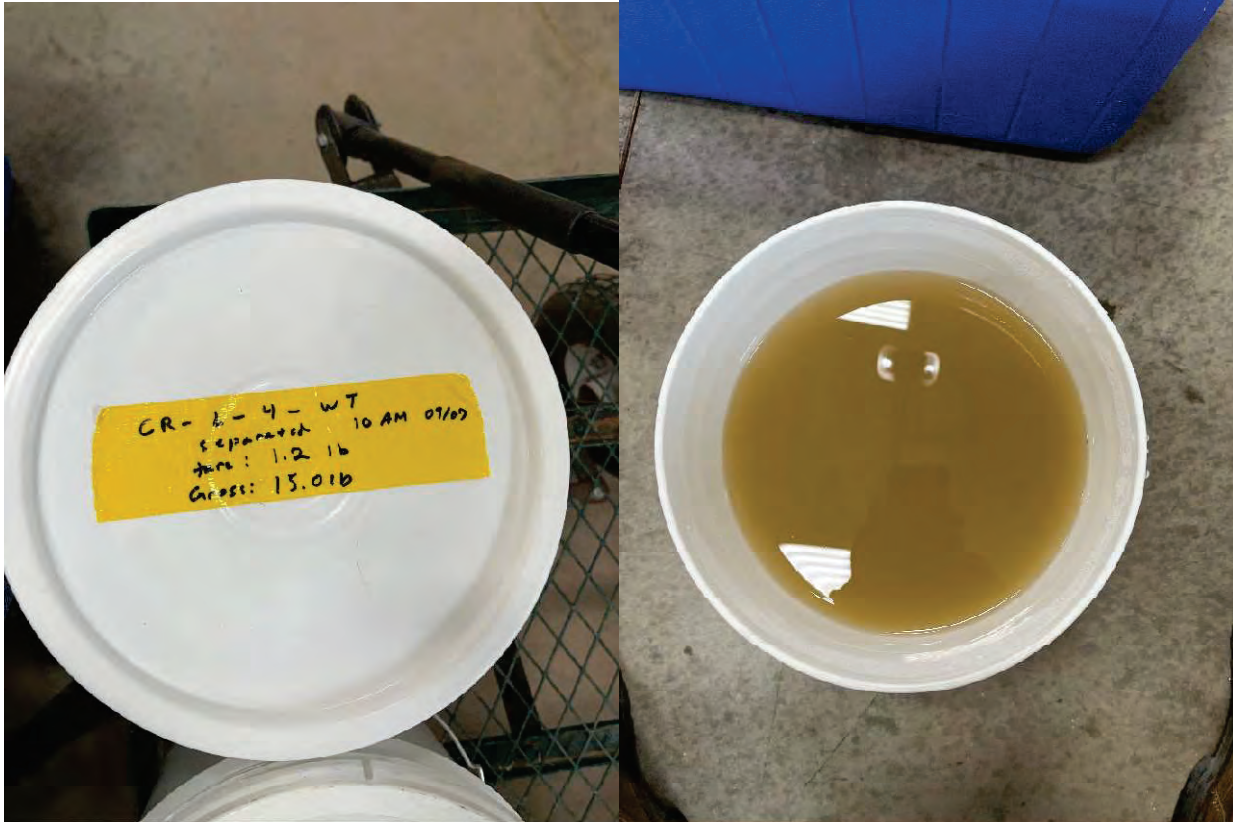


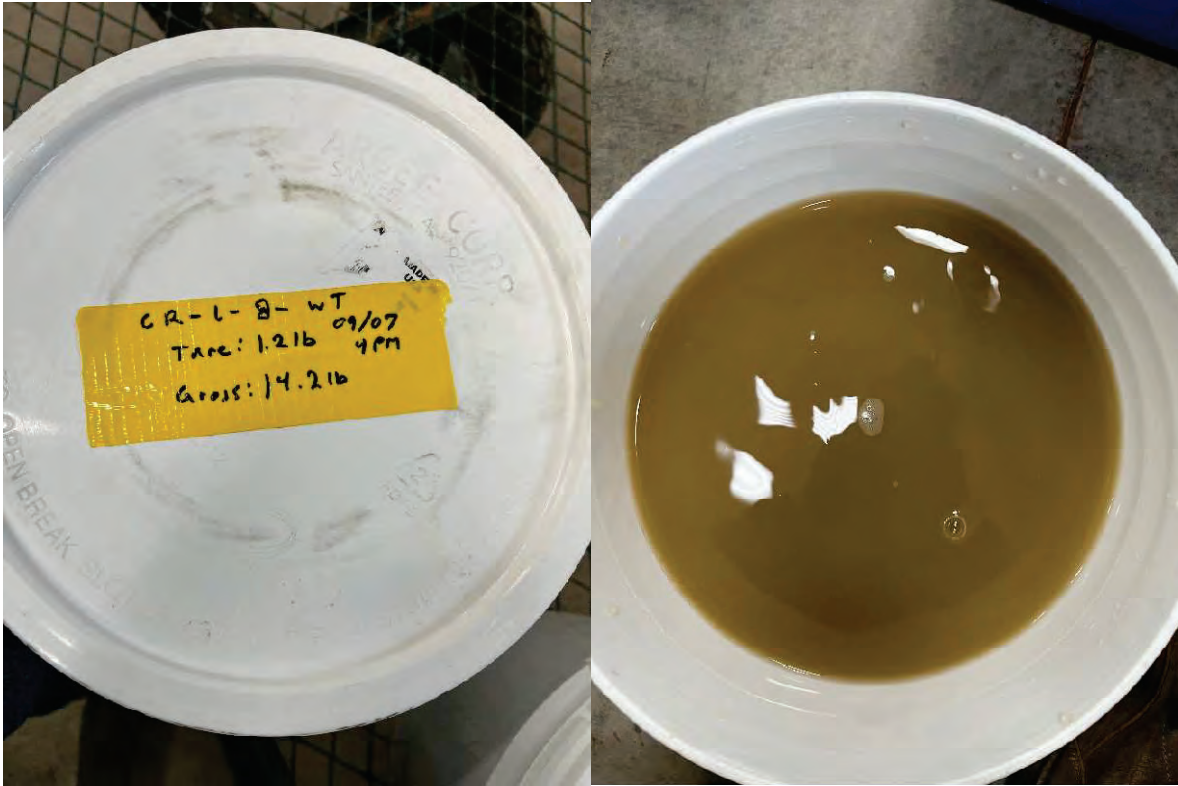
Client Name Tetra Tech/Disa		Project Identification RAFS T033/10365440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS  Preservative Lot # <small>1:1 HNO3: M-072722-2 112SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small>			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order #		Quote #	
REMARKS							

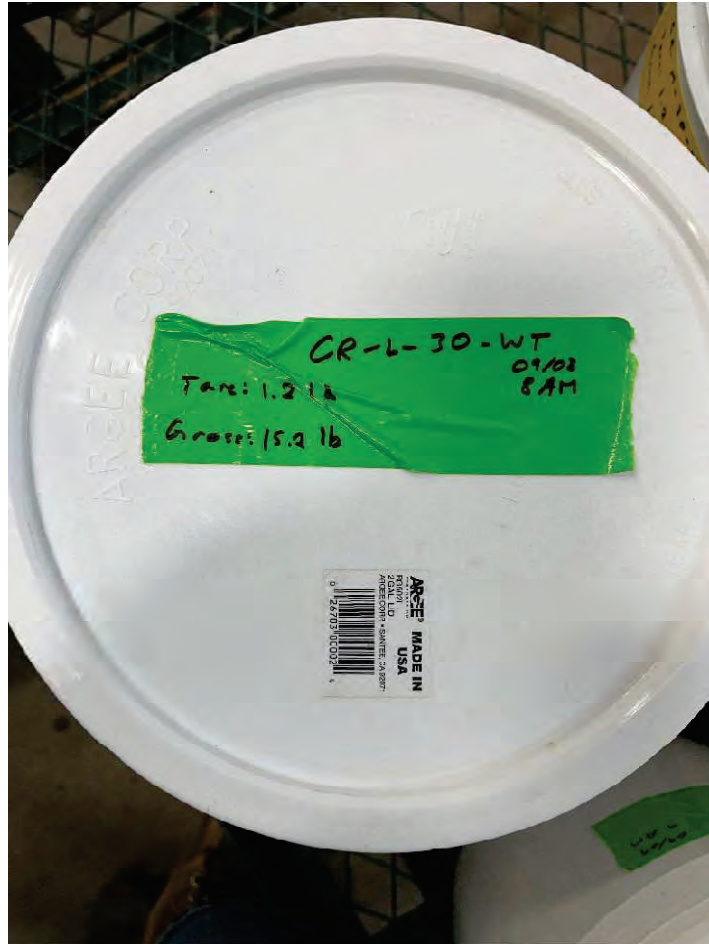
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 903.1	Ra 228 by 904.0	TDS by SM 2540	TSS by SM 2540					
1		09/07/22	10:00	CR-L-4-WT	WT	7	✓	✓	✓	✓	✓					
2		09/07/22	16:00	CR-L-8-WT	WT	7	✓	✓	✓	✓	✓					
3		09/08/22	08:00	CR-L-30-WT	WT	7	✓	✓	✓	✓	✓					
4		09/09/22	09:00	CR-M-4-WT	WT	7	✓	✓	✓	✓	✓					
5		09/12/22	14:00	CR-M-8-WT	WT	7	✓	✓	✓	✓	✓					
6		09/13/22	14:30	CR-M-30-WT	WT	7	✓	✓	✓	✓	✓					
7																
8																
9																
10																
11																
12																
13																
14																

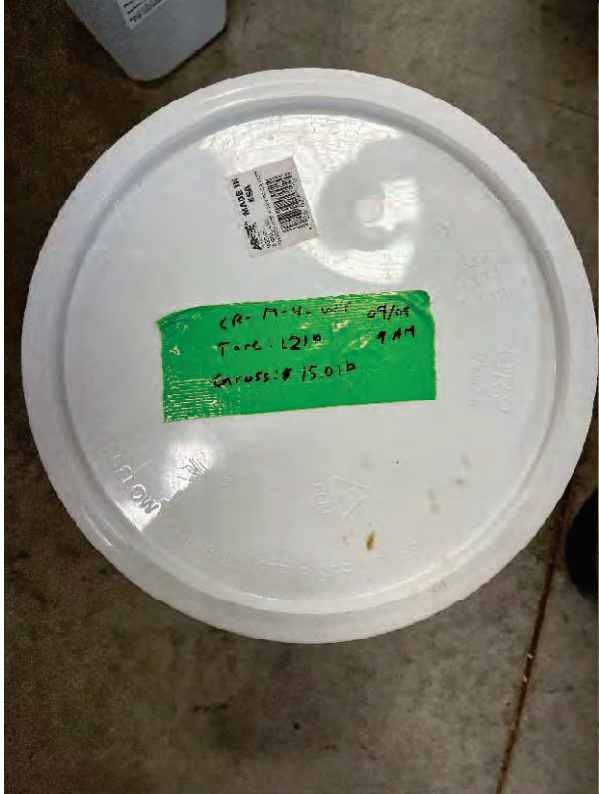
LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	09/15/22	16:00			

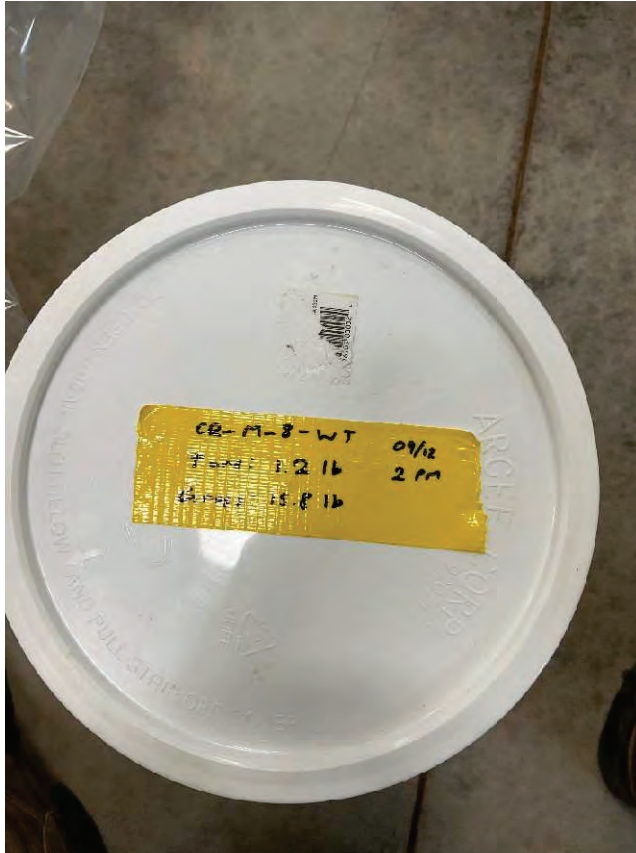
SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <small>Secure dropoff</small>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <input checked="" type="checkbox"/> Client	Not filtered. No preservatives. In 3 separate coolers. Perform TSS and TDS immediately. Hold on metals, Ra 226, and Ra 228 until directed by Tetra Tech and Disa.

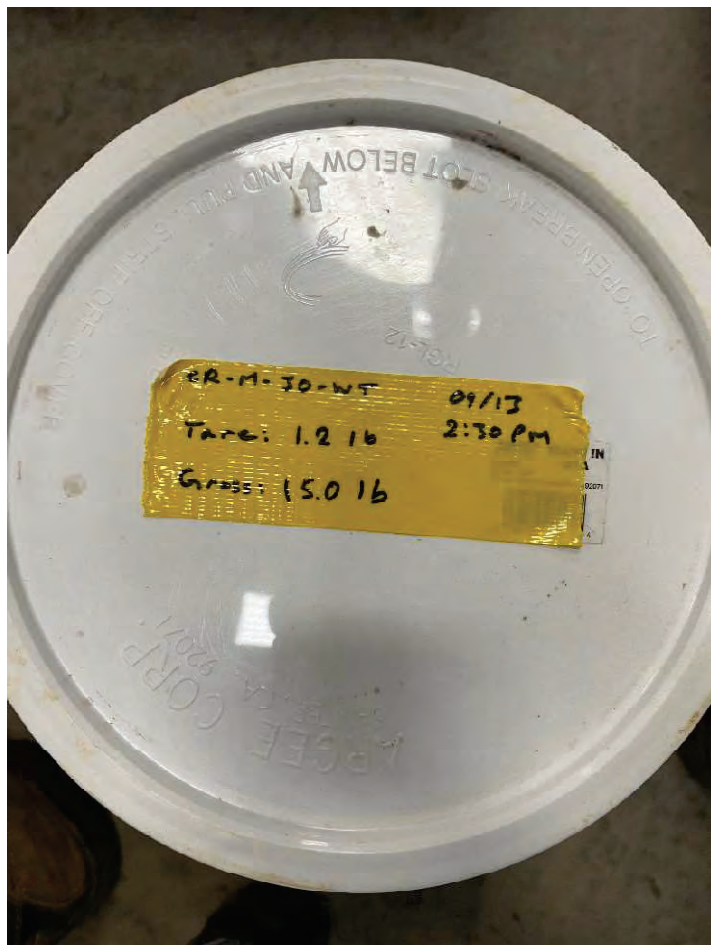















 Phone: 307-266-2229
 Fax: 307-266-9155


SHIPPER <i>Dida Technology, Inc</i> STREET <i>1653 E. 1st Ave</i> CITY <i>Calgary</i> STATE <i>AB</i> ZIP <i>T2P 2T6</i>		CONSIGNEE <i>Acce</i> STREET CITY <i>Shelton</i> STATE ZIP		SHIPMENT NUMBER ORIGIN <i>Nº C 2329</i>	
SHIPPER'S REG. NO. CONTACT <i>307-266-7251</i> PHONE		CONSIGNEE'S REG. NO. CONTACT PHONE		DATE SHIPPED <i>07/15/2022</i>	
BILL TO: (If Other Than Shipper, list Company)		SPECIAL INSTRUCTIONS		FRIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
PIECES <i>1</i>		DESCRIPTION OF CONTENTS <i>Cooler w/ Water samples</i>		WEIGHT	
Shipper certifies that the above named articles are properly packed, classified, described, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a gross or value is declared here, the Shipper agrees and declares that the value of the property is declared to be an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding \$10 (dollars) per pound for any shipment weighing in excess of 100 pounds.		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Ultra-City Courier		DELIVERY DEADLINE DECLARED VALUE	
SHIPPER'S SIGNATURE <i>[Signature]</i> COPY DISTRIBUTION What - Delivery Receipt County - Original Form		RECEIVED BY GROSS GROSS RECEIPT AS NOTED		EXCESS VALUATION SHIPPER'S C.O.D. TOTAL CHARGES	
PACKED DATE/TIME		RECEIVED BY ALL EMPLOYEES		DELIVERY DRIVER'S SIGNATURE	



 WPL <small>WESTERN PRAIRIE LOGISTICS</small>		Phone: 307-266-2229 Fax: 307-266-9156		SHIPMENT NUMBER ORIGIN Nº C 2328	
SHIPPER Bize Technologies, Inc.		CONSIGNEE ACE		DATE SHIPPED 09/15/2022	
STREET 1655 English Avenue		STREET		FREIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
CITY Casper	STATE WY	CITY Shenandoah	STATE	ZIP	
ZIP 82401		ZIP			
SHIPPER'S REF. NO.		CONTACT		PHONE	
BILL TO: (Print) Name Title Company		CONSIGNEE'S REF. NO.		CONTACT	
SPECIAL INSTRUCTIONS		CONTACT		PHONE	
SPECIAL SERVICE		SPECIAL SERVICE		SIGNATURE SERVICE	
OTHER CHARGE		OTHER CHARGE		OTHER CHARGE	
EXCESS VALUATION		EXCESS VALUATION		SHIPPER'S C.O.D.	
TOTAL CHARGES		TOTAL CHARGES		TOTAL CHARGES	
SHIPPER'S SIGNATURE		PICKUP DATE/TIME		RECEIVED BY ACC. EMPLOYEE	
COPY DISTRIBUTION White - Delivery Receipt Canary - Original Invoice		RECEIVED IN GOOD ORDER EXCEPT AS NOTED		DATE REC'D TIME REC'D PLS.	
DELIVERY DRIVER'S SIGNATURE		DELIVERY DRIVER'S SIGNATURE		DELIVERY DRIVER'S SIGNATURE	



COLD BATE
3

 Phone: 307-256-2229 Fax: 307-266-9182		SHIPMENT NUMBER ORDER # 2327	
SHIPPER: <u>Old Telephone</u>		CUSTOMER: <u>WCO</u>	
STREET: <u>613 Taylor Avenue</u>		COUNTRY:	
CITY: <u>Coler</u> STATE: <u>WY 82111</u>		ZIP: <u>82111</u>	
SHIPPER'S REF. NO.:		CONTACT: <u>WCO</u>	
BILL TO:		SPECIAL INSTRUCTIONS:	
ITEMS:		DESCRIPTION OF CONTENTS:	
2 Cooler w/ water samples		WEIGHT:	
SPECIAL SERVICES:		DELIVERY INSTRUCTIONS:	
<input type="checkbox"/> Next Business Day <input type="checkbox"/> Signature Required <input type="checkbox"/> WPL Delivery Confirmation <input type="checkbox"/> Insured <input type="checkbox"/> Signature and Insurance <input type="checkbox"/> New City Center		OTHER CHARGES:	
SHIPPER'S SIGNATURE:		RECEIVED BY:	
DATE:		DATE:	
TIME:		TIME:	
TOTAL CHARGES:		TOTAL CHARGES:	

19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1







Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 1 of 1

All shaded fields must be completed.

This is a legal document: any misrepresentation may be construed as fraud.

196831

Client Name Tetra Tech/Disa	Project Identification RAES T033/10365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS <div><div>Preservative Lot # 1:1 HNO₃: M-072722-2 112SO₄: Chem 2-71-4 NaOH: Wet-1-40-1</div></div>	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.usa.com		
Phone 510-302-6310/307-871-7291	Purchase Order #	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/ 6020	Ra 226 by 903.1	Ra 228 by 904.0	TDS by SM 2540	TSS by SM 2540	REMARKS
1	2209244-001	09/07/22	10:00	CR-L-4-WT	WT	7	✓	✓	✓	✓	✓	
2	-002	09/07/22	16:00	CR-L-8-WT	WT	7	✓	✓	✓	✓	✓	
3	-003	09/08/22	08:00	CR-L-30-WT	WT	7	✓	✓	✓	✓	✓	
4	-004	09/09/22	09:00	CR-M-4-WT	WT	7	✓	✓	✓	✓	✓	
5	-005	09/12/22	14:00	CR-M-8-WT	WT	7	✓	✓	✓	✓	✓	
6	-006	09/13/22	14:30	CR-M-30-WT	WT	7	✓	✓	✓	✓	✓	
7												
8												
9												
10												
11												
12												
13												
14												

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
10.60°C 9:00 11.60°C ROI-Melted 3 coolers, and 12 Apr. Since ok (3)	<i>Andrew Halverson</i>	09/15/22	16:00	<i>Samuel Davis</i>	9/16/22	15:00

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier</i> <i>Secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	<input type="checkbox"/> Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input checked="" type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <input type="checkbox"/> Y / <input type="checkbox"/> N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <input type="checkbox"/> Y / <input type="checkbox"/> N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>Not filtered. No preservatives. In 3 separate coolers. Perform TSS and TDS immediately. Hold on metals, Ra 226, and Ra 228 until directed by Tetra Tech and Disa.</i>



DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab

Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115

pH strip lot # HC281827

Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 3 ROI? Yes Multitest No

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Temps Observed (°C): 10.4

Temps Corrected (°C): 10.5

Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at r

Client contact for temperatures outside method criteria must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No N/A

4 COC Number (If applicable): 196531

5 Do the number of bottles agree with the COC? Yes No N/A

6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes No N/A

7 Were the sample custody seals intact? Yes No N/A

8 Is the COC properly completed, legible, and signed? Yes No

Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate? Yes No

2 Did the bottle labels correspond with the COC information? Yes No

3 Samples collected in method-prescribed containers? Yes No

4 Sample Preservation:

pH at Receipt: Final pH (if added in lab):

Preservative/Lot#

Date/Time Added:

Total Metals

Total Metals

HNO₃

Diss Metals

Diss Metals

HNO₃

Nutrient

Nutrient

H₂SO₄

Cyanide

Cyanide

NaOH

Sulfide

Sulfide

ZnAcet

Phenol

Phenol

H₂SO₄

SDWA Rads

SDWA Rads

HNO₃

Filtered and preserved in metal

5 VOA vials have <6mm headspace? Yes No N/A

6 Were all analyses within holding time at the time of receipt? Yes No No → Solids EOH #s 1-3

7 Have rush or project due dates been checked and accepted? Yes No N/A

8 Do samples require subcontracted analyses? Yes No

If "Yes", which type of subcontracting is required?

General

Customer-Specified

Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials): IS

Set ID:

52209244

Discrepancy Documentation (use back of sheet for notes on discrepancies)


Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: _____ Method of Contact: _____ Phone: _____


Initiated By: _____ Date/Time: _____ Email: _____

Problem: Metals + Rads can hold until further notice, per client request

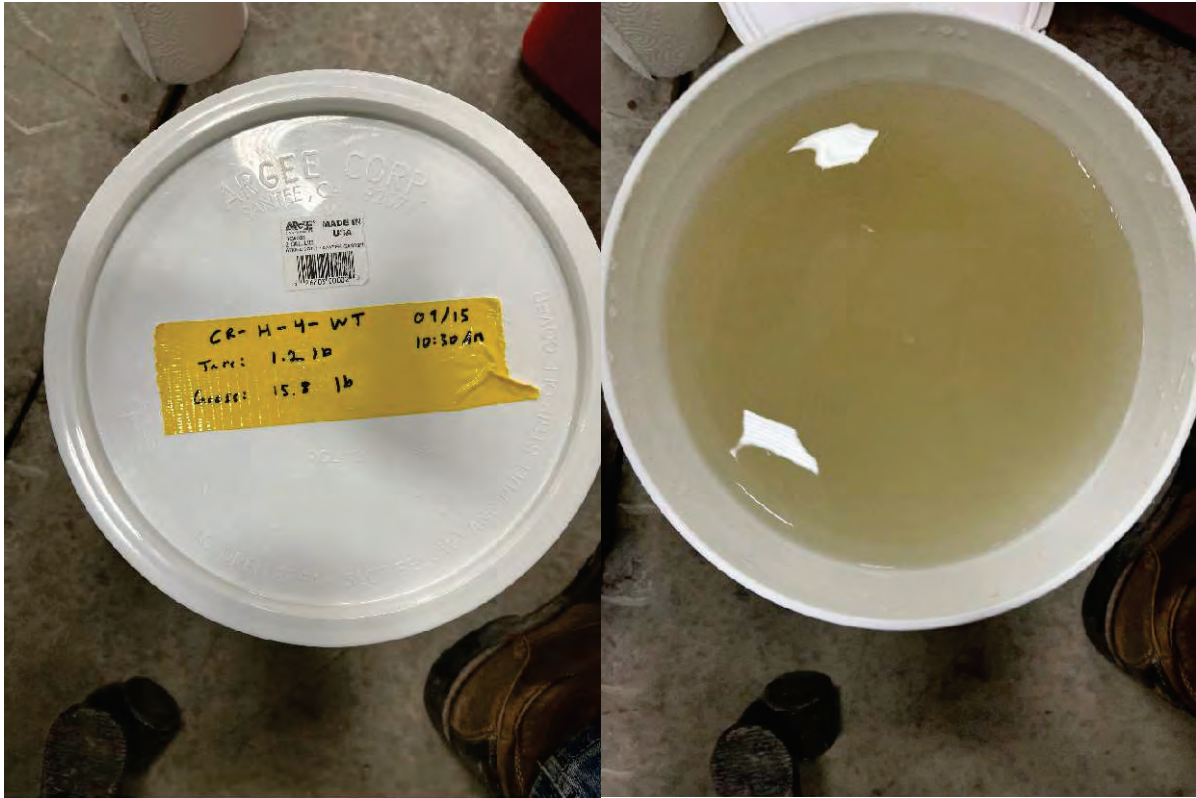
Resolution:

Client Name Tetra Tech / Disa		Project Identification RAES TO33/20365440033.03.02		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech / Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS <div style="float: right; border: 1px solid black; padding: 5px; width: fit-content;"> Preservative Lot # 111 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1 </div>			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.com					
Phone 510-302-6310 / 307-871-7291		Purchase Order #					
Quote #							

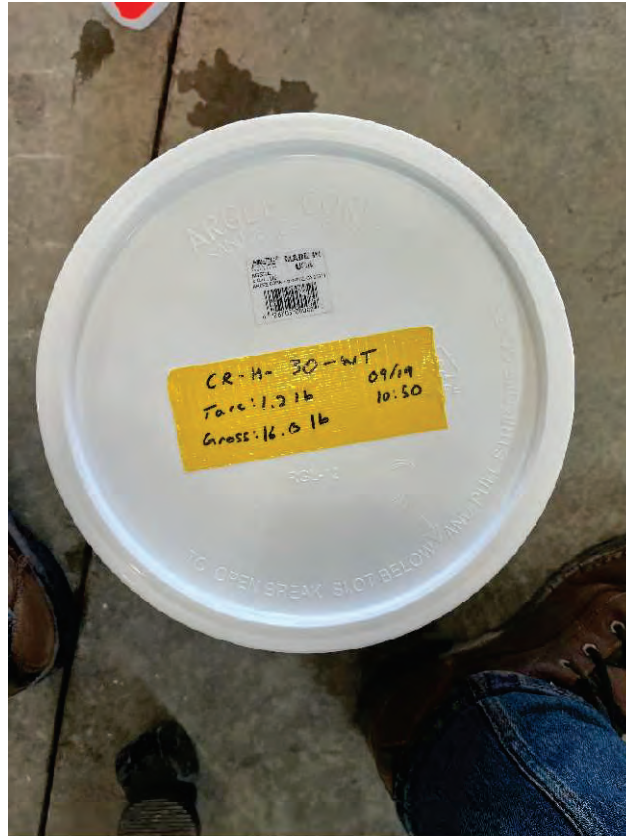
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 2019	Dissolved Metals by 6090	Total Ra226 by 903.1	Total Ra228 by 904.0	Dissolved Ra226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1		09/15/22	10:30	CR-H-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2		09/17/22	15:00	CR-H-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3		09/16/22	18:20	CR-M-05L-0.45 Filtrate Pre-Rec	WT	1		✓						Filtered, Preserved
4		09/19/22	06:00	CR-M-05L-0.45 Filtrate Post-Rec	WT	1		✓						Filtered, Preserved
5		09/19/22	10:50	CR-H-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
6		09/20/22	16:50	QV-L-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
7		09/20/22	18:20	QV-L-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
8		09/21/22	07:00	QV-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
9														
10														
11														
12														
13														
14														

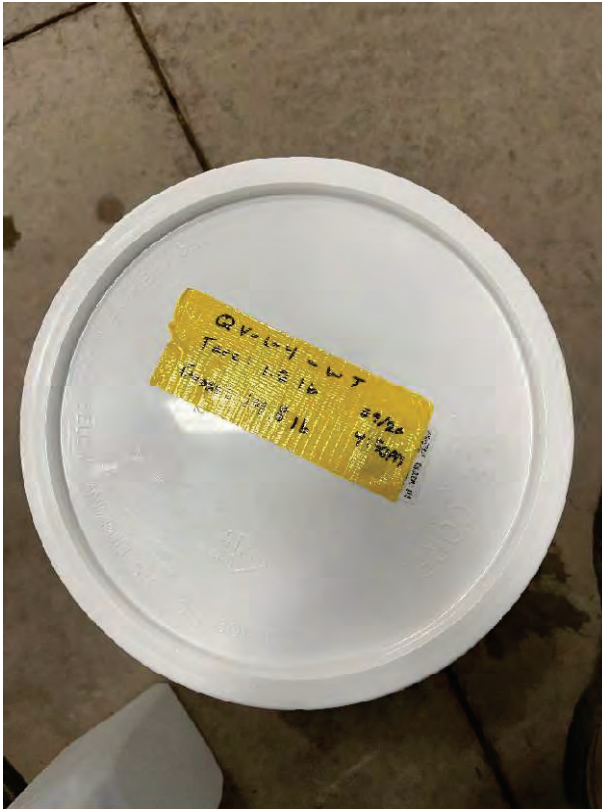
LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	09/21/22	10:00			

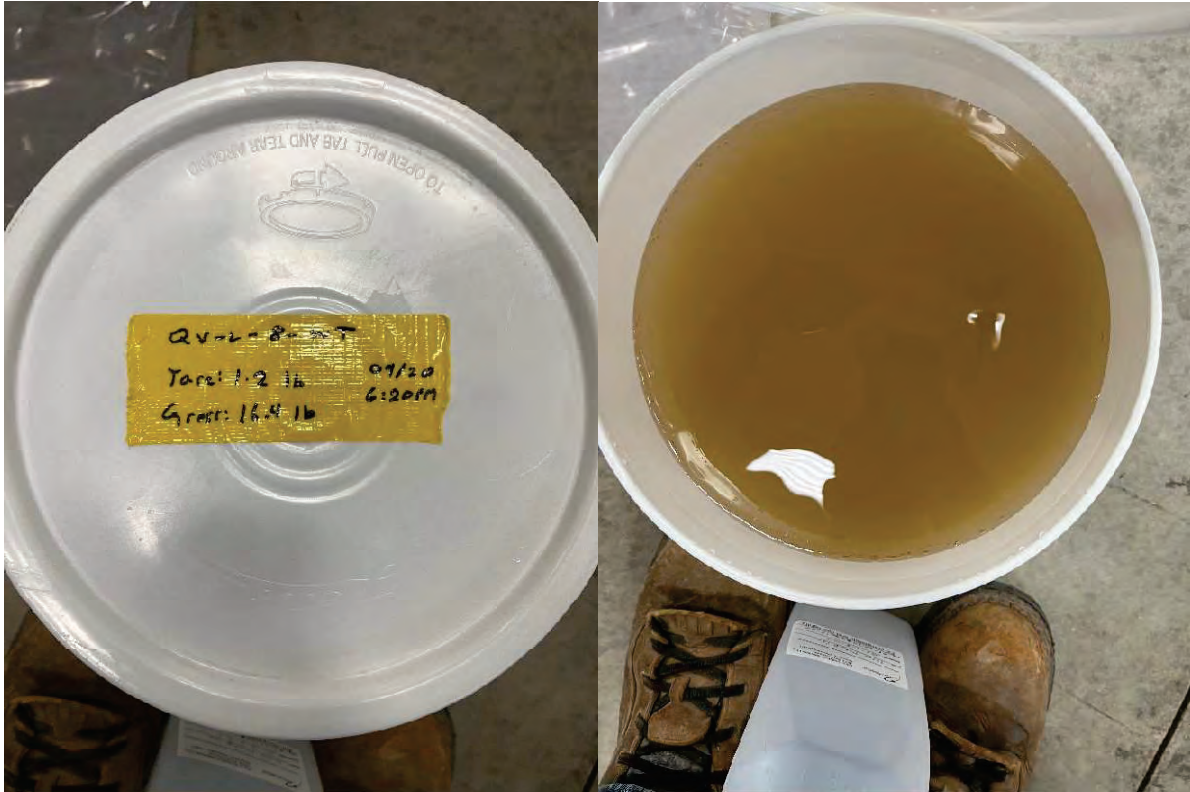
SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <small>Lab courier Secure dropoff</small>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	In 3 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.

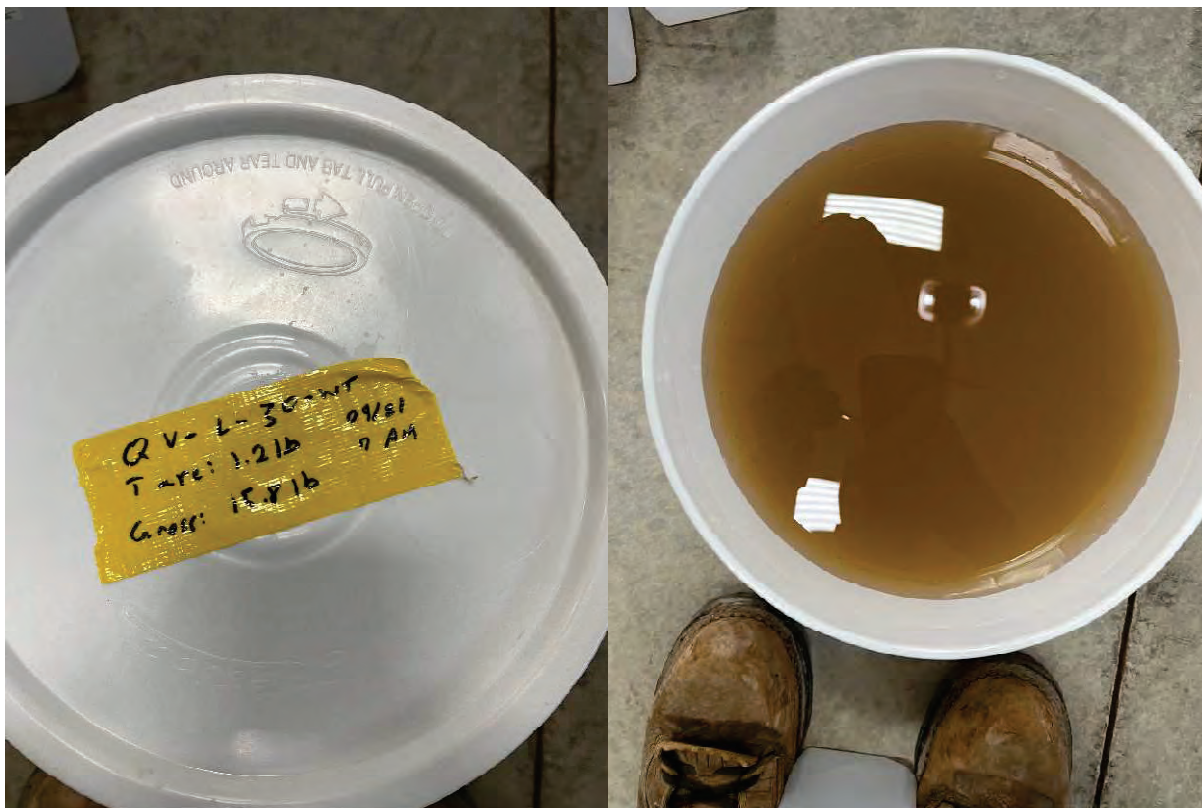














 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPMENT NUMBER
 ORIGIN **N^o c 2322**

SHIPPER <i>Dia Technologies, Inc.</i>		CONSIGNEE <i>Pace</i>	
STREET <i>1653 English Ave</i>		STREET	
CITY <i>Casper</i>	STATE <i>WY</i> ZIP <i>82601</i>	CITY <i>Sheridan</i>	STATE ZIP
SHIPPER'S REF. NO.	CONTACT PHONE <i>307-271-7241</i>	CONSIGNEE'S REF. NO.	CONTACT PHONE
BILL TO: <small>(If Other Than Shipper Or Consignee)</small>		SPECIAL INSTRUCTIONS	
PIECES	DESCRIPTION OF CONTENTS	WEIGHT	DELIVERY DEADLINE
<i>1</i>	<i>Water Samples in cooler</i>		DECLARED VALUE
<small>Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.</small>		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier	EXCESS VALUATION SHIPPER'S C.O.D. TOTAL CHARGES
SHIPPER'S SIGNATURE <i>[Signature]</i>		PICKUP DATE/TIME	RECEIVED BY ACC. EMPLOYEE
COPY DISTRIBUTION <small>White - Delivery Receipt Green - Original Invoice</small>		RECEIVED IN GOOD ORDER EXCEPT AS NOTED	DATE RCV'D TIME RCV'D PCS.
		DELIVERY DRIVER'S SIGNATURE	


 Phone: 307-266-2229
 Fax: 307-266-9156

SHIPMENT NUMBER
 ORIGIN **N^o c 2323**

SHIPPER <i>Dia Technologies, Inc.</i>		CONSIGNEE <i>Pace</i>	
STREET <i>1653 English Ave</i>		STREET	
CITY <i>Casper</i>	STATE <i>WY</i> ZIP <i>82601</i>	CITY <i>Sheridan</i>	STATE ZIP
SHIPPER'S REF. NO.	CONTACT PHONE <i>307-271-7241</i>	CONSIGNEE'S REF. NO.	CONTACT PHONE
BILL TO: <small>(If Other Than Shipper Or Consignee)</small>		SPECIAL INSTRUCTIONS	
PIECES	DESCRIPTION OF CONTENTS	WEIGHT	DELIVERY DEADLINE
<i>1</i>	<i>Water Samples in cooler</i>		DECLARED VALUE
<small>Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.</small>		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier	EXCESS VALUATION SHIPPER'S C.O.D. TOTAL CHARGES
SHIPPER'S SIGNATURE <i>[Signature]</i>		PICKUP DATE/TIME	RECEIVED BY ACC. EMPLOYEE
COPY DISTRIBUTION <small>White - Delivery Receipt Green - Original Invoice</small>		RECEIVED IN GOOD ORDER EXCEPT AS NOTED	DATE RCV'D TIME RCV'D PCS.
		DELIVERY DRIVER'S SIGNATURE	

WPL
WATERBURY PUBLIC LIBRARY

Phone: 307-256-2229
Fax: 307-256-9156

SHIPPER: <i>Dia Technologies, Inc.</i>		CONSIGNEE: <i>Dia</i>		SHIPMENT NUMBER ORDIN: Nº C 2324	
STREET: <i>1653 English Ave</i>		STREET:		DATE SHIPPED: <i>09/21/2022</i>	
CITY: <i>Casper</i> STATE: <i>WY 82401</i>		CITY: <i>Shedden</i> STATE: <i>WY</i>		FREIGHT TERMS: <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
SHIPPER'S REF NO.:		CONSIGNEE'S REF NO.:		WEIGHT CHARGE:	
CONTACT: <i>307-251-7241</i>		CONTACT: <i>PHONE</i>		SPECIAL SERVICE:	
BILL TO: Name: Address: City/State/Zip:		SPECIAL INSTRUCTIONS:		SIGNATURE SERVICE:	
THICKS:		DESCRIPTION OF CONTENTS: <i>1 Water Samples in cooler</i>		OTHER CHARGE:	
WEIGHT:		SPECIAL SERVICES: <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Netral Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Postmark <input type="checkbox"/> IntraCity Courier		DECLARED VALUE:	
SHIPPER'S SIGNATURE: <i>[Signature]</i>		RECEIVED BY: <i>[Signature]</i>		SHIPPER'S C.O.D.:	
SHIPPER'S DISTRIBUTION: Ship: <i>—Delivery Manager</i> Cause: <i>—Original Invoice</i>		RECEIVED IN GOOD ORDER (EXCEPT AS NOTED)		TOTAL CHARGES:	
DATE SHIPPED:		DATE RCVD:		DELIVERY DRIVER'S SIGNATURE:	
TIME SHIPPED:		TIME RCVD:			
PCS:					





Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page **1** of **1**

All shaded fields must be completed.

This is a legal document: any misrepresentation may be construed as fraud.

196832


Client Name Tetra Tech / Disa	Project Identification RAES T033/10365440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech / Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS Preservative Lot # 1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.gov		
	Phone 510-302-6310 / 307-871-7291	Purchase Order #	Quote #

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010	Dissolved Metals by 6010	Total Ra226 by 903.1	Total Ra228 by 904.6	Dissolved Ra226 by 905.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1	52209316-001	09/15/22	10:30	CR-H-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2	002	09/17/22	15:00	CR-H-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3	003	09/16/22	18:20	CR-M-0-SL-0.45 Filtrate Pre-Rec	WT	1		✓						Filtered, Preserved
4	004	09/17/22	06:06	CR-M-0-SL-0.45 Filtrate Post-Rec	WT	1		✓						Filtered, Preserved
5	005	09/19/22	10:50	CR-H-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
6	006	09/20/22	16:50	QV-L-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
7	007	09/20/22	18:20	QV-L-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
8	008	09/21/22	07:00	QV-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
1.6°C (3 Coolers) 1.6°C ROZ 3.7°C ROZ 5.9°C ROZ OK	Andrew Halverson	09/21/22	10:00	Daniel Slipp	9/21/22	16:05

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other Lab courier secure dropoff	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	In 3 separate Coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.

Cont. Ph Information for 52209316

	DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab
	Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115
 pH strip lot # HC281827
 Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

- 1 Number of ice chests/packages received: _____ ROI? Yes No
 Note as "OTC" if samples are received over the counter, unpackaged

- 2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Temps Observed (°C):								
Temps Corrected (°C):								

Acceptable Is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, In addition to temperature at r

Client contact for temperatures outside method criteria must be documented below.

- | | | | |
|--|-----|----|-----|
| 3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? | Yes | No | N/A |
| 4 COC Number (if applicable): | | | |
| 5 Do the number of bottles agree with the COC? | Yes | No | N/A |
| 6 Were the samples received intact? (no broken bottles, leaks, etc.) | Yes | No | N/A |
| 7 Were the sample custody seals intact? | Yes | No | N/A |
| 8 Is the COC properly completed, legible, and signed? | Yes | No | |

Sample Verification, Labeling & Distribution

- | | | |
|--|-----|----|
| 1 Were all requested analyses understood and appropriate? | Yes | No |
| 2 Did the bottle labels correspond with the COC information? | Yes | No |
| 3 Samples collected in method-prescribed containers? | Yes | No |
| 4 Sample Preservation: | | |

pH at Receipt: <u>6</u>	Final pH (if added in lab): <u>~1</u>	Preservative/Lot#
<u>11/26</u> Total Metals	Total Metals	HNO ₃
<u>11/26</u> Diss Metals	Diss Metals	HNO ₃
Nutrient	Nutrient	H ₂ SO ₄
Cyanide	Cyanide	NaOH
Sulfide	Sulfide	ZnAcet
Phenol	Phenol	H ₂ SO ₄
SDWA Rads	SDWA Rads	HNO ₃

Date/Time Added: 9/22/22 10:37-11:44
 Filtered and preserved in metal

Preservative Lot #
 111 HNO₃: M-072722-2
 112 SO₄: Chem 2-71-3
 NaOH: Wet-3-40-1

- | | | | |
|---|-----|----|-----|
| 5 VOA vials have <6mm headspace? | Yes | No | N/A |
| 6 Were all analyses within holding time at the time of receipt? | Yes | No | |
| 7 Have rush or project due dates been checked and accepted? | Yes | No | N/A |
| 8 Do samples require subcontracted analyses? | Yes | No | |

If "Yes", which type of subcontracting is required?

General Customer-Specified

Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials): WN/DS
 Set ID: 52209316

Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any Items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: _____ Method of Contact: _____ Phone: _____
 Initiated By: _____ Date/Time: _____ Email: _____
 Problem: _____
 Resolution: _____



Report Review Checklist

Log Review

COC Review Information on COC matches that on report; spelling accurate.

Initials/Date:

WN 9/22/22

- | | |
|---|-----------|
| 1 Original COC attached, signed and dated. | ✓ |
| 2 Samples received within temperature | ✓ |
| 2 Parameters requested. | ✓ |
| 3 Client. | ✓ |
| 4 Report recipient/address. | ✓ |
| 5 Invoice recipient/address. | ✓ |
| 6 Project. Requested changes to Project must be communicated to Project Mgr. | NA |
| 7 Appropriate detection limits (RLs) assigned. | ✓ |
| 8 Prices may need to be adjusted prior to invoicing. (circle) | Yes or No |
| 9 P. O. number. | NA |
| 10 Sample IDs. | ✓ |
| 11 Sample dates. | ✓ |
| 12 Date received. | ✓ |
| 13 Date due. | ✓ |
| 14 Matrix. | ✓ |
| 15 PWSID included for safe drinking water compliance samples. | NA |
| 16 Field data entered appropriately (Log Review); matches lab data (Report Review). | NA |
| 17 Special requests indicated in "Comments" section of Work Order summary. | ✓ |
| 18 All "No" responses on Condition Upon Receipt form have been resolved | Yes or No |

Data Review

Report Review

- | | |
|--|----|
| 1 Automated QC (Check Data button) review performed, discrepancies resolved. | ✓ |
| 2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary. | ✓ |
| 3 Worksheet/instrument data compared to report results for calculation, transcription and data entry errors. | ✓ |
| 4 Results compared to historical data if applicable. | NA |
| 5 Analysis date and time. | ✓ |
| 6 Analytical method. | ✓ |
| 7 Appropriate detection limits (RLs) assigned. | ✓ |
| 8 Appropriate units of measure. | ✓ |
| 9 Analyst's initials. | ✓ |
| 10 Calculations checked? | ✓ |
| 11 Subcontracted analyses identified as such with qualifier or as attachment to lab report | NA |
| 12 Subcontracted report reviewed | NA |
| 13 Invoice parameters match those on COC. | ✓ |

Final Review

- | | |
|--|-----------------------------------|
| 1 Report appears complete and appropriate. | ✓ |
| 2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report. | ✓ |
| 3 All necessary qualifiers included in report. | ✓ |
| 4 Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies. | ✓ |
| 5 Anomalies, including reason for report reissue, explained in Case Narrative. | ✓ |
| 6 Copies of report sent to all recipients requested on COC. (circle) | Copy to Regulator Hard Copy Email |
| 7 All special requests listed on COC, or attached parameter list, honored. | ✓ |
| 8 Special report format per client request. | ✓ |
| 9 Report pages signed. | ✓ |

Client Name Tetra Tech/Disa		Project Identification Q AES T033/20365440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Chm 26</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <div style="float: right; border: 1px solid black; padding: 2px;"> Preservative Lot # <small>111 HNO3: M-072722-2 112SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small> </div>			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov					
		Phone 510-302-6310 / 307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1		09/30/22	06:30	QV-M-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2		09/29/22	19:00	QV-M-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3		10/01/22	16:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
4		10/02/22	08:00	QV-H-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
5		10/02/22	16:00	QV-H-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
6		10/03/22	10:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Chm 26</i> / Andrew Halverson	10/05/22	18:00			

SHIPPING INFO		MATRIX CODES		TURNAROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	<input checked="" type="checkbox"/> Check desired service		Compliance Monitoring?	Y / N	In 3 separate coolers. For Unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.		
<input type="checkbox"/> Fed Express	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				
<input type="checkbox"/> US Mail	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>6pm courier securedropoff</i>	Other	OT	Rush & Urgent Surcharges will be applied		Sample Disposal: Lab	✓ Client			

Put a copy of this document and write details of steps 1-4 on the back of the package.

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WPL
WESTERN PEAKS LOGISTICS
Phone: 307-266-2229
Fax: 307-266-9156

SHIPPER: *Disa Technologies, Inc.*
STREET: *1653 English Ave.*
CITY: *Casper* STATE: *WY* ZIP: *82601*
SHIPPER'S REF. NO.: CONTACT PHONE: *307-371-9241*

CONSIGNEE: *Pace*
STREET: CITY: *Shenandoah* STATE: ZIP:
CONSIGNEE'S REF. NO.: CONTACT PHONE:

BILL TO:
Name:
Address:
City:
State:
ZIP:

SPECIAL INSTRUCTIONS:

DESCRIPTION OF CONTENTS: *Water samples in cooler*

WEIGHT:

SHIPPER'S CERTIFICATION:
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is not in excess of \$100 (one hundred dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES:
☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier

DELIVERY DEADLINE:

DECLARED VALUE:

RECEIVED BY ACC. EMPLOYEE:

SHIPPER'S SIGNATURE: *[Signature]* PICKUP DATE/TIME:

RECEIVED IN GOOD ORDER EXCEPT AS NOTED: DATE RCVD: TIME RCVD: PCS:

SHIPMENT NUMBER: *N 0 2315*
ORIGIN: *N 0 2315*
DATE SHIPPED: *10/05/2011*
FREIGHT TERMS:
☐ PREPAID ☐ COLLECT ☐ C.O.D.
☐ OTHER (SEE STEP 1-4)

FREIGHT CHARGE:

SPECIAL SERVICE:

SIGNATURE SERVICE:

OTHER CHARGE:

EXCESS VALUATION:

SHIPPER'S C.O.D.:

TOTAL CHARGES:

DELIVERY DATE/TIME:

DELIVERY SIGNATURE:

PEEL HERE ▶

WPL
WESTERN PEAKS LOGISTICS
Phone: 307-266-2229
Fax: 307-266-9156

SHIPPER: *Disa Technologies, Inc.*
STREET: *1653 English Ave.*
CITY: *Casper* STATE: *WY* ZIP: *82601*
SHIPPER'S REF. NO.: CONTACT PHONE:

CONSIGNEE: *Pace*
STREET: CITY: *Shenandoah* STATE: ZIP:
CONSIGNEE'S REF. NO.: CONTACT PHONE:

BILL TO:
Name:
Address:
City:
State:
ZIP:

SPECIAL INSTRUCTIONS:

DESCRIPTION OF CONTENTS: *1 Water samples in cooler*

WEIGHT:

SHIPPER'S CERTIFICATION:
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is not in excess of \$100 (one hundred dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES:
☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier

DELIVERY DEADLINE:

DECLARED VALUE:

RECEIVED BY ACC. EMPLOYEE:

SHIPPER'S SIGNATURE: *[Signature]* PICKUP DATE/TIME:

RECEIVED IN GOOD ORDER EXCEPT AS NOTED: DATE RCVD: TIME RCVD: PCS:

SHIPMENT NUMBER: *N 0 2315*
ORIGIN: *N 0 2315*
DATE SHIPPED: *10/05/2011*
FREIGHT TERMS:
☐ PREPAID ☐ COLLECT ☐ C.O.D.
☐ OTHER (SEE STEP 1-4)

FREIGHT CHARGE:

SPECIAL SERVICE:

SIGNATURE SERVICE:

OTHER CHARGE:

EXCESS VALUATION:

SHIPPER'S C.O.D.:

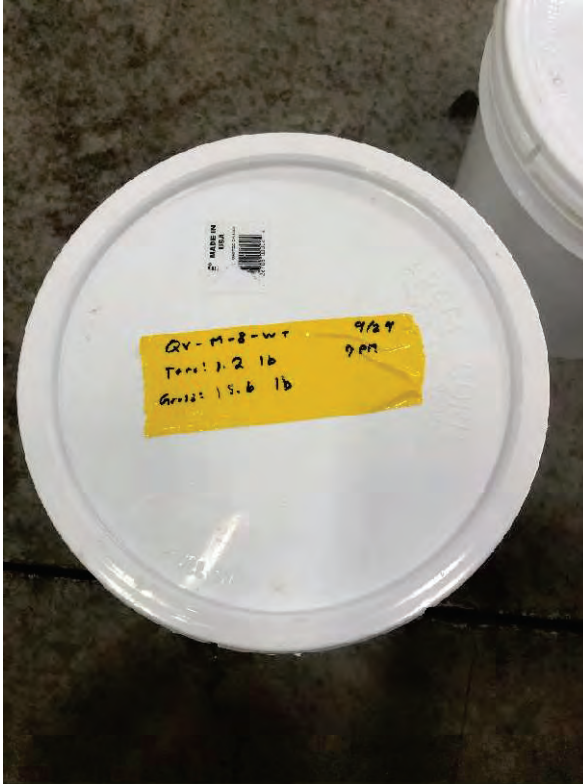
TOTAL CHARGES:

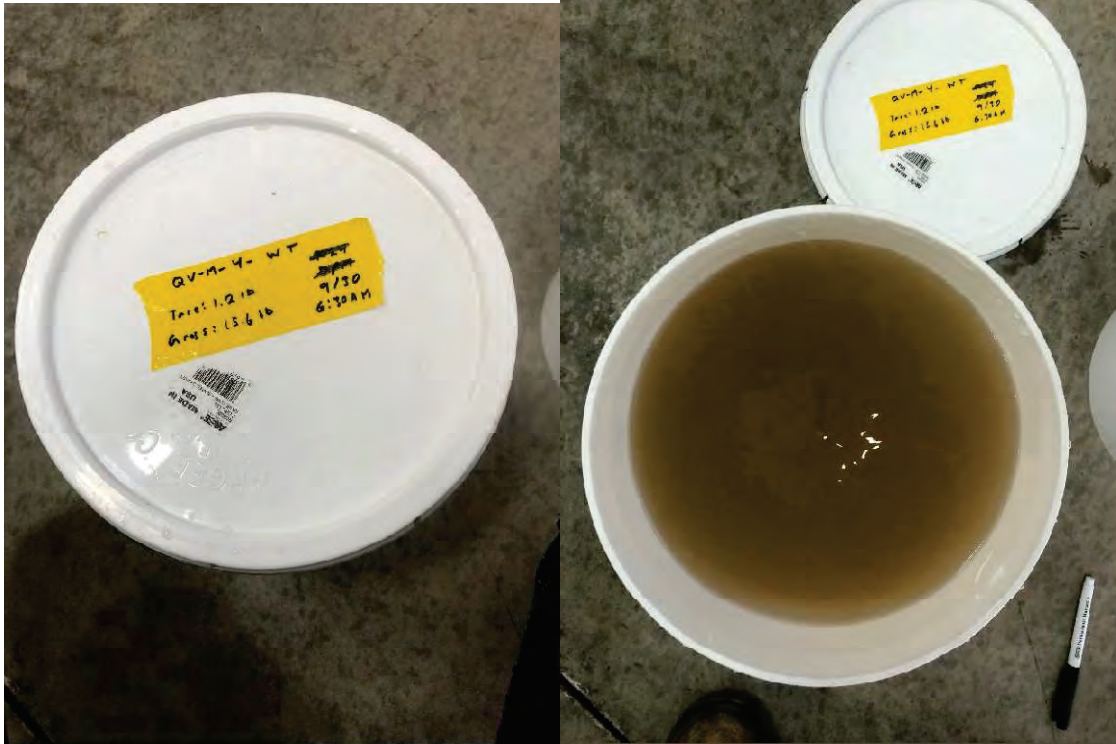
DELIVERY DATE/TIME:

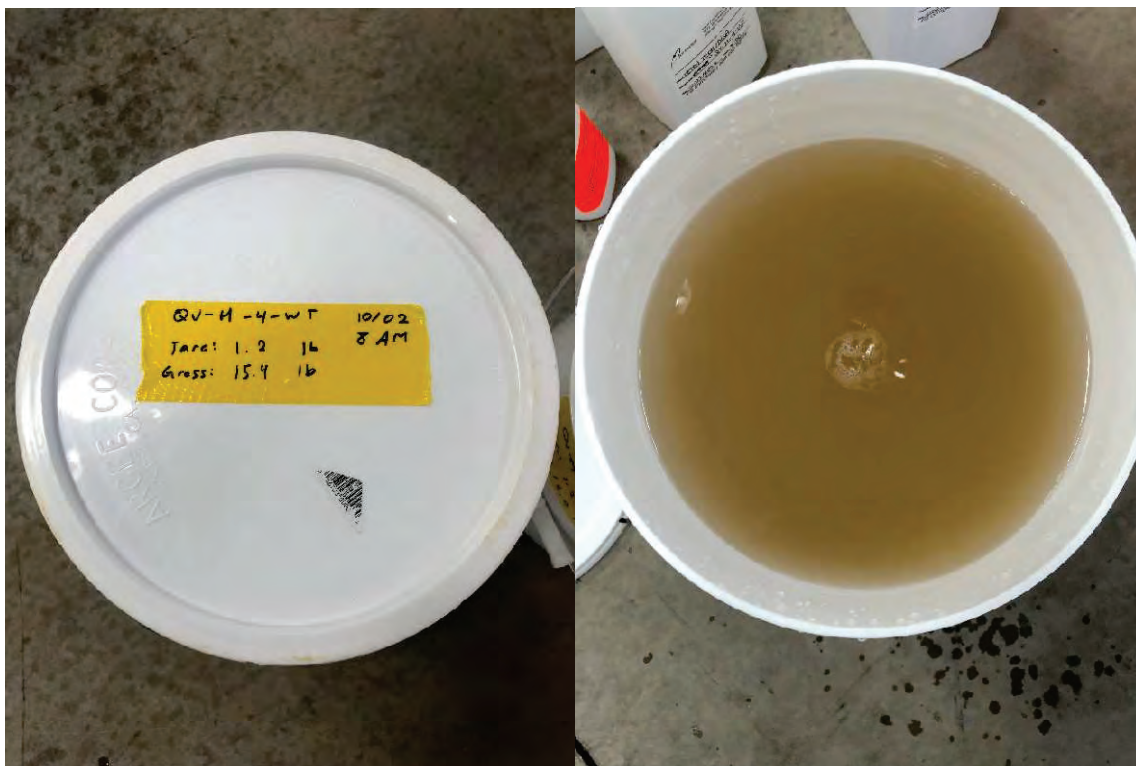
DELIVERY SIGNATURE:

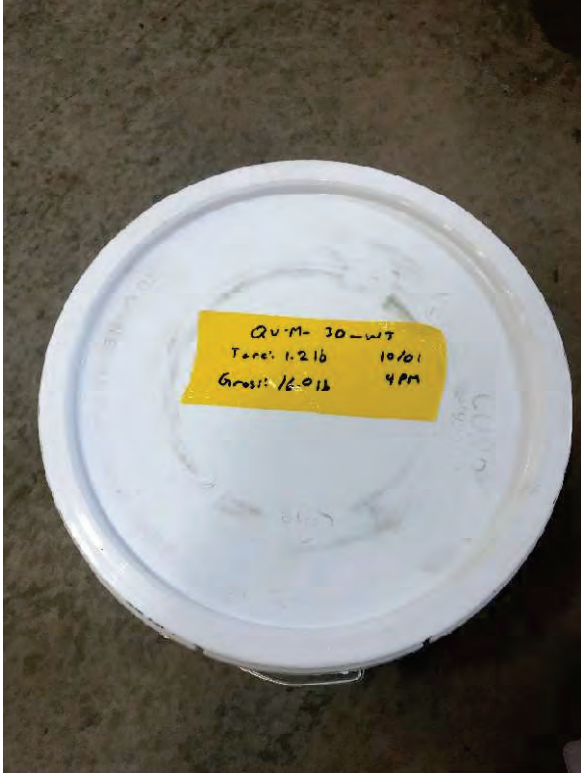


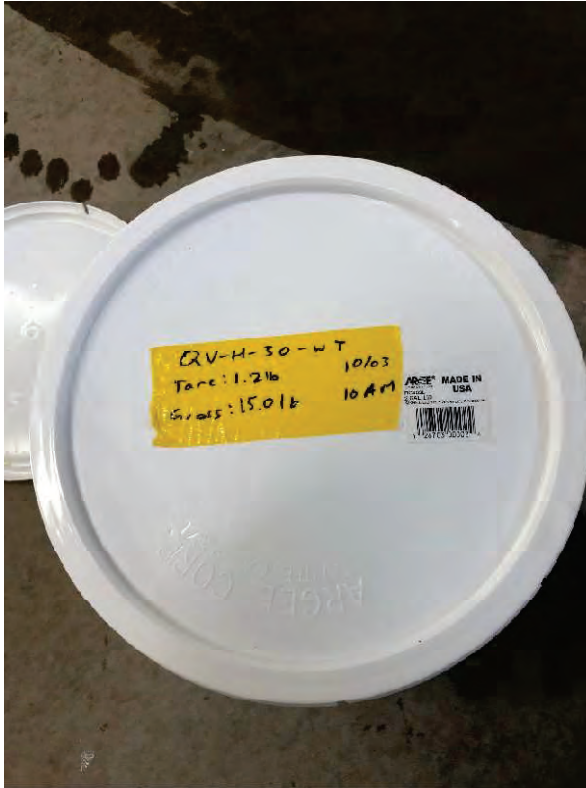


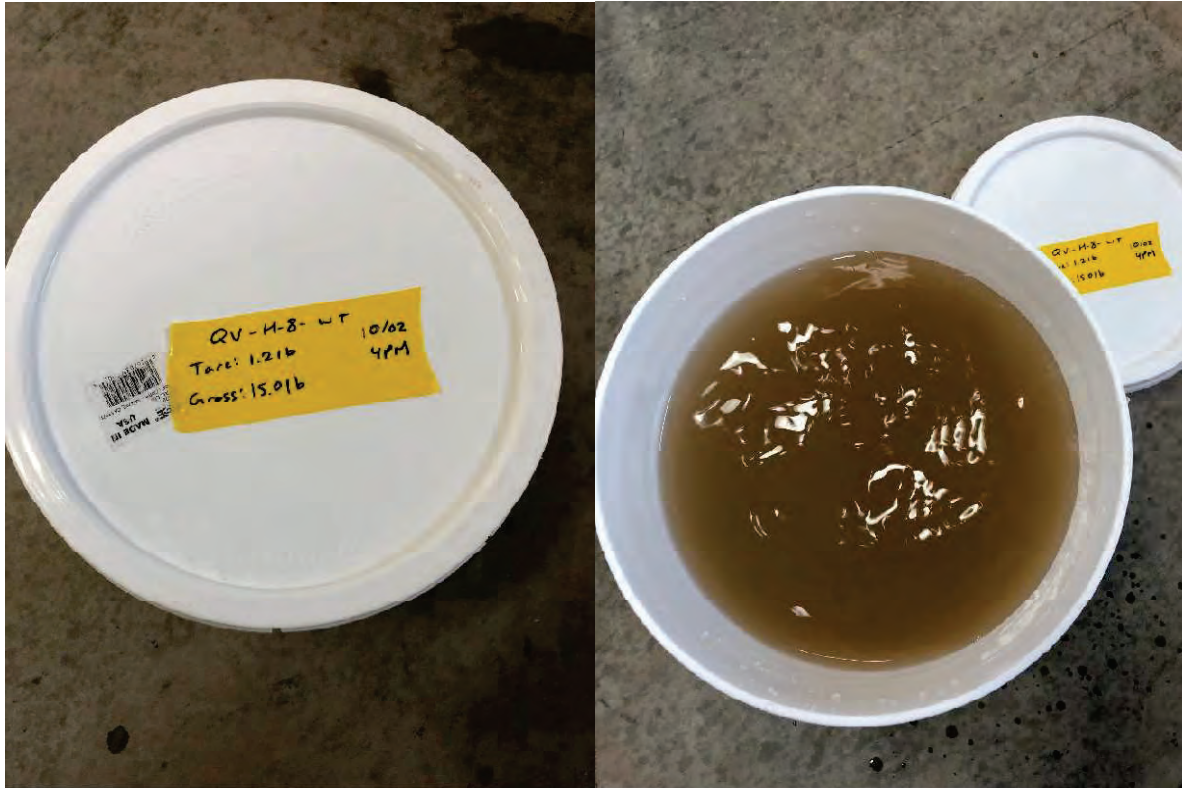












All shaded fields must be completed.

This is a legal document: any misrepresentation may be construed as fraud.

196827

Client Name Tetra Tech/Disa		Project Identification R AES T033/20365440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291								
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS										
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com/disausa.com		Preservative Lot# 1:1 HNO3: M-072722-2 11:2SO4: Chem 2-71-4 NaOH: Wet-3-40-1										
Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #										
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Ra 226 by 903.1	Total Ra 228 by 904.0	Dissolved Ra 226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1	522/090-001	09/30/22	06:30	QV-M-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2	002	09/29/22	19:00	QV-M-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3	003	10/01/22	16:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
4	004	10/02/22	08:00	QV-M-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
5	005	10/02/22	16:00	QV-M-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
6	006	10/03/22	10:00	QV-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
7														
8														
9														
10														
11														
12														
13														
14														
LAB COMMENTS 3 Coolers 1.6° 1.0° ROI 1.5°		Relinquished By (Signature/Printed) / Andrew Halverson		DATE 10/05/22	TIME 18:00	Received By (Signature/Printed) 		DATE 10/6/22	TIME 10:45					
SHIPPING INFO		MATRIX CODES		TURNAROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS						
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <small>Lab Courier SecureDropoff</small>		Water WT Soil SL Solid SD Filter FT Other OT		Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied		Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client		In 3 separate coolers. For Unfiltered samples, filter prior to addition of preservative on total vs dissolved analysis.						

Pace Analytical Services, LLC

www.pacelabs.com

555 Absaraka St.
Sheridan, WY 82801

Voice: 307.674.7506
FAX: 307.672.9845

1673 Terra Ave.
Sheridan, WY 82801

Voice: 307.672.8945
FAX: 307.672.6053

4506 Wigwam Blvd., Ste. D
Gillette, WY 82718
Voice: 307.682.8945

It is critical that Pace has enough information to prepare your report to meet strict quality review processes. Therefore, please complete the Chain of Custody (COC) form with as much detailed information as possible – especially contact information – to ensure accurate analysis, reporting, and invoicing.

Provide as much contact information as possible.

Include purchase order if required and quote if available.

Provide as much information as possible so that the correct analyses will be performed.

Address where final report will be sent.

Address where invoice will be sent.

Information entered in "Sample Identification" will be used in the final report. Include all information necessary for unique sample identification.

Custody Record MUST include signature, date and time.

Specify required turnaround time. Prior notification is required for Rush and Urgent service.

Indicate whether data will be used in compliance monitoring report. Report format may depend on program selected.

Specify who will dispose of sample. Disposal of hazardous samples by Pace will result in additional charges to client.

Pace Analytical Services, LLC Sheridan, WY and Gillette, WY										CHAIN OF CUSTODY RECORD -										Page 1 of 3			
Client Name Acme Environmental Company										Project Identification Main Street Project / AEC 1234										Sampler (Signature/Printed) John Doe / John Doe		Telephone # (307) 555-1212	
Report Address 555 First Street Springfield, WY 12345										Contact Name Bob Smith Email bsmith@email.com Phone (307) 555-6789										ANALYSES / PARAMETERS		REMARKS	
Invoice Address P O Box 123 Springfield, WY 12345										Purchase Order # AEC 5678													
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	DTXN (8250)	TPH-GRO (8015)	TPH-DRO (8015)	NO ₃ -NO ₂ -SO ₄	pH EC, TDS	Diss Fe, Mn	Total Cd, Cr, Pb	Pb	pH	EC	Temp	SWL					
1		01/01/11	8:00	MW-1	WT	6	X	X	X						7.1	1200	10.0	93.5					
2		01/01/11	8:30	MW-2	WT	6	X	X	X			X			7.3	1100	9.4	104.0					
3		01/01/11	9:00	MW-3	WT	7	X	X	X		X		X		7.8	1300	6.3	84.75					
4		01/01/11	8:00	10104-FT	FT	1								X									
5		01/01/11	12:00	Runoff 1	WT	4				X		X	X										
6		01/01/11	15:35	Runoff 2	WT	4				X		X	X										
7		01/02/11	10:00	Truck 1	OT	2							X		Matrix = Oil								
8		01/02/11	11:30	Site ABC 1" - 6"	SL	1				X			X										
9		01/02/11	13:30	Site ABC 6" - 12"	SL	1				X			X										
10																							
11																							
12																							
13																							
14																							
LAB COMMENTS				Relinquished By (Signature/Printed) John Doe / John Doe				DATE 01/02/11		TIME 17:00		Received By (Signature/Printed) Mary Jones / Mary Jones				DATE 01/02/11		TIME 17:00					
SHIPPING INFO				MATRIX CODES		TURNAROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS											
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input checked="" type="checkbox"/> Hand Carried <input type="checkbox"/> Other				Water WT Soil SL Solid SD Filter FT Other OT		Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied		Compliance Monitoring? <input checked="" type="checkbox"/> N Program (SDWA, NPDES, ...) UST PWSID / Permit # WY 123456 Chlorinated? <input type="checkbox"/> Y / <input checked="" type="checkbox"/> N Sample Disposal Lab Client <input checked="" type="checkbox"/>				Field conditions 01/01/11 Clear, Calm. Field conditions 01/02/11 Overcast, wind 10 mph											

Use the "Remarks" area to document field measurements for samples and/or additional sample information.

Use the "Additional Remarks" area to document field observations and/or additional instructions to laboratory.



DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab

Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115

pH strip lot #

Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 3 ROI? Yes No

Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Temps Observed (°C):	1.6	1.0	1.5						
Temps Corrected (°C):	1.5	0.9	1.4						

Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at r

Client contact for temperatures outside method criteria must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No N/A

4 COC Number (If applicable): 196827

5 Do the number of bottles agree with the COC? Yes No N/A

6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes No N/A

7 Were the sample custody seals intact? Yes No N/A

8 Is the COC properly completed, legible, and signed? Yes No

Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate? Yes No

2 Did the bottle labels correspond with the COC information? Yes No

3 Samples collected in method-prescribed containers? Yes No

4 Sample Preservation:

pH at Receipt:

Final pH (if added in lab):

Preservative/Lot#

Date/Time Added:

____ Total Metals _____ Total Metals HNO₃ _____

____ Diss Metals _____ Diss Metals HNO₃ _____

____ Nutrient _____ Nutrient H₂SO₄ _____

____ Cyanide _____ Cyanide NaOH _____

____ Sulfide _____ Sulfide ZnAcet _____

____ Phenol _____ Phenol H₂SO₄ _____

____ SDWA Rads _____ SDWA Rads HNO₃ _____

Filtered and preserved in metal

5 VOA vials have <6mm headspace? Yes No N/A

6 Were all analyses within holding time at the time of receipt? Yes No

7 Have rush or project due dates been checked and accepted? Yes No N/A

8 Do samples require subcontracted analyses? Yes No

If "Yes", which type of subcontracting is required?

General

Customer-Specified

Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (initials): WN

Set ID: 512210 90

Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: _____ Method of Contact: _____ Phone: _____

Initiated By: _____ Date/Time: _____ Email: _____

Problem: _____

Resolution: _____

COC Review

Initials/Date: WN 10/10/22

COC #: 196 827

Log Review
Yes No N/A

1	Original COC attached, signed and dated		<input checked="" type="checkbox"/>		
2	Sample(s) received within temperature		<input checked="" type="checkbox"/>		
3	Parameter(s) requested		<input checked="" type="checkbox"/>		
4	Client		<input checked="" type="checkbox"/>		
5	Report recipient/address		<input checked="" type="checkbox"/>		
6	Invoice recipient/address		<input checked="" type="checkbox"/>		
7	Project and RLs	Requested changes to Project must be communicated to Project Mgr.			<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing			<input checked="" type="checkbox"/>	
9	P. O. number		<input checked="" type="checkbox"/>		
10	Sample IDs		<input checked="" type="checkbox"/>		
11	Sample dates		<input checked="" type="checkbox"/>		
12	Date received		<input checked="" type="checkbox"/>		
13	Date due		<input checked="" type="checkbox"/>		
14	Matrix		<input checked="" type="checkbox"/>		
15	PWSID included for safe drinking water compliance samples				<input checked="" type="checkbox"/>
16	Field data entered appropriately				<input checked="" type="checkbox"/>
17	Special requests indicated in "Comments" section of Work Order summary		<input checked="" type="checkbox"/>		
18	All "No" responses on Condition Upon Receipt form have been resolved				<input checked="" type="checkbox"/>

Data Review

Report Review

1	Automated QC (Check Data button) review performed, discrepancies resolved.		<input checked="" type="checkbox"/>		
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.		<input checked="" type="checkbox"/>		
3	Results compared to historical data if applicable		<input checked="" type="checkbox"/>		
4	Analysis date and time		<input checked="" type="checkbox"/>		
5	Analytical method		<input checked="" type="checkbox"/>		
6	Appropriate units of measure		<input checked="" type="checkbox"/>		
7	Analyst's initials		<input checked="" type="checkbox"/>		
8	Field data entered matches lab data				<input checked="" type="checkbox"/>
9	Subcontracted analyses identified as such with qualifier or as attachment to lab report				<input checked="" type="checkbox"/>
10	Subcontracted report reviewed				<input checked="" type="checkbox"/>
11	Invoice parameters match those on COC		<input checked="" type="checkbox"/>		

Final Review

1	Report appears complete and appropriate		<input checked="" type="checkbox"/>		
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report		<input checked="" type="checkbox"/>		
3	All necessary analytical qualifiers included in report		<input checked="" type="checkbox"/>		
4	Copies of report sent to all recipients requested on COC (circle)	<u>Email</u>	<input checked="" type="checkbox"/>		
5	Copies of report sent to Regulator (ex. PWS ID)	Hard Copy			<input checked="" type="checkbox"/>
6	All special requests listed on COC, or attached parameter list, honored.		<input checked="" type="checkbox"/>		
7	Special report format per client request		<input checked="" type="checkbox"/>		
8	Case Narrative signed and includes completion date		<input checked="" type="checkbox"/>		

- CHAIN OF CUSTODY RECORD -

Page **1** of **1**

All shaded fields must be completed.

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196822

Client Name Tetra Tech / Disa	Project Identification RAEST033/10365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 3078717291
---	---	--	----------------------------------

Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS <table border="1"> <tr> <td>Total Metals by 6019/6020</td> <td>Total Ra226 by 903.1</td> <td>Total Ra228 by 904.0</td> <td>TDS by SM2540</td> <td>TSS by SM2540</td> <td>MS/MSD</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Total Metals by 6019/6020	Total Ra226 by 903.1	Total Ra228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD												
Total Metals by 6019/6020	Total Ra226 by 903.1		Total Ra228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD														
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / andrew.halverson@disaansa.com																			
	Phone 510-302-6310 / 307-871-7291																			
	Purchase Order # 1150922	Quote #																		

Preservative Lot #

1:1 HNO3: M-072722-2
 112SO4: Chem 2-71-4
 NaOH: Wet-3-40-1

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6019/6020	Total Ra226 by 903.1	Total Ra228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD	REMARKS
1		10/05/22	17:00	SW-WT-01	WT	7	✓	✓	✓	✓	✓		Unfiltered
2		10/05/22	17:10	SW-WT-02	WT	21	✓	✓	✓	✓	✓	✓	Unfiltered, MS/MSD for Metals and Ra226
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/06/22	19:00			

SHIPPING INFO <input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier Securedropoff</i>	MATRIX CODES Water WT Soil SL Solid SD Filter FT Other OT	TURNAROUND TIMES Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	COMPLIANCE INFORMATION Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab ✓ Client	ADDITIONAL REMARKS <i>Samples in two separate coolers. Soil samples for Bulk Analysis and SPLP in coolers as well.</i>
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- CHAIN OF CUSTODY RECORD -

Page **1** of **1**

All shaded fields must be completed.

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#WEB

Client Name
Tetra Tech/Disa

Project Identification
RAES TO33/103G5440033.03.01

Sampler (Signature/Attestation of Authenticity)
[Signature]

Telephone #
307-871-7291

Report Address
Tetra Tech/Disa

Contact Name
Mike Dahlquist/Andrew Halverson

Invoice Address
Tetra Tech

Email
Phone 510-302-6310/307-871-7291

ANALYSES / PARAMETERS

Purchase Order #
1150922

Quote #

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	SPLP by Table A-12							REMARKS
1		08/23/22	10:03	CR-L-0-SL-01	SL	1	x	x	x							703.33 g
2		08/23/22	10:32	CR-M-0-SL-01	SL	1	x	x	x							649.85 g
3		08/23/22	10:51	CR-H-0-SL-01	SL	1	x	x	x							796.62 g
4		08/26/22	10:00	QV-L-0-SL-01	SL	1	x	x	x							659.77 g
5		08/27/22	09:25	QV-M-0-SL-01	SL	1	x	x	x							721.82 g
6		8/27/22	12:00	QV-H-0-SL-01	SL	1	x	x	x							768.26 g
7		08/30/22	10:00	CTS-L-0-SL-01	SL	1	x	x	x							590.31 g
8		08/30/22	10:00	CTS-M-0-SL-01	SL	1	x	x	x							645.78 g
9		08/30/22	10:00	CTS-H-0-SL-01	SL	1	x	x	x							773.47 g
10		09/06/22	16:00	CR-L-4-SY Combined +25/+270	SL	1			x							413.27 g
11		09/07/22	14:00	CR-L-8-SY Combined +25/+270	SL	1			x							439.49 g
12		09/08/22	08:00	CR-L-30-SY Combined +25/+270	SL	1			x							425.64 g
13		09/09/22	10:00	CR-M-4-SY Combined +25/+270	SL	1			x							507.97 g
14		09/12/22	11:00	CR-M-8-SY Combined +25/+270	SL	1			x							622.34 g

LAB COMMENTS

Relinquished By (Signature/Printed)

DATE

TIME

Received By (Signature/Printed)

DATE

TIME

[Signature] / Andrew Halverson

10/04/22 19:00

SHIPPING INFO

MATRIX CODES

TURN AROUND TIMES

COMPLIANCE INFORMATION

ADDITIONAL REMARKS

- ☐ UPS
☐ FedEx
☐ USPS
☐ Hand Carried
☒ Other *lab courier before drop off*

Water WT
Soil SL
Solid SD
Filter FT
Other OT

- Check desired service**
☒ Standard turnaround
☐ RUSH - 5 Working Days
☐ URGENT - < 2 Working Days
Rush & Urgent Surcharges will be applied

Compliance Monitoring ? **Y / N**
Program (SDWA, NPDES,...)
PWSID / Permit #
Chlorinated? **Y / N**
Sample Disposal: Lab Client ☒

Please return unused sample to Disa after reporting.
Report preliminary metals before radionuclides.
Table A-12 from Work Plan attached
Samples in 2 separate coolers with SW-WT-01 and SW-WT-02 samples

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
						REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-12	MS/MSD							
1		09/09/22	09:00	CR-L-0-SL-01 +25	SL	1	x	x									7.30 g
2		09/09/22	09:00	CR-L-0-SL-01 +50	SL	1	x	x									21.82 g
3		09/09/22	09:00	CR-L-0-SL-01 +100	SL	1	x	x									78.60 g
4		09/09/22	09:00	CR-L-0-SL-01 +140	SL	1	x	x									60.52 g
5		09/09/22	09:00	CR-L-0-SL-01 +200	SL	1	x	x									48.25 g
6		09/09/22	09:00	CR-L-0-SL-01 +270	SL	1	x	x									19.00 g
7		09/09/22	09:00	CR-L-0-SL-01 -270	SL	1	x	x									76.85 g
8		09/06/22	16:00	CR-L-4-SY +25	SL	1	x	x									5.28 g
9		09/06/22	16:00	CR-L-4-SY +50	SL	1	x	x									23.47 g
10		09/06/22	16:00	CR-L-4-SY +100-01	SL	1	x	x									36.62 g
11		09/06/22	16:00	CR-L-4-SY +100-02	SL	1	x	x									36.63 g
12		03/30/22	10:00	CTS-L-0-+1/4-inch	SL	1	x	x		x							1014.94 g, MS/MSD for details
13		09/06/22	16:00	CR-L-4-SY +140	SL	1	x	x									54.00 g
14		09/06/22	16:00	CR-L-4-SY +200	SL	1	x	x									36.94 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/06/22	19:00			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 from Work Plan attached		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab Courier secure Dropoff</i>	Other	OT	Rush & Urgent Surcharges will be applied		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>		

- CHAIN OF CUSTODY RECORD -

Page **2** of **5**

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#**WEB**

Telephone #

307-871-7291

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS	
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>			
		Phone 510-302-6310/307-871-7291			
		Purchase Order # 1150922		Quote #	
REMARKS					

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1								
1		09/06/22	16:00	CR-L-4-SY +270	SL	1	x	x									14.75 g
2		09/07/22	14:00	CR-L-8-SY +25	SL	1	x	x									4.11 g
3		09/07/22	14:00	CR-L-8-SY +50	SL	1	x	x									24.05 g
4		09/07/22	14:00	CR-L-8-SY +100	SL	1	x	x									79.07 g
5		09/07/22	14:00	CR-L-8-SY +140	SL	1	x	x									59.00 g
6		09/07/22	14:00	CR-L-8-SY +200	SL	1	x	x									38.87 g
7		09/07/22	14:00	CR-L-8-SY +270	SL	1	x	x									15.63 g
8		09/08/22	08:00	CR-L-30-SY +25	SL	1	x	x									3.71 g
9		09/08/22	08:00	CR-L-30-SY +50	SL	1	x	x									21.57 g
10		09/08/22	08:00	CR-L-30-SY +100	SL	1	x	x									74.76 g
11		09/08/22	08:00	CR-L-30-SY +140	SL	1	x	x									57.66 g
12		09/08/22	08:00	CR-L-30-SY +200	SL	1	x	x									39.60 g
13		01/08/22	08:00	CR-L-30-SY +270	SL	1	x	x									16.42 g
14		09/14/22	11:00	CR-M-0-SL-01 +25	SL	1	x	x									36.97 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/04/22	19:00			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from VWork Plan attached


- CHAIN OF CUSTODY RECORD -

Page **3** of **5**

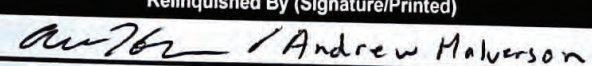
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#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.com</i>					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922		Quote #			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-12	MS/MSD					REMARKS
1		09/14/22	11:00	CR-M-0-SL-01 +50	SL	1	x	x							77.55 g
2		09/14/22	11:00	CR-M-0-SL-01 +100-01	SL	1	x	x							42.17 g
3		09/14/22	11:00	CR-M-0-SL-01 +100-02	SL	1	x	x							42.15 g
4		09/14/22	11:00	CR-M-0-SL-01 +140	SL	1	x	x							30.38 g
5		08/30/22	10:00	CTS-M-0-+1/4-inch	SL	1	x	x		x					1088.29 g, MS/MSD to Metals
6		09/14/22	11:00	CR-M-0-SL-01 +200	SL	1	x	x							20.85 g
7		09/14/22	11:00	CR-M-0-SL-01 +270	SL	1	x	x							9.44 g
8		09/14/22	11:00	CR-M-0-SL-01 -270	SL	1	x	x							56.16 g
9		09/09/22	10:00	CR-M-4-SY +25	SL	1	x	x							20.61 g
10		09/09/22	10:00	CR-M-4-SY +50	SL	1	x	x							92.38 g
11		09/09/22	10:00	CR-M-4-SY +100	SL	1	x	x							88.27 g
12		09/09/22	10:00	CR-M-4-SY +140	SL	1	x	x							28.45 g
13		09/09/22	10:00	CR-M-4-SY +200	SL	1	x	x							17.67 g
14		09/09/22	10:00	CR-M-4-SY +270	SL	1	x	x							7.86 g

LAB COMMENTS		Relinquished By (Signature/Printed)  Andrew Halverson		DATE 10/06/22	TIME 19:00	Received By (Signature/Printed)		DATE	TIME

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS		Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.	
<input type="checkbox"/> FedEx		Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.	
<input type="checkbox"/> USPS		Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 from Work Plan attached	
<input type="checkbox"/> Hand Carried		Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N		
<input checked="" type="checkbox"/> Other <i>Lab courier same day pickup</i>		Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>	

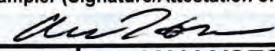

- CHAIN OF CUSTODY RECORD -

Page **4** of **5**

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#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291										
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS												
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / andrew.halverson@disa.com														
Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		REMARKS										
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD						
1		09/12/22	11:00	CR-M-8-SY +25	SL	1	x	x								41.31 g
2		09/12/22	11:00	CR-M-8-SY +50	SL	1	x	x								123.38 g
3		09/12/22	11:00	CR-M-8-SY +100	SL	1	x	x								102.63 g
4		09/12/22	11:00	CR-M-8-SY +140	SL	1	x	x								31.43 g
5		09/12/22	11:00	CR-M-8-SY +200	SL	1	x	x								19.17 g
6		09/12/22	11:00	CR-M-8-SY +270	SL	1	x	x								8.90 g
7		09/13/22	15:00	CR-M-30-SY +25	SL	1	x	x								25.11 g
8		09/13/22	15:00	CR-M-30-SY +50	SL	1	x	x								92.89 g
9		09/13/22	15:00	CR-M-30-SY +100-01	SL	1	x	x								46.66 g
10		09/13/22	15:00	CR-M-30-SY +100-02	SL	1	x	x								46.66 g
11		08/30/22	10:00	CTS-H-0-+1/4 inch Bulk Assay	SL	1	x	x		x						1014.94 g, MS/MSD for Metals
12		09/13/22	15:00	CR-M-30-SY +140	SL	1	x	x								30.09g
13		09/13/22	15:00	CR-M-30-SY +200	SL	1	x	x								19.87 g
14		09/13/22	15:00	CR-M-30-SY +270	SL	1	x	x								8.92 g
LAB COMMENTS		Relinquished By (Signature/Printed)				DATE	TIME	Received By (Signature/Printed)				DATE	TIME			
		 Andrew Halverson				10/6/22	19:00									
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS						
<input type="checkbox"/> UPS		Water WT		Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting.						
<input type="checkbox"/> FedEx		Soil SL		<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.						
<input type="checkbox"/> USPS		Solid SD		<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				Table A-12 from Work Plan attached						
<input type="checkbox"/> Hand Carried		Filter FT		<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N										
<input checked="" type="checkbox"/> Other Lab courier		Other OT		Rush & Urgent Surcharges will be applied		Sample Disposal: Lab Client										


- CHAIN OF CUSTODY RECORD -

Page **5** of **5**

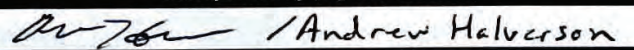
All shaded fields must be completed.

This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
REMARKS							

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD						
1		09/19/22	17:00	CR-H-0-SL-01 +25	SL	1	x	x								83.60 g
2		09/19/22	17:00	CR-H-0-SL-01 +50	SL	1	x	x								139.19 g
3		09/19/22	17:00	CR-H-0-SL-01 +100	SL	1	x	x								92.25 g
4		09/19/22	17:00	CR-H-0-SL-01 +140	SL	1	x	x								21.13 g
5		09/19/22	17:00	CR-H-0-SL-01 +200	SL	1	x	x								14.87 g
6		09/19/22	17:00	CR-H-0-SL-01 +270	SL	1	x	x								9.19 g
7		09/19/22	17:00	CR-H-0-SL-01 -270	SL	1	x	x								71.97 g
8		09/15/22	13:30	CR-H-4-SY +25	SL	1	x	x								338.14 g
9		09/15/22	13:30	CR-H-4-SY +50	SL	1	x	x								688.11 g
10		09/15/22	13:30	CR-H-4-SY +100	SL	1	x	x								394.93 g
11		09/15/22	13:30	CR-H-4-SY +140	SL	1	x	x								74.24 g
12		09/15/22	13:30	CR-H-4-SY +200	SL	1	x	x								46.31 g
13		09/15/22	13:30	CR-H-4-SY +270	SL	1	x	x								24.31 g
14																

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	10/11/22	19:00			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



Package Survey From

Date: 10/06/2022 Time: 19:00 Surveyor Name: Andrew Holverson

Package Description	Water samples with <10 lb of Unat soil <1500 ppm
Package Destination	Pace Analytical 1673 Terra Avenue Sheridan, WY 82801

Unat Specific Activity
7.1 e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm²
Beta: 240 dpm/cm²

Contents	<1500 ppm Unat Soil	Exempt (Y/N)	N
Material Specific Activity	<1.07 e-9 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<10 lb		
Contents Total Activity	<4.6 e-6 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	8 µR/hr

Location	Gross	Net
Side 1	12	4 µR/hr
Side 2	23	15 µR/hr
Side 3	20	12 µR/hr
Side 4	11	3 µR/hr
Side 5	17	9 µR/hr
Side 6	16	8 µR/hr


Package Sketch

Package Surface Area [cm²] 11,232

Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	1
Beta/Gamma (cpm)	63
300 cm² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	Y
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²			
Swipe 1	17	16	0.1	3	95	32	0.1	13.3	AM	 Surveyor Signature:	
Swipe 2	17	16	0.1	3	85	22	0.1	9.2	AM		
			0.1				0.1			Released	
			0.1				0.1				
Date: 10/07/2022										Time: 08:40	

Note: Wiped down thoroughly prior to release



Package Survey From

Date: 0/06/2022 Time: 19:00

Surveyor Name: Andrew Hahson

Package Description	Water Samples with <10 lb of <200 ppm Unat Soil
Package Destination	Pace Analytical 1673 Terra Avenue Sheridan, WY 82801

Unat Specific Activity
7.1e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm²
Beta: 240 dpm/cm²

Contents	<200 ppm Unat Soil	Exempt (Y/N)	N
Material Specific Activity	<1.42e-10 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<10 lb		
Contents Total Activity	<6.3e-7 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	8 µR/hr

Location	Gross	Net
Side 1	10	2 µR/hr
Side 2	11	3 µR/hr
Side 3	10	2 µR/hr
Side 4	10	2 µR/hr
Side 5	10	2 µR/hr
Side 6	10	2 µR/hr

Package Sketch

Package Surface Area (cm²) 11,232

Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	0
Beta/Gamma (cpm)	63
300 cm² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²		
Swipe 1	43	43	0.1	8	123	60	0.1	25	AM	Y
Swipe 2	24	24	0.1	4.5	103	40	0.1	16.7	AM	
			0.1				0.1			
			0.1				0.1			

Note: Wiped down thoroughly prior to release



Package Survey From

Date: 10/06/2022 Time: 19:00 Surveyor Name: Andrew Halverson

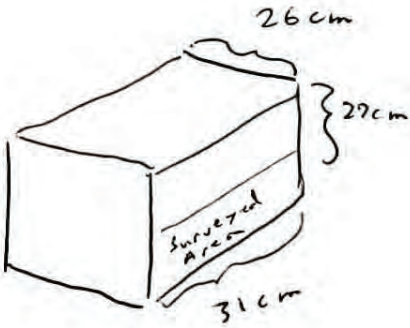
Package Description	<u>< 14 lb Unat soil with</u> <u>< 1500 ppm U concentration</u>
Package Destination	<u>Pure Analytical</u> <u>1673 Terra Avenue</u> <u>Sheridan, WY 82801</u>

Unat Specific Activity
7.1 e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm²
Beta: 240 dpm/cm²

Contents	<u>< 1500 ppm U nat soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u>< 1.07 e-9 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u>< 14 lb</u>		
Contents Total Activity	<u>< 6.5 e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>8 µR/hr</u>


Location	Gross	Net
Side 1	<u>20</u>	<u>12 µR/hr</u>
Side 2	<u>21</u>	<u>13 µR/hr</u>
Side 3	<u>32</u>	<u>24 µR/hr</u>
Side 4	<u>24</u>	<u>16 µR/hr</u>
Side 5	<u>8</u>	<u>—</u>
Side 6	<u>21</u>	<u>13 µR/hr</u>

Package Sketch

Package Surface Area [cm²] <u>4,690</u>

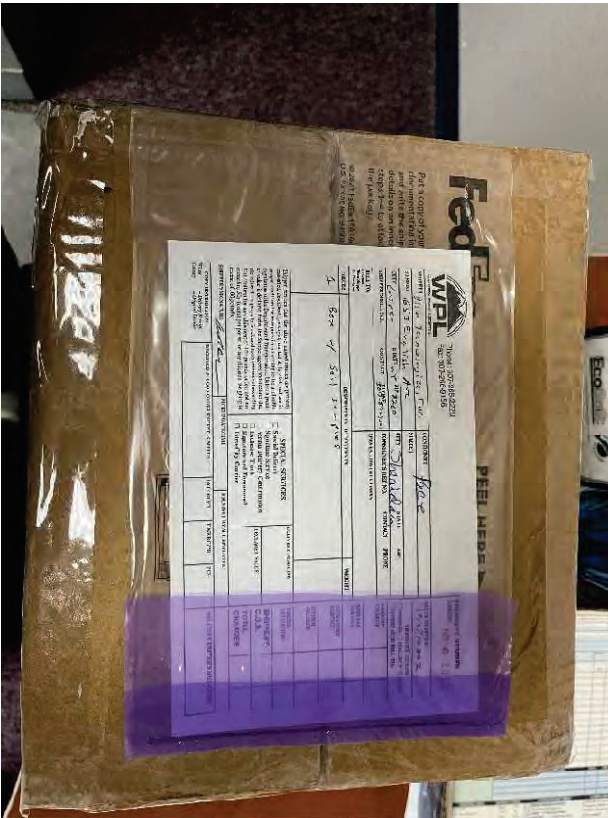
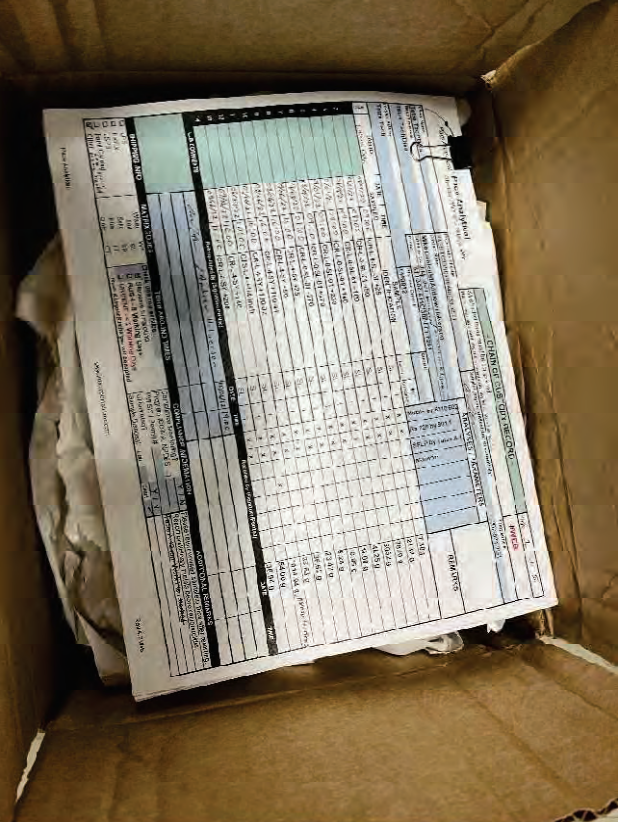
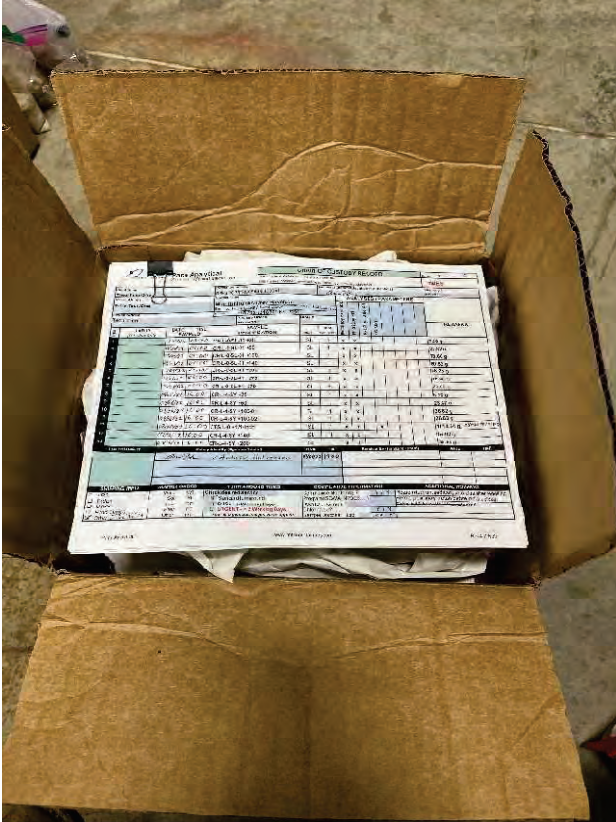
Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>61</u>
300 cm² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	Y
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²			
Swipe 1	4	4	0.1	0.8	67	6	0.1	2.5	AH	Released	
Swipe 2	3	3	0.1	0.6	52	—	0.1	—	AH		
			0.1				0.1			Date: 10/07/2022 Time: 08:10	
			0.1				0.1				









Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

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196822

Client Name Tetra Tech / Disa	Project Identification RAES TOSS/10365440035.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
Report Address Tetra Tech / Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / andrew.halverson@disa.wy.gov		
	Phone 510-302-6310 / 307-871-7291		
	Purchase Order # 1150922	Quote #	

Preservative Lot #
1:1 HNO₃: M-072722-2
1:2 H₂SO₄: Ciem 2-71-4
NaOH: Wet-3-40-1

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6019/6020	Total Ra-226 by 903.1	Total Ra-228 by 904.0	TDS by SM2540	TSS by SM2540	MS/MSD	REMARKS
1	52248140-001	10/05/22	17:00	SW-WT-01	WT	7	✓	✓	✓	✓	✓		Unfiltered
2	✓ 002	10/05/22	17:10	SW-WT-02	WT	21	✓	✓	✓	✓	✓	✓	Unfiltered, MS/MSD for Metals and Ra-226
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
13													
14													

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
2 coolers ROT 5.10 + 5.00	<i>Andrew Halverson</i> / Andrew Halverson	10/06/22	19:00	<i>[Signature]</i>	10/10/22	13:37
Roads = 500.42/H						

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier SecureDrop</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	Samples in two separate coolers. Soil samples for Bulk Analysis and SPLP in coolers as well.



Pace Analytical
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 1 of 1

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#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email					
		Phone 510-302-6310/307-871-7291		REMARKS			
		Purchase Order # 1150922					
		Quote #					

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	SPLP by Table A-12						
1	52210147-001	08/23/22	10:03	CR-L-0-SL-01	SL	1	x	x	x						703.33 g
2	002	08/23/22	10:32	CR-M-0-SL-01	SL	1	x	x	x						649.85 g
3	003	08/23/22	10:51	CR-H-0-SL-01	SL	1	x	x	x						796.62 g
4	004	08/26/22	10:00	QV-L-0-SL-01	SL	1	x	x	x						659.77 g
5	005	08/27/22	09:25	QV-M-0-SL-01	SL	1	x	x	x						721.82 g
6	006	8/27/22	12:00	QV-H-0-SL-01	SL	1	x	x	x						768.26 g
7	007	08/30/22	10:00	CTS-L-0-SL-01	SL	1	x	x	x						590.31 g
8	008	08/30/22	10:00	CTS-M-0-SL-01	SL	1	x	x	x						645.78 g
9	009	08/30/22	10:00	CTS-H-0-SL-01	SL	1	x	x	x						773.47 g
10	010	09/06/22	16:00	CR-L-4-SY Combined +25/+270	SL	1			x						413.27 g
11	011	09/07/22	14:00	CR-L-8-SY Combined +25/+270	SL	1			x						439.49 g
12	012	09/08/22	08:00	CR-L-30-SY Combined +25/+270	SL	1			x						425.64 g
13	013	09/09/22	10:00	CR-M-4-SY Combined +25/+270	SL	1			x						507.97 g
14	014	09/12/22	11:00	CR-M-8-SY Combined +25/+270	SL	1			x						622.34 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/06/22	19:00		10/10/22	13:32

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Sample Disposal: Lab	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached Samples in 2 separate coolers with SW-WT-01 and 3201014700202 samples

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.

² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).

* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service

GFPC Gas flow proportional counting

MCL Maximum contaminant level

MDC Minimum detectable concentration

NV No value

ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)

pCi/L Picocurie per liter

Scint Scintillation

SPLP Synthetic precipitation leaching procedure

USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."

U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.



Report Review Checklist

COC Review		Log Review
Information on COC matches that on report; spelling accurate.		Initials/Date: <u>WN 10/26/22</u>
1	Original COC attached, signed and dated.	<input checked="" type="checkbox"/>
2	Samples received within temperature	<input checked="" type="checkbox"/>
2	Parameters requested.	<input checked="" type="checkbox"/>
3	Client.	<input checked="" type="checkbox"/>
4	Report recipient/address.	<input checked="" type="checkbox"/>
5	Invoice recipient/address.	<input checked="" type="checkbox"/>
6	Project. Requested changes to Project must be communicated to Project Mgr.	<input checked="" type="checkbox"/>
7	Appropriate detection limits (RLs) assigned.	<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing. (circle)	Yes or No <input checked="" type="checkbox"/>
9	P. O. number.	<input checked="" type="checkbox"/>
10	Sample IDs.	<input checked="" type="checkbox"/>
11	Sample dates.	<input checked="" type="checkbox"/>
12	Date received.	<input checked="" type="checkbox"/>
13	Date due.	<input checked="" type="checkbox"/>
14	Matrix.	<input checked="" type="checkbox"/>
15	PWSID included for safe drinking water compliance samples.	NA
16	Field data entered appropriately (Log Review); matches lab data (Report Review).	NA
17	Special requests indicated in "Comments" section of Work Order summary.	<input checked="" type="checkbox"/>
18	All "No" responses on Condition Upon Receipt form have been resolved	Yes or No <input checked="" type="checkbox"/>

Data Review	Report Review	
1	Automated QC (Check Data button) review performed, discrepancies resolved.	<input checked="" type="checkbox"/>
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	<input checked="" type="checkbox"/>
3	Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.	<input checked="" type="checkbox"/>
4	Results compared to historical data if applicable.	NA
5	Analysis date and time.	<input checked="" type="checkbox"/>
6	Analytical method.	<input checked="" type="checkbox"/>
7	Appropriate detection limits (RLs) assigned.	<input checked="" type="checkbox"/>
8	Appropriate units of measure.	<input checked="" type="checkbox"/>
9	Analyst's initials.	<input checked="" type="checkbox"/>
10	Calculations checked?	<input checked="" type="checkbox"/>
11	Subcontracted analyses identified as such with qualifier or as attachment to lab report	NA
12	Subcontracted report reviewed	NA
13	Invoice parameters match those on COC.	<input checked="" type="checkbox"/>

Final Review		
1	Report appears complete and appropriate.	<input checked="" type="checkbox"/>
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.	<input checked="" type="checkbox"/>
3	All necessary qualifiers included in report.	<input checked="" type="checkbox"/>
4	Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.	<input checked="" type="checkbox"/>
5	Anomalies, including reason for report reissue, explained in Case Narrative.	<input checked="" type="checkbox"/>
6	Copies of report sent to all recipients requested on COC. (circle)	Copy to Regulator Hard Copy <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/>
7	All special requests listed on COC, or attached parameter list, honored.	<input checked="" type="checkbox"/>
8	Special report format per client request.	<input checked="" type="checkbox"/>
9	Report pages signed.	<input checked="" type="checkbox"/>


- CHAIN OF CUSTODY RECORD -

All shaded fields must be completed.

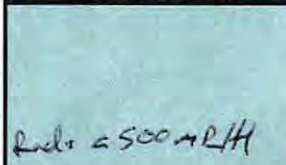
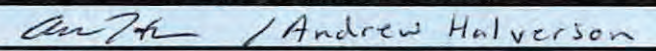
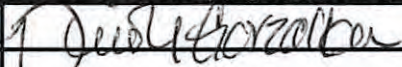
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Page 1 of 5

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD					REMARKS
1		09/09/22	09:00	CR-L-0-SL-01 +25	SL	1	x	x							7.30 g
2		09/09/22	09:00	CR-L-0-SL-01 +50	SL	1	x	x							21.82 g
3		09/09/22	09:00	CR-L-0-SL-01 +100	SL	1	x	x							78.60 g
4		09/09/22	09:00	CR-L-0-SL-01 +140	SL	1	x	x							60.52 g
5		09/09/22	09:00	CR-L-0-SL-01 +200	SL	1	x	x							48.25 g
6		09/09/22	09:00	CR-L-0-SL-01 +270	SL	1	x	x							19.00 g
7		09/09/22	09:00	CR-L-0-SL-01 -270	SL	1	x	x							76.85 g
8		09/06/22	16:00	CR-L-4-SY +25	SL	1	x	x							5.28 g
9		09/06/22	16:00	CR-L-4-SY +50	SL	1	x	x							23.47 g
10		09/06/22	16:00	CR-L-4-SY +100-01	SL	1	x	x							36.62 g
11		09/06/22	16:00	CR-L-4-SY +100-02	SL	1	x	x							36.63 g
12		03/30/22	10:00	CTS-L-0-+1/4-inch	SL	1	x	x		x					1014.94 g, MS/MSD for Metals
13		09/06/22	16:00	CR-L-4-SY +140	SL	1	x	x							54.00 g
14		09/06/22	16:00	CR-L-4-SY +200	SL	1	x	x							36.94 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	10/06/22	19:00		10-10-22	13:29

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291							
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <div> <div>Metals by 6010/602</div> <div>Ra 226 by 901.1</div> <div>SPLP by Table A-11</div> </div>									
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.com</i>											
Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		REMARKS							
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers							
1		09/06/22	16:00	CR-L-4-SY +270	SL	1	x	x					14.75 g
2		09/07/22	14:00	CR-L-8-SY +25	SL	1	x	x					4.11 g
3		09/07/22	14:00	CR-L-8-SY +50	SL	1	x	x					24.05 g
4		09/07/22	14:00	CR-L-8-SY +100	SL	1	x	x					79.07 g
5		09/07/22	14:00	CR-L-8-SY +140	SL	1	x	x					59.00 g
6		09/07/22	14:00	CR-L-8-SY +200	SL	1	x	x					38.87 g
7		09/07/22	14:00	CR-L-8-SY +270	SL	1	x	x					15.63 g
8		09/08/22	08:00	CR-L-30-SY +25	SL	1	x	x					3.71 g
9		09/08/22	08:00	CR-L-30-SY +50	SL	1	x	x					21.57 g
10		09/08/22	08:00	CR-L-30-SY +100	SL	1	x	x					74.76 g
11		09/08/22	08:00	CR-L-30-SY +140	SL	1	x	x					57.66 g
12		09/08/22	08:00	CR-L-30-SY +200	SL	1	x	x					39.60 g
13		09/08/22	08:00	CR-L-30-SY +270	SL	1	x	x					16.42 g
14		09/14/22	11:00	CR-M-0-SL-01 +25	SL	1	x	x					36.97 g
LAB COMMENTS		Relinquished By (Signature/Printed)		DATE	TIME	Received By (Signature/Printed)		DATE	TIME				
		<i>[Signature] / Andrew Halverson</i>		10/06/22	14:00	<i>[Signature]</i>		10-10-22	13:29				
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS					
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>secure dropoff</i>		Water WT Soil SL Solid SD Filter FT Other OT		Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>		Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>		Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached					



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291																	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <th>Metals by 6010/602</th> <th>Ra 226 by 901.1</th> <th>SPLP by Table A-1</th> <th>MS/MSD</th> <th></th> <th></th> <th></th> <th></th> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD												
Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD																				
Invoice Address Tetra Tech		Email mike.dahlquist@tetra-tech.com / a.halverson@disa.com		REMARKS 																			
Phone 510-302-6310/307-871-7291		Purchase Order # 1150922																					
Quote #																							

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD						
1		09/14/22	11:00	CR-M-0-SL-01 +50	SL	1	x	x								77.55 g
2		09/14/22	11:00	CR-M-0-SL-01 +100-01	SL	1	x	x								42.17 g
3		09/14/22	11:00	CR-M-0-SL-01 +100-02	SL	1	x	x								42.15 g
4		09/14/22	11:00	CR-M-0-SL-01 +140	SL	1	x	x								30.38 g
5		08/30/22	10:00	CTS-M-0-+1/4-inch	SL	1	x	x		x						1088.29 g, ms/msd to metals
6		09/14/22	11:00	CR-M-0-SL-01 +200	SL	1	x	x								20.85 g
7		09/14/22	11:00	CR-M-0-SL-01 +270	SL	1	x	x								9.44 g
8		09/14/22	11:00	CR-M-0-SL-01 -270	SL	1	x	x								56.16 g
9		09/09/22	10:00	CR-M-4-SY +25	SL	1	x	x								20.61 g
10		09/09/22	10:00	CR-M-4-SY +50	SL	1	x	x								92.38 g
11		09/09/22	10:00	CR-M-4-SY +100	SL	1	x	x								88.27 g
12		09/09/22	10:00	CR-M-4-SY +140	SL	1	x	x								28.45 g
13		09/09/22	10:00	CR-M-4-SY +200	SL	1	x	x								17.67 g
14		09/09/22	10:00	CR-M-4-SY +270	SL	1	x	x								7.86 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Andrew Halverson	10/06/22	14:00	Julie Gonzalez	10-10-22	13:29

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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- CHAIN OF CUSTODY RECORD -



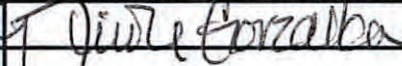
Page 4 of 5

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291									
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <td>Metals by 6010/602</td> <td>Ra 226 by 901.1</td> <td>SPLP by Table A-11</td> <td>MS/MSD</td> <td></td> <td></td> <td></td> <td></td> </tr> </table>				Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-11	MS/MSD				
Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-11	MS/MSD												
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>													
Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		REMARKS									
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers									
1		09/12/22	11:00	CR-M-8-SY +25	SL	1	x	x						41.31 g	
2		09/12/22	11:00	CR-M-8-SY +50	SL	1	x	x						123.38 g	
3		09/12/22	11:00	CR-M-8-SY +100	SL	1	x	x						102.63 g	
4		09/12/22	11:00	CR-M-8-SY +140	SL	1	x	x						31.43 g	
5		09/12/22	11:00	CR-M-8-SY +200	SL	1	x	x						19.17 g	
6		09/12/22	11:00	CR-M-8-SY +270	SL	1	x	x						8.90 g	
7		09/13/22	15:00	CR-M-30-SY +25	SL	1	x	x						25.11 g	
8		09/13/22	15:00	CR-M-30-SY +50	SL	1	x	x						92.89 g	
9		09/13/22	15:00	CR-M-30-SY +100-01	SL	1	x	x						46.66 g	
10		09/13/22	15:00	CR-M-30-SY +100-02	SL	1	x	x						46.66 g	
11		08/30/22	10:00	CTS-H-0+1/4 inch Bulk Assay	SL	1	x	x			x			1014.94 g, MS/MSD for Metals	
12		09/13/22	15:00	CR-M-30-SY +140	SL	1	x	x						30.09g	
13		09/13/22	15:00	CR-M-30-SY +200	SL	1	x	x						19.87 g	
14		09/13/22	15:00	CR-M-30-SY +270	SL	1	x	x						8.92 g	
LAB COMMENTS		Relinquished By (Signature/Printed) <i>Andrew Halverson</i>			DATE 10/06/22	TIME 19:00	Received By (Signature/Printed) <i>Judith Forzetta</i>			DATE 10-10-22	TIME 13:29				
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS							
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier 3 ctns + drop off</i>		Water WT Soil SL Solid SD Filter FT Other OT		Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>		Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>		Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached-							

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291										
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS												
Invoice Address Tetra Tech		Email <u>mike.dahlquist@tetratech.com / a.halverson@disa.com</u>														
		Phone 510-302-6310/307-871-7291														
		Purchase Order # 1150922														
		Quote #		REMARKS												
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	SPLP by Table A-1	MS/MSD						
1		09/19/22	17:00	CR-H-0-SL-01 +25	SL	1	x	x								83.60 g
2		09/19/22	17:00	CR-H-0-SL-01 +50	SL	1	x	x								139.19 g
3		09/19/22	17:00	CR-H-0-SL-01 +100	SL	1	x	x								92.25 g
4		09/19/22	17:00	CR-H-0-SL-01 +140	SL	1	x	x								21.13 g
5		09/19/22	17:00	CR-H-0-SL-01 +200	SL	1	x	x								14.87 g
6		09/19/22	17:00	CR-H-0-SL-01 +270	SL	1	x	x								9.19 g
7		09/19/22	17:00	CR-H-0-SL-01 -270	SL	1	x	x								71.97 g
8		09/15/22	13:30	CR-H-4-SY +25	SL	1	x	x								84.54 g
9		09/15/22	13:30	CR-H-4-SY +50	SL	1	x	x								172.04 g
10		09/15/22	13:30	CR-H-4-SY +100	SL	1	x	x								98.72 g
11		09/15/22	13:30	CR-H-4-SY +140	SL	1	x	x								18.56 g
12		09/15/22	13:30	CR-H-4-SY +200	SL	1	x	x								11.58 g
13		09/15/22	13:30	CR-H-4-SY +270	SL	1	x	x								6.08 g
14																
LAB COMMENTS		Relinquished By (Signature/Printed)				DATE	TIME	Received By (Signature/Printed)				DATE	TIME			
						10/06/22	19:00					10-10-22	13:29			
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS						
<input type="checkbox"/> UPS		Water WT		Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting.						
<input type="checkbox"/> FedEx		Soil SL		<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.						
<input type="checkbox"/> USPS		Solid SD		<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				Table A-12 from Work Plan attached						
<input type="checkbox"/> Hand Carried		Filter FT		<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N										
<input checked="" type="checkbox"/> Other <i>Lab courier see note dropoff</i>		Other OT		Rush & Urgent Surcharges will be applied		Sample Disposal: Lab Client <input checked="" type="checkbox"/>										

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226
3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226

4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226

9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226

9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140 mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226



Report Review Checklist

		Log Review
COC Review	Information on COC matches that on report; spelling accurate.	Initials/Date: <u>WN 10/31/22</u>
1	Original COC attached, signed and dated.	<input checked="" type="checkbox"/>
2	Samples received within temperature	<input checked="" type="checkbox"/>
2	Parameters requested.	<input checked="" type="checkbox"/>
3	Client.	<input checked="" type="checkbox"/>
4	Report recipient/address.	<input checked="" type="checkbox"/>
5	Invoice recipient/address.	<input checked="" type="checkbox"/>
6	Project. Requested changes to Project must be communicated to Project Mgr.	<input checked="" type="checkbox"/>
7	Appropriate detection limits (RLs) assigned.	<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing. (circle)	Yes or No <input checked="" type="checkbox"/>
9	P. O. number.	<input checked="" type="checkbox"/>
10	Sample IDs.	<input checked="" type="checkbox"/>
11	Sample dates.	<input checked="" type="checkbox"/>
12	Date received.	<input checked="" type="checkbox"/>
13	Date due.	<input checked="" type="checkbox"/>
14	Matrix.	<input checked="" type="checkbox"/>
15	PWSID included for safe drinking water compliance samples.	NA
16	Field data entered appropriately (Log Review); matches lab data (Report Review).	NA
17	Special requests indicated in "Comments" section of Work Order summary.	<input checked="" type="checkbox"/>
18	All "No" responses on Condition Upon Receipt form have been resolved	Yes or No <input checked="" type="checkbox"/>
Data Review		Report Review
1	Automated QC (Check Data button) review performed, discrepancies resolved.	<input checked="" type="checkbox"/>
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	<input checked="" type="checkbox"/>
3	Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.	<input checked="" type="checkbox"/>
4	Results compared to historical data if applicable.	NA
5	Analysis date and time.	<input checked="" type="checkbox"/>
6	Analytical method.	<input checked="" type="checkbox"/>
7	Appropriate detection limits (RLs) assigned.	<input checked="" type="checkbox"/>
8	Appropriate units of measure.	<input checked="" type="checkbox"/>
9	Analyst's initials.	<input checked="" type="checkbox"/>
10	Calculations checked?	<input checked="" type="checkbox"/>
11	Subcontracted analyses identified as such with qualifier or as attachment to lab report	NA
12	Subcontracted report reviewed	NA
13	Invoice parameters match those on COC.	<input checked="" type="checkbox"/>
Final Review		
1	Report appears complete and appropriate.	<input checked="" type="checkbox"/>
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.	<input checked="" type="checkbox"/>
3	All necessary qualifiers included in report.	<input checked="" type="checkbox"/>
4	Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.	<input checked="" type="checkbox"/>
5	Anomalies, including reason for report reissue, explained in Case Narrative.	<input checked="" type="checkbox"/>
6	Copies of report sent to all recipients requested on COC. (circle)	Copy to Regulator Hard Copy <input checked="" type="checkbox"/> Email <input checked="" type="checkbox"/>
7	All special requests listed on COC, or attached parameter list, honored.	<input checked="" type="checkbox"/>
8	Special report format per client request.	<input checked="" type="checkbox"/>
9	Report pages signed.	<input checked="" type="checkbox"/>

- CHAIN OF CUSTODY RECORD -

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All shaded fields must be completed.

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#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
						REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							
1		08/17/22	16:00	CR-H-8-SY +25	SL	1	x	x								95.13 g
2		09/17/22	16:00	CR-H-8-SY +50-01	SL	1	x	x								82.39 g
3		09/17/22	16:00	CR-H-8-SY +50-02	SL	1	x	x								82.38 g
4		08/24/22	12:00	CR-H-0-KY	SL	1	x	x	x							713.58 g, <i>ms/msd for Metals</i>
5		09/17/22	16:00	CR-H-8-SY +100	SL	1	x	x								92.59 g
6		09/17/22	16:00	CR-H-8-SY +140	SL	1	x	x								18.00 g
7		09/17/22	16:00	CR-H-8-SY +200	SL	1	x	x								11.00 g
8		09/17/22	16:00	CR-H-8-SY +270	SL	1	x	x								6.02 g
9		09/19/22	11:40	CR-H-30-SY +25	SL	1	x	x								37.25 g
10		09/19/22	11:40	CR-H-30-SY +50	SL	1	x	x								126.37 g
11		09/19/22	11:40	CR-H-30-SY +100	SL	1	x	x								92.15 g
12		09/19/22	11:40	CR-H-30-SY +140	SL	1	x	x								20.03 g
13		09/19/22	11:40	CR-H-30-SY +200	SL	1	x	x								12.67 g
14		09/19/22	11:40	CR-H-30-SY +270	SL	1	x	x								7.24 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i>	10/10/22	12:20			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ? Y / N		Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N				
<input checked="" type="checkbox"/> Other <i>Secure bag out</i>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>		Sample Disposal: Lab		Client <input checked="" type="checkbox"/>		



- CHAIN OF CUSTODY RECORD -

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#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							REMARKS
1		09/29/22	18:30	QV-L-0-SL-01 +25	SL	1	x	x								52.30 g
2		09/29/22	18:30	QV-L-0-SL-01 +50	SL	1	x	x								89.67 g
3		09/29/22	18:30	QV-L-0-SL-01 +100	SL	1	x	x								102.86 g
4		09/29/22	18:30	QV-L-0-SL-01 +140	SL	1	x	x								30.44 g
5		09/29/22	18:30	QV-L-0-SL-01 +200	SL	1	x	x								15.33 g
6		09/29/22	18:30	QV-L-0-SL-01 +270	SL	1	x	x								8.67 g
7		09/29/22	18:30	QV-L-0-SL-01 -270	SL	1	x	x								68.72 g
8		09/20/22	10:00	QV-L-4-SY +25	SL	1	x	x								22.90 g
9		09/20/22	10:00	QV-L-4-SY +50-01	SL	1	x	x								43.06 g
10		09/20/22	10:00	QV-L-4-SY +50-02	SL	1	x	x								43.06 g
11		09/20/22	10:00	QV-L-4-SY +100	SL	1	x	x	x							90.47 g, ms/msd for metals
12		09/20/22	10:00	QV-L-4-SY +140	SL	1	x	x								26.36 g
13		09/20/22	10:00	QV-L-4-SY +200	SL	1	x	x								12.40 g
14		09/20/22	10:00	QV-L-4-SY +270	SL	1	x	x								5.66 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	<input checked="" type="checkbox"/> Check desired service	Compliance Monitoring ? <u>Y / N</u>		Please return unused sample to Disa after reporting.			
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.			
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #					
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated? <u>Y / N</u>					
<input checked="" type="checkbox"/> Other <small>Lab carrier secure dropoff</small>	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>	Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>					

- CHAIN OF CUSTODY RECORD -

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#WEB

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / ahalverson@disa.wy.gov</i>		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							REMARKS
1		09/28/22	13:00	QV-L-8-SY +25	SL	1	x	x								37.62 g
2		09/28/22	13:00	QV-L-8-SY +50	SL	1	x	x								119.26 g
3		09/28/22	13:00	QV-L-8-SY +100	SL	1	x	x								119.94 g
4		09/28/22	13:00	QV-L-8-SY +140	SL	1	x	x								33.19 g
5		09/28/22	13:00	QV-L-8-SY +200	SL	1	x	x								15.46 g
6		09/28/22	13:00	QV-L-8-SY +270	SL	1	x	x								7.53 g
7		09/29/22	08:00	QV-L-30-SY +25	SL	1	x	x								30.09 g
8		09/29/22	08:00	QV-L-30-SY +50	SL	1	x	x								105.42 g
9		09/29/22	08:00	QV-L-30-SY +100	SL	1	x	x								117.69 g
10		09/29/22	08:00	QV-L-30-SY +140	SL	1	x	x								34.22 g
11		09/29/22	08:00	QV-L-30-SY +200	SL	1	x	x								16.76 g
12		09/29/22	08:00	QV-L-30-SY +270	SL	1	x	x								7.79 g
13		09/30/22	12:30	QV-M-4-SY +25	SL	1	x	x								81.35 g
14		09/30/22	12:30	QV-M-4-SY +50	SL	1	x	x	x							149.59 g <i>MS/MSD for Metals</i>

LAB COMMENTS

Relinquished By (Signature/Printed)

DATE

TIME

Received By (Signature/Printed)

DATE

TIME

	<i>Andrew Halverson</i>	10/10/22	12:20													

SHIPPING INFO

MATRIX CODES

TURN AROUND TIMES

COMPLIANCE INFORMATION

ADDITIONAL REMARKS

<input type="checkbox"/> UPS	Water	WT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides.
<input type="checkbox"/> FedEx	Soil	SL		Program (SDWA, NPDES,...)		
<input type="checkbox"/> USPS	Solid	SD		PWSID / Permit #		
<input type="checkbox"/> Hand Carried	Filter	FT		Chlorinated?	Y / N	
<input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Other	OT		Sample Disposal: Lab	Client <input checked="" type="checkbox"/>	

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01				Sampler (Signature/Attestation of Authenticity) <i>an</i>				#WED Telephone # 307-871-7291					
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson				ANALYSES / PARAMETERS								REMARKS	
Invoice Address Tetra Tech		Email <i>mikedahlquist@tetratech.com/andrew.halverson@disa.usa.com</i>													
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #									
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD						
1		09/30/22	12:30	QV-M-4-SY +100-01	SL	1	x	x							53.24 g
2		09/30/22	12:30	QV-M-4-SY +100-02	SL	1	x	x							53.24 g
3		09/30/22	12:30	QV-M-4-SY +140	SL	1	x	x							23.34 g
4		09/30/22	12:30	QV-M-4-SY +200	SL	1	x	x							11.09 g
5		09/30/22	12:30	QV-M-4-SY +270	SL	1	x	x							5.88 g
6		10/02/22	12:30	QV-M-0-SL-01 +25	SL	1	x	x							56.49 g
7		10/02/22	12:30	QV-M-0-SL-01 +50	SL	1	x	x							114.89 g
8		10/02/22	12:30	QV-M-0-SL-01 +100	SL	1	x	x							87.26 g
9		10/02/22	12:30	QV-M-0-SL-01 +140	SL	1	x	x							25.76 g
10		10/02/22	12:30	QV-M-0-SL-01 +200	SL	1	x	x							12.46 g
11		10/02/22	12:30	QV-M-0-SL-01 +270	SL	1	x	x							8.06 g
12		10/02/22	12:30	QV-M-0-SL-01 -270	SL	1	x	x							74.87 g
13		09/30/22	21:00	QV-M-8-SY +25	SL	1	x	x							64.92 g
14		09/30/22	21:00	QV-M-8-SY +50	SL	1	x	x							157.33 g
LAB COMMENTS		Relinquished By (Signature/Printed) <i>an</i> / Andrew Halverson				DATE 10/10/22	TIME 12:20	Received By (Signature/Printed)				DATE	TIME		
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS					
<input type="checkbox"/> UPS		Water	WT	Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting					
<input type="checkbox"/> FedEx		Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.					
<input type="checkbox"/> USPS		Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #									
<input type="checkbox"/> Hand Carried		Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N									
<input checked="" type="checkbox"/> Other <i>lab courier secure dropoff</i>		Other	OT	Rush & Urgent Surcharges will be applied		Sample Disposal: Lab Client <input checked="" type="checkbox"/>									

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#WEB

Client Name		Project Identification				Sampler (Signature/Attestation of Authenticity)				Telephone #				
Tetra Tech/Disa		RAES TO33/103G5440033.03.01								307-871-7291				
Report Address		Contact Name				ANALYSES / PARAMETERS								
Tetra Tech/Disa		Mike Dahlquist/Andrew Halverson												
Invoice Address		Email <u>mike.dahlquist@tetratech.com / a.halverson@disausa.com</u>												
Tetra Tech		Phone <u>510-302-6310/307-871-7291</u>												
		Purchase Order #		Quote #										
		1150922												
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD					REMARKS
1		09/30/22	21:00	QV-M-8-SY +100	SL	1	x	x						115.67 g
2		09/30/22	21:00	QV-M-8-SY +140	SL	1	x	x						25.22 g
3		09/30/22	21:00	QV-M-8-SY +200	SL	1	x	x						12.35 g
4		09/30/22	21:00	QV-M-8-SY +270	SL	1	x	x						6.22 g
5		10/01/22	18:30	QV-M-30-SY +25	SL	1	x	x						41.91 g
6		10/01/22	18:30	QV-M-30-SY +50	SL	1	x	x	X					130.72 g MS/MSD for Metals
7		10/01/22	18:30	QV-M-30-SY +100-01	SL	1	x	x						53.37 g
8		10/01/22	18:30	QV-M-30-SY +100-02	SL	1	x	x						53.36 g
9		10/01/22	18:30	QV-M-30-SY +140	SL	1	x	x						26.36 g
10		10/01/22	18:30	QV-M-30-SY +200	SL	1	x	x						13.68 g
11		10/01/22	18:30	QV-M-30-SY +270	SL	1	x	x						7.21 g
12		10/02/22	17:00	QV-H-4-SY +25	SL	1	x	x						101.55 g
13		10/02/22	17:00	QV-H-4-SY +50	SL	1	x	x						224.51 g
14		10/02/22	17:00	QV-H-4-SY +100	SL	1	x	x						147.85 g
LAB COMMENTS		Relinquished By (Signature/Printed)				DATE	TIME	Received By (Signature/Printed)				DATE	TIME	
		 / Andrew Halverson				10/10/22	12:20							
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS				
<input type="checkbox"/> UPS		Water	WT	Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting.				
<input type="checkbox"/> FedEx		Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.				
<input type="checkbox"/> USPS		Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #								
<input type="checkbox"/> Hand Carried		Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N								
<input checked="" type="checkbox"/> Other <u>Lab to user, secure dropoff</u>		Other	OT	<u>Rush & Urgent Surcharges will be applied</u>		Sample Disposal: Lab Client <input checked="" type="checkbox"/>								

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <div>Metals by 6010/6020</div> <div>Ra 226 by 901.1</div> <div>MS/MSD</div>			
Invoice Address Tetra Tech		Email mike.dahlquist@tetra-tech.com / a.halverson@disaarsa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
				REMARKS			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							
1		10/02/22	17:00	QV-H-4-SY +140	SL	1	x	x								30.38 g
2		10/02/22	17:00	QV-H-4-SY +200	SL	1	x	x								14.50 g
3		10/02/22	17:00	QV-H-4-SY +270	SL	1	x	x								6.64 g
4		10/04/22	12:00	QV-H-0-SL-01 +25	SL	1	x	x								57.53 g
5		10/04/22	12:00	QV-H-0-SL-01 +50	SL	1	x	x								109.53 g
6		10/04/22	12:00	QV-H-0-SL-01 +100	SL	1	x	x								98.59 g
7		10/04/22	12:00	QV-H-0-SL-01 +140	SL	1	x	x								24.54 g
8		10/04/22	12:00	QV-H-0-SL-01 +200	SL	1	x	x								12.01 g
9		10/04/22	12:00	QV-H-0-SL-01 +270	SL	1	x	x								7.35 g
10		10/04/22	12:00	QV-H-0-SL-01 -270	SL	1	x	x								72.37 g
11		10/03/22	21:20	QV-H-30-SY +25	SL	1	x	x								61.80 g
12		10/03/22	21:20	QV-H-30-SY +50	SL	1	x	x	x							165.49 g MS/MSD for metals
13		10/03/22	21:20	QV-H-30-SY +100-01	SL	1	x	x								65.97 g
14		10/03/22	21:20	QV-H-30-SY +100-02	SL	1	x	x								65.97 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <small>Lab Courier secure dropoff</small>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides.

- CHAIN OF CUSTODY RECORD -

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Telephone #
307-871-7291

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS	
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetra-tech.com / a.halverson@disausa.com</i>			
		Phone 510-302-6310/307-871-7291			
		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							REMARKS
1		10/03/22	21:20	QV-H-30-SY +140	SL	1	x	x								32.71 g
2		10/03/22	21:20	QV-H-30-SY +200	SL	1	x	x								16.32 g
3		10/03/22	21:20	QV-H-30-SY +270	SL	1	x	x								7.74 g
4		10/03/22	14:40	QV-H-8-SY +25	SL	1	x	x								89.94 g
5		10/03/22	14:40	QV-H-8-SY +50	SL	1	x	x								216.80 g
6		10/03/22	14:40	QV-H-8-SY +100	SL	1	x	x								151.40 g
7		10/03/22	14:40	QV-H-8-SY +140	SL	1	x	x								32.08 g
8		10/03/22	14:40	QV-H-8-SY +200	SL	1	x	x								15.06 g
9		10/03/22	14:40	QV-H-8-SY +270	SL	1	x	x								7.21 g
10																
11																
12																
13																
14																

LAB COMMENTS

Relinquished By (Signature/Printed)

DATE TIME

Received By (Signature/Printed)

DATE

TIME

	<i>Andrew Halverson</i>	10/10/22	12:20						

SHIPPING INFO

MATRIX CODES

TURN AROUND TIMES

COMPLIANCE INFORMATION

ADDITIONAL REMARKS

<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure drop off</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides.
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Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -Page **1** of **2**

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Client Name Tetra Tech/Disa		Project Identification RAES T037/1036544 0033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS Preservative Lot # 1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com/a.halverson@disa.com					
		Phone 510-362-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total RA 226 by 903.1	Total RA 228 by 904.0	Dissolved RA 226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1		10/05/22	10:00	CTS-L-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2		10/05/22	16:30	CTS-L-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3		10/06/22	16:41	CTS-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:05			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other Secure Dropoff	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	In 2 separate coolers. For Unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis. Soil samples w/ CTS-L-30-WT in cooler.



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD								REMARKS
1		09/13/22	15:00	CR-M-30-SY Combined +25/+270	SL	1	x	x									537.61 g
2		09/15/22	13:30	CR-H-4-SY Combined +25/+270	SL	1	x	x	x								780.85 g
3		09/17/22	16:00	CR-H-8-SY Combined +25/+270-01	SL	1	x	x									388.24 g
4		09/17/22	16:00	CR-H-8-SY Combined +25/+270-02	SL	1	x	x									383.75 g
5		09/19/22	11:40	CR-H-30-SY Combined +25/+270	SL	1	x	x									589.73 g
6		09/20/22	10:00	QV-L-4-SY Combined +25/+270	SL	1	x	x									485.89 g
7		09/28/22	13:00	QV-L-8-SY Combined +25/+270	SL	1	x	x									662.81 g
8		09/29/22	08:00	QV-L-30-SY Combined +25/+270	SL	1	x	x									619.92 g
9		09/30/22	12:30	QV-M-4-SY Combined +25/+270	SL	1	x	x									753.70 g
10		09/30/22	21:00	QV-M-8-SY Combined +25/+270	SL	1	x	x									759.64 g
11		10/01/22	18:30	QV-M-30-SY Combined +25/+270	SL	1	x	x									650.64 g
12		10/02/22	17:00	QV-H-4-SY Combined +25/+270	SL	1	x	x									1048.37 g
13																	
14																	

LAB COMMENTS

Relinquished By (Signature/Printed)

DATE

TIME

Received By (Signature/Printed)

DATE

TIME

/ Andrew Halverson

10/10/22 12:05

SHIPPING INFO

MATRIX CODES

TURN AROUND TIMES

COMPLIANCE INFORMATION

ADDITIONAL REMARKS

- ☐ UPS
☐ FedEx
☐ USPS
☐ Hand Carried
☒ Other *by courier so we drop off*

Water WT
Soil SL
Solid SD
Filter FT
Other OT

- Check desired service**
☒ Standard turnaround
☐ RUSH - 5 Working Days
☐ URGENT - < 2 Working Days
Rush & Urgent Surcharges will be applied

Compliance Monitoring ? **Y / N**
Program (SDWA, NPDES,...)
PWSID / Permit #
Chlorinated? **Y / N**
Sample Disposal: Lab Client ☒

Please return unused sample to Disa after reporting.
Report preliminary metals before radionuclides.
Table A-12 and A-13 from Work Plan attached

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.

² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).

* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service

GFPC Gas flow proportional counting

MCL Maximum contaminant level

MDC Minimum detectable concentration

NV No value

ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)

pCi/L Picocurie per liter

Scint Scintillation

SPLP Synthetic precipitation leaching procedure

USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."

U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.



Package Survey From

Date: 10/10/22 Time: 13:00 Surveyor Name: Andrew Halverson

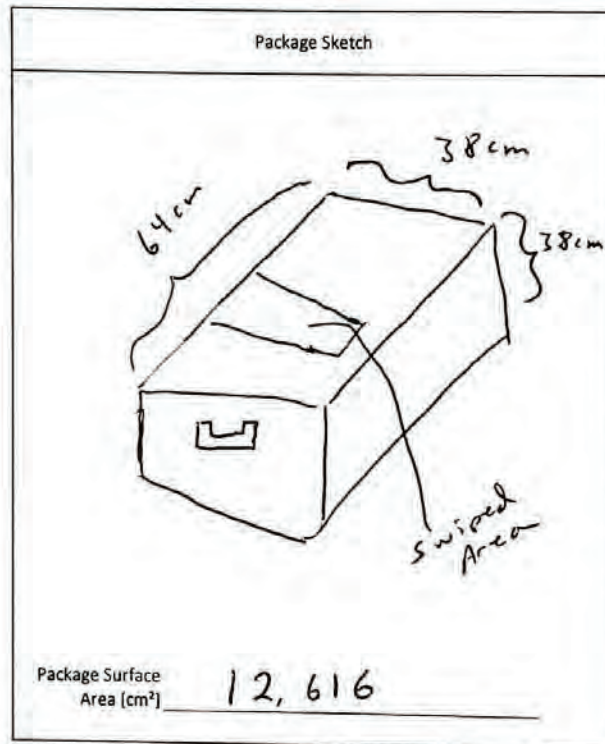
Package Description	<u>Cooler with water and <17 lb of <1500 ppm Unat soil</u>
Package Destination	<u>Pace Labs</u> <u>1673 Terra Avenue</u> <u>Sheridan, WY 82801</u>

Unat Specific Activity
7.1 e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm ²
Beta: 240 dpm/cm ²

Contents	<u><1500 ppm Unat soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u><1.07e-9 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u><17 lb</u>		
Contents Total Activity	<u><8.2e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>8 µR/hr</u>

Location	Gross	Net
Side 1	<u>11</u>	<u>3 µR/hr</u>
Side 2	<u>13</u>	<u>5 µR/hr</u>
Side 3	<u>12</u>	<u>4 µR/hr</u>
Side 4	<u>13</u>	<u>5 µR/hr</u>
Side 5	<u>10</u>	<u>2 µR/hr</u>
Side 6	<u>12</u>	<u>4 µR/hr</u>



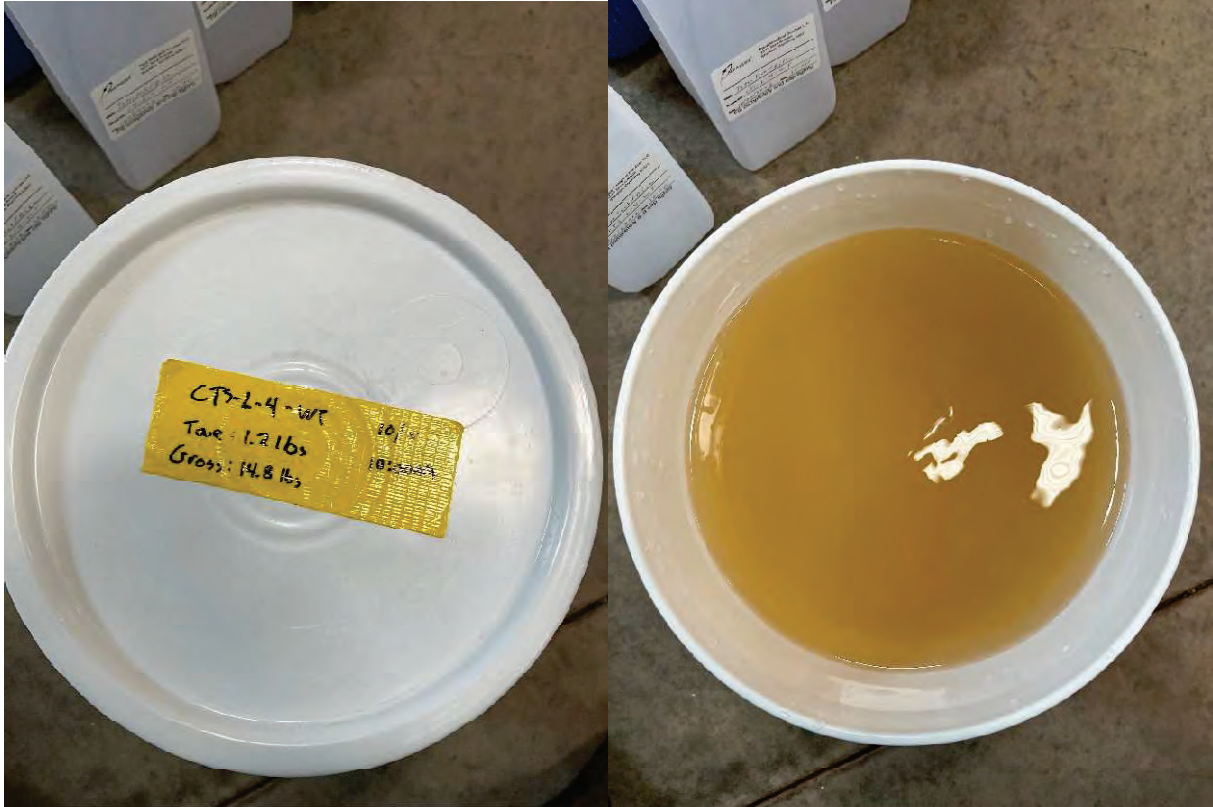
Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PR215938</u>
Cal Due Date	<u>06/27/2023</u>

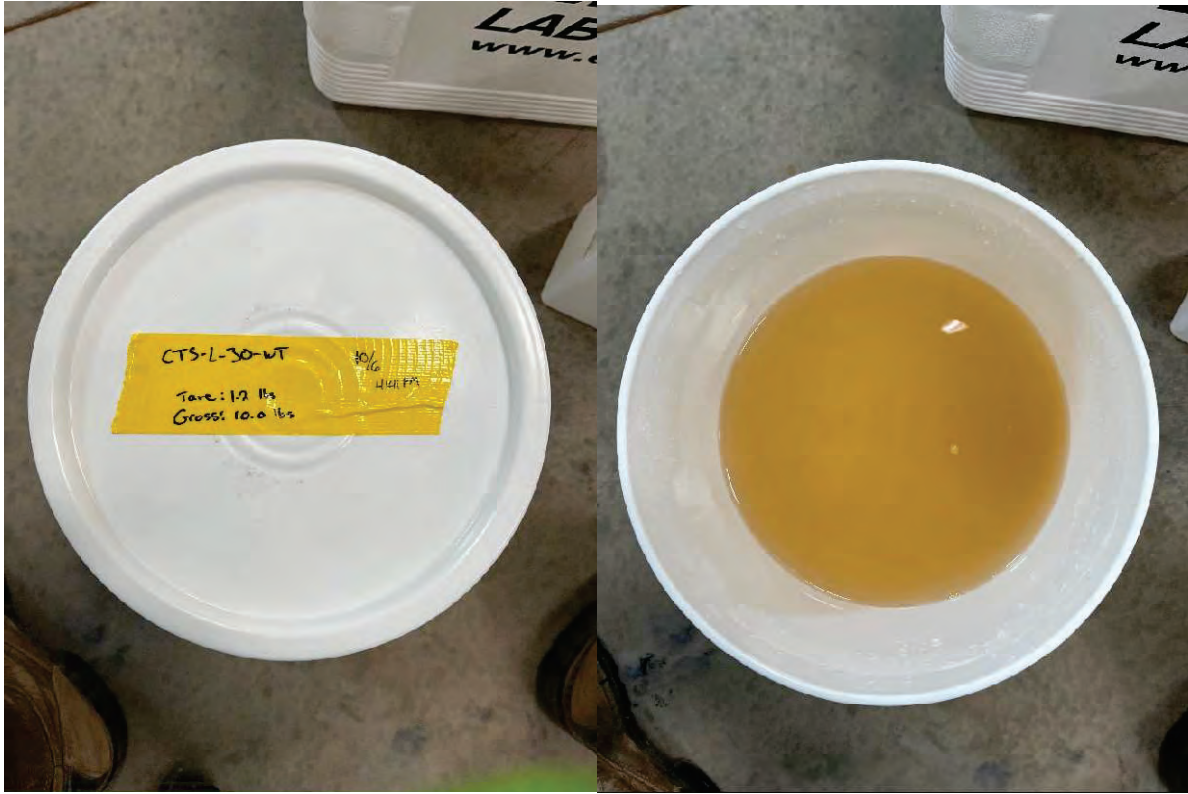
FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>64</u>
300 cm ² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm ²		
Swipe 1	<u>4</u>	<u>4</u>	<u>0.1</u>	<u>0.8</u>	<u>82</u>	<u>18</u>	<u>0.1</u>	<u>7.5</u>	<u>AM</u>	<u>Auth</u> Surveyor Signature: Released Date: <u>10/10/2022</u> Time: <u>13:30</u>
Swipe 2	<u>9</u>	<u>9</u>	<u>0.1</u>	<u>1.7</u>	<u>81</u>	<u>17</u>	<u>0.1</u>	<u>7.1</u>	<u>AM</u>	
Swipe 3	<u>5</u>	<u>5</u>	<u>0.1</u>	<u>0.94</u>	<u>48</u>	<u>-</u>	<u>0.1</u>	<u>-</u>	<u>AM</u>	
			<u>0.1</u>				<u>0.1</u>			

Note: Cooler wiped down and 3rd swipe taken









FedEx

Put a copy of this document in the package and write the details on air waybill steps 1-4 to the package

© 2021 FedEx U.S. Patent No. 7,811,111

WPL Phone: 307-266-2229 Fax: 307-266-9156

SHIPPER **Pink Technologies, Inc** CONSIGNEE **Pace**

STREET **1658 English Ave** STREET

CITY **Cooper** STATE **WY** ZIP **82401** CITY **Shirley** STATE ZIP

SHIPPER'S REF. NO. CONTACT PHONE **307-371-9241** CONSIGNEE'S REF. NO. CONTACT PHONE

BILL TO: (If Other Than Shipper Or Consignee) SPECIAL INSTRUCTIONS

PIECES	DESCRIPTION OF CONTENTS	WEIGHT
1	cooler with water and soil samples	

Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees to declare that the value of the property is not in excess of \$100 (dollars) for any shipment of 100 pounds or less and not exceeding \$60 (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES

☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier

DELIVERY DEADLINE

DECLARED VALUE

SHIPPER'S SIGNATURE *[Signature]* **PICKUP DATE/TIME** **STAMPED BY AGC EMPLOYEE**

COPY DISTRIBUTION
 White - Delivery Receipt
 Green - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED **DATE RECEIVED** **TIME RECEIVED** **PCS**

SHIPMENT NUMBER **ORIGIN** **NYC 3305**

DATE SHIPPED **10/05/2021**

☐ PREPARED BY SHIPPER
☐ OTHER

SPECIAL SERVICE

SIGNATURE SERVICE

OTHER CHARGE

EXCESS VALUATION

SHIPPER'S C.O.D.

TOTAL CHARGES

DELIVERY DESTINATION



Phone: 307-266-2229
Fax: 307-266-9156

WPL
WATERPROOF PAPER LITERATURE

SHIPPER: D. J. Technologies, Inc. CONSIGNEE: Rece
STREET: 1653 English Ave STREET:
CITY: Casper STATE: WY ZIP: 82601 CITY: Shenando STATE: ZIP:
SHIPPER'S REF. NO. CONTACT PHONE: 307-871-9291 CONSIGNEE'S REF. NO. CONTACT PHONE:
BILL TO:
(If Other Than Shipper)
SPECIAL INSTRUCTIONS:
PIECES: DESCRIPTION OF CONTENTS: WEIGHT:
1 Cooler with water samples
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.
SPECIAL SERVICES:
☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier
DELIVERY DEADLINE:
DECLARED VALUE:
SHIPPER'S SIGNATURE: [Signature] PICKUP DATE/TIME: RECEIVED BY ACC EMPLOYEE:
COPY DISTRIBUTION:
White - Delivery Receipt
Canary - Original Invoice
RECEIVED IN GOOD ORDER EXCEPT AS NOTED DATE RCY'D TIME RCY'D PCS
SHIPMENT NUMBER:
ORIGIN: NB C 2301
DATE SHIPPED: 10/10/01
FREIGHT CLASS:
PREPAID CARRIER:
CARRIER'S REFERENCE:
CARRIER'S NAME:
CARRIER'S PHONE:
CARRIER'S ADDRESS:
CARRIER'S CITY:
CARRIER'S STATE:
CARRIER'S ZIP:
CARRIER'S COUNTRY:
SHIPPER'S C.O.D.
TOTAL CHARGES:
DELIVERY PREPARE'S SIGNATURE:













Pace Analytical

Pace Analytical Services, LLC

Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 1 of 2

All shaded fields must be completed.

This is a legal document: any misrepresentation may be construed as fraud.

196825

Client Name Tetra Tech/Disa		Project Identification RAFS T033/ 2036544 0033.03.01		Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>		Telephone # 307-871-7291								
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <td>Total Metals by 6010/6020</td> <td>Dissolved Metals by 6010/6020</td> <td>Total Rn 226 by 903.1</td> <td>Total Rn 228 by 904.0</td> <td>Dissolved Rn 222 by 903.1</td> <td>TDS by SM2540</td> <td>TSS by SM2540</td> </tr> </table>				Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Rn 226 by 903.1	Total Rn 228 by 904.0	Dissolved Rn 222 by 903.1	TDS by SM2540	TSS by SM2540
Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Rn 226 by 903.1	Total Rn 228 by 904.0					Dissolved Rn 222 by 903.1	TDS by SM2540	TSS by SM2540				
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.com		Phone 510-302-6310 / 307-871-7291		Preservative Lot # 1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1								
		Purchase Order # 1150922		Quote #		REMARKS								

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Rn 226 by 903.1	Total Rn 228 by 904.0	Dissolved Rn 222 by 903.1	TDS by SM2540	TSS by SM2540	REMARKS
1	52210167-001	10/05/22	10:00	CTS-L-4-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
2	002	10/05/22	16:30	CTS-L-8-WT	WT	7	✓		✓	✓		✓	✓	Unfiltered
3	003	10/06/22	16:41	CTS-L-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	Unfiltered
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
3.10C Rot 4.20C Rot rot sweep OK	<i>Andrew Halverson</i> / Andrew Halverson	10/10/22	12:05	<i>Debra Dunn Danyl / Slipp</i>	10/11/22	12:17

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Carrier Secure Drop-off</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	In 2 separate coolers. For Unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis. Soil samples w/ CTS-L-30 WT in cooler.

S2210162

Pace Analytical

Work Order Summary



Client: Tetra Tech
Project: RAES TO33/103G5440033.03.01
Comments: Level IV


Work Order: S2210162
Received: 10/11/2022
Due: 11/29/2022

Tests/Analytes


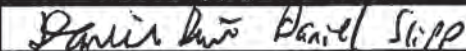
- ☐ **EPA 1312**
Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Uranium, Vanadium, Zinc
- ☐ **Radium 226 by SPLP 1312**
Dissolved Radium 226, MDC
- ☐ **Radium 228 by SPLP 1312**
Dissolved Radium 228, MDC

Samples

Sample ID	Client Sample ID	Collection Date	Matrix	Depths
S2210162-001	CR-M-30-SY Combined +25/+270	9/13/2022 3:00:00 PM	Soil	
S2210162-002	CR-H-4-SY Combined +25/+270	9/15/2022 3:30:00 PM	Soil	
S2210162-003	CR-H-8-SY Combined +25/+270-01	9/17/2022 4:00:00 PM	Soil	
S2210162-004	CR-H-8-SY Combined +25/+270-02	9/17/2022 4:00:00 PM	Soil	
S2210162-005	CR-H-30-SY Combined +25/+270	9/19/2022 11:40:00 AM	Soil	
S2210162-006	QV-L-4-SY Combined +25/+270	9/20/2022 10:00:00 AM	Soil	
S2210162-007	QV-L-8-SY Combined +25/+270	9/28/2022 1:00:00 PM	Soil	
S2210162-008	QV-L-30-SY Combined +25/+270	9/29/2022 8:00:00 AM	Soil	
S2210162-009	QV-M-4-SY Combined +25/+270	9/30/2022 12:30:00 PM	Soil	
S2210162-010	QV-M-8-SY Combined +25/+270	9/30/2022 9:00:00 PM	Soil	
S2210162-011	QV-M-30-SY Combined +25/+270	10/1/2022 6:30:00 PM	Soil	
S2210162-012	QV-H-4-SY Combined +25/+270	10/2/2022 5:00:00 PM	Soil	

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email		
Phone	Purchase Order #		
	510-302-6310/307-871-7291	Quote #	
	1150922		

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD						REMARKS
1		09/13/22	15:00	CR-M-30-SY Combined +25/+270	SL	1	x	x							537.61 g
2		09/15/22	13:30	CR-H-4-SY Combined +25/+270	SL	1	x	x	x						780.85 g
3		09/17/22	16:00	CR-H-8-SY Combined +25/+270-01	SL	1	x	x							388.24 g
4		09/17/22	16:00	CR-H-8-SY Combined +25/+270-02	SL	1	x	x							383.75 g
5		09/19/22	11:40	CR-H-30-SY Combined +25/+270	SL	1	x	x							589.73 g
6		09/20/22	10:00	QV-L-4-SY Combined +25/+270	SL	1	x	x							485.89 g
7		09/28/22	13:00	QV-L-8-SY Combined +25/+270	SL	1	x	x							662.81 g
8		09/29/22	08:00	QV-L-30-SY Combined +25/+270	SL	1	x	x							619.92 g
9		09/30/22	12:30	QV-M-4-SY Combined +25/+270	SL	1	x	x							753.70 g
10		09/30/22	21:00	QV-M-8-SY Combined +25/+270	SL	1	x	x							759.64 g
11		10/01/22	18:30	QV-M-30-SY Combined +25/+270	SL	1	x	x							650.64 g
12		10/02/22	17:00	QV-H-4-SY Combined +25/+270	SL	1	x	x							1048.37 g
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
3.10c Rpt rad Sweep OK	 Andrew Halverson	10/10/22	12:05	 Daniel Ruiz Daniel Sipp	10/11/22	12:18

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier to Gillette</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <u>Y / N</u> Program (SDWA, NPDES,...) _____ PWSID / Permit # _____ Chlorinated? <u>Y / N</u> Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 and A-13 from Work Plan attached

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>



Package Survey From

Date: 10/10/22 Time: 13:00 Surveyor Name: Andrew Holverson

Package Description	Coiler with water and 17 lb of <1500 ppm Unat soil
Package Destination	Pace Labs 1673 Fern Avenue Sheridan, WY 82801

Unat Specific Activity
7.1 e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm²
Beta: 240 dpm/cm²

Contents	<1500 ppm Unat soil	Exempt (Y/N)	N
Material Specific Activity	<1.07e-9 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<17 lb		
Contents Total Activity	<8.2 e-6 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	8 µR/hr

Location	Gross	Net
Side 1	11	5 µR/hr
Side 2	13	5 µR/hr
Side 3	12	4 µR/hr
Side 4	13	5 µR/hr
Side 5	10	2 µR/hr
Side 6	12	4 µR/hr

Package Sketch

Package Surface Area [cm²] 12,616

Meter	
Manufacturer	Ludlum
Model	2424
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	0
Beta/Gamma (cpm)	64
300 cm² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	AP
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²			
Swipe 1	4	4	0.1	0.8	82	18	0.1	7.5	AY		
Swipe 2	9	9	0.1	1.7	81	17	0.1	7.1	AY		
Swipe 3	5	5	0.1	0.94	48	-	0.1	-	AY		
			0.1				0.1				

Notes: Coiler wiped down and 3rd swipe taken

Surveyor Signature: *Andrew Holverson*

Released

Date: 10/10/2022

Time: 13:30

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC¹ (pCi/L)	Requested MDC¹ (pCi/L)	USEPA MCL² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.

² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).

* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service

GFPC Gas flow proportional counting

MCL Maximum contaminant level

MDC Minimum detectable concentration

NV No value

ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)

pCi/L Picocurie per liter

Scint Scintillation


SPLP Synthetic precipitation leaching procedure

USEPA U.S. Environmental Protection Agency

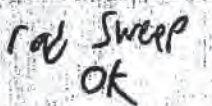

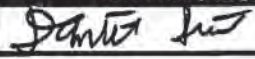
Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."

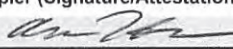
U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetra.tech.com / a.halverson@disa.wy.gov		
	Phone 510-302-6310/307-871-7291	Purchase Order # 1150922	Quote #
		REMARKS	

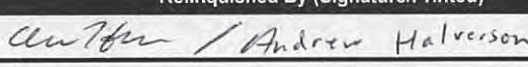
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD								
1		09/17/22	16:00	CR-H-8-SY +25	SL	1	x	x									95.13 g
2		09/17/22	16:00	CR-H-8-SY +50-01	SL	1	x	x									82.39 g
3		09/17/22	16:00	CR-H-8-SY +50-02	SL	1	x	x									82.38 g
4		08/24/22	12:00	CR-H-0-KY	SL	1	x	x	x								713.58 g, ms/msd for Metals
5		09/17/22	16:00	CR-H-8-SY +100	SL	1	x	x									92.59 g
6		09/17/22	16:00	CR-H-8-SY +140	SL	1	x	x									18.00 g
7		09/17/22	16:00	CR-H-8-SY +200	SL	1	x	x									11.00 g
8		09/17/22	16:00	CR-H-8-SY +270	SL	1	x	x									6.02 g
9		09/19/22	11:40	CR-H-30-SY +25	SL	1	x	x									37.25 g
10		09/19/22	11:40	CR-H-30-SY +50	SL	1	x	x									126.37 g
11		09/19/22	11:40	CR-H-30-SY +100	SL	1	x	x									92.15 g
12		09/19/22	11:40	CR-H-30-SY +140	SL	1	x	x									20.03 g
13		09/19/22	11:40	CR-H-30-SY +200	SL	1	x	x									12.67 g
14		09/19/22	11:40	CR-H-30-SY +270	SL	1	x	x									7.24 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20		10/11/22	12:22


SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote #	

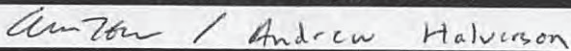
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							REMARKS
1		09/29/22	18:30	QV-L-0-SL-01 +25	SL	1	x	x								52.30 g
2		09/29/22	18:30	QV-L-0-SL-01 +50	SL	1	x	x								89.67 g
3		09/29/22	18:30	QV-L-0-SL-01 +100	SL	1	x	x								102.86 g
4		09/29/22	18:30	QV-L-0-SL-01 +140	SL	1	x	x								30.44 g
5		09/29/22	18:30	QV-L-0-SL-01 +200	SL	1	x	x								15.33 g
6		09/29/22	18:30	QV-L-0-SL-01 +270	SL	1	x	x								8.67 g
7		09/29/22	18:30	QV-L-0-SL-01 -270	SL	1	x	x								68.72 g
8		09/20/22	10:00	QV-L-4-SY +25	SL	1	x	x								22.90 g
9		09/20/22	10:00	QV-L-4-SY +50-01	SL	1	x	x								43.06 g
10		09/20/22	10:00	QV-L-4-SY +50-02	SL	1	x	x								43.06 g
11		09/20/22	10:00	QV-L-4-SY +100	SL	1	x	x	x							90.47 g, <i>ms/msd for metals</i>
12		09/20/22	10:00	QV-L-4-SY +140	SL	1	x	x								26.36 g
13		09/20/22	10:00	QV-L-4-SY +200	SL	1	x	x								12.40 g
14		09/20/22	10:00	QV-L-4-SY +270	SL	1	x	x								5.66 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <u>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</u>		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922		
	Quote #		

ITEM	LAB ID	DATE	TIME	SAMPLE	Matrix	# of	Metals	Ra 226	MS/MS						REMARKS
	(Lab Use Only)	SAMPLED		IDENTIFICATION		Containers									
1		09/28/22	13:00	QV-L-8-SY +25	SL	1	x	x							37.62 g
2		09/28/22	13:00	QV-L-8-SY +50	SL	1	x	x							119.26 g
3		09/28/22	13:00	QV-L-8-SY +100	SL	1	x	x							119.94 g
4		09/28/22	13:00	QV-L-8-SY +140	SL	1	x	x							33.19 g
5		09/28/22	13:00	QV-L-8-SY +200	SL	1	x	x							15.46 g
6		09/28/22	13:00	QV-L-8-SY +270	SL	1	x	x							7.53 g
7		09/29/22	08:00	QV-L-30-SY +25	SL	1	x	x							30.09 g
8		09/29/22	08:00	QV-L-30-SY +50	SL	1	x	x							105.42 g
9		09/29/22	08:00	QV-L-30-SY +100	SL	1	x	x							117.69 g
10		09/29/22	08:00	QV-L-30-SY +140	SL	1	x	x							34.22 g
11		09/29/22	08:00	QV-L-30-SY +200	SL	1	x	x							16.76 g
12		09/29/22	08:00	QV-L-30-SY +270	SL	1	x	x							7.79 g
13		09/30/22	12:30	QV-M-4-SY +25	SL	1	x	x							81.35 g
14		09/30/22	12:30	QV-M-4-SY +50	SL	1	x	x	x						149.59 g MS/MSD for Metals

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <u>Client</u> <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001



Pace Analytical
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page **4** of **7**

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This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>au</i>	Telephone # 307-871-7291
---------------------------------------	--	--	------------------------------------

Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS		
Invoice Address Tetra Tech	Email <i>mikedahlquist@tetratech.com / a.halverson@disa.wy.gov</i>			
	Phone 510-302-6310/307-871-7291			
	Purchase Order # 1150922	Quote #		
				REMARKS


ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							
1		09/30/22	12:30	QV-M-4-SY +100-01	SL	1	x	x								53.24 g
2		09/30/22	12:30	QV-M-4-SY +100-02	SL	1	x	x								53.24 g
3		09/30/22	12:30	QV-M-4-SY +140	SL	1	x	x								23.34 g
4		09/30/22	12:30	QV-M-4-SY +200	SL	1	x	x								11.09 g
5		09/30/22	12:30	QV-M-4-SY +270	SL	1	x	x								5.88 g
6		10/02/22	12:30	QV-M-0-SL-01 +25	SL	1	x	x								56.49 g
7		10/02/22	12:30	QV-M-0-SL-01 +50	SL	1	x	x								114.89 g
8		10/02/22	12:30	QV-M-0-SL-01 +100	SL	1	x	x								87.26 g
9		10/02/22	12:30	QV-M-0-SL-01 +140	SL	1	x	x								25.76 g
10		10/02/22	12:30	QV-M-0-SL-01 +200	SL	1	x	x								12.46 g
11		10/02/22	12:30	QV-M-0-SL-01 +270	SL	1	x	x								8.06 g
12		10/02/22	12:30	QV-M-0-SL-01 -270	SL	1	x	x								74.87 g
13		09/30/22	21:00	QV-M-8-SY +25	SL	1	x	x								64.92 g
14		09/30/22	21:00	QV-M-8-SY +50	SL	1	x	x								157.33 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i> / Andrew Halverson	10/10/22	12:20			


SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson				ANALYSES / PARAMETERS	
		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>					
Invoice Address Tetra Tech		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	


ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/6020	Ra 226 by 901.1	MS/MSD							REMARKS
1		09/30/22	21:00	QV-M-8-SY +100	SL	1	x	x								115.67 g
2		09/30/22	21:00	QV-M-8-SY +140	SL	1	x	x								25.22 g
3		09/30/22	21:00	QV-M-8-SY +200	SL	1	x	x								12.35 g
4		09/30/22	21:00	QV-M-8-SY +270	SL	1	x	x								6.22 g
5		10/01/22	18:30	QV-M-30-SY +25	SL	1	x	x								41.91 g
6		10/01/22	18:30	QV-M-30-SY +50	SL	1	x	x	X							130.72 g, MS/MSD for Metals
7		10/01/22	18:30	QV-M-30-SY +100-01	SL	1	x	x								53.37 g
8		10/01/22	18:30	QV-M-30-SY +100-02	SL	1	x	x								53.36 g
9		10/01/22	18:30	QV-M-30-SY +140	SL	1	x	x								26.36 g
10		10/01/22	18:30	QV-M-30-SY +200	SL	1	x	x								13.68 g
11		10/01/22	18:30	QV-M-30-SY +270	SL	1	x	x								7.21 g
12		10/02/22	17:00	QV-H-4-SY +25	SL	1	x	x								101.55 g
13		10/02/22	17:00	QV-H-4-SY +50	SL	1	x	x								224.51 g
14		10/02/22	17:00	QV-H-4-SY +100	SL	1	x	x								147.85 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 Andrew Halverson	10/19/22	12:20			

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	<input type="checkbox"/> Check desired service	Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.			
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.			
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #					
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?	Y / N				
<input checked="" type="checkbox"/> Other	Other	OT	<i>Rush & Urgent Surcharges will be applied</i>	Sample Disposal: Lab	Client	<input checked="" type="checkbox"/>	S2211015001		

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetradis.com / a.halverson@disa.com</i>		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION			Metals	Ra 226	MS/MSD							REMARKS
					Matrix	# of Containers										
1		10/02/22	17:00	QV-H-4-SY +140	SL	1	x	x								30.38 g
2		10/02/22	17:00	QV-H-4-SY +200	SL	1	x	x								14.50 g
3		10/02/22	17:00	QV-H-4-SY +270	SL	1	x	x								6.64 g
4		10/04/22	12:00	QV-H-0-SL-01 +25	SL	1	x	x								57.53 g
5		10/04/22	12:00	QV-H-0-SL-01 +50	SL	1	x	x								109.53 g
6		10/04/22	12:00	QV-H-0-SL-01 +100	SL	1	x	x								98.59 g
7		10/04/22	12:00	QV-H-0-SL-01 +140	SL	1	x	x								24.54 g
8		10/04/22	12:00	QV-H-0-SL-01 +200	SL	1	x	x								12.01 g
9		10/04/22	12:00	QV-H-0-SL-01 +270	SL	1	x	x								7.35 g
10		10/04/22	12:00	QV-H-0-SL-01 -270	SL	1	x	x								72.37 g
11		10/03/22	21:20	QV-H-30-SY +25	SL	1	x	x								61.80 g
12		10/03/22	21:20	QV-H-30-SY +50	SL	1	x	x	x							165.49 g, MS/MSD for metals
13		10/03/22	21:20	QV-H-30-SY +100-01	SL	1	x	x								65.97 g
14		10/03/22	21:20	QV-H-30-SY +100-02	SL	1	x	x								65.97 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001



Pace Analytical
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 7 of 7

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---------------------------------------	---	---	-----------------------------

Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS Metals by 6010/6020 Ra 226 by 901.1 MS/MSD	REMARKS
Invoice Address Tetra Tech	Email mike.dahlquist@tetra-tech.com / a.halverson@disa.wy.gov		
Phone 510-302-6310/307-871-7291	Purchase Order # 1150922		

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metal by 6010/6020	Ra 226 by 901.1	MS/MSD								
1		10/03/22	21:20	QV-H-30-SY +140	SL	1	x	x									32.71 g
2		10/03/22	21:20	QV-H-30-SY +200	SL	1	x	x									16.32 g
3		10/03/22	21:20	QV-H-30-SY +270	SL	1	x	x									7.74 g
4		10/03/22	14:40	QV-H-8-SY +25	SL	1	x	x									89.94 g
5		10/03/22	14:40	QV-H-8-SY +50	SL	1	x	x									216.80 g
6		10/03/22	14:40	QV-H-8-SY +100	SL	1	x	x									151.40 g
7		10/03/22	14:40	QV-H-8-SY +140	SL	1	x	x									32.08 g
8		10/03/22	14:40	QV-H-8-SY +200	SL	1	x	x									15.06 g
9		10/03/22	14:40	QV-H-8-SY +270	SL	1	x	x									7.21 g
10																	
11																	
12																	
13																	
14																	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/10/22	12:20			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. S2211015001

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples.

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	114.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.16	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	81.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from +140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples.

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

Client Name Tetra Tech / Disa	Project Identification RAES T033/10365440033.03.01	Sampler (Signature/Attestation of Authenticity) <i>Andrew Halverson</i>	Telephone # 307-871-7291
---	--	---	------------------------------------

Report Address Tetra Tech / Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS <table border="1"> <tr> <td>Total Metals by 6010/6020</td> <td>Dissolved Metals by 6010/6020</td> <td>Total Cu 226 by 903.1</td> <td>Total Cu 228 by 904.0</td> <td>Dissolved Cu 226 by 903.1</td> <td>TDS by SM2540</td> <td>TSS by SM2540</td> </tr> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </table>	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540	✓	✓	✓	✓	✓	✓	✓
Total Metals by 6010/6020	Dissolved Metals by 6010/6020		Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540									
✓	✓		✓	✓	✓	✓	✓									
Invoice Address Tetra Tech	Phone 510-302-6310 / 307-871-7291															
Purchase Order # 1150922	Quote #															

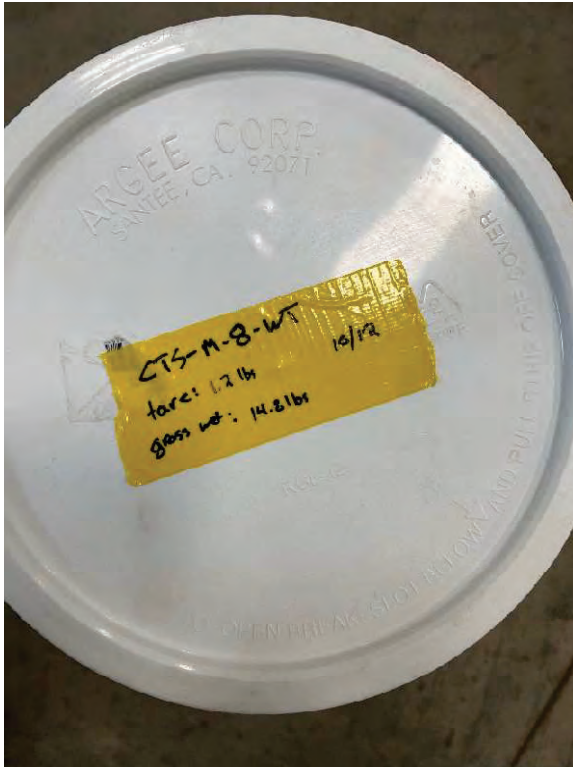
Preservative Lot #
 1:1 HNO3: M-072722-2
 H2SO4: Chem 2-71-4
 NaOH: Wet-3-40-1

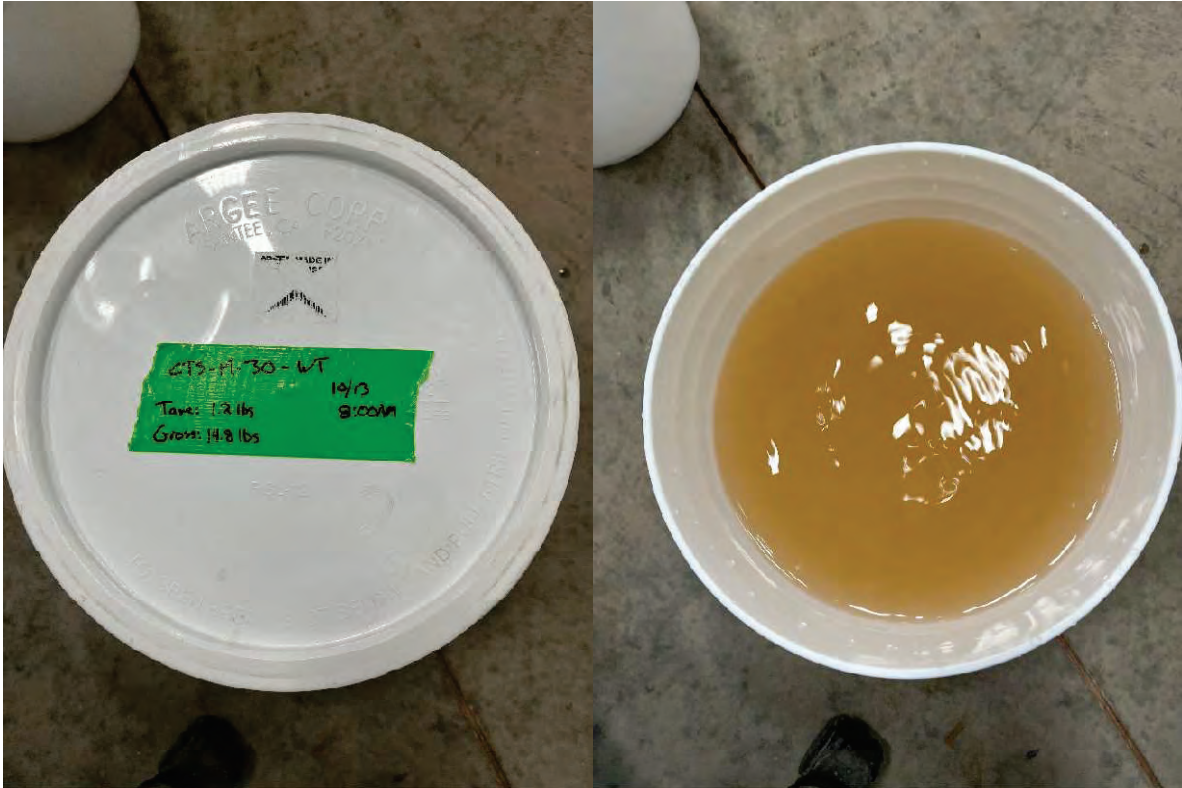
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	ANALYSES / PARAMETERS							REMARKS
							Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540	
1		10/11/22	09:24	CTS-M-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
2		10/12/22	14:06	CTS-M-8-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
3		10/13/22	08:00	CTS-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	unfiltered, no preservatives
4		10/13/22	07:40	CTS-H-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

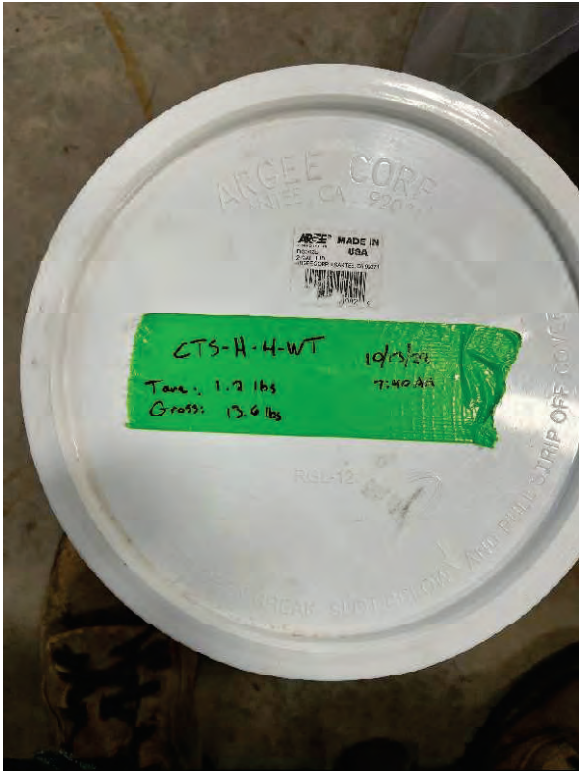
LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>Andrew Halverson</i>	10/13/22	14:50			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	<input checked="" type="checkbox"/> Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	<i>In 2 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved analysis.</i>












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Put a copy of your documentation in the package and write the shipping details on an inner label steps 1-4 to attach the package.

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 WPL WESTERN PREMIER LOGISTICS Phone: 307-266-2229 Fax: 307-266-9156		SHIPMENT NUMBER ORIGIN Nº C 2313	
SHIPPER Disa Technologies, Inc. STREET 1653 English Ave CITY Casper STATE WY ZIP 82401		CONSIGNEE Pace STREET CITY Sheridan STATE WY ZIP	
SHIPPER'S REF. NO. CONTACT PHONE 307-871-7241		CONSIGNEE'S REF. NO. CONTACT PHONE	
SPECIAL INSTRUCTIONS			
BILL TO: (If Other Than Shipper Or Consignee)			
PIECES	DESCRIPTION OF CONTENTS	WEIGHT	
1	Cooler with Water Samples		
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.			
SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier		DELIVERY DEADLINE DECLARED VALUE	
SHIPPER'S SIGNATURE <i>[Signature]</i>		RECEIVED BY ACC EMPLOYEE	
PICKUP DATE/TIME		RECEIVED IN GOOD ORDER EXCEPT AS NOTED	
COPY DISTRIBUTION White - Delivery Receipt Canary - Original Invoice		DATE RCY'D	TIME RCY'D
		PCS	
		DELIVERY DATE/TIME	

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Put a copy of your documentation in the package and write the shipping details on an inner label steps 1-4 to attach the package.

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 WPL WESTERN PREMIER LOGISTICS Phone: 307-266-2229 Fax: 307-266-9156		SHIPMENT NUMBER ORIGIN Nº C 2313	
SHIPPER Disa Technologies, Inc. STREET 1653 English Ave CITY Casper STATE WY ZIP 82401		CONSIGNEE Pace STREET CITY Sheridan STATE WY ZIP	
SHIPPER'S REF. NO. CONTACT PHONE 307-871-7241		CONSIGNEE'S REF. NO. CONTACT PHONE	
SPECIAL INSTRUCTIONS			
BILL TO: (If Other Than Shipper Or Consignee)			
PIECES	DESCRIPTION OF CONTENTS	WEIGHT	
1	Cooler with Water Samples		
Shipper certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.			
SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier		DELIVERY DEADLINE DECLARED VALUE	
SHIPPER'S SIGNATURE <i>[Signature]</i>		RECEIVED BY ACC EMPLOYEE	
PICKUP DATE/TIME		RECEIVED IN GOOD ORDER EXCEPT AS NOTED	
COPY DISTRIBUTION White - Delivery Receipt Canary - Original Invoice		DATE RCY'D	TIME RCY'D
		PCS	
		DELIVERY DATE/TIME	




- CHAIN OF CUSTODY RECORD -

Page 1 of 2



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196826

Client Name Tetra Tech / Disa		Project Identification RAES T033/LOS 65440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291															
Report Address Tetra Tech / Disa		Contact Name Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS <table border="1"> <tr> <td>Total Metals by 6010/6020</td> <td>Dissolved Metals by 6010/6020</td> <td>Total Cu 226 by 903.1</td> <td>Total Cu 228 by 904.0</td> <td>Dissolved Cu 226 by 903.1</td> <td>TDS by SM2540</td> <td>TSS by SM2540</td> </tr> <tr> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> <td>✓</td> </tr> </table>				Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540	✓	✓	✓	✓	✓	✓	✓
Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0					Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540											
✓	✓	✓	✓	✓	✓	✓															
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa-usa.com		Phone 510-302-6310 / 307-871-7291		Preservative Lot # <small>1:1 HNO3: M-072722-2 H2SO4: Chem 2-71-4 NaOH: Wet-3-40-1</small>															
Purchase Order # 1150922		Quote #		REMARKS																	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 226 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 226 by 903.1	TDS by SM2540	TSS by SM2540	REMARKS
1	57260225021	10/11/22	09:24	CTS-M-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
2	-002	10/12/22	14:06	CTS-M-8-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
3	-003	10/13/22	08:00	CTS-M-30-WT	WT	7	✓	✓	✓	✓	✓	✓	✓	unfiltered, no preservatives
4	-004	10/13/22	07:40	CTS-H-4-WT	WT	7	✓		✓	✓		✓	✓	unfiltered, no preservatives
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
5.7°C R22	 / Andrew Halverson	10/13/22	14:50	 Daniel Slipp	10/14/22	12:10
5.40C						
ROI OK						
RAI Sweep						

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS 10/14/22 <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other Lab Courier Secure Dropoff	Water WT Soil SL Solid SD Filter FT Other OT	<input checked="" type="checkbox"/> Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	In 2 separate coolers. For unfiltered samples, filter prior to addition of preservatives on total vs dissolved Analysis.



Pace Analytical

Pace Analytical Services, LLC

Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page 1 of 1

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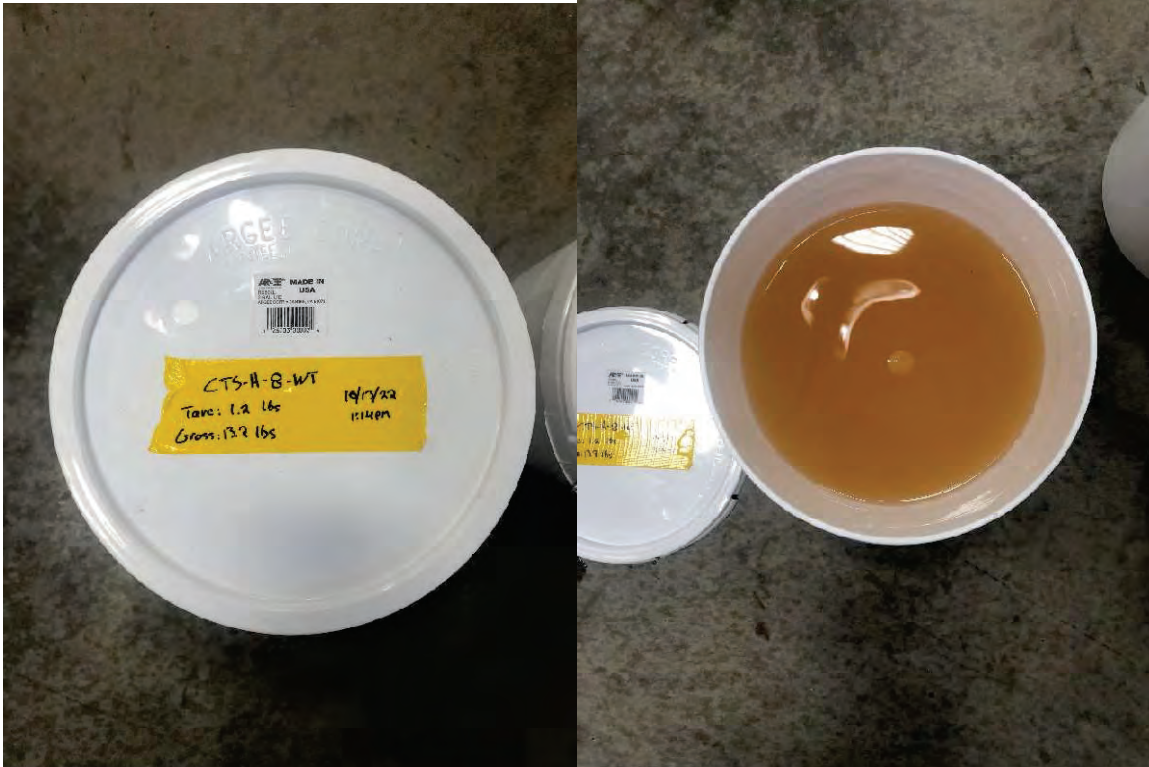
196920

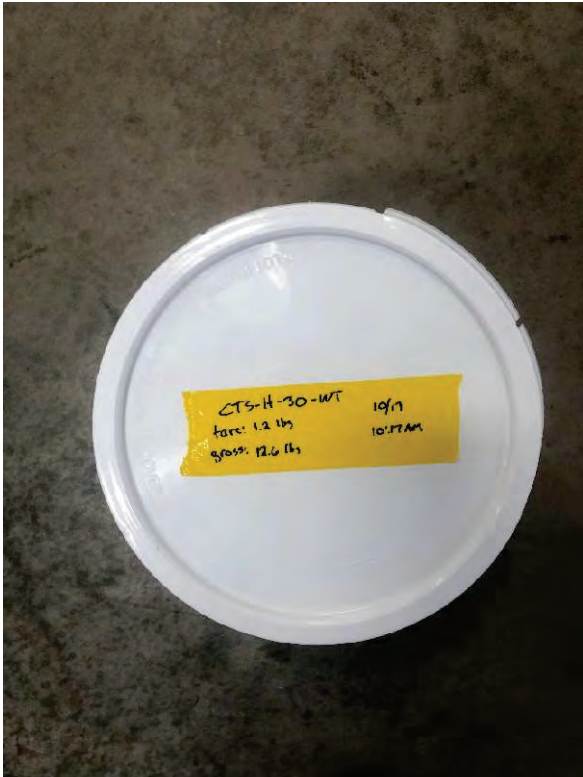
Client Name Tetra Tech / DISA		Project Identification RAEST033/20365440033.03.01		Sampler (Signature/Attestation of Authenticity) Madeline Orrell		Telephone # 406-599-0225								
Report Address Tetra Tech / DISA		Contact Name a.halverson@disa.com Mike Dahlquist / Andrew Halverson		ANALYSES / PARAMETERS										
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com		<table border="1"> <tr> <td>Total Metals by 6010/6020</td> <td>Dissolved Metals by 6010/6020</td> <td>Total Cu 22.6 by 903.1</td> <td>Total Cu 228 by 904.0</td> <td>Dissolved Cu 22.6 by 903.1</td> <td>TDS by SM 2540</td> <td>TSS by SM 2540</td> </tr> </table>				Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 22.6 by 903.1	Total Cu 228 by 904.0	Dissolved Cu 22.6 by 903.1	TDS by SM 2540	TSS by SM 2540
Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Cu 22.6 by 903.1	Total Cu 228 by 904.0					Dissolved Cu 22.6 by 903.1	TDS by SM 2540	TSS by SM 2540				
Phone 510-302-6310/207-871-7291		Purchase Order # 1150922		Quote #		Preservative Lot # 1:1 HNO ₃ : M-072/22-2 H ₂ SO ₄ : Chem 2-71-3 NaOH: Wet-3-40-1								
REMARKS														

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers								REMARKS
1		10/13/22	13:14	CTS-H-8-WT	WT	1	✓		✓	✓		✓	✓	unfiltered
2				CTS-H-30-WT	WT	1	✓	✓	✓	✓	✓	✓	✓	unfiltered
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Madeline Orrell	10/19	17:00			

SHIPPING INFO		MATRIX CODES		TURNAROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	<input checked="" type="checkbox"/> Check desired service	Compliance Monitoring?	Y / N	In cooler For unfiltered samples, filter prior to addition of preservatives on total vs. dissolved analysis			
<input type="checkbox"/> Fed Express	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)					
<input type="checkbox"/> US Mail	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #					
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated?	Y / N				
<input checked="" type="checkbox"/> Other Lab courier secure dropoff	Other	OT	Rush & Urgent Surcharges will be applied	Sample Disposal: Lab	✓ Client				





Please Return



WPL Phone: 307-266-2229 Fax: 307-266-9156
WESTERN PEAKS LOGISTICS

SHIPMENT NUMBER
ORIGIN **Nº C 2350**

SHIPPER **DISA TECHNOLOGIES INC** CONSIGNEE **PAGE**
STREET **1652 ENGLISH AVE** STREET
CITY **ROPER** STATE **WY** ZIP **82101** CITY **Sheridan** STATE **WY** ZIP
SHIPPER'S REF. NO. CONTACT PHONE CONSIGNEE'S REF. NO. CONTACT PHONE
SHIPPER'S REF. NO. **307-871-7211** SPECIAL INSTRUCTIONS

BILL TO:
(If Other Than Shipper Or Consignee)

PIECES DESCRIPTION OF CONTENTS WEIGHT
1 cooler w/ water samples

SHIPPER certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding \$64 (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier

DELIVERY DEADLINE
DECLARED VALUE

SHIPPER'S SIGNATURE **Madeline Orsillo** PICKUP DATE/TIME RECEIVED BY ACC EMPLOYEE
DATE RCY'D TIME RCY'D PCS

SHIPPER'S C.O.D. TOTAL CHARGES
DELIVERY DRIVER'S SIGNATURE

SHIPPER'S SIGNATURE
What - Delivery Receipt
Country - Original Invoice

WPL Phone: 307-266-2229 Fax: 307-266-9156
WESTERN PEAKS LOGISTICS

SHIPMENT NUMBER
ORIGIN **Nº C 2350**

SHIPPER **DISA TECHNOLOGIES INC** CONSIGNEE **PAGE**
STREET **1652 ENGLISH AVE** STREET
CITY **ROPER** STATE **WY** ZIP **82101** CITY **Sheridan** STATE **WY** ZIP
SHIPPER'S REF. NO. CONTACT PHONE CONSIGNEE'S REF. NO. CONTACT PHONE
SHIPPER'S REF. NO. **307-871-7211** SPECIAL INSTRUCTIONS

BILL TO:
(If Other Than Shipper Or Consignee)

PIECES DESCRIPTION OF CONTENTS WEIGHT
1 cooler w/ water samples

SHIPPER certifies that the above named articles are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding \$64 (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier

DELIVERY DEADLINE
DECLARED VALUE

SHIPPER'S SIGNATURE **Madeline Orsillo** PICKUP DATE/TIME RECEIVED BY ACC EMPLOYEE
DATE RCY'D TIME RCY'D PCS

SHIPPER'S C.O.D. TOTAL CHARGES
DELIVERY DRIVER'S SIGNATURE

SHIPPER'S SIGNATURE
What - Delivery Receipt
Country - Original Invoice





Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY


- CHAIN OF CUSTODY RECORD -

Page 1 of 1

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Client Name Tetra Tech / DISA	Project Identification RAEST033/20365440033.03.01	Sampler (Signature/Attestation of Authenticity) Madeline Orrell	Telephone # 406-599-0225
Report Address Tetra Tech / DISA	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetra-tech.com	 Preservative Lot # 1:1 HNO ₃ : M-072722-2 H ₂ SO ₄ : Chem 2-71-3 NaOH: Wet-3-40-1	
	Phone 510-302-6310 / 307-871-7291		
	Purchase Order # 1150922	REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Dissolved Metals by 6010/6020	Total Res 226 by 903.1	Total Res 228 by 904.0	Dissolved Res 226 by 903.1	TDS by SM 2540	TSS by SM 2540	REMARKS
1	221037001	10/13/22	13:14	CTS-H-8-SWT	WT	1	✓		✓	✓		✓	✓	unfiltered
2	2002	10/17/22	10:17	CTS-H-30-WT	WT	1	✓	✓	✓	✓	✓	✓	✓	unfiltered
3														
4														
5														
6														
7														
8														
9														
10														
11														
12														
13														
14														

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
11.2°C No ice	Madeline Orrell	10/19	17:00	Donna Lee	10/20/22	12:44

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other Lab courier secure dropoff	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	In 1 cooler. For unfiltered samples, filter prior to addition of preservatives on total vs. dissolved analysis

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196921

Client Name Tetra Tech/Disa	Project Identification RAEST033/20365440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
--------------------------------	--	---	-----------------------------

Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov	Total Metals by 6060/6020 Ra 226 Total Ba 2230 Total	REMARKS
	Phone 510-302-6310 / 307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6060/6020	Ra 226 Total	Ba 2230 Total								
1		10/13/22	NO TIME	CR Fractionation Water	WT	5	✓	✓	✓								Unfiltered, Not preserved
2		10/11/22	NO TIME	QU Fractionation Water	WT	5	✓	✓	✓								Unfiltered, Not preserved
3		10/18/22	NO TIME	CTS Fractionation Water	WT	5	✓	✓	✓								Unfiltered, Not preserved
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/26/22	15:40			

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	Water Samples in 2 separate coolers. Soil Samples divided into 3 coolers.

- CHAIN OF CUSTODY RECORD -

Page **2** of **11**

All shaded fields must be completed.

#WEB

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com/a.halverson@disa.com					
		Phone 510-302-6310/307-871-7291		SPLP by Table A-12		SPLP by Table A-13	
		Purchase Order # 1150922		MS/MSD			
		Quote #					

REMARKS

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD								
1		10/05/22	10:32	CTS-L-4-SY Combined +25/270	SL	1	x	x									363.88 g
2		10/06/22	9:45	CTS-L-8-SY Combined +25/270	SL	1	x	x									297.88 g
3		10/06/22	13:25	CTS-L-30-SY Combined +25/270	SL	1	x	x									253.43 g
4		10/11/22	9:30	CTS-M-4-SY Combined +25/270	SL	1	x	x									308.72 g
5		10/11/22	NO TIME	CTS-M-8-SY Combined +25/270	SL	1	x	x									294.18 g
6		10/13/22	8:00	CTS-M-30-SY Combined +25/270	SL	1	x	x									281.39 g
7		10/13/22	11:30	CTS-H-4-SY Combined +25/270	SL	1	x	x									311.15 g
8		10/13/22	10:00	CTS-H-8-SY Combined +25/270	SL	1	x	x									338.53 g
9		10/17/22	9:53	CTS-H-30-SY Combined +25/270	SL	1	x	x									298.63 g
10		10/03/22	14:40	QV-H-8-SY Combined +25/+270	SL	1	x	x	x								1012.12 g, MS/MSD for SPLP
11		10/03/22	21:20	QV-H-30-SY Combined +25/+270-01	SL	1	x	x									414.54 g
12		10/03/22	21:20	QV-H-30-SY Combined +25/+270-02	SL	1	x	x									413.32 g
13																	
14																	

LAB COMMENTS

Relinquished By (Signature/Printed)

DATE

TIME

Received By (Signature/Printed)

DATE

TIME

SHIPPING INFO


MATRIX CODES

TURN AROUND TIMES

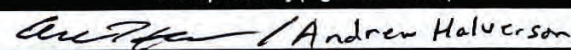
COMPLIANCE INFORMATION

ADDITIONAL REMARKS


<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 and A-13 from Work Plan attached

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	


ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12							REMARKS
1		10/24/22	18:35	QV-L-4-SY -270 Concentrate	SL	1	x	x	x							280.73 g
2		10/24/22	18:45	QV-L-8-SY -270 Concentrate	SL	1	x	x	x							362.72 g
3		10/24/22	18:55	QV-L-30-SY -270 Concentrate	SL	1	x	x	x							394.32 g
4		10/24/22	19:04	QV-M-4-SY -270 Concentrate	SL	1	x	x	x							375.01 g
5		10/24/22	19:08	QV-M-8-SY -270 Concentrate	SL	1	x	x	x							393.39 g
6		10/24/22	19:10	QV-M-30-SY -270 Concentrate	SL	1	x	x	x							404.61 g
7		10/24/22	19:21	QV-H-4-SY -270 Concentrate	SL	1	x	x	x							470.18 g
8		10/24/22	19:26	QV-H-8-SY -270 Concentrate	SL	1	x	x	x							470.56 g
9		10/24/22	19:30	QV-H-30-SY -270 Concentrate	SL	1	x	x	x							459.77 g
10		10/24/22	19:38	CR-L-4-SY -270 Concentrate	SL	1	x	x	x							298.92 g
11		10/24/22	19:43	CR-L-8-SY -270 Concentrate	SL	1	x	x	x							309.37 g
12		10/24/22	19:46	CR-L-30-SY -270 Concentrate	SL	1	x	x	x							333.14 g
13		10/24/22	19:57	CR-M-4-SY -270 Concentrate	SL	1	x	x	x							271.70 g
14		10/24/22	20:02	CR-M-8-SY -270 Concentrate	SL	1	x	x	x							334.43 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 Andrew Halverson	10/24/22	15:40			


SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secured dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usa.com</i>	Metals by 6010/602	REMARKS
	Phone 510-302-6310/307-871-7291	Ra 226 by 901.1	
	Purchase Order # 1150922	TCLP by Table A-12	
	Quote #	MS/MSD	

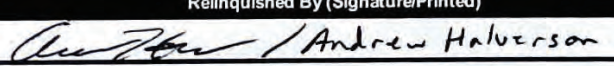
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD					
1		10/24/22	20:05	CR-M-30-SY -270 Concentrate	SL	1	x	x	x						350.94 g
2		10/13/22	11:30	CTS-H-4-SY -270-01	SL	1	x	x	x						304.81 g
3		10/13/22	11:30	CTS-H-4-SY -270-02	SL	1	x	x	x						301.03 g
4		10/13/22	10:00	CTS-H-8-SY -270	SL	1	x	x	x						659.54 g
5		10/17/22	9:53	CTS-H-30-SY -270	SL	1	x	x	x	x					699.81 g, <i>MS/MSD for metals and TCLP</i>
6		10/24/22	20:14	CR-H-4-SY -270 Concentrate	SL	1	x	x	x						241.01 g
7		10/24/22	20:17	CR-H-8-SY -270 Concentrate	SL	1	x	x	x						343.28 g
8		10/24/22	20:22	CR-H-30-SY -270 Concentrate	SL	1	x	x	x						358.80 g
9		10/11/22	9:30	CTS-M-4-SY -270	SL	1	x	x	x						546.55 g
10		10/11/22	NO TIME	CTS-M-8-SY -270	SL	1	x	x	x						571.44 g
11		10/13/22	8:00	CTS-M-30-SY -270	SL	1	x	x	x						596.81 g
12		10/05/22	10:32	CTS-L-4-SY -270	SL	1	x	x	x						591.53 g
13		10/06/22	8:45	CTS-L-8-SY -270-01	SL	1	x	x	x						303.14 g
14		10/06/22	8:45	CTS-L-8-SY -270-02	SL	1	x	x	x						297.70 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 Andrew Halverson	10/26/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Carrier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client <input type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS	
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922		
	Quote #		
		REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD							
1		10/06/22	13:25	CTS-L-30-SY -270	SL	1	x	x	x	x							667.67 g, <i>MS/MSD for Metals and TCLP</i>
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 / Andrew Halverson	10/21/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input checked="" type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached


- CHAIN OF CUSTODY RECORD -

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#WEB

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS
Invoice Address Tetra Tech	Email <i>Mike.Dahlquist@tetra-tech.com / a.halverson@disausa.com</i>		
	Phone 510-302-6310/307-871-7291		
	Purchase Order # 1150922	Quote # 	REMARKS

ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/05/22	10:32	CTS-L-4-SY +25	SL	1	x	x									7.60 g
2		10/05/22	10:32	CTS-L-4-SY +50	SL	1	x	x									22.83 g
3		10/05/22	10:32	CTS-L-4-SY +100	SL	1	x	x									42.21 g
4		10/05/22	10:32	CTS-L-4-SY +140	SL	1	x	x									32.19 g
5		10/05/22	10:32	CTS-L-4-SY +200	SL	1	x	x									41.97 g
6		10/05/22	10:32	CTS-L-4-SY +270	SL	1	x	x									36.12 g
7		10/06/22	8:45	CTS-L-8-SY +25	SL	1	x	x									2.06 g
8		10/06/22	8:45	CTS-L-8-SY +50	SL	1	x	x									13.37 g
9		10/06/22	8:45	CTS-L-8-SY +100	SL	1	x	x									32.59 g
10		10/06/22	8:45	CTS-L-8-SY +140	SL	1	x	x									28.84 g
11		10/06/22	8:45	CTS-L-8-SY +200	SL	1	x	x									48.94 g
12		10/06/22	8:45	CTS-L-8-SY +270	SL	1	x	x									25.12 g
13		10/06/22	13:25	CTS-L-30-SY +25	SL	1	x	x									1.40 g
14		10/06/22	13:25	CTS-L-30-SY +50	SL	1	x	x									8.52 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 Andrew Halverson	10/26/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached

- CHAIN OF CUSTODY RECORD -										Page 7 of 11							
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This is a legal document; any misrepresentation may be construed as fraud.																	
Client Name Tetra Tech/Disa			Project Identification RAES TO33/103G5440033.03.01			Sampler (Signature/Attestation of Authenticity) 			Telephone # 307-871-7291								
Report Address Tetra Tech/Disa			Contact Name Mike Dahlquist/Andrew Halverson			ANALYSES / PARAMETERS											
Invoice Address Tetra Tech			Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>														
			Phone 510-302-6310/307-871-7291						REMARKS								
			Purchase Order # 1150922			Quote #											
ITEM	LAB ID <i>(Lab Use Only)</i>	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/06/22	13:25	CTS-L-30-SY +100-01	SL	1	x	x									12.34 g
2		10/06/22	13:25	CTS-L-30-SY +100-02	SL	1	x	x									12.34 g
3		10/06/22	13:25	CTS-L-30-SY +140	SL	1	x	x	x								24.22 g, <i>MS/MSD for metals</i>
4		10/06/22	13:25	CTS-L-30-SY +200	SL	1	x	x									44.76 g
5		10/06/22	13:25	CTS-L-30-SY +270	SL	1	x	x									22.93 g
6		10/04/22	15:31	CTS-0-SL-01 +25	SL	1	x	x									6.88 g
7		10/04/22	15:31	CTS-0-SL-01 +50	SL	1	x	x									11.73 g
8		10/04/22	15:31	CTS-0-SL-01 +100	SL	1	x	x									32.09 g
9		10/04/22	15:31	CTS-0-SL-01 +140	SL	1	x	x									35.57 g
10		10/04/22	15:31	CTS-0-SL-01 +200	SL	1	x	x									43.80 g
11		10/04/22	15:31	CTS-0-SL-01 +270	SL	1	x	x									36.63 g
12		10/04/22	15:31	CTS-0-SL-01 -270	SL	1	x	x									143.58 g
13		10/11/22	9:30	CTS-M-4-SY +25	SL	1	x	x									3.16 g
14		10/11/22	9:30	CTS-M-4-SY +50	SL	1	x	x									17.48 g
LAB COMMENTS		Relinquished By (Signature/Printed)				DATE	TIME	Received By (Signature/Printed)				DATE	TIME				
		/ Andrew Halverson				10/26/22	15:40										
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS							
<input type="checkbox"/> UPS	Water	WT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>		Compliance Monitoring ?		Y / N		Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached								
<input type="checkbox"/> FedEx	Soil	SL			Program (SDWA, NPDES,...)												
<input type="checkbox"/> USPS	Solid	SD			PWSID / Permit #												
<input type="checkbox"/> Hand Carried	Filter	FT			Chlorinated?		Y / N										
<input checked="" type="checkbox"/> Other <i>Lab Courier SecureDropoff</i>	Other	OT			Sample Disposal: Lab		Client <input checked="" type="checkbox"/>										



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- CHAIN OF CUSTODY RECORD -

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#**WEB**

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
						REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD							
1		10/11/22	9:30	CTS-M-4-SY +100	SL	1	x	x								38.16 g
2		10/11/22	9:30	CTS-M-4-SY +140	SL	1	x	x								31.44 g
3		10/11/22	9:30	CTS-M-4-SY +200	SL	1	x	x								41.30 g
4		10/11/22	9:30	CTS-M-4-SY +270	SL	1	x	x								23.83 g
5		10/11/22	NO TIME	CTS-M-8-SY +25	SL	1	x	x								3.02 g
6		10/11/22	NO TIME	CTS-M-8-SY +50	SL	1	x	x								14.55 g
7		10/11/22	NO TIME	CTS-M-8-SY +100-01	SL	1	x	x								18.58 g
8		10/11/22	NO TIME	CTS-M-8-SY +100-02	SL	1	x	x								18.57 g
9		10/11/22	NO TIME	CTS-M-8-SY +140	SL	1	x	x	x							29.31 g, <i>ms/msd for metals</i>
10		10/11/22	NO TIME	CTS-M-8-SY +200	SL	1	x	x								40.04 g
11		10/11/22	NO TIME	CTS-M-8-SY +270	SL	1	x	x								24.08 g
12		10/13/22	8:00	CTS-M-30-SY +25	SL	1	x	x								2.01 g
13		10/13/22	8:00	CTS-M-30-SY +50	SL	1	x	x								13.28 g
14		10/13/22	8:00	CTS-M-30-SY +100	SL	1	x	x								35.74 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Andrew Halverson	10/26/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium composting sheet attached



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Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

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#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01			Sampler (Signature/Attestation of Authenticity) 			Telephone # 307-871-7291								
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson			ANALYSES / PARAMETERS											
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com														
		Phone 510-302-6310/307-871-7291			Purchase Order # 1150922			Quote #								
								REMARKS								
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD							
1		10/13/22	8:00	CTS-M-30-SY +140	SL	1	x	x								27.23 g
2		10/13/22	8:00	CTS-M-30-SY +200	SL	1	x	x								42.68 g
3		10/13/22	8:00	CTS-M-30-SY +270	SL	1	x	x								20.75 g
4		10/11/22	8:00	CTS-M-0-SL-01 +25	SL	1	x	x								8.34 g
5		10/11/22	8:00	CTS-M-0-SL-01 +50	SL	1	x	x								17.33 g
6		10/11/22	8:00	CTS-M-0-SL-01 +100	SL	1	x	x								38.48 g
7		10/11/22	8:00	CTS-M-0-SL-01 +140	SL	1	x	x								36.91 g
8		10/11/22	8:00	CTS-M-0-SL-01 +200	SL	1	x	x								48.80 g
9		10/11/22	8:00	CTS-M-0-SL-01 +270	SL	1	x	x								30.95 g
10		10/11/22	8:00	CTS-M-0-SL-01 -270	SL	1	x	x								155.64 g
11		10/13/22	11:30	CTS-H-4-SY +25	SL	1	x	x								2.07 g
12		10/13/22	11:30	CTS-H-4-SY +50	SL	1	x	x								11.82 g
13		10/13/22	11:30	CTS-H-4-SY +100-01	SL	1	x	x								17.87 g
14		10/13/22	11:30	CTS-H-4-SY +100-02	SL	1	x	x								17.88 g
LAB COMMENTS		Relinquished By (Signature/Printed) 				DATE 10/24/22	TIME 15:40	Received By (Signature/Printed)				DATE	TIME			
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS						
<input type="checkbox"/> UPS		Water WT		Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting.						
<input type="checkbox"/> FedEx		Soil SL		<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.						
<input type="checkbox"/> USPS		Solid SD		<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				Radium Compositing sheet attached						
<input type="checkbox"/> Hand Carried		Filter FT		<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N										
<input checked="" type="checkbox"/> Other <i>Lab courier</i>		Other OT		Rush & Urgent Surcharges will be applied		Sample Disposal: Lab Client <input checked="" type="checkbox"/>										



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- CHAIN OF CUSTODY RECORD -

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All shaded fields must be completed.

This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01			Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>			Telephone # 307-871-7291							
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson			ANALYSES / PARAMETERS			REMARKS							
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usa.com</i>													
		Phone 510-302-6310/307-871-7291													
		Purchase Order # 1150922			Quote #										
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD						
1		10/13/22	11:30	CTS-H-4-SY +140	SL	1	x	x	x						32.10 g, <i>MS/MSD for metals</i>
2		10/13/22	11:30	CTS-H-4-SY +200	SL	1	x	x							53.85 g
3		10/13/22	11:30	CTS-H-4-SY +270	SL	1	x	x							21.57 g
4		10/13/22	10:00	CTS-H-8-SY +25	SL	1	x	x							2.32 g
5		10/13/22	10:00	CTS-H-8-SY +50	SL	1	x	x							13.89 g
6		10/13/22	10:00	CTS-H-8-SY +100	SL	1	x	x							36.49 g
7		10/13/22	10:00	CTS-H-8-SY +140	SL	1	x	x							33.89 g
8		10/13/22	10:00	CTS-H-8-SY +200	SL	1	x	x							58.84 g
9		10/13/22	10:00	CTS-H-8-SY +270	SL	1	x	x							25.93 g
10		10/12/22	8:40	CTS-H-0-SL-01 +25	SL	1	x	x							8.76 g
11		10/12/22	8:40	CTS-H-0-SL-01 +50	SL	1	x	x							13.34 g
12		10/12/22	8:40	CTS-H-0-SL-01 +100	SL	1	x	x							36.25 g
13		10/12/22	8:40	CTS-H-0-SL-01 +140	SL	1	x	x							36.46 g
14		10/12/22	8:40	CTS-H-0-SL-01 +200	SL	1	x	x							59.96 g
LAB COMMENTS		Relinquished By (Signature/Printed) <i>[Signature]</i> Andrew Halverson				DATE	TIME	Received By (Signature/Printed)				DATE	TIME		
						10/26/22	15:40								
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS					
<input type="checkbox"/> UPS		Water WT		Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting.					
<input type="checkbox"/> FedEx		Soil SL		<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.					
<input type="checkbox"/> USPS		Solid SD		<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				Radium compositing sheet attached					
<input type="checkbox"/> Hand Carried		Filter FT		<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N									
<input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>		Other OT		Rush & Urgent Surcharges will be applied		Sample Disposal: Lab Client									



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- CHAIN OF CUSTODY RECORD -

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All shaded fields must be completed.

This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / ahalverson@disa-usa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	
						REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/12/22	8:40	CTS-H-0-SL-01 +270	SL	1	x	x									40.03 g
2		10/12/22	8:40	CTS-H-0-SL-01 -270	SL	1	x	x									199.00 g
3		10/17/22	9:53	CTS-H-30-SY +25	SL	1	x	x									1.34 g
4		10/17/22	9:53	CTS-H-30-SY +50	SL	1	x	x									12.84 g
5		10/17/22	9:53	CTS-H-30-SY +100-01	SL	1	x	x									16.53 g
6		10/17/22	9:53	CTS-H-30-SY +100-02	SL	1	x	x									16.52 g
7		10/17/22	9:53	CTS-H-30-SY +140	SL	1	x	x	x								31.06 g <i>ms/msd for metals</i>
8		10/17/22	9:53	CTS-H-30-SY +200	SL	1	x	x									35.64 g
9		10/17/22	9:53	CTS-H-30-SY +270	SL	1	x	x									37.82 g
10																	
11																	
12																	
13																	
14																	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/24/22	15:40			

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS	Water WT	Check desired service	Compliance Monitoring ? Y / N	Please return unused sample to Disa after reporting.
<input type="checkbox"/> FedEx	Soil SL	<input checked="" type="checkbox"/> Standard turnaround	Program (SDWA, NPDES,...)	Report preliminary metals before radionuclides.
<input type="checkbox"/> USPS	Solid SD	<input type="checkbox"/> RUSH - 5 Working Days	PWSID / Permit #	Radium compositing sheet attached
<input type="checkbox"/> Hand Carried	Filter FT	<input type="checkbox"/> URGENT - < 2 Working Days	Chlorinated? Y / N	
<input checked="" type="checkbox"/> Other <i>Secure dropoff</i>	Other OT	<i>Rush & Urgent Surcharges will be applied</i>	Sample Disposal: Lab Client <input checked="" type="checkbox"/>	

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC¹ (pCi/L)	Requested MDC¹ (pCi/L)	USEPA MCL² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.

² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).

* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service

GFPC Gas flow proportional counting

MCL Maximum contaminant level

MDC Minimum detectable concentration

NV No value

ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)

pCi/L Picocurie per liter

Scint Scintillation

SPLP Synthetic precipitation leaching procedure

USEPA U.S. Environmental Protection Agency

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."

U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226



Package Survey From

Date: 10/24/2022 Time: 16:40

Surveyor Name: Andrew Halverson

Package Description	<u>Cooler with <18 lb of <200 ppm Unat Soil</u>
Package Destination	<u>Pace Labs</u> <u>1673 Terra Avenue</u> <u>Sheridan, WY 82801</u>

Unat Specific Activity
7.1e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm²
Beta: 240 dpm/cm²

Contents	<u><200 ppm Unat Soil</u>	Exempt (Y/N)	<u>N</u>
Material Specific Activity	<u><1.42e-10 Ci/g</u>	UN2910 Excepted (Y/N)	<u>Y</u>
Contents Mass	<u><18 lb</u>		
Contents Total Activity	<u><1.2e-6 Ci</u>		

Instrument	
Manufacturer	<u>Ludlum</u>
Model	<u>19</u>
Serial No.	<u>268865</u>
Cal Due Date	<u>12/19/2022</u>
FC Passed (Y/N)	<u>Y</u>
Background	<u>9 µR/hr</u>

Location	Gross	Net
Top	13	4
Bottom	14	5
Side 1	16	7
Side 2	15	6
Side 3	9	—
Side 4	15	6

Package Sketch
Package Surface Area [cm²] <u>11,368</u>

Meter	
Manufacturer	<u>Ludlum</u>
Model	<u>2929</u>
Serial No.	<u>208319</u>
Cal Due Date	<u>06/27/2023</u>

Detector	
Manufacturer	<u>Ludlum</u>
Model	<u>43-10-1</u>
Serial No.	<u>PK215938</u>
Cal Due Date	<u>06/27/2023</u>

FC Passed (Y/N)	<u>Y</u>
BKG Alpha (cpm)	<u>0</u>
Beta/Gamma (cpm)	<u>55</u>
300 cm² Surveyed (Y/N)	<u>Y</u>
Entire Package Surveyed (Y/N)	<u>N</u>

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²		
Swipe 1	6	6	0.1	1.1	85	30	0.1	12.5	AM	<div> <div>Surveyor Signature</div> <div>Released</div> <div>Date: <u>10/26/22</u></div> <div>Time: <u>17:50</u></div> </div>
Swipe 2	6	6	0.1	1.1	69	14	0.1	5.8	AM	
Swipe 3	6	6	0.1	1.1	69	14	0.1	5.8	AM	
			0.1				0.1			

note: Wiped down and 3rd swipe taken



Package Survey From

Date: 10/26/2022 Time: 16:40 Surveyor Name: Andrew Halverson

Package Description	cooler with water and <16 lb of <2000 ppm Unat Soil
Package Destination	Face Labs 1673 Terra Avenue Sheridan, WY 82801

Unat Specific Activity
7.1e-7 Ci/g
Limits
Exempt: 2.7e-11 Ci/g
AND 2.7e-8 Ci
Excepted: 7.1e-7 Ci/g
A1 [Ci]: Unlimited
A2 [Ci]: Unlimited
0.5 mRem/hr
~500 µR/hr
Alpha: 24 dpm/cm²
Beta: 240 dpm/cm²

Contents	<2000ppm Unat Soil	Exempt (Y/N)	N
Material Specific Activity	<1.5e-9 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<16 lb		
Contents Total Activity	<1e-5 Ci		

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	9 mR/hr

Location	Gross	Net
Top	16	7
Bottom	42	33
Side 1	17	8
Side 2	15	6
Side 3	50	41
Side 4	24	15

Package Sketch

Package Surface Area [cm²] 11,460

Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

FC Passed (Y/N)	Y
BKG Alpha (cpm)	0
BKG Beta/Gamma	53
300 cm² Surveyed (Y/N)	Y
Entire Package Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled	AH
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²			
Swipe 1	19	19	0.1	3.6	87	34	0.1	14.2	AH	Andrew Halverson	Released
Swipe 2	16	16	0.1	3	96	43	0.1	17.9	AH		
			0.1				0.1			Date: 10/26/22	
			0.1				0.1			Time: 17:50	

Package Survey From

Date: 10/26/22 Time: 16:40

Surveyor Name: Andrew Halverson

Package Description	Cooler with water and 91b of 6000 ppm Unat soil
Package Destination	Pace Labs 1673 English Turn Avenue Sheridan, WY 82801

<p>Unat Specific Activity 7.1e-7 Ci/g</p> <p>Limits Exempt: 2.7e-11 Ci/g AND 2.7e-8 Ci Excepted: 7.1e-7 Ci/g</p> <p>A1 [Ci]: Unlimited A2 [Ci]: Unlimited 0.5 mRem/hr ~500 µR/hr Alpha: 24 dpm/cm² Beta: 240 dpm/cm²</p>
--

Contents	<6000 ppm Uranium	Exempt (Y/N)	N
Material Specific Activity	<4.3e-9 Ci/g	UN2910 Excepted (Y/N)	Y
Contents Mass	<9 lb		
Contents Total Activity	<1.8e-5 Ci		Package Skel

Instrument	
Manufacturer	Ludlum
Model	19
Serial No.	268865
Cal Due Date	12/19/2022
FC Passed (Y/N)	Y
Background	9 μ g/hr

Location	Gross	Net
Top	46	37
Bottom	32	23
Side 1	48	39
Side 2	30	21
Side 3	24	15
Side 4	24	15

Package Sketch

53cm

Swiped Area

36cm

38cm


BLUE

Package Surface Area [cm²] 10,580

Meter	
Manufacturer	Ludlum
Model	2929
Serial No.	208319
Cal Due Date	06/27/2023

Detector	
Manufacturer	Ludlum
Model	43-10-1
Serial No.	PR215938
Cal Due Date	06/27/2023

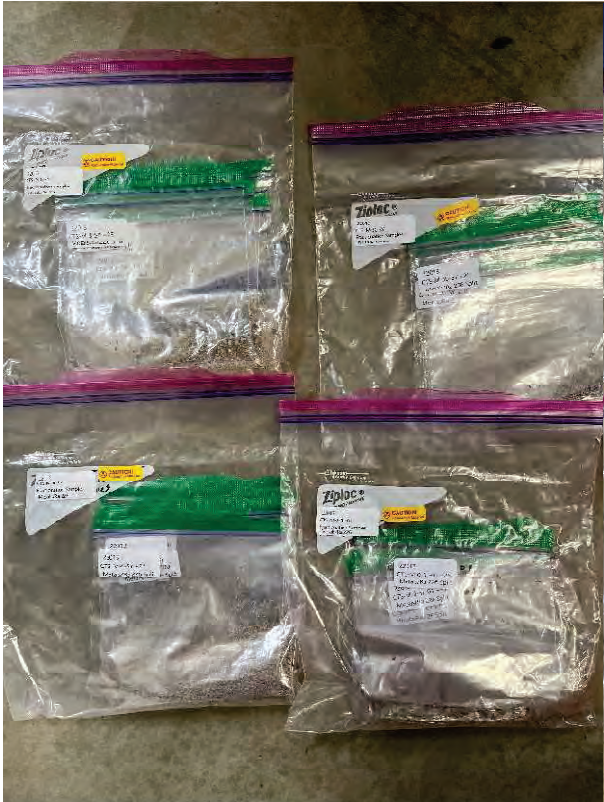
FC Passed (Y/N)	Y
BKG Alpha (cpm)	1
BKG	
Beta/Gamma	56
300 cm ²	
Surveyed (Y/N)	Y
Entire Package	
Surveyed (Y/N)	N

Measurement	Alpha				Beta/Gamma				Meets Limits	Labeled
	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²	Gross [cpm]	Net [cpm]	Swipe Efficiency	dpm/cm²		AM
Swipe 1	1	—	0.1	—	76	20	0.1	8.3	AM	<div>  </div> <div> Surveyor Signature: </div> <div> Released </div> <div> Date: 10/26/22 </div> <div> Time: 17:50 </div>
Swipe 2	10	9	0.1	1.7	88	32	0.1	13.3	AM	
			0.1				0.1			














PEEL HERE

 WPL WESTERN PEAKS LOGISTICS Phone: 307-266-2229 Fax: 307-266-9156		SHIPMENT NUMBER ORIGIN Nº C 2353	
SHIPPER Dish Technologies, Inc STREET 1653 English Ave CITY Casper STATE WY ZIP 82401 SHIPPER'S REF. NO. CONTACT 307-371-1244		CONSIGNEE Pace STREET CITY Sheridan STATE ZIP CONSIGNEE'S REF. NO. CONTACT PHONE SPECIAL INSTRUCTIONS	
BILL TO: (If Other Than Shipper Or Consignee) NAME ADDRESS CITY STATE ZIP		FREIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> CASH <input type="checkbox"/> OTHER (SEE BILL TO)	
DESCRIPTION OF CONTENTS PIECES 1 box with water & soil samples		WEIGHT SPECIAL SERVICE SIGNATURE SERVICE OTHER CHARGE	
SHIPPER'S CERTIFICATION: I certify that the above named articles are properly classified, packed, labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is not in excess of \$50 (or less) for any shipment of 100 pounds or less and not exceeding \$10 (or less) per pound for any shipment weighing in excess of 100 pounds.		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier	
SHIPPER'S SIGNATURE <i>[Signature]</i> PICKUP DATE/TIME		RECEIVED BY ACC EMPLOYEE DATE RCVD TIME RCVD PCS	
COPY DISTRIBUTION White - Delivery Receipt Canary - Original Invoice		RECEIVED IN GOOD ORDER EXCEPT AS NOTED	



FedEx PEEL HERE

WPL Phone: 307-266-2229 Fax: 307-266-9156
WESTERN PEAKS LOGISTICS

SHIPMENT NUMBER
ORIGIN **Nº C 2355**

SHIPPER **Disa Technologies, Inc.** CONSIGNEE **Pace**
STREET **1653 English Ave** STREET
CITY **Casper** STATE **WY** ZIP **82601** CITY **Sheridan** STATE ZIP
SHIPPER'S REF. NO. CONTACT PHONE **307-871-0291** CONSIGNEE'S REF. NO. CONTACT PHONE
BILL TO: (If Other Than Shipper Or Consignee)
SPECIAL INSTRUCTIONS

PIECES	DESCRIPTION OF CONTENTS	WEIGHT
1	Cooler with Soil samples	

SHIPPER certifies that the above named contents are properly classified, described, packaged, marked & labeled, and are in proper condition for transportation according to applicable regulations of the Department of Transportation. If a greater value is declared herein, the Shipper agrees and warrants that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding 50¢ (cents) per pound for any shipment weighing in excess of 100 pounds.

SPECIAL SERVICES
☐ Special Delivery
☐ Signature Service
☐ Verbal Delivery Confirmation
☐ Exclusive Truck
☐ Signature and Turnaround
☐ Intra-City Courier

DELIVERY DEADLINE
DECLARED VALUE

SHIPPER'S SIGNATURE *[Signature]* PICKUP DATE/TIME RECEIVED BY ACC EMPLOYEE
 COPY DISTRIBUTION
 White - Delivery Receipt
 Canary - Original Invoice

RECEIVED IN GOOD ORDER EXCEPT AS NOTED	DATE RCVD	TIME RCVD	PCS	DELIVERY DRIVER'S SIGNATURE

EXCESS VALUATION
SHIPPER'S C.O.D.
TOTAL CHARGES



WPL Phone: 307-266-2229 Fax: 307-266-9156
 WESTERN PEAK LOGISTICS

SHIPPER <i>Dism Technologies Inc.</i>		CONSIGNEE <i>Pace</i>		SHIPMENT NUMBER ORIGIN <i>Nº C 2154</i> 22	
STREET <i>1653 English Ave.</i>		STREET		DATE SHIPPED <i>10/26/2022</i>	
CITY <i>Casper</i>	STATE <i>WY</i> ZIP <i>82401</i>	CITY <i>Shoshone</i>	STATE <i>WY</i>	FREIGHT TERMS <input type="checkbox"/> PREPAID <input type="checkbox"/> COLLECT <input type="checkbox"/> C.O.D. <input type="checkbox"/> OTHER (SEE BILL TO)	
SHIPPER'S REF. NO.	CONTACT <i>PHONE 307-271-9241</i>	CONSIGNEE'S REF. NO. <i>10/26/2022</i>		SPECIAL INSTRUCTIONS	
BILL TO: (If Other Than Shipper Or Consignee)		SPECIAL INSTRUCTIONS		FREIGHT CHARGE	
PIECES <i>1</i>	DESCRIPTION OF CONTENTS <i>Carton with water and soil samples</i>		WEIGHT		SPECIAL SERVICE
SHIPPER certifies that the above named articles are property classified, described, packaged, marked & labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation. Unless a greater value is declared herein, the Shipper agrees and declares that the value of the property is released to an amount not exceeding \$50 (dollars) for any shipment of 100 pounds or less and not exceeding \$50 (cents) per pound for any shipment weighing in excess of 100 pounds.		SPECIAL SERVICES <input type="checkbox"/> Special Delivery <input type="checkbox"/> Signature Service <input type="checkbox"/> Verbal Delivery Confirmation <input type="checkbox"/> Exclusive Truck <input type="checkbox"/> Signature and Turnaround <input type="checkbox"/> Intra-City Courier		DELIVERY DEADLINE	
SHIPPER'S SIGNATURE <i>[Signature]</i>		PICKUP DATE/TIME		RECEIVED BY ACC EMPLOYEE	
COPY DISTRIBUTION White - Delivery Receipt Canary - Original Invoice		RECEIVED IN GOOD ORDER EXCEPT AS NOTED		DATE REC'D	TIME REC'D
				PCN	DELIVERY DRIVER'S SIGNATURE











Pace Analytical Services, LLC
Sheridan, WY and Gillette, WY

- CHAIN OF CUSTODY RECORD -

Page **2** of **11**

All shaded fields must be completed.

This is a legal document: any misrepresentation may be construed as fraud.

196921

Client Name Tetra Tech/Disa	Project Identification RAEST033/20365440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist / Andrew Halverson	ANALYSES / PARAMETERS <div>Water Only</div>	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov		
	Phone 510-302-6310 / 307-871-7291		
	Purchase Order # 1150922	Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SAMPLE IDENTIFICATION	Matrix	# of Containers	Total Metals by 6010/6020	Ra 226 Total	Ra 230 Total						REMARKS
1	2210450-001	10/13/22	NO TIME	CR Fractionation Water	WT	5	✓	✓	✓						Unfiltered, Not preserved
2	002	10/11/22	NO TIME	QV Fractionation Water	WT	5	✓	✓	✓						Unfiltered, Not preserved
3	003	10/18/22	NO TIME	CTS Fractionation Water	WT	5	✓	✓	✓						Unfiltered, Not preserved
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															Dis 10/27/22

LAB COMMENTS ral well OK 5.80C RdJ 5.10C 2.80C RdJ	Relinquished By (Signature/Printed) / Andrew Halverson	DATE 10/26/22	TIME 15:40	Received By (Signature/Printed) Daniel Slyn	DATE 10/27/22	TIME 12:01

SHIPPING INFO	MATRIX CODES	TURNAROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> Fed Express <input type="checkbox"/> US Mail <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other Lab Courier	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days Rush & Urgent Surcharges will be applied	Compliance Monitoring? Y/N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y/N Sample Disposal: Lab <input checked="" type="checkbox"/> Client	Water Samples in 2 separate coolers. Soil Samples divided into 3 coolers.



DC#_Title: ENV-FRM-SHRT-0033 v00_Condition Upon Receipt Form Terra Lab

Effective Date: 05/13/2022

Survey Meter # Model 2241-2; SN 182115
pH strip lot # HC293085
Thermometer SN# 27130475

Condition Upon Receipt (Attach to COC)

Sample Receipt

1 Number of ice chests/packages received: 23 ROI? Yes No
Note as "OTC" if samples are received over the counter, unpackaged

2 Temperature of cooler/samples. (If more than 8 coolers, please write on back)

Temps Observed (°C):	<u>5.8</u>	<u>5.1</u>	<u>2.0</u>						
Temps Corrected (°C):	<u>3.7</u>	<u>3.0</u>	<u>1.9</u>						

Acceptable is: 0.1° to 10°C for Bacteria; and 0.1° to 6°C for most other water parameters. Samples may not have had adequate time to cool following collection. Indicate ROI (Received on Ice) for iced samples received on the same day as sampled, in addition to temperature at receipt.

Client contact for temperatures outside method criteria must be documented below.

3 Emission rate of samples for radiochemical analyses < 0.5mR/hr? Yes No N/A
4 COC Number (If applicable): 196 921
5 Do the number of bottles agree with the COC? Yes No N/A
6 Were the samples received intact? (no broken bottles, leaks, etc.) Yes No N/A
7 Were the sample custody seals intact? Yes No N/A
8 Is the COC properly completed, legible, and signed? Yes No N/A

Sample Verification, Labeling & Distribution

1 Were all requested analyses understood and appropriate? Yes No
2 Did the bottle labels correspond with the COC information? Yes No
3 Samples collected in method-prescribed containers? Yes No
4 Sample Preservation:

pH at Receipt:	Final pH (if added in lab):	Preservative/Lot#
<u>7</u> Total Metals	<u>7</u> Total Metals	HNO ₃ _____
_____ Diss Metals	_____ Diss Metals	HNO ₃ _____
_____ Nutrient	_____ Nutrient	H ₂ SO ₄ _____
_____ Cyanide	_____ Cyanide	NaOH _____
_____ Sulfide	_____ Sulfide	ZnAcet _____
_____ Phenol	_____ Phenol	H ₂ SO ₄ _____
_____ SDWA Rads	_____ SDWA Rads	HNO ₃ _____

Date/Time Added: 10/27/22 15:00
Filtered and preserved in metals

Preservative Lot #
111 ITH-03: M-072722-2
112504: Chem 2-71-3
NaOH: Wet-3-40-1

5 VOA vials have <6mm headspace? Yes No N/A
6 Were all analyses within holding time at the time of receipt? Yes No N/A
7 Have rush or project due dates been checked and accepted? Yes No N/A
8 Do samples require subcontracted analyses? Yes No N/A

If "Yes", which type of subcontracting is required?

General

Customer-Specified

Certified

Sample Receipt, Verification, Login, Labeling & Distribution completed by (Initials): JS

Set ID: 52210450

Discrepancy Documentation (use back of sheet for notes on discrepancies)

Any items listed above with a response of "No" or do not meet specifications must be resolved.

Person Contacted: _____ Method of Contact: _____ Phone: _____
Initiated By: _____ Date/Time: _____ Email: _____
Problem: _____
Resolution: _____

COC Review


		Initials/Date: <u>WN 11/2/22</u>	Log Review		
		COC #: <u>196921</u>	Yes	No	N/A
1	Original COC attached, signed and dated		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Sample(s) received within temperature		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Parameter(s) requested		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Client		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Report recipient/address		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Invoice recipient/address		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Project and RLs Requested changes to Project must be communicated to Project Mgr.		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9	P. O. number		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Sample IDs		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11	Sample dates		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Date received		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Date due		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Matrix		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	PWSID included for safe drinking water compliance samples		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
16	Field data entered appropriately		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
17	Special requests indicated in "Comments" section of Work Order summary		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	All "No" responses on Condition Upon Receipt form have been resolved		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Data Review

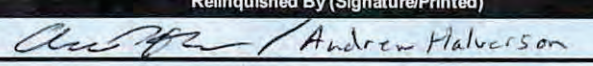

		Report Review		
1	Automated QC (Check Data button) review performed, discrepancies resolved.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Results compared to historical data if applicable	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Analysis date and time	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Analytical method	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Appropriate units of measure	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Analyst's initials	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Field data entered matches lab data	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9	Subcontracted analyses identified as such with qualifier or as attachment to lab report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
10	Subcontracted report reviewed	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
11	Invoice parameters match those on COC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final Review

1	Report appears complete and appropriate	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	All necessary analytical qualifiers included in report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Copies of report sent to all recipients requested on COC (circle) <u>Email</u> Hard Copy	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Copies of report sent to Regulator (ex. PWS ID)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6	All special requests listed on COC, or attached parameter list, honored.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Special report format per client request	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Case Narrative signed and includes completion date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson	ANALYSES / PARAMETERS <div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SPLP by Table A-12</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">SPLP by Table A-13</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">MS/MSD</div> </div>	
Invoice Address Tetra Tech	Email mike.dahlquist@tetratech.com / a.halverson@disa.com		
Phone 510-302-6310/307-871-7291	Purchase Order # 1150922		
Quote #		REMARKS	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	SPLP by Table A-12	SPLP by Table A-13	MS/MSD								
1	52210477-001	10/05/22	10:32	CTS-L-4-SY Combined +25/270	SL	1	x	x									363.88 g
2	002	10/06/22	9:45	CTS-L-8-SY Combined +25/270	SL	1	x	x									297.88 g
3	003	10/06/22	13:25	CTS-L-30-SY Combined +25/270	SL	1	x	x									253.43 g
4	004	10/11/22	9:30	CTS-M-4-SY Combined +25/270	SL	1	x	x									308.72 g
5	005	10/11/22	NO TIME	CTS-M-8-SY Combined +25/270	SL	1	x	x									294.18 g
6	006	10/13/22	8:00	CTS-M-30-SY Combined +25/270	SL	1	x	x									281.39 g
7	007	10/13/22	11:30	CTS-H-4-SY Combined +25/270	SL	1	x	x									311.15 g
8	008	10/13/22	10:00	CTS-H-8-SY Combined +25/270	SL	1	x	x									338.53 g
9	009	10/17/22	9:53	CTS-H-30-SY Combined +25/270	SL	1	x	x									298.63 g
10	010	10/03/22	14:40	QV-H-8-SY Combined +25/+270	SL	1	x	x	x								1012.12 g, MS/MSD for SPLP
11	011	10/03/22	21:20	QV-H-30-SY Combined +25/+270-01	SL	1	x	x									414.54 g
12	012	10/03/22	21:20	QV-H-30-SY Combined +25/+270-02	SL	1	x	x									413.32 g
13																	
14																	

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
Lead < 500 mR/h		10/26/22	15:40		10/27/22	10:21

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <small>Lab courier secured dropoff</small>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <small>Rush & Urgent Surcharges will be applied</small>	Compliance Monitoring? <input type="checkbox"/> Y / <input type="checkbox"/> N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <input type="checkbox"/> Y / <input type="checkbox"/> N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 and A-13 from Work Plan attached

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>

COC Review

Initials/Date:

WN 8/28/22

COC #:

WEB

Log Review
Yes No N/A

1	Original COC attached, signed and dated		<input checked="" type="checkbox"/>		
2	Sample(s) received within temperature				<input checked="" type="checkbox"/>
3	Parameter(s) requested		<input checked="" type="checkbox"/>		
4	Client		<input checked="" type="checkbox"/>		
5	Report recipient/address		<input checked="" type="checkbox"/>		
6	Invoice recipient/address		<input checked="" type="checkbox"/>		
7	Project and RLs	Requested changes to Project must be communicated to Project Mgr.			<input checked="" type="checkbox"/>
8	Prices may need to be adjusted prior to invoicing		<input checked="" type="checkbox"/>		
9	P. O. number		<input checked="" type="checkbox"/>		
10	Sample IDs		<input checked="" type="checkbox"/>		
11	Sample dates		<input checked="" type="checkbox"/>		
12	Date received		<input checked="" type="checkbox"/>		
13	Date due		<input checked="" type="checkbox"/>		
14	Matrix		<input checked="" type="checkbox"/>		
15	PWSID included for safe drinking water compliance samples				<input checked="" type="checkbox"/>
16	Field data entered appropriately				<input checked="" type="checkbox"/>
17	Special requests indicated in "Comments" section of Work Order summary		<input checked="" type="checkbox"/>		
18	All "No" responses on Condition Upon Receipt form have been resolved		<input checked="" type="checkbox"/>		

Data Review

Report Review

1	Automated QC (Check Data button) review performed, discrepancies resolved.		<input checked="" type="checkbox"/>		
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.		<input checked="" type="checkbox"/>		
3	Results compared to historical data if applicable				<input checked="" type="checkbox"/>
4	Analysis date and time		<input checked="" type="checkbox"/>		
5	Analytical method		<input checked="" type="checkbox"/>		
6	Appropriate units of measure		<input checked="" type="checkbox"/>		
7	Analyst's initials		<input checked="" type="checkbox"/>		
8	Field data entered matches lab data				<input checked="" type="checkbox"/>
9	Subcontracted analyses identified as such with qualifier or as attachment to lab report				<input checked="" type="checkbox"/>
10	Subcontracted report reviewed				<input checked="" type="checkbox"/>
11	Invoice parameters match those on COC		<input checked="" type="checkbox"/>		

Final Review

1	Report appears complete and appropriate		<input checked="" type="checkbox"/>		
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report				<input checked="" type="checkbox"/>
3	All necessary analytical qualifiers included in report		<input checked="" type="checkbox"/>		
4	Copies of report sent to all recipients requested on COC (circle)	Email	<input checked="" type="checkbox"/>		
5	Copies of report sent to Regulator (ex. PWS ID)	Hard Copy			<input checked="" type="checkbox"/>
6	All special requests listed on COC, or attached parameter list, honored.		<input checked="" type="checkbox"/>		
7	Special report format per client request		<input checked="" type="checkbox"/>		
8	Case Narrative signed and includes completion date		<input checked="" type="checkbox"/>		

Table A-13. Aqueous Radionuclide Analytical Parameter Summary for SPLP Extract

Analyte	CAS Number	Analytical Method	MDC ¹ (pCi/L)	Requested MDC ¹ (pCi/L)	USEPA MCL ² (pCi/L)	ORNL Ecological Screening Level (pCi/L)
Radium-226	13982-63-3	Alpha Scint USEPA 903.1	0.2	0.1	5 *	160
Radium-228	15262-20-1	GFPC USEPA 904.0	1.0	0.1	5 *	NV

Notes:

¹ MDCs requested from laboratories based on the expertise of the certified health physicist and project chemist.

² MCLs from USEPA National Primary Drinking Water Regulations (USEPA 2009).

* The MCL for radium-226 and radium-228 is defined on a combined basis. The MCL for total radium (radium-226 + radium-228) is 5 pCi/L.

CAS Chemical Abstracts Service

GFPC Gas flow proportional counting

MCL Maximum contaminant level

MDC Minimum detectable concentration

NV No value

ORNL Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory (Bechtel Jacobs Company 1998)

pCi/L Picocurie per liter

Scint Scintillation


SPLP Synthetic precipitation leaching procedure

USEPA U.S. Environmental Protection Agency

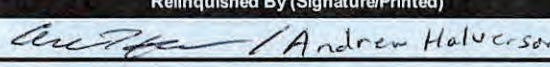

Sources:

Bechtel Jacobs Company. 1998. "Radiological Benchmarks for Screening Contaminants of Potential Concern for Effects on Aquatic Biota at Oak Ridge National Laboratory, Oak Ridge, Tennessee."

U.S. Environmental Protection Agency (USEPA). 2009. "National Primary Drinking Water Regulations." EPA 816-F-09-004. May.

Client Name Tetra Tech/Disa	Project Identification RAES TO33/103G5440033.03.01	Sampler (Signature/Attestation of Authenticity) 	Telephone # 307-871-7291
Report Address Tetra Tech/Disa	Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <div style="display: flex; justify-content: space-around;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Metals by 6010/602</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Ra 226 by 901.1</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TCLP by Table A-12</div> </div>
Invoice Address Tetra Tech	Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.wy.gov</i>		
	Phone 510-302-6310/307-871-7291	Quote # 1150922	

ITEM	LAB ID	DATE	TIME	SAMPLE	Matrix	# of	Metal	Ra 22	TCLP						REMARKS
	(Lab Use Only)	SAMPLED	IDENTIFICATION	Containers											
1	52210480-001	10/24/22	18:35	QV-L-4-SY -270 Concentrate	SL	1	x	x	x						280.73 g
2	002	10/24/22	18:45	QV-L-8-SY -270 Concentrate	SL	1	x	x	x						362.72 g
3	003	10/24/22	18:55	QV-L-30-SY -270 Concentrate	SL	1	x	x	x						394.32 g
4	004	10/24/22	19:04	QV-M-4-SY -270 Concentrate	SL	1	x	x	x						375.01 g
5	005	10/24/22	19:08	QV-M-8-SY -270 Concentrate	SL	1	x	x	x						393.39 g
6	006	10/24/22	19:10	QV-M-30-SY -270 Concentrate	SL	1	x	x	x						404.61 g
7	007	10/24/22	19:21	QV-H-4-SY -270 Concentrate	SL	1	x	x	x						470.18 g
8	008	10/24/22	19:26	QV-H-8-SY -270 Concentrate	SL	1	x	x	x						470.56 g
9	009	10/24/22	19:30	QV-H-30-SY -270 Concentrate	SL	1	x	x	x						459.77 g
10	010	10/24/22	19:38	CR-L-4-SY -270 Concentrate	SL	1	x	x	x						298.92 g
11	011	10/24/22	19:43	CR-L-8-SY -270 Concentrate	SL	1	x	x	x						309.37 g
12	012	10/24/22	19:46	CR-L-30-SY -270 Concentrate	SL	1	x	x	x						333.14 g
13	013	10/24/22	19:57	CR-M-4-SY -270 Concentrate	SL	1	x	x	x						271.70 g
14	014	10/24/22	20:02	CR-M-8-SY -270 Concentrate	SL	1	x	x	x						334.43 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	 Andrew Halverson	10/24/22	15:40		10/28/22	15:42

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secured pickup</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input checked="" type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached



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- CHAIN OF CUSTODY RECORD -

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All shaded fields must be completed.

This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922					
		Quote #					
REMARKS							

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD					
1	52210480-015	10/24/22	20:05	CR-M-30-SY -270 Concentrate	SL	1	x	x	x						350.94 g
2	016	10/13/22	11:30	CTS-H-4-SY -270-01	SL	1	x	x	x						304.81 g
3	017	10/13/22	11:30	CTS-H-4-SY -270-02	SL	1	x	x	x						301.03 g
4	018	10/13/22	10:00	CTS-H-8-SY -270	SL	1	x	x	x						659.54 g
5	019	10/17/22	9:53	CTS-H-30-SY -270	SL	1	x	x	x	x					699.81 g, MS/MSD to metals and TCLP
6	020	10/24/22	20:14	CR-H-4-SY -270 Concentrate	SL	1	x	x	x						241.01 g
7	021	10/24/22	20:17	CR-H-8-SY -270 Concentrate	SL	1	x	x	x						343.28 g
8	022	10/24/22	20:22	CR-H-30-SY -270 Concentrate	SL	1	x	x	x						358.80 g
9	023	10/11/22	9:30	CTS-M-4-SY -270	SL	1	x	x	x						546.55 g
10	024	10/11/22	NO TIME	CTS-M-8-SY -270	SL	1	x	x	x						571.44 g
11	025	10/13/22	8:00	CTS-M-30-SY -270	SL	1	x	x	x						596.81 g
12	026	10/05/22	10:32	CTS-L-4-SY -270	SL	1	x	x	x						591.53 g
13	027	10/06/22	8:45	CTS-L-8-SY -270-01	SL	1	x	x	x						303.14 g
14	028	10/06/22	8:45	CTS-L-8-SY -270-02	SL	1	x	x	x						297.70 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Andrew Halverson	10/26/22	15:40		10/28/	1542

SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION		ADDITIONAL REMARKS	
<input type="checkbox"/> UPS	Water	WT	Check desired service		Compliance Monitoring ?	Y / N	Please return unused sample to Disa after reporting.		
<input type="checkbox"/> FedEx	Soil	SL	<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)		Report preliminary metals before radionuclides.		
<input type="checkbox"/> USPS	Solid	SD	<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #		Table A-12 from Work Plan attached		
<input type="checkbox"/> Hand Carried	Filter	FT	<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated?	Y / N			
<input checked="" type="checkbox"/> Other <i>Lab courier Secure dropoff</i>	Other	OT	Rush & Urgent Surcharges will be applied		Sample Disposal: Lab	Client			



Pace Analytical
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- CHAIN OF CUSTODY RECORD -

Page **5** of **11**

All shaded fields must be completed.

This is a legal document; any misrepresentation may be construed as fraud.

#WEB

Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.usa.com					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	TCLP by Table A-12	MS/MSD					REMARKS
1	52210480-028	10/06/22	13:25	CTS-L-30-SY-270	SL	1	x	x	x	x					667.67 g MS/ASP for Metals and TCLP
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/24/22	15:40		10/28/22	15:42

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other Lab Courier Secure Dropoff	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Table A-12 from Work Plan attached

Table A-12. Aqueous Metals Analytical Parameter Summary for SPLP and TCLP Extracts

Analyte	CAS Number	Analytical Method	MDL ¹ (µg/L)	Reporting Limit (µg/L)	TCLP Criteria (µg/L)	USEPA RSL Tap Water ² (µg/L)
Aluminum	7429-90-5	USEPA 6010	4.68	100	NP	20,000
Antimony	7440-36-0	USEPA 6010	34.02	50	NP	7.8
Arsenic	7440-38-2	USEPA 6010	1.54	20	5,000	0.052
Barium	7440-39-3	USEPA 6010	0.19	50	100,000	3,800
Beryllium	7440-41-7	USEPA 6010	0.13	20	NP	25
Cadmium	7440-43-9	USEPA 6010	0.08	50	1,000	9.2
Chromium	7440-47-3	USEPA 6010	0.24	10	5,000	NP
Cobalt	7440-48-4	USEPA 6010	3.88	10	NP	6
Copper	7440-50-8	USEPA 6010	0.91	10	NP	800
Iron	7439-89-6	USEPA 6010	9.33	50	NP	14,000
Lead	7439-92-1	USEPA 6010	1.59	200	5,000	15
Manganese	7439-96-5	USEPA 6010	0.19	100	NP	430
Mercury	7439-97-6	USEPA 7470	0.05	1	200	6
Molybdenum	7439-98-7	USEPA 6010	3.45	10	NP	100
Nickel	7440-02-0	USEPA 6010	2.55	20	NP	390
Selenium	7782-49-2	USEPA 6010	4.00	200	1,000	100
Silver	7440-22-4	USEPA 6010	0.58	50	5,000	94
Thallium	7440-28-0	USEPA 6010	26.68	200	NP	0.2
Vanadium	7440-62-2	USEPA 6010	1.58	5	NP	86
Uranium (natural)	7440-61-1	USEPA 6010	24.08	50	NP	NP
Zinc	7440-66-6	USEPA 6010	14.71	200	NP	6,000

Notes:

Analyte SPLP extracts

Analyte TCLP extract only

Analyte TCLP and SPLP extracts

¹ MDLs are specific to the contract laboratory. As MDLs are instrument specific, MDLs may vary depending on which instrument is used.

² TR = 1 E-6; THQ = 1

µg/L Microgram per liter

CAS Chemical Abstracts Service

MDL Method detection limit

NNEPA Navajo Nation Environmental Protection

Agency

NP Not promulgated

RSL Regional screening level

SPLP Synthetic precipitation leaching procedure

TCLP Toxicity characteristic leaching procedure

THQ Target hazard quotient

TR Target cancer risk

USEPA U.S. Environmental Protection Agency

Source:

USEPA (2021). "Regional Screening Levels (RSLs) - Generic Tables." <https://www.epa.gov/risk/regional-screening-levels-rsls-generic-tables>



Report Review Checklist

		Log Review
COC Review	Information on COC matches that on report; spelling accurate.	Initials/Date: <u>WN 1/2/22</u>
1	Original COC attached, signed and dated.	<u>✓</u>
2	Samples received within temperature	<u>✓</u>
2	Parameters requested.	<u>✓</u>
3	Client.	<u>✓</u>
4	Report recipient/address.	<u>✓</u>
5	Invoice recipient/address.	<u>✓</u>
6	Project. Requested changes to Project must be communicated to Project Mgr.	<u>NA</u>
7	Appropriate detection limits (RLs) assigned.	<u>✓</u>
8	Prices may need to be adjusted prior to invoicing. (circle)	Yes or No <u>✓</u>
9	P. O. number.	<u>✓</u>
10	Sample IDs.	<u>✓</u>
11	Sample dates.	<u>✓</u>
12	Date received.	<u>✓</u>
13	Date due.	<u>✓</u>
14	Matrix.	<u>✓</u>
15	PWSID included for safe drinking water compliance samples.	<u>NA</u>
16	Field data entered appropriately (Log Review); matches lab data (Report Review).	<u>NA</u>
17	Special requests indicated in "Comments" section of Work Order summary.	<u>✓</u>
18	All "No" responses on Condition Upon Receipt form have been resolved	Yes or No <u>✓</u>
Data Review		Report Review
1	Automated QC (Check Data button) review performed, discrepancies resolved.	<u>✓</u>
2	Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary.	<u>✓</u>
3	Worksheet/instrument data compared to report results for calculation, transcription and data entry errors.	<u>✓</u>
4	Results compared to historical data if applicable.	<u>NA</u>
5	Analysis date and time.	<u>✓</u>
6	Analytical method.	<u>✓</u>
7	Appropriate detection limits (RLs) assigned.	<u>✓</u>
8	Appropriate units of measure.	<u>✓</u>
9	Analyst's initials.	<u>✓</u>
10	Calculations checked?	<u>✓</u>
11	Subcontracted analyses identified as such with qualifier or as attachment to lab report	<u>NA</u>
12	Subcontracted report reviewed	<u>NA</u>
13	Invoice parameters match those on COC.	<u>✓</u>
Final Review		
1	Report appears complete and appropriate.	<u>✓</u>
2	Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report.	<u>✓</u>
3	All necessary qualifiers included in report.	<u>✓</u>
4	Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies.	<u>✓</u>
5	Anomalies, including reason for report reissue, explained in Case Narrative.	<u>✓</u>
6	Copies of report sent to all recipients requested on COC. (circle)	Copy to Regulator Hard Copy <u>Email</u>
7	All special requests listed on COC, or attached parameter list, honored.	<u>✓</u>
8	Special report format per client request.	<u>✓</u>
9	Report pages signed.	<u>✓</u>



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- CHAIN OF CUSTODY RECORD -

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS <div>Metals by 6010/602</div> <div>Ra 226 by 901.1</div> <div>MS/MSD</div>			
Invoice Address Tetra Tech		Email <i>Mike.Dahlquist@tetratech.com / andrew.halverson@disausa.com</i>					
		Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #	

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD						REMARKS
1		10/05/22	10:32	CTS-L-4-SY +25	SL	1	x	x							7.60 g
2		10/05/22	10:32	CTS-L-4-SY +50	SL	1	x	x							22.83 g
3		10/05/22	10:32	CTS-L-4-SY +100	SL	1	x	x							42.21 g
4		10/05/22	10:32	CTS-L-4-SY +140	SL	1	x	x							32.19 g
5		10/05/22	10:32	CTS-L-4-SY +200	SL	1	x	x							41.97 g
6		10/05/22	10:32	CTS-L-4-SY +270	SL	1	x	x							36.12 g
7		10/06/22	8:45	CTS-L-8-SY +25	SL	1	x	x							2.06 g
8		10/06/22	8:45	CTS-L-8-SY +50	SL	1	x	x							13.37 g
9		10/06/22	8:45	CTS-L-8-SY +100	SL	1	x	x							32.59 g
10		10/06/22	8:45	CTS-L-8-SY +140	SL	1	x	x							28.84 g
11		10/06/22	8:45	CTS-L-8-SY +200	SL	1	x	x							48.94 g
12		10/06/22	8:45	CTS-L-8-SY +270	SL	1	x	x							25.12 g
13		10/06/22	13:25	CTS-L-30-SY +25	SL	1	x	x							1.40 g
14		10/06/22	13:25	CTS-L-30-SY +50	SL	1	x	x							8.52 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/26/22	15:40		10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? <u>Y / N</u> Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <u>Y / N</u> Sample Disposal: Lab <input checked="" type="checkbox"/> Client <input type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached



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- CHAIN OF CUSTODY RECORD -

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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) 		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disausa.com					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922		Quote #			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD							REMARKS
1		10/06/22	13:25	CTS-L-30-SY +100-01	SL	1	x	x								12.34 g
2		10/06/22	13:25	CTS-L-30-SY +100-02	SL	1	x	x								12.34 g
3		10/06/22	13:25	CTS-L-30-SY +140	SL	1	x	x	x							24.22 g, MS/MSD for 17x+15
4		10/06/22	13:25	CTS-L-30-SY +200	SL	1	x	x								44.76 g
5		10/06/22	13:25	CTS-L-30-SY +270	SL	1	x	x								22.93 g
6		10/04/22	15:31	CTS-0-SL-01 +25	SL	1	x	x								6.88 g
7		10/04/22	15:31	CTS-0-SL-01 +50	SL	1	x	x								11.73 g
8		10/04/22	15:31	CTS-0-SL-01 +100	SL	1	x	x								32.09 g
9		10/04/22	15:31	CTS-0-SL-01 +140	SL	1	x	x								35.57 g
10		10/04/22	15:31	CTS-0-SL-01 +200	SL	1	x	x								43.80 g
11		10/04/22	15:31	CTS-0-SL-01 +270	SL	1	x	x								36.63 g
12		10/04/22	15:31	CTS-0-SL-01 -270	SL	1	x	x								143.58 g
13		10/11/22	9:30	CTS-M-4-SY +25	SL	1	x	x								3.16 g
14		10/11/22	9:30	CTS-M-4-SY +50	SL	1	x	x								17.48 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	Andrew Halverson	10/26/22	15:40		10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier SecureDropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? <input type="checkbox"/> Y / <input type="checkbox"/> N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? <input type="checkbox"/> Y / <input type="checkbox"/> N Sample Disposal: Lab <input type="checkbox"/> Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached



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Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.wa.com					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922		Quote #			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD							REMARKS
1		10/11/22	9:30	CTS-M-4-SY +100	SL	1	x	x								38.16 g
2		10/11/22	9:30	CTS-M-4-SY +140	SL	1	x	x								31.44 g
3		10/11/22	9:30	CTS-M-4-SY +200	SL	1	x	x								41.30 g
4		10/11/22	9:30	CTS-M-4-SY +270	SL	1	x	x								23.83 g
5		10/11/22	NO TIME	CTS-M-8-SY +25	SL	1	x	x								3.02 g
6		10/11/22	NO TIME	CTS-M-8-SY +50	SL	1	x	x								14.55 g
7		10/11/22	NO TIME	CTS-M-8-SY +100-01	SL	1	x	x								18.58 g
8		10/11/22	NO TIME	CTS-M-8-SY +100-02	SL	1	x	x								18.57 g
9		10/11/22	NO TIME	CTS-M-8-SY +140	SL	1	x	x	x							29.31 g, ms/msd for metals
10		10/11/22	NO TIME	CTS-M-8-SY +200	SL	1	x	x								40.04 g
11		10/11/22	NO TIME	CTS-M-8-SY +270	SL	1	x	x								24.08 g
12		10/13/22	8:00	CTS-M-30-SY +25	SL	1	x	x								2.01 g
13		10/13/22	8:00	CTS-M-30-SY +50	SL	1	x	x								13.28 g
14		10/13/22	8:00	CTS-M-30-SY +100	SL	1	x	x								35.74 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
		10/26/22	15:40		10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Courier Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached



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Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email mike.dahlquist@tetratech.com / a.halverson@disa.usa.com					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922		Quote #			
				REMARKS			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD								
1		10/13/22	8:00	CTS-M-30-SY +140	SL	1	x	x									27.23 g
2		10/13/22	8:00	CTS-M-30-SY +200	SL	1	x	x									42.68 g
3		10/13/22	8:00	CTS-M-30-SY +270	SL	1	x	x									20.75 g
4		10/11/22	8:00	CTS-M-0-SL-01 +25	SL	1	x	x									8.34 g
5		10/11/22	8:00	CTS-M-0-SL-01 +50	SL	1	x	x									17.33 g
6		10/11/22	8:00	CTS-M-0-SL-01 +100	SL	1	x	x									38.48 g
7		10/11/22	8:00	CTS-M-0-SL-01 +140	SL	1	x	x									36.91 g
8		10/11/22	8:00	CTS-M-0-SL-01 +200	SL	1	x	x									48.80 g
9		10/11/22	8:00	CTS-M-0-SL-01 +270	SL	1	x	x									30.95 g
10		10/11/22	8:00	CTS-M-0-SL-01 -270	SL	1	x	x									155.64 g
11		10/13/22	11:30	CTS-H-4-SY +25	SL	1	x	x									2.07 g
12		10/13/22	11:30	CTS-H-4-SY +50	SL	1	x	x									11.82 g
13		10/13/22	11:30	CTS-H-4-SY +100-01	SL	1	x	x									17.87 g
14		10/13/22	11:30	CTS-H-4-SY +100-02	SL	1	x	x									17.88 g

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	/ Andrew Halverson	10/24/22	15:40		10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab courier secure dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring ? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium Compositing sheet attached



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291										
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS												
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disa.usa.com</i>														
Phone 510-302-6310/307-871-7291		Purchase Order # 1150922		Quote #		REMARKS										
ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD							
1		10/13/22	11:30	CTS-H-4-SY +140	SL	1	x	x	x							32.10 g, MS/MSD for Metals
2		10/13/22	11:30	CTS-H-4-SY +200	SL	1	x	x								53.85 g
3		10/13/22	11:30	CTS-H-4-SY +270	SL	1	x	x								21.57 g
4		10/13/22	10:00	CTS-H-8-SY +25	SL	1	x	x								2.32 g
5		10/13/22	10:00	CTS-H-8-SY +50	SL	1	x	x								13.89 g
6		10/13/22	10:00	CTS-H-8-SY +100	SL	1	x	x								36.49 g
7		10/13/22	10:00	CTS-H-8-SY +140	SL	1	x	x								33.89 g
8		10/13/22	10:00	CTS-H-8-SY +200	SL	1	x	x								58.84 g
9		10/13/22	10:00	CTS-H-8-SY +270	SL	1	x	x								25.93 g
10		10/12/22	8:40	CTS-H-0-SL-01 +25	SL	1	x	x								8.76 g
11		10/12/22	8:40	CTS-H-0-SL-01 +50	SL	1	x	x								13.34 g
12		10/12/22	8:40	CTS-H-0-SL-01 +100	SL	1	x	x								36.25 g
13		10/12/22	8:40	CTS-H-0-SL-01 +140	SL	1	x	x								36.46 g
14		10/12/22	8:40	CTS-H-0-SL-01 +200	SL	1	x	x								59.96 g
LAB COMMENTS		Relinquished By (Signature/Printed) <i>[Signature]</i> Andrew Halverson				DATE 10/26/22	TIME 15:40	Received By (Signature/Printed) <i>[Signature]</i>				DATE 10/28/22	TIME 13:00			
SHIPPING INFO		MATRIX CODES		TURN AROUND TIMES		COMPLIANCE INFORMATION				ADDITIONAL REMARKS						
<input type="checkbox"/> UPS		Water WT		Check desired service		Compliance Monitoring ? Y / N				Please return unused sample to Disa after reporting.						
<input type="checkbox"/> FedEx		Soil SL		<input checked="" type="checkbox"/> Standard turnaround		Program (SDWA, NPDES,...)				Report preliminary metals before radionuclides.						
<input type="checkbox"/> USPS		Solid SD		<input type="checkbox"/> RUSH - 5 Working Days		PWSID / Permit #				Radium compositing sheet attached						
<input type="checkbox"/> Hand Carried		Filter FT		<input type="checkbox"/> URGENT - < 2 Working Days		Chlorinated? Y / N										
<input checked="" type="checkbox"/> Other Lab courier secure dropoff		Other OT		Rush & Urgent Surcharges will be applied		Sample Disposal: Lab Client <input checked="" type="checkbox"/>										



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Client Name Tetra Tech/Disa		Project Identification RAES TO33/103G5440033.03.01		Sampler (Signature/Attestation of Authenticity) <i>[Signature]</i>		Telephone # 307-871-7291	
Report Address Tetra Tech/Disa		Contact Name Mike Dahlquist/Andrew Halverson		ANALYSES / PARAMETERS			
Invoice Address Tetra Tech		Email <i>mike.dahlquist@tetratech.com / a.halverson@disausa.com</i>					
		Phone 510-302-6310/307-871-7291					
		Purchase Order # 1150922		Quote #			

ITEM	LAB ID (Lab Use Only)	DATE SAMPLED	TIME	SAMPLE IDENTIFICATION	Matrix	# of Containers	Metals by 6010/602	Ra 226 by 901.1	MS/MSD						REMARKS
1		10/12/22	8:40	CTS-H-0-SL-01 +270	SL	1	x	x							40.03 g
2		10/12/22	8:40	CTS-H-0-SL-01 -270	SL	1	x	x							199.00 g
3		10/17/22	9:53	CTS-H-30-SY +25	SL	1	x	x							1.34 g
4		10/17/22	9:53	CTS-H-30-SY +50	SL	1	x	x							12.84 g
5		10/17/22	9:53	CTS-H-30-SY +100-01	SL	1	x	x							16.53 g
6		10/17/22	9:53	CTS-H-30-SY +100-02	SL	1	x	x							16.52 g
7		10/17/22	9:53	CTS-H-30-SY +140	SL	1	x	x	x						31.06 g <i>ms/msd for metals</i>
8		10/17/22	9:53	CTS-H-30-SY +200	SL	1	x	x							35.64 g
9		10/17/22	9:53	CTS-H-30-SY +270	SL	1	x	x							37.82 g
10															
11															
12															
13															
14															

LAB COMMENTS	Relinquished By (Signature/Printed)	DATE	TIME	Received By (Signature/Printed)	DATE	TIME
	<i>[Signature]</i> / Andrew Halverson	10/24/22	15:40	<i>[Signature]</i>	10/28/22	13:00

SHIPPING INFO	MATRIX CODES	TURN AROUND TIMES	COMPLIANCE INFORMATION	ADDITIONAL REMARKS
<input type="checkbox"/> UPS <input type="checkbox"/> FedEx <input type="checkbox"/> USPS <input type="checkbox"/> Hand Carried <input checked="" type="checkbox"/> Other <i>Lab Carrier Secure Dropoff</i>	Water WT Soil SL Solid SD Filter FT Other OT	Check desired service <input checked="" type="checkbox"/> Standard turnaround <input type="checkbox"/> RUSH - 5 Working Days <input type="checkbox"/> URGENT - < 2 Working Days <i>Rush & Urgent Surcharges will be applied</i>	Compliance Monitoring? Y / N Program (SDWA, NPDES,...) PWSID / Permit # Chlorinated? Y / N Sample Disposal: Lab Client <input checked="" type="checkbox"/>	Please return unused sample to Disa after reporting. Report preliminary metals before radionuclides. Radium compositing sheet attached

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet.
2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	136.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	CTS-M-30-SY +200/+270 Composite	61.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
9	CTS-H-0-SL-01 +25/+140 Composite	90.81	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-H-0-SL-01 +200/+270 Composite	97.99	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-H-4-SY +25/+140 Composite	73.74	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
12	CTS-H-4-SY +200/+270 Composite	73.42	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-H-8-SY +25/+140 Composite	82.59	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-H-8-SY +200/+270 Composite	82.77	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-H-30-SY +25/+140 Composite	70.29	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split and MS/MSD metals split for 140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-H-30-SY +200/+270 Composite	71.46	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-4-SY +25	100.55	After metals split, analyze remaining mass for Ra 226
18	QV-H-4-SY +50-01	111.76	After metals split, split further into a duplicate and analyze for Ra 226
19	QV-H-4-SY +50-02	111.76	After metals split, split further into a duplicate and analyze for Ra 226
20	QV-H-4-SY +100/+270 Composite	195.37	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
1	QV-H-8-SY +25	88.94	After metals split, analyze remaining mass for Ra 226
2	QV-H-8-SY +50	215.80	After metals split, analyze remaining mass for Ra 226
3	QV-H-8-SY +100/+270 Composite	201.75	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Homogenize, then analyze for Ra 226
4	QV-H-30-SY +25	60.80	After metals split, analyze remaining mass for Ra 226
5	QV-H-30-SY +50-01	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 226
6	QV-H-30-SY +50-02	80.75	After metals split and MS/MSD metals split, split into duplicate. Analyze for Ra 227
7	QV-H-30-SY +100/+270 Composite	183.71	After metals split, combine +100-, +140-, +200-, and +270-mesh into composite. Combine both 100-mesh metals duplicates into this composite. Homogenize, then analyze for Ra 226

8	QV-M-30-SY +100/+270 Composite	148.98	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
9	CTS-L-0-SL-01 +25/+140 Composite	82.27	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
10	CTS-L-0-SL-01 +200/+270 Composite	78.43	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
11	CTS-L-4-SY +25/+140 Composite	100.83	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
12	CTS-L-4-SY +200/+270 Composite	76.09	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
13	CTS-L-8-SY +25/+140 Composite	72.86	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
14	CTS-L-8-SY +200/+270 Composite	71.06	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
15	CTS-L-30-SY +25/+140 Composite	50.82	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for metals split from -140-mesh fraction combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both 100-mesh duplicates into this composite. Homogenize, then analyze for Ra 226
16	CTS-L-30-SY +200/+270 Composite	66.69	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-H-0-SL-01 +25	56.53	After metals split, analyze remaining mass for Ra 226
18	QV-H-0-SL-01 +50	108.53	After metals split, analyze remaining mass for Ra 226
19	QV-H-0-SL-01 +100/+270 Composite-01	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-H-0-SL-01 +100/+270 Composite-02	69.25	After metals split combine +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	CTS-M-0-SL-01 +25/+140 Composite	97.06	After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
2	CTS-M-0-SL-01 +200/+270 Composite	77.75	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
3	CTS-M-4-SY +25/+140 Composite	86.24	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226
4	CTS-M-4-SY +200/+270 Composite	63.13	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
5	CTS-M-8-SY +25/+140 Composite	76.03	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals and MS/MSD for 140-mesh fraction split combine fractions of +25-, +50-, +100-, and +140-mesh. Combine both metals duplicates for 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
6	CTS-M-8-SY +200/+270 Composite	62.12	After metals split combine fractions of +200- and +270-mesh. Homogenize, then analyze for Ra 226
7	CTS-M-30-SY +25/+140 Composite	74.26	There may be no remaining mass in the +25-mesh fraction after metals subsampling. Note if no mass remaining. After metals split combine fractions of +25-, +50-, +100-, and +140-mesh. Homogenize, then analyze for Ra 226

Ra 226 Sample Compositing Summary

Note: 36 samples from the 27 (SY samples) concentrate fractions and 9 (SL samples) -270 fractions not included in this splitting sheet, 2 duplicates and 2 MSD for metals have already been indicated for those samples

Legend
Duplicate

Sample Count	Sample ID	Estimated Composite Mass From This Sheet	Directions
1	CR-L-0-SL-01 +25/+100 Composite	104.72	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
2	CR-L-0-SL-01 +140/+270 Composite	124.77	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
3	CR-L-4-SY +25/+100 Composite	98.00	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	CR-L-4-SY +140/+270 Composite	102.69	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
5	CR-L-8-SY +25/+100 Composite	104.23	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
6	CR-L-8-SY +140/+270 Composite	110.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-L-30-SY +25/+100 Composite	97.04	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
8	CR-L-30-SY +140/+270 Composite	110.68	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	CR-M-0-SL-01 +25/+100 Composite	194.84	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
10	CR-M-0-SL-01 +140/+270 Composite	57.67	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	CR-M-4-SY +25/+100 Composite	198.26	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
12	CR-M-4-SY +140/+270 Composite	50.98	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	CR-M-8-SY +25/+100 Composite	264.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Homogenize, then analyze for Ra 226
14	CR-M-8-SY +140/+270 Composite	56.50	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	CR-M-30-SY +25/+100 Composite	207.32	After metals split combine fractions of +25-, +50-, and +100-mesh. Combine both metals duplicates of the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
16	CR-M-30-SY +140/+270 Composite	55.88	After metals split combine fractions of +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	CR-H-8-SY +25	94.13	After metals split, analyze remaining mass for Ra 226
18	CR-H-8-SY +50-01	81.39	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
19	CR-H-8-SY +50-02	81.38	After metals split, analyze remaining mass for Ra 226. This was already submitted as a duplicate sample and should have enough remaining mass to perform Ra 226 analysis as is.
20	CR-H-8-SY +100/+270 Composite	123.61	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
1	CR-H-0-SL-01 +25	82.60	After metals split, analyze remaining mass for Ra 226
2	CR-H-0-SL-01 +50	138.19	After metals split, analyze remaining mass for Ra 226

3	CR-H-0-SL-01 +100/+270 Composite	133.44	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
4	CR-H-4-SY +25	83.54	After metals split, analyze remaining mass for Ra 226
5	CR-H-4-SY +50	171.04	After metals split, analyze remaining mass for Ra 226
6	CR-H-4-SY +100/+270 Composite	130.94	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	CR-H-30-SY +25/+50 Composite	161.62	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
8	CR-H-30-SY +100/+270 Composite	128.09	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
9	QV-L-0-SL-01 +25/+50 Composite	139.97	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
10	QV-L-0-SL-01 +100/+270 Composite	153.30	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
11	QV-L-4-SY +25/+50 Composite	106.02	After metals splits, combine fractions of +25- and +50-mesh. Combine both metals duplicates for the 50-mesh fraction into this composite. Homogenize, then analyze for Ra 226
12	QV-L-4-SY +100/+270 Composite	127.89	After metals split AND the MSD/MSD metals split from the 100-mesh fraction combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
13	QV-L-8-SY +25/+50 Composite	154.88	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
14	QV-L-8-SY +100/+270 Composite	172.12	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
15	QV-L-30-SY +25/+50 Composite	133.51	After metals splits, combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226
16	QV-L-30-SY +100/+270 Composite	172.46	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
17	QV-M-0-SL-01 +25	55.49	After metals split, analyze remaining mass for Ra 226
18	QV-M-0-SL-01 +50	113.89	After metals split, analyze remaining mass for Ra 226
19	QV-M-0-SL-01 +100/+270 Composite -01	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
20	QV-M-0-SL-01 +100/+270 Composite -02	64.77	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then further split into a duplicate. Analyze for Ra 226
1	QV-M-4-SY +25	80.35	After metals split, analyze remaining mass for Ra 226
2	QV-M-4-SY +50	145.59	After metals and MS/MSD metals split, analyze remaining mass for Ra 226
3	QV-M-4-SY +100/+270 Composite	141.79	After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Combine both metals duplicates for the 100-mesh fraction into this composite. Homogenize, then analyze for Ra 226
4	QV-M-8-SY +25	63.92	After metals split, analyze remaining mass for Ra 226
5	QV-M-8-SY +50	156.33	After metals split, analyze remaining mass for Ra 226
6	QV-M-8-SY +100/+270 Composite	140.46	Remove extra 15 grams from the 100-mesh fraction as well as the metals split prior to adding to this composite. After metals split combine fractions of +100-, +140-, +200-, and +270-mesh. Homogenize, then analyze for Ra 226
7	QV-M-30-SY +25/+50 Composite	167.63	After metals split and MS/MSD split from the 50-mesh fraction combine fractions of +25- and +50-mesh. Homogenize, then analyze for Ra 226



Report Review Checklist

Log Review

COC Review Information on COC matches that on report; spelling accurate.

Initials/Date:

WP 11/2/22

- 1 Original COC attached, signed and dated. ☒
- 2 Samples received within temperature ☒
- 2 Parameters requested. ☒
- 3 Client. ☒
- 4 Report recipient/address. ☒
- 5 Invoice recipient/address. ☒
- 6 Project. Requested changes to Project must be communicated to Project Mgr. ☒
- 7 Appropriate detection limits (RLs) assigned. ☒
- 8 Prices may need to be adjusted prior to invoicing. (circle) Yes or No ☒
- 9 P. O. number. ☒
- 10 Sample IDs. ☒
- 11 Sample dates. ☒
- 12 Date received. ☒
- 13 Date due. ☒
- 14 Matrix. ☒
- 15 PWSID included for safe drinking water compliance samples. ☒
- 16 Field data entered appropriately (Log Review); matches lab data (Report Review). ☒
- 17 Special requests indicated in "Comments" section of Work Order summary. ☒
- 18 All "No" responses on Condition Upon Receipt form have been resolved ☒

Data Review

Report Review

- 1 Automated QC (Check Data button) review performed, discrepancies resolved. ☒
- 2 Worksheet/instrument data sheet for all requested parameters attached in LIMS or to work Order summary. ☒
- 3 Worksheet/instrument data compared to report results for calculation, transcription and data entry errors. ☒
- 4 Results compared to historical data if applicable. ☒
- 5 Analysis date and time. ☒
- 6 Analytical method. ☒
- 7 Appropriate detection limits (RLs) assigned. ☒
- 8 Appropriate units of measure. ☒
- 9 Analyst's initials. ☒
- 10 Calculations checked? ☒
- 11 Subcontracted analyses identified as such with qualifier or as attachment to lab report ☒
- 12 Subcontracted report reviewed ☒
- 13 Invoice parameters match those on COC. ☒

Final Review

- 1 Report appears complete and appropriate. ☒
- 2 Condition Upon Receipt form completed, attached to packet, and related qualifiers included in report. ☒
- 3 All necessary qualifiers included in report. ☒
- 4 Qualifiers referenced in case narrative; which includes descriptions of all sample/analysis anomalies. ☒
- 5 Anomalies, including reason for report reissue, explained in Case Narrative. ☒
- 6 Copies of report sent to all recipients requested on COC. (circle) Copy to Regulator Hard Copy ☒
- 7 All special requests listed on COC, or attached parameter list, honored. ☒
- 8 Special report format per client request. ☒
- 9 Report pages signed. ☒