FINAL ANALYTICAL REPORT FOR URMA REMEDIATION OSA-A SAMPLING 2025

Sample Group No.: 20250253

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Navarro-ATL 222S Laboratory

Date Published
November 2025

Prepared by:

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Rigg, Aron A Digitally signed by Rigg, Aron A
Date: 2025.11.06 07:56:00 -08'00'

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222-S LABORATORY

ANALYTICAL REPORT FOR URMA REMEDIATION OSA-A SAMPLING 2025

1.0 INTRODUCTION

This data package presents the final results for the URMA Remediation OSA-A Sampling 2025. The samples were analyzed in accordance with SAF F25-043; HLMI-PLN-ASYS-50094, *222-S Laboratory Quality Assurance Program Plan*; SW-846, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods*; and the additional guidance given in verbal and electronic communications.

Due to the hazardous and complex nature of Hanford samples, most SW-846 test methods performed at the 222-S Laboratory contain deviations that are listed in an appendix in the analytical procedures.

Manual calculations using rounded results from the Data Summary Report or result calculation forms may differ slightly from the actual results derived from the raw data.

Attachment 1 contains the sampling receipt and breakdown paperwork.

2.0 SAMPLE RECEIPT INFORMATION

Customer ID	Date/Time Sampled	Date/Time Received	Comments
B4R0T3	10/28/2025 08:35	10/28/2025 10:00	Moist dark brown soil. 250 mL amber glass jar
B4R0T6	10/28/2025 08:50	10/28/2025 10:00	Moist dark brown soil. 250 mL amber glass jar
B4R0T9	10/28/2025 09:20	10/28/2025 10:00	Moist dark brown soil. 250 mL amber glass jar

3.0 SAMPLE ANALYSES

3.1 Ion Chromatography

The ion chromatography (IC) analysis for formate was performed as requested on all samples. The IC anions were analyzed within the hold time. Formate was not detected above the detection limit in any of the samples. The results for these analytes were "U" flagged in the corresponding samples. The laboratory control sample recoveries, matrix spike recoveries, and post-digestion spike recoveries met the quality control criteria listed in the Quality Assurance Project Plan. The duplicate relative percent difference is not calculated, as the duplicate results and sample results are less than the detection limit.

4.0 REFERENCES

SW-846, 1986, *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, Third Edition*, as amended, U.S. Environmental Protection Agency, Washington, D.C.

HLMI-PLN-ASYS-50094, *222-S Laboratory Quality Assurance Program Plan*, Revision 1–8, Hanford Laboratory Management and Integration, LLC, Richland, Washington

277-T URMA OSA-A 2025
Data Summary Report

Sample Group: 20250253
Project Coordinator: Rigg, Aron A
Customer Sample ID: B4R0T3
Customer Sample ID: B4R0T3

Sample#	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
Anions and Small Organic Acids														
S25M000367	W	12311-97-6	Formate	ug/g	98.0	<0.660	<0.643	<0.655	n/a	n/a	107	0.643	n/a	U

NA = Not Analyzed, ND = Not Detected

277-T URMA OSA-A 2025
Data Summary Report

Sample Group: 20250253
Project Coordinator: Rigg, Aron A
Customer Sample ID: B4R0T6
Customer Sample ID: B4R0T6

Sample#	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
Anions and Small Organic Acids														
S25M000368	W	12311-97-6	Formate	ug/g	98.0	<0.660	<0.653	n/a	n/a	n/a	n/a	0.653	n/a	U

NA = Not Analyzed, ND = Not Detected

277-T URMA OSA-A 2025
Data Summary Report

Sample Group: 20250253
Project Coordinator: Rigg, Aron A
Customer Sample ID: B4R0T9
Customer Sample ID: B4R0T9

Sample#	A#	CAS #	Analyte	Unit	STD %	Blank	Result	Duplicate	Average	RPD %	Spk Rec %	Det Limit	Cnt Err %	Qual Flags
Anions and Small Organic Acids														
S25M000369	W	12311-97-6	Formate	ug/g	98.0	<0.660	<0.655	n/a	n/a	n/a	n/a	0.655	n/a	U

NA = Not Analyzed, ND = Not Detected

277-T URMA OSA-A 2025
Data Summary Report

Data Qualifier Description

QUALIFIER	DESCRIPTION
U	Less Than Detection Limit

NA = Not Analyzed, ND = Not Detected

Attachment 1

SAMPLE RECEIPT AND CHAIN OF CUSTODY VERIFICATION CHECKLIST - 222-S

Thermometer No.: 250352730 Cal Due Date: 06/04/2027 HLMI-PRO-LO-50131 REV: 1-0

Date Samples Received: 10/28/25 Total Number of Samples: 3 Group No.: 20250253

Sample Custodian: Madisyn M Vaughn Delivered by Name: DENNY WEBB

Sample Custodian to Complete

Action	Yes	No	N/A	Comments
RSR provided?	✓	○	○	
Verify GKI is complete	✓	○	○	☑ In Project File
Received from an alpha facility?	○		✓	☐ Contact PC for approval to release
Check that outer custody seal is intact, if present	✓	○	○	
Record cooler temperature if needed	○	○	✓	☑ Check if no cooler and/or no ice NA °C Temperature
Samples are intact and in good condition	✓	○	○	If No, provide comments below.
RSA/COC provided and complete containing the following information?				
• Client name and client sample number	✓	○	○	
• Date and time of sampling	✓	○	○	
• Sampling location or origin	✓	○	○	
• Container type, size, and number	✓	○	○	
• Preservatives *(if used)* noted on the COC/RSA and sample bottles	○	○	✓	
• Analysis request is clear or referred	✓	○	○	☑ In Project File AAR 10/29/2025
• Signature of person(s) relinquishing and receiving samples	✓	○	○	
• Date and/or time of sample custody exchange	✓	○	○	
Verify that sample numbers on containers match the COC and/or RSA	✓	○	○	
Samples stored properly *(e.g., refrigeration)*	✓	○	○	

Notify the PC immediately if any problems are noted. Any "No" checked boxes require PC resolution.

Samples acceptable for release? ✓ Yes ○ No SC Initials: MMM Date: 10/28/2025

If No, comment on communication and resolution:

Sample Type Received:

3 277-URMA samples

Central Plateau Cleanup Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F25-043-001	PAGE 1 OF 1
COLLECTOR: Denny Webb/CPCCo	COMPANY CONTACT: SUMNER, LC	TELEPHONE NO.: 376-3922	PROJECT COORDINATOR: SUMNER, LC	REQUIRED TAT: 15 Days
SAMPLING LOCATION: URMA OSA FS-1	PROJECT DESIGNATION: URMA Remediation Sampling - Outside Storage Area - A		SAF NO.: F25-043	ORIGINAL
ICE CHEST NO.: N/A	FIELD LOG BOOK NO.: HNF-N-507-42	ACTUAL SAMPLE DEPTH: 0-6"	PURCHASE ORDER/CHARGE CODE: 901666	METHOD OF SHIPMENT: GOVERNMENT VEHICLE
SHIPPED TO: 222-S Lab Operations	OFFSITE PROPERTY NO.: N/A		BILL OF LADING/AIR BILL NO.: N/A	

MATRIX*: A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/REMARKS: *Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

SPECIAL HANDLING AND/OR STORAGE: N/A

PRESERVATION	Cool <=6C
HOLDING TIME	28 Days/48 Hours
TYPE OF CONTAINER	G/P
NO. OF CONTAINERS	1
VOLUME	250mL
SAMPLE ANALYSIS	9056_ANIONS_IC: COMMON (Add-on) {Formate};

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B4R0T3	N/A	SOIL	OCT 28 2025	0935	✓

CHAIN OF POSSESION RELINQUISHED BY/ REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS
Denny Webb/CPCCo DWebb	1000 OCT 28 2025	Madilyn M Vaughn Madilyn M Vaughn	10:00 OCT 28 2025	TRVL-25-119 Tare Weight: 177.28

FINAL SAMPLE DISPOSITION: DISPOSAL METHOD: DISPOSED BY: DATE/TIME:

PRINTED ON 9/25/2025 FSR ID = FSR163353 TRVL NUM = TRVL-25-119

Report Format: 02/29/2024

Central Plateau Cleanup Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST		F25-043-004	PAGE 1 OF 1
COLLECTOR Denny Webb/CPCCo	**COMPANY CONTACT** SUMNER, LC	**TELEPHONE NO.** 376-3922	**PROJECT COORDINATOR** SUMNER, LC	**REQUIRED TAT** 15 Days
SAMPLING LOCATION URMA OSA FS-2	**PROJECT DESIGNATION** URMA Remediation Sampling - Outside Storage Area - A		**SAF NO.** F25-043	**ORIGINAL**
ICE CHEST NO. N/A	**FIELD LOGBOOK NO.** HNF-N-4507-42-75	**ACTUAL SAMPLE DEPTH** 0-6"	**PURCHASE ORDER/CHARGE CODE** 901666	**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A	

MATRIX* A=Air, DL=Drum Liquids, DS=Drum Solids, L=Liquid, O=Oil, S=Soil, SE=Sediment, T=Tissue, V=Vegetation, W=Water, WI=Wipe, X=Other

POSSIBLE SAMPLE HAZARDS/REMARKS
*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.

SPECIAL HANDLING AND/OR STORAGE
N/A

PRESERVATION	Cool <=6C
HOLDING TIME	28 Days/48 Hours
TYPE OF CONTAINER	G/P
NO. OF CONTAINERS	1
VOLUME	250mL
SAMPLE ANALYSIS	9056_ANIONS_IC: COMMON (Add-on) {Formate};

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B4R0T6	N/A	SOIL	OCT 28 2025	0856	✓

CHAIN OF POSSESION RELINQUISHED BY/ REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS
Denny Webb/CPCCo DW Webb	OCT 28 2025 1000	Madilyn M Vaughan HNFL Madilyn Vaughan 10:00	OCT 28 2025	TRVL-25-119 Tare Weight: 17728

FINAL SAMPLE DISPOSITION | **DISPOSAL METHOD** | **DISPOSED BY** | **DATE/TIME**

PRINTED ON 9/25/2025 **FSR ID =** FSR163354 **TRVL NUM =** TRVL-25-119 Report Format: 02/29/2024

Central Plateau Cleanup Company	CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST			F25-043-007	PAGE 1 OF 1
COLLECTOR Denny Webb/CPCCo	**COMPANY CONTACT** SUMNER, LC	**TELEPHONE NO.** 376-3922	**PROJECT COORDINATOR** SUMNER, LC		**REQUIRED TAT** 15 Days
SAMPLING LOCATION URMA OSA FS-3	**PROJECT DESIGNATION** URMA Remediation Sampling - Outside Storage Area - A		**SAF NO.** F25-043		**ORIGINAL**
ICE CHEST NO. N/A	**FIELD LOG BOOK NO.** HNF-N-507-42	**ACTUAL SAMPLE DEPTH** 0-6"	**PURCHASE ORDER/CHARGE CODE** 901666		**METHOD OF SHIPMENT** GOVERNMENT VEHICLE
SHIPPED TO 222-S Lab Operations	**OFFSITE PROPERTY NO.** N/A		**BILL OF LADING/AIR BILL NO.** N/A		

MATRIX*	POSSIBLE SAMPLE HAZARDS/REMARKS	PRESERVATION	Cool <=6C
A=Air DL=Drum Liquids DS=Drum Solids L=Liquid O=Oil S=Soil SE=Sediment T=Tissue V=Vegetation W=Water WI=Wipe X=Other	*Contains Radioactive Material at concentrations that are not be regulated for transportation per 49 CFR/IATA Dangerous Goods Regulations but are not releasable per DOE Order 458.1.	HOLDING TIME	28 Days/48 Hours
		TYPE OF CONTAINER	G/P
		NO. OF CONTAINERS	1
		VOLUME	250mL
	SPECIAL HANDLING AND/OR STORAGE N/A	SAMPLE ANALYSIS	9056_ANIONS_IC: COMMON (Add-on) {Formate};

SAMPLE NO.	FILTERED	MATRIX*	SAMPLE DATE	SAMPLE TIME	
B4R0T9	N/A	SOIL	OCT 28 2025	0920	✓ -

CHAIN OF POSSESION RELINQUISHED BY/ REMOVED FROM	DATE/TIME	SIGN/ PRINT NAMES RECEIVED BY/STORED IN	DATE/TIME	SPECIAL INSTRUCTIONS
Denny Webb/CPCCo DWebb	1000 OCT 28 2025	Madilyn M Vaughn HLM1 Madilyn Vaughn	10:00 OCT 28 2025	TRVL-25-119 Tare Weight: 177.28

FINAL SAMPLE DISPOSITION **DISPOSAL METHOD** **DISPOSED BY** **DATE/TIME**

PRINTED ON 9/25/2025 **FSR ID =** FSR163355 **TRVL NUM =** TRVL-25-119 Report Format: 02/29/2024

2B Breakdown Sample Worksheet

Project	277-T URMA Remediation Outside Storage Area-A	**Batch#**	141774	**Group#**	20250253
PM/PC	Aron Rigg 509-376-0913	**Batch#**		**Date**	10/28/2025
Time	1030				

OmniLIMS Number:	**S25M000361**	**Customer ID:**	B4R0T3
Seal Number:	N/A	**Etched Number:**	N/A
Gross Weight (g):	496.649	**Dose Rate:**	<0.5mRem/Hr
Tare Weight (g):	-177.28	**Sample Height (mm):**	80
Net Weight (g):	319.369	**Solids Height (mm):**	80
Color:	Brown	**Vol % Settled Solids*:**	0
Clarity:	N/A	**Sample Volume (mL):**	0
Photography:	Complete	**Organic Volume (mL):**	0
Photography 24 hour:	N/A		

*Volume % Settled Solids = 100 * (Solids Height ÷ Sample Height)

Record Appearance: Received 1 Amber Glass Jar of Dark Brown Moist Soil.

NOTES: Enter the appearance descriptions under Analysis Notes so that they appear in Batch Reports

Brandon Peterson	Brandon Peterson	10/28/2025
Analyst	OmniLIMS Entry	Reviewer/Date

2B Breakdown Sample Worksheet

Project	277-T URMA Remediation Outside Storage Area-A	**Batch#**	141774	**Group#**	20250253		
PM/PC	Aron Rigg 509-376-0913	**Batch#**		**Date**	10/28/2025	**Time**	1030

OmniLIMS Number:	**S25M000362**	**Customer ID:**	B4R0T6
Seal Number:	N/A	**Etched Number:**	N/A
Gross Weight (g):	481.622	**Dose Rate:**	<0.5mRem/Hr
Tare Weight (g):	-177.28	**Sample Height (mm):**	80
Net Weight (g):	304.342	**Solids Height (mm):**	80
Color:	Brown	**Vol % Settled Solids*:**	0
Clarity:	N/A	**Sample Volume (mL):**	0
Photography:	Complete	**Organic Volume (mL):**	0
Photography 24 hour:	N/A		

*Volume % Settled Solids = 100 * (Solids Height ÷ Sample Height)

Record Appearance: Received 1 Amber Glass Jar of Dark Brown Moist Soil.

NOTES: Enter the appearance descriptions under Analysis Notes so that they appear in Batch Reports

Brandon Peterson	Brandon Peterson	10/28/2025
Analyst	OmniLIMS Entry	Reviewer/Date

2B Breakdown Sample Worksheet

Project 277-T URMA Remediation Outside Storage Area-A **Batch#** 141774 **Group#** 20250253

PM/PC Aron Rigg 509-376-0913 **Batch#** **Date** 10/28/2025 **Time** 1030

OmniLIMS Number: S25M000363 **Customer ID:** B4R0T9

Seal Number: N/A **Etched Number:** N/A

Gross Weight (g): 475.56 **Dose Rate:** <0.5mRem/Hr

Tare Weight (g): -177.28 **Sample Height (mm):** 80

Net Weight (g): 298.28 **Solids Height (mm):** 80

Color: Brown **Vol % Settled Solids*:** 0

Clarity: N/A **Sample Volume (mL):** 0

Photography: Complete **Organic Volume (mL):** 0

Photography 24 hour: N/A

*Volume % Settled Solids = 100 * (Solids Height ÷ Sample Height)

Record Appearance: Received 1 Amber Glass Jar of Dark Brown Moist Soil.

NOTES: Enter the appearance descriptions under Analysis Notes so that they appear in Batch Reports

Brandon Peterson
Analyst

Brandon Peterson
OmniLIMS Entry

10/28/2025
Reviewer/Date