Waypoint ANALYTICAL

449 Springbrook Rd, Charlotte, NC 28217
Main 704.529.6364
www.waypointanalytical.com

10/8/2021

Ensafe, Inc.
Brian Caldwell
308 North Peters Road
Suite 200
Knoxville, TN, 37922

Ref: Analytical Testing
Lab Report Number: 21-277-0007
Client Project Description: American Zinc Products
Mooresboro, NC
Surface Water & Sediment Analysis
Maintenance Pond Pit

Dear Brian Caldwell:

Waypoint Analytical, LLC (Charlotte) received sample(s) on 10/4/2021 for the analyses presented in the following report.

The above referenced project has been analyzed per your instructions. The analyses were performed in accordance with the applicable analytical method.

The analytical data has been validated using standard quality control measures performed as required by the analytical method. Quality Assurance, method validations, instrumentation maintenance and calibration for all parameters were performed in accordance with guidelines established by the USEPA (including 40 CFR 136 Method Update Rule May 2012) unless otherwise indicated.

Certain parameters (chlorine, pH, dissolved oxygen, sulfite...) are required to be analyzed within 15 minutes of sampling. Usually, but not always, any field parameter analyzed at the laboratory is outside of this holding time. Refer to sample analysis time for confirmation of holding time compliance.

The results are shown on the attached Report of Analysis(s). Results for solid matrices are reported on an as-received basis unless otherwise indicated. This report shall not be reproduced except in full and relates only to the samples included in this report.

Please do not hesitate to contact me or client services if you have any questions or need additional information.

Sincerely,

J M Corporaal

Jamie Corporaal
Laboratory Project Manager

Laboratory's liability in any claim relating to analyses performed shall be limited to, at laboratory's option, repeating the analysis in question at laboratory's expense, or the refund of the charges paid for performance of said analysis.

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Certification Summary

Laboratory ID: WP CNC: Waypoint Analytical Carolina, Inc. (C), Charlotte, NC

State	Program	Lab ID	Expiration Date
North Carolina	State Program	37735	07/31/2022
North Carolina	State Program	402	12/31/2021
South Carolina	State Program	99012	07/31/2022
South Carolina	State Program	99012	12/31/2021

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Sample Summary Table

Report Number: **21-277-0007**

Client Project Description: **American Zinc Products**
Mooresboro, NC
Surface Water & Sediment Analysis
Maintenance Pond Pit

Lab No	Client Sample ID	Matrix	Date Collected	Date Received
89010	PITSED-46-093021	Solids	09/30/2021 09:05	10/04/2021 10:09
89011	PITSED-40-093021	Solids	09/30/2021 09:17	10/04/2021 10:09
89012	PITSED-34-093021	Solids	09/30/2021 09:21	10/04/2021 10:09
89013	PITSED-28-093021	Solids	09/30/2021 09:27	10/04/2021 10:09
89014	PITSED-22-093021	Solids	09/30/2021 09:31	10/04/2021 10:09
89015	PITSED-16-093021	Solids	09/30/2021 09:36	10/04/2021 10:09
89016	PITSED-10-093021	Solids	09/30/2021 09:41	10/04/2021 10:09
89017	PITSED-4-093021	Solids	09/30/2021 09:46	10/04/2021 10:09

ED_006538_00000268-00003

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Summary of Detected Analytes

Project: **American Zinc Products**

Report Number: **21-277-0007**

Client Sample ID / Method	Lab Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
PITSED-46-093021	**V 89010**					
6020B	Arsenic	4.04	mg/Kg - dry	0.113	10/07/2021 02:27	
6020B	Cadmium	6.77	mg/Kg - dry	0.0658	10/07/2021 02:27	
6020B	Chromium	16.6	mg/Kg - dry	0.347	10/07/2021 02:27	
6020B	Lead	2.71	mg/Kg - dry	0.168	10/07/2021 02:27	
6020B	Zinc	2600	mg/Kg - dry	13.8	10/07/2021 18:20	
9045D	pH	3.14	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	16.5	%		10/04/2021 17:21	
PITSED-40-093021	**V 89011**					
6020B	Arsenic	72.3	mg/Kg - dry	0.105	10/07/2021 18:53	
6020B	Barium	1.62	mg/Kg - dry	1.57	10/07/2021 03:12	J
6020B	Cadmium	5.95	mg/Kg - dry	0.0615	10/07/2021 03:12	
6020B	Chromium	28.3	mg/Kg - dry	0.324	10/07/2021 03:12	
6020B	Lead	3.15	mg/Kg - dry	0.157	10/07/2021 03:12	
6020B	Zinc	2360	mg/Kg - dry	12.9	10/07/2021 18:59	
9045D	pH	3.31	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	10.7	%		10/04/2021 17:21	
PITSED-34-093021	**V 89012**					
6020B	Arsenic	9.04	mg/Kg - dry	0.105	10/07/2021 03:19	
6020B	Cadmium	3.56	mg/Kg - dry	0.0615	10/07/2021 03:19	
6020B	Chromium	21.2	mg/Kg - dry	0.324	10/07/2021 03:19	
6020B	Lead	2.74	mg/Kg - dry	0.157	10/07/2021 03:19	
6020B	Selenium	1.03	mg/Kg - dry	1.01	10/07/2021 03:19	J
6020B	Zinc	3310	mg/Kg - dry	12.9	10/07/2021 19:05	
9045D	pH	3.70	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	10.7	%		10/04/2021 17:21	
PITSED-28-093021	**V 89013**					
6020B	Arsenic	4.49	mg/Kg - dry	0.105	10/07/2021 03:25	
6020B	Barium	2.15	mg/Kg - dry	1.56	10/07/2021 03:25	J
6020B	Cadmium	3.37	mg/Kg - dry	0.0613	10/07/2021 03:25	
6020B	Chromium	14.7	mg/Kg - dry	0.323	10/07/2021 03:25	
6020B	Lead	3.57	mg/Kg - dry	0.156	10/07/2021 03:25	
6020B	Zinc	3330	mg/Kg - dry	12.8	10/07/2021 19:12	
9045D	pH	3.81	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	10.4	%		10/04/2021 17:21	

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Summary of Detected Analytes

Project: American Zinc Products

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Client Sample ID / Method	Lab Sample ID / Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
PITSED-22-093021	**V 89014**					
6020B	Arsenic	0.880	mg/Kg - dry	0.103	10/07/2021 03:32	J
6020B	Barium	25.1	mg/Kg - dry	1.53	10/07/2021 03:32	
6020B	Cadmium	2.34	mg/Kg - dry	0.0601	10/07/2021 03:32	
6020B	Chromium	7.21	mg/Kg - dry	0.317	10/07/2021 03:32	
6020B	Lead	2.11	mg/Kg - dry	0.153	10/07/2021 03:32	
6020B	Zinc	985	mg/Kg - dry	12.6	10/08/2021 14:44	
9045D	pH	3.70	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	8.59	%		10/04/2021 17:21	
PITSED-16-093021	**V 89015**					
6020B	Arsenic	1.39	mg/Kg - dry	0.104	10/07/2021 03:38	
6020B	Barium	25.0	mg/Kg - dry	1.55	10/07/2021 03:38	
6020B	Cadmium	1.64	mg/Kg - dry	0.0607	10/07/2021 03:38	
6020B	Chromium	9.19	mg/Kg - dry	0.320	10/07/2021 03:38	
6020B	Lead	2.56	mg/Kg - dry	0.155	10/07/2021 03:38	
6020B	Selenium	1.08	mg/Kg - dry	0.993	10/07/2021 03:38	J
6020B	Zinc	1150	mg/Kg - dry	12.7	10/08/2021 14:51	
9045D	pH	3.79	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	9.42	%		10/04/2021 17:21	
PITSED-10-093021	**V 89016**					
6020B	Arsenic	1.92	mg/Kg - dry	0.0990	10/07/2021 03:45	
6020B	Barium	24.6	mg/Kg - dry	1.48	10/07/2021 03:45	
6020B	Cadmium	1.81	mg/Kg - dry	0.0579	10/07/2021 03:45	
6020B	Chromium	7.78	mg/Kg - dry	0.305	10/07/2021 03:45	
6020B	Lead	2.23	mg/Kg - dry	0.148	10/07/2021 03:45	
6020B	Selenium	1.28	mg/Kg - dry	0.948	10/07/2021 03:45	J
6020B	Zinc	1120	mg/Kg - dry	12.1	10/08/2021 14:57	
9045D	pH	3.62	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	5.11	%		10/04/2021 17:21	
PITSED-4-093021	**V 89017**					
6020B	Arsenic	1.37	mg/Kg - dry	0.0997	10/07/2021 03:51	
6020B	Barium	25.7	mg/Kg - dry	1.49	10/07/2021 03:51	
6020B	Cadmium	1.39	mg/Kg - dry	0.0583	10/07/2021 03:51	
6020B	Chromium	9.52	mg/Kg - dry	0.307	10/07/2021 03:51	
6020B	Lead	10.9	mg/Kg - dry	0.149	10/07/2021 03:51	
6020B	Silver	0.0801	mg/Kg - dry	0.0435	10/07/2021 03:51	J

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Summary of Detected Analytes

Project: **American Zinc Products**

Report Number: **21-277-0007**

Client Sample ID Method	Lab Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
PITSED-4-093021	**V 89017**					
6020B	Zinc	692	mg/Kg - dry	12.2	10/08/2021 15:04	
9045D	pH	3.71	s.u.		10/05/2021 10:45	
SW-DRYWT	Moisture	5.79	%		10/04/2021 17:21	

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Client: Ensafe, Inc.
Project: American Zinc Products
Lab Report Number: 21-277-0007
Date: 10/8/2021

CASE NARRATIVE

Metals Analyses Method 6020B
Sample 89010 (PITSED-46-093021)
Analyte: Barium
QC Batch No: V9825/V9786
The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Chromium
QC Batch No: V9825/V9786
The matrix spike and/or the matrix spike duplicate was outside quality control acceptance ranges. A post digestion spike was performed and passed quality control acceptance ranges. No matrix interference is suspected.

Analyte: Zinc
QC Batch No: V9881/V9786
The matrix spike, matrix spike duplicate and the dilution test were all outside of the quality control acceptance ranges. Matrix interference is suspected.

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00133
Ensafe, Inc.
Brian Caldwell
308 North Peters Road
Suite 200
Knoxville , TN 37922

Project Information : American Zinc Products
Mooresboro, NC
Surface Water & Sediment Analysis

Report Date : 10/08/2021
Received : 10/04/2021

Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89010**
Sample ID : **PITSED-46-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:05**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**16.5**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.14**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**4.04**	mg/Kg - dry	0.113	1.20	10	10/07/21 02:27	MMR	6020B
Barium	<1.68	mg/Kg - dry	1.68	12.0	10	10/07/21 02:27	MMR	6020B
Cadmium	**6.77**	mg/Kg - dry	0.0658	0.599	10	10/07/21 02:27	MMR	6020B
Chromium	**16.6**	mg/Kg - dry	0.347	1.20	10	10/07/21 02:27	MMR	6020B
Lead	**2.71**	mg/Kg - dry	0.168	1.20	10	10/07/21 02:27	MMR	6020B
Mercury (Total)	<0.0144	mg/Kg - dry	0.0144	0.0359	1	10/07/21 15:03	EDV	7471B
Selenium	<1.08	mg/Kg - dry	1.08	2.40	10	10/08/21 14:38	EDV	6020B
Silver	<0.0491	mg/Kg - dry	0.0491	0.599	10	10/07/21 02:27	MMR	6020B
Zinc	**2600**	mg/Kg - dry	13.8	59.9	50	10/07/21 18:20	EDV	6020B

Qualifiers/ Definitions

DF	Dilution Factor	J	Estimated value
L	Limit Exceeded	MQL	Method Quantitation Limit

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Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89011**
Sample ID : **PITSED-40-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:17**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**10.7**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.31**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**72.3**	mg/Kg - dry	0.105	1.12	10	10/07/21 18:53	EDV	6020B
Barium	**1.62 J**	mg/Kg - dry	1.57	11.2	10	10/07/21 03:12	MMR	6020B
Cadmium	**5.95**	mg/Kg - dry	0.0615	0.560	10	10/07/21 03:12	MMR	6020B
Chromium	**28.3**	mg/Kg - dry	0.324	1.12	10	10/07/21 03:12	MMR	6020B
Lead	**3.15**	mg/Kg - dry	0.157	1.12	10	10/07/21 03:12	MMR	6020B
Mercury (Total)	<0.0134	mg/Kg - dry	0.0134	0.0336	1	10/07/21 15:21	EDV	7471B
Selenium	<1.01	mg/Kg - dry	1.01	2.24	10	10/07/21 03:12	MMR	6020B
Silver	<0.0459	mg/Kg - dry	0.0459	0.560	10	10/07/21 03:12	MMR	6020B
Zinc	**2360**	mg/Kg - dry	12.9	56.0	50	10/07/21 18:59	EDV	6020B

Qualifiers/ Definitions				
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Surface Water & Sediment Analysis

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Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89012**
Sample ID : **PITSED-34-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:21**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**10.7**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.70**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**9.04**	mg/Kg - dry	0.105	1.12	10	10/07/21 03:19	MMR	6020B
Barium	<1.57	mg/Kg - dry	1.57	11.2	10	10/07/21 03:19	MMR	6020B
Cadmium	**3.56**	mg/Kg - dry	0.0615	0.560	10	10/07/21 03:19	MMR	6020B
Chromium	**21.2**	mg/Kg - dry	0.324	1.12	10	10/07/21 03:19	MMR	6020B
Lead	**2.74**	mg/Kg - dry	0.157	1.12	10	10/07/21 03:19	MMR	6020B
Mercury (Total)	<0.0134	mg/Kg - dry	0.0134	0.0336	1	10/07/21 15:23	EDV	7471B
Selenium	**1.03 J**	mg/Kg - dry	1.01	2.24	10	10/07/21 03:19	MMR	6020B
Silver	<0.0459	mg/Kg - dry	0.0459	0.560	10	10/07/21 03:19	MMR	6020B
Zinc	**3310**	mg/Kg - dry	12.9	56.0	50	10/07/21 19:05	EDV	6020B

Qualifiers/ Definitions

DF	Dilution Factor	J	Estimated value
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Report Date : 10/08/2021
Received : 10/04/2021

Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89013**
Sample ID : **PITSED-28-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:27**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**10.4**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.81**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**4.49**	mg/Kg - dry	0.105	1.12	10	10/07/21 03:25	MMR	6020B
Barium	**2.15 J**	mg/Kg - dry	1.56	11.2	10	10/07/21 03:25	MMR	6020B
Cadmium	**3.37**	mg/Kg - dry	0.0613	0.558	10	10/07/21 03:25	MMR	6020B
Chromium	**14.7**	mg/Kg - dry	0.323	1.12	10	10/07/21 03:25	MMR	6020B
Lead	**3.57**	mg/Kg - dry	0.156	1.12	10	10/07/21 03:25	MMR	6020B
Mercury (Total)	<0.0134	mg/Kg - dry	0.0134	0.0335	1	10/07/21 15:26	EDV	7471B
Selenium	<1.00	mg/Kg - dry	1.00	2.23	10	10/07/21 03:25	MMR	6020B
Silver	<0.0457	mg/Kg - dry	0.0457	0.558	10	10/07/21 03:25	MMR	6020B
Zinc	**3330**	mg/Kg - dry	12.8	55.8	50	10/07/21 19:12	EDV	6020B

Qualifiers/ Definitions				
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Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89014**
Sample ID : **PITSED-22-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:31**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**8.59**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.70**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**0.880 J**	mg/Kg - dry	0.103	1.09	10	10/07/21 03:32	MMR	6020B
Barium	**25.1**	mg/Kg - dry	1.53	10.9	10	10/07/21 03:32	MMR	6020B
Cadmium	**2.34**	mg/Kg - dry	0.0601	0.547	10	10/07/21 03:32	MMR	6020B
Chromium	**7.21**	mg/Kg - dry	0.317	1.09	10	10/07/21 03:32	MMR	6020B
Lead	**2.11**	mg/Kg - dry	0.153	1.09	10	10/07/21 03:32	MMR	6020B
Mercury (Total)	<0.0131	mg/Kg - dry	0.0131	0.0328	1	10/07/21 15:35	EDV	7471B
Selenium	<0.984	mg/Kg - dry	0.984	2.19	10	10/07/21 03:32	MMR	6020B
Silver	<0.0448	mg/Kg - dry	0.0448	0.547	10	10/07/21 03:32	MMR	6020B
Zinc	**985**	mg/Kg - dry	12.6	54.7	50	10/08/21 14:44	EDV	6020B

Qualifiers/ Definitions				
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REPORT OF ANALYSIS

Lab No : **89015**
Sample ID : **PITSED-16-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:36**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**9.42**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.79**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**1.39**	mg/Kg - dry	0.104	1.10	10	10/07/21 03:38	MMR	6020B
Barium	**25.0**	mg/Kg - dry	1.55	11.0	10	10/07/21 03:38	MMR	6020B
Cadmium	**1.64**	mg/Kg - dry	0.0607	0.552	10	10/07/21 03:38	MMR	6020B
Chromium	**9.19**	mg/Kg - dry	0.320	1.10	10	10/07/21 03:38	MMR	6020B
Lead	**2.56**	mg/Kg - dry	0.155	1.10	10	10/07/21 03:38	MMR	6020B
Mercury (Total)	<0.0132	mg/Kg - dry	0.0132	0.0331	1	10/07/21 15:37	EDV	7471B
Selenium	**1.08 J**	mg/Kg - dry	0.993	2.21	10	10/07/21 03:38	MMR	6020B
Silver	<0.0452	mg/Kg - dry	0.0452	0.552	10	10/07/21 03:38	MMR	6020B
Zinc	**1150**	mg/Kg - dry	12.7	55.2	50	10/08/21 14:51	EDV	6020B

Qualifiers/ Definitions				
	DF	Dilution Factor	J	Estimated value
	L	Limit Exceeded	MQL	Method Quantitation Limit

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www.waypointanalytical.com

00133
Ensafe, Inc.
Brian Caldwell
308 North Peters Road
Suite 200
Knoxville , TN 37922

Project Information : American Zinc Products
Mooresboro, NC
Surface Water & Sediment Analysis

Report Date : 10/08/2021
Received : 10/04/2021

Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89016**
Sample ID : **PITSED-10-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:41**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**5.11**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.62**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**1.92**	mg/Kg - dry	0.0990	1.05	10	10/07/21 03:45	MMR	6020B
Barium	**24.6**	mg/Kg - dry	1.48	10.5	10	10/07/21 03:45	MMR	6020B
Cadmium	**1.81**	mg/Kg - dry	0.0579	0.527	10	10/07/21 03:45	MMR	6020B
Chromium	**7.78**	mg/Kg - dry	0.305	1.05	10	10/07/21 03:45	MMR	6020B
Lead	**2.23**	mg/Kg - dry	0.148	1.05	10	10/07/21 03:45	MMR	6020B
Mercury (Total)	<0.0126	mg/Kg - dry	0.0126	0.0316	1	10/07/21 15:40	EDV	7471B
Selenium	**1.28 J**	mg/Kg - dry	0.948	2.11	10	10/07/21 03:45	MMR	6020B
Silver	<0.0432	mg/Kg - dry	0.0432	0.527	10	10/07/21 03:45	MMR	6020B
Zinc	**1120**	mg/Kg - dry	12.1	52.7	50	10/08/21 14:57	EDV	6020B

Qualifiers/ Definitions

DF	Dilution Factor	J	Estimated value
L	Limit Exceeded	MQL	Method Quantitation Limit

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Project Information : American Zinc Products
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Surface Water & Sediment Analysis

Report Date : 10/08/2021
Received : 10/04/2021

Report Number : **21-277-0007**

REPORT OF ANALYSIS

Lab No : **89017**
Sample ID : **PITSED-4-093021**

Matrix: **Solids**
Sampled: **9/30/2021 9:46**

Test	Results	Units	MDL	MQL	DF	Date / Time Analyzed	By	Analytical Method
Moisture	**5.79**	%			1	10/04/21 17:21	CEG	SW-DRYWT
pH	**3.71**	s.u.			1	10/05/21 10:45	CLB	9045D
Arsenic	**1.37**	mg/Kg - dry	0.0997	1.06	10	10/07/21 03:51	MMR	6020B
Barium	**25.7**	mg/Kg - dry	1.49	10.6	10	10/07/21 03:51	MMR	6020B
Cadmium	**1.39**	mg/Kg - dry	0.0583	0.531	10	10/07/21 03:51	MMR	6020B
Chromium	**9.52**	mg/Kg - dry	0.307	1.06	10	10/07/21 03:51	MMR	6020B
Lead	**10.9**	mg/Kg - dry	0.149	1.06	10	10/07/21 03:51	MMR	6020B
Mercury (Total)	<0.0127	mg/Kg - dry	0.0127	0.0318	1	10/07/21 15:42	EDV	7471B
Selenium	<0.955	mg/Kg - dry	0.955	2.12	10	10/07/21 03:51	MMR	6020B
Silver	**0.0801 J**	mg/Kg - dry	0.0435	0.531	10	10/07/21 03:51	MMR	6020B
Zinc	**692**	mg/Kg - dry	12.2	53.1	50	10/08/21 15:04	EDV	6020B

Qualifiers/ Definitions

DF Dilution Factor

J Estimated value

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Quality Control Data

Client ID: Ensafe, Inc.
Project Description: American Zinc Products
Report No: 21-277-0007

QC Prep: V9786
QC Prep Batch Method: 3050B
QC Analytical Batch(es): V9825,V9881
Analysis Method: 6020B
Analysis Description: Metals Analyses

Lab Reagent Blank LRB-V9786 Matrix: SOL
Associated Lab Samples: 89010, 89011, 89012, 89013, 89014, 89015, 89016, 89017

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Arsenic	mg/Kg	<0.0940	0.0940	1.00	10/07/21 02:14
Barium	mg/Kg	<1.40	1.40	10.0	10/07/21 02:14
Cadmium	mg/Kg	<0.0550	0.0550	0.500	10/07/21 02:14
Chromium	mg/Kg	<0.290	0.290	1.00	10/07/21 02:14
Lead	mg/Kg	<0.140	0.140	1.00	10/07/21 02:14
Selenium	mg/Kg	<0.900	0.900	2.00	10/07/21 02:14
Silver	mg/Kg	<0.0410	0.0410	0.500	10/07/21 02:14
Zinc	mg/Kg	<2.30	2.30	10.0	10/07/21 02:14

Laboratory Control Sample LCS-V9786

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Arsenic	mg/Kg	12.5	11.8	94.0	80-120
Barium	mg/Kg	12.5	12.3	98.0	80-120
Cadmium	mg/Kg	12.5	12.6	101	80-120
Chromium	mg/Kg	12.5	12.8	102	80-120
Lead	mg/Kg	12.5	13.0	104	80-120
Selenium	mg/Kg	12.5	12.5	100	80-120
Silver	mg/Kg	5.00	4.99	100	80-120
Zinc	mg/Kg	12.5	12.1	97.0	80-120

Matrix Spike & Matrix Spike Duplicate V 89010-MS-V9786 V 89010-MSD-V9786

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Arsenic	mg/Kg	3.37	12.5	12.5	16.2	18.3	103	119	75-125	12.1	20
Barium	mg/Kg	<1.40	12.5	12.5	17.3	16.4	138*	131*	75-125	5.3	20

* QC Fail

Date: 10/08/2021 05:02 PM

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Quality Control Data

Client ID: Ensafe, Inc.
Project Description: American Zinc Products
Report No: 21-277-0007

QC Prep: V9786
QC Prep Batch Method: 3050B
QC Analytical Batch(es): V9825,V9881
Analysis Method: 6020B
Analysis Description: Metals Analyses

Matrix Spike & Matrix Spike Duplicate V 89010-MS-V9786 V 89010-MSD-V9786

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Cadmium	mg/Kg	5.65	12.5	12.5	18.8	18.4	105	102	75-125	2.1	20
Chromium	mg/Kg	13.9	12.5	12.5	31.3	29.7	139*	126*	75-125	5.2	20
Lead	mg/Kg	2.26	12.5	12.5	13.4	12.7	89.0	84.0	75-125	5.3	20
Selenium	mg/Kg	0.941	12.5	12.5	13.5	12.8	108	102	75-125	5.3	20
Silver	mg/Kg	<0.0410	5.00	5.00	4.92	4.93	98.0	99.0	75-125	0.2	20
Zinc	mg/Kg	2170	12.5	12.5	2350	2350	1440*	1440*	75-125	0.0	20

Post Digestion Spike V 89010-PDS-V9786

Parameter	Units	PDS Result	% Recovery	Analyzed
Arsenic	mg/Kg	14.5	102	10/07/21 02:46
Barium	mg/Kg	13.4	107	10/07/21 02:46
Cadmium	mg/Kg	15.4	100	10/07/21 02:46
Chromium	mg/Kg	19.9	102	10/07/21 02:46
Lead	mg/Kg	13.0	96.0	10/07/21 02:46
Selenium	mg/Kg	13.5	108	10/07/21 02:46
Silver	mg/Kg	12.5	100	10/07/21 02:46
Zinc	mg/Kg	1100	480*	10/07/21 18:40

* QC Fail

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Quality Control Data

Client ID: Ensafe, Inc.
Project Description: American Zinc Products
Report No: 21-277-0007

QC Prep: V9832
QC Prep Batch Method: 7471B (Prep)
QC Analytical Batch(es): V9859
Analysis Method: 7471B
Analysis Description: Solids Total Mercury Analysis - CVAA

Lab Reagent Blank LRB-V9832 Matrix: SOL
Associated Lab Samples: 89010, 89011, 89012, 89013, 89014, 89015, 89016, 89017

Parameter	Units	Blank Result	MDL	MQL	Analyzed
Mercury (Total)	mg/Kg	<0.0120	0.0120	0.0300	10/07/21 14:57

Laboratory Control Sample LCS-V9832

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
Mercury (Total)	mg/Kg	0.417	0.425	102	80-120

Matrix Spike & Matrix Spike Duplicate V 89010-MS-V9832 V 89010-MSD-V9832

Parameter	Units	Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS %Rec	MSD %Rec	%Rec Limits	RPD	Max RPD
Mercury (Total)	mg/Kg	<0.0120	0.417	0.417	0.403	0.411	97.0	99.0	80-120	1.9	20

Post Digestion Spike V 89010-PDS-V9832

Parameter	Units	PDS Result	% Recovery	Analyzed
Mercury (Total)	mg/Kg	<0.0120	0.0*	10/07/21 15:13

* QC Fail

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Quality Control Data

Client ID: **Ensafe, Inc.**
Project Description: **American Zinc Products**
Report No: **21-277-0007**

QC Analytical Batch: V9715
Analysis Method: 9045D
Analysis Description: pH in Solids

Laboratory Control Sample LCS

Parameter	Units	Spike Conc.	LCS Result	LCS %Rec	% Rec Limits
pH	s.u.	6.86	6.83	100	3.54-101.4

Duplicate V 89010-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	3.14	3.13	0.3	20.0	10/05/21 10:45

Duplicate V 96570-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
pH	s.u.	5.61	5.65	0.7	20.0	10/05/21 10:45

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Quality Control Data

Client ID: **Ensafe, Inc.**
Project Description: **American Zinc Products**
Report No: **21-277-0007**

QC Analytical Batch: V9677
Analysis Method: SW-DRYWT
Analysis Description: Dry Weight Determination

Duplicate V 96732-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	21.9	21.4	2.3	20.0	10/04/21 17:21

Duplicate V 96733-DUP

Parameter	Units	Result	DUP Result	RPD	Max RPD	Analyzed
Moisture	%	19.5	19.2	1.5	20.0	10/04/21 17:21

Waypoint ANALYTICAL
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Shipment Receipt Form

Customer Number: **00133**
Customer Name: **Ensafe, Inc.**
Report Number: **21-277-0007**

Shipping Method

○ Fed Ex ○ US Postal ● Lab ○ Other :
○ UPS ○ Client ○ Courier Thermometer ID: IRT-15 7.4 C

Shipping container/cooler uncompromised?	● Yes	○ No	
Number of coolers/boxes received	1		
Custody seals intact on shipping container/cooler?	○ Yes	○ No	● Not Present
Custody seals intact on sample bottles?	○ Yes	○ No	● Not Present
Chain of Custody (COC) present?	● Yes	○ No	
COC agrees with sample label(s)?	● Yes	○ No	
COC properly completed	● Yes	○ No	
Samples in proper containers?	● Yes	○ No	
Sample containers intact?	● Yes	○ No	
Sufficient sample volume for indicated test(s)?	● Yes	○ No	
All samples received within holding time?	● Yes	○ No	
Cooler temperature in compliance?	● Yes	○ No	
Cooler/Samples arrived at the laboratory on ice. Samples were considered acceptable as cooling process had begun.	● Yes	○ No	
Water - Sample containers properly preserved	● Yes	○ No	○ N/A
Water - VOA vials free of headspace	○ Yes	○ No	● N/A
Trip Blanks received with VOAs	○ Yes	○ No	● N/A
Soil VOA method 5035 – compliance criteria met	○ Yes	○ No	● N/A

☐ High concentration container (48 hr) ☐ Low concentration EnCore samplers (48 hr)
☐ High concentration pre-weighed (methanol -14 d) ☐ Low conc pre-weighed vials (Sod Bis -14 d)

Special precautions or instructions included? ○ Yes ● No

Comments:

Signature: Zoe S. Vigilant Date & Time: 10/04/2021 10:52:24

ENSAFE

EnSafe Inc.
800-588-7962

CHAIN OF CUSTODY AND ANALYTICAL REQUEST RECORD

COC No.

Page 1 of 1

Project Name: AZP - SURFACE WATER / SEDIMENT SAMPLING

PO No.

Project No. 24799

Phase 006.006.05

Site Location: MOORESBORO, NC

Send Results To: BCALDWELL@ENSAFE.COM

Sampler/Site Phone# GORDON HICKS / JIMMY GROTON / BONNIE NGUYEN / 952-221-9961

Lab Name: WAYPOINT AZP

Turnaround Time(specify): 3 DAY

Sample Analysis Requested (*Enter number of containers for each test*)

Lab ID	Sample ID (sys_samp_code)	Location ID (sys_loc_code)	(mm/dd/yy)	Time (Military) (hhmm)	Matrix Code (1)	Sample Type (2)	Field Filtered (Y/N)	Total No. of Containers (3)→	RCRA metals + Zn, pH 8oz	Extra Volume for MS/MSD	HOLD
	PITSED-46-093021		09/30/21	0905	SE	N	N	1	1		
	PITSED-40-093021		09/30/21	0917	SE	N	N	1	1		
	PITSED-34-093021		09/30/21	0921	SE	N	N	1	1		
	PITSED-28-093021		09/30/21	0927	SE	N	N	1	1		
	PITSED-22-093021		09/30/21	0931	SE	N	N	1	1		
	PITSED-16-093021		09/30/21	0936	SE	N	N	1	1		
	PITSED-10-093021		09/30/21	0941	SE	N	N	1	1		
	PITSED-4-093021		09/30/21	0946	SE	N	N	1	1		

21-277-0007
00133
10-04-2021
10:48:26
Ensafe, Inc.
American Zinc Products

Field **Comments:** Samples from pit in maintenance pond: PITSED-XX-YYYY where XX is inches below grade, YY is date

Lab **Comments:**

Sample Shipment and Delivery Details

Number of coolers in shipment: 1

Samples Iced?(check) Yes ✓ No

Method of Shipment: Owner

Airbill No:

Date Shipped:

Relinquished by (signature)	Date	Time	Received by (signature)	Date	Time
1 [signature]	9-30-21	1030	1 [signature]	9-30-21	10:31
2 [signature]	10-4-21	0849	2 [signature]	10.4.21	8:48
3 Paula [signature]	10.4.21	10:03	3 [signature]	10/4/21	1009

(1) **Matrix Code:** **AA**=Air, **AQ**=Air QC Matrix, **CK**=Caulk, **GS**=Soil Gas, **LF**=Free Product, **LH**=Liquid Waste, **MS**=Mastic, **OIL**=Oil, **PT**=Paint, **SC**=Cement/Concrete, **SE**=Sediment, **SF**=Filter Sandpack, **SL**=Sludge, **SN**=Miscellaneous Solid/Building Materials, **SO**=Soil, **SQ**=Soil/Solid QC Matrix, **ST**=Solid Waste, **SW**=Swab/Wipe, **TA**=Animal Tissue, **TP**=Plant Tissue, **WG**=Ground Water, **WL**=Leachate, **WO**=Ocean Water, **WP**=Drinking Water, **WQ**=Water QC Matrix, **WS**=Surface Water, **SU**=Storm Water, **WW**=Waste Water

(2) **Sample Type:** **AB**=Ambient Blank, **EB**=Equipment Blank, **FB**=Field Blank, **FD**=Field Duplicate Sample, **FR**=Field Replicate, **MB**=Material Blank, **N**=Normal Environmental Sample, **RB**=Material Rinse Blank, **TB**=Trip Blank

(3) **Preservative added:** **HA**=Hydrochloric Acid, **NI**=Nitric Acid, **SH**=Sodium Hydroxide, **SA**=Sulfuric Acid, **AA**=Ascorbic Acid, **HX**=Hexane, **ME**=Methanol, **SB**=sodium bisulfate, **ST**=Sodium Thiosulfate, If **NO preservative** added leave blank

Rev. 12/12

IRT-15 7.4°C/7.4