

# Addendum 1 - Waste Management Unit 31 Concrete Investigation Report

RTRR Property  
18251 West Jefferson  
Riverview, Michigan

Riverview-Trenton Railroad Company

April 5, 2021

ASTI ENVIRONMENTAL



# Addendum 1 - Waste Management Unit 31 Concrete Investigation Report

RTRR Property  
18251 West Jefferson  
Riverview, Michigan

April 5, 2021

**Prepared For:**

Riverview-Trenton Railroad Company  
12225 Stephens Road  
Warren, Michigan 48089

**Report Prepared By:**

ASTI Environmental  
10448 Citation Drive, Suite 100  
Brighton, Michigan 48116  
(810) 225-2800

**ASTI Project No. 10860**

Report Prepared by:



Greg S. Oslosky, P.G.  
Director – Grand Rapids Office

Report Reviewed by:



Allison J. Rogowski, E.P.  
Environmental Scientist

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**Addendum 1 - Waste Management Unit 31 Concrete Investigation Report**  
**Riverview-Trenton Railroad Company**  
**Former McLouth Steel Site**  
**18251 West Jefferson Avenue**  
**Riverview, Michigan**

## **1.0 Introduction**

In accordance with the Corrective Action Consent Order (“CACO”) dated November 1, 2018 between the Riverview-Trenton Rail Road Company (“RTRR”) and the Michigan Department of Environment, Great Lakes, and Energy (“EGLE”), ASTI Environmental (“ASTI”) prepared this Addendum to the Waste Management Unit (“WMU”) 31 Concrete Investigation Report for the property located at 18251 West Jefferson Avenue in the City of Riverview, Wayne County, Michigan (“Subject Property”). The portion of the Subject Property located south of Sibley Road is located in the City of Trenton. ASTI submitted the WMU-31 Concrete Investigation Report (“WMU-31 Investigation Report”) to EGLE on January 22, 2021.

The WMU-31 Investigation Report was prepared in accordance with the CACO and the WMU Investigation Work Plan (“WMU Work Plan”), prepared by ASTI and dated June 28, 2019. The WMU Work Plan was approved by EGLE in a letter dated July 29, 2019.

## **2.0 Background**

Background information for the Subject Property and WMU-31 are included in the WMU-31 Investigation Report. In accordance with the WMU Investigation Work Plan, ASTI collected 12 concrete samples and one duplicate sample from the WMU-31 concrete pad on July 7, 2020 for laboratory analysis of the Michigan 10 Metals (arsenic, barium, cadmium, total chromium, copper, lead, mercury, selenium, silver, and zinc) for comparison to the EGLE Generic Nonresidential Cleanup Criteria (“GNRCC”) for Groundwater Surface Water Interface Protection (“GSIP”) under Part 201 of Michigan’s *Natural Resources and Environmental Protection Act, 1994 PA 451, as Amended* (“Part 201”). The sample collection procedure is described in the WMU-31 Concrete Investigation Report.

Based on laboratory analysis, metals were detected in each of the 12 concrete samples and the duplicate sample. The only metals to exceed the EGLE GNRCC for GSIP were arsenic (all samples), total chromium (all samples), and selenium (one sample and its duplicate sample). A WMU-31 Site Plan, including the sample grids and sample locations, is provided as Figure 1A.

Based on exceedances of total chromium in each sample, ASTI recommended collection of additional samples from the same locations as the previous samples for laboratory analysis of hexavalent chromium and, pending those results, additional analysis of toxicity characteristic leaching procedures (“TCLP”) chromium (if hexavalent chromium exceeds criteria), TCLP arsenic, and TCLP selenium in samples which exceeded the EGLE GNRCC for GSIP.

EGLE provided verbal comments on the WMU-31 Concrete Investigation Report and agreed with the recommendation to collect additional samples for the suite of analysis described

above. EGLE required that a work plan be completed and submitted for review and approval before completing the additional investigation.

### **3.0 WMU-30 Additional Concrete Investigation**

#### ***3.1 WMU-31 Additional Investigation Work Plan***

ASTI prepared and submitted to EGLE the Work Plan – Additional Concrete Investigation - WMU-31 on February 9, 2021 (“Work Plan”). The Work Plan described the sample methodology to be used for collection of additional concrete samples from WMU-31 and the laboratory suite for analysis. EGLE provided their approval of the Work Plan in a letter dated February 19, 2021. EGLE’s letter providing approval of the Work Plan is included as Attachment A to this Addendum.

#### ***3.2 March 5, 2021 Concrete Sample Collection***

In accordance with the approved Work Plan, ASTI collected one concrete sample from each of the 12 grid areas described in the WMU-31 Concrete Investigation Report and shown on Figure 1A. The samples were collected adjacent to the samples collected previously; whose locations resulted from generation of random sample locations as described in the WMU-31 Concrete Investigation Report. ASTI collected two eight-ounce jars of concrete per sample using the same procedures used to collect the July 7, 2020 samples. Each sample was labeled with a unique identification number similar to those used in the previous sampling event, including the area (A1, A2, or A3), the collection date, and the grid number (i.e. the sample collected from Area 1, Grid 1 was identified as A1-3521-1). After collection, the samples were placed on ice and kept cold until delivery to Fibertec Environmental Services (“Fibertec”) in Holt, Michigan for analysis. Sample handling and transfer were conducted using standard chain-of-custody procedures. The samples were initially analyzed by Fibertec for hexavalent chromium. The remaining sample volume was held by the laboratory pending ASTI’s instruction for TCLP analysis after review of the hexavalent chromium results.

#### ***3.3 Laboratory Analytical Results – Hexavalent Chromium***

Laboratory analytical results reported detection of hexavalent chromium in one concrete sample. The sample collected from Area 2 – Grid 1 (sample ID: A2-3521-1) contained a hexavalent chromium concentration of 750 micrograms per kilogram ( $\mu\text{g}/\text{L}$  or parts per billion). The remaining samples, including the duplicate sample did not contain hexavalent chromium at concentrations exceeding the laboratory reporting limit of 400  $\mu\text{g}/\text{L}$ . The maximum detected hexavalent chromium concentration is below the EGLE GNRCC for GSIP of 3,300  $\mu\text{g}/\text{L}$ . Therefore, chromium, including hexavalent chromium, does not exceed the EGLE GNRCC for GSIP in concrete at WMU-31 and the samples were not analyzed for TCLP chromium. Figure 1A depicts the sample locations. Table 1A provides a summary of the laboratory analytical results for the July 7, 2020 concrete samples and the hexavalent chromium results for the March 5, 2021 concrete samples. Attachment B provides the laboratory analytical report for the March 5, 2021 concrete samples (the laboratory analytical report for the concrete samples collected in July 7, 2020 is included with the WMU-31 Concrete Investigation Report).

### **3.4 Laboratory Analytical Results – TCLP Arsenic and TCLP Selenium**

Each sample collected on March 5, 2021 was analyzed for TCLP arsenic and sample A1-3521-3 was also analyzed for TCLP selenium. Laboratory analytical results did not report TCLP lead or TCLP selenium concentrations above the laboratory detection limit. Table 2A provides a summary of the laboratory analytical results for the TCLP lead and TCLP selenium analysis. Attachment B provides the laboratory analytical report for the TCLP analysis.

## **4.0 Conclusions**

In accordance with the CACO and the Work Plan, ASTI collected additional concrete samples from the concrete pad in WMU-31. On March 5, 2021, ASTI collected 12 additional concrete samples (plus one QA/QC sample) for analysis of hexavalent chromium, TCLP lead and TCLP selenium (one location). Hexavalent chromium was not detected at concentrations in exceedance of the GNRCC for the Groundwater Surface Water Interface (GSI). Concentrations of the Michigan 10 metals hexavalent chromium did not exceed the GNRCC for GSIP and TCLP lead and TCLP selenium did not exceed the GNRCC for GSI. Therefore, the contaminants of concern (Michigan 10 Metals) in the concrete pad test at WMU-31 do not pose a risk to surface water adjacent to the Subject Property and no further investigation is required as by the CACO.

## **5.0 RCRA Certification Statement**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision according to a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



---

Greg S. Oslosky, P.G.  
Director – Grand Rapids

## **Tables**

**Addendum - Waste Management Unit 31 Concrete Investigation**

**Table 1A - Summary of Concrete Sample Analytical Results**  
**Riverview Trenton Rail Road Company**  
**WMU-31 - Former EAF Dust and Sludge Storage Tanks**  
**Addendum to the WMU-31 Concrete Investigation Report**  
**ASTI File No.10860**

Parameters	Groundwater Surface Water	Sample Area and Grid	Area 1 - 1		Area 1 - 2		Area 1 - 3		Area 1 - 4		Area 1 - 5		Area 2 - 1		Area 2 - 2						
			Interface Protection Criteria <sup>(1)</sup>	Sample ID	Date	7/7/2020	A1-3521-1	A1-7720-2	A1-3521-2	A1-7720-3	Dup-WMU31 <sup>(4)</sup>	A1-3521-3	A1-7720-4	A1-3521-4	A1-7720-5	A1-3521-5	A2-7720-1	A2-3521-1	A2-7720-2	A2-3521-2	
			Criteria <sup>(1)</sup>	Units	Date	7/5/2021							Date	3/5/2021			Date	7/5/2021		Date	3/5/2021
<b>MI 10 Metals</b>																					
Arsenic	4,600	µg/kg	<b>6,300</b>	NA <sup>(3)</sup>	<b>13,000</b>	NA	<b>6,800</b>	<b>7,300</b>	NA	<b>5,600</b>	NA	<b>6,000</b>	NA	<b>4,700</b>	NA	<b>6,300</b>	NA	<b>6,300</b>	NA		
Barium	(G)	µg/kg	190,000	NA	220,000	NA	220,000	200,000	NA	180,000	NA	200,000	NA	150,000	NA	160,000	NA	160,000	NA		
Cadmium	(G,X)	µg/kg	150	NA	160	NA	200	160	NA	110	NA	160	NA	100	NA	160	NA	160	NA		
Chromium, Total	3,300 <sup>(2)</sup>	µg/kg	<b>13,000</b>	NA	<b>12,000</b>	NA	<b>15,000</b>	<b>13,000</b>	NA	<b>15,000</b>	NA	<b>12,000</b>	NA	<b>8,300</b>	NA	<b>13,000</b>	NA	<b>13,000</b>	NA		
Chromium VI	3,300	µg/kg	NA	<400	NA	<400	NA	NA	NA	<400	NA	<400	NA	<400	NA	750	NA	<400	NA		
Copper	(G)	µg/kg	15,000	NA	14,000	NA	14,000	15,000	NA	11,000	NA	14,000	NA	10,000	NA	12,000	NA	12,000	NA		
Lead	(G,X)	µg/kg	3,500	NA	4,800	NA	5,300	4,500	NA	3,800	NA	3,400	NA	2,900	NA	3,100	NA	3,100	NA		
Mercury, Total	50 (M); 1.2	µg/kg	<50	NA	<50	NA	<50	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA	<50	NA		
Selenium	400	µg/kg	390	NA	360	NA	<b>510</b>	<b>520</b>	NA	360	NA	310	NA	280	NA	390	NA	390	NA		
Silver	100 (M); 27	µg/kg	<100	NA	<100	NA	<100	<100	NA	<100	NA	<100	NA	<100	NA	<100	NA	<100	NA		
Zinc	(G)	µg/kg	24,000	NA	40,000	NA	43,000	44,000	NA	22,000	NA	24,000	NA	16,000	NA	25,000	NA	25,000	NA		

µg/kg - micrograms per kilogram or parts per billion

(1) Per R299.46, June 25, 2018

(2) Listed criteria is for hexavalent chromium.

(3) "NA" Not analyzed

(4) "DUP" refers to duplicate sample.

**BOLD** indicates a concentration in exceedance of the cleanup criteria.

G-Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

M-Calculated criterion is below the analytical target detection limit, therefore, the criterions defaults to the target detection limit.

generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

**Table 1A - Summary of Concrete Sample Analytical Results**  
**Riverview Trenton Rail Road Company**  
**WMU-31 - Former EAF Dust and Sludge Storage Tanks**  
**Addendum to the WMU-31 Concrete Investigation Report**  
**ASTI File No.10860**

Parameters	Groundwater Surface Water	Sample Area and Grid	Area 3 - 1		Area 3 - 2		Area 3 - 3		Area 3 - 4		Area 3 - 5				
			Interface Protection Criteria <sup>(1)</sup>	Sample ID	Date	A3-7720-1 7/7/2020	A3-3521-1 3/5/2021	Dup-WMU-31 <sup>(1)</sup> 3/5/2021	A3-7720-2 7/7/2020	A3-3521-2 3/5/2021	A3-7720-3 7/7/2020	A3-3521-3 3/5/2021	A3-7720-4 7/7/2020	A3-3521-4 3/5/2021	A3-7720-5 7/7/2020
<b>MI 10 Metals</b>															
Arsenic	4,600	µg/kg	<b>5,100</b>	NA	NA	<b>6,700</b>	NA	<b>6,500</b>	NA	<b>7,100</b>	NA	<b>7,400</b>	NA		
Barium	(G)	µg/kg	160,000	NA	NA	200,000	NA	200,000	NA	180,000	NA	200,000	NA		
Cadmium	(G,X)	µg/kg	140	NA	NA	140	NA	130	NA	130	NA	130	NA		
Chromium, Total	3,300 <sup>(2)</sup>	µg/kg	<b>12,000</b>	NA	NA	<b>13,000</b>	NA	<b>14,000</b>	NA	<b>14,000</b>	NA	<b>15,000</b>	NA		
Chromium VI	3,300	µg/kg	NA	<400	<400	NA	<400	NA	<400	NA	<400	NA	<400		
Copper	(G)	µg/kg	10,000	NA	NA	14,000	NA	12,000	NA	11,000	NA	14,000	NA		
Lead	(G,X)	µg/kg	2,900	NA	NA	3,500	NA	3,300	NA	3,300	NA	3,700	NA		
Mercury, Total	50 (M); 1.2	µg/kg	<50	NA	NA	<50	NA	<50	NA	<50	NA	<50	NA		
Selenium	400	µg/kg	390	NA	NA	360	NA	310	NA	300	NA	390	NA		
Silver	100 (M); 27	µg/kg	<100	NA	NA	<100	NA	<100	NA	<100	NA	<100	NA		
Zinc	(G)	µg/kg	24,000	NA	NA	21,000	NA	21,000	NA	19,000	NA	22,000	NA		

µg/kg - micrograms per kilogram or parts per billion

(1) Per R299.46, June 25, 2018

(2) Listed criteria is for hexavalent chromium.

(3) "NA" Not analyzed

(4) "DUP" refers to duplicate sample.

**BOLD** indicates a concentration in exceedance of the cleanup criteria.

G-Groundwater Surface Water Interface (GSI) criterion depends on the pH or water hardness, or both, of the receiving surface water.

M-Calculated criterion is below the analytical target detection limit, therefore, the criterions defaults to the target detection limit.

generic cleanup criteria tables is not protective for surface water that is used as a drinking water source.

**Table 2A - Summary of Concrete Sample Analytical Results****TCLP Analysis****Riverview Trenton Rail Road Company****WMU-31 - Former EAF Dust and Sludge Storage Tanks****Addendum to the WMU-31 Concrete Investigation Report****ASTI File No.10860**

Parameters	Non-residential		Sample Grid Sample ID Date Units	Area 1 - 1	Area 1 - 2	Area 1 - 3	Area 1 - 4	Area 1 - 5	Area 2 - 1	Area 2 - 2	Area 3 - 1		Area 3 - 2	Area 3 - 3	Area 3 - 4	Area 3 - 5
	Groundwater	Surface Water		A1-3521-1 3/5/2021	A1-3521-2 3/5/2021	A1-3521-3 3/5/2021	A1-3521-4 3/5/2021	A1-3521-5 3/5/2021	A2-3521-1 3/5/2021	A2-3521-2 3/5/2021	A3-3521-1 Dup-WMU-31 <sup>(2)</sup> 3/5/2021	A3-3521-2 3/5/2021	A3-3521-3 3/5/2021	A3-3521-4 3/5/2021	A3-3521-5 3/5/2021	
TCLP Arsenic	10	µg/L	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	<1,000	
TCLP Selenium	5	µg/L	NA <sup>(3)</sup>	NA	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	

µg/L - micrograms per liter or parts per billion

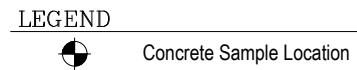
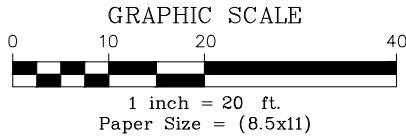
(1) Per R299.46, June 25, 2018

(2) "DUP" refers to duplicate sample.

(3) "NA" Not analyzed

**Figure 1A  
WMU-31 Site Plan**

**Addendum - Waste Management Unit 31 Concrete Investigation**



RTRR - WMU-31

Investigation

18251 West Jefferson, Riverview, MI

Created for: Riverview-Trenton Railroad Company  
ASTI Project 10860, JRN, March 14, 2021

Figure 1A - WMU-31  
Sample Location Map

**ASTI**  
Environmental

**Attachment A  
EGLE Work Plan Approval Letter, February 19, 2021**

**Addendum - Waste Management Unit 31 Concrete Investigation**



GRETCHEN WHITMER  
GOVERNOR

STATE OF MICHIGAN  
DEPARTMENT OF  
ENVIRONMENT, GREAT LAKES, AND ENERGY  
LANSING

**EGLE**  
LIESL EICHLER CLARK  
DIRECTOR

February 19, 2021

VIA E-MAIL AND U.S. MAIL

Mr. Greg Oslosky, Director  
Western Great Lakes Office  
ASTI Environmental  
660 Cascade West Parkway SE, Suite 210  
Grand Rapids, Michigan 49546

Dear Mr. Oslosky:

**SUBJECT:** Approval of Work Plan pursuant to Corrective Action Consent Order No. 111-06-2018 (CACO); Riverview Trenton Railroad Company (RTRR), Riverview, Michigan, and Trenton, Michigan; MIK 420 024 889; Waste Data System Number 497352

The Michigan Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division (MMD), has completed its review of the Additional Concrete Investigation for Waste Management Unit 31 (Work Plan) at the RTRR site, submitted by ASTI Environmental on February 10, 2021. The Work Plan was reviewed for compliance with the applicable sections of Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended, and its administrative rules, as well as the site's current CACO. Based on the review, the Work Plan is approved.

If you have any questions, please contact me at 517-242-8496; RungeJ@Michigan.gov; or EGLE, MMD, P.O. Box 30241, Lansing, Michigan 48909-7741.

Sincerely,

Jacob Runge, Environmental Engineer  
Management and Tracking Unit  
Hazardous Waste Section  
Materials Management Division

cc: Mr. Tom Wackerman, President, ASTI Environmental  
Mr. Dennis Schreibis, Director, Crown Enterprises, Inc.  
Mr. Richard Conforti, EGLE  
Mr. John McCabe, EGLE  
Ms. Jennifer Hazelton, EGLE  
Mr. Nathan Erber, EGLE  
Corrective Action File

**Attachment B  
Laboratory Analytical Reports**

**Addendum - Waste Management Unit 31 Concrete Investigation**

Wednesday, March 17, 2021

Fibertec Project Number: A00639  
Project Identification: RTRR (10860) /10860  
Submittal Date: 03/10/2021

Mr. Greg Oslosky  
Applied Science & Technology, Inc. - Brighton  
10448 Citation Dr.  
Suite 100  
Brighton, MI 48116

Dear Mr. Oslosky,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,



By Sue Ricketts at 10:37 AM, Mar 17, 2021

For Daryl P. Strandbergh  
Laboratory Director

Enclosures

**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-001**

Order: A00639  
 Page: 2 of 15  
 Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>09:28</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Chromium, Hexavalent</b>	<b>Aliquot ID: A00639-001</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 3060A/EPA 7196A</b>	<b>Description: A1-3521-1</b>	

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-002**

Order: A00639  
Page: 3 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>09:50</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-003**

Order: A00639  
Page: 4 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-3</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>10:13</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Chromium, Hexavalent      Aliquot ID: A00639-003      Matrix: Other (Solid)  
Method: EPA 3060A/EPA 7196A      Description: A1-3521-3

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-004**

Order: A00639  
Page: 5 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-4</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>10:35</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Chromium, Hexavalent      Aliquot ID: A00639-004      Matrix: Other (Solid)  
Method: EPA 3060A/EPA 7196A      Description: A1-3521-4

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-005**

Order: A00639  
Page: 6 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-5</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>11:05</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Chromium, Hexavalent      Aliquot ID: A00639-005      Matrix: Other (Solid)  
Method: EPA 3060A/EPA 7196A      Description: A1-3521-5

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U	F-	µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-006**

Order: A00639  
Page: 7 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A2-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>11:26</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Chromium, Hexavalent      Aliquot ID: A00639-006      Matrix: Other (Solid)  
Method: EPA 3060A/EPA 7196A      Description: A2-3521-1

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	750		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-007**

Order: A00639  
Page: 8 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A2-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:15</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-008**

Order: A00639  
Page: 9 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>14:03</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Chromium, Hexavalent      Aliquot ID: A00639-008      Matrix: Other (Solid)  
Method: EPA 3060A/EPA 7196A      Description: A3-3521-1

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-009**

Order: A00639  
Page: 10 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>13:28</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Chromium, Hexavalent**      **Aliquot ID:** A00639-009      **Matrix:** Other (Solid)  
**Method:** EPA 3060A/EPA 7196A      **Description:** A3-3521-2

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-010**

Order: A00639  
Page: 11 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-3</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>13:08</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Chromium, Hexavalent**      **Aliquot ID:** A00639-010      **Matrix:** Other (Solid)  
**Method:** EPA 3060A/EPA 7196A      **Description:** A3-3521-3

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-011**

Order: A00639  
Page: 12 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-4</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:50</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

**Chromium, Hexavalent**      **Aliquot ID:** A00639-011      **Matrix:** Other (Solid)  
**Method:** EPA 3060A/EPA 7196A      **Description:** A3-3521-4

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-012**

Order: A00639  
Page: 13 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-5</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:32</b>

### Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable ‡: Parameter not included in NELAC Scope of Analysis.

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-013**

Order: A00639  
Page: 14 of 15  
Date: 03/17/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>Dup-WMU31</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Chromium, Hexavalent**  
**Method: EPA 3060A/EPA 7196A**

**Aliquot ID: A00639-013**

**Matrix: Other (Solid)**

**Description: Dup-WMU31**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Chromium VI	U		µg/kg	400	1.0	03/12/21	W321C12A	03/16/21	W321C12A	JMK

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Brighton, MI 48116  
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T: (810) 220-3300  
T: (231) 775-8368

F: (517) 699-0388  
F: (810) 220-3311  
F: (231) 775-8584

**Definitions/ Qualifiers:**

- A: Spike recovery or precision unusable due to dilution.
- B: The analyte was detected in the associated method blank.
- E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J: The concentration is an estimated value.
- M: Modified Method
- U: The analyte was not detected at or above the reporting limit.
- X: Matrix Interference has resulted in a raised reporting limit or distorted result.
- W: Results reported on a wet-weight basis.
- \*: Value reported is outside QC limits

**Exception Summary:**

- F- : Recovery from the spiked aliquot exceeds the lower control limit (matrix spike or matrix spike duplicate).

**Analysis Locations:**

All analyses performed in Holt.



Accreditation Number(s):

**T104704518-19-8 (TX)**

Analytical Laboratory  
 1914 Holloway Drive      8660 S. Mackinaw Trail  
 Holt, MI 48842      Cadillac, MI 49601  
 Phone: 517 699 0345      Phone: 231 775 8368  
 Fax: 517 699 0388      Fax: 231 775 8584  
 email: lab@fibertec.us

Industrial Hygiene Services, Inc.  
 3125 Sovereign Drive  
 Suite 9B  
 Lansing, MI 48911  
 Phone: 517 999 6020  
 email: asbestos@fibertechhs.com

Geoprobe  
 11766 E. Grand River Rd.  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #

**192677**

PAGE 1 of 2

Client Name:	ASTI Environmental			MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	PARAMETERS						Matrix Code			Deliverables																																																																				
Contact Person:	Grey Oslsky					S	Soil	GW	Ground Water																																																																										
Project Name/ Number:	RTRR / 10860					A	Air	SW	Surface Water																																																																										
Email distribution list:	goslosky@asti-env.com    mdykula@asti-env.com					O	Oil	WW	Waste Water																																																																										
Quote#						P	Wipe	X	Other: Specify																																																																										
Purchase Order#				<b>x = concrete powder</b>																																																																															
Date	Time	Sample #	Client Sample Descriptor	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 10%;">3-5-21</td><td style="width: 10%;">928</td><td style="width: 10%;">A1-3521-1</td><td style="width: 10%; text-align: right;">X</td><td style="width: 10%; text-align: right;">2</td><td style="width: 10%; text-align: right;">X</td><td colspan="8" rowspan="10" style="font-size: small; vertical-align: middle;"> <div style="display: flex; justify-content: space-around; align-items: center;"> <span style="margin-right: 10px;">Hold pending further instruction after Hex. Chrom. analysis</span> <span style="margin-right: 10px;">Received By Lab</span> <span style="margin-right: 10px;">MAR 10 2021</span> <span>Initials: GL</span> </div> </td></tr> <tr><td>950</td><td></td><td>A1-3521-2</td><td></td><td></td><td></td></tr> <tr><td>1013</td><td></td><td>A1-3521-3</td><td></td><td></td><td></td></tr> <tr><td>1035</td><td></td><td>A1-3521-4</td><td></td><td></td><td></td></tr> <tr><td>1105</td><td></td><td>A1-3521-5</td><td></td><td></td><td></td></tr> <tr><td>1126</td><td></td><td>A2-3521-1</td><td></td><td></td><td></td></tr> <tr><td>1215</td><td></td><td>A2-3521-2</td><td></td><td></td><td></td></tr> <tr><td>1403</td><td></td><td>A3-3521-1</td><td></td><td></td><td></td></tr> <tr><td>1328</td><td></td><td>A3-3521-2</td><td></td><td></td><td></td></tr> <tr><td>1308</td><td></td><td>A3-3521-3</td><td></td><td></td><td></td></tr> </table>												3-5-21	928	A1-3521-1	X	2	X	<div style="display: flex; justify-content: space-around; align-items: center;"> <span style="margin-right: 10px;">Hold pending further instruction after Hex. Chrom. analysis</span> <span style="margin-right: 10px;">Received By Lab</span> <span style="margin-right: 10px;">MAR 10 2021</span> <span>Initials: GL</span> </div>								950		A1-3521-2				1013		A1-3521-3				1035		A1-3521-4				1105		A1-3521-5				1126		A2-3521-1				1215		A2-3521-2				1403		A3-3521-1				1328		A3-3521-2				1308		A3-3521-3			
3-5-21	928	A1-3521-1	X													2	X	<div style="display: flex; justify-content: space-around; align-items: center;"> <span style="margin-right: 10px;">Hold pending further instruction after Hex. Chrom. analysis</span> <span style="margin-right: 10px;">Received By Lab</span> <span style="margin-right: 10px;">MAR 10 2021</span> <span>Initials: GL</span> </div>																																																																	
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1328		A3-3521-2																																																																																	
1308		A3-3521-3																																																																																	
Comments:																																																																																			

Sampled/Relinquished By:	<i>M. Oslsky</i>	Date/ Time	3/15/21 16:00	Received By:	<i>ASTI cold storage</i>
Relinquished By:	<i>ASTI Cold Storage</i>	Date/ Time		Received By:	<i>R. Shyu</i> 3/10/21 8:50
Relinquished By:	<i>M. Oslsky</i>	Date/ Time	3/15/21 3:30	Received By Laboratory:	

Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY

1 bus. day	2 bus. days	3 bus. days	4 bus. days	<b>LAB USE ONLY</b>  Fibertec project number: <b>A00639</b> Temperature upon receipt at Lab: <b>3.4°C</b>
<input checked="" type="checkbox"/>	5-7 bus. days (standard)	Other (specify time/date requirement): _____		

Received  
On Ice

Please see back for terms and conditions



Monday, March 29, 2021

Fibertec Project Number: A00639 Supplemental  
Project Identification: RTRR (10860) /10860  
Submittal Date: 03/10/2021

Mr. Greg Oslosky  
Applied Science & Technology, Inc. - Brighton  
10448 Citation Dr.  
Suite 100  
Brighton, MI 48116

Dear Mr. Oslosky,

Thank you for selecting Fibertec Environmental Services as your analytical laboratory. The samples you submitted have been analyzed in accordance with NELAC standards and the results compiled in the attached report. Any exceptions to NELAC compliance are noted in the report. These results apply only to those samples submitted. Please note TO-15 samples will be disposed of 7 calendar days after the reporting date. All other samples will be disposed of 30 days after the reporting date.

If you have any questions regarding these results or if we may be of further assistance to you, please contact me at (517) 699-0345.

Sincerely,

*Cheri Hanson*

*By Cheri Hanson at 1:29 PM, Mar 29, 2021*

For Daryl P. Strandbergh  
Laboratory Director

Enclosures

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11766 E Grand River  
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F:(517) 699-0388  
F:(810) 220-3311  
F:(231) 775-8584

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>09:28</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Toxicity Characteristic Leaching Procedure (TCLP)</b>	<b>Aliquot ID: A00639-001</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 1311</b>	<b>Description: A1-3521-1</b>	

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-001**

Order: A00639  
Page: 3 of 28  
Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>09:28</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

**Aliquot ID: A00639-001A**

**Matrix: TCLP Extract**

**Description: A1-3521-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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F:(810) 220-3311  
F:(231) 775-8584

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>09:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Toxicity Characteristic Leaching Procedure (TCLP)</b>	<b>Aliquot ID: A00639-002</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 1311</b>	<b>Description: A1-3521-2</b>	

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-002**

Order: A00639  
Page: 5 of 28  
Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>09:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

**Aliquot ID: A00639-002A**

**Matrix: TCLP Extract**

**Description: A1-3521-2**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-003**

Order: A00639  
Page: 6 of 28  
Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-3</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>10:13</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-003**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A1-3521-3**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-003**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-3</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>10:13</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**      **Aliquot ID: A00639-003A**      **Matrix: TCLP Extract**  
**Description: A1-3521-3**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA
2. Selenium	U		mg/L	0.20	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-4</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>10:35</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Toxicity Characteristic Leaching Procedure (TCLP)</b>	<b>Aliquot ID: A00639-004</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 1311</b>	<b>Description: A1-3521-4</b>	

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-004**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-4</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>10:35</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-004A**

Matrix: **TCLP Extract**

Description: **A1-3521-4**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-005**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-5</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>11:05</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-005**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A1-3521-5**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-005**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A1-3521-5</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>11:05</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-005A**

Matrix: **TCLP Extract**

Description: **A1-3521-5**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-006**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A2-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>11:26</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-006**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A2-3521-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-006**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A2-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>11:26</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-006A**

Matrix: **TCLP Extract**

Description: **A2-3521-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A2-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:15</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Toxicity Characteristic Leaching Procedure (TCLP)</b>	<b>Aliquot ID: A00639-007</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 1311</b>		
<b>Description: A2-3521-2</b>		

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-007**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A2-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:15</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

**Aliquot ID: A00639-007A**

**Matrix: TCLP Extract**

**Description: A2-3521-2**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-008**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>14:03</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-008**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A3-3521-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-008**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-1</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>14:03</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-008A**

Matrix: **TCLP Extract**

Description: **A3-3521-1**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-009**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>13:28</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-009**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A3-3521-2**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-009**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-2</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>13:28</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-009A**

Matrix: **TCLP Extract**

Description: **A3-3521-2**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-010**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-3</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>13:08</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-010**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A3-3521-3**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-010**

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-3</b>	Chain of Custody:	<b>192677</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>13:08</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-010A**

Matrix: **TCLP Extract**

Description: **A3-3521-3**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-4</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Toxicity Characteristic Leaching Procedure (TCLP)</b>	<b>Aliquot ID: A00639-011</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 1311</b>	<b>Description: A3-3521-4</b>	

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-011**

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Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-4</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:50</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

**Aliquot ID: A00639-011A**

**Matrix: TCLP Extract**

**Description: A3-3521-4**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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11766 E Grand River  
8660 S Mackinaw Trail

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F:(231) 775-8584



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-012**

Order: A00639  
Page: 24 of 28  
Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-5</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:32</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**Toxicity Characteristic Leaching Procedure (TCLP)**      **Aliquot ID: A00639-012**      **Matrix: Other (Solid)**  
**Method: EPA 1311**      **Description: A3-3521-5**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA

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**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-012**

Order: A00639  
Page: 25 of 28  
Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>A3-3521-5</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>12:32</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-012A**

Matrix: **TCLP Extract**

Description: **A3-3521-5**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/24/21	PT21C24A	03/24/21	T421C24A	CJA

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Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>Dup-WMU31</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

<b>Toxicity Characteristic Leaching Procedure (TCLP)</b>	<b>Aliquot ID: A00639-013</b>	<b>Matrix: Other (Solid)</b>
<b>Method: EPA 1311</b>	<b>Description: Dup-WMU31</b>	

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. TCLP Date	<b>3/23/2021</b>		NA	NA	1.0	NA	NA	03/23/21	NA	CJA



**Analytical Laboratory Report**  
**Laboratory Project Number: A00639**  
**Laboratory Sample Number: A00639-013**

Order: A00639  
Page: 27 of 28  
Date: 03/29/21

Client Identification:	<b>Applied Science &amp; Technology, Inc. - Brighton</b>	Sample Description:	<b>Dup-WMU31</b>	Chain of Custody:	<b>194833</b>
Client Project Name:	<b>RTRR (10860)</b>	Sample No:		Collect Date:	<b>03/05/21</b>
Client Project No:	<b>10860</b>	Sample Matrix:	<b>Other (Solid)</b>	Collect Time:	<b>NA</b>

Sample Comments:

Definitions: Q: Qualifier (see definitions at end of report) NA: Not Applicable †: Parameter not included in NELAC Scope of Analysis.

**TCLP Metals by ICP/MS**  
**Method: EPA 3005A (Total Recoverable)/EPA 6020A**

Aliquot ID: **A00639-013A**

Matrix: **TCLP Extract**

Description: **Dup-WMU31**

Parameter(s)	Result	Q	Units	Reporting Limit	Dilution	Preparation		Analysis		
						P. Date	P. Batch	A. Date	A. Batch	Init.
1. Arsenic	U		mg/L	1.0	20	03/25/21	PT21C25C	03/25/21	T421C25A	CJA

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**Definitions/ Qualifiers:**

- A: Spike recovery or precision unusable due to dilution.
- B: The analyte was detected in the associated method blank.
- E: The analyte was detected at a concentration greater than the calibration range, therefore the result is estimated.
- J: The concentration is an estimated value.
- M: Modified Method
- U: The analyte was not detected at or above the reporting limit.
- X: Matrix Interference has resulted in a raised reporting limit or distorted result.
- W: Results reported on a wet-weight basis.
- \*: Value reported is outside QC limits

**Exception Summary:****Analysis Locations:**

All analyses performed in Holt.



Accreditation Number(s):

**T104704518-19-8 (TX)**

Analytical Laboratory  
 1914 Holloway Drive 8660 S. Mackinaw Trail  
 Holt, MI 48842 Cadillac, MI 49601  
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 email: lab@fibertec.us

Industrial Hygiene Services, Inc.  
 3125 Sovereign Drive Suite 9B  
 Lansing, MI 48911 Phone: 517 999 6020  
 email: asbestos@fibertechhs.com

Geoprobe  
 11766 E. Grand River Rd.  
 Brighton, MI 48116  
 Phone: 810 220 3300  
 Fax: 810 220 3311

Chain of Custody #  
**192677**  
 PAGE 1 of 2

Client Name:	ASTI Environmental			MATRIX (SEE RIGHT CORNER FOR CODE)	PARAMETERS		Matrix Code			Deliverables	
Contact Person:	Grey Goslosky				# OF CONTAINERS	Hexavalent Chromium	TCLP Arsenic	TCLP Selenium	S Soil		GW Ground Water
Project Name/ Number:	RTRR / 10860				X		X		A Air		SW Surface Water
Email distribution list:	goslosky@asti-env.com mdykula@asti-env.com				Z		X		O Oil		WW Waste Water
Quote#					X		X		P Wipe		X Other: Specify
Purchase Order#	Date	Time	Sample #		Client Sample Descriptor						
	3-5-21	928	G1		A1-3521-1						
		950	G2		A1-3521-2						
		1013	G3		A1-3521-3						
		1035		A1-3521-4							
		1105		A1-3521-5							
		1126		A2-3521-1							
		1215		A2-3521-2							
		1403		A3-3521-1							
		1328		A3-3521-2							
		1308		A3-3521-3							
Comments:	TCLP analysis update: GSO 3/17/2021										
Sampled/Relinquished By:	<i>M. McMillan</i>			Date/ Time	3/15/21 16:00		Received By:	<i>ASTI cold storage</i>			
Relinquished By:	<i>ASTI Cold Storage</i>			Date/ Time	3/15/21 3:30		Received By:	<i>Lab off site 3/10/21 8:56</i>			
Relinquished By:	<i>M. McMillan</i>			Date/ Time	3/15/21 3:30		Received By/Laboratory:	<i>Lab off site 3/10/21 8:56</i>			
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY											
1 bus. day	2 bus. days	3 bus. days	4 bus. days					LAB USE ONLY			
<input checked="" type="checkbox"/> 5-7 bus. days (standard)	Other (specify time/date requirement): _____							Fibertec project number: <b>A00639</b> Temperature upon receipt at Lab: <b>3.4°C</b>			
Please see back for terms and conditions											



## Analytical Laboratory

**1914 Holloway Drive**      **8660 S. Mackinaw Trail**  
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**Phone: 517 699 0345**      **Phone: 231 775 8368**  
**Fax: 517 699 0388**      **Fax: 231 775 8584**  
**email: lab@fiberfec.us**

all revised  
3/19/21

**Geoprobe**  
11766 E. Grand River Rd.  
Brighton, MI 48116  
Phone: 810 220 3300  
Fax: 810 220 3311

Chain of Custody #

194833  
PAGE 2 of 2

Client Name:	ASTI Environmental			PARAMETERS	Matrix Code				Deliverables		
Contact Person:	Greg Oslosky				HOLD SAMPLE	S	Soil	GW		Ground Water	
Project Name/ Number:	RTRR / 10860					A	Air	SW		Surface Water	
Email distribution list:	goslosky@asti-env.com mdykla@asti-env.com					O	Oil	WW		Waste Water	
Quote#				P	Wipe	X	Other: Specify				
Purchase Order#				X = Concrete powder							
Date	Time	Sample #	Client Sample Descriptor	MATRIX (SEE RIGHT CORNER FOR CODE)	# OF CONTAINERS	Hexavalent Chromium	TCLP Arsenic		Remarks:		
3-5-21	1250		A3-3521-4	X	2	X	X		"Hold pending further instruction after Hex Chrom. analysis"		
	1232		A3-3521-5				X				
			Dup - WMU31				X				
Comments:											
Sampled/Relinquished By:				Date/ Time	3/5/21 1600	Received By:	ASTI cold storage				
Relinquished By:				Date/ Time		Received By:					
Relinquished By:				Date/ Time	3/6/21 3:30	Received By Laboratory:	3/6/21 2:50				
Turnaround Time ALL RESULTS WILL BE SENT BY THE END OF THE BUSINESS DAY											
1 bus. day	2 bus. days	3 bus. days	4 bus. days	LAB USE ONLY							
<input checked="" type="checkbox"/> 5-7 bus. days (standard)	Other (specify time/date requirement): _____			Fibertec project number: A00639							
Temperature upon receipt at Lab: 3.4°C											
Received On Ice											

**ASTI ENVIRONMENTAL**  
*ENVIRONMENTAL INVESTIGATION, REMEDIATION, COMPLIANCE AND  
RESTORATION PROJECTS THROUGHOUT THE GREAT LAKES SINCE 1985.*

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- ECOLOGICAL ASSESSMENTS AND RESTORATION
- ENVIRONMENTAL ASSESSMENTS AND IMPACT STATEMENTS
- ENVIRONMENTAL OPPORTUNITIES ASSESSMENT
- GIS MAPPING
- HAZARD MITIGATION PLANNING
- MINING AND RECLAMATION ASSISTANCE
- REMEDIATION IMPLEMENTATION, OPERATION AND MAINTENANCE
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- REGULATORY COMPLIANCE AND PERMITTING
- SOIL AND GROUNDWATER ASSESSMENTS
- SOIL AND GROUNDWATER REMEDIATION
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