

The results set forth herein are provided by SGS North America Inc.

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Automated Report

Technical Report for

WSP USA

Orchard School Soil Remediation, Ridgewood, NJ

31402200.001

SGS Job Number: JD10225R

Sampling Date: 07/15/20

Report to:

**WSP USA
600 East Crescent Avenue Suite 200
Upper Saddle River, NJ 07458
MAyers@lbgnj.com**

ATTN: Matt Ayers

Total number of pages in report: 58



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A handwritten signature in black ink, appearing to read 'Hemex Patel'.

Hemex Patel
Appointed Deputy for GM

Client Service contact: Victoria Pushkova 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

This report shall not be reproduced, except in its entirety, without the written approval of SGS.
Test results relate only to samples analyzed.

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1

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Sample Summary

WSP USA

Job No: JD10225R

Orchard School Soil Remediation, Ridgewood, NJ
Project No: 31402200.001

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
JD10225-1R	07/15/20	13:45 SZ	07/16/20	SO	Soil	TS (1)
JD10225-2R	07/15/20	14:05 SZ	07/16/20	SO	Soil	TS (3)
JD10225-3R	07/15/20	14:25 SZ	07/16/20	SO	Soil	TS (5)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

CASE NARRATIVE / CONFORMANCE SUMMARY

Client: WSP USA

Job No JD10225R

Site: Orchard School Soil Remediation, Ridgewood, NJ

Report Date 7/24/2020 9:59:21 AM

On 07/16/2020, 3 Sample(s), 0 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.7 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JD10225R was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

Metals Analysis By Method SW846 6010D

Matrix: LEACHATE

Batch ID: MP22012

- All samples were digested within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JD10225-1RSDL, JD10225-2RMS, JD10225-1RMSD were used as the QC samples for metals.

General Chemistry By Method SW846 1312

Matrix: ALL

Batch ID: GN9813

- The data for SW846 1312 meets quality control requirements.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Friday, July 24, 2020

Page 1 of 1

Summary of Hits

Job Number: JD10225R
Account: WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ
Collected: 07/15/20



Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
---------------	------------------	-----------------	----	-----	-------	--------

JD10225-1R TS (1)

pH, SPLP Leachate	7.53				su	SW846 1312
Volume, SPLP Leachate	2.005				l	SW846 1312
Weight, SPLP Leachate	0.1003				kg	SW846 1312
Dry Weight, SPLP Leachate	0.07309				kg	SW846 1312

JD10225-2R TS (3)

pH, SPLP Leachate	7.56				su	SW846 1312
Volume, SPLP Leachate	2.003				l	SW846 1312
Weight, SPLP Leachate	0.1002				kg	SW846 1312
Dry Weight, SPLP Leachate	0.07372				kg	SW846 1312

JD10225-3R TS (5)

pH, SPLP Leachate	7.09				su	SW846 1312
Volume, SPLP Leachate	2.011				l	SW846 1312
Weight, SPLP Leachate	0.1006				kg	SW846 1312
Dry Weight, SPLP Leachate	0.06537				kg	SW846 1312

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: TS (1)	
Lab Sample ID: JD10225-1R	Date Sampled: 07/15/20
Matrix: SO - Soil	Date Received: 07/16/20
	Percent Solids: 72.9
Project: Orchard School Soil Remediation, Ridgewood, NJ	

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	< 50		50	ug/l	1	07/22/20	07/23/20 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA49032

(2) Prep QC Batch: MP22012

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.1
4

Report of Analysis

Client Sample ID: TS (1)		Date Sampled: 07/15/20
Lab Sample ID: JD10225-1R		Date Received: 07/16/20
Matrix: SO - Soil		Percent Solids: 72.9
Project: Orchard School Soil Remediation, Ridgewood, NJ		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
SPLP Ratio for Extractables and Metals							
pH, SPLP Leachate	7.53		su	1	07/22/20 10:50	JOO	SW846 1312
Volume, SPLP Leachate	2.005		l	1	07/22/20 10:50	JOO	SW846 1312
Weight, SPLP Leachate	0.1003		kg	1	07/22/20 10:50	JOO	SW846 1312
Dry Weight, SPLP Leachate	0.07309		kg	1	07/22/20 10:50	JOO	SW846 1312

RL = Reporting Limit

4.1
4

Report of Analysis

Client Sample ID: TS (3)	
Lab Sample ID: JD10225-2R	Date Sampled: 07/15/20
Matrix: SO - Soil	Date Received: 07/16/20
	Percent Solids: 73.6
Project: Orchard School Soil Remediation, Ridgewood, NJ	

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	< 50		50	ug/l	1	07/22/20	07/23/20 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA49032

(2) Prep QC Batch: MP22012

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

4.2
4

Report of Analysis

Client Sample ID: TS (3)		Date Sampled: 07/15/20
Lab Sample ID: JD10225-2R		Date Received: 07/16/20
Matrix: SO - Soil		Percent Solids: 73.6
Project: Orchard School Soil Remediation, Ridgewood, NJ		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
SPLP Ratio for Extractables and Metals							
pH, SPLP Leachate	7.56		su	1	07/22/20 10:50	JOO	SW846 1312
Volume, SPLP Leachate	2.003		l	1	07/22/20 10:50	JOO	SW846 1312
Weight, SPLP Leachate	0.1002		kg	1	07/22/20 10:50	JOO	SW846 1312
Dry Weight, SPLP Leachate	0.07372		kg	1	07/22/20 10:50	JOO	SW846 1312

RL = Reporting Limit

4.2
4

Report of Analysis

Client Sample ID: TS (5)	
Lab Sample ID: JD10225-3R	Date Sampled: 07/15/20
Matrix: SO - Soil	Date Received: 07/16/20
	Percent Solids: 65.0
Project: Orchard School Soil Remediation, Ridgewood, NJ	

Metals Analysis, SPLP Leachate SW846 1312

Analyte	Result	MCL	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Antimony	< 50		50	ug/l	1	07/22/20	07/23/20 ND	SW846 6010D ¹	SW846 3010A ²

(1) Instrument QC Batch: MA49032

(2) Prep QC Batch: MP22012

RL = Reporting Limit
MCL = Maximum Contamination Level (not available)

Report of Analysis

Client Sample ID: TS (5)		Date Sampled: 07/15/20
Lab Sample ID: JD10225-3R		Date Received: 07/16/20
Matrix: SO - Soil		Percent Solids: 65.0
Project: Orchard School Soil Remediation, Ridgewood, NJ		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
SPLP Ratio for Extractables and Metals							
pH, SPLP Leachate	7.09		su	1	07/22/20 10:50	JOO	SW846 1312
Volume, SPLP Leachate	2.011		l	1	07/22/20 10:50	JOO	SW846 1312
Weight, SPLP Leachate	0.1006		kg	1	07/22/20 10:50	JOO	SW846 1312
Dry Weight, SPLP Leachate	0.06537		kg	1	07/22/20 10:50	JOO	SW846 1312

RL = Reporting Limit

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody

SGS North America Inc. - Dayton
2235 Route 130, Dayton, NJ 08810
TEL: 732-329-0200 FAX: 732-329-3499/3480
www.sgs.com/ehausa

FED-EX Tracking #	Bottle Order Control #																																																																																																																																				
SGS Quote #	SGS Job # JD 10225																																																																																																																																				
Client / Reporting Information Company Name: WSP USA Street Address: 600 E. Crescent Ave. Shaw City: USR State: NJ Zip: 07458 Project Contact: Matthew Ayres @wsp.com Phone #: 201-739-2369 Samples Name(s): S.20's 201-3248596																																																																																																																																					
Project Information Project Name: Orchard School Soil Remediation Billing Information (if different from Report to): Company Name: Ridgewood NJ Client Purchase Order #: 31402200.001																																																																																																																																					
Requested Analysis Matrix Codes: DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Waste FB - Felt Blank EB - Equipment Blank RB - River Blank TB - Trip Blank																																																																																																																																					
Collection <table border="1"> <thead> <tr> <th rowspan="2">SGS Sample #</th> <th rowspan="2">Field ID / Point of Collection</th> <th rowspan="2">MEQ/ID/Vol #</th> <th rowspan="2">Date</th> <th rowspan="2">Time</th> <th rowspan="2">Sampled by</th> <th rowspan="2">Qse (in Core/C)</th> <th rowspan="2">Matrix</th> <th rowspan="2"># of bottles</th> <th colspan="8">Number of preserved Bottles</th> </tr> <tr> <th>HCl</th> <th>NaOH</th> <th>HPVA</th> <th>HPVA</th> <th>HPVA</th> <th>HPVA</th> <th>HPVA</th> <th>HPVA</th> <th>HPVA</th> <th>HPVA</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>TS (1)</td> <td>•</td> <td>7/15/20</td> <td>1345</td> <td>52</td> <td>G</td> <td>SO</td> <td>5</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>2</td> <td>TS (2)</td> <td>•</td> <td></td> <td>1405</td> <td></td> <td></td> <td></td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>3</td> <td>TS (3)</td> <td>•</td> <td></td> <td>1425</td> <td></td> <td></td> <td></td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>4</td> <td>TS (7)</td> <td>•</td> <td></td> <td>1445</td> <td></td> <td></td> <td></td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>5</td> <td>TS (9)</td> <td>•</td> <td></td> <td>1505</td> <td></td> <td></td> <td></td> <td></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </tbody> </table>		SGS Sample #	Field ID / Point of Collection	MEQ/ID/Vol #	Date	Time	Sampled by	Qse (in Core/C)	Matrix	# of bottles	Number of preserved Bottles								HCl	NaOH	HPVA	HPVA	HPVA	HPVA	HPVA	HPVA	HPVA	HPVA	1	TS (1)	•	7/15/20	1345	52	G	SO	5													2	TS (2)	•		1405																	3	TS (3)	•		1425																	4	TS (7)	•		1445																	5	TS (9)	•		1505																
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5	TS (9)	•		1505																																																																																																																																	
Turn Around Time (Business Days) <input type="checkbox"/> 10 Business Days <input type="checkbox"/> 5 Business Days <input type="checkbox"/> 3 Business Days <input checked="" type="checkbox"/> 2 Business Days <input type="checkbox"/> 1 Business Day <input type="checkbox"/> Other		Deliverable <input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input checked="" type="checkbox"/> NJ Reduced (Level 3) <input type="checkbox"/> Full Tier I (Level 4) <input type="checkbox"/> Commercial "C" <input type="checkbox"/> NJ DKQP <input type="checkbox"/> NYASP Category A <input type="checkbox"/> NYASP Category B <input type="checkbox"/> MA MCP Criteria <input type="checkbox"/> CT RCP Criteria <input type="checkbox"/> State Forms <input type="checkbox"/> EDD Format <input type="checkbox"/> DOD-QSMS		Comments / Special Instructions 3x5g encloses 3A Verification																																																																																																																																	
Requisitioned by: AS Date / Time: 7-16-20		Received by: AS Date / Time: 7-16-20		Requisitioned by: AS Date / Time: 7-16-20		Received by: AS Date / Time: 7-16-20																																																																																																																															
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Intact <input type="checkbox"/> Not Intact <input type="checkbox"/>		Preserved where applicable <input type="checkbox"/>		On ice <input checked="" type="checkbox"/>		Cooler Temp. °C 3.0																																																																																																																															

SGS Sample Receipt Summary

Job Number: JD10225

Client: WSP USA

Project: ORCHARD SCHOOL SOIL REMEDIATION, NJ

Date / Time Received: 7/16/2020 6:30:00 PM

Delivery Method:

Airbill #'s:

Cooler Temps (Raw Measured) °C: Cooler 1: (3.0);

Cooler Temps (Corrected) °C: Cooler 1: (2.7);

Cooler Security

- | | | | | | |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Cooler Temperature

- | | | |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | IR Gun | |
| 3. Cooler media: | Ice (Bag) | |
| 4. No. Coolers: | 1 | |

Quality Control Preservation

- | | | | |
|---------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Trip Blank listed on COC: | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Samples preserved properly: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. VOCs headspace free: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Sample Integrity - Documentation

- | | | |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Sample Integrity - Condition

- | | | |
|----------------------------------|-------------------------------------|--------------------------|
| 1. Sample recvd within HT: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. All containers accounted for: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Condition of sample: | Intact | |

Sample Integrity - Instructions

- | | | | |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 2. Bottles received for unspecified tests | <input type="checkbox"/> | <input checked="" type="checkbox"/> | |
| 3. Sufficient volume recvd for analysis: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | |
| 4. Compositing instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear: | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Test Strip Lot #s: pH 1-12: 229517 pH 12+: 208717 Other: (Specify)

Comments

SM089-03
Rev. Date 12/7/17

JD10225R: Chain of Custody

Page 2 of 3

5.1
5

Job Change Order: JD10225

Requested Date: 7/21/2020 **Received Date:** 7/16/2020
Account Name: WSP USA **Due Date:** 7/20/2020
Project Description: Orchard School Soil Remediation, Ridgewood, NJ **Deliverable:** REDT2
C/O Initiated By: VLP **PM:** VP **TAT (Days):** 3

=====
Sample #: JD10225-1, -2, -3 **Change:**
Dept: Please relog for SPLPE, ESB, SPLPRATIO

TAT: 3
=====

JD10225R: Chain of Custody
Page 3 of 3

Above Changes Per: Matt Ayers **Date/Time:** 7/21/2020 11:42:47 AM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

WSP USA

Job No: JD10225R

Orchard School Soil Remediation, Ridgewood, NJ
 Project No: 31402200.001

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JD10225-1R Collected: 15-JUL-20 13:45 By: SZ Received: 16-JUL-20 By: JP TS (1)						
JD10225-1RSW846 1312		22-JUL-20 10:50	JOO			SPLPRATIO
JD10225-1RSW846 6010D		23-JUL-20 13:34	ND	22-JUL-20	TG	ESB
JD10225-2R Collected: 15-JUL-20 14:05 By: SZ Received: 16-JUL-20 By: JP TS (3)						
JD10225-2RSW846 1312		22-JUL-20 10:50	JOO			SPLPRATIO
JD10225-2RSW846 6010D		23-JUL-20 13:44	ND	22-JUL-20	TG	ESB
JD10225-3R Collected: 15-JUL-20 14:25 By: SZ Received: 16-JUL-20 By: JP TS (5)						
JD10225-3RSW846 1312		22-JUL-20 10:50	JOO			SPLPRATIO
JD10225-3RSW846 6010D		23-JUL-20 13:59	ND	22-JUL-20	TG	ESB

5.2
5

SGS Internal Chain of Custody

Job Number: JD10225R
 Account: LBGNJ WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ
 Received: 07/16/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD10225-1.1	Secured Storage	Todd Shoemaker	07/17/20 11:31	Retrieve from Storage
JD10225-1.1	Todd Shoemaker	Secured Staging Area	07/17/20 11:31	Return to Storage
JD10225-1.1	Secured Staging Area	Jennell Webber	07/17/20 11:43	Retrieve from Storage
JD10225-1.1	Jennell Webber	Luis Jimenez	07/17/20 14:13	Custody Transfer
JD10225-1.1	Luis Jimenez	Secured Storage	07/20/20 21:50	Return to Storage
JD10225-1.1	Secured Storage	Todd Shoemaker	07/21/20 12:28	Retrieve from Storage
JD10225-1.1	Todd Shoemaker	Secured Staging Area	07/21/20 12:28	Return to Storage
JD10225-1.1	Secured Staging Area	Jared O. Onindo	07/21/20 13:58	Retrieve from Storage
JD10225-1.1	Jared O. Onindo	Secured Storage	07/21/20 19:00	Return to Storage
JD10225-1.1.1	Luis Jimenez	Organics Prep	07/17/20 14:16	Extract from JD10225-1.1
JD10225-1.1.1	Organics Prep	Luis Jimenez	07/17/20 22:24	Extract from JD10225-1.1
JD10225-1.1.1	Luis Jimenez	Extract Storage	07/17/20 22:24	Return to Storage
JD10225-1.1.1	Extract Storage	Christopher Sowa	07/18/20 01:48	Retrieve from Storage
JD10225-1.1.1	Christopher Sowa	GCMS6P	07/18/20 01:48	Load on Instrument
JD10225-1.1.1	GCMS6P	James Canas	07/20/20 12:13	Unload from Instrument
JD10225-1.1.1	James Canas	Extract Freezer	07/20/20 12:13	Return to Storage
JD10225-1.1.2	Luis Jimenez	Organics Prep	07/17/20 14:23	Extract from JD10225-1.1
JD10225-1.1.2	Organics Prep	Kyle McKeon	07/17/20 23:21	Extract from JD10225-1.1
JD10225-1.1.2	Kyle McKeon	Extract Storage	07/17/20 23:21	Return to Storage
JD10225-1.1.2	Extract Storage	Thomas Lally	07/19/20 18:03	Retrieve from Storage
JD10225-1.1.2	Thomas Lally	GC2G	07/19/20 18:03	Load on Instrument
JD10225-1.1.3	Luis Jimenez	Organics Prep	07/17/20 14:26	Extract from JD10225-1.1
JD10225-1.1.3	Organics Prep	Kyle McKeon	07/17/20 23:21	Extract from JD10225-1.1
JD10225-1.1.3	Kyle McKeon	Extract Storage	07/17/20 23:21	Return to Storage
JD10225-1.1.3	Extract Storage	Thomas Lally	07/19/20 18:59	Retrieve from Storage
JD10225-1.1.3	Thomas Lally	GC1G	07/19/20 18:59	Load on Instrument
JD10225-1.1.4	Luis Jimenez	Organics Prep	07/19/20 09:03	Extract from JD10225-1.1
JD10225-1.1.4	Organics Prep	Kyle McKeon	07/19/20 15:48	Extract from JD10225-1.1
JD10225-1.1.4	Kyle McKeon	Extract Storage	07/19/20 15:48	Return to Storage
JD10225-1.1.4	Extract Storage	Christine Phillips	07/20/20 02:17	Retrieve from Storage
JD10225-1.1.4	Christine Phillips	GC4Y	07/20/20 02:17	Load on Instrument
JD10225-1.1.5	Jared O. Onindo	TCLP	07/21/20 13:58	Leachate from JD10225-1.1
JD10225-1.1.5	TCLP	Jared O. Onindo	07/22/20 09:22	Leachate from JD10225-1.1
JD10225-1.1.5	Jared O. Onindo	Secured Storage	07/22/20 09:22	Return to Storage
JD10225-1.1.6	TCLP	Jared O. Onindo	07/22/20 09:22	Leachate from JD10225-1.1
JD10225-1.1.6	Jared O. Onindo	Secured Storage	07/22/20 09:22	Return to Storage
JD10225-1.2	Secured Storage	Lindsey Lee	07/17/20 06:12	Retrieve from Storage

5.3
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SGS Internal Chain of Custody

Job Number: JD10225R
 Account: LBGNJ WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ
 Received: 07/16/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD10225-1.2	Lindsey Lee	Secured Storage	07/17/20 07:57	Return to Storage
JD10225-1.2	Secured Storage	Todd Shoemaker	07/17/20 08:55	Retrieve from Storage
JD10225-1.2	Todd Shoemaker	Secured Staging Area	07/17/20 08:55	Return to Storage
JD10225-1.2	Secured Staging Area	Rie Iwasaki	07/17/20 08:58	Retrieve from Storage
JD10225-1.2	Rie Iwasaki	Secured Storage	07/17/20 15:46	Return to Storage
JD10225-1.2.1	Lindsey Lee	Taylor Gorman	07/17/20 07:40	Aliquot from JD10225-1.2
JD10225-1.2.1	Taylor Gorman		07/17/20 07:41	Depleted
JD10225-1.2.2	Taylor Gorman	Metals Digestion	07/17/20 07:40	Digestate from JD10225-1.2.1
JD10225-1.2.2	Metals Digestion	Taylor Gorman	07/17/20 07:41	Digestate from JD10225-1.2.1
JD10225-1.2.2	Taylor Gorman	Metals Digestate Storage	07/17/20 07:41	Return to Storage
JD10225-1.4	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-1.4	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-1.5	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-1.5	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-1.5	Secured Storage	Thien Nguyen	07/17/20 11:38	Retrieve from Storage
JD10225-1.5	Thien Nguyen	GCMS1C	07/17/20 11:38	Load on Instrument
JD10225-1.5	GCMS1C	Prashant Shukla	07/18/20 09:34	Unload from Instrument
JD10225-1.5	Prashant Shukla		07/18/20 09:35	Depleted
JD10225-1.6	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-1.6	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-1.6	Secured Storage	Thien Nguyen	07/17/20 10:11	Retrieve from Storage
JD10225-1.6	Thien Nguyen	GCMS1C	07/17/20 10:11	Load on Instrument
JD10225-1.6	GCMS1C	Prashant Shukla	07/18/20 09:34	Unload from Instrument
JD10225-1.6	Prashant Shukla		07/18/20 09:35	Depleted
JD10225-2.1	Secured Storage	Todd Shoemaker	07/17/20 11:31	Retrieve from Storage
JD10225-2.1	Todd Shoemaker	Secured Staging Area	07/17/20 11:31	Return to Storage
JD10225-2.1	Secured Staging Area	Jennell Webber	07/17/20 11:43	Retrieve from Storage
JD10225-2.1	Jennell Webber	Luis Jimenez	07/17/20 14:13	Custody Transfer
JD10225-2.1	Luis Jimenez	Secured Storage	07/20/20 21:50	Return to Storage
JD10225-2.1	Secured Storage	Todd Shoemaker	07/21/20 12:28	Retrieve from Storage
JD10225-2.1	Todd Shoemaker	Secured Staging Area	07/21/20 12:28	Return to Storage
JD10225-2.1	Secured Staging Area	Jared O. Onindo	07/21/20 13:58	Retrieve from Storage
JD10225-2.1	Jared O. Onindo	Secured Storage	07/21/20 19:00	Return to Storage
JD10225-2.1.1	Luis Jimenez	Organics Prep	07/17/20 14:16	Extract from JD10225-2.1
JD10225-2.1.1	Organics Prep	Luis Jimenez	07/17/20 22:24	Extract from JD10225-2.1
JD10225-2.1.1	Luis Jimenez	Extract Storage	07/17/20 22:24	Return to Storage
JD10225-2.1.1	Extract Storage	Christopher Sowa	07/18/20 01:48	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JD10225R
 Account: LBGNJ WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ
 Received: 07/16/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD10225-2.1.1	Christopher Sowa	GCMS6P	07/18/20 01:48	Load on Instrument
JD10225-2.1.1	GCMS6P	James Canas	07/20/20 12:13	Unload from Instrument
JD10225-2.1.1	James Canas	Extract Freezer	07/20/20 12:13	Return to Storage
JD10225-2.1.2	Luis Jimenez	Organics Prep	07/17/20 14:23	Extract from JD10225-2.1
JD10225-2.1.2	Organics Prep	Kyle McKeon	07/17/20 23:21	Extract from JD10225-2.1
JD10225-2.1.2	Kyle McKeon	Extract Storage	07/17/20 23:21	Return to Storage
JD10225-2.1.2	Extract Storage	Thomas Lally	07/19/20 18:03	Retrieve from Storage
JD10225-2.1.2	Thomas Lally	GC2G	07/19/20 18:03	Load on Instrument
JD10225-2.1.3	Luis Jimenez	Organics Prep	07/17/20 14:26	Extract from JD10225-2.1
JD10225-2.1.3	Organics Prep	Kyle McKeon	07/17/20 23:21	Extract from JD10225-2.1
JD10225-2.1.3	Kyle McKeon	Extract Storage	07/17/20 23:21	Return to Storage
JD10225-2.1.3	Extract Storage	Thomas Lally	07/19/20 18:59	Retrieve from Storage
JD10225-2.1.3	Thomas Lally	GC1G	07/19/20 18:59	Load on Instrument
JD10225-2.1.4	Luis Jimenez	Organics Prep	07/19/20 09:03	Extract from JD10225-2.1
JD10225-2.1.4	Organics Prep	Kyle McKeon	07/19/20 15:48	Extract from JD10225-2.1
JD10225-2.1.4	Kyle McKeon	Extract Storage	07/19/20 15:48	Return to Storage
JD10225-2.1.4	Extract Storage	Christine Phillips	07/20/20 02:17	Retrieve from Storage
JD10225-2.1.4	Christine Phillips	GC4Y	07/20/20 02:17	Load on Instrument
JD10225-2.1.5	Jared O. Onindo	TCLP	07/21/20 13:58	Leachate from JD10225-2.1
JD10225-2.1.5	TCLP	Jared O. Onindo	07/22/20 09:22	Leachate from JD10225-2.1
JD10225-2.1.5	Jared O. Onindo	Secured Storage	07/22/20 09:22	Return to Storage
JD10225-2.1.6	TCLP	Jared O. Onindo	07/22/20 09:22	Leachate from JD10225-2.1
JD10225-2.1.6	Jared O. Onindo	Secured Storage	07/22/20 09:22	Return to Storage
JD10225-2.2	Secured Storage	Lindsey Lee	07/17/20 06:12	Retrieve from Storage
JD10225-2.2	Lindsey Lee	Secured Storage	07/17/20 07:57	Return to Storage
JD10225-2.2	Secured Storage	Todd Shoemaker	07/17/20 08:55	Retrieve from Storage
JD10225-2.2	Todd Shoemaker	Secured Staging Area	07/17/20 08:55	Return to Storage
JD10225-2.2	Secured Staging Area	Rie Iwasaki	07/17/20 08:58	Retrieve from Storage
JD10225-2.2	Rie Iwasaki	Secured Storage	07/17/20 15:46	Return to Storage
JD10225-2.2.1	Lindsey Lee	Taylor Gorman	07/17/20 07:40	Aliquot from JD10225-2.2
JD10225-2.2.1	Taylor Gorman		07/17/20 07:41	Depleted
JD10225-2.2.2	Taylor Gorman	Metals Digestion	07/17/20 07:40	Digestate from JD10225-2.2.1
JD10225-2.2.2	Metals Digestion	Taylor Gorman	07/17/20 07:41	Digestate from JD10225-2.2.1
JD10225-2.2.2	Taylor Gorman	Metals Digestate Storage	07/17/20 07:41	Return to Storage
JD10225-2.4	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JD10225R
 Account: LBGNJ WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ
 Received: 07/16/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD10225-2.4	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-2.5	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-2.5	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-2.5	Secured Storage	Thien Nguyen	07/17/20 11:38	Retrieve from Storage
JD10225-2.5	Thien Nguyen	GCMS1C	07/17/20 11:38	Load on Instrument
JD10225-2.5	GCMS1C	Prashant Shukla	07/18/20 09:34	Unload from Instrument
JD10225-2.5	Prashant Shukla		07/18/20 09:35	Depleted
JD10225-2.6	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-2.6	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-2.6	Secured Storage	Thien Nguyen	07/17/20 10:11	Retrieve from Storage
JD10225-2.6	Thien Nguyen	GCMS1C	07/17/20 10:11	Load on Instrument
JD10225-2.6	GCMS1C	Prashant Shukla	07/18/20 09:34	Unload from Instrument
JD10225-2.6	Prashant Shukla		07/18/20 09:35	Depleted
JD10225-3.1	Secured Storage	Todd Shoemaker	07/17/20 11:31	Retrieve from Storage
JD10225-3.1	Todd Shoemaker	Secured Staging Area	07/17/20 11:31	Return to Storage
JD10225-3.1	Secured Staging Area	Jennell Webber	07/17/20 11:43	Retrieve from Storage
JD10225-3.1	Jennell Webber	Luis Jimenez	07/17/20 14:13	Custody Transfer
JD10225-3.1	Luis Jimenez	Secured Storage	07/20/20 21:50	Return to Storage
JD10225-3.1	Secured Storage	Todd Shoemaker	07/21/20 12:28	Retrieve from Storage
JD10225-3.1	Todd Shoemaker	Secured Staging Area	07/21/20 12:28	Return to Storage
JD10225-3.1	Secured Staging Area	Jared O. Onindo	07/21/20 13:58	Retrieve from Storage
JD10225-3.1	Jared O. Onindo	Secured Storage	07/21/20 19:00	Return to Storage
JD10225-3.1.1	Luis Jimenez	Organics Prep	07/17/20 14:16	Extract from JD10225-3.1
JD10225-3.1.1	Organics Prep	Luis Jimenez	07/17/20 22:24	Extract from JD10225-3.1
JD10225-3.1.1	Luis Jimenez	Extract Storage	07/17/20 22:24	Return to Storage
JD10225-3.1.1	Extract Storage	Christopher Sowa	07/18/20 01:48	Retrieve from Storage
JD10225-3.1.1	Christopher Sowa	GCMS6P	07/18/20 01:48	Load on Instrument
JD10225-3.1.1	GCMS6P	James Canas	07/20/20 12:13	Unload from Instrument
JD10225-3.1.1	James Canas	Extract Freezer	07/20/20 12:13	Return to Storage
JD10225-3.1.2	Luis Jimenez	Organics Prep	07/17/20 14:23	Extract from JD10225-3.1
JD10225-3.1.2	Organics Prep	Kyle McKeon	07/17/20 23:21	Extract from JD10225-3.1
JD10225-3.1.2	Kyle McKeon	Extract Storage	07/17/20 23:21	Return to Storage
JD10225-3.1.2	Extract Storage	Thomas Lally	07/19/20 18:03	Retrieve from Storage
JD10225-3.1.2	Thomas Lally	GC2G	07/19/20 18:03	Load on Instrument
JD10225-3.1.3	Luis Jimenez	Organics Prep	07/17/20 14:26	Extract from JD10225-3.1
JD10225-3.1.3	Organics Prep	Kyle McKeon	07/17/20 23:21	Extract from JD10225-3.1
JD10225-3.1.3	Kyle McKeon	Extract Storage	07/17/20 23:21	Return to Storage
JD10225-3.1.3	Extract Storage	Thomas Lally	07/19/20 18:59	Retrieve from Storage

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SGS Internal Chain of Custody

Job Number: JD10225R
Account: LBGNJ WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ
Received: 07/16/20

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JD10225-3.1.3	Thomas Lally	GC1G	07/19/20 18:59	Load on Instrument
JD10225-3.1.4	Luis Jimenez	Organics Prep	07/19/20 09:03	Extract from JD10225-3.1
JD10225-3.1.4	Organics Prep	Kyle McKeon	07/19/20 15:48	Extract from JD10225-3.1
JD10225-3.1.4	Kyle McKeon	Extract Storage	07/19/20 15:48	Return to Storage
JD10225-3.1.4	Extract Storage	Christine Phillips	07/20/20 02:17	Retrieve from Storage
JD10225-3.1.4	Christine Phillips	GC4Y	07/20/20 02:17	Load on Instrument
JD10225-3.1.5	Jared O. Onindo	TCLP	07/21/20 13:58	Leachate from JD10225-3.1
JD10225-3.1.5	TCLP	Jared O. Onindo	07/22/20 09:22	Leachate from JD10225-3.1
JD10225-3.1.5	Jared O. Onindo	Secured Storage	07/22/20 09:22	Return to Storage
JD10225-3.1.6	TCLP	Jared O. Onindo	07/22/20 09:22	Leachate from JD10225-3.1
JD10225-3.1.6	Jared O. Onindo	Secured Storage	07/22/20 09:22	Return to Storage
JD10225-3.2	Secured Storage	Lindsey Lee	07/17/20 06:12	Retrieve from Storage
JD10225-3.2	Lindsey Lee	Secured Storage	07/17/20 07:57	Return to Storage
JD10225-3.2	Secured Storage	Todd Shoemaker	07/17/20 08:55	Retrieve from Storage
JD10225-3.2	Todd Shoemaker	Secured Staging Area	07/17/20 08:55	Return to Storage
JD10225-3.2	Secured Staging Area	Rie Iwasaki	07/17/20 08:58	Retrieve from Storage
JD10225-3.2	Rie Iwasaki	Secured Storage	07/17/20 15:46	Return to Storage
JD10225-3.2.1	Lindsey Lee	Taylor Gorman	07/17/20 07:40	Aliquot from JD10225-3.2
JD10225-3.2.1	Taylor Gorman		07/17/20 07:41	Depleted
JD10225-3.2.2	Taylor Gorman	Metals Digestion	07/17/20 07:40	Digestate from JD10225-3.2.1
JD10225-3.2.2	Metals Digestion	Taylor Gorman	07/17/20 07:41	Digestate from JD10225-3.2.1
JD10225-3.2.2	Taylor Gorman	Metals Digestate Storage	07/17/20 07:41	Return to Storage
JD10225-3.4	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-3.4	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-3.5	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-3.5	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-3.6	Secured Storage	Brittany Klimek	07/16/20 23:14	Retrieve from Storage
JD10225-3.6	Brittany Klimek	Secured Storage	07/16/20 23:15	Return to Storage
JD10225-3.6	Secured Storage	Thien Nguyen	07/17/20 10:11	Retrieve from Storage
JD10225-3.6	Thien Nguyen	GCMS1C	07/17/20 10:11	Load on Instrument
JD10225-3.6	GCMS1C	Prashant Shukla	07/18/20 09:34	Unload from Instrument
JD10225-3.6	Prashant Shukla		07/18/20 09:35	Depleted

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Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Instrument Runlogs
- Initial and Continuing Calibration Blanks
- Initial and Continuing Calibration Checks
- High and Low Check Standards
- Interfering Element Check Standards
- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
Analyst: ND Run ID: MA49032
Parameters: Sb

Time	Sample Description	Dilution Factor	PS Recov	Comments
10:51	MA49032-STD1	1		STDA
10:56	MA49032-STD2	1		STDB
11:01	ZZZZZ	1		
11:06	ZZZZZ	1		
11:11	MA49032-CCV1	1		
11:17	MA49032-CCB1	1		
11:22	MA49032-ICV1	1		
11:27	MA49032-ICB1	1		
11:33	MA49032-ICCV1	1		
11:42	MA49032-CCB2	1		
12:06	MA49032-CRI1	1		
12:12	MA49032-CRID1	1		
12:17	MA49032-ICSA1	1		
12:22	MA49032-ICSAB1	1		
12:27	MA49032-HSTD1	1		
12:33	MA49032-HSTD2	1		
12:39	ZZZZZ	1		
12:44	ZZZZZ	1		
12:49	ZZZZZ	1		
12:54	MA49032-CCV2	1		
12:59	MA49032-CCB3	1		
13:04	ZZZZZ	10		
13:09	ZZZZZ	10		
13:14	MP22012-MB1	1		
13:20	MP22012-B1	1		
13:24	MP22012-S1	1		
13:29	MP22012-S2	1		
13:34	JD10225-1R	1		
13:39	MP22012-SD1	5		
13:44	JD10225-2R	1		
13:49	MA49032-CCV3	1		
13:54	MA49032-CCB4	1		
13:59	JD10225-3R	1		
----->	Last reportable sample/prep for job JD10225R			

SGS Instrument Runlog
Inorganics Analyses

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
Analyst: ND Run ID: MA49032
Parameters: Sb

Time	Sample Description	Dilution Factor	PS Recov	Comments
14:04	MP22010-MB1	5		
14:09	MP22010-B1	5		
14:14	MP22010-S1	5		
14:19	MP22010-S2	5		
14:24	JD10348-1	5		(sample used for QC only; not part of login JD10225R)
14:29	MP22010-SD1	25		
14:34	ZZZZZ	5		
14:40	ZZZZZ	5		
14:45	MA49032-CCV4	1		
14:50	MA49032-CCB5	1		
----->	Last reportable CCB for job JD10225R			
14:55	MP22011-S1	1		
15:00	MP22011-S2	1		
15:05	JD10373-1	1		(sample used for QC only; not part of login JD10225R)
15:10	MP22011-SD1	5		
15:15	ZZZZZ	5		
15:21	ZZZZZ	5		
15:26	ZZZZZ	5		
15:31	ZZZZZ	5		
15:36	ZZZZZ	5		
15:41	MA49032-CCV5	1		
15:46	MA49032-CCB6	1		
15:51	ZZZZZ	5		
15:57	ZZZZZ	1		
16:02	ZZZZZ	1		
16:07	ZZZZZ	5		
16:12	ZZZZZ	5		
16:17	ZZZZZ	5		
16:23	ZZZZZ	5		
16:28	ZZZZZ	5		
16:33	ZZZZZ	5		
16:38	MA49032-CCV6	1		
16:43	MA49032-CCB7	1		

Refer to raw data for calibration curve and standards.

REPORTED ELEMENTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 Analyst: ND Run ID: MA49032
 Parameters: Sb

Time	Sample Description	Element: S Dilution b
11:01	ZZZZZZ	1
11:06	ZZZZZZ	1
11:11	MA49032-CCV1	1 X
11:17	MA49032-CCB1	1 X
11:22	MA49032-ICV1	1 X
11:27	MA49032-ICB1	1 X
11:33	MA49032-ICCV1	1 X
11:42	MA49032-CCB2	1 X
12:06	MA49032-CRI1	1 X
12:12	MA49032-CRID1	1 X
12:17	MA49032-ICSA1	1 X
12:22	MA49032-ICSAB1	1 X
12:27	MA49032-HSTD1	1 X
12:33	MA49032-HSTD2	1 X
12:39	ZZZZZZ	1
12:44	ZZZZZZ	1
12:49	ZZZZZZ	1
12:54	MA49032-CCV2	1 X
12:59	MA49032-CCB3	1 X
13:04	ZZZZZZ	10
13:09	ZZZZZZ	10
13:14	MP22012-MB1	1 X
13:20	MP22012-B1	1 X
13:24	MP22012-S1	1 X
13:29	MP22012-S2	1 X
13:34	JD10225-1R	1 X
13:39	MP22012-SD1	5 X
13:44	JD10225-2R	1 X
13:49	MA49032-CCV3	1 X
13:54	MA49032-CCB4	1 X
13:59	JD10225-3R	1 X
14:04	MP22010-MB1	5
14:09	MP22010-B1	5
	Element: S	b

REPORTED ELEMENTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 Analyst: ND Run ID: MA49032
 Parameters: Sb

Time	Sample Description	Element: S Dilution b
14:14	MP22010-S1	5
14:19	MP22010-S2	5
14:24	JD10348-1	5 (a)
14:29	MP22010-SD1	25
14:34	ZZZZZZ	5
14:40	ZZZZZZ	5
14:45	MA49032-CCV4	1 X
14:50	MA49032-CCB5	1 X
14:55	MP22011-S1	1
15:00	MP22011-S2	1
15:05	JD10373-1	1 (a)
15:10	MP22011-SD1	5
15:15	ZZZZZZ	5
15:21	ZZZZZZ	5
15:26	ZZZZZZ	5
15:31	ZZZZZZ	5
15:36	ZZZZZZ	5
15:41	MA49032-CCV5	1 X
15:46	MA49032-CCB6	1 X
15:51	ZZZZZZ	5
15:57	ZZZZZZ	1
16:02	ZZZZZZ	1
16:07	ZZZZZZ	5
16:12	ZZZZZZ	5
16:17	ZZZZZZ	5
16:23	ZZZZZZ	5
16:28	ZZZZZZ	5
16:33	ZZZZZZ	5
16:38	MA49032-CCV6	1 X
16:43	MA49032-CCB7	1 X

(a) Sample used for QC only; not part of login JD10225R.

Element: S
b

INTERNAL STANDARD SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 Analyst: ND Run ID: MA49032
 Parameters: Sb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
10:51	MA49032-STD1	3482 R	173590 R	31751 R	8225 R
10:56	MA49032-STD2	3341	162040	31162	7316
11:01	ZZZZZZ	3405	165430	31397	7566
11:06	ZZZZZZ	3468	171330	31775	8175
11:11	MA49032-CCV1	3414	164500	31247	7587
11:17	MA49032-CCB1	3505	172470	31382	8265
11:22	MA49032-ICV1	3436	167640	31578	7631
11:27	MA49032-ICB1	3518	172240	31518	8296
11:33	MA49032-ICCV1	3372	165700	31334	7497
11:42	MA49032-CCB2	3485	172410	31566	8232
12:06	MA49032-CRI1	3419	168580	30817	8009
12:12	MA49032-CRID1	3424	171170	31402	8079
12:17	MA49032-ICSA1	3123	150020	30629	6615
12:22	MA49032-ICSAB1	3136	151310	30585	6633
12:27	MA49032-HSTD1	3407	165450	31010	7968
12:33	MA49032-HSTD2	3153	155240	30325	6681
12:39	ZZZZZZ	3399	169140	31777	8107
12:44	ZZZZZZ	3409	170380	31584	8152
12:49	ZZZZZZ	3441	170260	31627	8131
12:54	MA49032-CCV2	3329	164350	31396	7406
12:59	MA49032-CCB3	3409	169610	31572	8062
13:04	ZZZZZZ	3187	156540	30779	6937
13:09	ZZZZZZ	3186	156840	30968	6928
13:14	MP22012-MB1	3417	168190	31825	8120
13:20	MP22012-B1	3372	164930	31551	7655
13:24	MP22012-S1	3325	163540	31602	7413
13:29	MP22012-S2	3286	162710	31872	7333
13:34	JD10225-1R	3357	164940	31952	7646
13:39	MP22012-SD1	3415	168770	31562	7985
13:44	JD10225-2R	3316	165540	31942	7552
13:49	MA49032-CCV3	3333	163000	31085	7413
13:54	MA49032-CCB4	3401	168300	31065	8039
13:59	JD10225-3R	3301	165970	31663	7553

INTERNAL STANDARD SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 Analyst: ND Run ID: MA49032
 Parameters: Sb

Time	Sample Description	Istd#1	Istd#2	Istd#3	Istd#4
14:04	MP22010-MB1	3382	166910	30845	8038
14:09	MP22010-B1	3356	167260	31661	7866
14:14	MP22010-S1	3041	154420	30514	6760
14:19	MP22010-S2	3021	153350	30374	6711
14:24	JD10348-1	3016	151970	30180	6722
14:29	MP22010-SD1	3215	160970	30838	7431
14:34	ZZZZZZ	3182	158650	31226	7100
14:40	ZZZZZZ	3213	156710	30617	7081
14:45	MA49032-CCV4	3241	160480	31123	7252
14:50	MA49032-CCB5	3328	165700	31131	7878
14:55	MP22011-S1	3075	152040	30557	6757
15:00	MP22011-S2	3067	154230	30476	6745
15:05	JD10373-1	3097	154320	30833	6830
15:10	MP22011-SD1	3261	161400	30466	7497
15:15	ZZZZZZ	3122	155700	30516	6944
15:21	ZZZZZZ	3157	157840	31100	7037
15:26	ZZZZZZ	3170	156450	30823	7071
15:31	ZZZZZZ	3151	157660	31007	7040
15:36	ZZZZZZ	3130	156300	30988	6985
15:41	MA49032-CCV5	3223	157620	30963	7202
15:46	MA49032-CCB6	3298	163850	31482	7799
15:51	ZZZZZZ	3123	154040	31343	6938
15:57	ZZZZZZ	3374	164540	31792	8026
16:02	ZZZZZZ	3381	165480	31652	8071
16:07	ZZZZZZ	3129	154090	30820	6981
16:12	ZZZZZZ	3153	155120	30999	7016
16:17	ZZZZZZ	3137	155420	31238	6989
16:23	ZZZZZZ	3144	155010	31134	6999
16:28	ZZZZZZ	3159	156310	31256	7038
16:33	ZZZZZZ	3151	156370	31270	7010
16:38	MA49032-CCV6	3206	157630	31258	7170
16:43	MA49032-CCB7	3294	163180	31495	7818

R = Reference for ISTD limits. ! = Outside limits.

INTERNAL STANDARD SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 Analyst: ND Run ID: MA49032
 Parameters: Sb

Sample		Istd#1	Istd#2	Istd#3	Istd#4
Time	Description				

LEGEND:

<u>Istd#</u>	<u>Parameter</u>	<u>Limits</u>
Istd#1	Yttrium (2243)	70-130 %
Istd#2	Yttrium (3600)	70-130 %
Istd#3	Yttrium (3710)	70-130 %
Istd#4	Indium	70-130 %

6.1.2
6

BLANK RESULTS SUMMARY
Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: result < RL Run ID: MA49032 Units: ug/l

Metal	RL	IDL	11:17		11:27		11:42		12:59	
			CCB1	final	ICB1	final	CCB2	final	CCB3	final
Sample ID:			raw		raw		raw		raw	
Aluminum	200	16								
Antimony	100	2.5	-0.800	<100	-0.100	<100	-1.10	<100	-1.60	<100
Arsenic	100	2	anr							
Barium	200	.4	anr							
Beryllium	2.0	.1								
Bismuth	20	3.6								
Boron	100	1.9								
Cadmium	4.0	.4	anr							
Calcium	5000	5.6								
Chromium	10	.5	anr							
Cobalt	50	.5								
Copper	10	1	anr							
Iron	100	11								
Lead	100	1.2	anr							
Lithium	50	2.3								
Magnesium	5000	65								
Manganese	15	.2								
Molybdenum	20	.4								
Nickel	10	.3	anr							
Phosphorus	50	4.1								
Potassium	10000	55								
Selenium	100	3.5	anr							
Silicon	200	1.6								
Silver	10	1.1	anr							
Sodium	10000	11								
Strontium	10	.1								
Sulfur	50	4.4								
Thallium	100	2.5								
Tin	10	1								
Titanium	10	.4								
Tungsten	50	2.8								
Vanadium	50	.6								
Zinc	20	.1	anr							

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

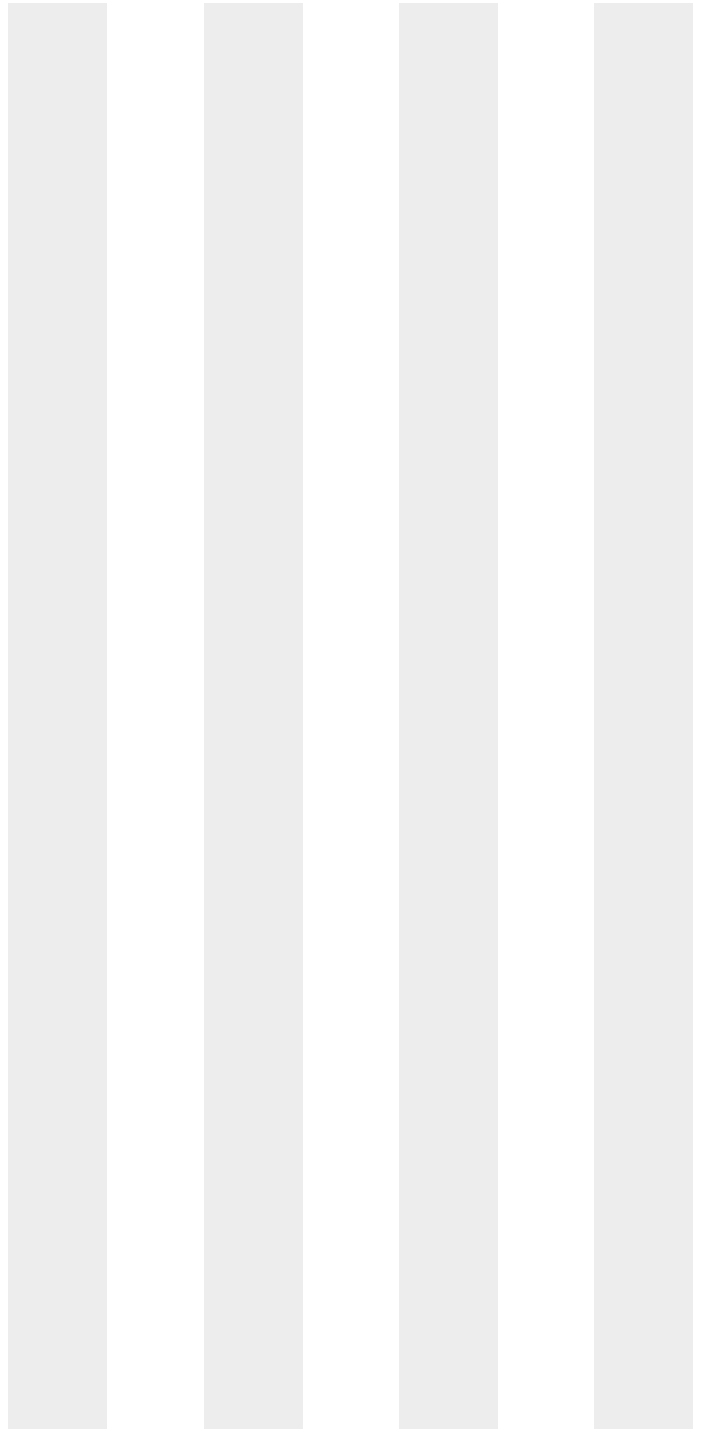
Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: result < RL Run ID: MA49032 Units: ug/l

Time:			11:17		11:27		11:42		12:59	
Sample ID:			CCB1		ICB1		CCB2		CCB3	
Metal	RL	IDL	raw	final	raw	final	raw	final	raw	final

Zirconium 10 .4

(*) Outside of QC limits
 (anr) Analyte not requested



6.1.3
 6

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: result < RL Run ID: MA49032 Units: ug/l

Metal	RL	IDL	13:54		14:50	
			CCB4	final	CCB5	final
Aluminum	200	16				
Antimony	100	2.5	-0.400	<100	-0.700	<100
Arsenic	100	2	anr			
Barium	200	.4	anr			
Beryllium	2.0	.1				
Bismuth	20	3.6				
Boron	100	1.9				
Cadmium	4.0	.4	anr			
Calcium	5000	5.6				
Chromium	10	.5	anr			
Cobalt	50	.5				
Copper	10	1	anr			
Iron	100	11				
Lead	100	1.2	anr			
Lithium	50	2.3				
Magnesium	5000	65				
Manganese	15	.2				
Molybdenum	20	.4				
Nickel	10	.3	anr			
Phosphorus	50	4.1				
Potassium	10000	55				
Selenium	100	3.5	anr			
Silicon	200	1.6				
Silver	10	1.1	anr			
Sodium	10000	11				
Strontium	10	.1				
Sulfur	50	4.4				
Thallium	100	2.5				
Tin	10	1				
Titanium	10	.4				
Tungsten	50	2.8				
Vanadium	50	.6				
Zinc	20	.1	anr			

BLANK RESULTS SUMMARY
 Part 1 - Initial and Continuing Calibration Blanks

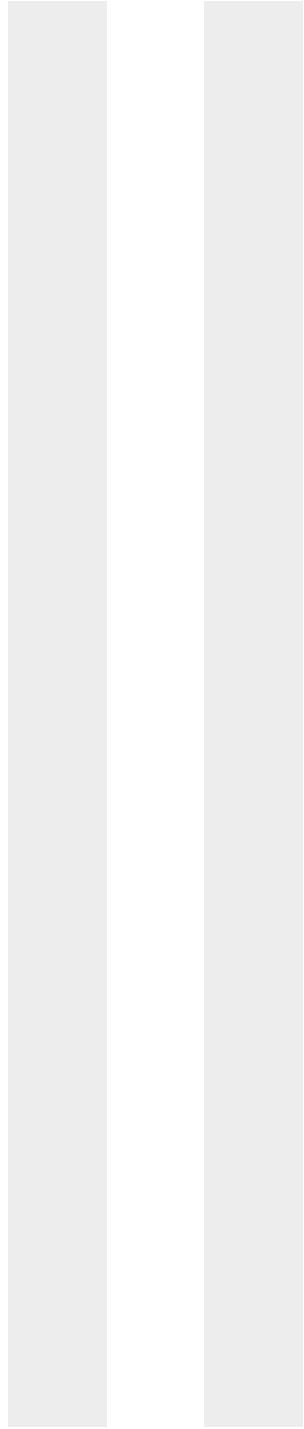
Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: result < RL Run ID: MA49032 Units: ug/l

Time:	13:54	14:50				
Sample ID:	CCB4	CCB5				
Metal	RL	IDL	raw	final	raw	final

Zirconium 10 .4

(*) Outside of QC limits
 (anr) Analyte not requested



6.1.3
 6

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: to % Recovery Run ID: MA49032 Units: ug/l

Time:	11:33
Sample ID: ICCV	ICCV1
Metal	True
Results	% Rec

Aluminum			
Antimony	2000	2050	102.5
Arsenic	anr		
Barium	anr		
Beryllium			
Bismuth			
Boron			
Cadmium	anr		
Calcium			
Chromium	anr		
Cobalt			
Copper	anr		
Iron			
Lead	anr		
Lithium			
Magnesium			
Manganese			
Molybdenum			
Nickel	anr		
Phosphorus			
Potassium			
Selenium	anr		
Silicon			
Silver	anr		
Sodium			
Strontium			
Sulfur			
Thallium			
Tin			
Titanium			
Tungsten			
Vanadium			
Zinc	anr		

6.1.4
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial Continuing Calibration Check

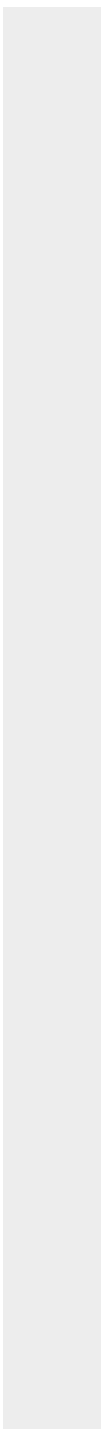
Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: to % Recovery Run ID: MA49032 Units: ug/l

Time:	11:33		
Sample ID: ICCV	ICCV1		
Metal	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



6.1.4
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA49032 Units: ug/l

Metal	Sample ID: CCV	11:11		ICV	11:22		CCV	12:54	
		CCV1	Results % Rec		ICV1	Results % Rec		CCV2	Results % Rec
Aluminum									
Antimony	2000	2020	101.0	2000	1990	99.5	2000	2090	104.5
Arsenic	anr								
Barium	anr								
Beryllium									
Bismuth									
Boron									
Cadmium	anr								
Calcium									
Chromium	anr								
Cobalt									
Copper	anr								
Iron									
Lead	anr								
Lithium									
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Phosphorus									
Potassium									
Selenium	anr								
Silicon									
Silver	anr								
Sodium									
Strontium									
Sulfur									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc	anr								

6.1.5
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA49032 Units: ug/l

	Time:				11:22			12:54	
Sample ID:	CCV	11:11 CCV1		ICV	ICV1		CCV	CCV2	
Metal	True	Results	% Rec	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



6.1.5
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA49032 Units: ug/l

	Time:	13:49		14:45		
Sample ID:	CCV	CCV3		CCV	CCV4	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	2000	2090	104.5	2000	2150	107.5
Arsenic	anr					
Barium	anr					
Beryllium						
Bismuth						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					

6.1.5
6

CALIBRATION CHECK STANDARDS SUMMARY
Initial and Continuing Calibration Checks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: 95 to 105 % Recovery Run ID: MA49032 Units: ug/l

	Time:	13:49		14:45	
Sample ID:	CCV	CCV3	CCV	CCV4	
Metal	True	Results	% Rec	True	Results % Rec

Zirconium

(*) Outside of QC limits
(anr) Analyte not requested



HIGH STANDARD CHECK SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA49032 Units: ug/l

	Time:	12:27		12:33		
Sample ID:	HSTD	HSTD1		HSTD	HSTD2	
Metal	True	Results	% Rec	True	Results	% Rec
Aluminum						
Antimony	8000	8120	101.5			
Arsenic	anr					
Barium	anr					
Beryllium						
Bismuth						
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt						
Copper	anr					
Iron						
Lead	anr					
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc	anr					

6.1.6
6

HIGH STANDARD CHECK SUMMARY

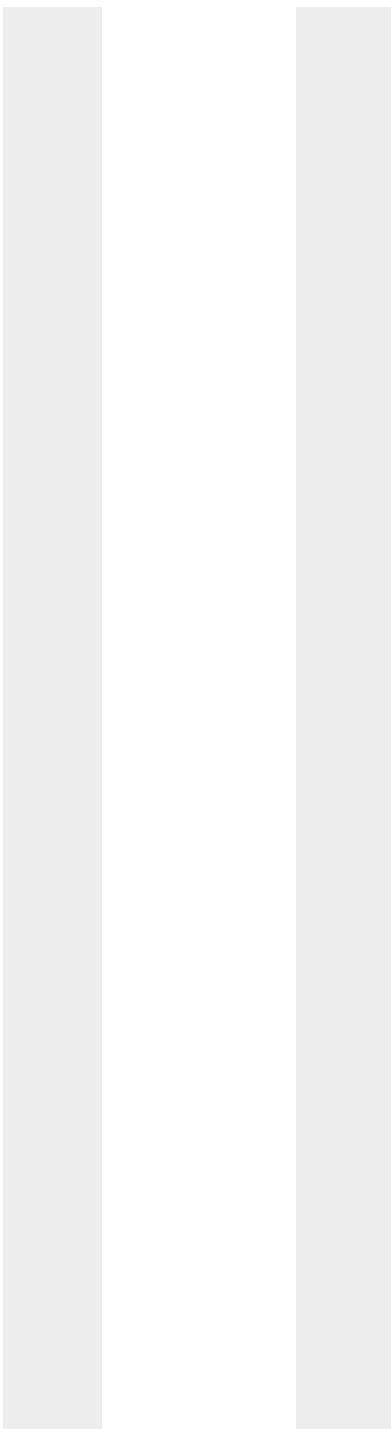
Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: 90 to 110 % Recovery Run ID: MA49032 Units: ug/l

Time:	12:27	12:33				
Sample ID:	HSTD	HSTD1	HSTD	HSTD2		
Metal	True	Results	% Rec	True	Results	% Rec

Zirconium

(*) Outside of QC limits
 (anr) Analyte not requested



6.1.6
 6

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA49032 Units: ug/l

Time:	12:06	12:12		
Sample ID:	CRI1	CRID1		
Metal	True	True	True	% Rec
Aluminum	200	500	100	
Antimony	6.0	20	3.0	5.20 86.7
Arsenic	8.0	20	3.0	anr
Barium	200		4.0	anr
Beryllium	2.0		1.0	
Bismuth	20			
Boron	100		10	
Cadmium	3.0		1.0	anr
Calcium	5000	2000	1000	
Chromium	10		2.0	anr
Cobalt	50		3.0	
Copper	10		2.0	anr
Iron	100	500		
Lead	3.0	20	2.5	anr
Lithium	50			
Magnesium	5000	2000	100	
Manganese	15		3.0	
Molybdenum	20			
Nickel	10		4.0	anr
Phosphorus	50			
Potassium	5000		2000	
Selenium	10	20	5.0	anr
Silicon	200			
Silver	5.0		2.0	anr
Sodium	5000		1000	
Strontium	10			
Sulfur	50			
Thallium	10		2.0	
Tin	10			
Titanium	10			
Tungsten	50			
Vanadium	50		2.0	
Zinc	20		10	anr

6.1.7
6

LOW CALIBRATION CHECK STANDARDS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: CRI 80-120% CRIA 80-120% Run ID: MA49032 Units: ug/l

Time:				12:06			12:12		
Sample ID:	CRI	CRIA	CRID	CRI1			CRID1		
Metal	True	True	True	Results	% Rec	Results	% Rec		

Zirconium 10

(*) Outside of QC limits
 (anr) Analyte not requested

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
Part 1 - ICSA and ICSAB Standards

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
QC Limits: 80 to 120 % Recovery Run ID: MA49032 Units: ug/l

Metal	Time:		12:17		12:22	
	Sample ID:	ICSA	ICSAB	ICSAL	ICSAB1	ICSAB1
	True	True	Results	% Rec	Results	% Rec
Aluminum	500000	500000	508000	101.6	511000	102.2
Antimony		1000	-2.60		1050	105.0
Arsenic		1000	-2.10		1070	107.0
Barium		500	-1.00		520	104.0
Beryllium		500	0.400		504	100.8
Bismuth		500	-4.80		518	103.6
Boron		500	-2.00		492	98.4
Cadmium		1000	0.200		1070	107.0
Calcium	400000	400000	386000	96.5	389000	97.3
Chromium		500	-0.500		494	98.8
Cobalt		500	-0.800		497	99.4
Copper		500	-4.10		518	103.6
Iron	200000	200000	184000	92.0	187000	93.5
Lead		1000	-0.600		990	99.0
Lithium		500	1.70		580	116.0
Magnesium	500000	500000	519000	103.8	522000	104.4
Manganese		500	5.50		516	103.2
Molybdenum		500	-1.30		490	98.0
Nickel		1000	-1.80		991	99.1
Phosphorus		500	-5.50		500	100.0
Potassium			-520		-514	
Selenium		1000	-1.40		1070	107.0
Silicon		500	-21.4		507	101.4
Silver		1000	-3.80		1040	104.0
Sodium			-17.7		-6.90	
Strontium		500	-0.200		534	106.8
Sulfur		500	-44.1		465	93.0
Thallium		1000	-6.50		960	96.0
Tin		500	-0.400		477	95.4
Titanium		500	0.00		525	105.0
Tungsten		500	6.00		503	100.6
Vanadium		500	-33.0		464	92.8
Zinc		1000	4.50		960	96.0

6.1.8

6

INTERFERING ELEMENT CHECK STANDARDS SUMMARY
 Part 1 - ICSA and ICSAB Standards

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

File ID: SE072320M1.ICP Date Analyzed: 07/23/20 Methods: SW846 6010D
 QC Limits: 80 to 120 % Recovery Run ID: MA49032 Units: ug/l

Time:		12:17		12:22		
Sample ID:	ICSAB	ICSAB	ICSAB1	ICSAB1	ICSAB1	
Metal	True	True	Results	% Rec	Results	% Rec

Zirconium 500 -1.40 496 99.2

(*) Outside of QC limits
 (anr) Analyte not requested

6.1.8
 6

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/22/20

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	16	46		
Antimony	100	2.5	4.7	-1.3	<100
Arsenic	100	2	2.8		
Barium	200	.4	13		
Beryllium	2.0	.1	.5		
Bismuth	20	3.6	4		
Boron	100	1.9	63		
Cadmium	4.0	.4	1		
Calcium	5000	5.6	99		
Chromium	10	.5	2		
Cobalt	50	.5	2.6		
Copper	10	1	5.9		
Iron	100	11	32		
Lead	100	1.2	1.8		
Lithium	50	2.3	7.3		
Magnesium	5000	65	140		
Manganese	15	.2	1.4		
Molybdenum	20	.4	3.6		
Nickel	10	.3	1.7		
Phosphorus	50	4.1	18		
Potassium	10000	55	200		
Selenium	100	3.5	4.9		
Silicon	200	1.6	100		
Silver	10	1.1	1.9		
Sodium	10000	11	570		
Strontium	10	.1	1		
Sulfur	50	4.4	45		
Thallium	100	2.5	1.8		
Tin	10	1	3.7		
Titanium	10	.4	2.5		
Tungsten	50	2.8	40		
Vanadium	50	.6	1.8		
Zinc	20	.1	6.9		

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/22/20

Metal	RL	IDL	MDL	MB raw	final
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Zirconium 10 .4 4.1

Associated samples MP22012: JD10225-1R, JD10225-2R, JD10225-3R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
 Matrix Type: LEACHATE

Methods: SW846 6010D
 Units: ug/l

Prep Date: 07/22/20

Metal	JD10225-2R Original MS	Spikelot MPSPK2	% Rec	QC Limits	
Aluminum					
Antimony	0.0	2040	2000	102.0	75-125
Arsenic					
Barium					
Beryllium					
Bismuth					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Sulfur					
Thallium					
Tin					
Titanium					
Tungsten					
Vanadium					
Zinc					

6.2.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
 Matrix Type: LEACHATE

Methods: SW846 6010D
 Units: ug/l

Prep Date: 07/22/20

Metal	JD10225-2R Original MS	SpikeLot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP22012: JD10225-1R, JD10225-2R, JD10225-3R

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

6.2.2

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
 Matrix Type: LEACHATE

Methods: SW846 6010D
 Units: ug/l

Prep Date: 07/22/20

Metal	JD10225-1R Original MSD		Spike/lot MPSPK2	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	0.0	2070	2000	103.5	1.5	20
Arsenic						
Barium						
Beryllium						
Bismuth						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper						
Iron						
Lead						
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Sulfur						
Thallium						
Tin						
Titanium						
Tungsten						
Vanadium						
Zinc						

6.2.2
6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
 Matrix Type: LEACHATE

Methods: SW846 6010D
 Units: ug/l

Prep Date: 07/22/20

Metal	JD10225-1R Original MSD	SpikeLot MPSPK2	% Rec	MSD RPD	QC Limit
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Zirconium

Associated samples MP22012: JD10225-1R, JD10225-2R, JD10225-3R

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (N) Matrix Spike Rec. outside of QC limits
 (anr) Analyte not requested

6.2.2

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
 Matrix Type: LEACHATE

Methods: SW846 6010D
 Units: ug/l

Prep Date: 07/22/20

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
Aluminum				
Antimony	2110	2000	105.5	80-120
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

6.2.3

6

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/22/20

Metal	BSP Result	Spikelot MPSPK2	% Rec	QC Limits
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Zirconium

Associated samples MP22012: JD10225-1R, JD10225-2R, JD10225-3R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.2.3

6

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD10225R
 Account: LBGNJ - WSP USA
 Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
 Matrix Type: LEACHATE

Methods: SW846 6010D
 Units: ug/l

Prep Date: 07/22/20

Metal	JD10225-1R Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	0.00	0.00	NC	0-10
Arsenic				
Barium				
Beryllium				
Bismuth				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Sulfur				
Thallium				
Tin				
Titanium				
Tungsten				
Vanadium				
Zinc				

6.2.4
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: JD10225R
Account: LBGNJ - WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

QC Batch ID: MP22012
Matrix Type: LEACHATE

Methods: SW846 6010D
Units: ug/l

Prep Date: 07/22/20

Metal	JD10225-1R	QC
	Original SDL 1:5	%DIF Limits

Zirconium

Associated samples MP22012: JD10225-1R, JD10225-2R, JD10225-3R

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Percent Solids Raw Data Summary

Percent Solids Raw Data Summary

Job Number: JD10225R
Account: LBGNJ WSP USA
Project: Orchard School Soil Remediation, Ridgewood, NJ

Sample: JD10225-1 Analyzed: 17-JUL-20 by RI Method: SM2540 G 18TH ED MOD
ClientID: TS (1)

Wet Weight (Total)	32.33	g
Tare Weight	25.8	g
Dry Weight (Total)	30.56	g
Solids, Percent	72.9	%

Sample: JD10225-2 Analyzed: 17-JUL-20 by RI Method: SM2540 G 18TH ED MOD
ClientID: TS (3)

Wet Weight (Total)	26.17	g
Tare Weight	18.71	g
Dry Weight (Total)	24.2	g
Solids, Percent	73.6	%

Sample: JD10225-3 Analyzed: 17-JUL-20 by RI Method: SM2540 G 18TH ED MOD
ClientID: TS (5)

Wet Weight (Total)	34.79	g
Tare Weight	26.36	g
Dry Weight (Total)	31.84	g
Solids, Percent	65	%
