

LEGEND

- SITE PROPERTY BOUNDARY
- BOLIN CREEK
- 101— TOPOGRAPHIC CONTOUR ELEVATION (FT MSL)
- ◆ MONITORING WELL LOCATION (FALCON ENGINEERING)
- ◆ TEMPORARY MONITORING WELL LOCATION (FALCON ENGINEERING)
- SOIL BORING LOCATION (FALCON ENGINEERING)
- ▲ SURFACE WATER SAMPLE LOCATION (FALCON ENGINEERING)
- ◆ ABANDONED MONITORING WELL LOCATION
- ◆ MONITORING WELL LOCATION (H&H)
- SOIL BORING LOCATION (H&H)
- BACKGROUND SOIL BORING LOCATION (H&H)
- ▲ SURFACE WATER/SEDIMENT SAMPLE LOCATION (H&H)
- ◆ DRAINAGE PATHWAY SOIL SAMPLE LOCATION (H&H)
- ▲ DRAINAGE PATHWAY SURFACE WATER SAMPLE LOCATION (H&H)
- COVER EVALUATION BORING LOCATION
- CCP UNDER > 2 FT COVER
- CCP UNDER < 2 FT COVER
- CCP EXPOSED AT GROUND SURFACE
- CCP DEPOSITIONAL LAYER
- ▬ STORMWATER CULVERT
- PROPOSED TEMPORARY MONITORING WELL
- ◆ PROPOSED MONITORING WELL

NOTES:

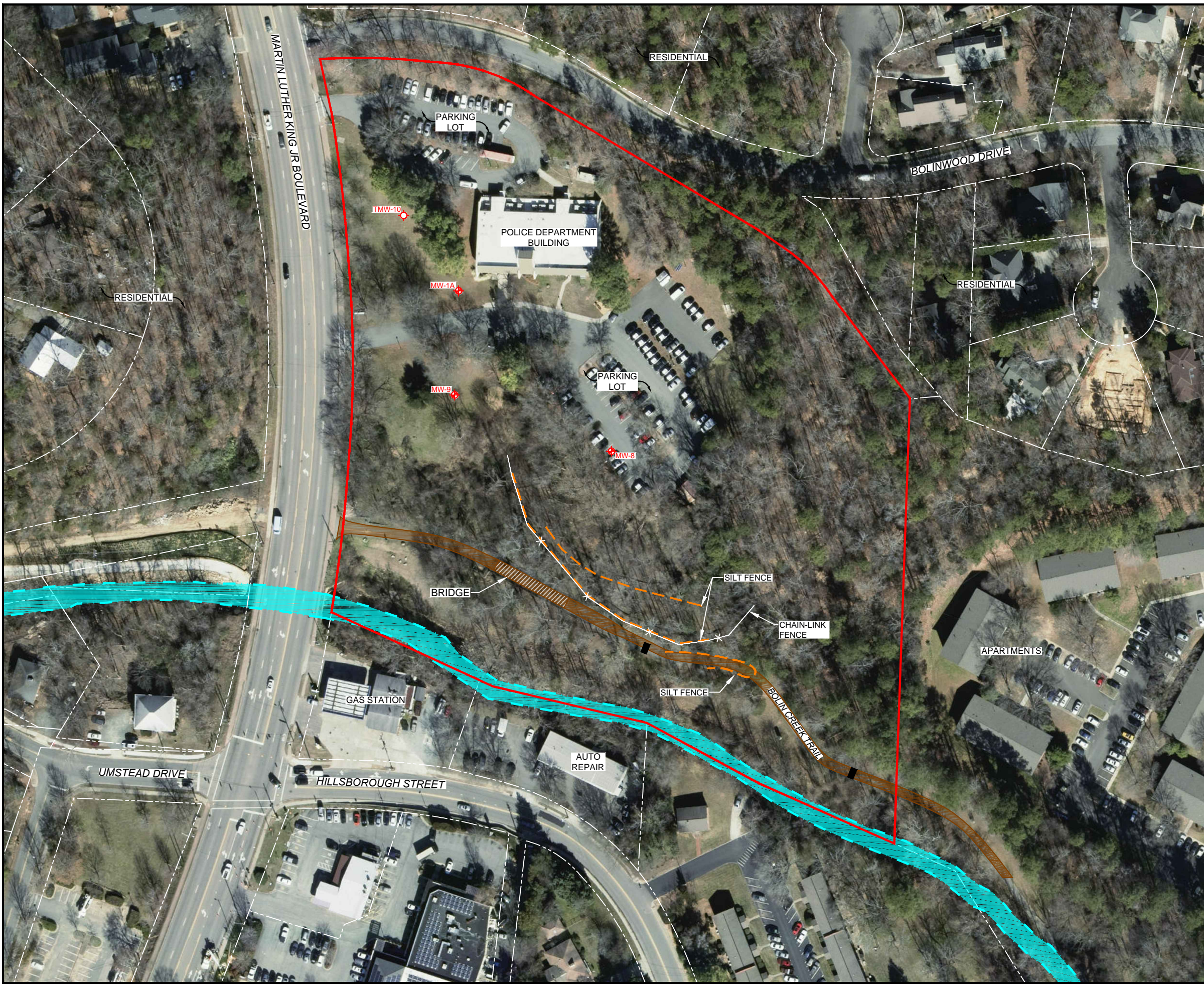
- EXISTING MONITORING WELLS & OCTOBER/ NOVEMBER 2016 SAMPLING LOCATIONS SURVEYED BY CE GROUP ON DECEMBER 8, 9, & 20, 2016.

APPROXIMATE
0 115 230
SCALE IN FEET

TITLE	
SAMPLE LOCATION MAP	
PROJECT	
TOWN OF CHAPEL HILL 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
SMARTER ENVIRONMENTAL SOLUTIONS	
<small>2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology</small>	
DATE: 8-30-19	REVISION NO. 0
JOB NO. TCH-009	FIGURE NO. 1


\\HHF501\MasterFiles\AAA-Master\Projects\Town of Chapel Hill (TCH)\TCH-002 - Police Station\PH II RI Work\Figures\Figures_8.30.19.dwg, FIG 1.4, 8/30/2019 2:37:46 PM, DWG To PDF.pc3

\\HHF501\MasterFiles\AAA-Master\Projects\Town of Chapel Hill (TCH)\TCH-002 - Police Station\PH II RI Work\Figures\Figures_8.30.19.dwg, FIG 2.2, 8/30/2019 2:39:06 PM, DWG To PDF.pc3




LEGEND

- SITE PROPERTY BOUNDARY
- BOLIN CREEK
- STORMWATER CULVERT
- PROPOSED TEMPORARY MONITORING WELL
- PROPOSED MONITORING WELL



APPROXIMATE
0 115 230
SCALE IN FEET

PROPOSED WELL LOCATION MAP	
PROJECT TOWN OF CHAPEL HILL 828 MARTIN LUTHER KING JR. BOULEVARD CHAPEL HILL, NORTH CAROLINA	
 <div style="float: right; font-size: small;"> 2923 South Tryon Street-Suite 100 Charlotte, North Carolina 28203 704-586-0007(p) 704-586-0373(f) License # C-1269 / #C-245 Geology </div>	
DATE: 8-30-19	REVISION NO. 0
JOB NO. TCH-009	FIGURE NO. 2

September 09, 2019

Justin Ballard
Hart & Hickman
3921 Sunset Ridge Rd.
Suite 301
Raleigh, NC 27607

RE: Project: TCH-009
Pace Project No.: 92443252

Dear Justin Ballard:

Enclosed are the analytical results for sample(s) received by the laboratory on August 28, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Kevin Godwin
kevin.godwin@pacelabs.com
1(704)875-9092
Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: TCH-009
Pace Project No.: 92443252

Pace Analytical National Certification IDs

12065 Lebanon Road, Mt. Juliet, TN 37122
Alabama Certification #: 40660
Alaska Certification #: 17-026
Arizona Certification #: AZ0612
Arkansas Certification #: 88-0469
California Certification #: 2932
Canada Certification #: 1461.01
Colorado Certification #: TN00003
Connecticut Certification #: PH-0197
DOD Certification #: #1461.01
EPA# TN00003
Florida Certification #: E87487
Georgia DW Certification #: 923
Georgia Certification: NELAP
Idaho Certification #: TN00003
Illinois Certification #: 200008
Indiana Certification #: C-TN-01
Iowa Certification #: 364
Kansas Certification #: E-10277
Kentucky UST Certification #: 16
Kentucky Certification #: 90010
Louisiana Certification #: AI30792
Louisiana DW Certification #: LA180010
Maine Certification #: TN0002
Maryland Certification #: 324
Massachusetts Certification #: M-TN003
Michigan Certification #: 9958
Minnesota Certification #: 047-999-395
Mississippi Certification #: TN00003
Missouri Certification #: 340
Montana Certification #: CERT0086
Nebraska Certification #: NE-OS-15-05

Nevada Certification #: TN-03-2002-34
New Hampshire Certification #: 2975
New Jersey Certification #: TN002
New Mexico DW Certification
New York Certification #: 11742
North Carolina Aquatic Toxicity Certification #: 41
North Carolina Drinking Water Certification #: 21704
North Carolina Environmental Certificate #: 375
North Dakota Certification #: R-140
Ohio VAP Certification #: CL0069
Oklahoma Certification #: 9915
Oregon Certification #: TN200002
Pennsylvania Certification #: 68-02979
Rhode Island Certification #: LAO00356
South Carolina Certification #: 84004
South Dakota Certification
Tennessee DW/Chem/Micro Certification #: 2006
Texas Certification #: T 104704245-17-14
Texas Mold Certification #: LAB0152
USDA Soil Permit #: P330-15-00234
Utah Certification #: TN00003
Virginia Certification #: VT2006
Vermont Dept. of Health: ID# VT-2006
Virginia Certification #: 460132
Washington Certification #: C847
West Virginia Certification #: 233
Wisconsin Certification #: 9980939910
Wyoming UST Certification #: via A2LA 2926.01
A2LA-ISO 17025 Certification #: 1461.01
A2LA-ISO 17025 Certification #: 1461.02
AIHA-LAP/LLC EMLAP Certification #: 100789

Charlotte Certification IDs

9800 Kincey Ave. Ste 100, Huntersville, NC 28078
Louisiana/NELAP Certification # LA170028
North Carolina Drinking Water Certification #: 37706
North Carolina Field Services Certification #: 5342
North Carolina Wastewater Certification #: 12

South Carolina Certification #: 99006001
Florida/NELAP Certification #: E87627
Kentucky UST Certification #: 84
Virginia/VELAP Certification #: 460221

Asheville Certification IDs

2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712

North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: TCH-009

Pace Project No.: 92443252

Lab ID	Sample ID	Matrix	Date Collected	Date Received
92443252001	SED-17	Solid	08/27/19 11:00	08/28/19 13:09
92443252002	SED-15	Solid	08/27/19 11:10	08/28/19 13:09
92443252003	SED-16	Solid	08/27/19 11:25	08/28/19 13:09
92443252004	SED-11	Solid	08/27/19 11:35	08/28/19 13:09
92443252005	SED-13	Solid	08/27/19 11:30	08/28/19 13:09
92443252006	SED-12	Solid	08/27/19 11:40	08/28/19 13:09
92443252007	SS-3A	Solid	08/27/19 11:55	08/28/19 13:09
92443252008	EB-1	Water	08/27/19 12:10	08/28/19 13:09

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: TCH-009
Pace Project No.: 92443252

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92443252001	SED-17	EPA 6010D	SH1	1	PASI-A
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252002	SED-15	EPA 6010D	SH1	1	PASI-A
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252003	SED-16	EPA 6010D	SH1	1	PASI-A
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252004	SED-11	EPA 6010D	SH1	1	PASI-A
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252005	SED-13	EPA 6010D	SH1	1	PASI-A
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252006	SED-12	EPA 6010D	SH1	1	PASI-A
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252007	SS-3A	EPA 6010D	SH1	1	PASI-A

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SAMPLE ANALYTE COUNT

Project: TCH-009
Pace Project No.: 92443252

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
		EPA 6020B	JDG	10	PAN
		EPA 7471B	SOO	1	PASI-A
		ASTM D2974-87	KDF	1	PASI-C
		SM 2540G	KBC	1	PAN
		EPA 7199	GB	1	PAN
92443252008	EB-1	EPA 6020B	JOR	11	PASI-A
		EPA 7470A	SOO	1	PASI-A

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SED-17 **Lab ID: 92443252001** Collected: 08/27/19 11:00 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	198	mg/kg	0.60	0.30	1	09/03/19 11:46	09/04/19 02:09	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	33.8	mg/kg	0.975	0.244	5	08/30/19 06:07	08/30/19 19:20	7440-38-2	
Barium	1420	mg/kg	1.95	0.312	5	08/30/19 06:07	08/30/19 19:20	7440-39-3	
Beryllium	4.18	mg/kg	0.975	0.117	5	08/30/19 06:07	08/30/19 19:20	7440-41-7	
Cadmium	0.336J	mg/kg	0.975	0.156	5	08/30/19 06:07	08/30/19 19:20	7440-43-9	J
Chromium	17.3	mg/kg	1.95	0.526	5	08/30/19 06:07	08/30/19 19:20	7440-47-3	
Cobalt	10.3	mg/kg	0.975	0.253	5	08/30/19 06:07	08/30/19 19:20	7440-48-4	
Copper	53.1	mg/kg	1.95	0.507	5	08/30/19 06:07	08/30/19 19:20	7440-50-8	
Manganese	296	mg/kg	1.95	0.244	5	08/30/19 06:07	08/30/19 19:20	7439-96-5	
Nickel	16.2	mg/kg	0.975	0.341	5	08/30/19 06:07	08/30/19 19:20	7440-02-0	
Selenium	6.84	mg/kg	0.975	0.370	5	08/30/19 06:07	08/30/19 19:20	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.24	mg/kg	0.023	0.011	5	08/30/19 15:10	09/03/19 16:08	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	25.5	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	51.3	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	ND	mg/kg	1.95	0.497	1	09/04/19 11:11	09/04/19 15:55	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SED-15 **Lab ID: 92443252002** Collected: 08/27/19 11:10 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	58.0	mg/kg	0.50	0.25	1	09/03/19 11:46	09/04/19 02:21	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	3.89	mg/kg	0.842	0.211	5	08/30/19 06:09	08/30/19 15:24	7440-38-2	
Barium	251	mg/kg	1.68	0.270	5	08/30/19 06:09	08/30/19 15:24	7440-39-3	
Beryllium	0.759J	mg/kg	0.842	0.101	5	08/30/19 06:09	08/30/19 15:24	7440-41-7	J
Cadmium	0.328J	mg/kg	0.842	0.135	5	08/30/19 06:09	08/30/19 15:24	7440-43-9	J
Chromium	19.2	mg/kg	1.68	0.455	5	08/30/19 06:09	08/30/19 15:24	7440-47-3	
Cobalt	9.08	mg/kg	0.842	0.219	5	08/30/19 06:09	08/30/19 15:24	7440-48-4	
Copper	24.0	mg/kg	1.68	0.438	5	08/30/19 06:09	08/30/19 15:24	7440-50-8	
Manganese	549	mg/kg	1.68	0.211	5	08/30/19 06:09	08/30/19 15:24	7439-96-5	ML
Nickel	9.64	mg/kg	0.842	0.295	5	08/30/19 06:09	08/30/19 15:24	7440-02-0	
Selenium	1.46	mg/kg	0.842	0.320	5	08/30/19 06:09	08/30/19 15:24	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.035	mg/kg	0.0035	0.0018	1	08/30/19 15:10	09/03/19 16:11	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	21.8	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	59.4	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	0.458J	mg/kg	1.68	0.430	1	09/04/19 11:11	09/04/19 16:08	18540-29-9	J

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SED-16 **Lab ID: 92443252003** Collected: 08/27/19 11:25 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	133	mg/kg	0.42	0.21	1	09/03/19 11:46	09/04/19 02:31	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	21.0	mg/kg	0.801	0.200	5	08/30/19 06:09	08/30/19 15:47	7440-38-2	
Barium	739	mg/kg	1.60	0.256	5	08/30/19 06:09	08/30/19 15:47	7440-39-3	
Beryllium	2.96	mg/kg	0.801	0.0962	5	08/30/19 06:09	08/30/19 15:47	7440-41-7	
Cadmium	0.414J	mg/kg	0.801	0.128	5	08/30/19 06:09	08/30/19 15:47	7440-43-9	J
Chromium	23.4	mg/kg	1.60	0.433	5	08/30/19 06:09	08/30/19 15:47	7440-47-3	
Cobalt	17.8	mg/kg	0.801	0.208	5	08/30/19 06:09	08/30/19 15:47	7440-48-4	
Copper	50.9	mg/kg	1.60	0.417	5	08/30/19 06:09	08/30/19 15:47	7440-50-8	
Manganese	1250	mg/kg	1.60	0.200	5	08/30/19 06:09	08/30/19 15:47	7439-96-5	
Nickel	18.3	mg/kg	0.801	0.280	5	08/30/19 06:09	08/30/19 15:47	7440-02-0	
Selenium	5.05	mg/kg	0.801	0.304	5	08/30/19 06:09	08/30/19 15:47	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.11	mg/kg	0.0043	0.0022	1	08/30/19 15:10	09/03/19 16:13	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	25.9	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	62.4	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	ND	mg/kg	1.60	0.409	1	09/04/19 11:11	09/04/19 16:13	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SED-11 **Lab ID: 92443252004** Collected: 08/27/19 11:35 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	49.4	mg/kg	0.37	0.18	1	09/03/19 11:46	09/04/19 02:34	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	6.08	mg/kg	0.864	0.216	5	08/30/19 06:09	08/30/19 15:52	7440-38-2	
Barium	317	mg/kg	1.73	0.277	5	08/30/19 06:09	08/30/19 15:52	7440-39-3	
Beryllium	1.19	mg/kg	0.864	0.104	5	08/30/19 06:09	08/30/19 15:52	7440-41-7	
Cadmium	0.235J	mg/kg	0.864	0.138	5	08/30/19 06:09	08/30/19 15:52	7440-43-9	J
Chromium	13.3	mg/kg	1.73	0.467	5	08/30/19 06:09	08/30/19 15:52	7440-47-3	
Cobalt	7.82	mg/kg	0.864	0.225	5	08/30/19 06:09	08/30/19 15:52	7440-48-4	
Copper	21.6	mg/kg	1.73	0.449	5	08/30/19 06:09	08/30/19 15:52	7440-50-8	
Manganese	351	mg/kg	1.73	0.216	5	08/30/19 06:09	08/30/19 15:52	7439-96-5	
Nickel	10.8	mg/kg	0.864	0.302	5	08/30/19 06:09	08/30/19 15:52	7440-02-0	
Selenium	1.71	mg/kg	0.864	0.328	5	08/30/19 06:09	08/30/19 15:52	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.030	mg/kg	0.0026	0.0013	1	08/30/19 15:10	09/03/19 16:15	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	20.8	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	57.9	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	ND	mg/kg	1.73	0.441	1	09/04/19 11:11	09/04/19 16:18	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SED-13 **Lab ID: 92443252005** Collected: 08/27/19 11:30 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	125	mg/kg	0.56	0.28	1	09/03/19 11:46	09/04/19 02:37	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	12.4	mg/kg	1.01	0.253	5	08/30/19 06:09	08/30/19 16:06	7440-38-2	
Barium	958	mg/kg	2.03	0.324	5	08/30/19 06:09	08/30/19 16:06	7440-39-3	
Beryllium	1.56	mg/kg	1.01	0.122	5	08/30/19 06:09	08/30/19 16:06	7440-41-7	
Cadmium	0.284J	mg/kg	1.01	0.162	5	08/30/19 06:09	08/30/19 16:06	7440-43-9	J
Chromium	29.4	mg/kg	2.03	0.547	5	08/30/19 06:09	08/30/19 16:06	7440-47-3	
Cobalt	13.9	mg/kg	1.01	0.263	5	08/30/19 06:09	08/30/19 16:06	7440-48-4	
Copper	38.9	mg/kg	2.03	0.527	5	08/30/19 06:09	08/30/19 16:06	7440-50-8	
Manganese	538	mg/kg	2.03	0.253	5	08/30/19 06:09	08/30/19 16:06	7439-96-5	
Nickel	19.2	mg/kg	1.01	0.355	5	08/30/19 06:09	08/30/19 16:06	7440-02-0	
Selenium	3.07	mg/kg	1.01	0.385	5	08/30/19 06:09	08/30/19 16:06	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.12	mg/kg	0.011	0.0057	2	09/06/19 11:25	09/06/19 14:53	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	36.4	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	49.4	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	ND	mg/kg	2.03	0.517	1	09/04/19 11:11	09/04/19 16:23	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SED-12 **Lab ID: 92443252006** Collected: 08/27/19 11:40 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	25.4	mg/kg	0.55	0.28	1	09/03/19 11:46	09/04/19 02:40	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	4.73	mg/kg	0.842	0.210	5	08/30/19 06:09	08/30/19 16:10	7440-38-2	
Barium	102	mg/kg	1.68	0.269	5	08/30/19 06:09	08/30/19 16:10	7440-39-3	
Beryllium	0.765J	mg/kg	0.842	0.101	5	08/30/19 06:09	08/30/19 16:10	7440-41-7	J
Cadmium	0.214J	mg/kg	0.842	0.135	5	08/30/19 06:09	08/30/19 16:10	7440-43-9	J
Chromium	27.6	mg/kg	1.68	0.454	5	08/30/19 06:09	08/30/19 16:10	7440-47-3	
Cobalt	6.17	mg/kg	0.842	0.219	5	08/30/19 06:09	08/30/19 16:10	7440-48-4	
Copper	23.1	mg/kg	1.68	0.438	5	08/30/19 06:09	08/30/19 16:10	7440-50-8	
Manganese	341	mg/kg	1.68	0.210	5	08/30/19 06:09	08/30/19 16:10	7439-96-5	
Nickel	7.69	mg/kg	0.842	0.295	5	08/30/19 06:09	08/30/19 16:10	7440-02-0	
Selenium	0.961	mg/kg	0.842	0.320	5	08/30/19 06:09	08/30/19 16:10	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.042	mg/kg	0.0033	0.0016	1	08/30/19 15:10	09/03/19 16:20	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	28.2	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	59.4	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	ND	mg/kg	1.68	0.429	1	09/04/19 11:11	09/04/19 16:28	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: SS-3A **Lab ID: 92443252007** Collected: 08/27/19 11:55 Received: 08/28/19 13:09 Matrix: Solid

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3050B									
Strontium	119	mg/kg	0.42	0.21	1	09/03/19 11:46	09/04/19 02:43	7440-24-6	
Metals (ICPMS) 6020B									
Analytical Method: EPA 6020B Preparation Method: 3050B									
Arsenic	23.4	mg/kg	0.753	0.188	5	08/30/19 06:09	08/30/19 16:15	7440-38-2	
Barium	1080	mg/kg	1.51	0.241	5	08/30/19 06:09	08/30/19 16:15	7440-39-3	
Beryllium	2.68	mg/kg	0.753	0.0904	5	08/30/19 06:09	08/30/19 16:15	7440-41-7	
Cadmium	0.226J	mg/kg	0.753	0.121	5	08/30/19 06:09	08/30/19 16:15	7440-43-9	J
Chromium	18.4	mg/kg	1.51	0.407	5	08/30/19 06:09	08/30/19 16:15	7440-47-3	
Cobalt	9.99	mg/kg	0.753	0.196	5	08/30/19 06:09	08/30/19 16:15	7440-48-4	
Copper	37.9	mg/kg	1.51	0.392	5	08/30/19 06:09	08/30/19 16:15	7440-50-8	
Manganese	463	mg/kg	1.51	0.188	5	08/30/19 06:09	08/30/19 16:15	7439-96-5	
Nickel	13.6	mg/kg	0.753	0.264	5	08/30/19 06:09	08/30/19 16:15	7440-02-0	
Selenium	3.79	mg/kg	0.753	0.286	5	08/30/19 06:09	08/30/19 16:15	7782-49-2	
7471 Mercury									
Analytical Method: EPA 7471B Preparation Method: EPA 7471B									
Mercury	0.19	mg/kg	0.016	0.0078	5	08/30/19 15:10	09/04/19 13:31	7439-97-6	
Percent Moisture									
Analytical Method: ASTM D2974-87									
Percent Moisture	25.4	%	0.10	0.10	1		08/29/19 16:58		
Total Solids 2540 G-2011									
Analytical Method: SM 2540G Preparation Method: SM 2540 G									
Total Solids	66.4	%			1	09/04/19 19:37	09/04/19 19:45		
Wet Chemistry 7199									
Analytical Method: EPA 7199 Preparation Method: 3060A									
Chromium, Hexavalent	ND	mg/kg	1.51	0.384	1	09/04/19 11:11	09/04/19 16:34	18540-29-9	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: TCH-009
Pace Project No.: 92443252

Sample: EB-1 Lab ID: 92443252008 Collected: 08/27/19 12:10 Received: 08/28/19 13:09 Matrix: Water									
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020 MET ICPMS Analytical Method: EPA 6020B Preparation Method: EPA 3010A									
Arsenic	ND	ug/L	0.10	0.060	1	09/03/19 19:03	09/05/19 02:23	7440-38-2	
Barium	ND	ug/L	0.30	0.060	1	09/03/19 19:03	09/05/19 02:23	7440-39-3	
Beryllium	ND	ug/L	0.10	0.050	1	09/03/19 19:03	09/05/19 02:23	7440-41-7	
Cadmium	ND	ug/L	0.080	0.070	1	09/03/19 19:03	09/05/19 02:23	7440-43-9	
Chromium	ND	ug/L	0.50	0.42	1	09/03/19 19:03	09/05/19 02:23	7440-47-3	
Cobalt	ND	ug/L	0.10	0.050	1	09/03/19 19:03	09/05/19 02:23	7440-48-4	
Copper	ND	ug/L	0.50	0.23	1	09/03/19 19:03	09/05/19 02:23	7440-50-8	BC
Manganese	ND	ug/L	0.50	0.14	1	09/03/19 19:03	09/05/19 02:23	7439-96-5	
Nickel	ND	ug/L	0.50	0.11	1	09/03/19 19:03	09/05/19 02:23	7440-02-0	
Selenium	ND	ug/L	0.50	0.080	1	09/03/19 19:03	09/05/19 02:23	7782-49-2	
Strontium	ND	ug/L	0.50	0.060	1	09/03/19 19:03	09/05/19 02:23	7440-24-6	
7470 Mercury Analytical Method: EPA 7470A Preparation Method: EPA 7470A									
Mercury	ND	ug/L	0.20	0.10	1	09/03/19 14:35	09/04/19 16:31	7439-97-6	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 1337397 Analysis Method: EPA 6020B
QC Batch Method: 3050B Analysis Description: Metals (ICPMS) 6020B
Associated Lab Samples: 92443252001

METHOD BLANK: R3446166-1 Matrix: Solid
Associated Lab Samples: 92443252001

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	0.500	0.125	08/30/19 17:03	
Barium	mg/kg	ND	1.00	0.160	08/30/19 17:03	
Beryllium	mg/kg	ND	0.500	0.0600	08/30/19 17:03	
Cadmium	mg/kg	ND	0.500	0.0800	08/30/19 17:03	
Chromium	mg/kg	ND	1.00	0.270	08/30/19 17:03	
Cobalt	mg/kg	ND	0.500	0.130	08/30/19 17:03	
Copper	mg/kg	ND	1.00	0.260	08/30/19 17:03	
Manganese	mg/kg	ND	1.00	0.125	08/30/19 17:03	
Nickel	mg/kg	ND	0.500	0.175	08/30/19 17:03	
Selenium	mg/kg	ND	0.500	0.190	08/30/19 17:03	

LABORATORY CONTROL SAMPLE & LCSD: R3446166-2 R3446166-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic	mg/kg	100	93.1	92.6	93.1	92.6	80.0-120	0.598	20	
Barium	mg/kg	100	95.1	95.4	95.1	95.4	80.0-120	0.295	20	
Beryllium	mg/kg	100	91.5	92.1	91.5	92.1	80.0-120	0.665	20	
Cadmium	mg/kg	100	102	103	102	103	80.0-120	0.626	20	
Chromium	mg/kg	100	98.1	97.4	98.1	97.4	80.0-120	0.723	20	
Cobalt	mg/kg	100	101	99.5	101	99.5	80.0-120	1.72	20	
Copper	mg/kg	100	92.0	90.8	92.0	90.8	80.0-120	1.34	20	
Manganese	mg/kg	100	97.0	98.2	97.0	98.2	80.0-120	1.16	20	
Nickel	mg/kg	100	101	100	101	100	80.0-120	0.752	20	
Selenium	mg/kg	100	106	107	106	107	80.0-120	1.64	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3446166-6 R3446166-7

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		L1133715-01 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	mg/kg	5.02	23.7	23.7	109	107	87.9	85.6	75.0-125	2.60	20
Barium	mg/kg	146	23.7	23.7	270	251	105	89.0	75.0-125	7.06	20
Cadmium	mg/kg	0.333	23.7	23.7	131	125	111	105	75.0-125	4.72	20
Chromium	mg/kg	50.3	23.7	23.7	142	140	77.3	75.8	75.0-125	1.20	20
Copper	mg/kg	24.7	23.7	23.7	142	136	98.9	93.5	75.0-125	4.60	20
Selenium	mg/kg	0.887	23.7	23.7	137	128	114	107	75.0-125	6.88	20

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 1337400 Analysis Method: EPA 6020B
QC Batch Method: 3050B Analysis Description: Metals (ICPMS) 6020B
Associated Lab Samples: 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

METHOD BLANK: R3446129-1 Matrix: Solid
Associated Lab Samples: 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	mg/kg	ND	0.500	0.125	08/30/19 15:11	
Barium	mg/kg	ND	1.00	0.160	08/30/19 15:11	
Beryllium	mg/kg	ND	0.500	0.0600	08/30/19 15:11	
Cadmium	mg/kg	ND	0.500	0.0800	08/30/19 15:11	
Chromium	mg/kg	ND	1.00	0.270	08/30/19 15:11	
Cobalt	mg/kg	ND	0.500	0.130	08/30/19 15:11	
Copper	mg/kg	ND	1.00	0.260	08/30/19 15:11	
Manganese	mg/kg	ND	1.00	0.125	08/30/19 15:11	
Nickel	mg/kg	ND	0.500	0.175	08/30/19 15:11	
Selenium	mg/kg	ND	0.500	0.190	08/30/19 15:11	

LABORATORY CONTROL SAMPLE & LCSD: R3446129-2 R3446129-3

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic	mg/kg	100	93.1	88.7	93.1	88.7	80.0-120	4.91	20	
Barium	mg/kg	100	92.8	92.1	92.8	92.1	80.0-120	0.813	20	
Beryllium	mg/kg	100	92.4	87.6	92.4	87.6	80.0-120	5.25	20	
Cadmium	mg/kg	100	101	99.1	101	99.1	80.0-120	2.35	20	
Chromium	mg/kg	100	99.0	92.9	99.0	92.9	80.0-120	6.42	20	
Cobalt	mg/kg	100	101	95.5	101	95.5	80.0-120	5.69	20	
Copper	mg/kg	100	90.6	84.9	90.6	84.9	80.0-120	6.57	20	
Manganese	mg/kg	100	100	93.3	100	93.3	80.0-120	7.04	20	
Nickel	mg/kg	100	101	95.5	101	95.5	80.0-120	5.86	20	
Selenium	mg/kg	100	105	101	105	101	80.0-120	4.05	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3446129-6 R3446129-7

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92443252002 Result	Spike Conc.	Spike Conc.	MS Result						
Arsenic	mg/kg	3.89	33.7	33.7	158	149	91.5	86.0	75.0-125	6.11	20
Barium	mg/kg	251	33.7	33.7	417	377	98.9	75.3	75.0-125	10.0	20
Beryllium	mg/kg	0.759	33.7	33.7	158	151	93.5	89.1	75.0-125	4.78	20
Cadmium	mg/kg	0.328	33.7	33.7	181	170	107	101	75.0-125	6.60	20
Chromium	mg/kg	19.2	33.7	33.7	182	173	96.8	91.2	75.0-125	5.34	20
Cobalt	mg/kg	9.08	33.7	33.7	181	170	102	95.3	75.0-125	6.64	20
Copper	mg/kg	24.0	33.7	33.7	186	174	96.4	88.8	75.0-125	7.10	20
Manganese	mg/kg	549	33.7	33.7	696	653	86.7	61.7	75.0-125	6.24	20 ML
Nickel	mg/kg	9.64	33.7	33.7	178	168	100	94.3	75.0-125	5.68	20

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QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92443252

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3446129-6												R3446129-7	
Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92443252002 Result	Spike Conc.	Spike Conc.	MS Result								
Selenium	mg/kg	1.46	33.7	33.7	189	173	111	102	75.0-125	8.54	20		

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 495629 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 92443252008

METHOD BLANK: 2670079 Matrix: Water
Associated Lab Samples: 92443252008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	ug/L	ND	0.20	0.10	09/04/19 16:27	

LABORATORY CONTROL SAMPLE: 2670080

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	ug/L	2.5	2.6	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2670081 2670082

Parameter	Units	92443193001		2670081		2670082		% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec				
Mercury	ug/L	ND	2.5	2.5	2.3	2.5	90	97	75-125	7	25

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 495379 Analysis Method: EPA 7471B
QC Batch Method: EPA 7471B Analysis Description: 7471 Mercury
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252006, 92443252007

METHOD BLANK: 2669054 Matrix: Solid
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252006, 92443252007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/kg	ND	0.0060	0.0030	09/03/19 14:20	

LABORATORY CONTROL SAMPLE: 2669055

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/kg	0.083	0.076	92	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2669056 2669057

Parameter	Units	92443374001 Result	MS		MSD		MS		MSD		% Rec Limits	RPD	Max RPD	Qual
			Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	% Rec	% Rec						
Mercury	mg/kg	ND	0.076	0.078	0.038	0.042	46	49	75-125	9	20	H3,M1		

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 495641 Analysis Method: EPA 6010D
QC Batch Method: EPA 3050B Analysis Description: 6010 MET
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

METHOD BLANK: 2670155 Matrix: Solid
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Strontium	mg/kg	ND	0.50	0.25	09/04/19 02:03	

LABORATORY CONTROL SAMPLE: 2670156

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Strontium	mg/kg	50	49.0	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2670157 2670158

Parameter	Units	92443252001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Strontium	mg/kg	198	58.9	58.9	261	260	108	105	75-125	1	20	

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 495760 Analysis Method: EPA 6020B
QC Batch Method: EPA 3010A Analysis Description: 6020 MET
Associated Lab Samples: 92443252008

METHOD BLANK: 2670881 Matrix: Water
Associated Lab Samples: 92443252008

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	ND	0.10	0.060	09/05/19 00:49	
Barium	ug/L	ND	0.30	0.060	09/05/19 00:49	
Beryllium	ug/L	ND	0.10	0.050	09/05/19 00:49	
Cadmium	ug/L	ND	0.080	0.070	09/05/19 00:49	
Chromium	ug/L	ND	0.50	0.42	09/05/19 00:49	
Cobalt	ug/L	ND	0.10	0.050	09/05/19 00:49	
Copper	ug/L	0.25J	0.50	0.23	09/05/19 00:49	BC
Manganese	ug/L	ND	0.50	0.14	09/05/19 00:49	
Nickel	ug/L	ND	0.50	0.11	09/05/19 00:49	
Selenium	ug/L	ND	0.50	0.080	09/05/19 00:49	
Strontium	ug/L	ND	0.50	0.060	09/05/19 00:49	

LABORATORY CONTROL SAMPLE: 2670882

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	10	10.4	104	80-120	
Barium	ug/L	50	53.1	106	80-120	
Beryllium	ug/L	10	9.6	96	80-120	
Cadmium	ug/L	10	10.6	106	80-120	
Chromium	ug/L	50	53.3	107	80-120	
Cobalt	ug/L	10	10.6	106	80-120	
Copper	ug/L	50	56.1	112	80-120	BC
Manganese	ug/L	50	52.1	104	80-120	
Nickel	ug/L	50	52.8	106	80-120	
Selenium	ug/L	50	49.4	99	80-120	
Strontium	ug/L	50	53.2	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2670883 2670884

Parameter	Units	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		92442359001	Spike Conc.	Spike Conc.	Result								
Arsenic	ug/L	0.099J	10	10	10.3	10.1	102	100	75-125	1	20		
Barium	ug/L	34.8	50	50	87.8	86.2	106	103	75-125	2	20		
Beryllium	ug/L	ND	10	10	9.5	9.3	94	93	75-125	2	20		
Cadmium	ug/L	ND	10	10	10.5	10.3	105	103	75-125	2	20		
Chromium	ug/L	0.48J	50	50	53.4	52.4	106	104	75-125	2	20		
Cobalt	ug/L	0.54J	10	10	11.1	10.9	105	103	75-125	2	20		
Copper	ug/L	0.62	50	50	55.5	54.5	110	108	75-125	2	20	BC	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TCH-009

Pace Project No.: 92443252

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2670883 2670884											
Parameter	Units	92442359001	MS	MSD	MS	MSD	MS	MSD	% Rec	Max	Qual
		Result	Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec	Limits	RPD	
Manganese	ug/L	99.1	50	50	152	151	107	103	75-125	1	20
Nickel	ug/L	0.37J	50	50	52.3	51.8	104	103	75-125	1	20
Selenium	ug/L	ND	50	50	47.2	46.7	94	93	75-125	1	20
Strontium	ug/L	42.7	50	50	96.3	95.2	107	105	75-125	1	20

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 1339889 Analysis Method: SM 2540G
QC Batch Method: SM 2540 G Analysis Description: Total Solids 2540 G-2011
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

METHOD BLANK: R3447496-1 Matrix: Solid
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Total Solids	%	0.00100			09/04/19 19:45	

LABORATORY CONTROL SAMPLE: R3447496-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Solids	%	50.0	50.2	100	85.0-115	

SAMPLE DUPLICATE: R3447496-3

Parameter	Units	92443252003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Solids	%	62.4	68.1	8.75	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: TCH-009
Pace Project No.: 92443252

QC Batch: 1338392 Analysis Method: EPA 7199
QC Batch Method: 3060A Analysis Description: Wet Chemistry 7199
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

METHOD BLANK: R3447284-1 Matrix: Solid
Associated Lab Samples: 92443252001, 92443252002, 92443252003, 92443252004, 92443252005, 92443252006, 92443252007

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chromium, Hexavalent	mg/kg	ND	1.00	0.255	09/04/19 15:39	

LABORATORY CONTROL SAMPLE: R3447284-2

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	10.0	9.64	96.4	80.0-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: R3447284-4 R3447284-5

Parameter	Units	L1134612-03 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium, Hexavalent	mg/kg	ND	25.4	25.4	17.7	19.3	69.8	75.9	75.0-125	8.42	20	ML

MATRIX SPIKE SAMPLE: R3447284-6

Parameter	Units	L1134612-03 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chromium, Hexavalent	mg/kg	ND	1020	932	91.5	75.0-125	

SAMPLE DUPLICATE: R3447284-3

Parameter	Units	92443252001 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	ND	ND	0.00	20	

SAMPLE DUPLICATE: R3447284-8

Parameter	Units	L1134612-04 Result	Dup Result	RPD	Max RPD	Qualifiers
Chromium, Hexavalent	mg/kg	0.337	ND	200	20	D8

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REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: TCH-009
Pace Project No.: 92443252

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

Acid preservation may not be appropriate for 2 Chloroethylvinyl ether.

A separate vial preserved to a pH of 4-5 is recommended in SW846 Chapter 4 for the analysis of Acrolein and Acrylonitrile by EPA Method 8260.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PAN Pace Analytical National

PASI-A Pace Analytical Services - Asheville

PASI-C Pace Analytical Services - Charlotte

ANALYTE QUALIFIERS

BC The same analyte was detected in an associated blank at a concentration above 1/2 the reporting limit but below the laboratory reporting limit.

D8 The sample and duplicate results for this parameter are less than 5 times the reporting limit, the RPD may not be statistically valid.

H3 Sample was received or analysis requested beyond the recognized method holding time.

J Analyte detected below the reporting limit, therefore result is an estimate. This qualifier is also used for all TICs.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

ML Matrix spike recovery and/or matrix spike duplicate recovery was below laboratory control limits. Result may be biased low.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TCH-009
Pace Project No.: 92443252

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92443252001	SED-17	EPA 3050B	495641	EPA 6010D	495789
92443252002	SED-15	EPA 3050B	495641	EPA 6010D	495789
92443252003	SED-16	EPA 3050B	495641	EPA 6010D	495789
92443252004	SED-11	EPA 3050B	495641	EPA 6010D	495789
92443252005	SED-13	EPA 3050B	495641	EPA 6010D	495789
92443252006	SED-12	EPA 3050B	495641	EPA 6010D	495789
92443252007	SS-3A	EPA 3050B	495641	EPA 6010D	495789
92443252008	EB-1	EPA 3010A	495760	EPA 6020B	495803
92443252001	SED-17	3050B	1337397	EPA 6020B	1337397
92443252002	SED-15	3050B	1337400	EPA 6020B	1337400
92443252003	SED-16	3050B	1337400	EPA 6020B	1337400
92443252004	SED-11	3050B	1337400	EPA 6020B	1337400
92443252005	SED-13	3050B	1337400	EPA 6020B	1337400
92443252006	SED-12	3050B	1337400	EPA 6020B	1337400
92443252007	SS-3A	3050B	1337400	EPA 6020B	1337400
92443252008	EB-1	EPA 7470A	495629	EPA 7470A	495735
92443252001	SED-17	EPA 7471B	495379	EPA 7471B	495489
92443252002	SED-15	EPA 7471B	495379	EPA 7471B	495489
92443252003	SED-16	EPA 7471B	495379	EPA 7471B	495489
92443252004	SED-11	EPA 7471B	495379	EPA 7471B	495489
92443252005	SED-13	EPA 7471B	496370	EPA 7471B	496488
92443252006	SED-12	EPA 7471B	495379	EPA 7471B	495489
92443252007	SS-3A	EPA 7471B	495379	EPA 7471B	495489
92443252001	SED-17	ASTM D2974-87	495215		
92443252002	SED-15	ASTM D2974-87	495215		
92443252003	SED-16	ASTM D2974-87	495215		
92443252004	SED-11	ASTM D2974-87	495215		
92443252005	SED-13	ASTM D2974-87	495215		
92443252006	SED-12	ASTM D2974-87	495215		
92443252007	SS-3A	ASTM D2974-87	495215		
92443252001	SED-17	SM 2540 G	1339889	SM 2540G	1339889
92443252002	SED-15	SM 2540 G	1339889	SM 2540G	1339889
92443252003	SED-16	SM 2540 G	1339889	SM 2540G	1339889
92443252004	SED-11	SM 2540 G	1339889	SM 2540G	1339889
92443252005	SED-13	SM 2540 G	1339889	SM 2540G	1339889
92443252006	SED-12	SM 2540 G	1339889	SM 2540G	1339889
92443252007	SS-3A	SM 2540 G	1339889	SM 2540G	1339889
92443252001	SED-17	3060A	1338392	EPA 7199	1338392
92443252002	SED-15	3060A	1338392	EPA 7199	1338392
92443252003	SED-16	3060A	1338392	EPA 7199	1338392
92443252004	SED-11	3060A	1338392	EPA 7199	1338392
92443252005	SED-13	3060A	1338392	EPA 7199	1338392
92443252006	SED-12	3060A	1338392	EPA 7199	1338392
92443252007	SS-3A	3060A	1338392	EPA 7199	1338392

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: TCH-009
Pace Project No.: 92443252

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
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REPORT OF LABORATORY ANALYSIS

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	Document Name: Sample Condition Upon Receipt (SCUR)	Document Revised: February 7, 2018 Page 1 of 2
	Document No.: F-CAR-CS-033-Rev.06	Issuing Authority: Pace Carolinas Quality Office

Laboratory receiving samples:

Asheville Eden Greenwood Huntersville Raleigh Mechanicsville

Sample Condition
Upon Receipt

Client Name:
Hart + Hickman

Project # **WO#: 92443252**

Courier: Fed Ex UPS USPS Client
 Commercial Pace Other: _____



Custody Seal Present? Yes No Seals Intact? Yes No

Date/Initials Person Examining Contents: WBT
8/28/19

Packing Material: Bubble Wrap Bubble Bags None Other

Biological Tissue Frozen?
 Yes No N/A

Thermometer: IR Gun ID: 917005 Type of Ice: Wet Blue None

Cooler Temp (°C): 2.6 Correction Factor: Add/Subtract (°C) -0.1

Temp should be above freezing to 6°C
 Samples out of temp criteria. Samples on ice, cooling process has begun

Cooler Temp Corrected (°C): 2.5

USDA Regulated Soil N/A, water sample

Did samples originate in a quarantine zone within the United States: CA, NY, or SC (check maps)?
 Yes No

Did samples originate from a foreign source (internationally, including Hawaii and Puerto Rico)? Yes No

	Comments/Discrepancy:
Chain of Custody Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	1.
Samples Arrived within Hold Time? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	2.
Short Hold Time Analysis (<72 hr.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	3.
Rush Turn Around Time Requested? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A	4.
Sufficient Volume? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	5.
Correct Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A -Pace Containers Used? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	6.
Containers Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	7.
Dissolved analysis: Samples Field Filtered? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	8.
Sample Labels Match COC? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	9.
-Includes Date/Time/ID/Analysis Matrix: <u>SL</u>	
Headspace in VOA Vials (>5-6mm)? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	10.
Trip Blank Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	11.
Trip Blank Custody Seals Present? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> N/A	

COMMENTS/SAMPLE DISCREPANCY

Field Data Required? Yes No

Lot ID of split containers:

CLIENT NOTIFICATION/RESOLUTION

Person contacted: _____ Date/Time: _____

Project Manager SCURF Review: JH

Date: 8/28/19

*Check mark top half of box if pH and/or dechlorination is verified and within the acceptance range for preservation samples.

Exceptions: VOA, Coliform, TOC, Oil and Grease, DRO/8015 (water) DOC, LLHg

**Bottom half of box is to list number of bottle

Project **WO# : 92443252**
 PM: KRG Due Date: 09/05/19
 CLIENT: 92-Hart_Ral

Item#	BP4U-125 mL Plastic Unpreserved (N/A) (Cl-)	BP9U-250 mL Plastic Unpreserved (N/A)	BP2U-500 mL Plastic Unpreserved (N/A)	BP1U-1 liter Plastic Unpreserved (N/A)	BP4S-125 mL Plastic H2SO4 (pH < 2) (Cl-)	BP9N-250 mL plastic HNO3 (pH < 2)	BP4Z-125 mL Plastic 2N Acetate & NaOH (49)	BP4C-125 mL Plastic NaOH (pH > 12) (Cl-)	WGFU-Wide-mouthed Glass Jar Unpreserved	AG1U-1 liter Amber Unpreserved (N/A) (Cl-)	AG1H-1 liter Amber HCl (pH < 2)	AG3U-250 mL Amber Unpreserved (N/A) (Cl-)	AG1S-1 liter Amber H2SO4 (pH < 2)	AG3S-250 mL Amber H2SO4 (pH < 2)	AG8A(DG9A)-250 mL Amber NH4Cl (N/A)(Cl-)	DG9H-40 mL VOA HCl (N/A)	VG9T-40 mL VOA Na2S2O3 (N/A)	VG9U-40 mL VOA Uno (N/A)	DG9P-40 mL VOA HBPO4 (N/A)	VOAK (6 vials per kit)-5095 kit (N/A)	V/GK (3 vials per kit)-VPH/Gas kit (N/A)	SP5T-125 mL Sterile Plastic (N/A - lab)	SP2T-250 mL Sterile Plastic (N/A - lab)	BP3A-250 mL Plastic (NH2)2SO4 (9.3-9.7)	AG0U-100 mL Amber Unpreserved vials (N/A)	VSGU-20 mL Scintillation vials (N/A)	DG9U-40 mL Amber Unpreserved vials (N/A)	
1								3																				
2								3																				
3								3																				
4								3																				
5								3																				
6								3																				
7								3																				
8																												
9																												
10																												
11																												
12																												

Sample ID	Type of Preservative	pH upon receipt	Date preservation adjusted	Time preservation adjusted	Amount of Preservative added	Lot #

When using this form, a copy of this form will be sent to the North Carolina DEHNR Certification Office if a

Table 1 (page 1 of 2)
 Summary of Soil Analytical Data
 828 Martin Luther King, Jr. Blvd.
 Chapel Hill, North Carolina
 H&H Job No. TCH-009

Sample ID	Sample Date	Material Sampled (Soil or CCP)	Sample Depth	aluminum	antimony	arsenic	barium	beryllium	boron	cadmium	calcium	hexavalent chromium	trivalent chromium	total chromium	cobalt	copper	iron	lead	magnesium	manganese	mercury	molybdenum	nickel	potassium	selenium	silver	sodium	strontium	tellurium	vanadium	zinc	
S-4	4/29/2013	CCP	1 ft	23,000	ND	14	24	ND	NA	1.5	9,900	NA	NA	22	30	65	59,000	20	9,000	1,500	0.011	NA	43	680	ND	ND	190	NA	ND	21	120	
S-5	1/31/2014	CCP	0-4 ft	NA	NA	37	2,800	NA	NA	ND	NA	1.3	19.7	21	NA	NA	NA	10	NA	NA	0.30	NA	NA	3.2	ND	NA	NA	NA	NA	NA		
S-6	1/31/2014	CCP	0-4 ft	NA	NA	43	3,200	NA	NA	ND	NA	2.7	19.3	22	NA	NA	NA	12	NA	NA	0.42	NA	NA	6.1	ND	NA	NA	NA	NA	NA		
S-7	1/31/2014	CCP	0-4 ft	NA	NA	44	2,500	NA	NA	ND	NA	1.4	27.6	29	NA	NA	NA	11	NA	NA	0.44	NA	NA	4.5	ND	NA	NA	NA	NA	NA		
GP-1	2/3/2014	CCP	8-12 ft	NA	NA	3.5	86	NA	NA	ND	NA	ND	8.8	8.8	NA	NA	NA	26	NA	NA	0.083	NA	NA	ND	ND	NA	NA	NA	NA	NA		
GP-2	2/3/2014	CCP	26-28 ft	NA	NA	41	1,100	NA	NA	ND	NA	ND	19	19	NA	NA	NA	11	NA	NA	0.24	NA	NA	4.0	ND	NA	NA	NA	NA	NA		
GP-3	2/3/2014	CCP	10-12 ft	NA	NA	48	1,200	NA	NA	ND	NA	0.53	22.47	23	NA	NA	NA	39	NA	NA	0.42	NA	NA	ND	ND	NA	NA	NA	NA	NA		
GP-4	2/4/2014	CCP	10-12 ft	NA	NA	59	2,900	NA	NA	ND	NA	ND	20	20	NA	NA	NA	11	NA	NA	0.51	NA	NA	5.8	ND	NA	NA	NA	NA	NA		
GP-5	2/4/2014	CCP	4-6 ft	NA	NA	72	2,800	NA	NA	ND	NA	ND	19	19	NA	NA	NA	9.5	NA	NA	0.33	NA	NA	2.6	ND	NA	NA	NA	NA	NA		
GP-5	4/3/2019	CCP	4-6 ft	NA	NA	95.9	2,350	5.46	NA	<0.856	NA	0.836 J	12.3	13.1	7.05	50.9	NA	NA	NA	NA	1.2	NA	11.1	NA	12.0	NA	NA	325	NA	NA	NA	
GP-5	4/3/2019	CCP	4-6 ft	NA	NA	95.9	2,630	6.99	NA	<0.931	NA	0.712 J	16.2	16.9	10.3	62.5	NA	NA	NA	NA	0.39	NA	17.1	NA	13.0	NA	NA	308	NA	NA	NA	
GP-6	2/4/2014	CCP	9-11 ft	NA	NA	65	850	NA	NA	ND	NA	ND	19	19	NA	NA	NA	27	NA	NA	11	NA	NA	4.1	ND	NA	NA	NA	NA	NA	NA	
GP-6	4/4/2019	CCP	9-10 ft	NA	NA	6.73	178	0.758	NA	0.118 J	NA	<1.11	10.0	10.0	5.18	11.0	NA	NA	687	0.050	NA	6.24	NA	0.880	NA	NA	21.7	NA	NA	NA	NA	
GP-7	2/4/2014	CCP	10-12 ft	NA	NA	55	1,700	NA	NA	ND	NA	ND	19	19	NA	NA	NA	11	NA	NA	0.26	NA	NA	4.3	ND	NA	NA	NA	NA	NA	NA	
GP-8	2/4/2014	CCP	11-15 ft	NA	NA	54	4,100	NA	NA	ND	NA	ND	20	20	NA	NA	NA	9.2	NA	NA	0.29	NA	NA	4.5	ND	NA	NA	NA	NA	NA	NA	
GP-11	2/4/2014	CCP	4-6 ft	NA	NA	16	450	NA	NA	ND	NA	ND	16	16	NA	NA	NA	23	NA	NA	0.35	NA	NA	ND	ND	NA	NA	NA	NA	NA	NA	
GP-12	2/4/2014	CCP	2-4 ft	NA	NA	52	2,000	NA	NA	ND	NA	ND	19	19	NA	NA	NA	14	NA	NA	0.28	NA	NA	2.1	ND	NA	NA	NA	NA	NA	NA	NA
SS1	2/18/2016	Soil/CCP	2-12 in	NA	ND	6.7	210	1.2	ND	ND	NA	NA	NA	28	25	47	NA	22	NA	2,400	0.052	ND	15	NA	ND	NA	120	1.3	88	100	NA	
SS1-Dup1	2/18/2016	Soil/CCP	2-12 in	NA	ND	6.5	260	1.4	ND	ND	NA	NA	NA	31	28	56	NA	29	NA	3,300	0.059	ND	18	NA	ND	NA	150	1.7	85	110	NA	
SS2	2/18/2016	Soil/CCP	2-12 in	NA	ND	24	830	3.5	ND	ND	NA	NA	NA	27	20	57	NA	38	NA	1,700	0.21	1.7	19	NA	2.4	ND	NA	190	1.2	81	110	NA
SS3	2/18/2016	Soil	2-12 in	NA	ND	4.5	100	0.80	ND	ND	NA	NA	NA	13	6.8	22	NA	14	NA	240	0.048	ND	5.3	NA	ND	NA	36	ND	41	28	NA	
SS-3A	8/27/2019	Soil	0-2 in	NA	NA	23.4	1,080	2.68	NA	0.226 J	NA	<1.51	18.4	18.4	9.99	37.9	NA	NA	NA	463	0.19	NA	13.6	NA	3.79	NA	NA	NA	NA	NA	NA	NA
SS4	2/18/2016	Soil	2-12 in	NA	ND	8.5	380	1.2	ND	ND	NA	NA	NA	22	12	29	NA	25	NA	910	0.061	ND	12	NA	ND	NA	51	ND	54	51	NA	
SS5	2/18/2016	Soil	2-12 in	NA	ND	4.8	130	0.89	ND	ND	NA	NA	NA	17	9.4	25	NA	27	NA	460	0.091	ND	7.9	NA	ND	NA	43	ND	47	48	NA	
SS6	2/18/2016	Soil	2-12 in	NA	ND	3.1	82	0.70	ND	ND	NA	NA	NA	35	7.6	23	NA	17	NA	410	0.038	ND	6.5	NA	ND	NA	25	ND	45	43	NA	
SS7	2/18/2016	Soil	2-12 in	NA	ND	3.1	84	0.60	ND	ND	NA	NA	NA	14	6.9	15	NA	13	NA	500	0.038	ND	5.9	NA	ND	NA	31	ND	37	37	NA	
HH-1	11/3/2016	Soil	0-1 ft	NA	<0.29	5.9	120	1.00	NA	<0.29	NA	0.45	20.55	21	7.9	25	NA	27	NA	350	0.052	NA	8.8	NA	0.69	NA	31	<0.58	48	50	NA	
HH-2	11/3/2016	Soil	0-1 ft	NA	<0.35	3.4	110	0.79	NA	<0.35	NA	0.54	19.46	20	8.4	17	NA	18	NA	360 BH	0.067	NA	12	NA	<0.71	NA	30	<0.71	41	35	NA	
HH-3	11/3/2016	Soil	0-1 ft	NA	<0.29	4.9	140	0.93	NA	<0.29	NA	0.43	13.67	14	12	21	NA	30	NA	260	0.085	NA	5.9	NA	1.0	NA	25	<0.58	48	43	NA	
HH-4	11/3/2016	Soil	0-1 ft	NA	<0.33	9.9	200	1.30	NA	<0.33	NA	0.46 J	17.54	18	7.8	31	NA	24	NA	350	0.078	NA	8.9	NA	2.4	NA	36	<0.65	53	100	NA	
HH-4	11/3/2016	Soil	0-1 ft	NA	<0.28	2.4	72	1.00	NA	<0.28	NA	0.50	44.5	45	16	37	NA	2.3	NA	630	<0.023	NA	33	NA	<0.56	NA	42	0.60	73	70	NA	
HH-5	11/3/2016	Soil	0-1 ft	NA	<0.30	2.4	73	0.75	NA	<0.30	NA	<0.14	23	23	8.4	19	NA	9.3	NA	410	<0.025	NA	14	NA	1.2	NA	23	<0.60	39	51	NA	
HH-6	10/27/2016	Soil	0-1 ft	NA	NA	NA	NA	NA	NA	NA	NA	<0.33	20	20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HH-7	10/27/2016	Soil	0-1 ft	NA	NA	NA	NA	NA	NA	NA	NA	<0.61	22	22	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
HH-8	10/27/2016	Soil	0-1 ft	NA	NA	3.6	100	1.00	NA	<0.30	NA	<0.35	19	19	12	29	NA	18	NA	570	0.036	NA	9.0	NA	<0.60	NA	28	<0.60	52	54	NA	
HH-9	4/3/2019	CCP	0-1 ft	NA	NA	3.37	131	0.398 J	NA	0.178 J	NA	<1.29	12.7	12.7	5.97	14.5	NA	NA	NA	260	0.31	NA	3.59	NA	0.722	NA	33.2	NA	NA	NA	NA	
HH-10	4/3/2019	CCP	0-1 ft	NA	NA	60.3	2,970	5.14	NA	0.162 J	NA	<1.60	13.8	13.8	9.84	51.3	NA	NA	NA	73.3	0.22	NA	17.1	NA	5.04	NA	269	NA	NA	NA	NA	
HH-11	4/3/2019	CCP	0-1 ft	NA	NA	42.5	3,260	5.30	NA	0.220 J	NA	0.467 J	18.7	19.2	13.4	55.3	NA	NA	NA	113	0.43	NA	23.5	NA	8.05	NA	234	NA	NA	NA	NA	
MW-6	11/2/2016	Soil	0-1 ft	NA	<0.26	2.9	39	0.61	NA	<0.26	NA	0.21 J	9.79	10	9.5	23	NA	12	NA	670	0.062	NA	8.2	NA	1.0	NA	22	0.81	31	77	NA	
MW-7	11/1/2016	Soil	0-1 ft	NA	<0.30	2.6	67	0.87	NA	<0.30	NA	0.89	9.11	10	3.9	180	NA	7.6	NA	100	0.030	NA	2.9	NA	<0.59	NA	6.7	<0.59	61	46	NA	
SED-3A	4/5/2019	Soil	0-1 ft	NA	NA	3.45	33.9	0.418 J	NA	<0.582	NA	<1.16	17.4	17.4	16.5	6.97	NA	NA	NA	560	<0.0054	NA	5.82	NA	0.237 J	NA	NA	9.6	NA	NA	NA	
SED-5A	4/4/2019	Soil	0-1 ft	NA	NA	1.25	13.5	0.156 J	NA	<0.571	NA	0.352 J	13.2	13.6	5.95	39.1	NA	NA	NA	243	0.0071	NA	4.38	NA	<0.571	NA	NA	10.9	NA	NA	NA	
SED-8	4/5/2019	Drainage Pathway Soil	2-6 in	NA	NA	2.41	49.1	0.313 J	NA	0.122 J	NA	<1.25	12.0	12.0	7.01	14.3	NA	NA	NA	423	0.063	NA	4.66	NA	1.01	NA	15.2	NA	NA	NA	NA	
SED-9	4/5/2019	Drainage Pathway Soil	2-6 in	NA	NA	1.16	33.8	0.199 J	NA	<0.660	NA	0.461 J	21																			

Table 1 (page 2 of 2)
Summary of Soil Analytical Data
828 Martin Luther King, Jr. Blvd.
Chapel Hill, North Carolina
H&H Job No. TCH-009

Notes:

Yellow highlighting indicates samples collected as part of April 2019 data gap sampling

Red highlighting indicates samples collected as part of August 2019 drainage pathway sampling

Soil concentrations are reported in milligrams per kilogram (mg/kg).

PSRG = North Carolina Department of Environmental Quality (DEQ) Preliminary Soil Remediation Goals (PSRGs) (May 2019); UCL = Upper Confidence Limit
95% UCL of site specific background ranges were calculated using EPA ProUCL 5.1

North Carolina Soil Background Range taken from *Elements in North American Soils, 2nd Edition* by James Dragun and Khaled Chekiri

*Not available for North Carolina. Used Eastern US Background Range

Bold denotes concentration above protection of groundwater PSRG and significantly above background.

Shading indicates concentration above residential PSRG and significantly above background.

Underlining indicates concentration above industrial PSRG and significantly above background.

ND = Not Detected; NA = Not Analyzed; NS = Not Specified; -- = statistical test not applicable to data set

J = Detected above method detection limit but below laboratory reporting limit; therefore, result is an estimated concentration

O1 = Analyte failed the method required serial dilution test and/or subsequent post-spike criteria. These failures indicate matrix interference.

J6 = The sample matrix interfered with the ability to make any accurate determination; spike value is low.

BH = Method blank greater than one-half laboratory reporting limit, but sample concentration greater than 10x the method blank.

A = Continuing Calibration Verification standard recovery (82%) is less than the lower control limit (90%). Result has possible low bias.

¹ denotes duplicate sample taken

² 95% UCL of Site Specific Background Values were calculated using values from samples collected through the Phase II RI

Analytical Methods

Metals by EPA Method 6010C or 6020B

Hexavalent Chromium by EPA Method 7196 or 7199 (Phase II RI and April 2019 Data Gap Samples)

Mercury by EPA Method 7471B