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Tuscaloosa, AL 35401
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September 5, 2019

Transmitted Via: Email (tvodopich@tuscaloosa.com)

Mr. Tyler Vodopich, EI
Graduate Engineer
Infrastructure and Public Services
City of Tuscaloosa
2201 University Boulevard
Tuscaloosa, Alabama 35401

Subject: *Sampling and Analytical Testing for Lead-Based Paint*
Old Tuscaloosa City Hall Building
2201 University Boulevard
Tuscaloosa, Alabama
TTL Project No.: 000190101007.00

Dear Mr. Vodopich:

In accordance with your request, TTL, Inc. (TTL) is pleased to provide this report documenting the results of sampling and analytical testing for lead-based paint on selected windows in the Old Tuscaloosa City Hall Building in Tuscaloosa, Tuscaloosa County, Alabama. This report summarizes the results of total lead analytical testing as wells as additional testing for toxicity characteristic leaching procedure (TCLP) lead.

BACKGROUND INFORMATION

The City of Tuscaloosa plans to restore/replace some of the older windows in the old portion of Tuscaloosa City Hall. The old portion of the building was constructed in the early 1900s. Based on the age of the building, the City was requesting lead paint testing be performed on the windows. The older portion of City Hall is three stories plus an attic. Based on information provided by The City there are approximately 79 windows in the building including the attic. Two additional windows (not included in this count) were recently replaced and are not included in the total window count. Of the 79 windows associated with the structure, TTL developed a sampling plan that included collecting samples from 29 of the windows.

SAMPLE COLLECTION

During the paint sampling completed on May 22, 2019, samples were collected from 29 windows from all three stories and the attic. TTL representative, Marc McCracken, used a paint scraper, ridged putty knife or similar device to obtain paint chips from the exterior painted surface to the wood/metal surface (full thickness or all layers) for each of the 29 windows. All first-floor samples were sampled from ground level or using a ladder. Second and third story windows were accessed using a 45-foot articulating man lift. The TTL technician assigned to the project had completed Boom-Lift Operator Training. Each sample consisted of between 0.5 and 1.0 gram of paint chips. Paint chips from each window were placed in sealable baggies.

There were eight samples taken from the first story of the building (N1-1, N1-2, N1-3, S1-1, S1-2, W1-1, W1-2, and E1-1). TTL representative sampled eight windows from the second story of the building (E2-1, S2-1, S2-2, W2-1, W2-2, N2-1, N2-2, and N2-3). A total of nine samples were taken from the third story of the building (E3-1, E3-2, N3-1, N3-2, W3-1, W3-2, S3-1, S3-2, and S3-3) and a total of four samples were taken from the attic (A-1, A-2, A-3). There was a total of seven samples taken from the interior of the building (N3-1, N3-2, S3-2, S3-3, E3-2, W3-1, and W3-2). The letter assigned to each sample (N, E, S, or W) designates the side of the building from which the sample was taken. The first number assigned to each sample (1, 2 or 3) designates the building story from which the sample was collected. Sample chain of custody forms were also completed to accompany the samples. Samples were delivered to Pace Analytical in Mt. Juliet, Tennessee for analysis of total lead (Method 6010).

SUMMARY OF ANALYTICAL RESULTS

Total Lead Analysis

Laboratory analytical results indicated elevated concentrations of lead in all 29 window samples. Total lead concentrations ranged from 517 mg/kg in sample E3-2 to 161,000 mg/kg in sample W2-1. The attached Table summarizes the analytical results for total lead. Each of the total lead concentrations exceeded the standard dilution of 20 times (100 mg/kg) the hazardous concentration limit for lead of 5 milligrams per liter (mg/L) by TCLP. Based on this finding, TTL selected 11 of the 29 samples for further analysis for TCLP lead. In order to evaluate a representative cross section of samples for TCLP concentrations, the 11 samples selected for TCLP analysis yielded total lead concentrations ranging from 7,290 mg/kg in sample A-3 to 160,000 mg/kg in sample N2-2.

TCLP Lead Analysis

Using a 20x factor (20 is the dilution factor used in the TCLP test) any total lead concentration in excess of 100 mg/kg (5 mg/L x 20) would be suspect to exceed the TCLP threshold for hazardous waste classification of 5 mg/L.

TCLP lead concentrations for the 11 samples ranged from 96 mg/l in sample N2-1 to 341 mg/l in sample N1-1. Each of the 11 samples analyzed for TCLP lead yielded concentrations well in excess of the hazardous concentration threshold for lead of 5 mg/l. The attached Table summarizes the results of TCLP lead analyses.

RECOMMENDATION

As noted previously, the TCLP test is used to determine whether a sample is hazardous and therefore should be managed as a hazardous waste during the course of removal and disposal. The analytical results indicate that each of the 11 paint chip samples analyzed by the TCLP method characterize as hazardous waste. While only selected samples were subjected for the TCLP analysis, TTL feels that the analytical results are representative of what would be anticipated for the preponderance, if not all, of the windows associated with the structure. Given this assumption, TTL recommends that all windows in the structure that are earmarked for removal be treated as a hazardous waste and disposed accordingly.

Other than OSHA regulations which cover worker health and safety, TTL is not aware of other regulations that should be considered during the window replacement. TTL recommends that the contractor selected by the City have a Renovation, Repair and Painting (RRP) certification or licensed supervisor on site to supervise the window removal and disposal. TTL would be pleased to assist the City in identifying an appropriately-licensed contractor to perform the removal.

We appreciate the opportunity to provide our services to you on this project. Please contact the undersigned at 205.345.0816 should you have any questions.

Sincerely,

TTL, Inc.

J. Mark Tanner, P.G.
Senior Principal Geologist

Kenneth M. Bailey, P.E.
Principal Engineer

Table: Summary of Results from Lead Analysis
Appendix: Laboratory Analytical Data Reports and Chains of Custody Forms

TABLE

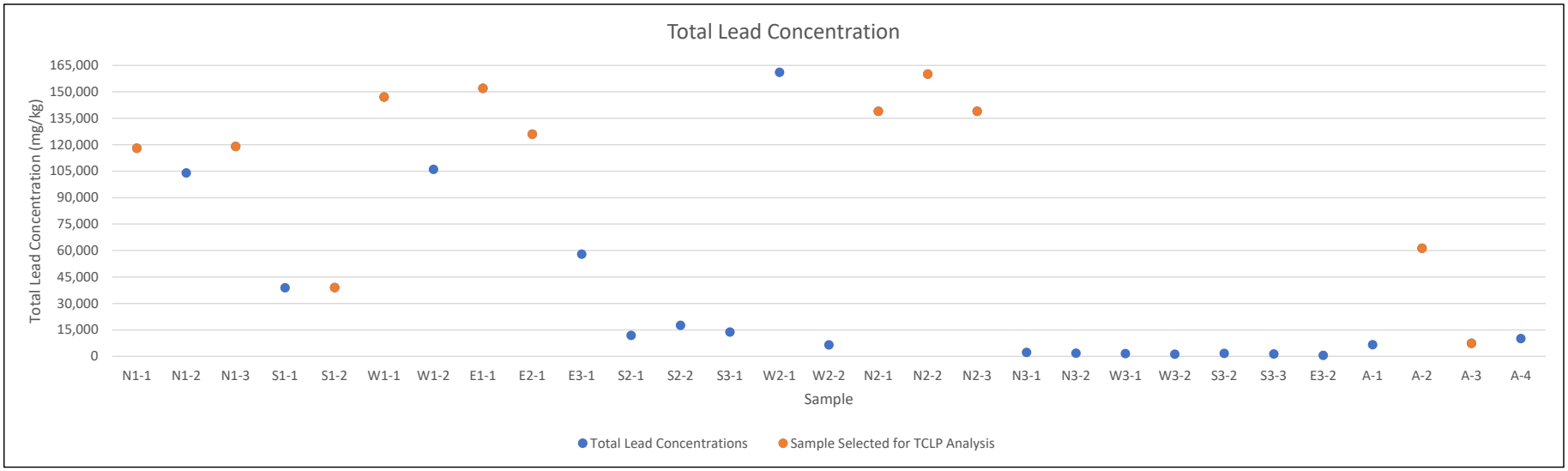
Summary of Results from Lead Analysis

Summary of Results from Lead Analysis

Facility Name: Tuscaloosa City Hall Building
Address: 2201 Tuscaloosa City Hall Building
Tuscaloosa, Alabama
TTL Project No.: 000190101007.00
Consulting Firm: TTL, Inc.

Sample Designation	N1-1	N1-2	N1-3	S1-1	S1-2	W1-1	W1-2	E1-1	E2-1	E3-1	S2-1	S2-2	S3-1	W2-1	W2-2
Total Lead (mg/kg)	118,000	104,000	119,000	38,800	38,900	147,000	106,000	152,000	126,000	57,900	11,800	17,500	13,700	161,000	6,450
TCLP Lead (mg/L)	341	NA	270	NA	163	281	NA	126	253	NA	NA	NA	NA	NA	NA
Sample Designation	N2-1	N2-2	N2-3	N3-1	N3-2	W3-1	W3-2	S3-2	S3-3	E3-2	A-1	A-2	A-3	A-4	
Total Lead (mg/kg)	139000	160000	139000	2150	1690	1560	1190	1580	1240	517	6520	61300	7290	10000	
TCLP Lead (mg/L)	96	167	208	NA	NA	NA	NA	NA	NA	NA	NA	159	128	NA	

TCLP - Toxicity Characteristic Leaching Procedure
mg/kg - milligrams per kilogram
mg/L - milligrams per liter
NA - Not Analyzed



APPENDIX

Laboratory Analytical Data Reports and Chains of Custody Forms

ANALYTICAL REPORT

June 10, 2019

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

TTL Inc. - Tuscaloosa, AL

Sample Delivery Group:	L1104307
Samples Received:	05/31/2019
Project Number:	00190101007.00
Description:	
Site:	CITY HALL
Report To:	Mr. Mark Tanner 3516 Greensboro Ave. Tuscaloosa, AL 35401

Entire Report Reviewed By:

Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace National is performed per guidance provided in laboratory standard operating procedures: 060302, 060303, and 060304.

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1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

N1-1 L1104307-01 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 09:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:38	TRB	Mt. Juliet, TN

N1-2 L1104307-02 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 09:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:36	TRB	Mt. Juliet, TN

N1-3 L1104307-03 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 10:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:41	TRB	Mt. Juliet, TN

S1-1 L1104307-04 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 10:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 20:51	TRB	Mt. Juliet, TN

S1-2 L1104307-05 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 10:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 20:54	TRB	Mt. Juliet, TN

W1-1 L1104307-06 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 10:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:44	TRB	Mt. Juliet, TN

W1-2 L1104307-07 PAINT

Collected by: Marc M. | Collected date/time: 05/16/19 11:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:47	TRB	Mt. Juliet, TN

E1-1 L1104307-08 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 09:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:50	TRB	Mt. Juliet, TN

E2-1 L1104307-09 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 09:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 07:53	TRB	Mt. Juliet, TN

E3-1 L1104307-10 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 09:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 08:10	TRB	Mt. Juliet, TN

S2-1 L1104307-11 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 09:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 21:11	TRB	Mt. Juliet, TN

S2-2 L1104307-12 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 10:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 21:14	TRB	Mt. Juliet, TN

S3-1 L1104307-13 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 10:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 21:17	TRB	Mt. Juliet, TN

W2-1 L1104307-14 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 10:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 08:13	TRB	Mt. Juliet, TN

W2-2 L1104307-15 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 10:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 21:29	TRB	Mt. Juliet, TN

N2-1 L1104307-16 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 11:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 08:16	TRB	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

N2-2 L1104307-17 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 11:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 08:18	TRB	Mt. Juliet, TN

N2-3 L1104307-18 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 11:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	10	06/03/19 14:18	06/08/19 08:21	TRB	Mt. Juliet, TN

N3-1 L1104307-19 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 11:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 21:40	TRB	Mt. Juliet, TN

N3-2 L1104307-20 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 12:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289957	1	06/03/19 14:18	06/07/19 21:43	TRB	Mt. Juliet, TN

W3-1 L1104307-21 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 12:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 10:29	TRB	Mt. Juliet, TN

W3-2 L1104307-22 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 12:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 10:32	TRB	Mt. Juliet, TN

S3-2 L1104307-23 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 12:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 10:34	TRB	Mt. Juliet, TN

S3-3 L1104307-24 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 13:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 10:37	TRB	Mt. Juliet, TN

E3-2 L1104307-25 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 13:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 10:39	TRB	Mt. Juliet, TN

A-1 L1104307-26 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 13:30 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 10:41	TRB	Mt. Juliet, TN

A-2 L1104307-27 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 13:45 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	5	06/05/19 08:10	06/07/19 11:25	TRB	Mt. Juliet, TN

A-3 L1104307-28 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 14:00 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 11:07	RDS	Mt. Juliet, TN

A-4 L1104307-29 PAINT

Collected by: Marc M. | Collected date/time: 05/22/19 14:15 | Received date/time: 05/31/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Metals (ICP) by Method 6010B	WG1289958	1	06/05/19 08:10	06/07/19 11:10	RDS	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Project Manager

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	118000000		114000	344000	10	06/08/2019 07:38	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	104000000		154000	468000	10	06/08/2019 07:36	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	119000000		160000	485000	10	06/08/2019 07:41	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	38800000		14800	44800	1	06/07/2019 20:51	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	38900000		14400	43700	1	06/07/2019 20:54	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	147000000		115000	349000	10	06/08/2019 07:44	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	106000000		92700	281000	10	06/08/2019 07:47	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	152000000		129000	390000	10	06/08/2019 07:50	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	126000000		111000	337000	10	06/08/2019 07:53	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	57900000		122000	371000	10	06/08/2019 08:10	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	11800000		13900	42000	1	06/07/2019 21:11	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	17500000		8840	26800	1	06/07/2019 21:14	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	13700000		10800	32900	1	06/07/2019 21:17	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	161000000		133000	404000	10	06/08/2019 08:13	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	6540000		14600	44100	1	06/07/2019 21:29	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	139000000		97000	294000	10	06/08/2019 08:16	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	160000000		108000	327000	10	06/08/2019 08:18	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	139000000		136000	412000	10	06/08/2019 08:21	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	2150000		15600	47200	1	06/07/2019 21:40	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	1690000		14600	44200	1	06/07/2019 21:43	WG1289957

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	1560000		14300	43300	1	06/07/2019 10:29	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	1190000		15000	45600	1	06/07/2019 10:32	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	1580000		14800	45000	1	06/07/2019 10:34	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	1240000		15900	48100	1	06/07/2019 10:37	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	517000		14200	42900	1	06/07/2019 10:39	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	6520000		15400	46700	1	06/07/2019 10:41	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	61300000		74200	225000	5	06/07/2019 11:25	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	7290000		14700	44500	1	06/07/2019 11:07	WG1289958

Metals (ICP) by Method 6010B

Analyte	Result ug/kg	Qualifier	MDL ug/kg	RDL ug/kg	Dilution	Analysis date / time	Batch
Lead	10000000		14600	44300	1	06/07/2019 11:10	WG1289958

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Method Blank (MB)

(MB) R3419080-1 06/07/19 20:17

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Lead	U		15300	50000

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3419080-2 06/07/19 20:20 • (LCSD) R3419080-3 06/07/19 20:23

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead	604000	580000	571000	96.0	94.5	80.0-120			1.55	20

L1104307-02 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1104307-02 06/07/19 20:26 • (MS) R3419080-6 06/07/19 20:34 • (MSD) R3419080-7 06/07/19 20:37

Analyte	Spike Amount ug/kg	Original Result ug/kg	MS Result ug/kg	MSD Result ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	500000	101000000	116000000	99500000	3130	0.000	1	75.0-125	E V	E V	15.5	25

Method Blank (MB)

(MB) R3418779-1 06/07/19 09:52

Analyte	MB Result ug/kg	MB Qualifier	MB MDL ug/kg	MB RDL ug/kg
Lead	U		15300	50000

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3418779-2 06/07/19 09:54 • (LCSD) R3418779-3 06/07/19 09:57

Analyte	Spike Amount ug/kg	LCS Result ug/kg	LCSD Result ug/kg	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead	604000	619000	618000	103	102	80.0-120			0.198	20

L1104157-21 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1104157-21 06/07/19 09:59 • (MS) R3418779-6 06/07/19 10:07 • (MSD) R3418779-7 06/07/19 10:09

Analyte	Spike Amount ug/kg	Original Result ug/kg	MS Result ug/kg	MSD Result ug/kg	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	500000	1740000	2290000	2270000	129	119	1	75.0-125	V		0.922	25

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Abbreviations and Definitions

MDL	Method Detection Limit.
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
V	The sample concentration is too high to evaluate accurate spike recoveries.

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

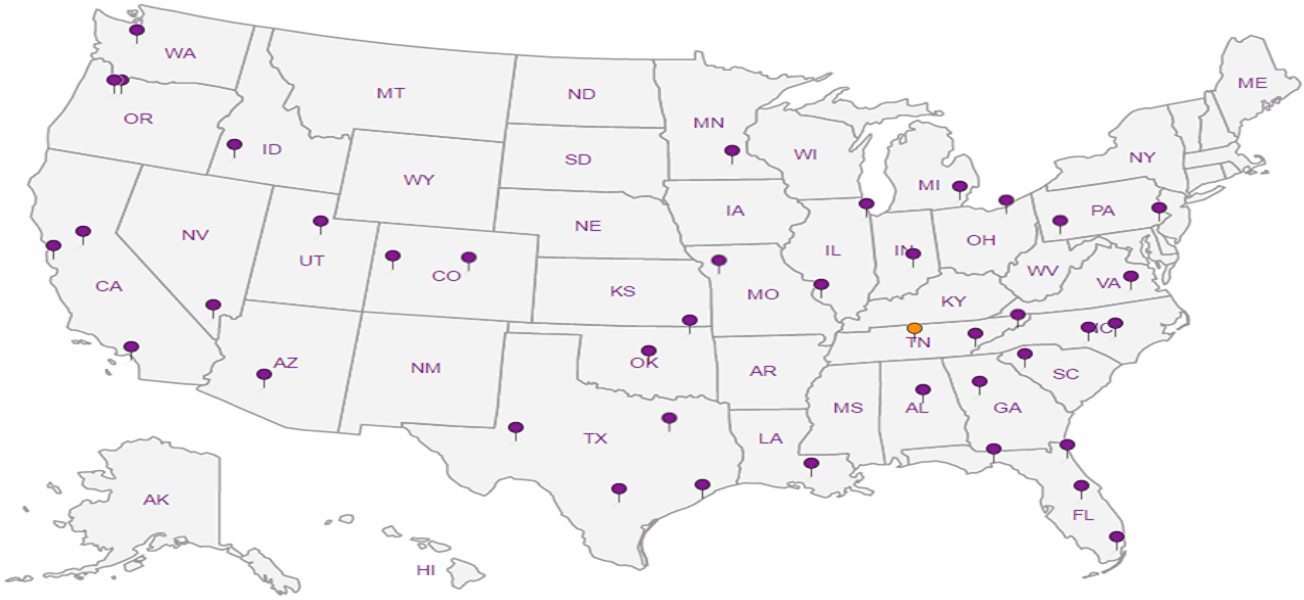
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



TTL
Technology and Tradition

J243

Sheet 1 of 3

Chain of Custody Form

Client: City of Tuscaloosa
Contact: Marc McCracken / Mark Tanner
Mailing Address: 3516 Greensboro Ave.
City, State, Zip: Tuscaloosa, AL 35401
Phone No.: 205.343-0653
Date: 05/16/19 & 05/22/19
Sampled By: Marc McCracken
Sample Site: City Hall
TTL Job No.: 00190101007.00 **Client P.O. #**

Sample Security Requirements

1. Condition of Contents:
2. Sealed for Shipping By:
3. Initial Contents Temp.: Amb °C Seal Applied Yes ____ No ____
4. Sampling Status: Complete Expected Completion Date
5. Custody Seal Intact Upon Receipt by Laboratory: Yes ____ No ____
6. Condition of Contents:
7. Comments:
8. Reporting Status: Routine; ASAP By ____; Rush By ____

L1164307

Date	Time	Sample ID/Description	Sample Type	Sample Method		# of Containers	Preservatives	Analysis Parameters	
			Solid, Etc.	Grab	Comp				
5/16	930	N1-1	Solid	G		1	None	Lead based paint Method 6010	-01
5/16	945	N1-2							-02
5/16	1000	N1-3							03
5/16	1015	S1-1							04
5/16	1030	S1-2							05
5/16	1045	W1-1							06
5/16	1100	W1-2							07
5/22	0900	E1-1							08
5/22	0915	E2-1							09
5/22	0930	E3-1						RAD SCREEN: <0.5 mR/hr	10
5/22	0945	S2-1							11

CUSTODY TRANSFERS PRIOR TO SHIPPING

Relinquished by: (signed) Date/Time	Received by (signed) Date/Time
1 [signature] 5/22/19 15:00	[signature] 5/31/19 08 0900
2	2
3	3
4	4

Fedex G. 5/31/19 29 bags, no TB

SHIPPING DETAILS

Air Bill #:
Method of Shipment:
Received By Lab:
Date/Time

NOTE: Please read terms and conditions between TTL, Inc. and client on back of form.

TTL
Technology and Tradition

Chain of Custody Form

Client: City of Tuscaloosa
Contact: Mark Tauner
Mailing Address:
City, State, Zip:
Phone No.:
Date:
Sampled By: MM
Sample Site: City Hall
TTL Job No.: **Client P.O. #**

Sample Security Requirements

1. Condition of Contents:
2. Sealed for Shipping By:
3. Initial Contents Temp.: Amb °C Seal Applied Yes ____ No ____
4. Sampling Status: Complete Expected Completion Date
5. Custody Seal Intact Upon Receipt by Laboratory: Yes ____ No ____
6. Condition of Contents:
7. Comments:
8. Reporting Status: Routine; ASAP By ____; Rush By ____

L1164307

Date	Time	Sample ID/Description	Sample Type	Sample Method		# of Containers	Preservatives	Analysis Parameters	
			Solid, Etc.	Grab	Comp				
5/22	1000	S2-2	Solid	G		1	none	Method 6010	12
5/22	1015	S3-1							13
5/22	1030	W2-1							14
5/22	1045	W2-2							15
5/22	1100	N2-1							16
5/22	1115	N2-2							17
5/22	1130	N2-3							18
5/22	1145	N3-1							19
5/22	1200	N3-2							20
5/22	1215	W3-1							21
5/22	1230	W3-2							22

RAD SCREEN: <0.5 mR/hr

CUSTODY TRANSFERS PRIOR TO SHIPPING

Relinquished by: (signed) Date/Time	Received by (signed) Date/Time
1 [signature] 5-22-19 15:00	
2	2
3	3
4	4

SHIPPING DETAILS

Air Bill #:
Method of Shipment:
Received By Lab:
Date/Time

TTL, Inc. - Tuscaloosa Office/Laboratory: 3516 Greensboro Avenue, Tuscaloosa, Alabama 35401, Telephone (205) 345-0816, FAX (205) 343-0609
TTL, Inc. - Montgomery Office: 3743 Gunter Park Drive West, Montgomery, Alabama 36109, Telephone (334) 244-0766, FAX (334) 244-6668

NOTE: Please read terms and conditions between TTL, Inc. and client on back of form.

TTL
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Chain of Custody Form

Client: City of Tuscaloosa
Contact: Mark Tanner
Mailing Address:
City, State, Zip:
Phone No.:
Date:
Sampled By: MM
Sample Site: City Hall
TTL Job No.: Client P.O. #

Sample Security Requirements

1. Condition of Contents:
2. Sealed for Shipping By:
3. Initial Contents Temp.: Amb °C Seal Applied Yes ____ No ____
4. Sampling Status: Complete Expected Completion Date
5. Custody Seal Intact Upon Receipt by Laboratory: Yes ____ No ____
6. Condition of Contents:
7. Comments:
8. Reporting Status: Routine; ASAP By ____; Rush By ____

L1164307

Date	Time	Sample ID/Description	Sample Type	Sample Method		# of Containers	Preservatives	Analysis Parameters
			Solid, Etc.	Grab	Comp			
5/22	1245	S3-2				1	none	Method 6010 23
5/22	1300	S3-3	Solid	G				24 ~~23~~
5/22	1315	E3-2						25 ~~24~~
5/22	1330	A-1						26 ~~25~~
5/22	1345	A-2						27 ~~26~~
5/22	1400	A-3						28 ~~27~~
5/22	1415	A-4						29
								RAD SCREEN: <0.5 mR/hr

CUSTODY TRANSFERS PRIOR TO SHIPPING

Relinquished by: (signed) Date/Time	Received by (signed) Date/Time
1 [signature] 5-22-19 15:00	1
2	2
3	3
4	4

SHIPPING DETAILS

Air Bill #:
Method of Shipment:
Received By Lab:
Date/Time

TTL, Inc. - Tuscaloosa Office/Laboratory: 3516 Greensboro Avenue, Tuscaloosa, Alabama 35401, Telephone (205) 345-0816, FAX (205) 343-0609
TTL, Inc. - Montgomery Office: 3743 Gunter Park Drive West, Montgomery, Alabama 36109, Telephone (334) 244-0766, FAX (334) 244-6668

NOTE: Please read terms and conditions between TTL, Inc. and client on back of form.

Pace Analytical National Center for Testing & Innovation
Cooler Receipt Form

Client: TTLTAL	SDG#:	L1104367	
Cooler Received/Opened On: 5/31/19	Temperature:	Amb	
Received By: Jeremy Webb			
Signature:			

Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	✓		
COC Signed / Accurate?		✓	
Bottles arrive intact?		✓	
Correct bottles used?		✓	
Sufficient volume sent?		✓	
If Applicable			
VOA Zero headspace?			
Preservation Correct / Checked?			

ANALYTICAL REPORT

August 26, 2019

TTL Inc. - Tuscaloosa, AL

Sample Delivery Group:	L1130444
Samples Received:	08/09/2019
Project Number:	00190101007.00
Description:	
Report To:	Mr. Mark Tanner 3516 Greensboro Ave. Tuscaloosa, AL 35401

Entire Report Reviewed By:

Craig Cothron
Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

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N1-1 L1130444-01 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/01/19 14:00	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 16:48	EL	Mt. Juliet, TN

N1-3 L1130444-02 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/01/19 14:10	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 16:51	EL	Mt. Juliet, TN

N2-1 L1130444-03 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/01/19 14:20	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 16:53	EL	Mt. Juliet, TN

N2-2 L1130444-04 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/01/19 14:40	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 16:56	EL	Mt. Juliet, TN

N2-3 L1130444-05 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/01/19 14:50	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 16:59	EL	Mt. Juliet, TN

W1-1 L1130444-06 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/01/19 15:00	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 17:01	EL	Mt. Juliet, TN

E1-1 L1130444-07 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/02/19 08:00	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 17:04	EL	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

E2-1 L1130444-08 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/02/19 08:10	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 17:07	EL	Mt. Juliet, TN

S1-2 L1130444-09 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/02/19 08:20	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 17:09	EL	Mt. Juliet, TN

A-2 L1130444-10 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/02/19 08:30	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 17:12	EL	Mt. Juliet, TN

A-3 L1130444-11 Waste

Collected by	Collected date/time	Received date/time
Marc M.	08/02/19 08:40	08/09/19 08:45

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Preparation by Method 1311	WG1333247	1	08/22/19 13:12	08/22/19 13:12	IDW	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG1333891	1	08/23/19 13:06	08/23/19 17:20	EL	Mt. Juliet, TN

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Craig Cothron
Project Manager

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.47		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.01		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	341		0.100	5	1	08/23/2019 16:48	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.10		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.06		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	270		0.100	5	1	08/23/2019 16:51	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.01		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.10		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	196		0.100	5	1	08/23/2019 16:53	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.21		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.11		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	167		0.100	5	1	08/23/2019 16:56	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.23		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.08		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	208		0.100	5	1	08/23/2019 16:59	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.27		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.06		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	281		0.100	5	1	08/23/2019 17:01	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.42		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.13		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	126		0.100	5	1	08/23/2019 17:04	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.27		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.07		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	253		0.100	5	1	08/23/2019 17:07	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.11		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.03		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	163		0.100	5	1	08/23/2019 17:09	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.32		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.19		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	159		0.100	5	1	08/23/2019 17:12	WG1333891

Preparation by Method 1311

Analyte	Result	Qualifier	Prep date / time	Batch
TCLP Extraction	-		8/22/2019 1:12:40 PM	WG1333247
Fluid	1		8/22/2019 1:12:40 PM	WG1333247
Initial pH	6.23		8/22/2019 1:12:40 PM	WG1333247
Final pH	5.14		8/22/2019 1:12:40 PM	WG1333247

Metals (ICP) by Method 6010B

Analyte	Result mg/l	Qualifier	RDL mg/l	Limit mg/l	Dilution	Analysis date / time	Batch
Lead	128		0.100	5	1	08/23/2019 17:20	WG1333891

Method Blank (MB)

(MB) R3443886-1 08/23/19 16:17

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Lead	U		0.0333	0.100

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3443886-2 08/23/19 16:20 • (LCSD) R3443886-3 08/23/19 16:22

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Lead	10.0	10.2	10.2	102	102	80.0-120			0.0617	20

L1130372-03 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1130372-03 08/23/19 16:25 • (MS) R3443886-5 08/23/19 16:30 • (MSD) R3443886-6 08/23/19 16:32

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	10.0	0.161	10.2	10.3	100	101	1	75.0-125			1.16	20

L1130863-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1130863-01 08/23/19 16:35 • (MS) R3443886-7 08/23/19 16:38 • (MSD) R3443886-8 08/23/19 16:40

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Lead	10.0	ND	10.1	10.2	101	102	1	75.0-125			1.04	20

1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN-03-2002-34
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	n/a
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LAO00356
Kentucky [1 6]	90010	South Carolina	84004
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana [1]	LA180010	Texas	T104704245-18-15
Maine	TN0002	Texas [5]	LAB0152
Maryland	324	Utah	TN00003
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	460132
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	9980939910
Montana	CERT0086	Wyoming	A2LA

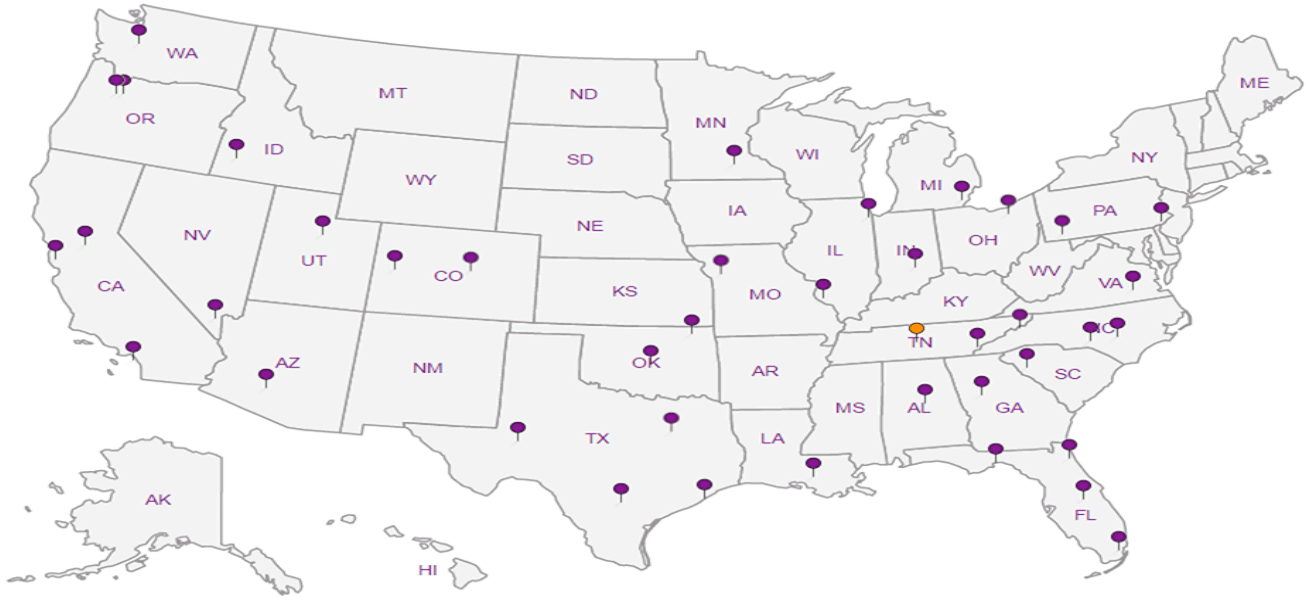
Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

E134

ALL SHADED AREAS are for LAB USE

Company: TTL, Inc.

Billing Information: TTL Inc 3516 Greensboro Ave. Tuscaloosa, AL 35401

Address: 3516 Greensboro Ave.

Report To: Mark Tanner

Email To: mtanner@ttlus.com

Copy To:

Site Collection Info/Address: Tuscaloosa City Hall

Customer Project Name/Number: 00190101007.00

State: AL County/City: Tuscaloosa Time Zone Collected: [ ] PT [ ] MT [✓] CT [ ] ET

Phone: 205-345-0816
Email: mtanner@ttlus.com

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [✓] No

Collected By (print): Marc McCracken

Purchase Order #:
Quote #:

DW PWS ID #:
DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [ ] Yes [✓] No

Sample Disposal:
[✓] Dispose as appropriate [ ] Return
[ ] Archive: _____
[ ] Hold: _____

Rush:
[ ] Same Day [ ] Next Day
[ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day
(Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No
Analysis: _____

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses

TPH

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Lab Sample # / Comments
N1-1	SL	G	8/1	2:00p				1	1130444.01
N1-3	SL	G	8/1	2:10p				1	02
N2-1	SL	G	8/1	2:20p				1	03
N2-2	SL	G	8/1	2:40p				1	04
N2-3	SL	G	8/1	2:50p				1	05
W1-1	SL	G	8/1	3:00p				1	06
E1-1	SL	G	8/2	8:00a				1	07
E2-1	SL	G	8/2	8:10a				1	08
S1-2	SL	G	8/2	8:20a				1	09
A-2	SL	G	8/2	8:30a				1	10

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y	N	NA
Custody Signatures Present	Y	N	NA
Collector Signature Present	Y	N	NA
Bottles Intact	Y	N	NA
Correct Bottles	Y	N	NA
Sufficient Volume	Y	N	NA
Samples Received on Ice	Y	N	NA
VOA - Headspace Acceptable	Y	N	NA
USDA Regulated Soils	Y	N	NA
Samples in Holding Time	Y	N	NA
Residual Chlorine Present	Y	N	NA
Cl Strips: _____			
Sample pH Acceptable	Y	N	NA
pH Strips: _____			
Sulfide Present	Y	N	NA
Lead Acetate Strips: _____			

LAB USE ONLY:
Lab Sample # / Comments:

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 775915785332449350

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: _____oC
Cooler 1 Therm Corr. Factor: _____oC
Cooler 1 Corrected Temp: _____oC
Comments:
recill

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	8/6/19 11:10		8/9 0945
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

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CHAIN-OF-CUSTODY Analytical Request Document

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevent fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

ALL SHADED AREAS are for LAB USE ONLY

Company: TTL, Inc.

Address: 3514 Greensboro Ave

Report To: Mark Tanner

Copy To:

Billing Information: TTL, Inc. 3514 Greensboro Ave Tuscaloosa, AL 35401

Email To: mtanner@ttlusa.com

Site Collection Info/Address: Tuscaloosa City

Customer Project Name/Number: 00190101007.00

State: AL County/City: Tuscaloosa Time Zone Collected: [ ] PT [ ] MT [✓] CT [ ] ET

Phone: 205-345-0816

Email: mtanner@ttlusa.com

Site/Facility ID #:

Compliance Monitoring? [ ] Yes [✓] No

Collected By (print): Marc McCracken

Purchase Order #:

Quote #:

DW PWS ID #:

DW Location Code:

Collected By (signature):

Turnaround Date Required:

Immediately Packed on Ice: [ ] Yes [✓] No

Sample Disposal: [✓] Dispose as appropriate [ ] Return [ ] Archive: _____ [ ] Hold: _____

Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)

Field Filtered (if applicable): [ ] Yes [ ] No

Analysis: _____

Container Preservative Type **

Lab Project Manager:

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Analyses: TCLP

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips: _____	
Sample pH Acceptable	Y N NA
pH Strips: _____	
Sulfide Present	Y N NA
Lead Acetate Strips: _____	

LAB USE ONLY:
Lab Sample # / Comments:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns	Lab Sample # / Comments
A-3	SL	G	8/2	8:40a				1	1130444-11

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2449351

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#: _____
Cooler 1 Temp Upon Receipt: _____oC
Cooler 1 Therm Corr. Factor: _____oC
Cooler 1 Corrected Temp: _____oC
Comments: rec'd

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	8/6/19 11:10am		8/9 0845
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: _____ of: _____

Matt Shacklock

Importance: High

Pace Analytical®
National Center for Testing & Innovation

Login #: 1130444	Client: TTLTAL	Date: 8/9/19	Evaluated by: Troy Dunlap

Non-Conformance (check applicable items)

	Sample Integrity		Chain of Custody Clarification		
	Parameter(s) past holding time		Login Clarification Needed		**If Broken Container:**
	Temperature not in range		Chain of custody is incomplete		Insufficient packing material around container
	Improper container type		Please specify Metals requested.		Insufficient packing material inside cooler
	pH not in range.	X	Please specify TCLP requested.		Improper handling by carrier (FedEx / UPS / Courie
	Insufficient sample volume.		Received additional samples not listed on coc.		Sample was frozen
	Sample is biphasic.		Sample ids on containers do not match ids on coc		Container lid not intact
	Vials received with headspace.		Trip Blank not received.		**If no Chain of Custody:**
	Broken container		Client did not "X" analysis.		Received by:
	Broken container:		Chain of Custody is missing		Date/Time:
	Sufficient sample remains				Temp./Cont. Rec./pH:
					Carrier:
					Tracking#

Login Comments: What TCLP?

Client informed by:		Call	x	Email		Voice Mail		Date:8/19/19	Time:900
TSR Initials:cc	Client Contact: Mark Tanner								

Login Instructions:

TCLP PBICP.