
APPENDIX C

EDS VALIDATED DATA PACKAGE

**DATA VALIDATION SUMMARY REPORT
CAMP DAWSON, WEST VIRGINIA**

Client: Weston Solutions, Inc., West Chester, Pennsylvania
 SDG: 100700
 Laboratory: CT Laboratories, Baraboo, Wisconsin
 Site: Camp Dawson, Kingwood, West Virginia
 Date: November 26, 2013

EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	CDW-KD-03-SS01-00	381281	Soil
2	CDW-KD-13-SS01-05	381282	Soil
2MS	CDW-KD-13-SS01-05MS	381282MS	Soil
2MSD	CDW-KD-13-SS01-05MSD	381282MSD	Soil
3	CDW-KD-16-SS01-00	381283	Soil
4	CDW-KD-23-SS01-00	381284	Soil
5†	CDW-KD-23-SS01-00	381285	Soil
5MS†	CDW-KD-23-SS01-00MS	381285MS	Soil
5MSD†	CDW-KD-23-SS01-00MSD	381285MSD	Soil
6†	CDW-KD-07-SS01-00	381286	Soil
7†	CDW-KD-12-SS02-00	381287	Soil
8†	CDW-KD-23-SS02-00	381288	Soil
9	CDW-KD-35-SS01-00	381289	Soil
10	CDW-KD-35-SS01-02	381290	Water
10MS	CDW-KD-35-SS01-02MS	381290MS	Water
10MSD	CDW-KD-35-SS01-02MSD	381290MSD	Water
11	CDW-KD-39-SS01-00	381291	Soil
12	CDW-KD-39-SS01-01	381292	Soil
13	CDW-KD-AA-FB01-04	381293	Water
14	CDW-KD-49-SS01-00	381294	Soil

† - TCLP Lead

A full data validation was performed on the analytical data twelve soil samples, one aqueous equipment rinsate sample and one aqueous field blank sample collected on October 7-10, 2013 by Weston Solutions at the Camp Dawson site in West Virginia. The samples were analyzed under the Environmental Protection Agency (USEPA) "Test Methods for the Evaluation of Solid Waste, USEPA SW-846, Third Edition, September 1986, with revisions".

Specific method references are as follows:

Analysis

Lead/TCLP Lead

Method References

USEPA SW-846 Method 6010C

The data have been validated according to the protocols and quality control (QC) requirements of the analytical methods, the Final UFP Quality Assurance Project Plan for Camp Dawson, September 2013, and the USEPA National Functional Guidelines for Inorganic Data Review as follows:

- The Final Uniform Federal Policy Quality Assurance Project Plan for Camp Dawson, Kingwood, West Virginia, September 2013;
- The USEPA “Contract Laboratories Program National Functional Guidelines for Inorganic Superfund Data Review,” January 2010;
- and the reviewer's professional judgment.

The following items/criteria were reviewed for this report:

Inorganics

- Holding times and sample preservation
- Initial and continuing calibration verifications
- Method blank and field blank contamination
- ICP Interference Check Sample
- Laboratory Control Sample (LCS) recoveries
- Matrix Spike/Matrix Spike Duplicate Analysis
- Duplicate Sample Analysis
- ICP Serial Dilution
- Compound Quantitation
- Field Duplicate sample precision

Overall Usability Issues:

There were no rejections of data. Overall the data is acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedences of QC criteria.

Lead & TCLP Lead

Holding Times

- All samples were prepared and analyzed within 180 days for lead.

Initial Calibration Verification

- All initial calibration % recovery (%R) criteria were met.

Continuing Calibration Verification

- All continuing calibration % recovery (%R) criteria were met except for the two CCVs bracketing the analysis of the water samples which had CCV recoveries of 81% and 84%, respectively. Both water samples were qualified estimated (UJ).

Method Blank

- The method blanks were free of contamination.

Field Blank

- The field blanks were free of contamination.

Blank ID	Compound	Conc. ug/L	Qualifier	Affected Samples
CDW-KD-AA-FB01-04	None - ND	-	-	-
CDW-KD-35-SS01-02	None - ND	-	-	-

ICP Interference Check Sample

- The ICP interference check sample exhibited acceptable %R values.

Laboratory Control Samples

- The LCS samples exhibited acceptable recoveries.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analysis

- The MS/MSD samples exhibited acceptable %R values except the following.

MS/MSD Sample ID	Compound	MS %R/MSD %R	Qualifier	Affected Samples
2*	Lead	0%/28%	None	All Soil Samples
5*	Lead	0%/0%	None	All TCLP Soil Samples

* - The spike recovery limits do not apply when the sample concentration is more than 4 times the spike added. Sample spikes for soils were eight times lower than the sample concentration. TCLP spikes were 55 times lower than the sample concentration. No qualifications were required.

Note - The post digestion spike recovery was 0% for sample #2 and 70% for sample #5.

Duplicate Sample Analysis

- The duplicate samples exhibited acceptable RPD values.

ICP Serial Dilution

- The ICP serial dilution samples exhibited acceptable %D values except the following.

Sample ID	Compound	%D	Qualifier	Affected Samples
2	Lead	20%	J	All Total Soil Samples

Compound Quantitation

- All criteria were met.

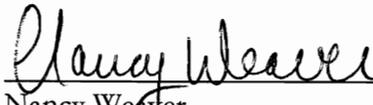
Field Duplicate Sample Precision

- Field duplicate results are summarized below. The precision is acceptable.

Lead				
Compound	CDW-KD-39-SS01-00 mg/kg	CDW-KD-39-SS01-01 mg/kg	RPD	Qualifier
Lead	67.6	64.1	5%	None

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:


Nancy Weaver
Senior Chemist

Dated: 11/26/13

Data Qualifiers

- U = The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
- UJ = The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
- J = The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
- J+ = The result is an estimated quantity, but the result may be biased high.
- J- = The result is an estimated quantity, but the result may be biased low.
- R = The sample results are unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
- NJ = The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.



1
INORGANIC ANALYSIS DATA SHEET

CDW-KD-03-SS01-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>100700</u>	
% Solids:	<u>72.1</u>	Lab Sample ID:	<u>381281</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	_____	
Analytical Run #:	<u>99556</u>	Analysis Date/Time	<u>10/22/2013</u>	<u>03:34</u>
Analytical Prep Batch #:	<u>46442</u>	Prep. Date/Time:	<u>10/21/2013</u>	<u>07:30</u>
ICAL Calibration #:	_____	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	2550 J		0.054	0.17	0.34	0.34

NW 11/19/13



1
INORGANIC ANALYSIS DATA SHEET

CDW-KD-13-SS01-05

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>100700</u>	
% Solids:	<u>68.8</u>	Lab Sample ID:	<u>381282</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	_____	
Analytical Run #:	<u>99556</u>	Analysis Date/Time	<u>10/22/2013</u>	<u>03:38</u>
Analytical Prep Batch #:	<u>46442</u>	Prep. Date/Time:	<u>10/21/2013</u>	<u>07:30</u>
ICAL Calibration #:	_____	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	302 J	M	0.058	0.18	0.36	0.36

NW 11/19/13

1
INORGANIC ANALYSIS DATA SHEET

Sample Description
CDW-KD-16-SS01-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>100700</u>	
% Solids:	<u>70.1</u>	Lab Sample ID:	<u>381283</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>99556</u>	Analysis Date/Time	<u>10/22/2013</u>	<u>04:13</u>
Analytical Prep Batch #:	<u>46442</u>	Prep. Date/Time:	<u>10/21/2013</u>	<u>07:30</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	127 J		0.057	0.18	0.35	0.35

NW 11/19/13



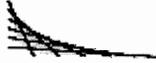
1
INORGANIC ANALYSIS DATA SHEET

CDW-KD-23-SS01-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>TCLP</u>	SDG No.:	<u>100700</u>	
% Solids:	<u> </u>	Lab Sample ID:	<u>381285</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u>10/18/2013</u>	<u>07:00</u>
Analytical Run #:	<u>99645</u>	Analysis Date/Time	<u>10/23/2013</u>	<u>22:05</u>
Analytical Prep Batch #:	<u>46547</u>	Prep. Date/Time:	<u>10/22/2013</u>	<u>13:30</u>
ICAL Calibration #:	<u> </u>	Concentration Units:	<u>mg/L</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	11	M	0.0014	0.0020	0.0040	0.0040

NW 11/26/13



6

Sample Description

CDW-KD-07-SS01-00

1
INORGANIC ANALYSIS DATA SHEET

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>TCLP</u>	SDG No.:	<u>100700</u>	
% Solids:	<u></u>	Lab Sample ID:	<u>381286</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u>10/18/2013</u>	<u>07:00</u>
Analytical Run #:	<u>99645</u>	Analysis Date/Time	<u>10/23/2013</u>	<u>22:40</u>
Analytical Prep Batch #:	<u>46547</u>	Prep. Date/Time:	<u>10/22/2013</u>	<u>13:30</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/L</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	2.7		0.0014	0.0020	0.0040	0.0040

NW 11/19/13

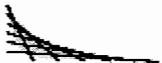
1
INORGANIC ANALYSIS DATA SHEET

Sample Description
CDW-KD-12-SS02-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>TCLP</u>	SDG No.:	<u>100700</u>	
% Solids:	<u></u>	Lab Sample ID:	<u>381287</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u>10/18/2013</u>	<u>07:00</u>
Analytical Run #:	<u>99645</u>	Analysis Date/Time	<u>10/23/2013</u>	<u>22:43</u>
Analytical Prep Batch #:	<u>46547</u>	Prep. Date/Time:	<u>10/22/2013</u>	<u>13:30</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/L</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	0.71		0.0014	0.0020	0.0040	0.0040

NW 11/19/13



1
INORGANIC ANALYSIS DATA SHEET

Sample Description

CDW-KD-23-SS02-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>TCLP</u>	SDG No.:	<u>100700</u>	
% Solids:	<u> </u>	Lab Sample ID:	<u>381288</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u>10/18/2013</u>	<u>07:00</u>
Analytical Run #:	<u>99645</u>	Analysis Date/Time	<u>10/23/2013</u>	<u>22:47</u>
Analytical Prep Batch #:	<u>46547</u>	Prep. Date/Time:	<u>10/22/2013</u>	<u>13:30</u>
ICAL Calibration #:	<u> </u>	Concentration Units:	<u>mg/L</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	0.030		0.0014	0.0020	0.0040	0.0040

NW 11/19/13



Sample Description

1
INORGANIC ANALYSIS DATA SHEET

CDW-KD-35-SS01-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>100700</u>	
% Solids:	<u>74.3</u>	Lab Sample ID:	<u>381289</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	_____	
Analytical Run #:	<u>99556</u>	Analysis Date/Time	<u>10/22/2013</u>	<u>04:20</u>
Analytical Prep Batch #:	<u>46442</u>	Prep. Date/Time:	<u>10/21/2013</u>	<u>07:30</u>
ICAL Calibration #:	_____	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	195 J		0.052	0.16	0.32	0.32

NW 11/19/13

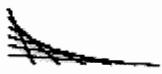
1
INORGANIC ANALYSIS DATA SHEET

Sample Description
CDW-KD-35-SS01-02

Lab Name: CT Laboratories Contract: WESTON SOLUTIONS, INC.-CAMP DAWSON
 Matrix (soil/water): WATER SDG No.: 100700
 % Solids: _____ Lab Sample ID: 381290
 Analytical Method: EPA 6010C Date Received: 10/15/2013
 Dilution Factor: 1.00 TCLP/SPLP Extraction Date/time: _____
 Analytical Run #: 99511 Analysis Date/Time 10/22/2013 00:51
 Analytical Prep Batch #: 46498 Prep. Date/Time: 10/18/2013 11:00
 ICAL Calibration #: _____ Concentration Units: ug/L

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Total Lead	2.0	UJ X	1.4	2.0	4.0	4.0

NW 1/7/14



1
INORGANIC ANALYSIS DATA SHEET

Sample Description
CDW-KD-39-SS01-00

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>100700</u>	
% Solids:	<u>83.3</u>	Lab Sample ID:	<u>381291</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	_____	
Analytical Run #:	<u>99556</u>	Analysis Date/Time	<u>10/22/2013</u>	<u>04:24</u>
Analytical Prep Batch #:	<u>46442</u>	Prep. Date/Time:	<u>10/21/2013</u>	<u>07:30</u>
ICAL Calibration #:	_____	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	67.6 <i>J</i>		0.049	0.15	0.30	0.30

NW 11/19/13

1
INORGANIC ANALYSIS DATA SHEET

Sample Description
CDW-KD-39-SS01-01

Lab Name:	<u>CT Laboratories</u>	Contract:	<u>WESTON SOLUTIONS, INC.-CAMP DAWSON</u>	
Matrix (soil/water):	<u>SOIL</u>	SDG No.:	<u>100700</u>	
% Solids:	<u>83.5</u>	Lab Sample ID:	<u>381292</u>	
Analytical Method:	<u>EPA 6010C</u>	Date Received:	<u>10/15/2013</u>	
Dilution Factor:	<u>1.00</u>	TCLP/SPLP Extraction Date/time:	<u></u>	
Analytical Run #:	<u>99556</u>	Analysis Date/Time	<u>10/22/2013</u>	<u>04:28</u>
Analytical Prep Batch #:	<u>46442</u>	Prep. Date/Time:	<u>10/21/2013</u>	<u>07:30</u>
ICAL Calibration #:	<u></u>	Concentration Units:	<u>mg/kg</u>	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Lead	64.1 J		0.048	0.15	0.30	0.30

NW 11/19/13



1
INORGANIC ANALYSIS DATA SHEET

CDW-KD-AA-FB01-04

Lab Name:	CT Laboratories	Contract:	WESTON SOLUTIONS, INC.-CAMP DAWSON	
Matrix (soil/water):	WATER	SDG No.:	100700	
% Solids:		Lab Sample ID:	381293	
Analytical Method:	EPA 6010C	Date Received:	10/15/2013	
Dilution Factor:	1.00	TCLP/SPLP Extraction Date/time:		
Analytical Run #:	99511	Analysis Date/Time	10/22/2013	01:14
Analytical Prep Batch #:	46498	Prep. Date/Time:	10/18/2013	11:00
ICAL Calibration #:		Concentration Units:	ug/L	

CAS #	Analyte	Concentration	Qualifiers	DL	LOD	LOQ	RL
7439-92-1	Total Lead	2.0 UJ	U	1.4	2.0	4.0	4.0

NW 1/7/14

