

Date: July 13, 2016

To: Rob Ede
Hahn and Associates Inc.

From: Jeanne Peterson
Sr. Data Validator, AQA

Subject: Data Validation
Siltronic RI - Doane Creek
ACZ Laboratories, Inc. Project ID L29850 (A6D0013)

SUMMARY

Level III data validation was performed on the data for five soil samples prepared and analyzed with approved procedures using method SM 4500-CN M (thiocyanate). The samples were prepared by Apex Laboratories, and the leachates were submitted to ACZ Laboratories, Inc. (ACZ) for analysis. Data were reported for all requested analytes.

The analytical data were evaluated in accordance with the *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (October 1999) and the *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (February 1994) (NFG).

In general, the data are valid as reported. No sample data were rejected. No other qualifiers were applied to the data as specified in the Data Qualifiers section below.

See attached data validation spreadsheets for supporting documentation on the data review and validation.



SAMPLES

The samples included in this validation are listed below.

Sample ID	ACZ Laboratory ID	APEX Laboratory ID	Matrix
5237-160401-DC-EMB038	L29851-01	A6D0056-02	Leachate
5237-160401-DC-EMB039	L29851-02	A6D0056-04	Leachate
5237-160401-DC-EMB046	L29851-03	A6D0056-06	Leachate
5237-160401-NDP-EMB002	L29851-04	A6D0056-08	Leachate
5237-160401-NDP-EMB003	L29851-05	A6D0056-10	Leachate

DATA QUALIFIERS (see following sections for detailed explanations)

No qualifiers were applied to the sample results in this data package.

DISCUSSION

Sample Shipping/Receiving

All COC, analysis request, and sample receipt documentation was complete and correct with the following exception.

Sample 6040153-BLK1 (laboratory ID L29851-06) was analyzed and reported with the samples; however, it was not on the COC. Sample 6040153-BLK1 was validated as a QC sample.

Holding Times and Preservation

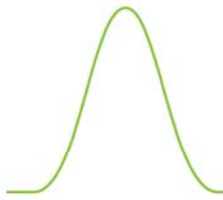
The samples were properly preserved and analyzed within the prescribed holding times. It should be noted that the leachate preparation information was not included in the data package.

Calibration

All initial and continuing calibration acceptance criteria were met.

Blanks

The target analyte was not detected in the calibration blanks or in sample 6040153-BLK1.



Laboratory Control Sample (LCS)

The LCS analysis met laboratory acceptance criteria.

Matrix Spike (MS)

The MS analyses met laboratory acceptance criteria.

Laboratory Duplicate

The laboratory duplicate analyses met all QC acceptance criteria.

Field Duplicate

A field duplicate was not collected with the samples in this data package.

Reporting Limits

All reporting limits were properly reported. The samples were not diluted.

Other QC

No other specific issues that affect data quality were identified.

Hahn Data Validation Summary Worksheet

SDG#: L29851_A6D0056	Laboratory: ARI	Validator: Jeanne Peterson	Validation Date: 06/06/2016
Site: Siltronic RI - Doane Creek	COC#: NA		Validation Level: <input type="checkbox"/> II <input checked="" type="checkbox"/> III
Matrix: Leachate	# of Samples: 6	Tracking docs present: See sample receipt and log-in documentation	
COCs present: Yes	COCs signed: Yes	COCs dated: Yes	Sample Container Integrity: OK
Analyses: <input type="checkbox"/> VOCs <input type="checkbox"/> SVOCs <input type="checkbox"/> PAHs <input type="checkbox"/> GRO <input type="checkbox"/> DRO <input type="checkbox"/> Pests <input type="checkbox"/> PCBs <input type="checkbox"/> Metals <input checked="" type="checkbox"/> Gen Chem <input type="checkbox"/> Cyanide <input type="checkbox"/> Other:			

Requested Analyses Not Reported			
Client Sample ID	Lab Sample ID	Analysis	Comments
None			

Hold Time/Preservation Outliers								
Client Sample ID	Lab Sample ID	Analysis	Pres.	Collection Date	Preparation Date	Analysis Date	Analysis <3X HT	Analysis ≥3X HT
None								

Comments: Samples collected 4/1.
Cooler temps OK. Samples preserved.

Hahn Level III General Chemistry Worksheet

SDG: L29851	Matrix: Leachate	Lab Sample IDs: L29851-01 thru -06
Method/Batch #s: SM 4500-CN M (thiocyanate)/WG401370		

(80-120%) (80-120%) ≤20%

Analyte (outliers)	<i>(90-110%)</i> Calibration						Method Blank	5X MB	LCS %R	MS %R	Lab Dup RPD								
	r ≥0.995	ICV	CCV	ICB	CCB	5X CB													
None	✓	✓	✓	✓	✓	NA	NA	NA	✓	NA	✓								

Comments: HTs OK. Analyzed 4/13.

MB, LCS, -2 MS & dup and -6 MS & Dup