DATA VALIDATION CHECKLIST – STAGE 2A

Site Name	ACME Galv, Inc.		**Project No.**	103I90260001S051503005
Data Reviewer (signature and date)	Debbie Kuhl March 20, 2015		**Technical Reviewer (signature and date)**	
Laboratory Report No.	1503417		**Laboratory**	ALS Environmental, Cincinnati, Ohio
Analyses	Volatile organic compounds by EPA TO-15, hydrogen cyanide (HCN) by NIOSH 6010M, TAL metals by EPA SW6010B and SW7470A, and total cyanide by EPA 335.2			
Samples	588-1, 162-2, 183-3, and LIQ-1			
Field Duplicate Pairs	None			
Field Blanks	None			

This checklist summarizes the Stage 2A validation performed on the subject laboratory report, in accordance with the Environmental Protection Agency (EPA) *Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use* (January 2009). Analytical data were evaluated in general accordance with the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (August 2014) and the EPA *Contract Laboratory Program (CLP) National Functional Guidelines (NFG) for Inorganic Superfund Data Review* (January 2010) data validation guidance documents, as well as the above referenced methods.

Data completeness:

Within Criteria	Exceedance/Notes
N	VOC and HCN analysis of samples 162-2 and 183-3 were requested on the COC form, but the laboratory did not have enough sample volume to run both tests. Tetra Tech instructed the laboratory to blend the two samples before running the analyses, so the analytical results for 162.2 (VOCs) and 183-3 (HCN) are from the blended sample. This should be reflected in the data package and EDD but isn't.

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Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
Y	

Method blanks:

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
Y	

MS/MSD:

Within Criteria	Exceedance/Notes
N	The matrix spike (MS) and matrix spike duplicate (MSD) %Rs and RPDs for EPA SW6010 batch 27304 were outside laboratory control limits for calcium, magnesium, and sodium. Laboratory control limits do not apply, however, because the sample results are greater than 4X the amounts spiked, overwhelming the spiking solution. Also, the parent sample used for the MS and MSD is not from this project, so MS results do not apply to project samples.

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Laboratory duplicates:

Within Criteria	Exceedance/Notes
Y	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
Y	For the TO-15 analysis, sample 162.2 was diluted by factors of 10 and 40. All VOC results for this sample were reported from the tenfold dilution with the exception of acetone, which was reported from the fortyfold dilution. The dilution resulted in all analytes except acetone being reported as NDs at elevated RLs. No data were qualified.

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
Y	

MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	

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See results summary pages attached for changes to the laboratory qualifiers based upon this validation. The following is a list of qualifiers and definitions that may be used for the validation of this data package:

J	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample.
J+	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased high.
J-	The analyte was positively identified; the associated value is the approximate concentration of the analyte in the sample and may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated value is the approximate concentration of the analyte in the sample.
R	The sample result is rejected as unusable due to serious deficiencies in one or more quality control criteria. The analyte may or may not be present in the sample.
U	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit).
UJ	The analyte was analyzed for, but was not detected at or above the associated value (reporting limit), which is considered approximate due to deficiencies in one or more quality control criteria.