TETRA TECH

March 29, 2017

Mike Beslow
On-Scene Coordinator
U.S. Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3507

Subject: **Data Validation Report**
ArcelorMittal Indiana Harbor Canal Spill
EPA Contract No. EP-S5-13-01
Technical Direction Document No. S05-0004-1701-006
Document Tracking No. 1569

Dear Mr. Beslow:

Tetra Tech, Inc. (Tetra Tech) is submitting this Data Validation Report for six surface water samples, one field duplicate sample, and one trip blank sample collected at the Arcelor Mittal Indiana Harbor Canal Spill site. The samples were collected on January 13 and 17, 2017, and were analyzed for volatile organic compounds, metals, and various indicator parameters by CT Laboratories. The final laboratory data package was received on February 8, 2017.

Analytical data were evaluated in general accordance with the EPA *National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (September 2016) and the EPA *NFG for Inorganic Superfund Methods Data Review* (September 2016).

No results were rejected, but some were qualified. All may be used as qualified.

If you have any questions regarding this data validation report, please call me at (312) 201-7756.

Sincerely,

Harry N. Ellis III

START Chemist

Enclosure
cc: Kevin Scott, Tetra Tech Program Manager
Cordell Renner, Tetra Tech Project Manager
TDD File

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ATTACHMENT 1

DATA VALIDATION REPORT
CT LABORATORIES SDG NO. 124882

DATA VALIDATION CHECKLIST – STAGE 4
EPA REGION 5 START CONTRACT

Site Name	ArcelorMittal IHC Spill		**TDD No.**	S05-0004-1701-006
Document Tracking No.	1569			
Data Reviewer (signature and date)	Harry N. Ellis III 13 March 2017		**Technical Reviewer (signature and date)**	Jessica A. Vickers March 16, 2017
Laboratory Report No.	124882		**Laboratory**	CT Laboratories/Baraboo, Wisconsin
Analyses	Volatile organic compounds (VOCs) by SW-846 Method 6010C, metals (lead, zinc, and mercury) by SW-846 Methods 6010C and 7470A, residual chlorine by Standard Method (SM) 4500 CL, oil and grease (O&G) by EPA Method 1664A, nitrogen as ammonia by EPA Method 350.1, phenolics by SW-846 Method 9066, and total suspended solids by SM 1540A			
Samples and Matrix	Six surface water samples plus quality control samples below			
Field Duplicate Pairs	AM-OF009-01/AM-OF009-01-DUP			
Field Blanks	Trip Blank			

INTRODUCTION

This checklist summarizes the Stage 4 validation performed on the subject laboratory report, in accordance with the U.S. 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 *National Functional Guidelines (NFG) for Superfund Organic Methods Data Review* (September 2016) and the EPA *NFG for Inorganic Superfund Methods Data Review* (September 2016).

OVERALL EVALUATION

The analyses went well, with no results rejected, but a number qualified. All may be used as qualified.

Data completeness:

Within Criteria	Exceedance/Notes
Y	The final data package reported here includes results from preliminary packages 124882 and 124896. Results are incorrectly labelled as "ground" rather than "surface" water.

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DATA VALIDATION CHECKLIST – STAGE 4
EPA REGION 5 START CONTRACT

Sample preservation, receipt, and holding times:

Within Criteria	Exceedance/Notes
N	The portion of sample AM-OF-0010-01 for VOC analysis was received at a pH >2. The sample was analyzed outside the 7-day holding time for unpreserved samples; therefore, the non-detect VOC results for this sample were qualified as estimated, possibly biased low (flagged "UJ" for non-detects).

Instrument Performance Checks:

Within Criteria	Exceedance/Notes
Y	

Initial Calibration:

Within Criteria	Exceedance/Notes
Y	

Continuing Calibration:

Within Criteria	Exceedance/Notes
N	Percent differences were outside the acceptance limits for 1,4-dioxane, bromomethane, and chloromethane. Therefore, the results for these analytes were qualified as estimated (flagged "J/UJ") unless overridden due to blank contamination.

Calibration Verification:

Within Criteria	Exceedance/Notes
Y	

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Method blanks:

Within Criteria	Exceedance/Notes
N	The VOC method blank yielded 1,4-dioxane and chloromethane, and the continuing calibration blank yielded 1,4-dioxane, chloromethane, and bromomethane. Neither 1,4-dioxane nor bromomethane was detected in the field samples; therefore, no qualifications were applied. Chloromethane results for AM-OF009-01-DUP and AM-OF0010-01 were raised to their reporting limits and were qualified as non-detect (flagged "U"), and the result for sample AM-OF009-01 was qualified as estimated, possibly biased high (flagged "J+").

Field blanks:

Within Criteria	Exceedance/Notes
N	The trip blank yielded a low concentration of trichloroethene. Trichloroethene was not detected in the other field samples; therefore, no qualifications were applied.

Interference Check Samples (ICS) (ICP metals only):

Within Criteria	Exceedance/Notes
Y	

System monitoring compounds (surrogates and labeled compounds):

Within Criteria	Exceedance/Notes
N	Discussed under the "internal standards" section.

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MS/MSD:

Within Criteria	Exceedance/Notes
N	VOC MS/MSD analyses performed on sample AM-OF0010-01 yielded low recoveries for bromoform; therefore, the non-detect result for the unspiked sample was qualified as estimated, possibly biased low (flagged "UJ"). Recoveries for 1,4-dioxane, chloromethane, and cis- and trans-1,2-dichloroethene, and the relative percent differences for 1,4-dioxane and bromomethane were above the acceptance limits. After qualifications were applied for blank contamination, none of these analytes was detected in the unspiked sample; therefore, no qualifications were applied. Mercury MS/MSD analyses were performed on sample AM-OF-009-02 and yielded recoveries of 173 and 163 percent, above the limits of 75 to 125 percent. The mercury result in that sample was qualified as estimated, probably biased high (flagged "J+"). The phenolics MS/MSD analyses performed on sample AM-OF010-02 yielded recoveries of 116 and 102 percent, versus the laboratory's limits of 90 to 110 percent. The average recovery was within limits; therefore, no qualification was applied.

Post digestion spikes:

Within Criteria	Exceedance/Notes
Y	

Serial dilutions:

Within Criteria	Exceedance/Notes
Y	

Laboratory duplicates:

Within Criteria	Exceedance/Notes
Y	

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Field duplicates:

Within Criteria	Exceedance/Notes
Y	

LCSs/LCSDs:

Within Criteria	Exceedance/Notes
Y	

Sample dilutions:

Within Criteria	Exceedance/Notes
NA	

Re-extraction and reanalysis:

Within Criteria	Exceedance/Notes
NA	

Second column confirmation (GC and HPLC analyses only):

Within Criteria	Exceedance/Notes
NA	

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Internal Standards:

Within Criteria	Exceedance/Notes
N	In the VOC analysis of sample AM-OF0010-01, 1,4-dichlorobenzene-d_4 yielded an area count below the acceptance limit, apparently due to matrix interference from non-target analytes. As a consequence, the surrogate quantitated against this internal standard (bromofluorobenzene) yielded an excessive recovery of 133 percent (versus control limits of 70 to 120 percent). The non-detect results for 1,1,2,2-tetrrachloroethane, 1,2,3-trichlorobenzene, 1,2,4-trichlorobeznene, 1,2-dibromo-3-chloropropane, 1,2-dichlorobenzene, 1,3-dichlorobenzene, and 1,4-dichlorobenzene were qualified as estimated (flagged "UJ").

Target analyte identification:

Within Criteria	Exceedance/Notes
Y	

Analyte quantitation and MDLs/RLs:

Within Criteria	Exceedance/Notes
Y	Some detected results were below their reporting limits. CT correctly qualified these as estimated (flagged "J").

Tentatively identified compounds:

Within Criteria	Exceedance/Notes
NA	

System performance and instrument stability:

Within Criteria	Exceedance/Notes
Y	

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Other [specify]:

Within Criteria	Exceedance/Notes
NA	

Overall Qualifications:

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.

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ARCELOR MITTAL INDIANA HARBOR CANAL SPILL WATER RESULTS
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Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	DL	RL	Units	Val. Results	Val. Qualifiers
AM-OF009-01	828468	Oil and Grease	1.5	J	1.4	9.5	mg/L	1.5	J
AM-OF009-01	828468	1,1,1-Trichloroethane	0.21	U	0.21	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,1,2,2-Tetrachloroethane	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,1,2-Trichloroethane	0.26	U	0.26	1	ug/L	1	U
AM-OF009-01	828468	1,1-Dichloroethane	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,1-Dichloroethene	0.24	U	0.24	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,2,3-Trichlorobenzene	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01	828468	1,2,4-Trichlorobenzene	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01	828468	1,2-Dibromo-3-chloropropane	0.4	U	0.4	1	ug/L	1	U
AM-OF009-01	828468	1,2-Dibromoethane	0.16	U	0.16	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,2-Dichlorobenzene	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,2-Dichloroethane	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01	828468	1,2-Dichloropropane	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,3-Dichlorobenzene	0.26	U	0.26	1	ug/L	1	U
AM-OF009-01	828468	1,4-Dichlorobenzene	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01	828468	1,4-Dioxane	5	U	5	25	ug/L	25	UJ
AM-OF009-01	828468	112Trichloro122trifluoroethane	0.5	U	0.5	1	ug/L	1	U
AM-OF009-01	828468	2-Butanone	2.4	UZ	2.4	5	ug/L	5	U
AM-OF009-01	828468	2-Hexanone	4	U	4	10	ug/L	10	U
AM-OF009-01	828468	4-Methyl-2-pentanone	3	U	3	10	ug/L	10	U
AM-OF009-01	828468	Acetone	5	UZ	5	10	ug/L	10	U
AM-OF009-01	828468	Benzene	0.21	J	0.19	0.5	ug/L	0.21	J
AM-OF009-01	828468	Bromochloromethane	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01	828468	Bromodichloromethane	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01	828468	Bromoform	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01	828468	Bromomethane	0.5	UZ	0.5	1	ug/L	1	UJ
AM-OF009-01	828468	Carbon disulfide	0.5	U	0.5	1	ug/L	1	U
AM-OF009-01	828468	Carbon tetrachloride	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01	828468	Chlorobenzene	0.24	U	0.24	0.5	ug/L	0.5	U
AM-OF009-01	828468	Chloroethane	0.4	U	0.4	1	ug/L	1	U
AM-OF009-01	828468	Chloroform	0.15	U	0.15	0.5	ug/L	0.5	U
AM-OF009-01	828468	Chloromethane	1.3	B	0.4	1	ug/L	1.3	J+
AM-OF009-01	828468	cis-1,2-Dichloroethene	0.25	U	0.25	0.5	ug/L	0.5	U

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Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	DL	RL	Units	Val. Results	Val. Qualifiers
AM-OF009-01	828468	cis-1,3-Dichloropropene	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01	828468	Cyclohexane	0.28	U	0.28	1	ug/L	1	U
AM-OF009-01	828468	Dibromochloromethane	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01	828468	Dichlorodifluoromethane	0.26	U	0.26	1	ug/L	1	U
AM-OF009-01	828468	Ethylbenzene	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01	828468	Isopropylbenzene	0.18	U	0.18	0.5	ug/L	0.5	U
AM-OF009-01	828468	m & p-Xylene	0.5	U	0.5	1	ug/L	1	U
AM-OF009-01	828468	Methyl acetate	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01	828468	Methyl tert-butyl ether	0.29	U	0.29	1	ug/L	1	U
AM-OF009-01	828468	Methylcyclohexane	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01	828468	Methylene chloride	0.4	U	0.4	2	ug/L	2	U
AM-OF009-01	828468	o-Xylene	0.24	U	0.24	0.5	ug/L	0.5	U
AM-OF009-01	828468	Styrene	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01	828468	Tetrachloroethene	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01	828468	Toluene	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01	828468	trans-1,2-Dichloroethene	0.25	U	0.25	0.5	ug/L	0.5	U
AM-OF009-01	828468	trans-1,3-Dichloropropene	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01	828468	Trichloroethene	0.21	U	0.21	0.5	ug/L	0.5	U
AM-OF009-01	828468	Trichlorofluoromethane	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01	828468	Vinyl chloride	0.18	U	0.18	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Oil and Grease	1.7	J	1.4	9.4	mg/L	1.7	J
AM-OF009-01-DUP	828469	1,1,1-Trichloroethane	0.21	U	0.21	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,1,2,2-Tetrachloroethane	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,1,2-Trichloroethane	0.26	U	0.26	1	ug/L	1	U
AM-OF009-01-DUP	828469	1,1-Dichloroethane	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,1-Dichloroethene	0.24	U	0.24	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,2,3-Trichlorobenzene	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01-DUP	828469	1,2,4-Trichlorobenzene	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01-DUP	828469	1,2-Dibromo-3-chloropropane	0.4	U	0.4	1	ug/L	1	U
AM-OF009-01-DUP	828469	1,2-Dibromoethane	0.16	U	0.16	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,2-Dichlorobenzene	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,2-Dichloroethane	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01-DUP	828469	1,2-Dichloropropane	0.22	U	0.22	0.5	ug/L	0.5	U

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AM-OF009-01-DUP	828469	1,3-Dichlorobenzene	0.26	U	0.26	1	ug/L	1	U
AM-OF009-01-DUP	828469	1,4-Dichlorobenzene	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	1,4-Dioxane	5	U	5	25	ug/L	25	UJ
AM-OF009-01-DUP	828469	112Trichloro122trifluoroethane	0.5	U	0.5	1	ug/L	1	U
AM-OF009-01-DUP	828469	2-Butanone	2.4	UZ	2.4	5	ug/L	5	U
AM-OF009-01-DUP	828469	2-Hexanone	4	U	4	10	ug/L	10	U
AM-OF009-01-DUP	828469	4-Methyl-2-pentanone	3	U	3	10	ug/L	10	U
AM-OF009-01-DUP	828469	Acetone	5	UZ	5	10	ug/L	10	U
AM-OF009-01-DUP	828469	Benzene	0.22	J	0.19	0.5	ug/L	0.22	J
AM-OF009-01-DUP	828469	Bromochloromethane	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Bromodichloromethane	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Bromoform	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Bromomethane	0.5	UZ	0.5	1	ug/L	1	UJ
AM-OF009-01-DUP	828469	Carbon disulfide	0.5	U	0.5	1	ug/L	1	U
AM-OF009-01-DUP	828469	Carbon tetrachloride	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Chlorobenzene	0.24	U	0.24	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Chloroethane	0.4	U	0.4	1	ug/L	1	U
AM-OF009-01-DUP	828469	Chloroform	0.15	U	0.15	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Chloromethane	0.59	JB	0.4	1	ug/L	1	UJ
AM-OF009-01-DUP	828469	cis-1,2-Dichloroethene	0.25	U	0.25	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	cis-1,3-Dichloropropene	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Cyclohexane	0.28	U	0.28	1	ug/L	1	U
AM-OF009-01-DUP	828469	Dibromochloromethane	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Dichlorodifluoromethane	0.26	U	0.26	1	ug/L	1	U
AM-OF009-01-DUP	828469	Ethylbenzene	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Isopropylbenzene	0.18	U	0.18	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	m & p-Xylene	0.5	U	0.5	1	ug/L	1	U
AM-OF009-01-DUP	828469	Methyl acetate	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01-DUP	828469	Methyl tert-butyl ether	0.29	U	0.29	1	ug/L	1	U
AM-OF009-01-DUP	828469	Methylcyclohexane	0.23	U	0.23	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Methylene chloride	0.4	U	0.4	2	ug/L	2	U
AM-OF009-01-DUP	828469	o-Xylene	0.24	U	0.24	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Styrene	0.2	U	0.2	0.5	ug/L	0.5	U

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Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	DL	RL	Units	Val. Results	Val. Qualifiers
AM-OF009-01-DUP	828469	Tetrachloroethene	0.3	U	0.3	1	ug/L	1	U
AM-OF009-01-DUP	828469	Toluene	0.22	U	0.22	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	trans-1,2-Dichloroethene	0.25	U	0.25	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	trans-1,3-Dichloropropene	0.19	U	0.19	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Trichloroethene	0.21	U	0.21	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Trichlorofluoromethane	0.2	U	0.2	0.5	ug/L	0.5	U
AM-OF009-01-DUP	828469	Vinyl chloride	0.18	U	0.18	0.5	ug/L	0.5	U
AM-OF0010-01	828470	Oil and Grease	1.4	U	1.4	9.4	mg/L	9.4	UJ
AM-OF0010-01	828470	1,1,1-Trichloroethane	0.21	UT	0.21	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,1,2,2-Tetrachloroethane	0.19	UST	0.19	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,1,2-Trichloroethane	0.26	UT	0.26	1	ug/L	1	UJ
AM-OF0010-01	828470	1,1-Dichloroethane	0.2	UT	0.2	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,1-Dichloroethene	0.24	UT	0.24	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,2,3-Trichlorobenzene	0.3	UST	0.3	1	ug/L	1	UJ
AM-OF0010-01	828470	1,2,4-Trichlorobenzene	0.3	UST	0.3	1	ug/L	1	UJ
AM-OF0010-01	828470	1,2-Dibromo-3-chloropropane	0.4	UST	0.4	1	ug/L	1	UJ
AM-OF0010-01	828470	1,2-Dibromoethane	0.16	UT	0.16	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,2-Dichlorobenzene	0.23	UST	0.23	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,2-Dichloroethane	0.3	UT	0.3	1	ug/L	1	UJ
AM-OF0010-01	828470	1,2-Dichloropropane	0.22	UT	0.22	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,3-Dichlorobenzene	0.26	UST	0.26	1	ug/L	1	UJ
AM-OF0010-01	828470	1,4-Dichlorobenzene	0.23	UST	0.23	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	1,4-Dioxane	5	UZT	5	25	ug/L	25	UJ
AM-OF0010-01	828470	112Trichloro122trifluoroethane	0.5	UT	0.5	1	ug/L	1	UJ
AM-OF0010-01	828470	2-Butanone	2.4	UT	2.4	5	ug/L	5	UJ
AM-OF0010-01	828470	2-Hexanone	4	UT	4	10	ug/L	10	UJ
AM-OF0010-01	828470	4-Methyl-2-pentanone	3	UT	3	10	ug/L	10	UJ
AM-OF0010-01	828470	Acetone	5	UZT	5	10	ug/L	10	UJ
AM-OF0010-01	828470	Benzene	0.19	UT	0.19	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Bromochloromethane	0.19	UT	0.19	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Bromodichloromethane	0.2	UT	0.2	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Bromoform	0.22	UT	0.22	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Bromomethane	0.5	UZT	0.5	1	ug/L	1	UJ

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Sample ID	Lab ID	Analyte	Lab Result	Lab Qualifier	DL	RL	Units	Val. Results	Val. Qualifiers
AM-OF0010-01	828470	Carbon disulfide	0.5	UT	0.5	1	ug/L	1	UJ
AM-OF0010-01	828470	Carbon tetrachloride	0.23	UT	0.23	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Chlorobenzene	0.24	UT	0.24	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Chloroethane	0.4	UT	0.4	1	ug/L	1	UJ
AM-OF0010-01	828470	Chloroform	0.15	UT	0.15	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Chloromethane	0.74	JB,ZT	0.4	1	ug/L	1	UJ
AM-OF0010-01	828470	cis-1,2-Dichloroethene	0.25	UT	0.25	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	cis-1,3-Dichloropropene	0.19	UT	0.19	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Cyclohexane	0.28	UT	0.28	1	ug/L	1	UJ
AM-OF0010-01	828470	Dibromochloromethane	0.19	UT	0.19	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Dichlorodifluoromethane	0.26	UT	0.26	1	ug/L	1	UJ
AM-OF0010-01	828470	Ethylbenzene	0.22	UT	0.22	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Isopropylbenzene	0.18	UT	0.18	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	m & p-Xylene	0.5	UT	0.5	1	ug/L	1	UJ
AM-OF0010-01	828470	Methyl acetate	0.3	UT	0.3	1	ug/L	1	UJ
AM-OF0010-01	828470	Methyl tert-butyl ether	0.29	UT	0.29	1	ug/L	1	UJ
AM-OF0010-01	828470	Methylcyclohexane	0.23	UT	0.23	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Methylene chloride	0.4	UT	0.4	2	ug/L	2	UJ
AM-OF0010-01	828470	o-Xylene	0.24	UT	0.24	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Styrene	0.2	UT	0.2	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Tetrachloroethene	0.3	UT	0.3	1	ug/L	1	UJ
AM-OF0010-01	828470	Toluene	0.22	UT	0.22	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	trans-1,2-Dichloroethene	0.25	UT	0.25	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	trans-1,3-Dichloropropene	0.19	UT	0.19	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Trichloroethene	0.21	UT	0.21	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Trichlorofluoromethane	0.2	UT	0.2	0.5	ug/L	0.5	UJ
AM-OF0010-01	828470	Vinyl chloride	0.18	UT	0.18	0.5	ug/L	0.5	UJ
TRIP BLANK	828471	1,1,1-Trichloroethane	0.21	U	0.21	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,1,2,2-Tetrachloroethane	0.19	U	0.19	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,1,2-Trichloroethane	0.26	U	0.26	1	ug/L	1	U
TRIP BLANK	828471	1,1-Dichloroethane	0.2	U	0.2	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,1-Dichloroethene	0.24	U	0.24	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,2,3-Trichlorobenzene	0.3	U	0.3	1	ug/L	1	U

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TRIP BLANK	828471	1,2,4-Trichlorobenzene	0.3	U	0.3	1	ug/L	1	U
TRIP BLANK	828471	1,2-Dibromo-3-chloropropane	0.4	U	0.4	1	ug/L	1	U
TRIP BLANK	828471	1,2-Dibromoethane	0.16	U	0.16	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,2-Dichlorobenzene	0.23	U	0.23	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,2-Dichloroethane	0.3	U	0.3	1	ug/L	1	U
TRIP BLANK	828471	1,2-Dichloropropane	0.22	U	0.22	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,3-Dichlorobenzene	0.26	U	0.26	1	ug/L	1	U
TRIP BLANK	828471	1,4-Dichlorobenzene	0.23	U	0.23	0.5	ug/L	0.5	U
TRIP BLANK	828471	1,4-Dioxane	5	U	5	25	ug/L	25	UJ
TRIP BLANK	828471	112Trichloro122trifluoroethane	0.5	U	0.5	1	ug/L	1	U
TRIP BLANK	828471	2-Butanone	2.4	UZ	2.4	5	ug/L	5	U
TRIP BLANK	828471	2-Hexanone	4	U	4	10	ug/L	10	U
TRIP BLANK	828471	4-Methyl-2-pentanone	3	U	3	10	ug/L	10	U
TRIP BLANK	828471	Acetone	5	UZ	5	10	ug/L	10	U
TRIP BLANK	828471	Benzene	0.19	U	0.19	0.5	ug/L	0.5	U
TRIP BLANK	828471	Bromochloromethane	0.19	U	0.19	0.5	ug/L	0.5	U
TRIP BLANK	828471	Bromodichloromethane	0.2	U	0.2	0.5	ug/L	0.5	U
TRIP BLANK	828471	Bromoform	0.22	U	0.22	0.5	ug/L	0.5	U
TRIP BLANK	828471	Bromomethane	0.5	UZ	0.5	1	ug/L	1	UJ
TRIP BLANK	828471	Carbon disulfide	0.5	U	0.5	1	ug/L	1	U
TRIP BLANK	828471	Carbon tetrachloride	0.23	U	0.23	0.5	ug/L	0.5	U
TRIP BLANK	828471	Chlorobenzene	0.24	U	0.24	0.5	ug/L	0.5	U
TRIP BLANK	828471	Chloroethane	0.4	U	0.4	1	ug/L	1	U
TRIP BLANK	828471	Chloroform	0.15	U	0.15	0.5	ug/L	0.5	U
TRIP BLANK	828471	Chloromethane	0.4	U	0.4	1	ug/L	1	UJ
TRIP BLANK	828471	cis-1,2-Dichloroethene	0.25	U	0.25	0.5	ug/L	0.5	U
TRIP BLANK	828471	cis-1,3-Dichloropropene	0.19	U	0.19	0.5	ug/L	0.5	U
TRIP BLANK	828471	Cyclohexane	0.28	U	0.28	1	ug/L	1	U
TRIP BLANK	828471	Dibromochloromethane	0.19	U	0.19	0.5	ug/L	0.5	U
TRIP BLANK	828471	Dichlorodifluoromethane	0.26	U	0.26	1	ug/L	1	U
TRIP BLANK	828471	Ethylbenzene	0.22	U	0.22	0.5	ug/L	0.5	U
TRIP BLANK	828471	Isopropylbenzene	0.18	U	0.18	0.5	ug/L	0.5	U
TRIP BLANK	828471	m & p-Xylene	0.5	U	0.5	1	ug/L	1	U

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TRIP BLANK	828471	Methyl acetate	0.3	U	0.3	1	ug/L	1	U
TRIP BLANK	828471	Methyl tert-butyl ether	0.29	U	0.29	1	ug/L	1	U
TRIP BLANK	828471	Methylcyclohexane	0.23	U	0.23	0.5	ug/L	0.5	U
TRIP BLANK	828471	Methylene chloride	0.4	U	0.4	2	ug/L	2	U
TRIP BLANK	828471	o-Xylene	0.24	U	0.24	0.5	ug/L	0.5	U
TRIP BLANK	828471	Styrene	0.2	U	0.2	0.5	ug/L	0.5	U
TRIP BLANK	828471	Tetrachloroethene	0.3	U	0.3	1	ug/L	1	U
TRIP BLANK	828471	Toluene	0.22	U	0.22	0.5	ug/L	0.5	U
TRIP BLANK	828471	trans-1,2-Dichloroethene	0.25	U	0.25	0.5	ug/L	0.5	U
TRIP BLANK	828471	trans-1,3-Dichloropropene	0.19	U	0.19	0.5	ug/L	0.5	U
TRIP BLANK	828471	Trichloroethene	0.24	J	0.21	0.5	ug/L	0.24	J
TRIP BLANK	828471	Trichlorofluoromethane	0.2	U	0.2	0.5	ug/L	0.5	U
TRIP BLANK	828471	Vinyl chloride	0.18	U	0.18	0.5	ug/L	0.5	U
AM-OF009-02	828856	Chlorine, Residual	0.03		0.02	0.02	mg/L	0.03	
AM-OF009-02	828856	Oil and Grease	1.4	U	1.4	9.2	mg/L	9.2	U
AM-OF009-02	828856	Total Mercury	0.046	JM	0.03	0.12	ug/L	0.046	J+
AM-OF009-02	828856	Phenolics	14	U	14	50	ug/L	50	U
AM-OF009C-01	828860	Total Suspended Solids	2	U	2	2	mg/L	2	U
AM-OF009C-01	828860	Ammonia Nitrogen	1.6		0.022	0.2	mg/L	1.6	
AM-OF009C-01	828860	Total Lead	1.4	U	1.4	4	ug/L	4	U
AM-OF009C-01	828860	Total Zinc	1.6	U	1.6	10	ug/L	10	U
AM-OF010-02	828861	Chlorine, Residual	0.04		0.02	0.02	mg/L	0.04	
AM-OF010-02	828861	Oil and Grease	1.4	U	1.4	9.3	mg/L	9.3	U
AM-OF010-02	828861	Total Mercury	0.03	U	0.03	0.12	ug/L	0.12	U
AM-OF010-02	828861	Phenolics	14	UM	14	50	ug/L	50	U
AM-OF010C-01	828862	Total Suspended Solids	2	U	2	2	mg/L	2	U
AM-OF010C-01	828862	Ammonia Nitrogen	0.022	U	0.022	0.2	mg/L	0.2	U
AM-OF010C-01	828862	Total Lead	1.4	U	1.4	4	ug/L	4	U
AM-OF010C-01	828862	Total Zinc	1.6	U	1.6	10	ug/L	10	U