



31-Aug-2017

Kevin Stetter  
U.S. Steel - Gary Works  
1 North Broadway  
Mail Station 70  
Gary, IN 46402

Re: **USS CAMU 3Q2017**

Work Order: **1708873**

Dear Kevin,

ALS Environmental received 35 samples on 14-Aug-2017 through 15-Aug-2017 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental and for only the analyses requested.

Sample results are compliant with industry accepted practices and Quality Control results achieved laboratory specifications. Any exceptions are noted in the Case Narrative, or noted with qualifiers in the report or QC batch information. Should this laboratory report need to be reproduced, it should be reproduced in full unless written approval has been obtained from ALS Environmental. Samples will be disposed in 30 days unless storage arrangements are made.

The total number of pages in this report is 147.

If you have any questions regarding this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink that reads "Amanda Grzybowski".

Electronically approved by: Amanda Grzybowski

Amanda Grzybowski  
Project Manager

Certificate No: MN 998501

### Report of Laboratory Analysis

ADDRESS 3352 128th Ave Holland, Michigan 49424 | PHONE (616) 399-6070 | FAX (616) 399-6185

ALS GROUP USA, CORP Part of the ALS Laboratory Group A Campbell Brothers Limited Company

Environmental 

[www.alsglobal.com](http://www.alsglobal.com)

RIGHT SOLUTIONS RIGHT PARTNER

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Work Order:** 1708873

## Work Order Sample Summary

<u>Lab Samp ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Tag Number</u>	<u>Collection Date</u>	<u>Date Received</u>	<u>Hold</u>
1708873-01	CAMU-MW06R-GW-08142017	Aqueous	CAMU-MW06R	8/14/2017 14:37	8/14/2017 15:50	<input type="checkbox"/>
1708873-02	CAMU-MW06R-GW-08142017-F	Aqueous	CAMU-MW06R	8/14/2017 14:37	8/14/2017 15:50	<input type="checkbox"/>
1708873-03	CAMU-MW07-GW-08142017	Aqueous	CAMU-MW07	8/14/2017 10:00	8/14/2017 15:50	<input type="checkbox"/>
1708873-04	CAMU-MW07-GW-08142017-F	Aqueous	CAMU-MW07	8/14/2017 10:00	8/14/2017 15:50	<input type="checkbox"/>
1708873-05	TB01-08142017	Aqueous	TB01	8/14/2017	8/14/2017 15:50	<input type="checkbox"/>
1708873-06	CAMU-MW01R-GW-08142017	Aqueous	CAMU-MW01R	8/14/2017 12:54	8/14/2017 15:50	<input type="checkbox"/>
1708873-07	CAMU-MW01R-GW-08142017-F	Aqueous	CAMU-MW01R	8/14/2017 12:54	8/14/2017 15:50	<input type="checkbox"/>
1708873-08	CAMU-MW01R-GW-08142017-FD	Aqueous	CAMU-MW01R	8/14/2017 12:54	8/14/2017 15:50	<input type="checkbox"/>
1708873-09	CAMU-MW01R-GW-08142017-F-FD	Aqueous	CAMU-MW01R	8/14/2017 12:54	8/14/2017 15:50	<input type="checkbox"/>
1708873-10	CAMU-P06R-GW-08142017	Aqueous	CAMU-P06R	8/14/2017 15:02	8/14/2017 15:50	<input type="checkbox"/>
1708873-11	CAMU-P06R-GW-08142017-F	Aqueous	CAMU-P06R	8/14/2017 15:02	8/14/2017 15:50	<input type="checkbox"/>
1708873-12	CAMU-P07-GW-08142017	Aqueous	CAMU-P07	8/14/2017 10:12	8/14/2017 15:50	<input type="checkbox"/>
1708873-13	CAMU-P07-GW-08142017-F	Aqueous	CAMU-P07	8/14/2017 10:12	8/14/2017 15:50	<input type="checkbox"/>
1708873-14	EB01-GW-08142017	Aqueous	EB01	8/14/2017 10:12	8/14/2017 15:50	<input type="checkbox"/>
1708873-15	EB01-GW-08142017-F	Aqueous	EB01	8/14/2017 10:12	8/14/2017 15:50	<input type="checkbox"/>
1708873-16	CAMU-P01R-GW-08142017	Aqueous	CAMU-P01R	8/14/2017 13:08	8/14/2017 15:50	<input type="checkbox"/>
1708873-17	CAMU-P01R-GW-08142017-F	Aqueous	CAMU-P01R	8/14/2017 13:08	8/14/2017 15:50	<input type="checkbox"/>
1708873-18	CAMU-MW02R-GW-08152017	Aqueous	CAMU-MW02R	8/15/2017 10:01	8/15/2017 15:15	<input type="checkbox"/>
1708873-19	CAMU-MW02R-GW-08152017-F	Aqueous	CAMU-MW02R	8/15/2017 10:01	8/15/2017 15:15	<input type="checkbox"/>
1708873-20	CAMU-MW04R-GW-08152017	Aqueous	CAMU-MW04R	8/15/2017 08:36	8/15/2017 15:15	<input type="checkbox"/>
1708873-21	CAMU-MW04R-GW-08152017-F	Aqueous	CAMU-MW04R	8/15/2017 08:36	8/15/2017 15:15	<input type="checkbox"/>
1708873-22	CAMU-MW05-GW-08152017	Aqueous	CAMU-MW05	8/15/2017 11:04	8/15/2017 15:15	<input type="checkbox"/>
1708873-23	CAMU-MW05-GW-08152017-F	Aqueous	CAMU-MW05	8/15/2017 11:04	8/15/2017 15:15	<input type="checkbox"/>
1708873-24	CAMU-MW05-GW-08152017-FD	Aqueous	CAMU-MW05	8/15/2017 11:04	8/15/2017 15:15	<input type="checkbox"/>
1708873-25	CAMU-MW05-GW-08152017-F-FD	Aqueous	CAMU-MW05	8/15/2017 11:04	8/15/2017 15:15	<input type="checkbox"/>
1708873-26	CAMU-P05-GW-08152017	Aqueous	CAMU-P05	8/15/2017 11:12	8/15/2017 15:15	<input type="checkbox"/>
1708873-27	CAMU-P05-GW-08152017-F	Aqueous	CAMU-P05	8/15/2017 11:12	8/15/2017 15:15	<input type="checkbox"/>
1708873-28	CAMU-MW08-GW-08152017	Aqueous	CAMU-MW08	8/15/2017 14:34	8/15/2017 15:15	<input type="checkbox"/>
1708873-29	CAMU-MW08-GW-08152017-F	Aqueous	CAMU-MW08	8/15/2017 14:34	8/15/2017 15:15	<input type="checkbox"/>
1708873-30	CAMU-P08-GW-08152017	Aqueous	CAMU-P08	8/15/2017 14:10	8/15/2017 15:15	<input type="checkbox"/>
1708873-31	CAMU-P08-GW-08152017-F	Aqueous	CAMU-P08	8/15/2017 14:10	8/15/2017 15:15	<input type="checkbox"/>
1708873-32	CAMU-P09-GW-08152017	Aqueous	CAMU-P09	8/15/2017 12:40	8/15/2017 15:15	<input type="checkbox"/>
1708873-33	CAMU-P09-GW-08152017-F	Aqueous	CAMU-P09	8/15/2017 12:40	8/15/2017 15:15	<input type="checkbox"/>
1708873-34	CAMU-MW09R-GW-08152017	Aqueous	CAMU-MW09R	8/15/2017 12:41	8/15/2017 15:15	<input type="checkbox"/>
1708873-35	CAMU-MW09R-GW-08152017-F	Aqueous	CAMU-MW09R	8/15/2017 12:41	8/15/2017 15:15	<input type="checkbox"/>

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**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Work Order:** 1708873

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**Case Narrative**

Samples for the above noted Work Order were received on 08/15/2017. The attached "Sample Receipt Checklist" documents the status of custody seals, container integrity, preservation, and temperature compliance.

Samples were analyzed according to the analytical methodology previously transmitted in the "Work Order Acknowledgement". Methodologies are also documented in the "Analytical Result" section for each sample. Quality control results are listed in the "QC Report" section. Sample association for the reported quality control is located at the end of each batch summary. If applicable, results are appropriately qualified in the Analytical Result and QC Report sections. The "Qualifiers" section documents the various qualifiers, units, and acronyms utilized in reporting.

With the following exceptions, all sample analyses achieved analytical criteria.

ALS Environmental  
2400 Cumberland Drive  
Valparaiso, IN 46383  
(219) 299-8127

The following parameters were received and analyzed at the ALS Valparaiso facility under Florida NELAP certification ID# E871119:

Hexavalent Chromium by SM3500-Cr B / SW846 7196

Sample Receiving:  
No deviations or anomalies were noted.

Volatile Organics:  
Batch R218098B, Method VOC 8260, Samples 1708873-01A,-03A,-05A,-06A,-08A,-10A,-12A,-14A,-16A,-18A,-20A,-22A,-24A,-26A,-28A,-30A,-32A: Verification of sample preservation indicated a pH >2

Batch R218098B, Method VOC 8260, Sample 1708873-20A MS/MSD: The MS and MSD recoveries were above the upper control limit for Iodomethane. The corresponding result in the parent sample was non-detect, therefore no qualification is necessary.

Batch R218098B, Method VOC 8260, Sample VLCSW1-170818: The LCS recovery was above the upper control limit for Iodomethane. All the sample results in the batch were non-detect, therefore, no qualification is necessary.

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## Case Narrative

No other deviations or anomalies were noted.

### Extractable Organics:

Batch 106036, Method SVO 8270, Sample 1708873-22B: Vial had a hairline fracture, leaked, and went dry overnight. We tried to re-constitute the extract but surrogates failed low. No sample left for re-extraction

No other deviations or anomalies were noted.

### Metals:

No deviations or anomalies were noted.

### Wet Chemistry:

No deviations or anomalies were noted.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW06R-GW-08142017

Collection Date: 8/14/2017 02:37 PM

Work Order: 1708873

Lab ID: 1708873-01

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:41
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:41
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:41
Surr: Decachlorobiphenyl	99.8			30-150	%REC	1	8/20/2017 14:41
Surr: Tetrachloro-m-xylene	55.2			50-150	%REC	1	8/20/2017 14:41
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 18:27
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:27
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 18:27
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 18:27
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 18:27
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 18:27
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 18:27
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 18:27
1,4-Napthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 18:27
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 18:27
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:27
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:27
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 18:27
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 18:27
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 18:27
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 18:27
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:27
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:27
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 18:27
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 18:27
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 18:27
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:27
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 18:27
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 18:27
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 18:27

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW06R-GW-08142017

Collection Date: 8/14/2017 02:37 PM

Work Order: 1708873

Lab ID: 1708873-01

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:27
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 18:27
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 18:27
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:27
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 18:27
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 18:27
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 18:27
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 18:27
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:27
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 18:27
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 18:27
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 18:27
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 18:27
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 18:27
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 18:27
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 18:27
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 18:27
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 18:27
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 18:27
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 18:27
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 18:27
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:27
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 18:27
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 18:27
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 18:27
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 18:27
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 18:27
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 18:27
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:27
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 18:27
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:27
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 18:27
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:27
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:27
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:27
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 18:27
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 18:27
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 18:27
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 18:27
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 18:27

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW06R-GW-08142017

**Collection Date:** 8/14/2017 02:37 PM

**Work Order:** 1708873

**Lab ID:** 1708873-01

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:27
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:27
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:27
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 18:27
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:27
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 18:27
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 18:27
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:27
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 18:27
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 18:27
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 18:27
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:27
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 18:27
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 18:27
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:27
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 18:27
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 18:27
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 18:27
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 18:27
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 18:27
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 18:27
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 18:27
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 18:27
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 18:27
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:27
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 18:27
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:27
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 18:27
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:27
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 18:27
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 18:27
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 18:27
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 18:27
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 18:27
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 18:27
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 18:27
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:27
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 18:27
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 18:27
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 18:27

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW06R-GW-08142017

Collection Date: 8/14/2017 02:37 PM

Work Order: 1708873

Lab ID: 1708873-01

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:27
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:27
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 18:27
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 18:27
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 18:27
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 18:27
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 18:27
Surr: 2,4,6-Tribromophenol	53.8			32-92	%REC	1	8/21/2017 18:27
Surr: 2-Fluorobiphenyl	48.1			34-98	%REC	1	8/21/2017 18:27
Surr: 2-Fluorophenol	31.5			23-55	%REC	1	8/21/2017 18:27
Surr: 4-Terphenyl-d14	84.7			50-111	%REC	1	8/21/2017 18:27
Surr: Nitrobenzene-d5	46.0			32-89	%REC	1	8/21/2017 18:27
Surr: Phenol-d6	15.8			10-35	%REC	1	8/21/2017 18:27

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 11:55
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:55
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 11:55
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 11:55
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 11:55
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 11:55
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:55
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 11:55
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 11:55
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 11:55
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 11:55
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 11:55
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 11:55
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 11:55
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 11:55
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 11:55
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:55
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 11:55
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 11:55
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:55
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 11:55
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 11:55
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 11:55
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:55
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 11:55

Note: See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW06R-GW-08142017

Collection Date: 8/14/2017 02:37 PM

Work Order: 1708873

Lab ID: 1708873-01

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 11:55
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 11:55
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 11:55
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 11:55
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 11:55
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 11:55
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 11:55
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 11:55
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 11:55
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 11:55
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:55
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 11:55
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:55
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 11:55
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 11:55
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 11:55
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 11:55
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 11:55
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 11:55
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 11:55
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 11:55
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 11:55
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 11:55
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:55
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 11:55
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 11:55
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 11:55
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 11:55
Surr: 1,2-Dichloroethane-d4	97.8			75-120	%REC	1	8/18/2017 11:55
Surr: 4-Bromofluorobenzene	101			80-110	%REC	1	8/18/2017 11:55
Surr: Dibromofluoromethane	101			85-115	%REC	1	8/18/2017 11:55
Surr: Toluene-d8	97.8			85-110	%REC	1	8/18/2017 11:55

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW06R-GW-08142017-F  
**Collection Date:** 8/14/2017 02:37 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-02  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>MERCURY BY CVAA</b>			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:20
<hr/>							
<b>METALS BY ICP-MS</b>			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	<b>0.0030</b>	J	<b>0.00087</b>	<b>0.0050</b>	mg/L	1	8/17/2017 14:21
Barium	<b>0.031</b>		<b>0.0022</b>	<b>0.0050</b>	mg/L	1	8/17/2017 14:21
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:21
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:21
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:21
Lithium	<b>0.0048</b>	J	<b>0.00037</b>	<b>0.010</b>	mg/L	1	8/17/2017 14:21
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:21
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:21
<hr/>							
<b>CHROMIUM, HEXAVALENT</b>			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW07-GW-08142017  
**Collection Date:** 8/14/2017 10:00 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-03  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:56
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:56
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 14:56
Surr: Decachlorobiphenyl	94.5			30-150	%REC	1	8/20/2017 14:56
Surr: Tetrachloro-m-xylene	52.9			50-150	%REC	1	8/20/2017 14:56
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 18:46
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:46
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 18:46
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 18:46
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 18:46
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 18:46
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 18:46
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 18:46
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 18:46
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 18:46
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:46
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:46
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 18:46
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 18:46
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 18:46
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 18:46
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:46
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:46
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 18:46
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 18:46
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 18:46
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:46
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 18:46
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 18:46
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 18:46

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW07-GW-08142017  
**Collection Date:** 8/14/2017 10:00 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-03  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:46
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 18:46
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 18:46
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:46
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 18:46
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 18:46
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 18:46
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 18:46
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:46
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 18:46
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 18:46
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 18:46
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 18:46
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 18:46
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 18:46
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 18:46
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 18:46
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 18:46
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 18:46
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 18:46
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 18:46
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:46
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 18:46
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 18:46
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 18:46
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 18:46
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 18:46
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 18:46
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:46
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 18:46
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:46
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 18:46
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:46
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:46
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:46
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 18:46
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 18:46
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 18:46
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 18:46
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 18:46

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW07-GW-08142017  
**Collection Date:** 8/14/2017 10:00 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-03  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:46
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:46
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:46
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 18:46
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:46
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 18:46
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 18:46
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:46
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 18:46
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 18:46
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 18:46
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:46
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 18:46
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 18:46
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:46
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 18:46
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 18:46
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 18:46
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 18:46
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 18:46
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 18:46
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 18:46
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 18:46
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 18:46
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:46
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 18:46
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:46
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 18:46
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:46
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 18:46
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 18:46
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 18:46
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 18:46
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 18:46
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 18:46
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 18:46
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:46
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 18:46
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 18:46
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 18:46

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW07-GW-08142017  
**Collection Date:** 8/14/2017 10:00 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-03  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:46
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:46
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 18:46
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 18:46
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 18:46
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 18:46
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 18:46
Surr: 2,4,6-Tribromophenol	54.5			32-92	%REC	1	8/21/2017 18:46
Surr: 2-Fluorobiphenyl	51.3			34-98	%REC	1	8/21/2017 18:46
Surr: 2-Fluorophenol	33.3			23-55	%REC	1	8/21/2017 18:46
Surr: 4-Terphenyl-d14	82.7			50-111	%REC	1	8/21/2017 18:46
Surr: Nitrobenzene-d5	50.9			32-89	%REC	1	8/21/2017 18:46
Surr: Phenol-d6	16.5			10-35	%REC	1	8/21/2017 18:46

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 12:21
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:21
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 12:21
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 12:21
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 12:21
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 12:21
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 12:21
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 12:21
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 12:21
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 12:21
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 12:21
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 12:21
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 12:21
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 12:21
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 12:21
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 12:21
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:21
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 12:21
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 12:21
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:21
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 12:21
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 12:21
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 12:21
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 12:21
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 12:21

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW07-GW-08142017  
**Collection Date:** 8/14/2017 10:00 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-03  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 12:21
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 12:21
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 12:21
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 12:21
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 12:21
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 12:21
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 12:21
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 12:21
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 12:21
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 12:21
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 12:21
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 12:21
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:21
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 12:21
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 12:21
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 12:21
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 12:21
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 12:21
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 12:21
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 12:21
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 12:21
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 12:21
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 12:21
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:21
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 12:21
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 12:21
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 12:21
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 12:21
Surr: 1,2-Dichloroethane-d4	97.2			75-120	%REC	1	8/18/2017 12:21
Surr: 4-Bromofluorobenzene	102			80-110	%REC	1	8/18/2017 12:21
Surr: Dibromofluoromethane	98.2			85-115	%REC	1	8/18/2017 12:21
Surr: Toluene-d8	98.4			85-110	%REC	1	8/18/2017 12:21

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW07-GW-08142017-F  
**Collection Date:** 8/14/2017 10:00 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-04  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:23
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:22
<b>Barium</b>	<b>0.019</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:22
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:22
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:22
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:22
<b>Lithium</b>	<b>0.015</b>		<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:22
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:22
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:22
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** TB01-08142017  
**Collection Date:** 8/14/2017

**Work Order:** 1708873  
**Lab ID:** 1708873-05  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>VOLATILE ORGANIC COMPOUNDS</b>			Method: SW8260B			Analyst: LSY	
1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 11:03
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:03
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 11:03
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 11:03
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 11:03
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 11:03
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:03
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 11:03
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 11:03
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 11:03
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 11:03
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 11:03
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 11:03
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 11:03
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 11:03
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 11:03
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:03
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 11:03
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 11:03
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:03
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 11:03
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 11:03
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 11:03
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:03
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 11:03
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 11:03
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 11:03
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 11:03
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 11:03
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 11:03
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 11:03
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 11:03
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 11:03
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 11:03
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 11:03
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:03
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 11:03
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:03

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** TB01-08142017  
**Collection Date:** 8/14/2017

**Work Order:** 1708873  
**Lab ID:** 1708873-05  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 11:03
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 11:03
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 11:03
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 11:03
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 11:03
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 11:03
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 11:03
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 11:03
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 11:03
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 11:03
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:03
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 11:03
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 11:03
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 11:03
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 11:03
Surr: 1,2-Dichloroethane-d4	98.2			75-120	%REC	1	8/18/2017 11:03
Surr: 4-Bromofluorobenzene	96.2			80-110	%REC	1	8/18/2017 11:03
Surr: Dibromofluoromethane	98.6			85-115	%REC	1	8/18/2017 11:03
Surr: Toluene-d8	97.8			85-110	%REC	1	8/18/2017 11:03

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW01R-GW-08142017

Collection Date: 8/14/2017 12:54 PM

Work Order: 1708873

Lab ID: 1708873-06

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:10
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:10
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:10
Surr: Decachlorobiphenyl	107			30-150	%REC	1	8/20/2017 15:10
Surr: Tetrachloro-m-xylene	55.0			50-150	%REC	1	8/20/2017 15:10
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 19:05
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:05
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 19:05
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 19:05
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 19:05
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 19:05
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 19:05
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 19:05
1,4-Napthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 19:05
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 19:05
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:05
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:05
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 19:05
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 19:05
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 19:05
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 19:05
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:05
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:05
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 19:05
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 19:05
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 19:05
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:05
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 19:05
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 19:05
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 19:05

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW01R-GW-08142017

**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873

**Lab ID:** 1708873-06

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:05
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 19:05
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 19:05
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:05
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 19:05
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 19:05
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 19:05
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 19:05
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:05
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 19:05
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 19:05
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 19:05
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 19:05
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 19:05
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 19:05
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 19:05
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 19:05
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 19:05
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 19:05
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 19:05
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 19:05
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:05
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 19:05
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 19:05
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 19:05
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 19:05
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 19:05
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 19:05
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:05
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 19:05
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:05
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 19:05
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:05
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:05
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:05
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 19:05
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 19:05
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 19:05
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 19:05
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 19:05

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW01R-GW-08142017

**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873

**Lab ID:** 1708873-06

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:05
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:05
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:05
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 19:05
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:05
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 19:05
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 19:05
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:05
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 19:05
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 19:05
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 19:05
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:05
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 19:05
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 19:05
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:05
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 19:05
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 19:05
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 19:05
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 19:05
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 19:05
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 19:05
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 19:05
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 19:05
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 19:05
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:05
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 19:05
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:05
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 19:05
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:05
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 19:05
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 19:05
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 19:05
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 19:05
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 19:05
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 19:05
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 19:05
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:05
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 19:05
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 19:05
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 19:05

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW01R-GW-08142017

Collection Date: 8/14/2017 12:54 PM

Work Order: 1708873

Lab ID: 1708873-06

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:05
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:05
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 19:05
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 19:05
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 19:05
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 19:05
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 19:05
Surr: 2,4,6-Tribromophenol	61.3			32-92	%REC	1	8/21/2017 19:05
Surr: 2-Fluorobiphenyl	53.3			34-98	%REC	1	8/21/2017 19:05
Surr: 2-Fluorophenol	35.8			23-55	%REC	1	8/21/2017 19:05
Surr: 4-Terphenyl-d14	95.0			50-111	%REC	1	8/21/2017 19:05
Surr: Nitrobenzene-d5	53.3			32-89	%REC	1	8/21/2017 19:05
Surr: Phenol-d6	16.9			10-35	%REC	1	8/21/2017 19:05

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 12:47
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:47
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 12:47
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 12:47
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 12:47
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 12:47
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 12:47
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 12:47
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 12:47
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 12:47
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 12:47
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 12:47
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 12:47
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 12:47
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 12:47
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 12:47
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:47
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 12:47
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 12:47
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:47
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 12:47
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 12:47
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 12:47
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 12:47
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 12:47

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW01R-GW-08142017

**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873

**Lab ID:** 1708873-06

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 12:47
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 12:47
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 12:47
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 12:47
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 12:47
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 12:47
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 12:47
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 12:47
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 12:47
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 12:47
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 12:47
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 12:47
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:47
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 12:47
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 12:47
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 12:47
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 12:47
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 12:47
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 12:47
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 12:47
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 12:47
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 12:47
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 12:47
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 12:47
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 12:47
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 12:47
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 12:47
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 12:47
Surr: 1,2-Dichloroethane-d4	97.5			75-120	%REC	1	8/18/2017 12:47
Surr: 4-Bromofluorobenzene	98.7			80-110	%REC	1	8/18/2017 12:47
Surr: Dibromofluoromethane	96.8			85-115	%REC	1	8/18/2017 12:47
Surr: Toluene-d8	97.3			85-110	%REC	1	8/18/2017 12:47

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-F  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-07  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:25
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.0094</b>		<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:24
<b>Barium</b>	<b>0.021</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:24
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:24
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:24
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:24
<b>Lithium</b>	<b>0.016</b>		<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:24
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:24
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:24
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-FD  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-08  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:24
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:24
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 15:24
Surr: Decachlorobiphenyl	106			30-150	%REC	1	8/20/2017 15:24
Surr: Tetrachloro-m-xylene	56.3			50-150	%REC	1	8/20/2017 15:24
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 19:24
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:24
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 19:24
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 19:24
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 19:24
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 19:24
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 19:24
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 19:24
1,4-Napthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 19:24
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 19:24
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:24
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:24
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 19:24
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 19:24
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 19:24
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 19:24
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:24
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:24
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 19:24
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 19:24
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 19:24
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:24
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 19:24
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 19:24
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 19:24

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-FD  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-08  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:24
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 19:24
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 19:24
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:24
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 19:24
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 19:24
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 19:24
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 19:24
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:24
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 19:24
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 19:24
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 19:24
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 19:24
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 19:24
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 19:24
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 19:24
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 19:24
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 19:24
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 19:24
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 19:24
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 19:24
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:24
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 19:24
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 19:24
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 19:24
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 19:24
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 19:24
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 19:24
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:24
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 19:24
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:24
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 19:24
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:24
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:24
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:24
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 19:24
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 19:24
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 19:24
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 19:24
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 19:24

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-FD  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-08  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:24
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:24
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:24
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 19:24
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:24
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 19:24
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 19:24
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:24
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 19:24
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 19:24
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 19:24
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:24
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 19:24
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 19:24
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:24
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 19:24
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 19:24
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 19:24
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 19:24
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 19:24
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 19:24
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 19:24
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 19:24
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 19:24
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:24
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 19:24
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:24
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 19:24
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:24
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 19:24
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 19:24
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 19:24
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 19:24
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 19:24
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 19:24
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 19:24
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:24
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 19:24
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 19:24
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 19:24

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-FD  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-08  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:24
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:24
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 19:24
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 19:24
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 19:24
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 19:24
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 19:24
Surr: 2,4,6-Tribromophenol	59.0			32-92	%REC	1	8/21/2017 19:24
Surr: 2-Fluorobiphenyl	50.8			34-98	%REC	1	8/21/2017 19:24
Surr: 2-Fluorophenol	35.3			23-55	%REC	1	8/21/2017 19:24
Surr: 4-Terphenyl-d14	93.1			50-111	%REC	1	8/21/2017 19:24
Surr: Nitrobenzene-d5	50.8			32-89	%REC	1	8/21/2017 19:24
Surr: Phenol-d6	16.8			10-35	%REC	1	8/21/2017 19:24
<b>VOLATILE ORGANIC COMPOUNDS</b>			Method: SW8260B			Analyst: LSY	
1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 13:13
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:13
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 13:13
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 13:13
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 13:13
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 13:13
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 13:13
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 13:13
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 13:13
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 13:13
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 13:13
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 13:13
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 13:13
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 13:13
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 13:13
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 13:13
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:13
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 13:13
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 13:13
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:13
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 13:13
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 13:13
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 13:13
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 13:13
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 13:13

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-FD  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-08  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 13:13
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 13:13
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 13:13
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 13:13
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 13:13
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 13:13
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 13:13
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 13:13
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 13:13
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 13:13
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 13:13
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 13:13
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:13
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 13:13
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 13:13
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 13:13
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 13:13
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 13:13
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 13:13
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 13:13
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 13:13
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 13:13
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 13:13
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:13
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 13:13
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 13:13
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 13:13
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 13:13
Surr: 1,2-Dichloroethane-d4	101			75-120	%REC	1	8/18/2017 13:13
Surr: 4-Bromofluorobenzene	98.7			80-110	%REC	1	8/18/2017 13:13
Surr: Dibromofluoromethane	99.0			85-115	%REC	1	8/18/2017 13:13
Surr: Toluene-d8	97.6			85-110	%REC	1	8/18/2017 13:13

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW01R-GW-08142017-F-FD  
**Collection Date:** 8/14/2017 12:54 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-09  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:35
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.0097</b>		<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:25
<b>Barium</b>	<b>0.022</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:25
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:25
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:25
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:25
<b>Lithium</b>	<b>0.016</b>		<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:25
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:25
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:25
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P06R-GW-08142017  
**Collection Date:** 8/14/2017 03:02 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-10  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:07
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:07
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:07
Surr: Decachlorobiphenyl	108			30-150	%REC	1	8/20/2017 16:07
Surr: Tetrachloro-m-xylene	58.7			50-150	%REC	1	8/20/2017 16:07
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 19:43
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:43
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 19:43
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 19:43
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 19:43
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 19:43
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 19:43
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 19:43
1,4-Napthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 19:43
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 19:43
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:43
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:43
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 19:43
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 19:43
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 19:43
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 19:43
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:43
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:43
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 19:43
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 19:43
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 19:43
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:43
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 19:43
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 19:43
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 19:43

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P06R-GW-08142017  
**Collection Date:** 8/14/2017 03:02 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-10  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:43
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 19:43
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 19:43
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:43
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 19:43
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 19:43
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 19:43
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 19:43
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:43
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 19:43
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 19:43
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 19:43
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 19:43
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 19:43
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 19:43
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 19:43
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 19:43
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 19:43
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 19:43
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 19:43
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 19:43
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:43
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 19:43
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 19:43
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 19:43
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 19:43
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 19:43
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 19:43
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:43
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 19:43
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:43
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 19:43
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:43
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:43
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 19:43
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 19:43
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 19:43
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 19:43
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 19:43
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 19:43

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P06R-GW-08142017  
**Collection Date:** 8/14/2017 03:02 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-10  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:43
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:43
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 19:43
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 19:43
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:43
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 19:43
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 19:43
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:43
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 19:43
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 19:43
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 19:43
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:43
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 19:43
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 19:43
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:43
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 19:43
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 19:43
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 19:43
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 19:43
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 19:43
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 19:43
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 19:43
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 19:43
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 19:43
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 19:43
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 19:43
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 19:43
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 19:43
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 19:43
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 19:43
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 19:43
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 19:43
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 19:43
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 19:43
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 19:43
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 19:43
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 19:43
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 19:43
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 19:43
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 19:43

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P06R-GW-08142017  
**Collection Date:** 8/14/2017 03:02 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-10  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 19:43
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 19:43
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 19:43
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 19:43
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 19:43
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 19:43
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 19:43
Surr: 2,4,6-Tribromophenol	52.7			32-92	%REC	1	8/21/2017 19:43
Surr: 2-Fluorobiphenyl	48.1			34-98	%REC	1	8/21/2017 19:43
Surr: 2-Fluorophenol	33.3			23-55	%REC	1	8/21/2017 19:43
Surr: 4-Terphenyl-d14	80.2			50-111	%REC	1	8/21/2017 19:43
Surr: Nitrobenzene-d5	46.7			32-89	%REC	1	8/21/2017 19:43
Surr: Phenol-d6	15.8			10-35	%REC	1	8/21/2017 19:43

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 13:39
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:39
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 13:39
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 13:39
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 13:39
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 13:39
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 13:39
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 13:39
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 13:39
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 13:39
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 13:39
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 13:39
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 13:39
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 13:39
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 13:39
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 13:39
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:39
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 13:39
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 13:39
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:39
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 13:39
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 13:39
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 13:39
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 13:39
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 13:39

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P06R-GW-08142017  
**Collection Date:** 8/14/2017 03:02 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-10  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 13:39
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 13:39
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 13:39
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 13:39
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 13:39
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 13:39
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 13:39
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 13:39
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 13:39
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 13:39
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 13:39
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 13:39
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:39
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 13:39
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 13:39
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 13:39
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 13:39
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 13:39
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 13:39
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 13:39
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 13:39
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 13:39
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 13:39
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 13:39
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 13:39
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 13:39
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 13:39
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 13:39
Surr: 1,2-Dichloroethane-d4	97.4			75-120	%REC	1	8/18/2017 13:39
Surr: 4-Bromofluorobenzene	101			80-110	%REC	1	8/18/2017 13:39
Surr: Dibromofluoromethane	99.0			85-115	%REC	1	8/18/2017 13:39
Surr: Toluene-d8	98.0			85-110	%REC	1	8/18/2017 13:39

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P06R-GW-08142017-F  
**Collection Date:** 8/14/2017 03:02 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-11  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>MERCURY BY CVAA</b>			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:38
<hr/>							
<b>METALS BY ICP-MS</b>			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	<b>0.045</b>		<b>0.00087</b>	<b>0.0050</b>	mg/L	1	8/17/2017 14:27
Barium	<b>0.25</b>		<b>0.0022</b>	<b>0.0050</b>	mg/L	1	8/17/2017 14:27
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:27
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:27
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:27
Lithium	<b>0.0068</b>	J	<b>0.00037</b>	<b>0.010</b>	mg/L	1	8/17/2017 14:27
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:27
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:27
<hr/>							
<b>CHROMIUM, HEXAVALENT</b>			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P07-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-12  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:21
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:21
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:21
Surr: Decachlorobiphenyl	108			30-150	%REC	1	8/20/2017 16:21
Surr: Tetrachloro-m-xylene	56.8			50-150	%REC	1	8/20/2017 16:21
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 20:02
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:02
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 20:02
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 20:02
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:02
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 20:02
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 20:02
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 20:02
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 20:02
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 20:02
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:02
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:02
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:02
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:02
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 20:02
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 20:02
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:02
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:02
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:02
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 20:02
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:02
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:02
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 20:02
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:02
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 20:02

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P07-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-12  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:02
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:02
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 20:02
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:02
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 20:02
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 20:02
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 20:02
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:02
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:02
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 20:02
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:02
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:02
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:02
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 20:02
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 20:02
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 20:02
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 20:02
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 20:02
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 20:02
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 20:02
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:02
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:02
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:02
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 20:02
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 20:02
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 20:02
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 20:02
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:02
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:02
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:02
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:02
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 20:02
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:02
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:02
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:02
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 20:02
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 20:02
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 20:02
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:02
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 20:02

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P07-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-12  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:02
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:02
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:02
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 20:02
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:02
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 20:02
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 20:02
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:02
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 20:02
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 20:02
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:02
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:02
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 20:02
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 20:02
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:02
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 20:02
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 20:02
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:02
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 20:02
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 20:02
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 20:02
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 20:02
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:02
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:02
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:02
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:02
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:02
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:02
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:02
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 20:02
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 20:02
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 20:02
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 20:02
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 20:02
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 20:02
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 20:02
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:02
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 20:02
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 20:02
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 20:02

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P07-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-12  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:02
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:02
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 20:02
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 20:02
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 20:02
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 20:02
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 20:02
Surr: 2,4,6-Tribromophenol	56.1			32-92	%REC	1	8/21/2017 20:02
Surr: 2-Fluorobiphenyl	50.4			34-98	%REC	1	8/21/2017 20:02
Surr: 2-Fluorophenol	32.7			23-55	%REC	1	8/21/2017 20:02
Surr: 4-Terphenyl-d14	92.7			50-111	%REC	1	8/21/2017 20:02
Surr: Nitrobenzene-d5	48.9			32-89	%REC	1	8/21/2017 20:02
Surr: Phenol-d6	16.1			10-35	%REC	1	8/21/2017 20:02

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 14:57
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 14:57
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 14:57
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 14:57
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 14:57
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 14:57
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 14:57
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 14:57
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 14:57
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 14:57
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 14:57
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 14:57
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 14:57
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 14:57
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 14:57
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 14:57
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 14:57
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 14:57
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 14:57
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 14:57
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 14:57
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 14:57
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 14:57
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 14:57
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 14:57

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P07-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-12  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 14:57
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 14:57
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 14:57
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 14:57
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 14:57
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 14:57
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 14:57
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 14:57
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 14:57
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 14:57
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 14:57
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 14:57
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 14:57
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 14:57
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 14:57
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 14:57
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 14:57
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 14:57
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 14:57
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 14:57
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 14:57
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 14:57
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 14:57
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 14:57
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 14:57
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 14:57
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 14:57
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 14:57
Surr: 1,2-Dichloroethane-d4	96.8			75-120	%REC	1	8/18/2017 14:57
Surr: 4-Bromofluorobenzene	98.7			80-110	%REC	1	8/18/2017 14:57
Surr: Dibromofluoromethane	99.4			85-115	%REC	1	8/18/2017 14:57
Surr: Toluene-d8	96.4			85-110	%REC	1	8/18/2017 14:57

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P07-GW-08142017-F  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-13  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:48
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.041</b>		<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:33
<b>Barium</b>	<b>0.10</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:33
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:33
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:33
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:33
<b>Lithium</b>	<b>0.016</b>		<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:33
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:33
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:33
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** EB01-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-14  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:35
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:35
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:35
Surr: Decachlorobiphenyl	102			30-150	%REC	1	8/20/2017 16:35
Surr: Tetrachloro-m-xylene	60.1			50-150	%REC	1	8/20/2017 16:35
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 20:21
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:21
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 20:21
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 20:21
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:21
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 20:21
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 20:21
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 20:21
1,4-Napthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 20:21
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 20:21
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:21
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:21
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:21
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:21
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 20:21
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 20:21
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:21
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:21
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:21
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 20:21
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:21
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:21
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 20:21
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:21
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 20:21

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** EB01-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-14  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:21
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:21
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 20:21
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:21
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 20:21
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 20:21
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 20:21
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:21
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:21
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 20:21
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:21
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:21
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:21
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 20:21
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 20:21
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 20:21
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 20:21
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 20:21
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 20:21
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 20:21
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:21
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:21
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:21
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 20:21
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 20:21
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 20:21
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 20:21
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:21
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:21
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:21
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:21
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 20:21
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:21
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:21
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:21
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 20:21
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 20:21
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 20:21
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:21
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 20:21

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** EB01-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-14  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:21
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:21
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:21
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 20:21
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:21
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 20:21
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 20:21
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:21
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 20:21
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 20:21
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:21
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:21
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 20:21
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 20:21
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:21
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 20:21
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 20:21
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:21
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 20:21
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 20:21
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 20:21
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 20:21
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:21
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:21
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:21
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:21
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:21
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:21
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:21
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 20:21
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 20:21
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 20:21
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 20:21
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 20:21
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 20:21
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 20:21
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:21
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 20:21
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 20:21
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 20:21

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** EB01-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-14  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:21
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:21
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 20:21
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 20:21
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 20:21
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 20:21
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 20:21
Surr: 2,4,6-Tribromophenol	65.6			32-92	%REC	1	8/21/2017 20:21
Surr: 2-Fluorobiphenyl	57.4			34-98	%REC	1	8/21/2017 20:21
Surr: 2-Fluorophenol	41.9			23-55	%REC	1	8/21/2017 20:21
Surr: 4-Terphenyl-d14	85.1			50-111	%REC	1	8/21/2017 20:21
Surr: Nitrobenzene-d5	54.6			32-89	%REC	1	8/21/2017 20:21
Surr: Phenol-d6	29.9			10-35	%REC	1	8/21/2017 20:21

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 11:29
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:29
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 11:29
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 11:29
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 11:29
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 11:29
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:29
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 11:29
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 11:29
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 11:29
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 11:29
<b>2-Butanone</b>	<b>350</b>		<b>4.7</b>	<b>50</b>	<b>µg/L</b>	10	8/19/2017 23:38
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 11:29
<b>2-Hexanone</b>	<b>48</b>		<b>0.50</b>	<b>5.0</b>	<b>µg/L</b>	1	8/18/2017 11:29
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 11:29
<b>Acetone</b>	<b>210</b>		<b>4.7</b>	<b>100</b>	<b>µg/L</b>	10	8/19/2017 23:38
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:29
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 11:29
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 11:29
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:29
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 11:29
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 11:29
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 11:29
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:29
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 11:29

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** EB01-GW-08142017  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-14  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 11:29
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 11:29
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 11:29
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 11:29
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 11:29
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 11:29
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 11:29
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 11:29
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 11:29
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 11:29
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 11:29
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 11:29
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:29
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 11:29
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 11:29
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 11:29
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 11:29
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 11:29
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 11:29
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 11:29
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 11:29
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 11:29
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 11:29
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 11:29
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 11:29
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 11:29
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 11:29
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 11:29
Surr: 1,2-Dichloroethane-d4	95.6			75-120	%REC	1	8/18/2017 11:29
Surr: 1,2-Dichloroethane-d4	96.3			75-120	%REC	10	8/19/2017 23:38
Surr: 4-Bromofluorobenzene	98.4			80-110	%REC	1	8/18/2017 11:29
Surr: 4-Bromofluorobenzene	100			80-110	%REC	10	8/19/2017 23:38
Surr: Dibromofluoromethane	99.4			85-115	%REC	1	8/18/2017 11:29
Surr: Dibromofluoromethane	101			85-115	%REC	10	8/19/2017 23:38
Surr: Toluene-d8	98.4			85-110	%REC	1	8/18/2017 11:29
Surr: Toluene-d8	95.6			85-110	%REC	10	8/19/2017 23:38

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** EB01-GW-08142017-F  
**Collection Date:** 8/14/2017 10:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-15  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>MERCURY BY CVAA</b>			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:51
<hr/>							
<b>METALS BY ICP-MS</b>			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:35
Barium	< 0.0050		0.0022	0.0050	mg/L	1	8/17/2017 14:35
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:35
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:35
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:35
Lithium	< 0.010		0.00037	0.010	mg/L	1	8/17/2017 14:35
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:35
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:35
<hr/>							
<b>CHROMIUM, HEXAVALENT</b>			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P01R-GW-08142017  
**Collection Date:** 8/14/2017 01:08 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-16  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:50
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:50
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 16:50
Surr: Decachlorobiphenyl	107			30-150	%REC	1	8/20/2017 16:50
Surr: Tetrachloro-m-xylene	59.0			50-150	%REC	1	8/20/2017 16:50
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 20:40
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:40
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 20:40
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 20:40
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:40
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 20:40
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 20:40
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 20:40
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 20:40
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 20:40
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:40
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:40
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:40
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:40
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 20:40
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 20:40
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:40
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:40
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:40
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 20:40
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:40
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:40
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 20:40
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:40
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 20:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P01R-GW-08142017  
**Collection Date:** 8/14/2017 01:08 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-16  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:40
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:40
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 20:40
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:40
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 20:40
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 20:40
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 20:40
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:40
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:40
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 20:40
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:40
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:40
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:40
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 20:40
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 20:40
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 20:40
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 20:40
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 20:40
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 20:40
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 20:40
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:40
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:40
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:40
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 20:40
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 20:40
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 20:40
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 20:40
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:40
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:40
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:40
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:40
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 20:40
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:40
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:40
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:40
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 20:40
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 20:40
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 20:40
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:40
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 20:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P01R-GW-08142017  
**Collection Date:** 8/14/2017 01:08 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-16  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:40
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:40
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:40
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 20:40
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:40
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 20:40
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 20:40
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:40
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 20:40
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 20:40
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:40
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:40
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 20:40
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 20:40
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:40
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 20:40
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 20:40
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:40
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 20:40
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 20:40
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 20:40
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 20:40
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:40
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:40
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:40
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:40
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:40
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:40
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:40
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 20:40
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 20:40
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 20:40
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 20:40
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 20:40
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 20:40
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 20:40
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:40
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 20:40
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 20:40
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 20:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P01R-GW-08142017  
**Collection Date:** 8/14/2017 01:08 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-16  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:40
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:40
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 20:40
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 20:40
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 20:40
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 20:40
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 20:40
Surr: 2,4,6-Tribromophenol	54.3			32-92	%REC	1	8/21/2017 20:40
Surr: 2-Fluorobiphenyl	47.1			34-98	%REC	1	8/21/2017 20:40
Surr: 2-Fluorophenol	32.4			23-55	%REC	1	8/21/2017 20:40
Surr: 4-Terphenyl-d14	85.2			50-111	%REC	1	8/21/2017 20:40
Surr: Nitrobenzene-d5	46.8			32-89	%REC	1	8/21/2017 20:40
Surr: Phenol-d6	15.0			10-35	%REC	1	8/21/2017 20:40

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 15:22
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:22
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 15:22
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 15:22
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 15:22
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 15:22
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 15:22
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 15:22
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 15:22
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 15:22
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 15:22
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 15:22
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 15:22
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 15:22
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 15:22
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 15:22
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:22
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 15:22
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 15:22
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:22
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 15:22
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 15:22
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 15:22
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 15:22
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 15:22

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P01R-GW-08142017  
**Collection Date:** 8/14/2017 01:08 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-16  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 15:22
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 15:22
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 15:22
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 15:22
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 15:22
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 15:22
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 15:22
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 15:22
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 15:22
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 15:22
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 15:22
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 15:22
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:22
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 15:22
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 15:22
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 15:22
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 15:22
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 15:22
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 15:22
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 15:22
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 15:22
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 15:22
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 15:22
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:22
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 15:22
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 15:22
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 15:22
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 15:22
Surr: 1,2-Dichloroethane-d4	96.5			75-120	%REC	1	8/18/2017 15:22
Surr: 4-Bromofluorobenzene	102			80-110	%REC	1	8/18/2017 15:22
Surr: Dibromofluoromethane	98.6			85-115	%REC	1	8/18/2017 15:22
Surr: Toluene-d8	98.2			85-110	%REC	1	8/18/2017 15:22

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P01R-GW-08142017-F  
**Collection Date:** 8/14/2017 01:08 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-17  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:53
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.036</b>		<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:36
<b>Barium</b>	<b>0.060</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:36
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:36
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:36
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:36
<b>Lithium</b>	<b>0.0061</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:36
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:36
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:36
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/15/2017 09:00

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW02R-GW-08152017

Collection Date: 8/15/2017 10:01 AM

Work Order: 1708873

Lab ID: 1708873-18

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:04
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:04
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:04
Surr: Decachlorobiphenyl	107			30-150	%REC	1	8/20/2017 17:04
Surr: Tetrachloro-m-xylene	55.5			50-150	%REC	1	8/20/2017 17:04
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 20:59
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:59
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 20:59
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 20:59
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:59
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 20:59
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 20:59
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 20:59
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 20:59
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 20:59
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:59
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:59
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:59
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:59
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 20:59
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 20:59
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:59
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:59
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:59
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 20:59
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:59
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:59
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 20:59
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 20:59
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 20:59

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW02R-GW-08152017

**Collection Date:** 8/15/2017 10:01 AM

**Work Order:** 1708873

**Lab ID:** 1708873-18

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:59
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:59
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 20:59
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:59
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 20:59
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 20:59
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 20:59
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 20:59
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:59
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 20:59
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 20:59
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:59
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 20:59
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 20:59
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 20:59
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 20:59
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 20:59
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 20:59
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 20:59
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 20:59
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 20:59
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:59
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:59
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 20:59
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 20:59
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 20:59
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 20:59
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:59
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:59
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:59
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:59
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 20:59
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:59
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:59
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 20:59
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 20:59
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 20:59
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 20:59
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 20:59
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 20:59

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW02R-GW-08152017

**Collection Date:** 8/15/2017 10:01 AM

**Work Order:** 1708873

**Lab ID:** 1708873-18

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:59
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:59
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 20:59
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 20:59
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:59
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 20:59
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 20:59
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:59
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 20:59
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 20:59
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 20:59
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:59
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 20:59
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 20:59
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:59
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 20:59
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 20:59
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:59
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 20:59
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 20:59
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 20:59
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 20:59
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 20:59
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 20:59
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 20:59
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 20:59
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 20:59
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 20:59
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 20:59
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 20:59
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 20:59
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 20:59
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 20:59
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 20:59
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 20:59
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 20:59
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 20:59
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 20:59
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 20:59
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 20:59

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW02R-GW-08152017

Collection Date: 8/15/2017 10:01 AM

Work Order: 1708873

Lab ID: 1708873-18

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 20:59
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 20:59
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 20:59
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 20:59
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 20:59
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 20:59
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 20:59
Surr: 2,4,6-Tribromophenol	47.5			32-92	%REC	1	8/21/2017 20:59
Surr: 2-Fluorobiphenyl	39.6			34-98	%REC	1	8/21/2017 20:59
Surr: 2-Fluorophenol	28.2			23-55	%REC	1	8/21/2017 20:59
Surr: 4-Terphenyl-d14	81.4			50-111	%REC	1	8/21/2017 20:59
Surr: Nitrobenzene-d5	38.8			32-89	%REC	1	8/21/2017 20:59
Surr: Phenol-d6	13.3			10-35	%REC	1	8/21/2017 20:59

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 15:48
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:48
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 15:48
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 15:48
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 15:48
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 15:48
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 15:48
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 15:48
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 15:48
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 15:48
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 15:48
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 15:48
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 15:48
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 15:48
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 15:48
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 15:48
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:48
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 15:48
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 15:48
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:48
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 15:48
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 15:48
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 15:48
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 15:48
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 15:48

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW02R-GW-08152017

Collection Date: 8/15/2017 10:01 AM

Work Order: 1708873

Lab ID: 1708873-18

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 15:48
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 15:48
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 15:48
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 15:48
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 15:48
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 15:48
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 15:48
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 15:48
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 15:48
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 15:48
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 15:48
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 15:48
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:48
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 15:48
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 15:48
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 15:48
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 15:48
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 15:48
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 15:48
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 15:48
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 15:48
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 15:48
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 15:48
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 15:48
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 15:48
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 15:48
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 15:48
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 15:48
Surr: 1,2-Dichloroethane-d4	98.2			75-120	%REC	1	8/18/2017 15:48
Surr: 4-Bromofluorobenzene	99.4			80-110	%REC	1	8/18/2017 15:48
Surr: Dibromofluoromethane	99.4			85-115	%REC	1	8/18/2017 15:48
Surr: Toluene-d8	95.5			85-110	%REC	1	8/18/2017 15:48

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW02R-GW-08152017-F  
**Collection Date:** 8/15/2017 10:01 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-19  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 16:56
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:38
<b>Barium</b>	<b>0.018</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:38
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:38
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:38
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:38
<b>Lithium</b>	<b>0.0034</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:38
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:38
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:38
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW04R-GW-08152017

Collection Date: 8/15/2017 08:36 AM

Work Order: 1708873

Lab ID: 1708873-20

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 13:58
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 13:58
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 13:58
Surr: Decachlorobiphenyl	104			30-150	%REC	1	8/20/2017 13:58
Surr: Tetrachloro-m-xylene	60.1			50-150	%REC	1	8/20/2017 13:58
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 18:07
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:07
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 18:07
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 18:07
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 18:07
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 18:07
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 18:07
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 18:07
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 18:07
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 18:07
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:07
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:07
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 18:07
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 18:07
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 18:07
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 18:07
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:07
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:07
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 18:07
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 18:07
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 18:07
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:07
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 18:07
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 18:07
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 18:07

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW04R-GW-08152017

**Collection Date:** 8/15/2017 08:36 AM

**Work Order:** 1708873

**Lab ID:** 1708873-20

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:07
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 18:07
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 18:07
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:07
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 18:07
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 18:07
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 18:07
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 18:07
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:07
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 18:07
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 18:07
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 18:07
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 18:07
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 18:07
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 18:07
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 18:07
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 18:07
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 18:07
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 18:07
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 18:07
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 18:07
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:07
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 18:07
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 18:07
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 18:07
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 18:07
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 18:07
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 18:07
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:07
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 18:07
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:07
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 18:07
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:07
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:07
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 18:07
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 18:07
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 18:07
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 18:07
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 18:07
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 18:07

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW04R-GW-08152017

**Collection Date:** 8/15/2017 08:36 AM

**Work Order:** 1708873

**Lab ID:** 1708873-20

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:07
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:07
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 18:07
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 18:07
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:07
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 18:07
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 18:07
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:07
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 18:07
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 18:07
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 18:07
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:07
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 18:07
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 18:07
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:07
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 18:07
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 18:07
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 18:07
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 18:07
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 18:07
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 18:07
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 18:07
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 18:07
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 18:07
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 18:07
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 18:07
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 18:07
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 18:07
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 18:07
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 18:07
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 18:07
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 18:07
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 18:07
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 18:07
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 18:07
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 18:07
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 18:07
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 18:07
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 18:07
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 18:07

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW04R-GW-08152017

Collection Date: 8/15/2017 08:36 AM

Work Order: 1708873

Lab ID: 1708873-20

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 18:07
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 18:07
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 18:07
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 18:07
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 18:07
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 18:07
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 18:07
Surr: 2,4,6-Tribromophenol	58.9			32-92	%REC	1	8/21/2017 18:07
Surr: 2-Fluorobiphenyl	48.7			34-98	%REC	1	8/21/2017 18:07
Surr: 2-Fluorophenol	30.8			23-55	%REC	1	8/21/2017 18:07
Surr: 4-Terphenyl-d14	91.8			50-111	%REC	1	8/21/2017 18:07
Surr: Nitrobenzene-d5	47.1			32-89	%REC	1	8/21/2017 18:07
Surr: Phenol-d6	15.0			10-35	%REC	1	8/21/2017 18:07

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 16:15
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:15
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 16:15
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 16:15
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 16:15
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 16:15
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 16:15
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 16:15
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 16:15
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 16:15
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 16:15
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 16:15
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 16:15
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 16:15
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 16:15
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 16:15
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:15
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 16:15
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 16:15
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:15
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 16:15
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 16:15
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 16:15
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 16:15
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 16:15

Note: See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW04R-GW-08152017

**Collection Date:** 8/15/2017 08:36 AM

**Work Order:** 1708873

**Lab ID:** 1708873-20

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 16:15
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 16:15
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 16:15
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 16:15
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 16:15
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 16:15
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 16:15
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 16:15
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 16:15
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 16:15
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 16:15
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 16:15
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:15
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 16:15
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 16:15
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 16:15
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 16:15
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 16:15
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 16:15
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 16:15
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 16:15
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 16:15
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 16:15
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:15
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 16:15
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 16:15
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 16:15
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 16:15
Surr: 1,2-Dichloroethane-d4	94.2			75-120	%REC	1	8/18/2017 16:15
Surr: 4-Bromofluorobenzene	96.4			80-110	%REC	1	8/18/2017 16:15
Surr: Dibromofluoromethane	102			85-115	%REC	1	8/18/2017 16:15
Surr: Toluene-d8	95.1			85-110	%REC	1	8/18/2017 16:15

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW04R-GW-08152017-F  
**Collection Date:** 8/15/2017 08:36 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-21  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/21/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/21/2017 15:52
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:39
<b>Barium</b>	<b>0.071</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:39
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:39
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:39
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:39
<b>Lithium</b>	<b>0.0063</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:39
<b>Selenium</b>	<b>0.0050</b>		<b>0.00090</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:39
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:39
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-22  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:18
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:18
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:18
Surr: Decachlorobiphenyl	102			30-150	%REC	1	8/20/2017 17:18
Surr: Tetrachloro-m-xylene	55.5			50-150	%REC	1	8/20/2017 17:18
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 21:18
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 21:18
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 21:18
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 21:18
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 21:18
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 21:18
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 21:18
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 21:18
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 21:18
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 21:18
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 21:18
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 21:18
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 21:18
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 21:18
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 21:18
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 21:18
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 21:18
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 21:18
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 21:18
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 21:18
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 21:18
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:18
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 21:18
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 21:18
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 21:18

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-22  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:18
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 21:18
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 21:18
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:18
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 21:18
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 21:18
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 21:18
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 21:18
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 21:18
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 21:18
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 21:18
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 21:18
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 21:18
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 21:18
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 21:18
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 21:18
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 21:18
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 21:18
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 21:18
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 21:18
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 21:18
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 21:18
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 21:18
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 21:18
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 21:18
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 21:18
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 21:18
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 21:18
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 21:18
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 21:18
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 21:18
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 21:18
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 21:18
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:18
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 21:18
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 21:18
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 21:18
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 21:18
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 21:18
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 21:18

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-22  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 21:18
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:18
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 21:18
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 21:18
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:18
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 21:18
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 21:18
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:18
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 21:18
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 21:18
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 21:18
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 21:18
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 21:18
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 21:18
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:18
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 21:18
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 21:18
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 21:18
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 21:18
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 21:18
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 21:18
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 21:18
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 21:18
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 21:18
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 21:18
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 21:18
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 21:18
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 21:18
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:18
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 21:18
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 21:18
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 21:18
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 21:18
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 21:18
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 21:18
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 21:18
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 21:18
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 21:18
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 21:18
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 21:18

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-22  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 21:18
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:18
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 21:18
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 21:18
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 21:18
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 21:18
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 21:18
Surr: 2,4,6-Tribromophenol	11.9	S		32-92	%REC	1	8/21/2017 21:18
Surr: 2-Fluorobiphenyl	11.3	S		34-98	%REC	1	8/21/2017 21:18
Surr: 2-Fluorophenol	4.36	S		23-55	%REC	1	8/21/2017 21:18
Surr: 4-Terphenyl-d14	18.1	S		50-111	%REC	1	8/21/2017 21:18
Surr: Nitrobenzene-d5	9.06	S		32-89	%REC	1	8/21/2017 21:18
Surr: Phenol-d6	1.72	S		10-35	%REC	1	8/21/2017 21:18
<b>VOLATILE ORGANIC COMPOUNDS</b>			Method: SW8260B			Analyst: LSY	
1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 16:41
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:41
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 16:41
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 16:41
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 16:41
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 16:41
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 16:41
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 16:41
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 16:41
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 16:41
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 16:41
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 16:41
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 16:41
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 16:41
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 16:41
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 16:41
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:41
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 16:41
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 16:41
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:41
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 16:41
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 16:41
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 16:41
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 16:41
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 16:41

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-22  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 16:41
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 16:41
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 16:41
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 16:41
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 16:41
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 16:41
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 16:41
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 16:41
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 16:41
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 16:41
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 16:41
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 16:41
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:41
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 16:41
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 16:41
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 16:41
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 16:41
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 16:41
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 16:41
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 16:41
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 16:41
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 16:41
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 16:41
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 16:41
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 16:41
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 16:41
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 16:41
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 16:41
Surr: 1,2-Dichloroethane-d4	97.4			75-120	%REC	1	8/18/2017 16:41
Surr: 4-Bromofluorobenzene	100			80-110	%REC	1	8/18/2017 16:41
Surr: Dibromofluoromethane	99.0			85-115	%REC	1	8/18/2017 16:41
Surr: Toluene-d8	98.9			85-110	%REC	1	8/18/2017 16:41

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW05-GW-08152017-F

Collection Date: 8/15/2017 11:04 AM

Work Order: 1708873

Lab ID: 1708873-23

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 15:56
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:44
<b>Barium</b>	<b>0.040</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:44
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:44
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:44
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:44
<b>Lithium</b>	<b>0.0030</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:44
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:44
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:44
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017-FD  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-24  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/17/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:33
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:33
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/20/2017 17:33
Surr: Decachlorobiphenyl	97.3			30-150	%REC	1	8/20/2017 17:33
Surr: Tetrachloro-m-xylene	59.8			50-150	%REC	1	8/20/2017 17:33
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 21:37
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 21:37
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 21:37
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 21:37
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 21:37
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 21:37
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 21:37
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 21:37
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 21:37
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 21:37
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 21:37
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 21:37
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 21:37
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 21:37
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 21:37
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 21:37
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 21:37
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 21:37
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 21:37
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 21:37
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 21:37
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:37
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 21:37
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 21:37
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 21:37

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017-FD  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-24  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:37
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 21:37
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 21:37
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:37
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 21:37
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 21:37
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 21:37
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 21:37
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 21:37
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 21:37
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 21:37
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 21:37
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 21:37
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 21:37
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 21:37
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 21:37
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 21:37
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 21:37
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 21:37
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 21:37
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 21:37
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 21:37
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 21:37
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 21:37
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 21:37
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 21:37
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 21:37
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 21:37
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 21:37
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 21:37
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 21:37
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 21:37
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 21:37
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:37
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 21:37
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 21:37
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 21:37
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 21:37
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 21:37
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 21:37

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017-FD  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-24  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 21:37
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:37
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 21:37
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 21:37
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:37
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 21:37
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 21:37
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:37
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 21:37
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 21:37
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 21:37
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 21:37
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 21:37
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 21:37
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:37
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 21:37
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 21:37
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 21:37
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 21:37
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 21:37
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 21:37
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 21:37
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 21:37
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 21:37
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 21:37
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 21:37
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 21:37
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 21:37
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 21:37
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 21:37
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 21:37
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 21:37
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 21:37
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 21:37
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 21:37
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 21:37
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 21:37
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 21:37
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 21:37
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 21:37

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017-FD  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-24  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 21:37
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 21:37
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 21:37
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 21:37
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 21:37
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 21:37
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 21:37
Surr: 2,4,6-Tribromophenol	56.6			32-92	%REC	1	8/21/2017 21:37
Surr: 2-Fluorobiphenyl	45.6			34-98	%REC	1	8/21/2017 21:37
Surr: 2-Fluorophenol	29.1			23-55	%REC	1	8/21/2017 21:37
Surr: 4-Terphenyl-d14	86.4			50-111	%REC	1	8/21/2017 21:37
Surr: Nitrobenzene-d5	44.4			32-89	%REC	1	8/21/2017 21:37
Surr: Phenol-d6	13.6			10-35	%REC	1	8/21/2017 21:37

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 17:07
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:07
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 17:07
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 17:07
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 17:07
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 17:07
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:07
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 17:07
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 17:07
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 17:07
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 17:07
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 17:07
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 17:07
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 17:07
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 17:07
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 17:07
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:07
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 17:07
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 17:07
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:07
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 17:07
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 17:07
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 17:07
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:07
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 17:07

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017-FD  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-24  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 17:07
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 17:07
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 17:07
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 17:07
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 17:07
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 17:07
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 17:07
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 17:07
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 17:07
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 17:07
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:07
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 17:07
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:07
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 17:07
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 17:07
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 17:07
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 17:07
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 17:07
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 17:07
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 17:07
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 17:07
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 17:07
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 17:07
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:07
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 17:07
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 17:07
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 17:07
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 17:07
Surr: 1,2-Dichloroethane-d4	97.2			75-120	%REC	1	8/18/2017 17:07
Surr: 4-Bromofluorobenzene	99.4			80-110	%REC	1	8/18/2017 17:07
Surr: Dibromofluoromethane	101			85-115	%REC	1	8/18/2017 17:07
Surr: Toluene-d8	95.9			85-110	%REC	1	8/18/2017 17:07

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW05-GW-08152017-F-FD  
**Collection Date:** 8/15/2017 11:04 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-25  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 15:59
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:46
<b>Barium</b>	<b>0.041</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:46
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:46
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:46
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:46
<b>Lithium</b>	<b>0.0030</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:46
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:46
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:46
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P05-GW-08152017  
**Collection Date:** 8/15/2017 11:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-26  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/21/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.34		0.30	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1221	< 0.34		0.30	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1232	< 0.34		0.30	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1242	< 0.34		0.30	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1248	< 0.34		0.30	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1254	< 0.34		0.17	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1260	< 0.34		0.17	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1262	< 0.34		0.17	0.34	µg/L	1	8/22/2017 16:48
Aroclor 1268	< 0.34		0.17	0.34	µg/L	1	8/22/2017 16:48
PCBs, Total	< 0.34		0.17	0.34	µg/L	1	8/22/2017 16:48
Surr: Decachlorobiphenyl	99.7			30-150	%REC	1	8/22/2017 16:48
Surr: Tetrachloro-m-xylene	57.1			50-150	%REC	1	8/22/2017 16:48
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 10		0.68	10	µg/L	1	8/21/2017 21:56
1,2,4-Trichlorobenzene	< 2.0		0.82	2.0	µg/L	1	8/21/2017 21:56
1,2-Dichlorobenzene	< 2.0		0.78	2.0	µg/L	1	8/21/2017 21:56
1,3,5-Trinitrobenzene	< 20		0.86	20	µg/L	1	8/21/2017 21:56
1,3-Dichlorobenzene	< 2.0		1.3	2.0	µg/L	1	8/21/2017 21:56
1,3-Dinitrobenzene	< 2.0		0.44	2.0	µg/L	1	8/21/2017 21:56
1,4-Dichlorobenzene	< 2.0		0.64	2.0	µg/L	1	8/21/2017 21:56
1,4-Dioxane	< 10		1.4	10	µg/L	1	8/21/2017 21:56
1,4-Naphthoquinone	< 10		0.28	10	µg/L	1	8/21/2017 21:56
1-Naphthylamine	< 10		0.90	10	µg/L	1	8/21/2017 21:56
2,3,4,6-Tetrachlorophenol	< 2.0		0.90	2.0	µg/L	1	8/21/2017 21:56
2,4,5-Trichlorophenol	< 2.0		0.34	2.0	µg/L	1	8/21/2017 21:56
2,4,6-Trichlorophenol	< 2.0		0.50	2.0	µg/L	1	8/21/2017 21:56
2,4-Dichlorophenol	< 2.0		0.70	2.0	µg/L	1	8/21/2017 21:56
2,4-Dimethylphenol	< 2.0		0.72	2.0	µg/L	1	8/21/2017 21:56
2,4-Dinitrophenol	< 10		0.80	10	µg/L	1	8/21/2017 21:56
2,4-Dinitrotoluene	< 2.0		0.84	2.0	µg/L	1	8/21/2017 21:56
2,6-Dichlorophenol	< 2.0		0.54	2.0	µg/L	1	8/21/2017 21:56
2,6-Dinitrotoluene	< 2.0		0.66	2.0	µg/L	1	8/21/2017 21:56
2-Acetylaminofluorene	< 10		0.70	10	µg/L	1	8/21/2017 21:56
2-Chloronaphthalene	< 0.20		0.15	0.20	µg/L	1	8/21/2017 21:56
2-Chlorophenol	< 2.0		0.46	2.0	µg/L	1	8/21/2017 21:56
2-Methylnaphthalene	< 0.20		0.13	0.20	µg/L	1	8/21/2017 21:56
2-Methylphenol	< 2.0		0.50	2.0	µg/L	1	8/21/2017 21:56
2-Naphthylamine	< 10		0.54	10	µg/L	1	8/21/2017 21:56

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P05-GW-08152017  
**Collection Date:** 8/15/2017 11:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-26  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.0		0.42	2.0	µg/L	1	8/21/2017 21:56
2-Nitrophenol	< 2.0		0.68	2.0	µg/L	1	8/21/2017 21:56
2-Picoline	< 10		0.60	10	µg/L	1	8/21/2017 21:56
3&4-Methylphenol	< 2.0		0.42	2.0	µg/L	1	8/21/2017 21:56
3,3'-Dichlorobenzidine	< 10		3.2	10	µg/L	1	8/21/2017 21:56
3,3'-Dimethylbenzidine	< 50		15	50	µg/L	1	8/21/2017 21:56
3-Methylcholanthrene	< 10		1.1	10	µg/L	1	8/21/2017 21:56
3-Nitroaniline	< 2.0		1.3	2.0	µg/L	1	8/21/2017 21:56
4,6-Dinitro-2-methylphenol	< 2.0		0.54	2.0	µg/L	1	8/21/2017 21:56
4-Aminobiphenyl	< 10		0.38	10	µg/L	1	8/21/2017 21:56
4-Bromophenyl phenyl ether	< 2.0		0.66	2.0	µg/L	1	8/21/2017 21:56
4-Chloro-3-methylphenol	< 2.0		0.52	2.0	µg/L	1	8/21/2017 21:56
4-Chloroaniline	< 2.0		0.68	2.0	µg/L	1	8/21/2017 21:56
4-Chlorophenyl phenyl ether	< 2.0		0.62	2.0	µg/L	1	8/21/2017 21:56
4-Nitroaniline	< 2.0		1.1	2.0	µg/L	1	8/21/2017 21:56
4-Nitrophenol	< 10		0.48	10	µg/L	1	8/21/2017 21:56
4-Nitroquinoline 1-oxide	< 10		3.0	10	µg/L	1	8/21/2017 21:56
5-Nitro-o-toluidine	< 10		0.32	10	µg/L	1	8/21/2017 21:56
7,12-Dimethylbenz(a)anthracene	< 2.0		0.32	2.0	µg/L	1	8/21/2017 21:56
Acenaphthene	< 0.20		0.16	0.20	µg/L	1	8/21/2017 21:56
Acenaphthylene	< 0.20		0.15	0.20	µg/L	1	8/21/2017 21:56
Acetophenone	< 2.0		0.74	2.0	µg/L	1	8/21/2017 21:56
Aniline	< 2.0		0.98	2.0	µg/L	1	8/21/2017 21:56
Anthracene	< 0.20		0.056	0.20	µg/L	1	8/21/2017 21:56
Aramite	< 2.0		1.5	2.0	µg/L	1	8/21/2017 21:56
Benzo(a)anthracene	< 0.20		0.044	0.20	µg/L	1	8/21/2017 21:56
Benzo(a)pyrene	< 0.20		0.088	0.20	µg/L	1	8/21/2017 21:56
Benzo(b)fluoranthene	< 0.20		0.10	0.20	µg/L	1	8/21/2017 21:56
Benzo(g,h,i)perylene	< 0.20		0.060	0.20	µg/L	1	8/21/2017 21:56
Benzo(k)fluoranthene	< 0.20		0.096	0.20	µg/L	1	8/21/2017 21:56
Benzyl alcohol	< 2.0		0.34	2.0	µg/L	1	8/21/2017 21:56
Bis(2-chloroethoxy)methane	< 2.0		0.58	2.0	µg/L	1	8/21/2017 21:56
Bis(2-chloroethyl)ether	< 2.0		0.74	2.0	µg/L	1	8/21/2017 21:56
Bis(2-chloroisopropyl)ether	< 2.0		0.46	2.0	µg/L	1	8/21/2017 21:56
<b>Bis(2-ethylhexyl)phthalate</b>	<b>8.0</b>		<b>0.80</b>	<b>2.0</b>	<b>µg/L</b>	1	8/21/2017 21:56
Butyl benzyl phthalate	< 2.0		0.60	2.0	µg/L	1	8/21/2017 21:56
Carbazole	< 2.0		0.20	2.0	µg/L	1	8/21/2017 21:56
Chlorobenzilate	< 10		0.54	10	µg/L	1	8/21/2017 21:56
Chrysene	< 0.20		0.096	0.20	µg/L	1	8/21/2017 21:56
Diallate	< 10		0.56	10	µg/L	1	8/21/2017 21:56

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P05-GW-08152017  
**Collection Date:** 8/15/2017 11:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-26  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.20		0.060	0.20	µg/L	1	8/21/2017 21:56
Dibenzofuran	< 2.0		0.46	2.0	µg/L	1	8/21/2017 21:56
Diethyl phthalate	< 2.0		0.34	2.0	µg/L	1	8/21/2017 21:56
Dimethyl phthalate	< 2.0		0.36	2.0	µg/L	1	8/21/2017 21:56
Di-n-butyl phthalate	< 2.0		0.42	2.0	µg/L	1	8/21/2017 21:56
Di-n-octyl phthalate	< 2.0		0.30	2.0	µg/L	1	8/21/2017 21:56
Dinoseb	< 10		1.8	10	µg/L	1	8/21/2017 21:56
Diphenylamine	< 2.0		0.46	2.0	µg/L	1	8/21/2017 21:56
Ethyl methanesulfonate	< 10		0.58	10	µg/L	1	8/21/2017 21:56
Fluoranthene	< 0.20		0.076	0.20	µg/L	1	8/21/2017 21:56
Fluorene	< 0.20		0.10	0.20	µg/L	1	8/21/2017 21:56
Hexachlorobenzene	< 2.0		0.88	2.0	µg/L	1	8/21/2017 21:56
Hexachlorobutadiene	< 2.0		0.56	2.0	µg/L	1	8/21/2017 21:56
Hexachlorocyclopentadiene	< 10		2.2	10	µg/L	1	8/21/2017 21:56
Hexachloroethane	< 2.0		0.42	2.0	µg/L	1	8/21/2017 21:56
Hexachlorophene	< 160		160	160	µg/L	1	8/21/2017 21:56
Hexachloropropene	< 10		5.7	10	µg/L	1	8/21/2017 21:56
Indeno(1,2,3-cd)pyrene	< 0.20		0.13	0.20	µg/L	1	8/21/2017 21:56
Isophorone	< 10		0.68	10	µg/L	1	8/21/2017 21:56
Isosafrole	< 10		0.58	10	µg/L	1	8/21/2017 21:56
Methapyrilene	< 10		3.1	10	µg/L	1	8/21/2017 21:56
Methyl methanesulfonate	< 10		0.64	10	µg/L	1	8/21/2017 21:56
Naphthalene	< 0.20		0.13	0.20	µg/L	1	8/21/2017 21:56
Nitrobenzene	< 2.0		0.52	2.0	µg/L	1	8/21/2017 21:56
N-Nitrosodiethylamine	< 2.0		0.74	2.0	µg/L	1	8/21/2017 21:56
N-Nitrosodimethylamine	< 2.0		0.96	2.0	µg/L	1	8/21/2017 21:56
N-Nitroso-di-n-butylamine	< 2.0		0.90	2.0	µg/L	1	8/21/2017 21:56
N-Nitrosodi-n-propylamine	< 2.0		0.70	2.0	µg/L	1	8/21/2017 21:56
N-Nitrosodiphenylamine	< 2.0		0.46	2.0	µg/L	1	8/21/2017 21:56
N-Nitrosomethylethylamine	< 10		2.7	10	µg/L	1	8/21/2017 21:56
N-Nitrosomorpholine	< 10		0.64	10	µg/L	1	8/21/2017 21:56
N-Nitrosopiperidine	< 10		0.66	10	µg/L	1	8/21/2017 21:56
N-Nitrosopyrrolidine	< 10		0.66	10	µg/L	1	8/21/2017 21:56
o-Toluidine	< 10		0.44	10	µg/L	1	8/21/2017 21:56
p-Dimethylaminoazobenzene	< 10		0.46	10	µg/L	1	8/21/2017 21:56
Pentachlorobenzene	< 10		0.52	10	µg/L	1	8/21/2017 21:56
Pentachloroethane	< 2.0		0.54	2.0	µg/L	1	8/21/2017 21:56
Pentachloronitrobenzene	< 10		0.50	10	µg/L	1	8/21/2017 21:56
Pentachlorophenol	< 10		1.9	10	µg/L	1	8/21/2017 21:56
Phenacetin	< 10		0.78	10	µg/L	1	8/21/2017 21:56

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P05-GW-08152017  
**Collection Date:** 8/15/2017 11:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-26  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.20		0.060	0.20	µg/L	1	8/21/2017 21:56
Phenol	< 2.0		0.42	2.0	µg/L	1	8/21/2017 21:56
Pronamide	< 10		0.60	10	µg/L	1	8/21/2017 21:56
Pyrene	< 0.20		0.072	0.20	µg/L	1	8/21/2017 21:56
Pyridine	< 20		0.20	20	µg/L	1	8/21/2017 21:56
Quinoline	< 10		0.86	10	µg/L	1	8/21/2017 21:56
Safrole	< 10		0.46	10	µg/L	1	8/21/2017 21:56
Surr: 2,4,6-Tribromophenol	51.3			32-92	%REC	1	8/21/2017 21:56
Surr: 2-Fluorobiphenyl	44.6			34-98	%REC	1	8/21/2017 21:56
Surr: 2-Fluorophenol	28.8			23-55	%REC	1	8/21/2017 21:56
Surr: 4-Terphenyl-d14	76.9			50-111	%REC	1	8/21/2017 21:56
Surr: Nitrobenzene-d5	42.6			32-89	%REC	1	8/21/2017 21:56
Surr: Phenol-d6	13.6			10-35	%REC	1	8/21/2017 21:56

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 17:33
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:33
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 17:33
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 17:33
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 17:33
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 17:33
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:33
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 17:33
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 17:33
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 17:33
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 17:33
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 17:33
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 17:33
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 17:33
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 17:33
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 17:33
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:33
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 17:33
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 17:33
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:33
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 17:33
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 17:33
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 17:33
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:33
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 17:33

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P05-GW-08152017  
**Collection Date:** 8/15/2017 11:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-26  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 17:33
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 17:33
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 17:33
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 17:33
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 17:33
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 17:33
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 17:33
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 17:33
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 17:33
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 17:33
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:33
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 17:33
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:33
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 17:33
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 17:33
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 17:33
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 17:33
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 17:33
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 17:33
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 17:33
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 17:33
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 17:33
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 17:33
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:33
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 17:33
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 17:33
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 17:33
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 17:33
Surr: 1,2-Dichloroethane-d4	99.4			75-120	%REC	1	8/18/2017 17:33
Surr: 4-Bromofluorobenzene	99.9			80-110	%REC	1	8/18/2017 17:33
Surr: Dibromofluoromethane	97.4			85-115	%REC	1	8/18/2017 17:33
Surr: Toluene-d8	97.8			85-110	%REC	1	8/18/2017 17:33

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P05-GW-08152017-F  
**Collection Date:** 8/15/2017 11:12 AM

**Work Order:** 1708873  
**Lab ID:** 1708873-27  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 16:02
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.040</b>		<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:47
<b>Barium</b>	<b>0.28</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:47
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:47
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:47
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:47
<b>Lithium</b>	<b>0.0043</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:47
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:47
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:47
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW08-GW-08152017  
**Collection Date:** 8/15/2017 02:34 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-28  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/21/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:03
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:03
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:03
Surr: Decachlorobiphenyl	109			30-150	%REC	1	8/22/2017 17:03
Surr: Tetrachloro-m-xylene	54.9			50-150	%REC	1	8/22/2017 17:03
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 22:15
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:15
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 22:15
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 22:15
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 22:15
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 22:15
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 22:15
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 22:15
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 22:15
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 22:15
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:15
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:15
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 22:15
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 22:15
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 22:15
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 22:15
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:15
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:15
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 22:15
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 22:15
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 22:15
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:15
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 22:15
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 22:15
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 22:15

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW08-GW-08152017  
**Collection Date:** 8/15/2017 02:34 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-28  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:15
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 22:15
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 22:15
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:15
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 22:15
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 22:15
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 22:15
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 22:15
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:15
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 22:15
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 22:15
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 22:15
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 22:15
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 22:15
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 22:15
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 22:15
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 22:15
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 22:15
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 22:15
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 22:15
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 22:15
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:15
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 22:15
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 22:15
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 22:15
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 22:15
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 22:15
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 22:15
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:15
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 22:15
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:15
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 22:15
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:15
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:15
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:15
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 22:15
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 22:15
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 22:15
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 22:15
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 22:15

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW08-GW-08152017  
**Collection Date:** 8/15/2017 02:34 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-28  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:15
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:15
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:15
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 22:15
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:15
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 22:15
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 22:15
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:15
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 22:15
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 22:15
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 22:15
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:15
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 22:15
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 22:15
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:15
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 22:15
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 22:15
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 22:15
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 22:15
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 22:15
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 22:15
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 22:15
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 22:15
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 22:15
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:15
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 22:15
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:15
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 22:15
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:15
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 22:15
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 22:15
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 22:15
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 22:15
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 22:15
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 22:15
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 22:15
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:15
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 22:15
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 22:15
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 22:15

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW08-GW-08152017  
**Collection Date:** 8/15/2017 02:34 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-28  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:15
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:15
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 22:15
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 22:15
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 22:15
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 22:15
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 22:15
Surr: 2,4,6-Tribromophenol	55.7			32-92	%REC	1	8/21/2017 22:15
Surr: 2-Fluorobiphenyl	48.1			34-98	%REC	1	8/21/2017 22:15
Surr: 2-Fluorophenol	33.9			23-55	%REC	1	8/21/2017 22:15
Surr: 4-Terphenyl-d14	86.1			50-111	%REC	1	8/21/2017 22:15
Surr: Nitrobenzene-d5	46.7			32-89	%REC	1	8/21/2017 22:15
Surr: Phenol-d6	16.0			10-35	%REC	1	8/21/2017 22:15

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 17:59
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:59
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 17:59
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 17:59
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 17:59
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 17:59
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:59
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 17:59
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 17:59
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 17:59
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 17:59
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 17:59
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 17:59
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 17:59
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 17:59
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 17:59
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:59
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 17:59
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 17:59
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:59
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 17:59
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 17:59
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 17:59
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:59
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 17:59

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW08-GW-08152017  
**Collection Date:** 8/15/2017 02:34 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-28  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 17:59
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 17:59
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 17:59
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 17:59
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 17:59
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 17:59
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 17:59
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 17:59
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 17:59
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 17:59
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 17:59
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 17:59
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:59
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 17:59
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 17:59
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 17:59
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 17:59
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 17:59
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 17:59
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 17:59
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 17:59
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 17:59
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 17:59
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 17:59
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 17:59
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 17:59
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 17:59
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 17:59
Surr: 1,2-Dichloroethane-d4	98.6			75-120	%REC	1	8/18/2017 17:59
Surr: 4-Bromofluorobenzene	96.8			80-110	%REC	1	8/18/2017 17:59
Surr: Dibromofluoromethane	96.0			85-115	%REC	1	8/18/2017 17:59
Surr: Toluene-d8	95.6			85-110	%REC	1	8/18/2017 17:59

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW08-GW-08152017-F  
**Collection Date:** 8/15/2017 02:34 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-29  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 16:04
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	< 0.0050		0.00087	0.0050	mg/L	1	8/17/2017 14:56
<b>Barium</b>	<b>0.025</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:56
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:56
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:56
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:56
<b>Lithium</b>	<b>0.013</b>		<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:56
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:56
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:56
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P08-GW-08152017  
**Collection Date:** 8/15/2017 02:10 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-30  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/21/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:17
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:17
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:17
Surr: Decachlorobiphenyl	98.7			30-150	%REC	1	8/22/2017 17:17
Surr: Tetrachloro-m-xylene	56.8			50-150	%REC	1	8/22/2017 17:17
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 22:34
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:34
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 22:34
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 22:34
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 22:34
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 22:34
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 22:34
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 22:34
1,4-Napthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 22:34
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 22:34
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:34
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:34
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 22:34
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 22:34
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 22:34
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 22:34
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:34
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:34
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 22:34
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 22:34
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 22:34
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:34
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 22:34
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 22:34
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 22:34

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P08-GW-08152017  
**Collection Date:** 8/15/2017 02:10 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-30  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:34
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 22:34
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 22:34
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:34
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 22:34
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 22:34
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 22:34
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 22:34
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:34
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 22:34
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 22:34
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 22:34
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 22:34
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 22:34
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 22:34
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 22:34
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 22:34
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 22:34
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 22:34
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 22:34
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 22:34
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:34
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 22:34
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 22:34
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 22:34
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 22:34
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 22:34
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 22:34
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:34
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 22:34
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:34
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 22:34
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:34
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:34
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:34
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 22:34
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 22:34
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 22:34
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 22:34
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 22:34

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P08-GW-08152017  
**Collection Date:** 8/15/2017 02:10 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-30  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:34
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:34
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:34
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 22:34
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:34
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 22:34
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 22:34
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:34
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 22:34
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 22:34
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 22:34
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:34
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 22:34
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 22:34
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:34
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 22:34
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 22:34
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 22:34
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 22:34
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 22:34
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 22:34
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 22:34
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 22:34
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 22:34
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:34
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 22:34
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:34
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 22:34
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:34
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 22:34
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 22:34
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 22:34
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 22:34
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 22:34
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 22:34
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 22:34
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:34
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 22:34
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 22:34
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 22:34

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P08-GW-08152017  
**Collection Date:** 8/15/2017 02:10 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-30  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:34
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:34
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 22:34
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 22:34
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 22:34
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 22:34
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 22:34
Surr: 2,4,6-Tribromophenol	53.6			32-92	%REC	1	8/21/2017 22:34
Surr: 2-Fluorobiphenyl	44.4			34-98	%REC	1	8/21/2017 22:34
Surr: 2-Fluorophenol	26.8			23-55	%REC	1	8/21/2017 22:34
Surr: 4-Terphenyl-d14	88.3			50-111	%REC	1	8/21/2017 22:34
Surr: Nitrobenzene-d5	42.5			32-89	%REC	1	8/21/2017 22:34
Surr: Phenol-d6	11.9			10-35	%REC	1	8/21/2017 22:34

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 18:25
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:25
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 18:25
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 18:25
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 18:25
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 18:25
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 18:25
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 18:25
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 18:25
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 18:25
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 18:25
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 18:25
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 18:25
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 18:25
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 18:25
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 18:25
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:25
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 18:25
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 18:25
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:25
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 18:25
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 18:25
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 18:25
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 18:25
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 18:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P08-GW-08152017  
**Collection Date:** 8/15/2017 02:10 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-30  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 18:25
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 18:25
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 18:25
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 18:25
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 18:25
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 18:25
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 18:25
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 18:25
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 18:25
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 18:25
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 18:25
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 18:25
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:25
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 18:25
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 18:25
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 18:25
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 18:25
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 18:25
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 18:25
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 18:25
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 18:25
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 18:25
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 18:25
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:25
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 18:25
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 18:25
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 18:25
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 18:25
Surr: 1,2-Dichloroethane-d4	95.6			75-120	%REC	1	8/18/2017 18:25
Surr: 4-Bromofluorobenzene	98.9			80-110	%REC	1	8/18/2017 18:25
Surr: Dibromofluoromethane	97.4			85-115	%REC	1	8/18/2017 18:25
Surr: Toluene-d8	97.8			85-110	%REC	1	8/18/2017 18:25

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P08-GW-08152017-F  
**Collection Date:** 8/15/2017 02:10 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-31  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 16:07
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.069</b>		<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:58
<b>Barium</b>	<b>0.29</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 14:58
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:58
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:58
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:58
<b>Lithium</b>	<b>0.0059</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 14:58
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:58
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:58
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P09-GW-08152017  
**Collection Date:** 8/15/2017 12:40 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-32  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
	Method: <b>SW8082</b>			Prep: SW3511 / 8/21/17		Analyst: <b>EB</b>	
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:31
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:31
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/22/2017 17:31
Surr: Decachlorobiphenyl	108			30-150	%REC	1	8/22/2017 17:31
Surr: Tetrachloro-m-xylene	56.9			50-150	%REC	1	8/22/2017 17:31
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
	Method: <b>SW846 8270D</b>			Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>	
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 22:52
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:52
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 22:52
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 22:52
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 22:52
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 22:52
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 22:52
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 22:52
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 22:52
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 22:52
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:52
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:52
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 22:52
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 22:52
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 22:52
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 22:52
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:52
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:52
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 22:52
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 22:52
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 22:52
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:52
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 22:52
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 22:52
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 22:52

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P09-GW-08152017  
**Collection Date:** 8/15/2017 12:40 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-32  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:52
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 22:52
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 22:52
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:52
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 22:52
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 22:52
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 22:52
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 22:52
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:52
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 22:52
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 22:52
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 22:52
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 22:52
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 22:52
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 22:52
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 22:52
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 22:52
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 22:52
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 22:52
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 22:52
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 22:52
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:52
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 22:52
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 22:52
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 22:52
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 22:52
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 22:52
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 22:52
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:52
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 22:52
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:52
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 22:52
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:52
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:52
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 22:52
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 22:52
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 22:52
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 22:52
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 22:52
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 22:52

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P09-GW-08152017  
**Collection Date:** 8/15/2017 12:40 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-32  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:52
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:52
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 22:52
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 22:52
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:52
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 22:52
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 22:52
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:52
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 22:52
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 22:52
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 22:52
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:52
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 22:52
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 22:52
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:52
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 22:52
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 22:52
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 22:52
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 22:52
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 22:52
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 22:52
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 22:52
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 22:52
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 22:52
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 22:52
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 22:52
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 22:52
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 22:52
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 22:52
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 22:52
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 22:52
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 22:52
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 22:52
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 22:52
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 22:52
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 22:52
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 22:52
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 22:52
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 22:52
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 22:52

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P09-GW-08152017  
**Collection Date:** 8/15/2017 12:40 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-32  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 22:52
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 22:52
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 22:52
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 22:52
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 22:52
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 22:52
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 22:52
Surr: 2,4,6-Tribromophenol	57.4			32-92	%REC	1	8/21/2017 22:52
Surr: 2-Fluorobiphenyl	45.5			34-98	%REC	1	8/21/2017 22:52
Surr: 2-Fluorophenol	32.0			23-55	%REC	1	8/21/2017 22:52
Surr: 4-Terphenyl-d14	86.5			50-111	%REC	1	8/21/2017 22:52
Surr: Nitrobenzene-d5	46.4			32-89	%REC	1	8/21/2017 22:52
Surr: Phenol-d6	14.9			10-35	%REC	1	8/21/2017 22:52

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 18:50
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:50
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 18:50
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 18:50
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 18:50
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 18:50
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 18:50
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 18:50
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 18:50
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 18:50
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 18:50
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 18:50
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 18:50
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 18:50
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 18:50
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 18:50
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:50
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 18:50
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 18:50
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:50
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 18:50
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 18:50
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 18:50
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 18:50
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 18:50

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P09-GW-08152017  
**Collection Date:** 8/15/2017 12:40 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-32  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 18:50
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 18:50
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 18:50
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 18:50
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 18:50
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 18:50
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 18:50
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 18:50
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 18:50
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 18:50
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 18:50
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 18:50
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:50
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 18:50
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 18:50
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 18:50
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 18:50
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 18:50
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 18:50
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 18:50
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 18:50
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 18:50
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 18:50
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 18:50
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 18:50
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 18:50
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 18:50
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 18:50
Surr: 1,2-Dichloroethane-d4	98.8			75-120	%REC	1	8/18/2017 18:50
Surr: 4-Bromofluorobenzene	102			80-110	%REC	1	8/18/2017 18:50
Surr: Dibromofluoromethane	102			85-115	%REC	1	8/18/2017 18:50
Surr: Toluene-d8	98.0			85-110	%REC	1	8/18/2017 18:50

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**ALS Group, USA**

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-P09-GW-08152017-F  
**Collection Date:** 8/15/2017 12:40 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-33  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<hr/>							
<b>MERCURY BY CVAA</b>			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 16:09
<hr/>							
<b>METALS BY ICP-MS</b>			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
Arsenic	<b>0.015</b>		<b>0.00087</b>	<b>0.0050</b>	mg/L	1	8/17/2017 14:59
Barium	<b>0.22</b>		<b>0.0022</b>	<b>0.0050</b>	mg/L	1	8/17/2017 14:59
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 14:59
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 14:59
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 14:59
Lithium	<b>0.0061</b>	J	<b>0.00037</b>	<b>0.010</b>	mg/L	1	8/17/2017 14:59
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 14:59
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 14:59
<hr/>							
<b>CHROMIUM, HEXAVALENT</b>			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW09R-GW-08152017

Collection Date: 8/15/2017 12:41 PM

Work Order: 1708873

Lab ID: 1708873-34

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>PCBS</b>							
			Method: <b>SW8082</b>		Prep: SW3511 / 8/21/17		Analyst: <b>EB</b>
Aroclor 1016	< 0.20		0.18	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1221	< 0.20		0.18	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1232	< 0.20		0.18	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1242	< 0.20		0.18	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1248	< 0.20		0.18	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1254	< 0.20		0.097	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1260	< 0.20		0.097	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1262	< 0.20		0.097	0.20	µg/L	1	8/22/2017 18:14
Aroclor 1268	< 0.20		0.097	0.20	µg/L	1	8/22/2017 18:14
PCBs, Total	< 0.20		0.097	0.20	µg/L	1	8/22/2017 18:14
Surr: Decachlorobiphenyl	104			30-150	%REC	1	8/22/2017 18:14
Surr: Tetrachloro-m-xylene	54.3			50-150	%REC	1	8/22/2017 18:14
<b>SEMI-VOLATILE ORGANIC COMPOUNDS</b>							
			Method: <b>SW846 8270D</b>		Prep: SW3510 / 8/18/17		Analyst: <b>RM</b>
1,2,4,5-Tetrachlorobenzene	< 13		0.91	13	µg/L	1	8/21/2017 23:11
1,2,4-Trichlorobenzene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 23:11
1,2-Dichlorobenzene	< 2.7		1.0	2.7	µg/L	1	8/21/2017 23:11
1,3,5-Trinitrobenzene	< 27		1.1	27	µg/L	1	8/21/2017 23:11
1,3-Dichlorobenzene	< 2.7		1.7	2.7	µg/L	1	8/21/2017 23:11
1,3-Dinitrobenzene	< 2.7		0.59	2.7	µg/L	1	8/21/2017 23:11
1,4-Dichlorobenzene	< 2.7		0.85	2.7	µg/L	1	8/21/2017 23:11
1,4-Dioxane	< 13		1.9	13	µg/L	1	8/21/2017 23:11
1,4-Naphthoquinone	< 13		0.37	13	µg/L	1	8/21/2017 23:11
1-Naphthylamine	< 13		1.2	13	µg/L	1	8/21/2017 23:11
2,3,4,6-Tetrachlorophenol	< 2.7		1.2	2.7	µg/L	1	8/21/2017 23:11
2,4,5-Trichlorophenol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 23:11
2,4,6-Trichlorophenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 23:11
2,4-Dichlorophenol	< 2.7		0.93	2.7	µg/L	1	8/21/2017 23:11
2,4-Dimethylphenol	< 2.7		0.96	2.7	µg/L	1	8/21/2017 23:11
2,4-Dinitrophenol	< 13		1.1	13	µg/L	1	8/21/2017 23:11
2,4-Dinitrotoluene	< 2.7		1.1	2.7	µg/L	1	8/21/2017 23:11
2,6-Dichlorophenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 23:11
2,6-Dinitrotoluene	< 2.7		0.88	2.7	µg/L	1	8/21/2017 23:11
2-Acetylaminofluorene	< 13		0.93	13	µg/L	1	8/21/2017 23:11
2-Chloronaphthalene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 23:11
2-Chlorophenol	< 2.7		0.61	2.7	µg/L	1	8/21/2017 23:11
2-Methylnaphthalene	< 0.27		0.17	0.27	µg/L	1	8/21/2017 23:11
2-Methylphenol	< 2.7		0.67	2.7	µg/L	1	8/21/2017 23:11
2-Naphthylamine	< 13		0.72	13	µg/L	1	8/21/2017 23:11

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW09R-GW-08152017

**Collection Date:** 8/15/2017 12:41 PM

**Work Order:** 1708873

**Lab ID:** 1708873-34

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
2-Nitroaniline	< 2.7		0.56	2.7	µg/L	1	8/21/2017 23:11
2-Nitrophenol	< 2.7		0.91	2.7	µg/L	1	8/21/2017 23:11
2-Picoline	< 13		0.80	13	µg/L	1	8/21/2017 23:11
3&4-Methylphenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 23:11
3,3'-Dichlorobenzidine	< 13		4.2	13	µg/L	1	8/21/2017 23:11
3,3'-Dimethylbenzidine	< 67		20	67	µg/L	1	8/21/2017 23:11
3-Methylcholanthrene	< 13		1.5	13	µg/L	1	8/21/2017 23:11
3-Nitroaniline	< 2.7		1.7	2.7	µg/L	1	8/21/2017 23:11
4,6-Dinitro-2-methylphenol	< 2.7		0.72	2.7	µg/L	1	8/21/2017 23:11
4-Aminobiphenyl	< 13		0.51	13	µg/L	1	8/21/2017 23:11
4-Bromophenyl phenyl ether	< 2.7		0.88	2.7	µg/L	1	8/21/2017 23:11
4-Chloro-3-methylphenol	< 2.7		0.69	2.7	µg/L	1	8/21/2017 23:11
4-Chloroaniline	< 2.7		0.91	2.7	µg/L	1	8/21/2017 23:11
4-Chlorophenyl phenyl ether	< 2.7		0.83	2.7	µg/L	1	8/21/2017 23:11
4-Nitroaniline	< 2.7		1.5	2.7	µg/L	1	8/21/2017 23:11
4-Nitrophenol	< 13		0.64	13	µg/L	1	8/21/2017 23:11
4-Nitroquinoline 1-oxide	< 13		3.9	13	µg/L	1	8/21/2017 23:11
5-Nitro-o-toluidine	< 13		0.43	13	µg/L	1	8/21/2017 23:11
7,12-Dimethylbenz(a)anthracene	< 2.7		0.43	2.7	µg/L	1	8/21/2017 23:11
Acenaphthene	< 0.27		0.22	0.27	µg/L	1	8/21/2017 23:11
Acenaphthylene	< 0.27		0.20	0.27	µg/L	1	8/21/2017 23:11
Acetophenone	< 2.7		0.99	2.7	µg/L	1	8/21/2017 23:11
Aniline	< 2.7		1.3	2.7	µg/L	1	8/21/2017 23:11
Anthracene	< 0.27		0.075	0.27	µg/L	1	8/21/2017 23:11
Aramite	< 2.7		1.9	2.7	µg/L	1	8/21/2017 23:11
Benzo(a)anthracene	< 0.27		0.059	0.27	µg/L	1	8/21/2017 23:11
Benzo(a)pyrene	< 0.27		0.12	0.27	µg/L	1	8/21/2017 23:11
Benzo(b)fluoranthene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 23:11
Benzo(g,h,i)perylene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 23:11
Benzo(k)fluoranthene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 23:11
Benzyl alcohol	< 2.7		0.45	2.7	µg/L	1	8/21/2017 23:11
Bis(2-chloroethoxy)methane	< 2.7		0.77	2.7	µg/L	1	8/21/2017 23:11
Bis(2-chloroethyl)ether	< 2.7		0.99	2.7	µg/L	1	8/21/2017 23:11
Bis(2-chloroisopropyl)ether	< 2.7		0.61	2.7	µg/L	1	8/21/2017 23:11
Bis(2-ethylhexyl)phthalate	< 2.7		1.1	2.7	µg/L	1	8/21/2017 23:11
Butyl benzyl phthalate	< 2.7		0.80	2.7	µg/L	1	8/21/2017 23:11
Carbazole	< 2.7		0.27	2.7	µg/L	1	8/21/2017 23:11
Chlorobenzilate	< 13		0.72	13	µg/L	1	8/21/2017 23:11
Chrysene	< 0.27		0.13	0.27	µg/L	1	8/21/2017 23:11
Diallate	< 13		0.75	13	µg/L	1	8/21/2017 23:11

**Note:** See Qualifiers page for a list of qualifiers and their definitions.



# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works

**Project:** USS CAMU 3Q2017

**Sample ID:** CAMU-MW09R-GW-08152017

**Collection Date:** 8/15/2017 12:41 PM

**Work Order:** 1708873

**Lab ID:** 1708873-34

**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Dibenzo(a,h)anthracene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 23:11
Dibenzofuran	< 2.7		0.61	2.7	µg/L	1	8/21/2017 23:11
Diethyl phthalate	< 2.7		0.45	2.7	µg/L	1	8/21/2017 23:11
Dimethyl phthalate	< 2.7		0.48	2.7	µg/L	1	8/21/2017 23:11
Di-n-butyl phthalate	< 2.7		0.56	2.7	µg/L	1	8/21/2017 23:11
Di-n-octyl phthalate	< 2.7		0.40	2.7	µg/L	1	8/21/2017 23:11
Dinoseb	< 13		2.4	13	µg/L	1	8/21/2017 23:11
Diphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 23:11
Ethyl methanesulfonate	< 13		0.77	13	µg/L	1	8/21/2017 23:11
Fluoranthene	< 0.27		0.10	0.27	µg/L	1	8/21/2017 23:11
Fluorene	< 0.27		0.14	0.27	µg/L	1	8/21/2017 23:11
Hexachlorobenzene	< 2.7		1.2	2.7	µg/L	1	8/21/2017 23:11
Hexachlorobutadiene	< 2.7		0.75	2.7	µg/L	1	8/21/2017 23:11
Hexachlorocyclopentadiene	< 13		2.9	13	µg/L	1	8/21/2017 23:11
Hexachloroethane	< 2.7		0.56	2.7	µg/L	1	8/21/2017 23:11
Hexachlorophene	< 210		210	210	µg/L	1	8/21/2017 23:11
Hexachloropropene	< 13		7.5	13	µg/L	1	8/21/2017 23:11
Indeno(1,2,3-cd)pyrene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 23:11
Isophorone	< 13		0.91	13	µg/L	1	8/21/2017 23:11
Isosafrole	< 13		0.77	13	µg/L	1	8/21/2017 23:11
Methapyrilene	< 13		4.1	13	µg/L	1	8/21/2017 23:11
Methyl methanesulfonate	< 13		0.85	13	µg/L	1	8/21/2017 23:11
Naphthalene	< 0.27		0.18	0.27	µg/L	1	8/21/2017 23:11
Nitrobenzene	< 2.7		0.69	2.7	µg/L	1	8/21/2017 23:11
N-Nitrosodiethylamine	< 2.7		0.99	2.7	µg/L	1	8/21/2017 23:11
N-Nitrosodimethylamine	< 2.7		1.3	2.7	µg/L	1	8/21/2017 23:11
N-Nitroso-di-n-butylamine	< 2.7		1.2	2.7	µg/L	1	8/21/2017 23:11
N-Nitrosodi-n-propylamine	< 2.7		0.93	2.7	µg/L	1	8/21/2017 23:11
N-Nitrosodiphenylamine	< 2.7		0.61	2.7	µg/L	1	8/21/2017 23:11
N-Nitrosomethylethylamine	< 13		3.6	13	µg/L	1	8/21/2017 23:11
N-Nitrosomorpholine	< 13		0.85	13	µg/L	1	8/21/2017 23:11
N-Nitrosopiperidine	< 13		0.88	13	µg/L	1	8/21/2017 23:11
N-Nitrosopyrrolidine	< 13		0.88	13	µg/L	1	8/21/2017 23:11
o-Toluidine	< 13		0.59	13	µg/L	1	8/21/2017 23:11
p-Dimethylaminoazobenzene	< 13		0.61	13	µg/L	1	8/21/2017 23:11
Pentachlorobenzene	< 13		0.69	13	µg/L	1	8/21/2017 23:11
Pentachloroethane	< 2.7		0.72	2.7	µg/L	1	8/21/2017 23:11
Pentachloronitrobenzene	< 13		0.67	13	µg/L	1	8/21/2017 23:11
Pentachlorophenol	< 13		2.6	13	µg/L	1	8/21/2017 23:11
Phenacetin	< 13		1.0	13	µg/L	1	8/21/2017 23:11

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW09R-GW-08152017

Collection Date: 8/15/2017 12:41 PM

Work Order: 1708873

Lab ID: 1708873-34

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Phenanthrene	< 0.27		0.080	0.27	µg/L	1	8/21/2017 23:11
Phenol	< 2.7		0.56	2.7	µg/L	1	8/21/2017 23:11
Pronamide	< 13		0.80	13	µg/L	1	8/21/2017 23:11
Pyrene	< 0.27		0.096	0.27	µg/L	1	8/21/2017 23:11
Pyridine	< 27		0.27	27	µg/L	1	8/21/2017 23:11
Quinoline	< 13		1.1	13	µg/L	1	8/21/2017 23:11
Safrole	< 13		0.61	13	µg/L	1	8/21/2017 23:11
Surr: 2,4,6-Tribromophenol	56.1			32-92	%REC	1	8/21/2017 23:11
Surr: 2-Fluorobiphenyl	50.4			34-98	%REC	1	8/21/2017 23:11
Surr: 2-Fluorophenol	30.6			23-55	%REC	1	8/21/2017 23:11
Surr: 4-Terphenyl-d14	80.5			50-111	%REC	1	8/21/2017 23:11
Surr: Nitrobenzene-d5	46.6			32-89	%REC	1	8/21/2017 23:11
Surr: Phenol-d6	13.9			10-35	%REC	1	8/21/2017 23:11

## VOLATILE ORGANIC COMPOUNDS

Method: SW8260B

Analyst: LSY

1,1,1,2-Tetrachloroethane	< 1.0		0.28	1.0	µg/L	1	8/18/2017 19:16
1,1,1-Trichloroethane	< 1.0		0.33	1.0	µg/L	1	8/18/2017 19:16
1,1,2,2-Tetrachloroethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 19:16
1,1,2-Trichloroethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 19:16
1,1-Dichloroethane	< 1.0		0.48	1.0	µg/L	1	8/18/2017 19:16
1,1-Dichloroethene	< 1.0		0.36	1.0	µg/L	1	8/18/2017 19:16
1,2,3-Trichloropropane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 19:16
1,2-Dibromo-3-chloropropane	< 1.0		0.43	1.0	µg/L	1	8/18/2017 19:16
1,2-Dibromoethane	< 1.0		0.17	1.0	µg/L	1	8/18/2017 19:16
1,2-Dichloroethane	< 1.0		0.11	1.0	µg/L	1	8/18/2017 19:16
1,2-Dichloropropane	< 1.0		0.34	1.0	µg/L	1	8/18/2017 19:16
2-Butanone	< 5.0		0.47	5.0	µg/L	1	8/18/2017 19:16
2-Chloro-1,3-butadiene	< 1.0		0.35	1.0	µg/L	1	8/18/2017 19:16
2-Hexanone	< 5.0		0.50	5.0	µg/L	1	8/18/2017 19:16
4-Methyl-2-pentanone	< 1.0		0.52	1.0	µg/L	1	8/18/2017 19:16
Acetone	< 10		0.47	10	µg/L	1	8/18/2017 19:16
Acetonitrile	< 1.0		0.33	1.0	µg/L	1	8/18/2017 19:16
Acrolein	< 20		5.1	20	µg/L	1	8/18/2017 19:16
Acrylonitrile	< 1.0		0.34	1.0	µg/L	1	8/18/2017 19:16
Allyl chloride	< 1.0		0.33	1.0	µg/L	1	8/18/2017 19:16
Benzene	< 1.0		0.42	1.0	µg/L	1	8/18/2017 19:16
Bromodichloromethane	< 1.0		0.22	1.0	µg/L	1	8/18/2017 19:16
Bromoform	< 1.0		0.56	1.0	µg/L	1	8/18/2017 19:16
Bromomethane	< 1.0		0.29	1.0	µg/L	1	8/18/2017 19:16
Carbon disulfide	< 1.0		0.39	1.0	µg/L	1	8/18/2017 19:16

Note: See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

Client: U.S. Steel - Gary Works

Project: USS CAMU 3Q2017

Sample ID: CAMU-MW09R-GW-08152017

Collection Date: 8/15/2017 12:41 PM

Work Order: 1708873

Lab ID: 1708873-34

Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
Carbon tetrachloride	< 1.0		0.32	1.0	µg/L	1	8/18/2017 19:16
Chlorobenzene	< 1.0		0.21	1.0	µg/L	1	8/18/2017 19:16
Chloroethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 19:16
Chloroform	< 1.0		0.46	1.0	µg/L	1	8/18/2017 19:16
Chloromethane	< 1.0		0.68	1.0	µg/L	1	8/18/2017 19:16
cis-1,3-Dichloropropene	< 1.0		0.13	1.0	µg/L	1	8/18/2017 19:16
Dibromochloromethane	< 1.0		0.20	1.0	µg/L	1	8/18/2017 19:16
Dibromomethane	< 1.0		0.16	1.0	µg/L	1	8/18/2017 19:16
Dichlorodifluoromethane	< 1.0		0.30	1.0	µg/L	1	8/18/2017 19:16
Ethyl methacrylate	< 1.0		0.19	1.0	µg/L	1	8/18/2017 19:16
Ethylbenzene	< 1.0		0.29	1.0	µg/L	1	8/18/2017 19:16
Iodomethane	< 1.0		0.44	1.0	µg/L	1	8/18/2017 19:16
Isobutyl alcohol	< 1.0		0.33	1.0	µg/L	1	8/18/2017 19:16
Methacrylonitrile	< 1.0		0.43	1.0	µg/L	1	8/18/2017 19:16
Methyl methacrylate	< 1.0		0.15	1.0	µg/L	1	8/18/2017 19:16
Methylene chloride	< 5.0		0.16	5.0	µg/L	1	8/18/2017 19:16
Propionitrile	< 10		0.33	10	µg/L	1	8/18/2017 19:16
Styrene	< 1.0		0.19	1.0	µg/L	1	8/18/2017 19:16
Tetrachloroethene	< 1.0		0.28	1.0	µg/L	1	8/18/2017 19:16
Toluene	< 1.0		0.32	1.0	µg/L	1	8/18/2017 19:16
trans-1,2-Dichloroethene	< 1.0		0.48	1.0	µg/L	1	8/18/2017 19:16
trans-1,3-Dichloropropene	< 1.0		0.15	1.0	µg/L	1	8/18/2017 19:16
trans-1,4-Dichloro-2-butene	< 2.0		0.58	2.0	µg/L	1	8/18/2017 19:16
Trichloroethene	< 1.0		0.33	1.0	µg/L	1	8/18/2017 19:16
Trichlorofluoromethane	< 1.0		0.24	1.0	µg/L	1	8/18/2017 19:16
Vinyl acetate	< 5.0		0.42	5.0	µg/L	1	8/18/2017 19:16
Vinyl chloride	< 1.0		0.53	1.0	µg/L	1	8/18/2017 19:16
Xylenes, Total	< 3.0		0.74	3.0	µg/L	1	8/18/2017 19:16
Surr: 1,2-Dichloroethane-d4	99.2			75-120	%REC	1	8/18/2017 19:16
Surr: 4-Bromofluorobenzene	99.4			80-110	%REC	1	8/18/2017 19:16
Surr: Dibromofluoromethane	100			85-115	%REC	1	8/18/2017 19:16
Surr: Toluene-d8	99.0			85-110	%REC	1	8/18/2017 19:16

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**Sample ID:** CAMU-MW09R-GW-08152017-F  
**Collection Date:** 8/15/2017 12:41 PM

**Work Order:** 1708873  
**Lab ID:** 1708873-35  
**Matrix:** AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
<b>MERCURY BY CVAA</b>							
			Method: <b>SW7470A</b>		Prep: SW7470 / 8/22/17		Analyst: <b>RSH</b>
Mercury	< 0.00020		0.000019	0.00020	mg/L	1	8/22/2017 16:12
<b>METALS BY ICP-MS</b>							
			Method: <b>SW6020A</b>		Prep: SW3005A / 8/17/17		Analyst: <b>JF</b>
<b>Arsenic</b>	<b>0.0024</b>	J	<b>0.00087</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 15:01
<b>Barium</b>	<b>0.038</b>		<b>0.0022</b>	<b>0.0050</b>	<b>mg/L</b>	1	8/17/2017 15:01
Cadmium	< 0.0020		0.000050	0.0020	mg/L	1	8/17/2017 15:01
Chromium	< 0.0050		0.00065	0.0050	mg/L	1	8/17/2017 15:01
Lead	< 0.0050		0.00033	0.0050	mg/L	1	8/17/2017 15:01
<b>Lithium</b>	<b>0.0036</b>	J	<b>0.00037</b>	<b>0.010</b>	<b>mg/L</b>	1	8/17/2017 15:01
Selenium	< 0.0050		0.00090	0.0050	mg/L	1	8/17/2017 15:01
Silver	< 0.0050		0.000050	0.0050	mg/L	1	8/17/2017 15:01
<b>CHROMIUM, HEXAVALENT</b>							
			Method: <b>SW7196A</b>				Analyst: <b>CD</b>
Chromium, Hexavalent	< 0.0050		0.0020	0.0050	mg/L	1	8/16/2017 07:40

**Note:** See Qualifiers page for a list of qualifiers and their definitions.

**Client:** U.S. Steel - Gary Works  
**Project:** USS CAMU 3Q2017  
**WorkOrder:** 1708873

## **QUALIFIERS, ACRONYMS, UNITS**

<b><u>Qualifier</u></b>	<b><u>Description</u></b>
*	Value exceeds Regulatory Limit
**	Estimated Value
a	Analyte is non-accredited
B	Analyte detected in the associated Method Blank above the Reporting Limit
E	Value above quantitation range
H	Analyzed outside of Holding Time
J	Analyte is present at an estimated concentration between the MDL and Report Limit
ND	Not Detected at the Reporting Limit
O	Sample amount is > 4 times amount spiked
P	Dual Column results percent difference > 40%
R	RPD above laboratory control limit
S	Spike Recovery outside laboratory control limits
U	Analyzed but not detected above the MDL
X	Analyte was detected in the Method Blank between the MDL and Reporting Limit, sample results may exhibit background or reagent contamination at the observed level.

<b><u>Acronym</u></b>	<b><u>Description</u></b>
DUP	Method Duplicate
LCS	Laboratory Control Sample
LCSD	Laboratory Control Sample Duplicate
LOD	Limit of Detection (see MDL)
LOQ	Limit of Quantitation (see PQL)
MBLK	Method Blank
MDL	Method Detection Limit
MS	Matrix Spike
MSD	Matrix Spike Duplicate
PQL	Practical Quantitation Limit
RPD	Relative Percent Difference
TDL	Target Detection Limit
TNTC	Too Numerous To Count
A	APHA Standard Methods
D	ASTM
E	EPA
SW	SW-846 Update III

<b><u>Units Reported</u></b>	<b><u>Description</u></b>
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter

# ALS Group, USA

Date: 31-Aug-17

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **106071** Instrument ID **GC14** Method: **SW8082**

MBLK Sample ID: <b>PBLKW1-106071-106071</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/20/2017 01:15 PM</b>			
Client ID:		Run ID: <b>GC14_170820A</b>			SeqNo: <b>4593510</b>		Prep Date: <b>8/17/2017</b>		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.18	0.20								
Aroclor 1221	U	0.18	0.20								
Aroclor 1232	U	0.18	0.20								
Aroclor 1242	U	0.18	0.20								
Aroclor 1248	U	0.18	0.20								
Aroclor 1254	U	0.097	0.20								
Aroclor 1260	U	0.097	0.20								
Aroclor 1262	U	0.097	0.20								
Aroclor 1268	U	0.097	0.20								
PCBs, Total	U	0.097	0.20								
<i>Surr: Decachlorobiphenyl</i>	<i>0.2384</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>115</i>	<i>30-150</i>	<i>0</i>			
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1212</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>58.3</i>	<i>50-150</i>	<i>0</i>			

LCS Sample ID: <b>PLCSW1-106071-106071</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/20/2017 01:30 PM</b>			
Client ID:		Run ID: <b>GC14_170820A</b>			SeqNo: <b>4593511</b>		Prep Date: <b>8/17/2017</b>		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.33	0.18	0.20	4.17	0	104	50-150	0			
Aroclor 1260	4.028	0.097	0.20	4.17	0	96.6	50-150	0			
<i>Surr: Decachlorobiphenyl</i>	<i>0.2228</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>107</i>	<i>30-150</i>	<i>0</i>			
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1664</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>80</i>	<i>50-150</i>	<i>0</i>			

MS Sample ID: <b>1708873-20B MS</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/20/2017 02:13 PM</b>			
Client ID: <b>CAMU-MW04R-GW-08152017</b>		Run ID: <b>GC14_170820A</b>			SeqNo: <b>4593514</b>		Prep Date: <b>8/17/2017</b>		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.1	0.18	0.20	4.17	0	98.3	50-150	0			
Aroclor 1260	4.082	0.097	0.20	4.17	0	97.9	50-150	0			
<i>Surr: Decachlorobiphenyl</i>	<i>0.2189</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>105</i>	<i>30-150</i>	<i>0</i>			
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1317</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>63.3</i>	<i>50-150</i>	<i>0</i>			

MSD Sample ID: <b>1708873-20B MSD</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/20/2017 02:27 PM</b>			
Client ID: <b>CAMU-MW04R-GW-08152017</b>		Run ID: <b>GC14_170820A</b>			SeqNo: <b>4593515</b>		Prep Date: <b>8/17/2017</b>		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	4.094	0.18	0.20	4.17	0	98.2	50-150	4.1	0.146	50	
Aroclor 1260	4.047	0.097	0.20	4.17	0	97.1	50-150	4.082	0.856	50	
<i>Surr: Decachlorobiphenyl</i>	<i>0.2273</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>109</i>	<i>30-150</i>	<i>0.2189</i>	<i>3.77</i>	<i>50</i>	
<i>Surr: Tetrachloro-m-xylene</i>	<i>0.1302</i>	<i>0</i>	<i>0</i>	<i>0.208</i>	<i>0</i>	<i>62.6</i>	<i>50-150</i>	<i>0.1317</i>	<i>1.2</i>	<i>50</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

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Batch ID: **106071**      Instrument ID **GC14**      Method: **SW8082**

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**The following samples were analyzed in this batch:**

1708873-01B	1708873-03B	1708873-06B
1708873-08B	1708873-10B	1708873-12B
1708873-14B	1708873-16B	1708873-18B
1708873-20B	1708873-22B	1708873-24B

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **106169** Instrument ID **GC14** Method: **SW8082**

MBLK		Sample ID: <b>PBLKW1-106169-106169</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/22/2017 03:22 PM</b>			
Client ID:		Run ID: <b>GC14_170822B</b>				SeqNo: <b>4598356</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	U	0.18	0.20								
Aroclor 1221	U	0.18	0.20								
Aroclor 1232	U	0.18	0.20								
Aroclor 1242	U	0.18	0.20								
Aroclor 1248	U	0.18	0.20								
Aroclor 1254	U	0.097	0.20								
Aroclor 1260	U	0.097	0.20								
Aroclor 1262	U	0.097	0.20								
Aroclor 1268	U	0.097	0.20								
PCBs, Total	U	0.097	0.20								
Surr: Decachlorobiphenyl	0.2037	0	0	0.208	0	97.9	30-150	0			
Surr: Tetrachloro-m-xylene	0.1184	0	0	0.208	0	56.9	50-150	0			

LCS		Sample ID: <b>PLCSW1-106169-106169</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/22/2017 03:37 PM</b>			
Client ID:		Run ID: <b>GC14_170822B</b>				SeqNo: <b>4598357</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.872	0.18	0.20	4.17	0	92.9	50-150	0			
Aroclor 1260	4.089	0.097	0.20	4.17	0	98.1	50-150	0			
Surr: Decachlorobiphenyl	0.246	0	0	0.208	0	118	30-150	0			
Surr: Tetrachloro-m-xylene	0.1232	0	0	0.208	0	59.2	50-150	0			

MS		Sample ID: <b>17081087-01C MS</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/22/2017 04:20 PM</b>			
Client ID:		Run ID: <b>GC14_170822B</b>				SeqNo: <b>4598360</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.626	0.18	0.20	4.17	0	86.9	50-150	0			
Aroclor 1260	3.635	0.097	0.20	4.17	0	87.2	50-150	0			
Surr: Decachlorobiphenyl	0.1662	0	0	0.208	0	79.9	30-150	0			
Surr: Tetrachloro-m-xylene	0.1358	0	0	0.208	0	65.3	50-150	0			

MSD		Sample ID: <b>17081087-01C MSD</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/22/2017 04:34 PM</b>			
Client ID:		Run ID: <b>GC14_170822B</b>				SeqNo: <b>4598361</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Aroclor 1016	3.065	0.18	0.20	4.17	0	73.5	50-150	3.626	16.7	50	
Aroclor 1260	3.018	0.097	0.20	4.17	0	72.4	50-150	3.635	18.5	50	
Surr: Decachlorobiphenyl	0.1677	0	0	0.208	0	80.6	30-150	0.1662	0.889	50	
Surr: Tetrachloro-m-xylene	0.1094	0	0	0.208	0	52.6	50-150	0.1358	21.6	50	

The following samples were analyzed in this batch:

1708873-26B	1708873-28B	1708873-30B
1708873-32B	1708873-34B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **106184**      Instrument ID **HG1**      Method: **SW7470A**

<b>LCS</b>		Sample ID: <b>LCS-106184-106184</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/21/2017 03:03 PM</b>			
Client ID:		Run ID: <b>HG1_170821A</b>				SeqNo: <b>4594557</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00196	0.000019	0.00020	0.002	0	98	80-120	0			

<b>MS</b>		Sample ID: <b>1708873-21AMS</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/21/2017 03:54 PM</b>			
Client ID: <b>CAMU-MW04R-GW-08152017-F</b>		Run ID: <b>HG1_170821A</b>				SeqNo: <b>4594573</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00171	0.000019	0.00020	0.002	-0.000035	87.2	75-125	0			

<b>MSD</b>		Sample ID: <b>1708873-21AMSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/21/2017 03:57 PM</b>			
Client ID: <b>CAMU-MW04R-GW-08152017-F</b>		Run ID: <b>HG1_170821A</b>				SeqNo: <b>4594574</b>		Prep Date: <b>8/21/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00167	0.000019	0.00020	0.002	-0.000035	85.2	75-125	0.00171	2.37	20	

The following samples were analyzed in this batch:

1708873-02A	1708873-04A	1708873-07A
1708873-09A	1708873-11A	1708873-13A
1708873-15A	1708873-17A	1708873-19A
1708873-21A		

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **106251** Instrument ID **HG1** Method: **SW7470A**

<b>MBLK</b>		Sample ID: <b>MBLK-106251-106251</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/22/2017 02:11 PM</b>			
Client ID:		Run ID: <b>HG1_170822A</b>				SeqNo: <b>4596887</b>		Prep Date: <b>8/22/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	U	0.000019	0.00020								

<b>LCS</b>		Sample ID: <b>LCS-106251-106251</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/22/2017 02:14 PM</b>			
Client ID:		Run ID: <b>HG1_170822A</b>				SeqNo: <b>4596888</b>		Prep Date: <b>8/22/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00193	0.000019	0.00020	0.002	0	96.5	80-120	0			

<b>MS</b>		Sample ID: <b>17081087-01BMS</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/22/2017 02:32 PM</b>			
Client ID:		Run ID: <b>HG1_170822A</b>				SeqNo: <b>4596895</b>		Prep Date: <b>8/22/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00189	0.000019	0.00020	0.002	-0.000045	96.8	75-125	0			

<b>MSD</b>		Sample ID: <b>17081087-01BMSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/22/2017 02:34 PM</b>			
Client ID:		Run ID: <b>HG1_170822A</b>				SeqNo: <b>4596896</b>		Prep Date: <b>8/22/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Mercury	0.00183	0.000019	0.00020	0.002	-0.000045	93.8	75-125	0.00189	3.23	20	

The following samples were analyzed in this batch:

1708873-23A	1708873-25A	1708873-27A
1708873-29A	1708873-31A	1708873-33A
1708873-35A		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: 106044 Instrument ID ICPMS3 Method: SW6020A

MBLK				Sample ID: MBLK-106044-106044				Units: mg/L		Analysis Date: 8/17/2017 02:18 PM		
Client ID:			Run ID: ICPMS3_170817A			SeqNo: 4588826		Prep Date: 8/17/2017		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	U	0.00087	0.0050									
Barium	U	0.0022	0.0050									
Cadmium	U	0.00005	0.0020									
Chromium	U	0.00065	0.0050									
Lead	U	0.00033	0.0050									
Lithium	U	0.00037	0.010									
Selenium	U	0.0009	0.0050									
Silver	U	0.00005	0.0050									

LCS					Sample ID: LCS-106044-106044			Units: mg/L		Analysis Date: 8/17/2017 02:19 PM		
Client ID:			Run ID: ICPMS3_170817A			SeqNo: 4588827		Prep Date: 8/17/2017		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.09612	0.00087	0.0050	0.1	0	96.1	80-120	0				
Barium	0.09796	0.0022	0.0050	0.1	0	98	80-120	0				
Cadmium	0.09918	0.00005	0.0020	0.1	0	99.2	80-120	0				
Chromium	0.09667	0.00065	0.0050	0.1	0	96.7	80-120	0				
Lead	0.103	0.00033	0.0050	0.1	0	103	80-120	0				
Lithium	0.1089	0.00037	0.010	0.1	0	109	80-120	0				
Selenium	0.0962	0.0009	0.0050	0.1	0	96.2	80-120	0				
Silver	0.09572	0.00005	0.0050	0.1	0	95.7	80-120	0				

MS					Sample ID: 1708873-21AMS			Units: mg/L		Analysis Date: 8/17/2017 02:41 PM		
Client ID: CAMU-MW04R-GW-08152017-F				Run ID: ICPMS3_170817A			SeqNo: 4590041		Prep Date: 8/17/2017		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Arsenic	0.09883	0.00087	0.0050	0.1	0.000325	98.5	75-125	0				
Barium	0.1754	0.0022	0.0050	0.1	0.07147	104	75-125	0				
Cadmium	0.09478	0.00005	0.0020	0.1	0.000034	94.8	75-125	0				
Chromium	0.0967	0.00065	0.0050	0.1	0.000058	96.6	75-125	0				
Lead	0.1037	0.00033	0.0050	0.1	-0.000094	104	75-125	0				
Lithium	0.114	0.00037	0.010	0.1	0.006278	108	75-125	0				
Selenium	0.1012	0.0009	0.0050	0.1	0.005017	96.2	75-125	0				
Silver	0.09108	0.00005	0.0050	0.1	-0.000005	91.1	75-125	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **106044**      Instrument ID **ICPMS3**      Method: **SW6020A**

MSD					Sample ID: 1708873-21AMSD			Units: mg/L		Analysis Date: 8/17/2017 02:42 PM	
Client ID: CAMU-MW04R-GW-08152017-F					Run ID: ICPMS3_170817A			SeqNo: 4590042		Prep Date: 8/17/2017	
										DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Arsenic	0.09866	0.00087	0.0050	0.1	0.000325	98.3	75-125	0.09883	0.174	20	
Barium	0.1762	0.0022	0.0050	0.1	0.07147	105	75-125	0.1754	0.491	20	
Cadmium	0.09386	0.00005	0.0020	0.1	0.000034	93.8	75-125	0.09478	0.976	20	
Chromium	0.09654	0.00065	0.0050	0.1	0.000058	96.5	75-125	0.0967	0.169	20	
Lead	0.1016	0.00033	0.0050	0.1	-0.000094	102	75-125	0.1037	2.02	20	
Lithium	0.1109	0.00037	0.010	0.1	0.006278	105	75-125	0.114	2.78	20	
Selenium	0.1005	0.0009	0.0050	0.1	0.005017	95.4	75-125	0.1012	0.739	20	
Silver	0.09153	0.00005	0.0050	0.1	-0.000005	91.5	75-125	0.09108	0.49	20	

The following samples were analyzed in this batch:

1708873-02A	1708873-04A	1708873-07A
1708873-09A	1708873-11A	1708873-13A
1708873-15A	1708873-17A	1708873-19A
1708873-21A	1708873-23A	1708873-25A
1708873-27A	1708873-29A	1708873-31A
1708873-33A	1708873-35A	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **106036** Instrument ID **SVMS8** Method: **SW846 8270D**

MBLK		Sample ID: <b>SBLKW1-106036-106036</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/21/2017 04:51 PM</b>			
Client ID:		Run ID: <b>SVMS8_170821A</b>				SeqNo: <b>4597230</b>		Prep Date: <b>8/18/2017</b>		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	U	0.34	5.0								
1,2,4-Trichlorobenzene	U	0.41	1.0								
1,2-Dichlorobenzene	U	0.39	1.0								
1,3,5-Trinitrobenzene	U	0.43	10								
1,3-Dichlorobenzene	U	0.65	1.0								
1,3-Dinitrobenzene	U	0.22	1.0								
1,4-Dichlorobenzene	U	0.32	1.0								
1,4-Dioxane	U	0.72	5.0								
1,4-Napthoquinone	U	0.14	5.0								
1-Naphthylamine	U	0.45	5.0								
2,3,4,6-Tetrachlorophenol	U	0.45	1.0								
2,4,5-Trichlorophenol	U	0.17	1.0								
2,4,6-Trichlorophenol	U	0.25	1.0								
2,4-Dichlorophenol	U	0.35	1.0								
2,4-Dimethylphenol	U	0.36	1.0								
2,4-Dinitrophenol	U	0.4	5.0								
2,4-Dinitrotoluene	U	0.42	1.0								
2,6-Dichlorophenol	U	0.27	1.0								
2,6-Dinitrotoluene	U	0.33	1.0								
2-Acetylaminofluorene	U	0.35	5.0								
2-Chloronaphthalene	U	0.075	0.10								
2-Chlorophenol	U	0.23	1.0								
2-Methylnaphthalene	U	0.065	0.10								
2-Methylphenol	U	0.25	1.0								
2-Naphthylamine	U	0.27	5.0								
2-Nitroaniline	U	0.21	1.0								
2-Nitrophenol	U	0.34	1.0								
2-Picoline	U	0.3	5.0								
3&4-Methylphenol	U	0.21	1.0								
3,3'-Dichlorobenzidine	U	1.6	5.0								
3,3'-Dimethylbenzidine	U	7.3	25								
3-Methylcholanthrene	U	0.56	5.0								
3-Nitroaniline	U	0.64	1.0								
4,6-Dinitro-2-methylphenol	U	0.27	1.0								
4-Aminobiphenyl	U	0.19	5.0								
4-Bromophenyl phenyl ether	U	0.33	1.0								
4-Chloro-3-methylphenol	U	0.26	1.0								
4-Chloroaniline	U	0.34	1.0								
4-Chlorophenyl phenyl ether	U	0.31	1.0								
4-Nitroaniline	U	0.57	1.0								
4-Nitrophenol	U	0.24	5.0								
4-Nitroquinoline 1-oxide	U	1.5	5.0								
5-Nitro-o-toluidine	U	0.16	5.0								

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>106036</b>	Instrument ID <b>SVMS8</b>	Method: <b>SW846 8270D</b>
7,12-Dimethylbenz(a)anthracene	U	0.16 1.0
Acenaphthene	U	0.081 0.10
Acenaphthylene	U	0.075 0.10
Acetophenone	U	0.37 1.0
Aniline	U	0.49 1.0
Anthracene	U	0.028 0.10
Aramite	U	0.73 1.0
Benzo(a)anthracene	U	0.022 0.10
Benzo(a)pyrene	U	0.044 0.10
Benzo(b)fluoranthene	U	0.051 0.10
Benzo(g,h,i)perylene	U	0.03 0.10
Benzo(k)fluoranthene	U	0.048 0.10
Benzyl alcohol	U	0.17 1.0
Bis(2-chloroethoxy)methane	U	0.29 1.0
Bis(2-chloroethyl)ether	U	0.37 1.0
Bis(2-chloroisopropyl)ether	U	0.23 1.0
Bis(2-ethylhexyl)phthalate	U	0.4 1.0
Butyl benzyl phthalate	U	0.3 1.0
Carbazole	U	0.1 1.0
Chlorobenzilate	U	0.27 5.0
Chrysene	U	0.048 0.10
Diallate	U	0.28 5.0
Dibenzo(a,h)anthracene	U	0.03 0.10
Dibenzofuran	U	0.23 1.0
Diethyl phthalate	U	0.17 1.0
Dimethyl phthalate	U	0.18 1.0
Di-n-butyl phthalate	U	0.21 1.0
Di-n-octyl phthalate	U	0.15 1.0
Dinoseb	U	0.9 5.0
Diphenylamine	U	0.23 1.0
Ethyl methanesulfonate	U	0.29 5.0
Fluoranthene	U	0.038 0.10
Fluorene	U	0.051 0.10
Hexachlorobenzene	U	0.44 1.0
Hexachlorobutadiene	U	0.28 1.0
Hexachlorocyclopentadiene	U	1.1 5.0
Hexachloroethane	U	0.21 1.0
Hexachlorophene	U	80 80
Hexachloropropene	U	2.8 5.0
Indeno(1,2,3-cd)pyrene	U	0.067 0.10
Isophorone	U	0.34 5.0
Isosafrole	U	0.29 5.0
Methapyrilene	U	1.6 5.0
Methyl methanesulfonate	U	0.32 5.0
Naphthalene	U	0.067 0.10
Nitrobenzene	U	0.26 1.0
N-Nitrosodiethylamine	U	0.37 1.0
N-Nitrosodimethylamine	U	0.48 1.0

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>106036</b>		Instrument ID <b>SVMS8</b>		Method: <b>SW846 8270D</b>					
N-Nitroso-di-n-butylamine	U	0.45	1.0						
N-Nitrosodi-n-propylamine	U	0.35	1.0						
N-Nitrosodiphenylamine	U	0.23	1.0						
N-Nitrosomethylethylamine	U	1.4	5.0						
N-Nitrosomorpholine	U	0.32	5.0						
N-Nitrosopiperidine	U	0.33	5.0						
N-Nitrosopyrrolidine	U	0.33	5.0						
o-Toluidine	U	0.22	5.0						
p-Dimethylaminoazobenzene	U	0.23	5.0						
Pentachlorobenzene	U	0.26	5.0						
Pentachloroethane	U	0.27	1.0						
Pentachloronitrobenzene	U	0.25	5.0						
Pentachlorophenol	U	0.97	5.0						
Phenacetin	U	0.39	5.0						
Phenanthrene	U	0.03	0.10						
Phenol	U	0.21	1.0						
Pronamide	U	0.3	5.0						
Pyrene	U	0.036	0.10						
Pyridine	U	0.1	10						
Quinoline	U	0.43	5.0						
Safrole	U	0.23	5.0						
<i>Surr: 2,4,6-Tribromophenol</i>	<i>30.8</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>61.6</i>	<i>32-92</i>	<i>0</i>	
<i>Surr: 2-Fluorobiphenyl</i>	<i>30.68</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>61.4</i>	<i>34-98</i>	<i>0</i>	
<i>Surr: 2-Fluorophenol</i>	<i>21.42</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>42.8</i>	<i>23-55</i>	<i>0</i>	
<i>Surr: 4-Terphenyl-d14</i>	<i>45.86</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>91.7</i>	<i>50-111</i>	<i>0</i>	
<i>Surr: Nitrobenzene-d5</i>	<i>29.95</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>59.9</i>	<i>32-89</i>	<i>0</i>	
<i>Surr: Phenol-d6</i>	<i>10.56</i>	<i>0</i>	<i>0</i>	<i>50</i>	<i>0</i>	<i>21.1</i>	<i>10-35</i>	<i>0</i>	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: 106036 Instrument ID SVMS8 Method: SW846 8270D

LCS		Sample ID: SLCSW1-106036-106036				Units: µg/L		Analysis Date: 8/21/2017 05:10 PM			
Client ID:		Run ID: SVMS8_170821A				SeqNo: 4597231		Prep Date: 8/18/2017		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	14.42	0.34	5.0	20	0	72.1	37-96	0			
1,2,4-Trichlorobenzene	11.85	0.41	1.0	20	0	59.2	30-96	0			
1,2-Dichlorobenzene	11.82	0.39	1.0	20	0	59.1	27-97	0			
1,3-Dichlorobenzene	11.33	0.65	1.0	20	0	56.6	24-97	0			
1,3-Dinitrobenzene	15.45	0.22	1.0	20	0	77.2	45-111	0			
1,4-Dichlorobenzene	11.49	0.32	1.0	20	0	57.4	26-96	0			
2,3,4,6-Tetrachlorophenol	15.05	0.45	1.0	20	0	75.2	44-110	0			
2,4,5-Trichlorophenol	12.98	0.17	1.0	20	0	64.9	45-104	0			
2,4,6-Trichlorophenol	14.52	0.25	1.0	20	0	72.6	41-102	0			
2,4-Dichlorophenol	12.41	0.35	1.0	20	0	62	39-98	0			
2,4-Dimethylphenol	11.11	0.36	1.0	20	0	55.6	32-90	0			
2,4-Dinitrophenol	9.87	0.4	5.0	20	0	49.4	23-110	0			
2,4-Dinitrotoluene	14.75	0.42	1.0	20	0	73.8	52-106	0			
2,6-Dichlorophenol	13.75	0.27	1.0	20	0	68.8	33-105	0			
2,6-Dinitrotoluene	15.63	0.33	1.0	20	0	78.2	53-101	0			
2-Chloronaphthalene	13.8	0.075	0.10	20	0	69	42-97	0			
2-Chlorophenol	13.57	0.23	1.0	20	0	67.8	40-95	0			
2-Methylnaphthalene	13.73	0.065	0.10	20	0	68.6	37-99	0			
2-Methylphenol	12.71	0.25	1.0	20	0	63.6	32-87	0			
2-Nitroaniline	14.1	0.21	1.0	20	0	70.5	46-106	0			
2-Nitrophenol	13.88	0.34	1.0	20	0	69.4	39-102	0			
3&4-Methylphenol	11.32	0.21	1.0	20	0	56.6	31-81	0			
3,3'-Dichlorobenzidine	14.54	1.6	5.0	20	0	72.7	35-125	0			
3-Nitroaniline	15.54	0.64	1.0	20	0	77.7	42-102	0			
4,6-Dinitro-2-methylphenol	14.58	0.27	1.0	20	0	72.9	40-118	0			
4-Bromophenyl phenyl ether	16.4	0.33	1.0	20	0	82	50-107	0			
4-Chloro-3-methylphenol	14.32	0.26	1.0	20	0	71.6	40-101	0			
4-Chloroaniline	17.03	0.34	1.0	20	0	85.2	27-124	0			
4-Chlorophenyl phenyl ether	15.7	0.31	1.0	20	0	78.5	50-99	0			
4-Nitroaniline	13.25	0.57	1.0	20	0	66.2	41-108	0			
4-Nitrophenol	5.25	0.24	5.0	20	0	26.2	10-79	0			
Acenaphthene	14.34	0.081	0.10	20	0	71.7	45-97	0			
Acenaphthylene	15.43	0.075	0.10	20	0	77.2	45-103	0			
Acetophenone	15.15	0.37	1.0	20	0	75.8	43-108	0			
Aniline	15.24	0.49	1.0	20	0	76.2	33-99	0			
Anthracene	16.45	0.028	0.10	20	0	82.2	55-107	0			
Benzo(a)anthracene	15.14	0.022	0.10	20	0	75.7	56-109	0			
Benzo(a)pyrene	14.78	0.044	0.10	20	0	73.9	55-112	0			
Benzo(b)fluoranthene	14.32	0.051	0.10	20	0	71.6	54-114	0			
Benzo(g,h,i)perylene	14.17	0.03	0.10	20	0	70.8	55-114	0			
Benzo(k)fluoranthene	14.83	0.048	0.10	20	0	74.2	57-112	0			
Benzyl alcohol	13.08	0.17	1.0	20	0	65.4	34-91	0			
Bis(2-chloroethoxy)methane	13.65	0.29	1.0	20	0	68.2	46-98	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>106036</b>	Instrument ID <b>SVMS8</b>			Method: <b>SW846 8270D</b>					
Bis(2-chloroethyl)ether	13.92	0.37	1.0	20	0	69.6	42-102	0	
Bis(2-ethylhexyl)phthalate	17.38	0.4	1.0	20	0	86.9	50-121	0	
Butyl benzyl phthalate	17.03	0.3	1.0	20	0	85.2	49-114	0	
Carbazole	14.87	0.1	1.0	20	0	74.4	52-113	0	
Chrysene	15.79	0.048	0.10	20	0	79	59-108	0	
Dibenzo(a,h)anthracene	15.3	0.03	0.10	20	0	76.5	55-113	0	
Dibenzofuran	15.08	0.23	1.0	20	0	75.4	47-100	0	
Diethyl phthalate	17.23	0.17	1.0	20	0	86.2	55-106	0	
Dimethyl phthalate	16.73	0.18	1.0	20	0	83.6	54-102	0	
Di-n-butyl phthalate	16.24	0.21	1.0	20	0	81.2	54-114	0	
Di-n-octyl phthalate	17.97	0.15	1.0	20	0	89.8	41-131	0	
Fluoranthene	14.66	0.038	0.10	20	0	73.3	55-113	0	
Fluorene	15.5	0.051	0.10	20	0	77.5	52-100	0	
Hexachlorobenzene	16.55	0.44	1.0	20	0	82.8	52-104	0	
Hexachlorobutadiene	11.14	0.28	1.0	20	0	55.7	21-98	0	
Hexachlorocyclopentadiene	6.47	1.1	5.0	20	0	32.4	20-98	0	
Hexachloroethane	10.84	0.21	1.0	20	0	54.2	19-99	0	
Indeno(1,2,3-cd)pyrene	14.81	0.067	0.10	20	0	74	52-117	0	
Isophorone	14.08	0.34	5.0	20	0	70.4	44-103	0	
Naphthalene	11.26	0.067	0.10	20	0	56.3	34-95	0	
Nitrobenzene	12.66	0.26	1.0	20	0	63.3	41-101	0	
N-Nitrosodimethylamine	10.5	0.48	1.0	20	0	52.5	20-78	0	
N-Nitrosodi-n-propylamine	16.19	0.35	1.0	20	0	81	44-108	0	
N-Nitrosodiphenylamine	15.77	0.23	1.0	20	0	78.8	52-108	0	
Pentachlorophenol	10.55	0.97	5.0	20	0	52.8	30-104	0	
Phenanthrene	14.89	0.03	0.10	20	0	74.4	54-102	0	
Phenol	6.69	0.21	1.0	20	0	33.4	15-42	0	
Pyrene	17.37	0.036	0.10	20	0	86.8	54-115	0	
Pyridine	7.22	0.1	10	20	0	36.1	11-60	0	J
<i>Surr: 2,4,6-Tribromophenol</i>	33.65	0	0	50	0	67.3	32-92	0	
<i>Surr: 2-Fluorobiphenyl</i>	31.83	0	0	50	0	63.7	34-98	0	
<i>Surr: 2-Fluorophenol</i>	20.45	0	0	50	0	40.9	23-55	0	
<i>Surr: 4-Terphenyl-d14</i>	44.34	0	0	50	0	88.7	50-111	0	
<i>Surr: Nitrobenzene-d5</i>	29.86	0	0	50	0	59.7	32-89	0	
<i>Surr: Phenol-d6</i>	12.99	0	0	50	0	26	10-35	0	

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: 106036 Instrument ID SVMS8 Method: SW846 8270D

MS Sample ID: 1708873-20B MS					Units: µg/L			Analysis Date: 8/21/2017 05:29 PM			
Client ID: CAMU-MW04R-GW-08152017			Run ID: SVMS8_170821A			SeqNo: 4597232		Prep Date: 8/18/2017		DF: 1	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	33.95	0.91	13	53.33	0	63.6	37-96	0			
1,2,4-Trichlorobenzene	27.31	1.1	2.7	53.33	0	51.2	30-96	0			
1,2-Dichlorobenzene	27.39	1	2.7	53.33	0	51.4	27-97	0			
1,3-Dichlorobenzene	26.67	1.7	2.7	53.33	0	50	24-97	0			
1,3-Dinitrobenzene	43.79	0.59	2.7	53.33	0	82.1	45-111	0			
1,4-Dichlorobenzene	26.53	0.85	2.7	53.33	0	49.8	26-96	0			
2,3,4,6-Tetrachlorophenol	42.21	1.2	2.7	53.33	0	79.2	44-110	0			
2,4,5-Trichlorophenol	32.96	0.45	2.7	53.33	0	61.8	45-104	0			
2,4,6-Trichlorophenol	34.72	0.67	2.7	53.33	0	65.1	41-102	0			
2,4-Dichlorophenol	27.95	0.93	2.7	53.33	0	52.4	39-98	0			
2,4-Dimethylphenol	22.43	0.96	2.7	53.33	0	42	32-90	0			
2,4-Dinitrophenol	32.45	1.1	13	53.33	0	60.8	23-110	0			
2,4-Dinitrotoluene	41.84	1.1	2.7	53.33	0	78.4	52-106	0			
2,6-Dichlorophenol	30.75	0.72	2.7	53.33	0	57.6	33-105	0			
2,6-Dinitrotoluene	42.51	0.88	2.7	53.33	0	79.7	53-101	0			
2-Chloronaphthalene	32.51	0.2	0.27	53.33	0	61	42-97	0			
2-Chlorophenol	28.59	0.61	2.7	53.33	0	53.6	40-95	0			
2-Methylnaphthalene	31.63	0.17	0.27	53.33	0	59.3	37-99	0			
2-Methylphenol	26.72	0.67	2.7	53.33	0	50.1	32-87	0			
2-Nitroaniline	36.64	0.56	2.7	53.33	0	68.7	46-106	0			
2-Nitrophenol	30.4	0.91	2.7	53.33	0	57	39-102	0			
3&4-Methylphenol	23.68	0.56	2.7	53.33	0	44.4	31-81	0			
3,3´-Dichlorobenzidine	24.85	4.2	13	53.33	0	46.6	35-125	0			
3-Nitroaniline	40.43	1.7	2.7	53.33	0	75.8	42-102	0			
4,6-Dinitro-2-methylphenol	42.27	0.72	2.7	53.33	0	79.2	40-118	0			
4-Bromophenyl phenyl ether	43.89	0.88	2.7	53.33	0	82.3	50-107	0			
4-Chloro-3-methylphenol	37.52	0.69	2.7	53.33	0	70.4	40-101	0			
4-Chloroaniline	38.51	0.91	2.7	53.33	0	72.2	27-124	0			
4-Chlorophenyl phenyl ether	40.93	0.83	2.7	53.33	0	76.8	50-99	0			
4-Nitroaniline	33.17	1.5	2.7	53.33	0	62.2	41-108	0			
4-Nitrophenol	14.99	0.64	13	53.33	0	28.1	10-79	0			
Acenaphthene	35.25	0.22	0.27	53.33	0	66.1	45-97	0			
Acenaphthylene	37.57	0.2	0.27	53.33	0	70.4	45-103	0			
Acetophenone	33.65	0.99	2.7	53.33	0	63.1	43-108	0			
Aniline	33.68	1.3	2.7	53.33	0	63.2	33-99	0			
Anthracene	44.13	0.075	0.27	53.33	0	82.8	55-107	0			
Benzo(a)anthracene	41.07	0.059	0.27	53.33	0	77	56-109	0			
Benzo(a)pyrene	39.6	0.12	0.27	53.33	0	74.2	55-112	0			
Benzo(b)fluoranthene	38.29	0.14	0.27	53.33	0	71.8	54-114	0			
Benzo(g,h,i)perylene	38.43	0.08	0.27	53.33	0	72	55-114	0			
Benzo(k)fluoranthene	40.32	0.13	0.27	53.33	0	75.6	57-112	0			
Benzyl alcohol	30.69	0.45	2.7	53.33	0	57.6	34-91	0			
Bis(2-chloroethoxy)methane	31.2	0.77	2.7	53.33	0	58.5	46-98	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>106036</b>		Instrument ID <b>SVMS8</b>		Method: <b>SW846 8270D</b>				
Bis(2-chloroethyl)ether	30	0.99	2.7	53.33	0	56.2	42-102	0
Bis(2-ethylhexyl)phthalate	47.92	1.1	2.7	53.33	0	89.8	50-121	0
Butyl benzyl phthalate	47.04	0.8	2.7	53.33	0	88.2	49-114	0
Carbazole	40.05	0.27	2.7	53.33	0	75.1	52-113	0
Chrysene	41.52	0.13	0.27	53.33	0	77.8	59-108	0
Dibenzo(a,h)anthracene	40.69	0.08	0.27	53.33	0	76.3	55-113	0
Dibenzofuran	38.21	0.61	2.7	53.33	0	71.6	47-100	0
Diethyl phthalate	48.48	0.45	2.7	53.33	0	90.9	55-106	0
Dimethyl phthalate	46.83	0.48	2.7	53.33	0	87.8	54-102	0
Di-n-butyl phthalate	45.49	0.56	2.7	53.33	0	85.3	54-114	0
Di-n-octyl phthalate	50.13	0.4	2.7	53.33	0	94	41-131	0
Fluoranthene	38.93	0.1	0.27	53.33	0	73	55-113	0
Fluorene	40.32	0.14	0.27	53.33	0	75.6	52-100	0
Hexachlorobenzene	43.36	1.2	2.7	53.33	0	81.3	52-104	0
Hexachlorobutadiene	27.68	0.75	2.7	53.33	0	51.9	21-98	0
Hexachlorocyclopentadiene	16.08	2.9	13	53.33	0	30.2	20-98	0
Hexachloroethane	25.49	0.56	2.7	53.33	0	47.8	19-99	0
Indeno(1,2,3-cd)pyrene	35.47	0.18	0.27	53.33	0	66.5	52-117	0
Isophorone	32.67	0.91	13	53.33	0	61.2	44-103	0
Naphthalene	25.73	0.18	0.27	53.33	0	48.2	34-95	0
Nitrobenzene	27.97	0.69	2.7	53.33	0	52.4	41-101	0
N-Nitrosodimethylamine	23.89	1.3	2.7	53.33	0	44.8	20-78	0
N-Nitrosodi-n-propylamine	37.71	0.93	2.7	53.33	0	70.7	44-108	0
N-Nitrosodiphenylamine	41.36	0.61	2.7	53.33	0	77.6	52-108	0
Pentachlorophenol	34.99	2.6	13	53.33	0	65.6	30-104	0
Phenanthrene	40.51	0.08	0.27	53.33	0	76	54-102	0
Phenol	13.97	0.56	2.7	53.33	0	26.2	15-42	0
Pyrene	47.71	0.096	0.27	53.33	0	89.4	54-115	0
Pyridine	18.53	0.27	27	53.33	0	34.8	11-60	0
<i>Surr: 2,4,6-Tribromophenol</i>	88.93	0	0	133.3	0	66.7	32-92	0
<i>Surr: 2-Fluorobiphenyl</i>	74.27	0	0	133.3	0	55.7	34-98	0
<i>Surr: 2-Fluorophenol</i>	40.51	0	0	133.3	0	30.4	23-55	0
<i>Surr: 4-Terphenyl-d14</i>	122.9	0	0	133.3	0	92.2	50-111	0
<i>Surr: Nitrobenzene-d5</i>	63.07	0	0	133.3	0	47.3	32-89	0
<i>Surr: Phenol-d6</i>	26.35	0	0	133.3	0	19.8	10-35	0

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

# QC BATCH REPORT

Batch ID: 106036 Instrument ID SVMS8 Method: SW846 8270D

MSD					Units: µg/L			Analysis Date: 8/21/2017 05:48 PM			
Sample ID: 1708873-20B MSD					SeqNo: 4597233			Prep Date: 8/18/2017		DF: 1	
Client ID: CAMU-MW04R-GW-08152017					Run ID: SVMS8_170821A						
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,2,4,5-Tetrachlorobenzene	37.47	0.91	13	53.33	0	70.2	37-96	33.95	9.86	30	
1,2,4-Trichlorobenzene	30.13	1.1	2.7	53.33	0	56.5	30-96	27.31	9.84	30	
1,2-Dichlorobenzene	30.27	1	2.7	53.33	0	56.8	27-97	27.39	9.99	30	
1,3-Dichlorobenzene	29.31	1.7	2.7	53.33	0	55	24-97	26.67	9.43	30	
1,3-Dinitrobenzene	46.32	0.59	2.7	53.33	0	86.8	45-111	43.79	5.62	30	
1,4-Dichlorobenzene	29.6	0.85	2.7	53.33	0	55.5	26-96	26.53	10.9	30	
2,3,4,6-Tetrachlorophenol	44.59	1.2	2.7	53.33	0	83.6	44-110	42.21	5.47	30	
2,4,5-Trichlorophenol	35.71	0.45	2.7	53.33	0	67	45-104	32.96	8	30	
2,4,6-Trichlorophenol	36.03	0.67	2.7	53.33	0	67.6	41-102	34.72	3.69	30	
2,4-Dichlorophenol	29.71	0.93	2.7	53.33	0	55.7	39-98	27.95	6.11	30	
2,4-Dimethylphenol	24.03	0.96	2.7	53.33	0	45	32-90	22.43	6.89	30	
2,4-Dinitrophenol	35.12	1.1	13	53.33	0	65.8	23-110	32.45	7.89	30	
2,4-Dinitrotoluene	44.64	1.1	2.7	53.33	0	83.7	52-106	41.84	6.48	30	
2,6-Dichlorophenol	33.15	0.72	2.7	53.33	0	62.2	33-105	30.75	7.51	30	
2,6-Dinitrotoluene	45.04	0.88	2.7	53.33	0	84.4	53-101	42.51	5.79	30	
2-Chloronaphthalene	34.83	0.2	0.27	53.33	0	65.3	42-97	32.51	6.89	30	
2-Chlorophenol	31.28	0.61	2.7	53.33	0	58.6	40-95	28.59	9	30	
2-Methylnaphthalene	34.96	0.17	0.27	53.33	0	65.6	37-99	31.63	10	30	
2-Methylphenol	28.53	0.67	2.7	53.33	0	53.5	32-87	26.72	6.56	30	
2-Nitroaniline	38.67	0.56	2.7	53.33	0	72.5	46-106	36.64	5.38	30	
2-Nitrophenol	33.68	0.91	2.7	53.33	0	63.2	39-102	30.4	10.2	30	
3&4-Methylphenol	25.79	0.56	2.7	53.33	0	48.4	31-81	23.68	8.52	30	
3,3'-Dichlorobenzidine	24.93	4.2	13	53.33	0	46.8	35-125	24.85	0.321	30	
3-Nitroaniline	40.32	1.7	2.7	53.33	0	75.6	42-102	40.43	0.264	30	
4,6-Dinitro-2-methylphenol	44.08	0.72	2.7	53.33	0	82.6	40-118	42.27	4.2	30	
4-Bromophenyl phenyl ether	45.71	0.88	2.7	53.33	0	85.7	50-107	43.89	4.05	30	
4-Chloro-3-methylphenol	39.09	0.69	2.7	53.33	0	73.3	40-101	37.52	4.11	30	
4-Chloroaniline	38.13	0.91	2.7	53.33	0	71.5	27-124	38.51	0.974	30	
4-Chlorophenyl phenyl ether	43.33	0.83	2.7	53.33	0	81.2	50-99	40.93	5.7	30	
4-Nitroaniline	36.11	1.5	2.7	53.33	0	67.7	41-108	33.17	8.47	30	
4-Nitrophenol	15.84	0.64	13	53.33	0	29.7	10-79	14.99	5.54	30	
Acenaphthene	38.13	0.22	0.27	53.33	0	71.5	45-97	35.25	7.85	30	
Acenaphthylene	40.24	0.2	0.27	53.33	0	75.4	45-103	37.57	6.85	30	
Acetophenone	36.27	0.99	2.7	53.33	0	68	43-108	33.65	7.48	30	
Aniline	35.07	1.3	2.7	53.33	0	65.8	33-99	33.68	4.03	30	
Anthracene	45.97	0.075	0.27	53.33	0	86.2	55-107	44.13	4.08	30	
Benzo(a)anthracene	42.43	0.059	0.27	53.33	0	79.6	56-109	41.07	3.26	30	
Benzo(a)pyrene	40.8	0.12	0.27	53.33	0	76.5	55-112	39.6	2.99	30	
Benzo(b)fluoranthene	40.03	0.14	0.27	53.33	0	75	54-114	38.29	4.43	30	
Benzo(g,h,i)perylene	38.99	0.08	0.27	53.33	0	73.1	55-114	38.43	1.45	30	
Benzo(k)fluoranthene	42.24	0.13	0.27	53.33	0	79.2	57-112	40.32	4.65	30	
Benzyl alcohol	32.93	0.45	2.7	53.33	0	61.8	34-91	30.69	7.04	30	
Bis(2-chloroethoxy)methane	32.83	0.77	2.7	53.33	0	61.6	46-98	31.2	5.08	30	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: 106036	Instrument ID SVMS8			Method: SW846 8270D							
Bis(2-chloroethyl)ether	33.63	0.99	2.7	53.33	0	63	42-102	30	11.4	30	
Bis(2-ethylhexyl)phthalate	50.72	1.1	2.7	53.33	0	95.1	50-121	47.92	5.68	30	
Butyl benzyl phthalate	49.52	0.8	2.7	53.33	0	92.8	49-114	47.04	5.14	30	
Carbazole	41.87	0.27	2.7	53.33	0	78.5	52-113	40.05	4.43	30	
Chrysene	43.41	0.13	0.27	53.33	0	81.4	59-108	41.52	4.46	30	
Dibenzo(a,h)anthracene	41.76	0.08	0.27	53.33	0	78.3	55-113	40.69	2.59	30	
Dibenzofuran	40.93	0.61	2.7	53.33	0	76.8	47-100	38.21	6.87	30	
Diethyl phthalate	50.11	0.45	2.7	53.33	0	94	55-106	48.48	3.3	30	
Dimethyl phthalate	48.64	0.48	2.7	53.33	0	91.2	54-102	46.83	3.8	30	
Di-n-butyl phthalate	47.52	0.56	2.7	53.33	0	89.1	54-114	45.49	4.36	30	
Di-n-octyl phthalate	52.32	0.4	2.7	53.33	0	98.1	41-131	50.13	4.27	30	
Fluoranthene	41.17	0.1	0.27	53.33	0	77.2	55-113	38.93	5.59	30	
Fluorene	43.68	0.14	0.27	53.33	0	81.9	52-100	40.32	8	30	
Hexachlorobenzene	45.84	1.2	2.7	53.33	0	86	52-104	43.36	5.56	30	
Hexachlorobutadiene	30.37	0.75	2.7	53.33	0	57	21-98	27.68	9.28	30	
Hexachlorocyclopentadiene	19.39	2.9	13	53.33	0	36.4	20-98	16.08	18.6	30	
Hexachloroethane	28.83	0.56	2.7	53.33	0	54	19-99	25.49	12.3	30	
Indeno(1,2,3-cd)pyrene	36.85	0.18	0.27	53.33	0	69.1	52-117	35.47	3.83	30	
Isophorone	34.69	0.91	13	53.33	0	65	44-103	32.67	6.02	30	
Naphthalene	28.32	0.18	0.27	53.33	0	53.1	34-95	25.73	9.57	30	
Nitrobenzene	30.91	0.69	2.7	53.33	0	58	41-101	27.97	9.96	30	
N-Nitrosodimethylamine	25.68	1.3	2.7	53.33	0	48.2	20-78	23.89	7.21	30	
N-Nitrosodi-n-propylamine	39.33	0.93	2.7	53.33	0	73.8	44-108	37.71	4.22	30	
N-Nitrosodiphenylamine	41.33	0.61	2.7	53.33	0	77.5	52-108	41.36	0.0645	30	
Pentachlorophenol	36.83	2.6	13	53.33	0	69	30-104	34.99	5.12	30	
Phenanthrene	42.35	0.08	0.27	53.33	0	79.4	54-102	40.51	4.44	30	
Phenol	15.65	0.56	2.7	53.33	0	29.4	15-42	13.97	11.3	30	
Pyrene	50	0.096	0.27	53.33	0	93.8	54-115	47.71	4.69	30	
Pyridine	20.11	0.27	27	53.33	0	37.7	11-60	18.53	0	30	J
Surr: 2,4,6-Tribromophenol	93.89	0	0	133.3	0	70.4	32-92	88.93	5.43	40	
Surr: 2-Fluorobiphenyl	78.56	0	0	133.3	0	58.9	34-98	74.27	5.62	40	
Surr: 2-Fluorophenol	46.75	0	0	133.3	0	35.1	23-55	40.51	14.3	40	
Surr: 4-Terphenyl-d14	129.4	0	0	133.3	0	97.1	50-111	122.9	5.2	40	
Surr: Nitrobenzene-d5	70.16	0	0	133.3	0	52.6	32-89	63.07	10.6	40	
Surr: Phenol-d6	30.35	0	0	133.3	0	22.8	10-35	26.35	14.1	40	

The following samples were analyzed in this batch:

1708873-01B	1708873-03B	1708873-06B
1708873-08B	1708873-10B	1708873-12B
1708873-14B	1708873-16B	1708873-18B
1708873-20B	1708873-22B	1708873-24B
1708873-26B	1708873-28B	1708873-30B
1708873-32B	1708873-34B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R217808** Instrument ID **VAL-WC** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MB-R217808-R217808</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/15/2017 09:00 AM</b>			
Client ID:		Run ID: <b>VAL-WC_170815A</b>				SeqNo: <b>4582395</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	U	0.002	0.0050								

<b>LCS</b>		Sample ID: <b>LCS-R217808-R217808</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/15/2017 09:00 AM</b>			
Client ID:		Run ID: <b>VAL-WC_170815A</b>				SeqNo: <b>4582396</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.2069	0.002	0.0050	0.2	0	103	85-115	0			

<b>MS</b>		Sample ID: <b>1708873-04B MS</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/15/2017 09:00 AM</b>			
Client ID: <b>CAMU-MW07-GW-08142017-F</b>		Run ID: <b>VAL-WC_170815A</b>				SeqNo: <b>4582405</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.1958	0.002	0.0050	0.2	0.0002	97.8	85-115	0			

<b>MSD</b>		Sample ID: <b>1708873-04B MSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/15/2017 09:00 AM</b>			
Client ID: <b>CAMU-MW07-GW-08142017-F</b>		Run ID: <b>VAL-WC_170815A</b>				SeqNo: <b>4582406</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.1958	0.002	0.0050	0.2	0.0002	97.8	85-115	0.1958	0	20	

The following samples were analyzed in this batch:

1708873-02B	1708873-04B	1708873-07B
1708873-09B	1708873-11B	1708873-13B
1708873-15B	1708873-17B	

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R217966** Instrument ID **VAL-WC** Method: **SW7196A**

<b>MBLK</b>		Sample ID: <b>MB-R217966-R217966</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/16/2017 07:40 AM</b>			
Client ID:		Run ID: <b>VAL-WC_170816B</b>				SeqNo: <b>4586965</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	U	0.002	0.0050								

<b>LCS</b>		Sample ID: <b>LCS-R217966-R217966</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/16/2017 07:40 AM</b>			
Client ID:		Run ID: <b>VAL-WC_170816B</b>				SeqNo: <b>4586966</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.2032	0.002	0.0050	0.2	0	102	85-115	0			

<b>MS</b>		Sample ID: <b>1708873-21BMS</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/16/2017 07:40 AM</b>			
Client ID: <b>CAMU-MW04R-GW-08152017-F</b>		Run ID: <b>VAL-WC_170816B</b>				SeqNo: <b>4586969</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.2007	0.002	0.0050	0.2	0.0002	100	85-115	0			

<b>MSD</b>		Sample ID: <b>1708873-21BMSD</b>				Units: <b>mg/L</b>		Analysis Date: <b>8/16/2017 07:40 AM</b>			
Client ID: <b>CAMU-MW04R-GW-08152017-F</b>		Run ID: <b>VAL-WC_170816B</b>				SeqNo: <b>4586970</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
Chromium, Hexavalent	0.1958	0.002	0.0050	0.2	0.0002	97.8	85-115	0.2007	2.47	20	

The following samples were analyzed in this batch:

1708873-19B	1708873-21B	1708873-23B
1708873-25B	1708873-27B	1708873-29B
1708873-31B	1708873-33B	1708873-35B

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R218098B** Instrument ID **VMS5** Method: **SW8260B**

MBLK		Sample ID: <b>VLKW1-170818-R218098B</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/18/2017 10:38 AM</b>			
Client ID:		Run ID: <b>VMS5_170818A</b>				SeqNo: <b>4592164</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	U	0.28	1.0								
1,1,1-Trichloroethane	U	0.33	1.0								
1,1,2,2-Tetrachloroethane	U	0.17	1.0								
1,1,2-Trichloroethane	U	0.22	1.0								
1,1-Dichloroethane	U	0.48	1.0								
1,1-Dichloroethene	U	0.36	1.0								
1,2,3-Trichloropropane	U	0.29	1.0								
1,2-Dibromo-3-chloropropane	U	0.43	1.0								
1,2-Dibromoethane	U	0.17	1.0								
1,2-Dichloroethane	U	0.11	1.0								
1,2-Dichloropropane	U	0.34	1.0								
2-Butanone	U	0.47	5.0								
2-Chloro-1,3-butadiene	U	0.35	1.0								
2-Hexanone	U	0.5	5.0								
4-Methyl-2-pentanone	U	0.52	1.0								
Acetone	U	0.47	10								
Acetonitrile	U	0.33	1.0								
Acrolein	U	5.1	20								
Acrylonitrile	U	0.34	1.0								
Allyl chloride	U	0.33	1.0								
Benzene	U	0.42	1.0								
Bromodichloromethane	U	0.22	1.0								
Bromoform	U	0.56	1.0								
Bromomethane	U	0.29	1.0								
Carbon disulfide	U	0.39	1.0								
Carbon tetrachloride	U	0.32	1.0								
Chlorobenzene	U	0.21	1.0								
Chloroethane	U	0.68	1.0								
Chloroform	U	0.46	1.0								
Chloromethane	U	0.68	1.0								
cis-1,3-Dichloropropene	U	0.13	1.0								
Dibromochloromethane	U	0.2	1.0								
Dibromomethane	U	0.16	1.0								
Dichlorodifluoromethane	U	0.3	1.0								
Ethyl methacrylate	U	0.19	1.0								
Ethylbenzene	U	0.29	1.0								
Iodomethane	U	0.44	1.0								
Isobutyl alcohol	U	0.33	1.0								
Methacrylonitrile	U	0.43	1.0								
Methyl methacrylate	U	0.15	1.0								
Methylene chloride	U	0.16	5.0								
Propionitrile	U	0.33	10								
Styrene	U	0.19	1.0								

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.



**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>R218098B</b>		Instrument ID <b>VMS5</b>		Method: <b>SW8260B</b>	
Tetrachloroethene	U	0.28	1.0		
Toluene	U	0.32	1.0		
trans-1,2-Dichloroethene	U	0.48	1.0		
trans-1,3-Dichloropropene	U	0.15	1.0		
trans-1,4-Dichloro-2-butene	U	0.58	2.0		
Trichloroethene	U	0.33	1.0		
Trichlorofluoromethane	U	0.24	1.0		
Vinyl acetate	U	0.42	5.0		
Vinyl chloride	U	0.53	1.0		
Xylenes, Total	U	0.74	3.0		
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.41</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0 97 75-120 0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.14</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0 101 80-110 0</i>
<i>Surr: Dibromofluoromethane</i>	<i>19.63</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0 98.2 85-115 0</i>
<i>Surr: Toluene-d8</i>	<i>19.62</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0 98.1 85-110 0</i>

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R218098B** Instrument ID **VMS5** Method: **SW8260B**

LCS		Sample ID: <b>VLCSW1-170818-R218098B</b>				Units: <b>µg/L</b>		Analysis Date: <b>8/18/2017 09:46 AM</b>			
Client ID:		Run ID: <b>VMS5_170818A</b>				SeqNo: <b>4592163</b>		Prep Date:		DF: <b>1</b>	
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
1,1,1,2-Tetrachloroethane	19.38	0.28	1.0	20	0	96.9	80-130	0			
1,1,1-Trichloroethane	19.26	0.33	1.0	20	0	96.3	75-130	0			
1,1,2,2-Tetrachloroethane	20.24	0.17	1.0	20	0	101	75-130	0			
1,1,2-Trichloroethane	19.31	0.22	1.0	20	0	96.6	75-125	0			
1,1-Dichloroethane	19.76	0.48	1.0	20	0	98.8	75-133	0			
1,1-Dichloroethene	18.87	0.36	1.0	20	0	94.4	70-145	0			
1,2,3-Trichloropropane	19.32	0.29	1.0	20	0	96.6	75-125	0			
1,2-Dibromo-3-chloropropane	18.2	0.43	1.0	20	0	91	60-130	0			
1,2-Dibromoethane	23.07	0.17	1.0	20	0	115	67-155	0			
1,2-Dichloroethane	18.3	0.11	1.0	20	0	91.5	78-125	0			
1,2-Dichloropropane	19.73	0.34	1.0	20	0	98.6	75-125	0			
2-Butanone	18.42	0.47	5.0	20	0	92.1	55-150	0			
2-Hexanone	17.68	0.5	5.0	20	0	88.4	60-135	0			
4-Methyl-2-pentanone	23.6	0.52	1.0	20	0	118	77-178	0			
Acetone	15.83	0.47	10	20	0	79.2	60-160	0			
Acrylonitrile	17.52	0.34	1.0	20	0	87.6	60-140	0			
Allyl chloride	17.36	0.33	1.0	20	0	86.8	70-130	0			
Benzene	20.04	0.42	1.0	20	0	100	85-125	0			
Bromodichloromethane	18.71	0.22	1.0	20	0	93.6	75-125	0			
Bromoform	17.81	0.56	1.0	20	0	89	60-125	0			
Bromomethane	31.58	0.29	1.0	20	0	158	30-185	0			
Carbon disulfide	19.01	0.39	1.0	20	0	95	60-165	0			
Carbon tetrachloride	19.61	0.32	1.0	20	0	98	65-140	0			
Chlorobenzene	19.42	0.21	1.0	20	0	97.1	80-120	0			
Chloroethane	15.24	0.68	1.0	20	0	76.2	50-140	0			
Chloroform	19.24	0.46	1.0	20	0	96.2	80-130	0			
Chloromethane	12.69	0.68	1.0	20	0	63.4	46-148	0			
cis-1,3-Dichloropropene	18.55	0.13	1.0	20	0	92.8	70-130	0			
Dibromochloromethane	19.03	0.2	1.0	20	0	95.2	60-115	0			
Dibromomethane	18.67	0.16	1.0	20	0	93.4	85-125	0			
Dichlorodifluoromethane	9.27	0.3	1.0	20	0	46.4	20-120	0			
Ethyl methacrylate	18.94	0.19	1.0	20	0	94.7	70-130	0			
Ethylbenzene	18.62	0.29	1.0	20	0	93.1	85-125	0			
Iodomethane	37.85	0.44	1.0	20	0	189	60-160	0			S
Methacrylonitrile	18.28	0.43	1.0	20	0	91.4	70-130	0			
Methyl methacrylate	17.19	0.15	1.0	20	0	86	70-130	0			
Methylene chloride	19.05	0.16	5.0	20	0	95.2	75-140	0			
Styrene	18.91	0.19	1.0	20	0	94.6	83-137	0			
Tetrachloroethene	19.26	0.28	1.0	20	0	96.3	68-166	0			
Toluene	18.75	0.32	1.0	20	0	93.8	85-125	0			
trans-1,2-Dichloroethene	18.97	0.48	1.0	20	0	94.8	80-140	0			
trans-1,3-Dichloropropene	18.47	0.15	1.0	20	0	92.4	56-132	0			
trans-1,4-Dichloro-2-butene	16.44	0.58	2.0	20	0	82.2	46-118	0			

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>R218098B</b>	Instrument ID <b>VMS5</b>		Method: <b>SW8260B</b>					
Trichloroethene	19.58	0.33	1.0	20	0	97.9	84-130	0
Trichlorofluoromethane	14.48	0.24	1.0	20	0	72.4	60-140	0
Vinyl chloride	14.5	0.53	1.0	20	0	72.5	50-136	0
Xylenes, Total	56.24	0.74	3.0	60	0	93.7	80-126	0
<i>Surr: 1,2-Dichloroethane-d4</i>	18.95	0	0	20	0	94.8	75-120	0
<i>Surr: 4-Bromofluorobenzene</i>	20.69	0	0	20	0	103	80-110	0
<i>Surr: Dibromofluoromethane</i>	19.75	0	0	20	0	98.8	85-115	0
<i>Surr: Toluene-d8</i>	19.98	0	0	20	0	99.9	85-110	0

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R218098B** Instrument ID **VMS5** Method: **SW8260B**

MS					Sample ID: 1708873-20A MS			Units: µg/L		Analysis Date: 8/18/2017 07:42 PM		
Client ID: CAMU-MW04R-GW-08152017			Run ID: VMS5_170818A			SeqNo: 4592183		Prep Date:		DF: 1		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1,2-Tetrachloroethane	19.46	0.28	1.0	20	0	97.3	80-130	0				
1,1,1-Trichloroethane	20.97	0.33	1.0	20	0	105	75-130	0				
1,1,2,2-Tetrachloroethane	20.03	0.17	1.0	20	0	100	75-130	0				
1,1,2-Trichloroethane	19.4	0.22	1.0	20	0	97	75-125	0				
1,1-Dichloroethane	20.78	0.48	1.0	20	0	104	75-133	0				
1,1-Dichloroethene	21.73	0.36	1.0	20	0	109	70-145	0				
1,2,3-Trichloropropane	19.65	0.29	1.0	20	0	98.2	75-125	0				
1,2-Dibromo-3-chloropropane	16.97	0.43	1.0	20	0	84.8	60-130	0				
1,2-Dibromoethane	23.88	0.17	1.0	20	0	119	67-155	0				
1,2-Dichloroethane	19.78	0.11	1.0	20	0	98.9	78-125	0				
1,2-Dichloropropane	20.52	0.34	1.0	20	0	103	75-125	0				
2-Butanone	19.02	0.47	5.0	20	0	95.1	55-150	0				
2-Hexanone	17.65	0.5	5.0	20	0	88.2	60-135	0				
4-Methyl-2-pentanone	23.81	0.52	1.0	20	0	119	77-178	0				
Acetone	18.82	0.47	10	20	0	94.1	60-160	0				
Acrylonitrile	18.49	0.34	1.0	20	0	92.4	60-140	0				
Allyl chloride	18.14	0.33	1.0	20	0	90.7	70-130	0				
Benzene	20.79	0.42	1.0	20	0	104	85-125	0				
Bromodichloromethane	19.32	0.22	1.0	20	0	96.6	75-125	0				
Bromoform	17.1	0.56	1.0	20	0	85.5	60-125	0				
Bromomethane	28.89	0.29	1.0	20	0	144	30-185	0				
Carbon disulfide	21.46	0.39	1.0	20	0	107	60-165	0				
Carbon tetrachloride	20.92	0.32	1.0	20	0	105	65-140	0				
Chlorobenzene	20.38	0.21	1.0	20	0	102	80-120	0				
Chloroethane	18.75	0.68	1.0	20	0	93.8	50-140	0				
Chloroform	20.42	0.46	1.0	20	0	102	80-130	0				
Chloromethane	15.88	0.68	1.0	20	0	79.4	46-148	0				
cis-1,3-Dichloropropene	18.68	0.13	1.0	20	0	93.4	70-130	0				
Dibromochloromethane	19.18	0.2	1.0	20	0	95.9	60-115	0				
Dibromomethane	20.22	0.16	1.0	20	0	101	85-125	0				
Dichlorodifluoromethane	4.02	0.3	1.0	20	0	20.1	20-120	0				
Ethyl methacrylate	17.89	0.19	1.0	20	0	89.4	70-130	0				
Ethylbenzene	19.78	0.29	1.0	20	0	98.9	85-125	0				
Iodomethane	40.64	0.44	1.0	20	0	203	60-160	0			S	
Methacrylonitrile	18.84	0.43	1.0	20	0	94.2	70-130	0				
Methyl methacrylate	17.36	0.15	1.0	20	0	86.8	70-130	0				
Methylene chloride	20.47	0.16	5.0	20	0	102	75-140	0				
Styrene	19.69	0.19	1.0	20	0	98.4	83-137	0				
Tetrachloroethene	21.42	0.28	1.0	20	0	107	68-166	0				
Toluene	19.49	0.32	1.0	20	0	97.4	85-125	0				
trans-1,2-Dichloroethene	20.04	0.48	1.0	20	0	100	80-140	0				
trans-1,3-Dichloropropene	17.57	0.15	1.0	20	0	87.8	56-132	0				
trans-1,4-Dichloro-2-butene	15.69	0.58	2.0	20	0	78.4	46-118	0				

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

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Batch ID: <b>R218098B</b>	Instrument ID <b>VMS5</b>	Method: <b>SW8260B</b>						
Trichloroethene	21.21	0.33	1.0	20	0	106	84-130	0
Trichlorofluoromethane	17.42	0.24	1.0	20	0	87.1	60-140	0
Vinyl chloride	18.39	0.53	1.0	20	0	92	50-136	0
Xylenes, Total	59.16	0.74	3.0	60	0	98.6	80-126	0
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.97</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.8</i>	<i>75-120</i>	<i>0</i>
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.7</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>104</i>	<i>80-110</i>	<i>0</i>
<i>Surr: Dibromofluoromethane</i>	<i>19.82</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>99.1</i>	<i>85-115</i>	<i>0</i>
<i>Surr: Toluene-d8</i>	<i>20.37</i>	<i>0</i>	<i>0</i>	<i>20</i>	<i>0</i>	<i>102</i>	<i>85-110</i>	<i>0</i>

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**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R218098B** Instrument ID **VMS5** Method: **SW8260B**

MSD					Sample ID: 1708873-20A MSD			Units: µg/L		Analysis Date: 8/18/2017 08:08 PM		
Client ID: CAMU-MW04R-GW-08152017					Run ID: VMS5_170818A			SeqNo: 4592184		Prep Date:		DF: 1
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
1,1,1,2-Tetrachloroethane	20.79	0.28	1.0	20	0	104	80-130	19.46	6.61	30		
1,1,1-Trichloroethane	22.11	0.33	1.0	20	0	111	75-130	20.97	5.29	30		
1,1,2,2-Tetrachloroethane	21.45	0.17	1.0	20	0	107	75-130	20.03	6.85	30		
1,1,2-Trichloroethane	20.08	0.22	1.0	20	0	100	75-125	19.4	3.44	30		
1,1-Dichloroethane	22.09	0.48	1.0	20	0	110	75-133	20.78	6.11	30		
1,1-Dichloroethene	23.3	0.36	1.0	20	0	116	70-145	21.73	6.97	30		
1,2,3-Trichloropropane	20.7	0.29	1.0	20	0	104	75-125	19.65	5.2	30		
1,2-Dibromo-3-chloropropane	18.44	0.43	1.0	20	0	92.2	60-130	16.97	8.3	30		
1,2-Dibromoethane	24.79	0.17	1.0	20	0	124	67-155	23.88	3.74	30		
1,2-Dichloroethane	21.09	0.11	1.0	20	0	105	78-125	19.78	6.41	30		
1,2-Dichloropropane	21.67	0.34	1.0	20	0	108	75-125	20.52	5.45	30		
2-Butanone	19.54	0.47	5.0	20	0	97.7	55-150	19.02	2.7	30		
2-Hexanone	18.47	0.5	5.0	20	0	92.4	60-135	17.65	4.54	30		
4-Methyl-2-pentanone	24.07	0.52	1.0	20	0	120	77-178	23.81	1.09	30		
Acetone	20.1	0.47	10	20	0	100	60-160	18.82	6.58	30		
Acrylonitrile	18.85	0.34	1.0	20	0	94.2	60-140	18.49	1.93	30		
Allyl chloride	19.22	0.33	1.0	20	0	96.1	70-130	18.14	5.78	30		
Benzene	22.03	0.42	1.0	20	0	110	85-125	20.79	5.79	30		
Bromodichloromethane	20.24	0.22	1.0	20	0	101	75-125	19.32	4.65	30		
Bromoform	18.27	0.56	1.0	20	0	91.4	60-125	17.1	6.62	30		
Bromomethane	33.01	0.29	1.0	20	0	165	30-185	28.89	13.3	30		
Carbon disulfide	22.78	0.39	1.0	20	0	114	60-165	21.46	5.97	30		
Carbon tetrachloride	22.78	0.32	1.0	20	0	114	65-140	20.92	8.51	30		
Chlorobenzene	20.85	0.21	1.0	20	0	104	80-120	20.38	2.28	30		
Chloroethane	19.02	0.68	1.0	20	0	95.1	50-140	18.75	1.43	30		
Chloroform	21.64	0.46	1.0	20	0	108	80-130	20.42	5.8	30		
Chloromethane	17.47	0.68	1.0	20	0	87.4	46-148	15.88	9.54	30		
cis-1,3-Dichloropropene	19.95	0.13	1.0	20	0	99.8	70-130	18.68	6.58	30		
Dibromochloromethane	19.98	0.2	1.0	20	0	99.9	60-115	19.18	4.09	30		
Dibromomethane	20.99	0.16	1.0	20	0	105	85-125	20.22	3.74	30		
Dichlorodifluoromethane	4	0.3	1.0	20	0	20	20-120	4.02	0.499	30		
Ethyl methacrylate	19.53	0.19	1.0	20	0	97.6	70-130	17.89	8.77	30		
Ethylbenzene	20.27	0.29	1.0	20	0	101	85-125	19.78	2.45	30		
Iodomethane	45.69	0.44	1.0	20	0	228	60-160	40.64	11.7	30	S	
Methacrylonitrile	20.45	0.43	1.0	20	0	102	70-130	18.84	8.2	30		
Methyl methacrylate	18.81	0.15	1.0	20	0	94	70-130	17.36	8.02	30		
Methylene chloride	22.37	0.16	5.0	20	0	112	75-140	20.47	8.87	30		
Styrene	20.42	0.19	1.0	20	0	102	83-137	19.69	3.64	30		
Tetrachloroethene	22.62	0.28	1.0	20	0	113	68-166	21.42	5.45	30		
Toluene	20.23	0.32	1.0	20	0	101	85-125	19.49	3.73	30		
trans-1,2-Dichloroethene	22.4	0.48	1.0	20	0	112	80-140	20.04	11.1	30		
trans-1,3-Dichloropropene	18.64	0.15	1.0	20	0	93.2	56-132	17.57	5.91	30		
trans-1,4-Dichloro-2-butene	16.21	0.58	2.0	20	0	81	46-118	15.69	3.26	30		

Note: See Qualifiers Page for a list of Qualifiers and their explanation.

**Client:** U.S. Steel - Gary Works  
**Work Order:** 1708873  
**Project:** USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: <b>R218098B</b>	Instrument ID <b>VMS5</b>		Method: <b>SW8260B</b>							
Trichloroethene	22.05	0.33	1.0	20	0	110	84-130	21.21	3.88	30
Trichlorofluoromethane	18.81	0.24	1.0	20	0	94	60-140	17.42	7.67	30
Vinyl chloride	19.7	0.53	1.0	20	0	98.5	50-136	18.39	6.88	30
Xylenes, Total	60.89	0.74	3.0	60	0	101	80-126	59.16	2.88	30
<i>Surr: 1,2-Dichloroethane-d4</i>	<i>19.44</i>	0	0	20	0	97.2	75-120	19.97	2.69	30
<i>Surr: 4-Bromofluorobenzene</i>	<i>20.15</i>	0	0	20	0	101	80-110	20.7	2.69	30
<i>Surr: Dibromofluoromethane</i>	<i>20.18</i>	0	0	20	0	101	85-115	19.82	1.8	30
<i>Surr: Toluene-d8</i>	<i>19.82</i>	0	0	20	0	99.1	85-110	20.37	2.74	30

The following samples were analyzed in this batch:

1708873-01A	1708873-03A	1708873-05A
1708873-06A	1708873-08A	1708873-10A
1708873-12A	1708873-14A	1708873-16A
1708873-18A	1708873-20A	1708873-22A
1708873-24A	1708873-26A	1708873-28A
1708873-30A	1708873-32A	1708873-34A

**Note:** See Qualifiers Page for a list of Qualifiers and their explanation.

Client: U.S. Steel - Gary Works  
 Work Order: 1708873  
 Project: USS CAMU 3Q2017

## QC BATCH REPORT

Batch ID: **R218179A** Instrument ID **VMS5** Method: **SW8260B**

MBLK Sample ID: <b>VBLKW1-170819-R218179A</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/19/2017 10:46 PM</b>			
Client ID:		Run ID: <b>VMS5_170819A</b>			SeqNo: <b>4592696</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	U	0.47	5.0								
Acetone	U	0.47	10								
Surr: 1,2-Dichloroethane-d4	18.9	0	0	20	0	94.5	75-120	0			
Surr: 4-Bromofluorobenzene	19.8	0	0	20	0	99	80-110	0			
Surr: Dibromofluoromethane	20.21	0	0	20	0	101	85-115	0			
Surr: Toluene-d8	19.53	0	0	20	0	97.6	85-110	0			

LCS Sample ID: <b>VLCSW1-170819-R218179A</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/19/2017 09:29 PM</b>			
Client ID:		Run ID: <b>VMS5_170819A</b>			SeqNo: <b>4592695</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	18.28	0.47	5.0	20	0	91.4	55-150	0			
Acetone	16.83	0.47	10	20	0	84.2	60-160	0			
Surr: 1,2-Dichloroethane-d4	19.45	0	0	20	0	97.2	75-120	0			
Surr: 4-Bromofluorobenzene	20.25	0	0	20	0	101	80-110	0			
Surr: Dibromofluoromethane	20.12	0	0	20	0	101	85-115	0			
Surr: Toluene-d8	19.96	0	0	20	0	99.8	85-110	0			

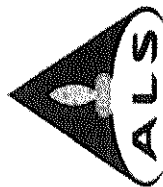
MS Sample ID: <b>1708885-35B MS</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/20/2017 07:22 AM</b>			
Client ID:		Run ID: <b>VMS5_170819A</b>			SeqNo: <b>4592700</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	20.13	0.47	5.0	20	0	101	55-150	0			
Acetone	22	0.47	10	20	2.55	97.2	60-160	0			
Surr: 1,2-Dichloroethane-d4	19.68	0	0	20	0	98.4	75-120	0			
Surr: 4-Bromofluorobenzene	20.3	0	0	20	0	102	80-110	0			
Surr: Dibromofluoromethane	19.78	0	0	20	0	98.9	85-115	0			
Surr: Toluene-d8	19.34	0	0	20	0	96.7	85-110	0			

MSD Sample ID: <b>1708885-35B MSD</b>					Units: <b>µg/L</b>			Analysis Date: <b>8/20/2017 07:48 AM</b>			
Client ID:		Run ID: <b>VMS5_170819A</b>			SeqNo: <b>4592701</b>		Prep Date:		DF: <b>1</b>		
Analyte	Result	MDL	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual
2-Butanone	20.32	0.47	5.0	20	0	102	55-150	20.13	0.939	30	
Acetone	21.87	0.47	10	20	2.55	96.6	60-160	22	0.593	30	
Surr: 1,2-Dichloroethane-d4	20.53	0	0	20	0	103	75-120	19.68	4.23	30	
Surr: 4-Bromofluorobenzene	20.12	0	0	20	0	101	80-110	20.3	0.891	30	
Surr: Dibromofluoromethane	20.39	0	0	20	0	102	85-115	19.78	3.04	30	
Surr: Toluene-d8	20	0	0	20	0	100	85-110	19.34	3.36	30	

The following samples were analyzed in this batch: 1708873-14A

Note: See Qualifiers Page for a list of Qualifiers and their explanation.





ALS Environmental  
10450 Stancil Rd. #210  
Houston, Texas 77099  
(Tel) 281.530.5656  
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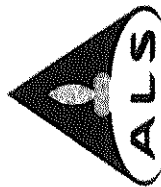
## Chain of Custody Form

Page 1 of 4

ALS Environmental  
3352 128th Avenue  
Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

Customer Information				Project Information				ALS Project Manager: <u>ALS Work Order #: 1708873</u>														
Purchase Order	Project Name	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Parameter/Method Request for Analysis														
Work Order	Company Name	Bill To Company	Invoice Attn.	Address	City/State/Zip	Phone	Fax	A 8260B App IX VOCs B 8270D App IX SVOCs C 8082 PCBs D 60207470 Dissolved Metals/Hg E 7196 Hexavalent Chromium Dissolved F G H I J														
Send Report To	Address	City/State/Zip	Phone	Fax	e-Mail Address	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT
1	CAMU-MW06R-GW - 08/14/2017	8/14/2017	1437	AQ	1.5	7	X															
2	CAMU-MW06R-GW - 08/14/2017	8/14/2017	1437	AQ	2.5	2										X	X					
3	CAMU-MW07-GW - 08/14/2017	8/14/2017	1000	AQ	1.5	7	X															
4	CAMU-MW07-GW - 08/14/2017	8/14/2017	1000	AQ	2.5	2										X	X					
5	CAMU-MW08-GW			AQ	1.5	7	X															
6	CAMU-MW08-GW			AQ	2.5	2										X	X					
7	IB-01-08/14/2017	8/14/2017																				
Shipper(s): Please Print & Sign <u>James Rogers</u> Shipper Method: <u>ALS COURIER</u> Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 24 Hour Results Due Date: <u>8-14-17</u>																						
Relinquished by: <u>James Rogers</u>		Date: <u>8/14/17</u>	Time: <u>1550</u>	Received by: <u>Bul T</u>		Date: <u>8-14-17</u>	Time: <u>1550</u>	Notes: <u>Rec'd 8/16/17 0900</u>														
Relinquished by: <u>Bul T</u>		Date: <u>8/14/17</u>	Time: <u>1730</u>	Received by (Laboratory): <u>2H400</u>		Date: <u>8/14/17</u>	Time: <u>1730</u>	ALS Cooler ID: <u>HN</u>		Cooler Temp: <u>4.7</u>		QC Package: (Check Box Below) <input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRRP LRC <input type="checkbox"/> Level IV: SW846 Methods/CLP like <input type="checkbox"/> Other:										
Logged by (Laboratory):		Date:	Time:	Checked by (Laboratory):		Date:	Time:															
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/2-Acstate 5-None																						

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.



☐ ALS Environmental  
10450 Stancliff Rd. #210  
Houston, Texas 77099  
(Tel) 281.530.5656  
(Fax) 281.530.5887

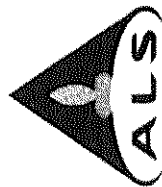
## Chain of Custody Form

Page 2 of 4

☒ ALS Environmental  
3352 128th Avenue  
Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

Customer Information				ALS Project Manager:				ALS Work Order #:									
Project Information				Parameter/Method Request for Analysis													
Purchase Order	Project Name	Project Number	Project Number	A	B	C	D	E	F	G	H	I	J				
Work Order	USS CAMU 302017																
Company Name	Weaver Consultants Group	Bill To Company	US Steel Corporation														
Send Report To	Mike Maxwell	Invoice Attn.	Accounts Payable														
Address	35 East Wacker Drive	Address	PO Box 267														
	Suite 1250																
City/State/Zip	Chicago, Illinois, 60601	City/State/Zip	Pittsburgh, PA 15230														
Phone	312-922-1030	Phone															
Fax		Fax															
e-Mail Address	mmmaxwell@wvgrp.com, rsheehano@wvgrp.com																
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT
1	CAMU-MW01R-GW - 08/14/2017	8/14/2017	1254	AQ	1.5	7	X	X	X								
2	CAMU-MW01R-GW - 08/14/2017	8/14/2017	1254	AQ	2.5	2				X	X						
3																	
4	CAMU-MW01R-GW - 08/14/2017	8/14/2017	1254	AQ	1.5	7	X	X	X								
5	CAMU-MW01R-GW - 08/14/2017	8/14/2017	1254	AQ	2.5	2				X	X						
6																	
7	CAMU-MW02R-GW			AQ	1.5	7	X	X	X								
8	CAMU-MW02R-GW			AQ	2.5	2				X	X						
9																	
10																	
Sampler(s): Please Print & Sign				Shipment Method: ALS COURIER				Required Turnaround Time: (Check Box)				Results Due Date:					
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1550				<input checked="" type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 1 Wk Days <input type="checkbox"/> 4 Hour									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				Notes: Re: 8/16/17 0900 222L									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				QC Package: (Check Box Below)									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> Level IV: SW846 Methods/CLP like <input type="checkbox"/> Other: <input type="checkbox"/>									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				ALS Cooler ID: 47									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				JTRRP LRC <input type="checkbox"/>									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				Level IV: SW846 Methods/CLP like <input type="checkbox"/>									
Relinquished by: <i>John Maxwell</i>				Date: 8/14/17 Time: 1730				Other: <input type="checkbox"/>									
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None																	

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.



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10450 Standcliff Rd. #210  
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(Tel) 281.530.5656  
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## Chain of Custody Form

Page 3 of 4

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3352 128th Avenue  
Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

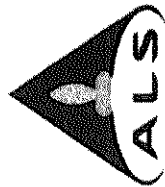
Customer Information				Project Information				ALS Project Manager: <u>ALS Work Order #: 1708873</u>													
Purchase Order	Project Name	Project Number	Project Number	A	B	C	D	E	F	G	H	I	J	Parameter/Method Request for Analysis							
Work Order	Project Name	Project Number	Project Number	A	B	C	D	E	F	G	H	I	J	82608 App IX VOCs							
Company Name	Weaver Consultants Group	Bill To Company	US Steel Corporation	A	B	C	D	E	F	G	H	I	J	8270D App IX SVOCs							
Send Report To	Mike Maxwell	Invoice Attn.	Accounts Payable	A	B	C	D	E	F	G	H	I	J	8082 PCBs							
Address	35 East Wacker Drive	Address	PO Box 267	A	B	C	D	E	F	G	H	I	J	60207470 Dissolved Metals/Hg							
City/State/Zip	Chicago, Illinois, 60601	City/State/Zip	Pittsburgh, PA 15230	A	B	C	D	E	F	G	H	I	J	7196 Hexavalent Chromium Dissolved							
Phone	312-922-1030	Phone		A	B	C	D	E	F	G	H	I	J								
Fax		Fax		A	B	C	D	E	F	G	H	I	J								
e-Mail Address	jmaxwell@wvgrp.com, rstichnol@wvgrp.com, sbonola@wvgrp.com			A	B	C	D	E	F	G	H	I	J								
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT				
1	CAMU-P05-GW CP	8/14/2017	1502	AQ	1.5	7	X		X												
2	CAMU-P05-GW CP -F	8/14/2017	1502	AQ	2.5	2				X	X										
3																					
4	CAMU-P06R-GW - 08142017	8/14/2017	1502	AQ	1.5	7	X		X												
5	CAMU-P06R-GW - 08142017 -F	8/14/2017	1502	AQ	2.5	2				X	X										
6																					
7	CAMU-P07-GW - 08142017	8/14/2017	1012	AQ	1.5	7	X		X												
8	CAMU-P07-GW - 08142017 -F	8/14/2017	1012	AQ	2.5	2				X	X										
9																					
10																					
11																					
12																					
13																					

Shipper Method: ALS COURIER		Required Turnaround Time: (Check Box)		Results Due Date:	
Date:	Time:	10 Wk Days	5 Wk Days	3 Wk Days	24 Hour
8/14/17	1550	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8/14/17	1730	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Refrigerated by:		Received by (Laboratory):		Notes:	
Date:	Time:	Date:	Time:	ALS Cooler ID	QC Package: (Check Box Below)
8/14/17	1550	8/14/17	1550	4N	<input type="checkbox"/> Level II: Standard QC
8/14/17	1730	8/14/17	1730	4.7	<input type="checkbox"/> Level III: Raw Data
				34.2	<input type="checkbox"/> TRRP Level IV
					<input type="checkbox"/> Other: SW846 Methods/CLP like

Preservative Key:		1-HCl		2-HNO <sub>3</sub>		3-H <sub>2</sub> SO <sub>4</sub>		4-NaOH/ZnAcetate		5-None	

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.



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## Chain of Custody Form

Page 4 of 4

☒ ALS Environmental  
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Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

Customer Information				Project Information				ALS Project Manager: <u>ALS Work Order #: 1708873</u>											
Purchase Order	Project Name	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Parameter/Method Request for Analysis											
Work Order	Bill To Company	Invoice Attn.	Address	City/State/Zip	Phone	Fax	e-Mail Address	A 8260B App IX VOCs B 8270D App IX SVOCs C 8082 PCBs D 60207470 Dissolved Metals/Hg E 7196 Hexavalent Chromium Dissolved F G H I J											
Company Name	Weaver Consultants Group	Mike Maxwell	35 East Wacker Drive	Chicago, Illinois, 60601	312-822-1030		mmaxwell@wcgrp.com, rsluchnoth@wcgrp.com, sbonola@wcgrp.com	A	B	C	D	E	F	G	H	I	J	COMMENT	
Send Report To	Mike Maxwell	Accounts Payable	PO Box 267																
Address	Suite 1250																		
City/State/Zip	Chicago, Illinois, 60601																		
Phone	312-822-1030																		
Fax																			
e-Mail Address	mmaxwell@wcgrp.com, rsluchnoth@wcgrp.com, sbonola@wcgrp.com																		
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT		
1	EB01-GW - 08/14/2017	8/14/2017	1012	AQ	1.5	7	X	X	X										
2	EB01-GW - 08/14/2017	8/14/2017	1012	AQ	2.5	2				X	X								
3																			
4	CAMU-MW09R-GW - 08/14/2017			AQ	1.5	7	X	X	X										
5	CAMU-MW09R-GW - 08/14/2017			AQ	2.5	2				X	X								
6																			
7	CAMU-P01R-GW - 08/14/2017	8/14/2017	1308	AQ	1.5	7	X	X	X										
8	CAMU-P01R-GW - 08/14/2017	8/14/2017	1308	AQ	2.5	2				X	X								
9																			
10																			
Sampler(s): Please Print & Sign				Shipment Method: ALS COURIER				Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date:							
Relinquished by: <u>[Signature]</u>				Received by: <u>[Signature]</u>				Date: 8/14/17 Time: 1550				Date: 8/14/17 Time: 1550				Notes: Rec'd 8/16/17 0900 222			
Relinquished by: <u>[Signature]</u>				Received by: <u>[Signature]</u>				Date: 8/14/17 Time: 1730				Date: 8/14/17 Time: 1730				QC Package: (Check Box Below) <input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRRP LRC <input type="checkbox"/> TRRP Level IV <input type="checkbox"/> Other: <u>4.7</u>			
Logged by (Laboratory): <u>[Signature]</u>				Checked by (Laboratory): <u>[Signature]</u>				Date: 8/14/17 Time: 1730				Date: 8/14/17 Time: 1730				Level IV: SW846 Methods/CLP like <u>4.7</u>			
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None																Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.			



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## Chain of Custody Form

Page 1 of 2

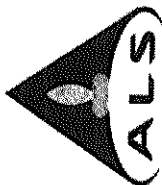
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Holland, Michigan 49424  
(Tel) 616 399 6070  
(Fax) 616 399 6185

Customer Information				Project Information				ALS Project Manager: <u>1708873</u>											
Purchase Order				Project Name				Parameter/Method Request for Analysis											
Work Order				Project Number				A 8260B App IX VOCs											
Company Name				Bill To Company				B 8270D App IX SVOCs											
Send Report To				Invoice Attn.				C 8082 PCBs											
Address				Address				D 60207470 Dissolved Metals/Hg											
City/State/Zip				City/State/Zip				E 7196 Hexavalent Chromium Dissolved											
Phone				Phone				F											
Fax				Fax				G											
e-Mail Address				e-Mail Address				H											
								I											
								J											
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT		
1	CAMU-MW02R-GW	8/15/17	1001	AQ	1.5	7	X	X											
2	CAMU-MW02R-GW	8/15/17	1001	AQ	2.5	2				X	X								
3	CAMU-MW02R-GW	8/15/17	1001	AQ	1.5	7	X	X											
4	CAMU-MW02R-GW	8/15/17	1001	AQ	2.5	2				X	X								
5	CAMU-MW02R-GW	8/15/17	1001	AQ	1.5	7	X	X											
6	CAMU-MW02R-GW	8/15/17	1001	AQ	2.5	2				X	X								
7	CAMU-MW02R-GW	8/15/17	1001	AQ	1.5	7	X	X											
8	CAMU-MW02R-GW	8/15/17	1001	AQ	2.5	2				X	X								
9																			
10																			

Sampler(s): Please Print & Sign		Ship Method:		Required Turnaround Time: (Check Box)		Results Due Date:	
ALS		ALS COURIER		<input checked="" type="checkbox"/> 30 Wk Days <input type="checkbox"/> 60 Wk Days <input type="checkbox"/> 90 Wk Days		<input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 4 Wk Days <input type="checkbox"/> 6 Wk Days	
Relinquished by:	Date: 8/15/17	Time: 1515	Received by:	Date: 8/15/17	Time: 1515	Notes: Rec'd 8/16/17 0900	
Relinquished by:	Date: 8/15/17	Time: 1630	Received by (Laboratory):	Date: 8/15/17	Time: 1630	QC Package: (Check Box Below)	
Relinquished by:	Date: 8/15/17	Time: 1630	Received by (Laboratory):	Date: 8/15/17	Time: 1630	Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/>	
Relinquished by:	Date: 8/15/17	Time: 1630	Received by (Laboratory):	Date: 8/15/17	Time: 1630	Level IV: SW846 Methods/CLP like <input type="checkbox"/> Other: <input type="checkbox"/>	

Preservative Key: 1-HCl 2-HNO<sub>3</sub> 3-H<sub>2</sub>SO<sub>4</sub> 4-NaOH/Acetate 5-None

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Page 2 of 6

ALS Environmental  
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(Fax) 616.399.6185

Customer Information				ALS Project Manager:				ALS Work Order #									
Project Information				Parameter/Method Request for Analysis													
Purchase Order	Project Name	Project Number	Project Number	A	B	C	D	E	F	G	H	I	J				
Work Order	USS CAMU 3Q2017																
Company Name	Weaver Consultants Group	Bill To Company	US Steel Corporation														
Send Report To	Mike Maxwell	Invoice Attn.	Accounts Payable														
Address	35 East Wacker Drive	Address	PO Box 267														
City/State/Zip	Chicago, Illinois, 60601	City/State/Zip	Pittsburgh, PA 15230														
Phone	312-922-1030	Phone															
Fax		Fax															
e-Mail Address	maxwell@wvgrp.com, richard@wvgrp.com, shunola@wvgrp.com																
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT
1	CAMU-MW04R-GW - 08152017	8/15/17	0836	AQ	1.5	21	X	X	X	X							MS/MSD
2	CAMU-MW04R-GW - 08152017	8/15/17	0836	AQ	2.5	6					X	X					
3																	
4	CAMU-MW05-GW - 08152017	8/15/17	1104	AQ	1.5	7	X	X	X	X							
5	CAMU-MW05-GW - 08152017	8/15/17	1104	AQ	2.5	2					X	X					
6																	
7	CAMU-MW05-GW - 08152017	8/15/17	1104	AQ	1.5	7	X	X	X	X							
8	CAMU-MW05-GW - 08152017	8/15/17	1104	AQ	2.5	2					X	X					
9																	
10																	
Sampler(s): Please Print & Sign <i>Colin Ammer</i>				Shipment Method: ALS COURIER				Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 2-10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date:					
Relinquished by: <i>[Signature]</i>				Received by: <i>[Signature]</i>				Date: 8/15/17 1515				Notes: Rec'd 8/16/17 0900					
Relinquished by: <i>[Signature]</i>				Received by (Laboratory): <i>[Signature]</i>				Date: 8/15/17 1630				ALS Cooler ID: 32					
Logged by (Laboratory): <i>[Signature]</i>				Checked by (Laboratory): <i>[Signature]</i>				Date: 8/15/17 1630				QC Package: (Check Box Below) <input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> TRAP LRC <input type="checkbox"/> Level IV: SW846 Methods/QP like <input type="checkbox"/> Other:					
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None																	

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ALS Environmental  
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(Fax) 616.399.6185

Customer Information				Project Information				ALS Project Manager:				ALS Work Order #																							
Purchase Order	Project Name	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number																				
Work Order	Bill To Company	Invoice Attn.	Accounts Payable	PO Box 267	City/State/Zip	Pittsburgh, PA 15230	Phone	Fax	e-Mail Address	mmmaxwell@wcgrp.com	richinoth@wcgrp.com	shonola@wcgrp.com																							
Company Name	Weaver Consultants Group	35 East Wacker Drive	Suite 1250	Chicago, Illinois, 60601	312-922-1030																														
Send Report To	Mike Maxwell																																		
City/State/Zip	Chicago, Illinois, 60601																																		
Phone	312-922-1030																																		
Fax																																			
e-Mail Address	mmmaxwell@wcgrp.com	richinoth@wcgrp.com	shonola@wcgrp.com																																
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT																		
1	CAMU-P05-GW -08152617	8/15/17	1112	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X																			
2	CAMU-P05-GW -08152617 -F	8/15/17	1112	AQ	2.5	2					X	X																							
3																																			
4	CAMU-P06R-GW -08152617			AQ	1.5	7	X	X	X	X	X	X	X	X	X	X																			
5	CAMU-P06R-GW -08152617 -F			AQ	2.5	2					X	X																							
6																																			
7	CAMU-P07-GW -08152617			AQ	1.5	7	X	X	X	X	X	X	X	X	X	X																			
8	CAMU-P07-GW -08152617 -F			AQ	2.5	2					X	X																							
9																																			
10																																			
Sampler(s): Please Print & Sign				Shipment Method: ALS COURIER				Required Turnaround Time: (Check Box)				Results Due Date:																							
James F. Felt				ALS Environmental				10 Wk Days				2 Wk Days				3 Wk Days				4 Wk Days				Other											
Reinforced by:				Received by:				Time:				Date:				Time:				Date:				Time:				Date:							
James Felt				8/15/17				1515				8/15/17				1515				8/15/17				1515				8/15/17				1515			
Reinforced by:				Received by:				Time:				Date:				Time:				Date:				Time:				Date:							
James Felt				8/15/17				1630				8/15/17				1630				8/15/17				1630				8/15/17				1630			
Logged by (Laboratory):				Checked by (Laboratory):				Time:				Date:				Time:				Date:				Time:				Date:							
James Felt				8/15/17				1630				8/15/17				1630				8/15/17				1630				8/15/17				1630			
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None																																			

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Customer Information				Project Information				ALS Project Manager: <u>ALS Work Order #: 1708873</u>											
Purchase Order	Project Name	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Parameter/Method Request for Analysis											
Work Order	Project Name	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Parameter/Method Request for Analysis											
Company Name	Weaver Consultants Group	Bill To Company	US Steel Corporation	Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
Send Report To	Mike Maxwell	Invoice Attn.	Accounts Payable	Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
Address	35 East Wacker Drive	Address	PO Box 267	Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
City/State/Zip	Chicago, Illinois, 60601	City/State/Zip	Pittsburgh, PA 15230	Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
Phone	312-922-1030	Phone		Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
Fax		Fax		Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
e-Mail Address	mmaxwell@wegrp.com, rstichnoth@wegrp.com, shonola@wegrp.com	e-Mail Address		Company Name	Bill To Company	US Steel Corporation	Company Name	Parameter/Method Request for Analysis											
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT		
1	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X			
2	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	2.5	2													
3	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X			
4	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	2.5	2													
5	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X			
6	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	2.5	2													
7	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X			
8	CAMU-MW08-GW -08152017	8/15/17	1434	AQ	2.5	2													
9																			
10																			

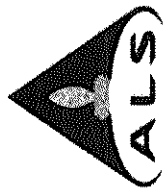
Sampler(s): Please Print & Sign	Shipment Method:	Required Turnaround Time: (Check Box)	Results Due Date:
<u>Sams KSC</u>	ALS COURIER	<input checked="" type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 1 Wk Days <input type="checkbox"/> 24 Hour	

Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
<u>[Signature]</u>	8/15/17	1515	<u>[Signature]</u>	8/15/17	1915	Rec'd 8/16/17 0900
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
<u>[Signature]</u>	8/15/17	1630	<u>[Signature]</u>	8/15/17	1630	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
<u>[Signature]</u>	8/15/17	1630	<u>[Signature]</u>	8/15/17	1630	
Relinquished by:	Date:	Time:	Received by:	Date:	Time:	Notes:
<u>[Signature]</u>	8/15/17	1630	<u>[Signature]</u>	8/15/17	1630	

QC Package: (Check Box Below)	QC Package: (Check Box Below)	QC Package: (Check Box Below)
<input type="checkbox"/> Level I: Standard QC	<input type="checkbox"/> Level II: Standard QC	<input type="checkbox"/> Level III: Raw Data
<input type="checkbox"/> Level IV: Standard QC	<input type="checkbox"/> Level V: Standard QC	<input type="checkbox"/> Level VI: Standard QC
<input type="checkbox"/> Level VII: Standard QC	<input type="checkbox"/> Level VIII: Standard QC	<input type="checkbox"/> Level IX: Standard QC
<input type="checkbox"/> Level X: Standard QC	<input type="checkbox"/> Level XI: Standard QC	<input type="checkbox"/> Level XII: Standard QC
<input type="checkbox"/> Level XIII: Standard QC	<input type="checkbox"/> Level XIV: Standard QC	<input type="checkbox"/> Level XV: Standard QC
<input type="checkbox"/> Level XVI: Standard QC	<input type="checkbox"/> Level XVII: Standard QC	<input type="checkbox"/> Level XVIII: Standard QC
<input type="checkbox"/> Level XIX: Standard QC	<input type="checkbox"/> Level XX: Standard QC	<input type="checkbox"/> Level XXI: Standard QC
<input type="checkbox"/> Level XXII: Standard QC	<input type="checkbox"/> Level XXIII: Standard QC	<input type="checkbox"/> Level XXIV: Standard QC
<input type="checkbox"/> Level XXV: Standard QC	<input type="checkbox"/> Level XXVI: Standard QC	<input type="checkbox"/> Level XXVII: Standard QC
<input type="checkbox"/> Level XXVIII: Standard QC	<input type="checkbox"/> Level XXIX: Standard QC	<input type="checkbox"/> Level XXX: Standard QC

Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None	Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.





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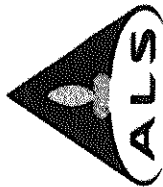
## Chain of Custody Form

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(Fax) 616.399.6185

Customer Information				Project Information				ALS Project Manager:				ALS Work Order #:					
Purchase Order	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
Work Order	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
Company Name	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
Send Report To	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
Address	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
City/State/Zip	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
Phone	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
Fax	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
e-Mail Address	Project Name	Project Number	Project Number	Parameter/Method Request for Analysis													
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT
1	CAMU-P08-GW -08152017	8/15/17	1410	AQ	1.5	7	X		X								
2	CAMU-P08-GW -08152017 -F	8/15/17	1410	AQ	2.5	2				X	X						
3																	
4	CAMU-P09-GW -08152017	8/15/17	1240	AQ	1.5	7	X		X								
5	CAMU-P09-GW -08152017 -F	8/15/17	1240	AQ	2.5	2				X	X						
6																	
7																	
8																	
9																	
10																	
Sampler(s): Please Print & Sign				Ship Method: ALS COURIER				Required Turnaround Time: (Check Box)				Results Due Date:					
Date: 8/15/17				Date: 8/15/17				Date: 8/15/17				Date: 8/15/17					
Time: 1515				Time: 1515				Time: 1515				Time: 1515					
Received by: [Signature]				Received by: [Signature]				Received by: [Signature]				Received by: [Signature]					
Date: 8/15/17				Date: 8/15/17				Date: 8/15/17				Date: 8/15/17					
Time: 1630				Time: 1630				Time: 1630				Time: 1630					
Checked by: [Signature]				Checked by: [Signature]				Checked by: [Signature]				Checked by: [Signature]					
Date: 8/15/17				Date: 8/15/17				Date: 8/15/17				Date: 8/15/17					
Time: 1630				Time: 1630				Time: 1630				Time: 1630					
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None				Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None				Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None				Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None					

Note: Any changes must be made in writing once samples and COC Form have been submitted to ALS.



☐ ALS Environmental  
10450 Standcliff Rd #210  
Houston, Texas 77099  
(Tel) 281.530.5656  
(Fax) 281.530.5887

## Chain of Custody Form

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☒ ALS Environmental  
3352 128th Avenue  
Holland, Michigan 49424  
(Tel) 616.399.6070  
(Fax) 616.399.6185

Customer Information				Project Information				ALS Project Manager				ALS Work Order #					
Purchase Order	Project Name	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number	Project Name	Project Number	Project Number	Project Number		
Work Order	USS CAMU 3Q2017	8260B App IX VOCs	8270D App IX VOCs	Company Name	US Steel Corporation	8082 PCBs	6020/7470 Dissolved Metals/Hg	Send Report To	Mike Maxwell	Accounts Payable	PO Box 267	7196 Hexavalent Chromium Dissolved					
Address	35 East Wacker Drive	Suite 1250	Chicago, Illinois, 60601	City/State/Zip	Pittsburgh, PA 15230			Phone		Fax							
e-Mail Address	mmmaxwell@wvgrp.com	rschickoth@wvgrp.com	shonola@wvgrp.com														
No.	Sample Description	Date	Time	Matrix	Preserv.	# Bottles	A	B	C	D	E	F	G	H	I	J	COMMENT
1	EDS-000	8/15/17	1241	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X	
2	EDS-001	8/15/17	1241	AQ	2.5	2											
3	CAMU-MW08R-GW	8/15/17	1241	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X	
4	CAMU-MW09R-GW	8/15/17	1241	AQ	2.5	2											
5	CAMU-P01R-GW	8/15/17	1241	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X	
6	CAMU-P02R-GW	8/15/17	1241	AQ	2.5	2											
7	CAMU-P03R-GW	8/15/17	1241	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X	
8	CAMU-P04R-GW	8/15/17	1241	AQ	2.5	2											
9	CAMU-P05R-GW	8/15/17	1241	AQ	1.5	7	X	X	X	X	X	X	X	X	X	X	
10	CAMU-P06R-GW	8/15/17	1241	AQ	2.5	2											
Sampler(s): Please Print & Sign James J. Carter				Shipment Method: ALS COURIER				Required Turnaround Time: (Check Box) <input checked="" type="checkbox"/> 10 Wk Days <input type="checkbox"/> 5 Wk Days <input type="checkbox"/> 3 Wk Days <input type="checkbox"/> 2 Wk Days <input type="checkbox"/> 24 Hour				Results Due Date: 8/16/17 0900					
Relinquished by: James J. Carter				Received by: J. Hall				Date: 8/15/17 1515				Time: 1630					
Relinquished by: James J. Carter				Received by (Laboratory): J. Hall				Date: 8/15/17 1630				Time: 1630					
Logged by (Laboratory): James J. Carter				Checked by (Laboratory): J. Hall				Date: 8/15/17 1630				Time: 1630					
Preservative Key: 1-HCl 2-HNO <sub>3</sub> 3-H <sub>2</sub> SO <sub>4</sub> 4-NaOH/ZnAcetate 5-None				QC Package: (Check Box Below) <input type="checkbox"/> Level II: Standard QC <input type="checkbox"/> Level III: Raw Data <input type="checkbox"/> Level IV: JTRP LRC <input type="checkbox"/> JTRP Level IV <input type="checkbox"/> Other:				Cooler Temp: 3.0°C				JTRP LRC					

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Sample Receipt Checklist

Client Name: USS-GARY

Date/Time Received: 15-Aug-17 00:00

Work Order: 1708873

Received by: JH

Checklist completed by Diane Shaw 16-Aug-17  
eSignature Date

Reviewed by: Amanda Przybowski 16-Aug-17  
eSignature Date

Matrices: Aqueous

Carrier name: ALSHN

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature in compliance?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample(s) received on ice?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>4.7, 3.2</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>8/14/17 17:30, 8/15/17 16:30</u>		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			

Login Notes: Holland - 3.4/3.4, 3.0/3.0 c SR2

Client Contacted:

Date Contacted:

Person Contacted:

Contacted By:

Regarding:

Comments:

CorrectiveAction: