



03-Sep-2019

Robert Macial
ArcelorMittal USA LLC
Gary Plate Processing
One North Buchanan Street
Gary, IN 46402

Re: **Arcelor Mittal - Burns Harbor E.R.**

Work Order: **19090002**

Dear Robert,

ALS Environmental received 25 samples on 01-Sep-2019 for the analyses presented in the following report.

The analytical data provided relates directly to the samples received by ALS Environmental - Holland 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 44.

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

ADDRESS: 3352 128th Avenue, Holland, MI, USA
PHONE: +1 (616) 399-6070 FAX: +1 (616) 399-6185

Sincerely,

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

Electronically approved by: Amanda Grzybowski

Amanda Grzybowski
Project Manager

Report of Laboratory Analysis

Certificate No: IN: C-MI-08

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

Environmental 

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RIGHT SOLUTIONS RIGHT PARTNER

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Work Order: 19090002

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>
19090002-01	15	Aqueous		9/1/2019 08:38	9/1/2019	<input type="checkbox"/>
19090002-01	15	Aqueous		9/1/2019 08:38	9/2/2019 07:20	<input type="checkbox"/>
19090002-02	14	Aqueous		9/1/2019 08:54	9/1/2019	<input type="checkbox"/>
19090002-02	14	Aqueous		9/1/2019 08:54	9/2/2019 07:20	<input type="checkbox"/>
19090002-03	7	Aqueous		9/1/2019 09:12	9/1/2019	<input type="checkbox"/>
19090002-03	7	Aqueous		9/1/2019 09:12	9/2/2019 07:20	<input type="checkbox"/>
19090002-04	6	Aqueous		9/1/2019 09:22	9/1/2019	<input type="checkbox"/>
19090002-04	6	Aqueous		9/1/2019 09:22	9/2/2019 07:20	<input type="checkbox"/>
19090002-05	5	Aqueous		9/1/2019 09:40	9/1/2019	<input type="checkbox"/>
19090002-05	5	Aqueous		9/1/2019 09:40	9/2/2019 07:20	<input type="checkbox"/>
19090002-06	4	Aqueous		9/1/2019 09:56	9/1/2019	<input type="checkbox"/>
19090002-06	4	Aqueous		9/1/2019 09:56	9/2/2019 07:20	<input type="checkbox"/>
19090002-07	3	Aqueous		9/1/2019 10:09	9/1/2019	<input type="checkbox"/>
19090002-07	3	Aqueous		9/1/2019 10:09	9/2/2019 07:20	<input type="checkbox"/>
19090002-08	2	Aqueous		9/1/2019 10:20	9/1/2019	<input type="checkbox"/>
19090002-08	2	Aqueous		9/1/2019 10:20	9/2/2019 07:20	<input type="checkbox"/>
19090002-09	1	Aqueous		9/1/2019 10:32	9/1/2019	<input type="checkbox"/>
19090002-09	1	Aqueous		9/1/2019 10:32	9/2/2019 07:20	<input type="checkbox"/>
19090002-10	OF001	Aqueous		9/1/2019 10:45	9/1/2019	<input type="checkbox"/>
19090002-10	OF001	Aqueous		9/1/2019 10:45	9/2/2019 07:20	<input type="checkbox"/>
19090002-11	8	Aqueous		9/1/2019 11:20	9/1/2019	<input type="checkbox"/>
19090002-11	8	Aqueous		9/1/2019 11:20	9/2/2019 07:20	<input type="checkbox"/>
19090002-12	9	Aqueous		9/1/2019 11:30	9/1/2019	<input type="checkbox"/>
19090002-12	9	Aqueous		9/1/2019 11:30	9/2/2019 07:20	<input type="checkbox"/>
19090002-13	10	Aqueous		9/1/2019 11:39	9/1/2019	<input type="checkbox"/>
19090002-13	10	Aqueous		9/1/2019 11:39	9/2/2019 07:20	<input type="checkbox"/>
19090002-14	11	Aqueous		9/1/2019 11:47	9/1/2019	<input type="checkbox"/>
19090002-14	11	Aqueous		9/1/2019 11:47	9/2/2019 07:20	<input type="checkbox"/>
19090002-15	12	Aqueous		9/1/2019 11:59	9/1/2019	<input type="checkbox"/>
19090002-15	12	Aqueous		9/1/2019 11:59	9/2/2019 07:20	<input type="checkbox"/>
19090002-16	13	Aqueous		9/1/2019 12:10	9/1/2019	<input type="checkbox"/>
19090002-16	13	Aqueous		9/1/2019 12:10	9/2/2019 07:20	<input type="checkbox"/>
19090002-17	SL-1	Aqueous		9/1/2019 12:20	9/1/2019	<input type="checkbox"/>
19090002-17	SL-1	Aqueous		9/1/2019 12:20	9/2/2019 07:20	<input type="checkbox"/>
19090002-18	SL-2	Aqueous		9/1/2019 12:32	9/1/2019	<input type="checkbox"/>
19090002-18	SL-2	Aqueous		9/1/2019 12:32	9/2/2019 07:20	<input type="checkbox"/>
19090002-19	SL-3	Aqueous		9/1/2019 12:41	9/1/2019	<input type="checkbox"/>
19090002-19	SL-3	Aqueous		9/1/2019 12:41	9/2/2019 07:20	<input type="checkbox"/>
19090002-20	SL-4	Aqueous		9/1/2019 12:53	9/1/2019	<input type="checkbox"/>

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Work Order: 19090002

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>
19090002-20	SL-4	Aqueous		9/1/2019 12:53	9/2/2019 07:20	<input type="checkbox"/>
19090002-21	SL-5	Aqueous		9/1/2019 13:15	9/1/2019	<input type="checkbox"/>
19090002-21	SL-5	Aqueous		9/1/2019 13:15	9/2/2019 07:20	<input type="checkbox"/>
19090002-22	SL-6	Aqueous		9/1/2019 13:30	9/1/2019	<input type="checkbox"/>
19090002-22	SL-6	Aqueous		9/1/2019 13:30	9/2/2019 07:20	<input type="checkbox"/>
19090002-23	SL-7	Aqueous		9/1/2019 13:45	9/1/2019	<input type="checkbox"/>
19090002-23	SL-7	Aqueous		9/1/2019 13:45	9/2/2019 07:20	<input type="checkbox"/>
19090002-24	SL-8	Aqueous		9/1/2019 14:10	9/1/2019	<input type="checkbox"/>
19090002-24	SL-8	Aqueous		9/1/2019 14:10	9/2/2019 07:20	<input type="checkbox"/>
19090002-25	000	Aqueous		9/1/2019 15:45	9/1/2019	<input type="checkbox"/>
19090002-25	000	Aqueous		9/1/2019 15:45	9/2/2019 07:20	<input type="checkbox"/>

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Work Order: 19090002

Case Narrative

Samples in this Work Order were received and analyzed at the ALS Valparaiso facility at 2400 Cumberland Drive, Valparaiso, Indiana; under Florida NELAP certification ID# E871119.

Any Batch MS/MSD results that are flagged, but not addressed in this Case Narrative, are not related to this project's sample(s); therefore the data does not require qualification.

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 15
Collection Date: 9/1/2019 08:38 AM

Work Order: 19090002
Lab ID: 19090002-01
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.10		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.80		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.3		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0035	J	0.0017	0.0050	mg/L	1	9/3/2019 14:06
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.129		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:47
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 14
Collection Date: 9/1/2019 08:54 AM

Work Order: 19090002
Lab ID: 19090002-02
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.30		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.96		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.1		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:07
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:48
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 7
Collection Date: 9/1/2019 09:12 AM

Work Order: 19090002
Lab ID: 19090002-03
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.50		0		mg/L	1	9/1/2019
			Method: A4500-O G-11				Analyst: ALS
PH (FIELD)							
pH (field)	7.69		0		s.u.	1	9/1/2019
			Method: A4500-H B-11				Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	21.6		0		°C	1	9/1/2019
			Method: A2550 B-10				Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0033	J	0.0017	0.0050	mg/L	1	9/3/2019 14:08
			Method: A4500-CN E-11				Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
			Method: KELADA-01				Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.137		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:50
			Method: E350.1 R2.0				Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 6
Collection Date: 9/1/2019 09:22 AM

Work Order: 19090002
Lab ID: 19090002-04
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.90		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.80		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	21.3		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0027	J	0.0017	0.0050	mg/L	1	9/3/2019 14:09
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.130		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:51
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 5
Collection Date: 9/1/2019 09:40 AM

Work Order: 19090002
Lab ID: 19090002-05
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.30		0		mg/L	1	9/1/2019
			Method: A4500-O G-11				Analyst: ALS
PH (FIELD)							
pH (field)	7.84		0		s.u.	1	9/1/2019
			Method: A4500-H B-11				Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	20.6		0		°C	1	9/1/2019
			Method: A2550 B-10				Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0035	J	0.0017	0.0050	mg/L	1	9/3/2019 14:09
			Method: A4500-CN E-11				Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
			Method: KELADA-01				Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.172		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:52
			Method: E350.1 R2.0				Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 4
Collection Date: 9/1/2019 09:56 AM

Work Order: 19090002
Lab ID: 19090002-06
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.00		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.87		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	20.4		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0028	J	0.0017	0.0050	mg/L	1	9/3/2019 14:10
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.119		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:58
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 3
Collection Date: 9/1/2019 10:09 AM

Work Order: 19090002
Lab ID: 19090002-07
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.00		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.90		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	20.9		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0052		0.0017	0.0050	mg/L	1	9/3/2019 14:15
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.138		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 09:59
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 2
Collection Date: 9/1/2019 10:20 AM

Work Order: 19090002
Lab ID: 19090002-08
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	6.60		0		mg/L	1	9/1/2019
PH (FIELD)							
pH (field)	7.83		0		s.u.	1	9/1/2019
TEMPERATURE (FIELD)							
Temperature (field)	21.1		0		°C	1	9/1/2019
CYANIDE, TOTAL							
Cyanide, Total	0.0054		0.0017	0.0050	mg/L	1	9/3/2019 14:15
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.173		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:00

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 1
Collection Date: 9/1/2019 10:32 AM

Work Order: 19090002
Lab ID: 19090002-09
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	6.90		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.72		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.1		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0034	J	0.0017	0.0050	mg/L	1	9/3/2019 14:16
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.280		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:02
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: OF001
Collection Date: 9/1/2019 10:45 AM

Work Order: 19090002
Lab ID: 19090002-10
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.10		0		mg/L	1	9/1/2019
			Method: A4500-O G-11				Analyst: ALS
PH (FIELD)							
pH (field)	7.87		0		s.u.	1	9/1/2019
			Method: A4500-H B-11				Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.1		0		°C	1	9/1/2019
			Method: A2550 B-10				Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0041	J	0.0017	0.0050	mg/L	1	9/3/2019 14:17
			Method: A4500-CN E-11				Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
			Method: KELADA-01				Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.194		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:05
			Method: E350.1 R2.0				Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 8
Collection Date: 9/1/2019 11:20 AM

Work Order: 19090002
Lab ID: 19090002-11
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.00		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.80		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.5		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0043	J	0.0017	0.0050	mg/L	1	9/3/2019 14:18
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.120		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:06
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 9
Collection Date: 9/1/2019 11:30 AM

Work Order: 19090002
Lab ID: 19090002-12
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.90		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.76		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.8		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0029	J	0.0017	0.0050	mg/L	1	9/3/2019 14:19
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.149		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:08
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 10
Collection Date: 9/1/2019 11:39 AM

Work Order: 19090002
Lab ID: 19090002-13
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.10		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.79		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.6		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0025	J	0.0017	0.0050	mg/L	1	9/3/2019 14:20
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.132		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:09
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 11
Collection Date: 9/1/2019 11:47 AM

Work Order: 19090002
Lab ID: 19090002-14
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.60		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.82		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	21.9		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0022	J	0.0017	0.0050	mg/L	1	9/3/2019 14:21
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.134		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:12
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 12
Collection Date: 9/1/2019 11:59 AM

Work Order: 19090002
Lab ID: 19090002-15
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.90		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.88		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	22.4		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:22
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.0380		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:14
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 13
Collection Date: 9/1/2019 12:10 PM

Work Order: 19090002
Lab ID: 19090002-16
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.70		0		mg/L	1	9/1/2019
			Method: A4500-O G-11				Analyst: ALS
PH (FIELD)							
pH (field)	7.78		0		s.u.	1	9/1/2019
			Method: A4500-H B-11				Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	21.1		0		°C	1	9/1/2019
			Method: A2550 B-10				Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	0.0025	J	0.0017	0.0050	mg/L	1	9/3/2019 14:26
			Method: A4500-CN E-11				Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD		U	0.0011	0.0050	mg/L	1	9/2/2019 15:58
			Method: KELADA-01				Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.141		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:15
			Method: E350.1 R2.0				Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-1
Collection Date: 9/1/2019 12:20 PM

Work Order: 19090002
Lab ID: 19090002-17
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.40		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	8.16		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	18.4		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:28
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.0218	J	0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:16
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-2
Collection Date: 9/1/2019 12:32 PM

Work Order: 19090002
Lab ID: 19090002-18
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.90		0		mg/L	1	9/1/2019
PH (FIELD)							
pH (field)	8.02		0		s.u.	1	9/1/2019
TEMPERATURE (FIELD)							
Temperature (field)	17.8		0		°C	1	9/1/2019
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:29
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:17

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-3
Collection Date: 9/1/2019 12:41 PM

Work Order: 19090002
Lab ID: 19090002-19
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	8.50		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	8.15		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	17.7		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:30
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:19
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-4
Collection Date: 9/1/2019 12:53 PM

Work Order: 19090002
Lab ID: 19090002-20
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.80		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	8.06		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	18.4		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:31
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:20
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-5
Collection Date: 9/1/2019 01:15 PM

Work Order: 19090002
Lab ID: 19090002-21
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	6.90		0		mg/L	1	9/1/2019
							Analyst: ALS
PH (FIELD)							
pH (field)	8.09		0		s.u.	1	9/1/2019
							Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	19.1		0		°C	1	9/1/2019
							Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:32
							Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
							Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:23
							Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-6
Collection Date: 9/1/2019 01:30 PM

Work Order: 19090002
Lab ID: 19090002-22
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.10		0		mg/L	1	9/1/2019
			Method: A4500-O G-11				Analyst: ALS
PH (FIELD)							
pH (field)	7.91		0		s.u.	1	9/1/2019
			Method: A4500-H B-11				Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	18.5		0		°C	1	9/1/2019
			Method: A2550 B-10				Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:33
			Method: A4500-CN E-11				Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
			Method: KELADA-01				Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:27
			Method: E350.1 R2.0				Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-7
Collection Date: 9/1/2019 01:45 PM

Work Order: 19090002
Lab ID: 19090002-23
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	6.80		0		mg/L	1	9/1/2019
							Analyst: ALS
							Method: A4500-O G-11
PH (FIELD)							
pH (field)	8.15		0		s.u.	1	9/1/2019
							Analyst: ALS
							Method: A4500-H B-11
TEMPERATURE (FIELD)							
Temperature (field)	18.8		0		°C	1	9/1/2019
							Analyst: ALS
							Method: A2550 B-10
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:35
							Analyst: JB
							Method: A4500-CN E-11
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
							Analyst: JB
							Method: KELADA-01
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	0.0184	J	0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:31
							Analyst: CD
							Method: E350.1 R2.0

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: SL-8
Collection Date: 9/1/2019 02:10 PM

Work Order: 19090002
Lab ID: 19090002-24
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	7.30		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	8.17		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	18.7		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:36
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:32
				Method: E350.1 R2.0			Analyst: CD

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

ALS Group, USA

Date: 03-Sep-19

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
Sample ID: 000
Collection Date: 9/1/2019 03:45 PM

Work Order: 19090002
Lab ID: 19090002-25
Matrix: AQUEOUS

Analyses	Result	Qual	MDL	Report Limit	Units	Dilution Factor	Date Analyzed
DISSOLVED OXYGEN (FIELD)							
Dissolved Oxygen (field)	6.90		0		mg/L	1	9/1/2019
				Method: A4500-O G-11			Analyst: ALS
PH (FIELD)							
pH (field)	7.78		0		s.u.	1	9/1/2019
				Method: A4500-H B-11			Analyst: ALS
TEMPERATURE (FIELD)							
Temperature (field)	19.9		0		°C	1	9/1/2019
				Method: A2550 B-10			Analyst: ALS
CYANIDE, TOTAL							
Cyanide, Total	U		0.0017	0.0050	mg/L	1	9/3/2019 14:37
				Method: A4500-CN E-11			Analyst: JB
CYANIDE, WEAK ACID DISSOCIABLE							
Cyanide, WAD	U		0.0011	0.0050	mg/L	1	9/2/2019 15:58
				Method: KELADA-01			Analyst: JB
AMMONIA AS NITROGEN							
Ammonia as Nitrogen	U		0.00980	0.0320	mg NH3-N/L	1	9/3/2019 10:33
				Method: E350.1 R2.0			Analyst: CD

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

Client: ArcelorMittal USA LLC
Project: Arcelor Mittal - Burns Harbor E.R.
WorkOrder: 19090002

**QUALIFIERS,
ACRONYMS, UNITS**

<u>Qualifier</u>	<u>Description</u>
*	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
Hr	BOD/CBOD - Sample was reset outside Hold Time, value should be considered estimated.
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.

<u>Acronym</u>	<u>Description</u>
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

<u>Units Reported</u>	<u>Description</u>
°C	Degrees Celcius
mg NH3-N/L	Milligrams Ammonia-Nitrogen per Liter
mg/L	Milligrams per Liter
s.u.	Standard Units

Client: ArcelorMittal USA LLC
Work Order: 19090002
Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **141833b** Instrument ID **LACHAT** Method: **A4500-CN E-11**

MBLK		Sample ID: MBLK-141833-141833b				Units: mg/L		Analysis Date: 9/3/2019 01:57 PM		
Client ID:		Run ID: LACHAT_190903B				SeqNo: 5890135		Prep Date: 9/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total U 0.0050

LCS		Sample ID: LCS-141833-141833b				Units: mg/L		Analysis Date: 9/3/2019 01:57 PM		
Client ID:		Run ID: LACHAT_190903B				SeqNo: 5890136		Prep Date: 9/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.259 0.0050 0.25 0 104 88-116 0

MS		Sample ID: 19082206-21B MS				Units: mg/L		Analysis Date: 9/3/2019 01:59 PM		
Client ID:		Run ID: LACHAT_190903B				SeqNo: 5890138		Prep Date: 9/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2583 0.0050 0.25 -0.0007694 104 88-116 0

MS		Sample ID: 19090002-06B MS				Units: mg/L		Analysis Date: 9/3/2019 02:11 PM		
Client ID: 4		Run ID: LACHAT_190903B				SeqNo: 5890152		Prep Date: 9/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2499 0.0050 0.25 0.002808 98.8 88-116 0

MSD		Sample ID: 19082206-21B MSD				Units: mg/L		Analysis Date: 9/3/2019 02:00 PM		
Client ID:		Run ID: LACHAT_190903B				SeqNo: 5890139		Prep Date: 9/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2535 0.0050 0.25 -0.0007694 102 88-116 0.2583 1.88 12

MSD		Sample ID: 19090002-06B MSD				Units: mg/L		Analysis Date: 9/3/2019 02:12 PM		
Client ID: 4		Run ID: LACHAT_190903B				SeqNo: 5890153		Prep Date: 9/3/2019		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2539 0.0050 0.25 0.002808 100 88-116 0.2499 1.59 12

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

Client: ArcelorMittal USA LLC
Work Order: 19090002
Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **141833b** Instrument ID **LACHAT** Method: **A4500-CN E-11**

The following samples were analyzed in this batch:

19090002-01B	19090002-02B	19090002-03B
19090002-04B	19090002-05B	19090002-06B
19090002-07B	19090002-08B	19090002-09B
19090002-10B	19090002-11B	19090002-12B
19090002-13B	19090002-14B	19090002-15B

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

Client: ArcelorMittal USA LLC
 Work Order: 19090002
 Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **141834c** Instrument ID **LACHAT** Method: **A4500-CN E-11**

MBLK	Sample ID: MBLK-141834-141834c			Units: mg/L			Analysis Date: 9/3/2019 02:22 PM			
Client ID:	Run ID: LACHAT_190903B			SeqNo: 5890165			Prep Date: 9/3/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total U 0.0050

LCS	Sample ID: LCS-141834-141834c			Units: mg/L			Analysis Date: 9/3/2019 02:25 PM			
Client ID:	Run ID: LACHAT_190903B			SeqNo: 5890168			Prep Date: 9/3/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2612 0.0050 0.25 0 104 88-116 0

MS	Sample ID: 19090002-16B MS			Units: mg/L			Analysis Date: 9/3/2019 02:27 PM			
Client ID: 13	Run ID: LACHAT_190903B			SeqNo: 5890170			Prep Date: 9/3/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2617 0.0050 0.25 0.002458 104 88-116 0

MSD	Sample ID: 19090002-16B MSD			Units: mg/L			Analysis Date: 9/3/2019 02:28 PM			
Client ID: 13	Run ID: LACHAT_190903B			SeqNo: 5890171			Prep Date: 9/3/2019		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, Total 0.2503 0.0050 0.25 0.002458 99.1 88-116 0.2617 4.45 12

The following samples were analyzed in this batch:

19090002-16B	19090002-17B	19090002-18B
19090002-19B	19090002-20B	19090002-21B
19090002-22B	19090002-23B	19090002-24B
19090002-25B		

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

Client: ArcelorMittal USA LLC
 Work Order: 19090002
 Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **R269628a** Instrument ID **SKALAR1** Method: **Kelada-01**

MBLK		Sample ID: MB-R269628-R269628a				Units: mg/L		Analysis Date: 9/2/2019 03:58 PM		
Client ID:		Run ID: SKALAR1_190902A				SeqNo: 5887804		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD U 0.0050

LCS		Sample ID: LCS-R269628-R269628a				Units: mg/L		Analysis Date: 9/2/2019 03:58 PM		
Client ID:		Run ID: SKALAR1_190902A				SeqNo: 5887805		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1071 0.0050 0.1 0 107 90-110 0

MS		Sample ID: 19090002-01C MS				Units: mg/L		Analysis Date: 9/2/2019 03:58 PM		
Client ID: 15		Run ID: SKALAR1_190902A				SeqNo: 5887807		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1113 0.0050 0.1 -0.0003 112 90-110 0 S

MS		Sample ID: 19090002-10C MS				Units: mg/L		Analysis Date: 9/2/2019 03:58 PM		
Client ID: OF001		Run ID: SKALAR1_190902A				SeqNo: 5887827		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1107 0.0050 0.1 0.00062 110 90-110 0 S

MSD		Sample ID: 19090002-01C MSD				Units: mg/L		Analysis Date: 9/2/2019 03:58 PM		
Client ID: 15		Run ID: SKALAR1_190902A				SeqNo: 5887808		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1132 0.0050 0.1 -0.0003 114 90-110 0.1113 1.7 20 S

MSD		Sample ID: 19090002-10C MSD				Units: mg/L		Analysis Date: 9/2/2019 03:58 PM		
Client ID: OF001		Run ID: SKALAR1_190902A				SeqNo: 5887828		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1091 0.0050 0.1 0.00062 108 90-110 0.1107 1.51 20

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

Client: ArcelorMittal USA LLC
Work Order: 19090002
Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **R269628a** Instrument ID **SKALAR1** Method: **Kelada-01**

The following samples were analyzed in this batch:

19090002-01C	19090002-02C	19090002-03C
19090002-04C	19090002-05C	19090002-06C
19090002-07C	19090002-08C	19090002-09C
19090002-10C	19090002-11C	19090002-12C
19090002-13C	19090002-14C	19090002-15C
19090002-16C	19090002-17C	19090002-18C
19090002-19C	19090002-20C	

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

Client: ArcelorMittal USA LLC
 Work Order: 19090002
 Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **R269628b** Instrument ID **SKALAR1** Method: **Kelada-01**

MBLK	Sample ID: MB-R269628-R269628b		Units: mg/L		Analysis Date: 9/2/2019 03:58 PM					
Client ID:	Run ID: SKALAR1_190902A		SeqNo: 5887863		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD U 0.0050

LCS	Sample ID: LCS-R269628-R269628b		Units: mg/L		Analysis Date: 9/2/2019 03:58 PM					
Client ID:	Run ID: SKALAR1_190902A		SeqNo: 5887864		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1037 0.0050 0.1 0 104 90-110 0

MS	Sample ID: 19090002-21C MS		Units: mg/L		Analysis Date: 9/2/2019 03:58 PM					
Client ID: SL-5	Run ID: SKALAR1_190902A		SeqNo: 5887866		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.09717 0.0050 0.1 -0.00082 98 90-110 0

MSD	Sample ID: 19090002-21C MSD		Units: mg/L		Analysis Date: 9/2/2019 03:58 PM					
Client ID: SL-5	Run ID: SKALAR1_190902A		SeqNo: 5887867		Prep Date:					
					DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Cyanide, WAD 0.1013 0.0050 0.1 -0.00082 102 90-110 0.09717 4.12 20

The following samples were analyzed in this batch:

19090002-21C	19090002-22C	19090002-23C
19090002-24C	19090002-25C	

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

Client: ArcelorMittal USA LLC
 Work Order: 19090002
 Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **R269665** Instrument ID **VAL-LACHAT** Method: **E350.1 R2.0**

MBLK	Sample ID: MBLK-R269665		Units: mg NH3-N/L		Analysis Date: 9/3/2019 09:45 AM					
Client ID:	Run ID: VAL-LACHAT_190903A		SeqNo: 5889842		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen U 0.032

MBLK	Sample ID: MBLK-R269665		Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:21 AM					
Client ID:	Run ID: VAL-LACHAT_190903A		SeqNo: 5889872		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen U 0.032

MBLK	Sample ID: MBLK-R269665		Units: mg NH3-N/L		Analysis Date: 9/3/2019 11:00 AM					
Client ID:	Run ID: VAL-LACHAT_190903A		SeqNo: 5889904		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen U 0.032

LCS	Sample ID: LCS-R269665		Units: mg NH3-N/L		Analysis Date: 9/3/2019 09:46 AM					
Client ID:	Run ID: VAL-LACHAT_190903A		SeqNo: 5889843		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.387 0.032 0.4 0 96.8 90-110 0

LCS	Sample ID: LCS-R269665		Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:22 AM					
Client ID:	Run ID: VAL-LACHAT_190903A		SeqNo: 5889873		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.382 0.032 0.4 0 95.5 90-110 0

LCS	Sample ID: LCS-R269665		Units: mg NH3-N/L		Analysis Date: 9/3/2019 11:01 AM					
Client ID:	Run ID: VAL-LACHAT_190903A		SeqNo: 5889905		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.383 0.032 0.4 0 95.8 90-110 0

MS	Sample ID: 19090002-05A MS		Units: mg NH3-N/L		Analysis Date: 9/3/2019 09:53 AM					
Client ID: 5	Run ID: VAL-LACHAT_190903A		SeqNo: 5889849		Prep Date: DF: 1					
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.374 0.032 0.2 0.172 101 90-110 0

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

Client: ArcelorMittal USA LLC
 Work Order: 19090002
 Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **R269665** Instrument ID **VAL-LACHAT** Method: **E350.1 R2.0**

MS		Sample ID: 19090002-09A MS				Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:03 AM		
Client ID: 1		Run ID: VAL-LACHAT_190903A				SeqNo: 5889857		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.458 0.032 0.2 0.28 89 90-110 0 S

MS		Sample ID: 19090002-22A MS				Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:28 AM		
Client ID: SL-6		Run ID: VAL-LACHAT_190903A				SeqNo: 5889878		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.193 0.032 0.2 0.00235 95.3 90-110 0

MS		Sample ID: 19090003-09A MS				Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:47 AM		
Client ID:		Run ID: VAL-LACHAT_190903A				SeqNo: 5889894		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.32 0.032 0.2 0.152 84 90-110 0 S

MS		Sample ID: 19090003-23A MS				Units: mg NH3-N/L		Analysis Date: 9/3/2019 11:14 AM		
Client ID:		Run ID: VAL-LACHAT_190903A				SeqNo: 5889916		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.197 0.032 0.2 0.0179 89.6 90-110 0 S

MSD		Sample ID: 19090002-05A MSD				Units: mg NH3-N/L		Analysis Date: 9/3/2019 09:54 AM		
Client ID: 5		Run ID: VAL-LACHAT_190903A				SeqNo: 5889850		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.37 0.032 0.2 0.172 99 90-110 0.374 1.08 20

MSD		Sample ID: 19090002-09A MSD				Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:04 AM		
Client ID: 1		Run ID: VAL-LACHAT_190903A				SeqNo: 5889858		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.457 0.032 0.2 0.28 88.5 90-110 0.458 0.219 20 S

MSD		Sample ID: 19090002-22A MSD				Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:29 AM		
Client ID: SL-6		Run ID: VAL-LACHAT_190903A				SeqNo: 5889879		Prep Date:		DF: 1
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual

Ammonia as Nitrogen 0.19 0.032 0.2 0.00235 93.8 90-110 0.193 1.57 20

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

Client: ArcelorMittal USA LLC
 Work Order: 19090002
 Project: Arcelor Mittal - Burns Harbor E.R.

QC BATCH REPORT

Batch ID: **R269665** Instrument ID **VAL-LACHAT** Method: **E350.1 R2.0**

MSD		Sample ID: 19090003-09A MSD				Units: mg NH3-N/L		Analysis Date: 9/3/2019 10:49 AM			
Client ID:		Run ID: VAL-LACHAT_190903A				SeqNo: 5889895		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Ammonia as Nitrogen	0.319	0.032	0.2	0.152	83.5	90-110	0.32	0.313	20	S	

MSD		Sample ID: 19090003-23A MSD				Units: mg NH3-N/L		Analysis Date: 9/3/2019 11:15 AM			
Client ID:		Run ID: VAL-LACHAT_190903A				SeqNo: 5889917		Prep Date:		DF: 1	
Analyte	Result	PQL	SPK Val	SPK Ref Value	%REC	Control Limit	RPD Ref Value	%RPD	RPD Limit	Qual	
Ammonia as Nitrogen	0.196	0.032	0.2	0.0179	89	90-110	0.197	0.509	20	S	

The following samples were analyzed in this batch:

19090002-01A	19090002-02A	19090002-03A
19090002-04A	19090002-05A	19090002-06A
19090002-07A	19090002-08A	19090002-09A
19090002-10A	19090002-11A	19090002-12A
19090002-13A	19090002-14A	19090002-15A
19090002-16A	19090002-17A	19090002-18A
19090002-19A	19090002-20A	19090002-21A
19090002-22A	19090002-23A	19090002-24A
19090002-25A		

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



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

Chain of Custody Form

Page 1 of 3

Client Information		Project Information		ALS Project Manager: Amanda Gryzbowski		ALS Work Order #: 19090002									
Purchase Order	Project Name	Receiving Water Monitoring	Parameter/Method Request for Analysis												
Work Order	Project Number		A Ammonia												
Company Name	Company Name	ArcelorMittal (Burns Harbor)	B Total Cyanide												
Send Report To	Invoice Attn.	Accounts Payable	C Free Cyanide												
Address	Address	250 US 12	D pH (Field)												
City/State/Zip	City/State/Zip	Burns Harbor, IN 46304	E Temperature (Field)												
Phone	Phone	(219) 787-2120	F Dissolved Oxygen (Field)												
Fax	Fax														
e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	pH	Temp. °C	DO
	15	9/8/19	8:38	Water	H ₂ SO ₄ , NaOH	2	X	X	X				7.80	22.3	7.1
	14		8:54										7.96	22.1	8.3
	7		9:12										7.69	21.6	7.5
	6		9:22										7.8	21.3	8.9
	5		9:40										7.84	20.6	8.3
	4		9:56										7.87	20.4	7.0
	3		10:09										7.90	20.9	7.0
	2		10:20										7.83	21.1	6.0
	1		10:32										7.72	22.1	6.9
	OF DO		10:45										7.87	22.1	7.1

Sampler(s): Please Print & Sign

Relinquished by: *[Signature]* Date: 9/1/19 Time: 1600

Relinquished by: *[Signature]* Date: 9-2-19 Time: 0720

Logged by (Laboratory): *[Signature]* Date: Time:

Received by: *[Signature]*

Received by (Laboratory): *[Signature]*

Checked by (Laboratory):

Required Turnaround Time: STD 10 Wk Days 5 Wk Days 2 Wk Days Other: 24 Hour

Results Due Date:

QC Package: (Check Box Below)

Level II: Standard QC

Level III: Standard QC + Raw Data

Level IV: SW846 Methods/CLP

Other:

Cooler Temp. 2.3°C

Notes:

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

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

Chain of Custody Form

Page 2 of 3



ALS Project Manager: Amanda Gryzbowski		ALS Work Order #: 19090002	
Parameter/Method Request for Analysis			
Project Information			
Project Name: Receiving Water Monitoring		A Ammonia	
Project Number:		B Total Cyanide	
Company Name: ArcelorMittal (Burns Harbor)		C Free Cyanide	
Invoice Attn: Accounts Payable		D pH (Field)	
Address: 250 US 12		E Temperature (Field)	
City/State/Zip: Burns Harbor, IN 46304		F Dissolved Oxygen (Field)	
Phone: (219) 787-2120			
Fax:			
e-Mail Address:			
Client Information			
Purchase Order:	Project Name:	Project Number:	Company Name:
Work Order:	Company Name:	Invoice Attn:	Address:
Company Name: ArcelorMittal (Burns Harbor)	Address:	City/State/Zip:	Phone:
Send Report To:	Address:	Phone:	Fax:
Address: 250 US 12	City/State/Zip: Burns Harbor, IN 46304	Phone: (219) 787-2120	Fax:
e-Mail Address:			
No.	Sample Description	Date	Time
8	Water	9/11/19	1120
9	Water	1130	1130
10	Water	1139	1139
11	Water	1147	1147
12	Water	1159	1159
13	Water	1210	1210
SL-1	Water	1220	1220
SL-2	Water	1232	1232
SL-3	Water	1241	1241
SL-4	Water	1253	1253
Sampler(s): Please Print & Sign		Shipment Method:	
		<input type="checkbox"/> STD 10 WK Days <input type="checkbox"/> 5 WK Days <input type="checkbox"/> 2 WK Days <input type="checkbox"/> 24 Hour <input type="checkbox"/> Other	
Required Turnaround Time:		Results Due Date:	
Relinquished by:	Date:	Time:	Received by:
<i>[Signature]</i>	9/11/19	1600	<i>[Signature]</i>
Relinquished by:	Date:	Time:	Received by (Laboratory):
<i>[Signature]</i>	9-2-19	0700	<i>[Signature]</i>
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):
			<i>[Signature]</i>
Cooler Temp.:		QC Package: (Check Box Below)	
2.30		Level II: Standard QC Level III: Standard QC + Raw Data Level IV: SW846 Methods/CLP Other:	
Notes:			

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

ALS Environmental
 3352 128th Avenue
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 (Fax) 616.399.6185

Chain of Custody Form

Page 3 of 3



Client Information		Project Information		ALS Project Manager: Amanda Gryzbowski		ALS Work Order #: 19090002									
Purchase Order	Project Name	Receiving Water Monitoring	Parameter/Method	Request for Analysis											
Work Order	Project Number		A Ammonia												
Company Name	Company Name	ArcelorMittal (Burns Harbor)	B Total Cyanide												
Send Report To	Invoice Attn.	Accounts Payable	C Free Cyanide												
Address	Address	250 US 12	D pH (Field)												
City/State/Zip	City/State/Zip	Burns Harbor, IN 46304	E Temperature (Field)												
Phone	Phone	(219) 787-2120	F Dissolved Oxygen (Field)												
Fax	Fax														
e-Mail Address															
No.	Sample Description	Date	Time	Matrix	Pres.	# Bottles	A	B	C	D	E	F	pH	Temp. °C	DO
	SL-5	9/11/19	1:15	Water	H ₂ SO ₄ , NaOH	2	X	X	X				8.09	19.1	6.9
	SL-6		1:30										7.91	18.5	7.1
	SL-7		2:10										8.15	18.8	6.8
	SL-8		3:45										8.17	18.7	7.3
	000												7.78	19.4	6.9

Sampler(s): Please Print & Sign		Shipment Method:		Required Turnaround Time:		Results Due Date:	
Relinquished by:	Date: 9/11/19	Time: 1600	Received by:	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]
Relinquished by:	Date: 9-2-19	Time: 0730	Received by (Laboratory):	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]
Logged by (Laboratory):	Date:	Time:	Checked by (Laboratory):	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]	Signature: [Signature]

QC Package: (Check Box Below)	Cooler Temp.
Level II: Standard QC	2.30C
Level III: Standard QC + Raw Data	
Level IV: SW846 Methods/CLP	
Other:	

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

Sample Receipt Checklist

Client Name: **ARCELORMITTAL-BURNSHARBO**

Date/Time Received: **01-Sep-19 00:00**

Work Order: **19090002**

Received by: **JH**

Checklist completed by Amanda Przybowski 03-Sep-19
eSignature Date

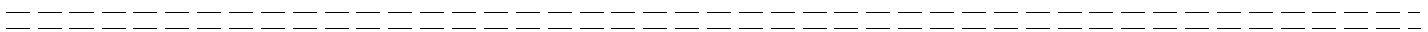
Reviewed by: Amanda Przybowski 03-Sep-19
eSignature Date

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 checked="" type="checkbox"/>	No <input type="checkbox"/>	
Temperature(s)/Thermometer(s):	<u>2.3</u>		
Cooler(s)/Kit(s):			
Date/Time sample(s) sent to storage:	<u>9/2/19 07:20</u>		
Water - VOA vials have zero headspace?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input checked="" type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	N/A <input type="checkbox"/>
pH adjusted by:			

Login Notes:



Client Contacted: Date Contacted: Person Contacted:

Contacted By: Regarding:

Comments:

CorrectiveAction: