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September 16, 2019

Arcelor Mittal USA, Inc.
250 W US Highway 12
Burns Harbor, IN 46304-9745

Work Order No.: 19I0301

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 20 sample(s) on 9/6/2019 9:55:00AM for the analyses presented in the following report as Work Order 19I0301.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at ron.misiunas@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

Carey Gadzala
Project Manager

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WORK ORDER SAMPLE SUMMARY

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Daily
Lab Order: 19I0301

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0301-01	011-Composite	011	09/05/2019 06:00	9/6/2019 9:55:00AM
19I0301-02	011-Grab	011	09/05/2019 06:00	9/6/2019 9:55:00AM
19I0301-03	001-Composite	001	09/05/2019 06:20	9/6/2019 9:55:00AM
19I0301-04	001-Grab	001	09/05/2019 06:20	9/6/2019 9:55:00AM
19I0301-05	031-Grab	031	09/06/2019 06:41	9/6/2019 9:55:00AM
19I0301-06	Mixed Liquor-Grab	Mixed Liquor	09/06/2019 06:44	9/6/2019 9:55:00AM
19I0301-07	J-Box-Grab	J-Box	09/06/2019 06:39	9/6/2019 9:55:00AM
19I0301-08	WWII-Grab	WWII	09/06/2019 07:14	9/6/2019 9:55:00AM
19I0301-09	Coldwell-Grab	Coldwell	09/06/2019 07:33	9/6/2019 9:55:00AM
19I0301-10	RSB FT Overflow-Grab	RSB FT Overflow	09/06/2019 07:36	9/6/2019 9:55:00AM
19I0301-11	RSB FT Influent-Grab	RSB FT Influent	09/06/2019 07:37	9/6/2019 9:55:00AM
19I0301-12	999-Grab	999	09/06/2019 07:45	9/6/2019 9:55:00AM
19I0301-13	BFTC-Grab	BFTC	09/06/2019 07:59	9/6/2019 9:55:00AM
19I0301-14	002-Grab	002	09/05/2019 08:02	9/6/2019 9:55:00AM
19I0301-15	WAL-Grab	WAL	09/05/2019 08:10	9/6/2019 9:55:00AM
19I0301-16	CM1-Grab	CM1	09/06/2019 00:00	9/6/2019 9:55:00AM
19I0301-17	CM2-Grab	CM2	09/06/2019 00:00	9/6/2019 9:55:00AM
19I0301-18	CM6-Grab	CM6	09/06/2019 00:00	9/6/2019 9:55:00AM
19I0301-19	HM2-Grab	HM2	09/06/2019 00:00	9/6/2019 9:55:00AM
19I0301-20	HM3-Grab	HM3	09/06/2019 00:00	9/6/2019 9:55:00AM

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Field Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Work Order: 19I0301

Client Sample ID: 011-Grab
Sample Description: 011
Matrix: Aqueous
Work Order/ID: 19I0301-02
Sampled: 09/05/2019 06:00
Received: 09/06/2019 09:55

Analyses	Result	Units
FLD_CL_TITR	0.00	mg/L
pH	7.9	pH Units

Client Sample ID: 001-Grab
Sample Description: 001
Matrix: Aqueous
Work Order/ID: 19I0301-04
Sampled: 09/05/2019 06:20
Received: 09/06/2019 09:55

Analyses	Result	Units
FLD_CL_TITR	0.00	mg/L
pH	7.8	pH Units

Client Sample ID: J-Box-Grab
Sample Description: J-Box
Matrix: Aqueous
Work Order/ID: 19I0301-07
Sampled: 09/06/2019 06:39
Received: 09/06/2019 09:55

Analyses	Result	Units
pH	8.6	pH Units

Client Sample ID: RSB FT Overflow-Grab
Sample Description: RSB FT Overflow
Matrix: Aqueous
Work Order/ID: 19I0301-10
Sampled: 09/06/2019 07:36
Received: 09/06/2019 09:55

Analyses	Result	Units
pH	9.0	pH Units

Client Sample ID: 999-Grab
Sample Description: 999
Matrix: Aqueous
Work Order/ID: 19I0301-12
Sampled: 09/06/2019 07:45
Received: 09/06/2019 09:55

Analyses	Result	Units
pH	7.9	pH Units

Client Sample ID: 002-Grab
Sample Description: 002
Matrix: Aqueous
Work Order/ID: 19I0301-14
Sampled: 09/05/2019 08:02
Received: 09/06/2019 09:55

Analyses	Result	Units
pH	8.1	pH Units

Client Sample ID: WAL-Grab
Sample Description: WAL
Matrix: Aqueous
Work Order/ID: 19I0301-15
Sampled: 09/05/2019 08:10
Received: 09/06/2019 09:55

Analyses	Result	Units
pH	9.0	pH Units

Field Results

Date: *Monday, September 16, 2019*

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CASE NARRATIVE

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Daily
Lab Order: 19I0301

This report was revised on 09/10/19 to report the average of the three TSS results in the following sample at the customer's request.

Laboratory ID	Sample Name
19I0301-01	011-Composite

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 011-Composite
Sample Description: 011
Matrix: Aqueous
Work Order/ID: 19I0301-01
Sampled: 09/05/2019 6:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 200.7 Rev 4.4**						Analyst: **RPL**
Total Recoverable Metals by ICP									Prep Date/Time: **09/06/2019 10:51**
Lead	eij	A	***0.0040***	0.0033	0.0075	J	mg/L	1	09/06/2019 14:09
Zinc	eij	A	***0.013***	0.0073	0.020	J	mg/L	1	09/06/2019 14:09
			Method: **SM 4500-CN C/E-1999**						Analyst: **ABG**
Total Cyanide									Prep Date/Time: **09/06/2019 11:03**
Cyanide, Total	eij	A	***ND***	0.0020	0.0050	U	mg/L	1	09/06/2019 13:42
			Method: **SW-846 9014**						Analyst: **ABG**
Free Cyanide									Prep Date/Time: **09/06/2019 11:58**
Free Cyanide		A	***ND***		0.0062		mg/L	1	09/06/2019 13:20
			Method: **EPA 350.1 Rev 2.0**						Analyst: **ABG**
Nitrogen, Ammonia as N									Prep Date/Time: **09/06/2019 11:32**
Nitrogen, Ammonia (As N)	ei	A	***0.18***	0.054	0.10		mg/L	1	09/06/2019 12:57
			Method: **EPA 420.4 Rev 1.0**						Analyst: **ABG**
Total Phenolics									Prep Date/Time: **09/06/2019 11:32**
Phenolics, Total Recoverable	eij	A	***ND***	0.0060	0.010	U	mg/L	1	09/06/2019 13:36

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 011-Composite
Sample Description: 011
Matrix: Aqueous

Work Order/ID: 19I0301-01RE3
Sampled: 09/05/2019 6:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **SA**
Total Suspended Solids									Prep Date/Time: **09/09/2019 10:40**
Total Suspended Solids	eij	A	***25***	1.0	1.0		mg/L	1	09/09/2019 13:50

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 011-Grab
Sample Description: 011
Matrix: Aqueous

Work Order/ID: 19I0301-02
Sampled: 09/05/2019 6:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 1664B**						Analyst: **KMT**
Oil & Grease (HEM) by SPE									Prep Date/Time: **09/06/2019 07:56**
Oil & Grease (HEM)	eij	A	***ND***	1.4	5.0	U	mg/L	1	09/06/2019 15:03

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 001-Composite
Sample Description: 001
Matrix: Aqueous
Work Order/ID: 19I0301-03
Sampled: 09/05/2019 6:20
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 200.7 Rev 4.4**						Analyst: **RPL**
Total Recoverable Metals by ICP									Prep Date/Time: **09/06/2019 10:51**
Copper	eij	A	***0.0029***	0.0013	0.010	J	mg/L	1	09/06/2019 14:14
Lead	eij	A	***ND***	0.0033	0.0075	U	mg/L	1	09/06/2019 14:14
Zinc	eij	A	***ND***	0.0073	0.020	U	mg/L	1	09/06/2019 14:14
			Method: **EPA 200.8 Rev 5.4**						Analyst: **BTM**
Total Recoverable Metals by ICP/MS									Prep Date/Time: **09/08/2019 12:49**
Silver	eij	A	***ND***		0.0010		mg/L	1	09/09/2019 14:11
			Method: **SM 4500-CN C/E-1999**						Analyst: **ABG**
Total Cyanide									Prep Date/Time: **09/06/2019 11:03**
Cyanide, Total	eij	A	***ND***	0.0020	0.0050	U	mg/L	1	09/06/2019 13:48
			Method: **SW-846 9014**						Analyst: **ABG**
Free Cyanide									Prep Date/Time: **09/06/2019 11:58**
Free Cyanide		A	***ND***		0.0062		mg/L	1	09/06/2019 13:25
			Method: **EPA 350.1 Rev 2.0**						Analyst: **ABG**
Nitrogen, Ammonia as N									Prep Date/Time: **09/06/2019 11:32**
Nitrogen, Ammonia (As N)	ei	A	***0.35***	0.054	0.10		mg/L	1	09/06/2019 12:59
			Method: **EPA 420.4 Rev 1.0**						Analyst: **ABG**
Total Phenolics									Prep Date/Time: **09/06/2019 11:32**
Phenolics, Total Recoverable	eij	A	***ND***	0.0060	0.010	U	mg/L	1	09/06/2019 13:38
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***5.6***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 001-Grab
Sample Description: 001
Matrix: Aqueous

Work Order/ID: 19I0301-04
Sampled: 09/05/2019 6:20
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 1664B**						Analyst: **KMT**
Oil & Grease (HEM) by SPE									Prep Date/Time: **09/06/2019 07:56**
Oil & Grease (HEM)	eij	A	***ND***	1.4	5.0	U	mg/L	1	09/06/2019 15:03

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 031-Grab
Sample Description: 031
Matrix: Aqueous

Work Order/ID: 19I0301-05
Sampled: 09/06/2019 6:41
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 5210 B-2001**						Analyst: **EF**
Biochemical Oxygen Demand									Prep Date/Time: **09/06/2019 15:34**
Biochemical Oxygen Demand	eij	A	***ND***	2.0	2.0	U	mg/L	1	09/11/2019 21:30
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***3.2***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: Mixed Liquor-Grab
Sample Description: Mixed Liquor
Matrix: Aqueous

Work Order/ID: 19I0301-06
Sampled: 09/06/2019 6:44
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 F-1997**						Analyst: **DAT**
Settleable Solids									Prep Date/Time: **09/06/2019 10:40**
Settleable Solids	i	A	***180***	1.0	1.0		ml/L	1	09/06/2019 10:40
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***1700***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: J-Box-Grab
Sample Description: J-Box
Matrix: Aqueous

Work Order/ID: 19I0301-07
Sampled: 09/06/2019 6:39
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**						Analyst: **ABG**
Nitrogen, Ammonia as N									Prep Date/Time: **09/06/2019 11:32**
Nitrogen, Ammonia (As N)	ei	A	***0.17***	0.054	0.10		mg/L	1	09/06/2019 13:01
			Method: **EPA 420.4 Rev 1.0**						Analyst: **ABG**
Total Phenolics									Prep Date/Time: **09/06/2019 11:32**
Phenolics, Total Recoverable	eij	A	***ND***	0.0060	0.010	U	mg/L	1	09/06/2019 13:40
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***11***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: WWII-Grab
Sample Description: WWII
Matrix: Aqueous

Work Order/ID: 19I0301-08
Sampled: 09/06/2019 7:14
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 4500-CN C/E-1999**						Analyst: **ABG**
Total Cyanide									Prep Date/Time: **09/06/2019 11:03**
Cyanide, Total	eij	A	***0.011***	0.0020	0.0050		mg/L	1	09/06/2019 13:53

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: Coldwell-Grab
Sample Description: Coldwell
Matrix: Aqueous
Work Order/ID: 19I0301-09
Sampled: 09/06/2019 7:33
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 200.7 Rev 4.4**						Analyst: **RPL**
Total Recoverable Metals by ICP									Prep Date/Time: **09/08/2019 12:49**
Lead	eij	A	***0.070***	0.0033	0.0075		mg/L	1	09/09/2019 10:08
Zinc	eij	A	***0.52***	0.0073	0.020		mg/L	1	09/09/2019 10:08
			Method: **SM 4500-CN C/E-1999**						Analyst: **ABG**
Total Cyanide									Prep Date/Time: **09/06/2019 11:03**
Cyanide, Total	eij	A	***0.012***	0.0020	0.0050		mg/L	1	09/06/2019 13:54
			Method: **EPA 350.1 Rev 2.0**						Analyst: **ABG**
Nitrogen, Ammonia as N									Prep Date/Time: **09/06/2019 11:32**
Nitrogen, Ammonia (As N)	ei	A	***48***	0.54	1.0		mg/L	1	09/06/2019 13:04
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***62***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: RSB FT Overflow-Grab
Sample Description: RSB FT Overflow
Matrix: Aqueous

Work Order/ID: 19I0301-10
Sampled: 09/06/2019 7:36
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **EPA 200.7 Rev 4.4**						Analyst: **RPL**
Total Recoverable Metals by ICP									Prep Date/Time: **09/08/2019 12:49**
Lead	eij	A	***0.045***	0.0033	0.0075		mg/L	1	09/09/2019 10:13
Zinc	eij	A	***0.12***	0.0073	0.020		mg/L	1	09/09/2019 10:13
			Method: **EPA 350.1 Rev 2.0**						Analyst: **ABG**
Nitrogen, Ammonia as N									Prep Date/Time: **09/06/2019 11:32**
Nitrogen, Ammonia (As N)	ei	A	***7.2***	0.054	0.10		mg/L	1	09/06/2019 13:06
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***36***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: RSB FT Influent-Grab
Sample Description: RSB FT Influent
Matrix: Aqueous

Work Order/ID: 19I0301-11
Sampled: 09/06/2019 7:37
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***10000***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: 999-Grab
Sample Description: 999
Matrix: Aqueous

Work Order/ID: 19I0301-12
Sampled: 09/06/2019 7:45
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***1.8***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: BFTC-Grab
Sample Description: BFTC
Matrix: Aqueous

Work Order/ID: 19I0301-13
Sampled: 09/06/2019 7:59
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***35***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: WAL-Grab
Sample Description: WAL
Matrix: Aqueous

Work Order/ID: 19I0301-15
Sampled: 09/05/2019 8:10
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***8.2***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: CM1-Grab
Sample Description: CM1
Matrix: Aqueous

Work Order/ID: 19I0301-16
Sampled: 09/06/2019 0:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***12***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: CM2-Grab
Sample Description: CM2
Matrix: Aqueous

Work Order/ID: 19I0301-17
Sampled: 09/06/2019 0:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***16***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: CM6-Grab
Sample Description: CM6
Matrix: Aqueous

Work Order/ID: 19I0301-18
Sampled: 09/06/2019 0:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***28***	1.0	1.0		mg/L	1	09/06/2019 12:22

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Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: HM2-Grab
Sample Description: HM2
Matrix: Aqueous

Work Order/ID: 19I0301-19
Sampled: 09/06/2019 0:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***28***	1.0	1.0		mg/L	1	09/06/2019 12:22

MICROBAC®

Analytical Results

Date: *Monday, September 16, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Daily
Client Sample ID: HM3-Grab
Sample Description: HM3
Matrix: Aqueous

Work Order/ID: 19I0301-20
Sampled: 09/06/2019 0:00
Received: 09/06/2019 9:55

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: **SM 2540 D-1997**						Analyst: **KMT**
Total Suspended Solids									Prep Date/Time: **09/06/2019 10:27**
Total Suspended Solids	eij	A	***20***	1.0	1.0		mg/L	1	09/06/2019 12:22

ANALYTE TYPES: (AT)

A,B = Target Analyte
I = Internal Standard
M = Summation Analyte
S = Surrogate
T = Tentatively Identified Compound (TIC, concentration estimated)

QC SAMPLE IDENTIFICATIONS

BLK = Method Blank
DUP = Method Duplicate
BS = Method Blank Spike
MS = Matrix Spike
ICB = Initial Calibration Blank
CCB = Continuing Calibration Blank
CRL = Client Required Reporting Limit
PDS = Post Digestion Spike
QCS = Quality Control Standard
ICSA = Interference Check Standard "A"
ICSAB = Interference Check Standard "AB"
BSD = Method Blank Spike Duplicate
MSD = Matrix Spike Duplicate
ICV = Initial Calibration Verification
CCV = Continuing Calibration Verification
OPR = Ongoing Precision and Recovery Standard
SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

[d] Illinois EPA drinking water, wastewater and solid waste analysis (#200064)
[i] Kansas Dept Health & Env. NELAP (#E-10397)
[j] Kentucky Wastewater Laboratory Certification Program (#108202)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

J:	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
MDL:	Minimum Detection Limit
RL:	Reporting Limit
RPD:	Relative Percent Difference
U:	The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

Cooler Receipt Log

Cooler ID: Default Cooler Temp: °C

Cooler Inspection Checklist

Ice Present or not required?	Yes
Shipping containers sealed or not required?	Yes
Custody seals intact or not required?	Yes
Chain of Custody (COC) Present?	Yes
COC includes customer information?	Yes
Relinquished and received signature on COC?	Yes
Sample collector identified on COC?	Yes
Sample type identified on COC?	Yes
Correct type of Containers Received	Yes
Correct number of containers listed on COC?	Yes
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	Yes
Samples arrived within hold time?	Yes
Correct preservatives on COC or not required?	Yes
Chemical preservations checked or not required?	Yes
Preservation checks meet method requirements?	Yes
VOA vials have zero headspace, or not recd.?	Yes

ArcelorMittal

Chain of Custody

ArcelorMittal Burns Harbor/Microbac Labs

Friday

Lab Work No: 19I0301

* Date Obtained 9-6-19
** Sample Date: ~~9-5-19~~

Location	Time	Sampler	Type	Preserved	Cooled	Containers			Parameters	Comments
						Type	Qty	Vol. (ml)		
011 **	06:00	CP	Comp	No	Yes	Glass	1	4000		01
			Grab	No	No	Plastic	1	125	pH	02
001 **	06:20		Comp	No	Yes	Glass	1	4000	NH3	03
			Grab	No	No	Plastic	1	125	pH	04
031 *	06:41		Grab	No	No	Plastic	1	1000	TSS	05
			Grab	No	No	Plastic	1	1000	BOD	↓
Mixed Liquor *	06:44		Grab	No	No	Plastic	1	2000	TSS, Settling	06
J-Box *	06:39		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	07
DIW-131 *	~~06~~		Grab	No	No	Plastic	1	125	pH	X
WWII *	07:14		Grab	No	No	Plastic	1	1000	Cn	08
Coldwell	07:33		Grab	No	No	Plastic	2	2000	NH3, CN, Pb, Zn, TSS	09
RSB FT Overflow *	07:36		Grab	No	No	Plastic	2	1000	NH3, pH, TSS, Pb, Zn	10
RSB FT Influent *	07:37		Grab	No	No	Plastic	1	500	TSS	11
BFTD *	~~07~~		Grab	No	No	Plastic	1	500	TSS	X
999 *	07:45		Grab	No	No	Plastic	1	500	TSS, pH	12
BFTC *	07:59		Grab	No	No	Plastic	1	500	TSS	13
002 **	08:02		Grab	No	No	Plastic	1	125	pH	14
WAL 1 **	08:10		Grab	No	No	Glass	1	1000	TSS, pH	15
WAL 2 **	~~08~~		Grab	No	No	Glass	1	1000	TSS, pH	X
WAL 3 **	08:10		Grab	No	No	Glass	1	1000	TSS, pH	X
SWTP *		****	Grab	No	No	Plastic	~~15~~	1000	TSS	16-20

*** WPL is for previous sample date
**** Sample collected by Water Process personnel

No HM1+CM3

2.4
0.3 ot
2.1

Relinquished by: _____ Date: 9-6-19 Time: 08:25

Received by: _____ Date: 9/6/19 Time: 0825

Env 5x Rev. 14 07/01/16 (TEK)

19I0301 Carey Gadzala
ArcelorMittal - Burns Harbor, IN
Daily
09/06/2019

Microbac Laboratories - Chicagoland Division
pH - METHOD 9045D
Arcelor Mittal /Burns Harbor NPDES

Sample ID		pH	Analyst	Date/Time of Analysis
Buffer ID: Meter ID:	4: 185909	7: 188312	10: 191040	
Calibration	(4) / (7) / (10)		BAO	9/5/19 0800
ICV	4 / (7) / 10			
Slope		101.0		
Lake 999		7.91		
Location 001		7.76		
Location 002		8.13		
Location 011		7.77		
WAL 1				
WAL 2				
SWTP J-Box		8.63		
DIW 131				
RSB		8.87		
Dup- 999		7.92		
CCV		7.01		

Sample ID		pH	Analyst	Date/Time of Analysis
Buffer ID: Meter ID:	4: 185909	7: 188312	10: 191040	
Calibration	(4) / (7) / (10)		BAO	9/6/19 0805
ICV	4 / (7) / 10	6.99		
Slope		100.7		
Lake 999		7.93		
Location 001		7.82		
Location 002		8.13		
Location 011		7.85		
WAL 1		9.00		
WAL 2				
SWTP J-Box		8.60		
DIW 131				
RSB		8.97		
Dup- 001		7.83		
CCV		7.02		

Microbac Laboratories, Inc. - Chicagoland Division

Total Residual Chlorine - Amperometric Titration - SM Method 4500-Cl E - 2000
for Arcelor Mittal - Burns Harbor

Date/Time: 9/6/19 0805
Analyst: BAO
pH Paper Lot #: HJ626 Exp. Date 11/20
LCS ID: A9074

	STD ID / Lot #	Exp. Date
KI Solution:	146367	6/30/20
Acetate buffer:	147996	7/25/20
PAO Titrant:	145348	5/31/20

Sample ID	Sample Vol. (mL)	pH (pH Units)	Titrant Start (mL)	Titrant Stop (mL)	Titrant Vol. (mL)	Result (mg/L)
Blank	200	4.0	0.00	0.00	0.00	0.00
LCS	↓	4.0	↓	0.02	0.02	0.02
Outfall 001		4.0		0.00	0.00	0.00
Outfall 002		4.0		0.00	0.00	0.00
Outfall 003		4.0		0.00	0.00	0.00
Outfall 011		4.0		0.00	0.00	0.00
Outfall 011 Dup		4.0		0.00	0.00	0.00
Outfall 001 Dup	↓	4.0	↓	0.00	0.00	0.00

Date/Time:
Analyst:
pH Paper Lot #: Exp. Date
LCS ID:

	STD ID / Lot #	Exp. Date
KI Solution:		
Acetate buffer:		
PAO Titrant:		

Sample ID	Sample Vol. (ml)	pH (pH Units)	Titrant Start (ml)	Titrant Stop (ml)	Titrant Vol. (ml)	Result (mg/L)
Blank						
LCS						
Outfall 001						
Outfall 002						
Outfall 003						
Outfall 011						
Outfall 011 Dup						
Outfall Dup						

Chlorine, mg/L = (Titrant Vol., mL) (200 mL) / (Sample Vol., mL)

revision: a_01_2016

Burns Harbor

Contractor timesheet

ArcelorMittal

Section 1

Date	Shift	Contractor company name	Contractor ref #/job #	Form number
9/6/19	Day	Microbac Labs		309689

ArcelorMittal Representative	PO number	Requisition number
Warren Howard		0799897

Department	Description of work	Percent job complete
EnD	Water Samples	

Section 2

Badge no.	Last name	First name	Craft	ST	OT	DT	Total
164042	Otto	Brian	TEC	1			1
			Total hours this sheet	1			1
			Previous hours				
			Total hours to date	1			1

Shift start time

Shift end time

Billable equipment/subcontractors/material

ID	Description
Qty	Hours/amt total
ID	Description
Qty	Hours/amt total
ID	Description
Qty	Hours/amt total
ID	Description
Qty	Hours/amt total
ID	Description
Qty	Hours/amt total
ID	Description
Qty	Hours/amt total

Job notes

Is this job capital work? Yes ☐ No X

Section 3

Enter the total hours worked by each craft in the box to the right of each abbreviation. See reverse side of form for an explanation of the abbreviations.

ABW		CL		EL		GLZ		JAN		LTR		PF		TEC	1
BL		CO		EN		INS		LA		MW		PT		TST	
BM		CP		FN		IW		LIC		OE		SU		TM	

Section 4

I the undersigned attest that the hours recorded on the timesheet were actually worked by the contractor employee at the plant work location on the date listed above.

Contractor authorization signature	Job title
B. Otto	FLD Service Tech
Printed name: B. Otto	Date: 9/6/19

Section 5

Work authorization permit #

307296

Section 6

I the undersigned have verified that contractor employees, hours, and date listed on the timesheet are accurate, complete, valid for the date and plant work location listed above.

ArcelorMittal authorization signature	Job title
W. Howard	Supervisor
Printed name: Warren Howard	Date: 9/6/19

White - Contractor Canary - Contractor Pink - AM Receiver Gold - AM Authorizer

Page ____ of ____

2013-08-BH-ContractorTimeSheet