



September 17, 2019

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

Work Order No.: 19I0956

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 15 sample(s) on 9/17/2019 10:05:00AM for the analyses presented in the following report as Work Order 19I0956.

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.

A handwritten signature in black ink that reads "Carey Gadzala". The signature is written in a cursive, flowing style.

Carey Gadzala
Project Manager

[Microbac Laboratories, Inc.](http://www.microbac.com)

250 West 84th Drive | Merrillville, IN 46410 | 800.536.8379 p | 219.769.8378 p | 219.769.1664 f | www.microbac.com



WORK ORDER SAMPLE SUMMARY

Date: *Tuesday, September 17, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Daily
Lab Order: 19I0956

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0956-02	011-Grab	011	09/16/2019 06:08	9/17/2019 10:05:00AM
19I0956-04	001-Grab	001	09/16/2019 06:25	9/17/2019 10:05:00AM
19I0956-05	Mixed Liquor-Grab	Mixed Liquor	09/17/2019 06:50	9/17/2019 10:05:00AM
19I0956-06	J-Box-Grab	J-Box	09/17/2019 06:45	9/17/2019 10:05:00AM
19I0956-07	RSB FT Overflow-Grab	RSB FT Overflow	09/17/2019 07:39	9/17/2019 10:05:00AM
19I0956-08	999-Grab	999	09/17/2019 07:49	9/17/2019 10:05:00AM
19I0956-09	002-Grab	002	09/16/2019 08:09	9/17/2019 10:05:00AM
19I0956-10	CM1-Grab	CM1	09/17/2019 00:00	9/17/2019 10:05:00AM
19I0956-11	CM2-Grab	CM2	09/17/2019 00:00	9/17/2019 10:05:00AM
19I0956-12	CM3-Grab	CM3	09/17/2019 00:00	9/17/2019 10:05:00AM
19I0956-13	CM6-Grab	CM6	09/17/2019 00:00	9/17/2019 10:05:00AM
19I0956-14	HM2-Grab	HM2	09/17/2019 00:00	9/17/2019 10:05:00AM
19I0956-15	HM3-Grab	HM3	09/17/2019 00:00	9/17/2019 10:05:00AM

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Field Results

Date: Tuesday, September 17, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order:	19I0956
Client Project:	Daily		
Client Sample ID:	011-Grab	Work Order/ID:	19I0956-02
Sample Description:	011	Sampled:	09/16/2019 06:08
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
pH	8.0	pH Units

Client Sample ID:	001-Grab	Work Order/ID:	19I0956-04
Sample Description:	001	Sampled:	09/16/2019 06:25
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
pH	7.9	pH Units

Client Sample ID:	J-Box-Grab	Work Order/ID:	19I0956-06
Sample Description:	J-Box	Sampled:	09/17/2019 06:45
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
pH	8.7	pH Units

Client Sample ID:	RSB FT Overflow-Grab	Work Order/ID:	19I0956-07
Sample Description:	RSB FT Overflow	Sampled:	09/17/2019 07:39
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
pH	8.9	pH Units

Client Sample ID:	999-Grab	Work Order/ID:	19I0956-08
Sample Description:	999	Sampled:	09/17/2019 07:49
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
pH	7.9	pH Units

Client Sample ID:	002-Grab	Work Order/ID:	19I0956-09
Sample Description:	002	Sampled:	09/16/2019 08:09
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
pH	8.1	pH Units

Analytical Results

Date: Tuesday, September 17, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-05
Client Project:	Daily	Sampled:	09/17/2019 6:50
Client Sample ID:	Mixed Liquor-Grab	Received:	09/17/2019 10:05
Sample Description:	Mixed Liquor		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 F-1997		Analyst: DAT			
Settleable Solids			Prep Method: SM 2540 F-1997		Prep Date/Time: 09/17/2019 10:35			
Settleable Solids	i	A	110	1.0		ml/L	1	09/17/2019 10:35
			Method: SM 2540 D-1997		Analyst: KMT			
Total Suspended Solids			Prep Method: SM 2540 D-1997		Prep Date/Time: 09/17/2019 10:45			
Total Suspended Solids	dij	A	1200	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-06
Client Project:	Daily	Sampled:	09/17/2019 6:45
Client Sample ID:	J-Box-Grab	Received:	09/17/2019 10:05
Sample Description:	J-Box		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	10	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-10
Client Project:	Daily	Sampled:	09/17/2019 0:00
Client Sample ID:	CM1-Grab	Received:	09/17/2019 10:05
Sample Description:	CM1		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	10	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-11
Client Project:	Daily	Sampled:	09/17/2019 0:00
Client Sample ID:	CM2-Grab	Received:	09/17/2019 10:05
Sample Description:	CM2		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	10	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-12
Client Project:	Daily	Sampled:	09/17/2019 0:00
Client Sample ID:	CM3-Grab	Received:	09/17/2019 10:05
Sample Description:	CM3		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	11	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-13
Client Project:	Daily	Sampled:	09/17/2019 0:00
Client Sample ID:	CM6-Grab	Received:	09/17/2019 10:05
Sample Description:	CM6		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	11	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-14
Client Project:	Daily	Sampled:	09/17/2019 0:00
Client Sample ID:	HM2-Grab	Received:	09/17/2019 10:05
Sample Description:	HM2		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	11	1.0		mg/L	1	09/17/2019 12:45

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0956-15
Client Project:	Daily	Sampled:	09/17/2019 0:00
Client Sample ID:	HM3-Grab	Received:	09/17/2019 10:05
Sample Description:	HM3		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 2540 D-1997				Analyst: KMT	
Total Suspended Solids			Prep Method: SM 2540 D-1997				Prep Date/Time: 09/17/2019 10:45	
Total Suspended Solids	dij	A	11	1.0		mg/L	1	09/17/2019 12:45

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)**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: 4.9°C
 MICROBAC®

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

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Chain of Custody

ArcelorMittal Burns Harbor/Microbac Labs

Tuesday

Lab Work No: 19 I0956

* Date Obtained: 9-17-19

** Sample Date: 9-16-19

Location	Time	Sampler	Type	Preserved	Cooled	Containers			Parameters	Comments
						Type	Qty	Vol. (ml)		
011 **	<u>06:08</u>	<u>CP</u>	Comp	No	Yes	Glass	1	4000		<u>01</u>
			Grab	No	No	Plastic	1	500	pH	<u>02</u>
001 **	<u>06:25</u>		Comp	No	Yes	Glass	1	4000		<u>03</u>
			Grab	No	No	Plastic	1	125	pH	<u>04</u>
Mixed Liquor *	<u>06:50</u>		Grab	No	No	Plastic	1	2000	TSS, Settling	<u>05</u>
DIW-131 *	<u>NA</u>		Grab	No	No	Plastic	1	125	pH	<u>X</u>
J-Box *	<u>06:45</u>		Grab	No	No	Plastic	1	1000	TSS, pH	<u>06</u>
RSB FT Overflow *	<u>07:39</u>		Grab	No	No	Plastic	1	125	pH	<u>07</u>
999 *	<u>07:49</u>		Grab	No	No	Plastic	1	500	pH	<u>08</u>
002 **	<u>08:09</u>		Grab	No	No	Plastic	1	125	pH	<u>09</u>
SWTP *		<u>***</u>	Grab	No	No	Plastic	<u>76</u>	1000	TSS	<u>10-15</u>

*** WPL is for previous sample date

**** Sample collected by Water Process personnel

No HMI

Handwritten: S.2
0.3
4.9 °C

Relinquished by: *CP*

Date: 9-17-19

Time: 08:30

Received by: *M. OTO*

Date: 9/17/19

Time: 0830

Env 2x Rev. 8 07/01/16 (TEK)

1910956 Carey Gadzala
ArcelorMittal - Burns Harbor, IN
Daily
09/17/2019



Microbac Laboratories, Inc. - Chicagoland Division

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

Date/Time: 9/16/19 0820 Exp. Date: 6/30/20
 Analyst: BAO STD ID / Lot #: 146367
 KI Solution: 147996
 pH Paper Lot #: HJ626 Exp. Date: 7/29/20
 Acetate buffer: 145348
 LCS ID: A9074 PAO Titrant: 145348
 Exp. Date: 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		0.07	0.07	0.07
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 002 Dup		4.0		0.00	0.00	0.00

Date/Time: 9/17/19 0800 Exp. Date: 6/30/20
 Analyst: BAO STD ID / Lot #: 146367
 KI Solution: 147996
 pH Paper Lot #: HJ626 Exp. Date: 7/29/20
 Acetate buffer: 145348
 LCS ID: A9074 PAO Titrant: 145348
 Exp. Date: 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		0.05	0.05	0.05
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 002 Dup		4.0		0.00	0.00	0.00

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

revision: a_01_2016

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	9/17/18 0800
ICV	4 / 7 / 10	6.99	↓	↓
Slope		101.4		
Lake 999		7.85		
Location 001		7.91		
Location 002		8.07		
Location 011		7.97		
WAL 1	_____	_____		
WAL 2	_____	_____		
SWTP J-Box		8.69		
DIW 131	_____	_____		
RSB		8.85		
Dup-011		7.97		
CCV		7.02		

Sample ID		pH	Analyst	Date/Time of Analysis
Buffer ID: Meter ID:	4:	7:	10:	
Calibration	4 / 7 / 10			
ICV	4 / 7 / 10			
Slope				
Lake 999				
Location 001				
Location 002				
Location 011				
WAL 1				
WAL 2				
SWTP J-Box				
DIW 131				
RSB				
Dup-				
CCV				

