

September 4, 2019

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

Work Order No.: 19I0103

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 23 sample(s) on 9/4/2019 10:10:00AM for the analyses presented in the following report as Work Order 19/0103.

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.

Carup Macizala

Carey Gadzala Project Manager

Microbac Laboratories, Inc.



# Partial 9/4/2019

#### WORK ORDER SAMPLE SUMMARY

Arcelor Mittal USA, Inc.

Client:

Project: Daily Lab Order: 1910103	3			
Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1910103-01	011-Composite	011	09/03/2019 06:10	9/4/2019 10:10:00AM
1910103-02	011-Grab	011	09/03/2019 06:10	9/4/2019 10:10:00AM
1910103-03	001-Composite	001	09/03/2019 06:25	9/4/2019 10:10:00AM
1910103-04	001-Grab	001	09/03/2019 06:25	9/4/2019 10:10:00AM
1910103-05	031-Grab	031	09/04/2019 06:46	9/4/2019 10:10:00AM
1910103-06	Mixed Liquor-Grab	Mixed Liquor	09/04/2019 06:50	9/4/2019 10:10:00AM
1910103-07	J-Box-Grab	J-Box	09/04/2019 06:40	9/4/2019 10:10:00AM
1910103-08	WWII-Grab	WWII	09/04/2019 07:00	9/4/2019 10:10:00AM
1910103-09	Coldwell-Grab	Coldwell	09/04/2019 07:40	9/4/2019 10:10:00AM
1910103-10	RSB FT Overflow-Grab	RSB FT Overflow	09/04/2019 07:50	9/4/2019 10:10:00AM
1910103-11	RSB FT Influent-Grab	RSB FT Influent	09/04/2019 07:49	9/4/2019 10:10:00AM
1910103-12	WPL-Grab	WPL	09/02/2019 08:20	9/4/2019 10:10:00AM
1910103-13	999-Grab	999	09/04/2019 08:27	9/4/2019 10:10:00AM
1910103-14	BFTC-Grab	BFTC	09/04/2019 08:10	9/4/2019 10:10:00AM
1910103-15	002-Composite	002	09/03/2019 08:15	9/4/2019 10:10:00AM
1910103-16	002-Grab	002	09/03/2019 08:15	9/4/2019 10:10:00AM
1910103-17	WAL-Grab	WAL	09/03/2019 08:00	9/4/2019 10:10:00AM
1910103-19	CM1-Grab	CM1	09/04/2019 00:00	9/4/2019 10:10:00AM
1910103-21	CM6 Grab	CM6	09/04/2019 00:00	9/4/2019 10:10:00AM
1910103-22	HM2-Grab	HM2	09/04/2019 00:00	9/4/2019 10:10:00AM
1910103-23	HM3-Grab	HM3	09/04/2019 00:00	9/4/2019 10:10:00AM



**Field Results** 

Partial 9/4/2019

Wednesday, September 4, 2019

Date:

#### Client: Arcelor Mittal USA, Inc. Work Order: 1910103 **Client Project:** Daily 011-Grab Work Order/ID: 1910103-02 **Client Sample ID:** Sample Description: 011 Sampled: 09/03/2019 06:10 Matrix: Aqueous Received: 09/04/2019 10:10 Result Units Analyses FLD\_CL\_TITR 0.00 mg/L 7.8 pH Units pН 001-Grab Work Order/ID: 1910103-04 **Client Sample ID:** 001 Sample Description: Sampled: 09/03/2019 06:25 09/04/2019 10:10 Matrix: Aqueous **Received:** Result Analyses Units FLD CL TITR 0.00 mg/L pH Units pН 7.8 **Client Sample ID:** J-Box-Grab Work Order/ID: 1910103-07 Sample Description: J-Box Sampled: 09/04/2019 06:40 09/04/2019 10:10 **Received:** Matrix: Aqueous Analyses Result Units 8.3 pН pH Units **Client Sample ID: RSB FT Overflow-Grab** Work Order/ID: 1910103-10 Sample Description: **RSB FT Overflow** Sampled: 09/04/2019 07:50 Matrix: Received: 09/04/2019 10:10 Aqueous Analyses Result Units 9.0 pH Units pН 999-Grab Work Order/ID: 1910103-13 **Client Sample ID:** Sample Description: 999 Sampled: 09/04/2019 08:27 09/04/2019 10:10 Matrix: Aqueous **Received:** Analyses Result Units 8.0 pH Units pН 002-Grab **Client Sample ID:** Work Order/ID: 1910103-16 Sample Description: 002 09/03/2019 08:15 Sampled: 09/04/2019 10:10 Matrix: Aqueous **Received:** Result Analyses Units 8.2 pН pH Units WAL-Grab **Client Sample ID:** Work Order/ID: 1910103-17 Sample Description: WAL Sampled: 09/03/2019 08:00 09/04/2019 10:10 Matrix: Aqueous **Received:** Analyses Result Units 9.0 pН pH Units

#### Microbac Laboratories, Inc.

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





### Field Results



### **Analytical Results**

Date: Wednesday, September 4, 2019

Client: Client Project: Client Sample ID: Sample Description: Matrix:	Arcelor Mittal US Daily 011-Composite 011 Aqueous	A, Inc.					Work Samp Recei		19I0103-01 09/03/2019 6:10 09/04/2019 10:10
Analyses	//queeue	Certs	AT	Result	MDL	RL	Qual Units	DF	Analyzed
				Method: El	PA 200.7 Re	v 4.4		Ana	alyst: RPL
Total Recoverable Me	tals by ICP							Prep Date/1	īme:09/04/2019 10:36
Lead		eij	Α	0.0041	0.0033	0.0075	mg/L	1	09/04/2019 13:46
Zinc		eij	A	0.010	0.0073	0.020	mg/L	1	09/04/2019 13:46
Total Cyanide		-1		-	M 4500-CN			Prep Date/1	alyst: <b>ABG</b> īme: <b>09/04/2019 11:35</b>
Cyanide, Total		eij	A	0.0027	0.0020	0.0050	mg/L	1	09/04/2019 14:11
Free Cyanide				Method: SI	W-846 9014				alyst: <b>ABG</b> īme: <b>09/04/2019 10:47</b>
Free Cyanide			Α	ND		0.0062	mg/L	1	09/04/2019 12:27
Nitrogen, Ammonia as	5 N				PA 350.1 Re				alyst: ABG īme: 09/04/2019 11:39
Nitrogen, Ammonia (A	s N)	ei	A	0.22	0.054	0.10	mg/L	1	09/04/2019 13:58
Total Phenolics				Method: EI	PA 420.4 Re	v 1.0			alyst: <b>ABG</b> īme: <b>09/04/2019 11:35</b>
Phenolics, Total Reco	verable	eij	Α	ND	0.0060	0.010	U mg/L	1	09/04/2019 15:03
Total Suspended Soli	ds			Method: SI	M 2540 D-19	97			alyst: <b>KMT</b> īme: <b>09/04/2019 10:57</b>
Total Suspended Solid		eij	A	2.6	1.0	1.0	mg/L	1	09/04/2019 12:59
				1					

#### Microbac Laboratories, Inc.

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



#### **Analytical Results**

Client:	Arcelor Mittal L	ISA, Inc.								
Client Project:	Daily									
Client Sample ID:	011-Grab							Work	Order/ID:	1910103-02
Sample Description:	011							Sampl	ed:	09/03/2019 6:10
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: <b>KMT</b>
Oil & Grease (HEM) by	/ SPE								Prep Date/	Time:09/04/2019 07:40
Oil & Grease (HEM)		eij	Α	ND	1.4	5.0	U	mg/L	1	09/04/2019 13:55



### **Analytical Results**

Date: Wednesday, September 4, 2019

Client: Client Project:	Arcelor Mittal US/ Daily	A, Inc.								
Client Sample ID:	001-Composite							Work	Order/ID:	1910103-03
Sample Description:	001							Sampl	ed:	09/03/2019 6:25
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: EF	PA 200.7 Re	v 4.4				alyst: RPL
Total Recoverable Me	tals by ICP								Prep Date/1	Time:09/04/2019 10:36
Lead		eij	Α	ND	0.0033	0.0075	U	mg/L	1	09/04/2019 13:51
Zinc		eij	A	ND	0.0073	0.020	U	mg/L	1	09/04/2019 13:51
				Method: SN	4500-CN	C/E-1999				alyst: ABG
Total Cyanide									Prep Date/1	Time:09/04/2019 11:35
Cyanide, Total		eij	Α	0.0022	0.0020	0.0050		mg/L	1	09/04/2019 14:12
				Method: SV	V-846 9014				Ana	alyst: ABG
Free Cyanide									Prep Date/1	Time:09/04/2019 10:47
Free Cyanide			Α	ND		0.0062		mg/L	1	09/04/2019 12:32
				Method: EF	PA 350.1 Re	v 2.0			Ana	alyst: ABG
Nitrogen, Ammonia as	5 N								Prep Date/1	Time:09/04/2019 11:39
Nitrogen, Ammonia (A		ei	Α	0.20	0.054	0.10		mg/L	1	09/04/2019 14:00
				Method: EF	PA 420.4 Re	v 1.0			Ana	alyst: ABG
Total Phenolics									Prep Date/1	Time:09/04/2019 11:35
Phenolics, Total Reco	verable	eij	Α	ND	0.0060	0.010	U	mg/L	1	09/04/2019 15:04
				Method: SN	/I 2540 D-19	97			Ana	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/1	Time:09/04/2019 10:57
Total Suspended Solid		eij	Α	1.4	1.0	1.0		mg/L	1	09/04/2019 12:59

#### Microbac Laboratories, Inc.

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



#### **Analytical Results**

Client:	Arcelor Mittal L	ISA, Inc.								
Client Project:	Daily									
Client Sample ID:	001-Grab							Work	Order/ID:	1910103-04
Sample Description:	001							Samp	ed:	09/03/2019 6:25
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: <b>KMT</b>
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:09/04/2019 07:40
Oil & Grease (HEM)		eij	Α	ND	1.4	5.0	U	mg/L	1	09/04/2019 13:55



### Analytical Results

Client: Client Project:	Arcelor Mittal U Daily	SA, Inc.								
Client Sample ID:	031-Grab							Work	Order/ID:	1910103-05
Sample Description:	031							Samp	ed:	09/04/2019 6:46
Matrix:	Aqueous							Recei	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	997			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ds	eij	Α	3.4	1.0	1.0	1	mg/L	1	09/04/2019 12:59



### **Analytical Results**

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	Mixed Liquor-Grat	)						Work	Order/ID:	1910103-06
Sample Description:	Mixed Liquor							Sampl	ed:	09/04/2019 6:50
Matrix:	Aqueous							Receiv	/ed:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 F-19	97			An	alyst: DAT
Settleable Solids									Prep Date/	Time:09/04/2019 10:43
Settleable Solids		i	Α	200	1.0	1.0	n	nl/L	1	09/04/2019 10:43
				Method:	SM 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ls	eij	Α	2100	1.0	1.0	n	ng/L	1	09/04/2019 12:59



### **Analytical Results**

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	J-Box-Grab							Work	Order/ID:	1910103-07
Sample Description:	J-Box							Samp	ed:	09/04/2019 6:40
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: EI	PA 350.1 Rev	2.0			An	alyst: ABG
Nitrogen, Ammonia as	5 N								Prep Date/	Time:09/04/2019 11:39
Nitrogen, Ammonia (A	s N)	ei	A	0.37	0.054	0.10		mg/L	1	09/04/2019 14:03
				Method: EI	PA 420.4 Rev	v 1.0			An	alyst: ABG
Total Phenolics									Prep Date/	Time:09/04/2019 11:35
Phenolics, Total Reco	verable	eij	Α	ND	0.0060	0.010	U	mg/L	1	09/04/2019 15:06
				Method: SI	M 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid		eij	Α	11	1.0	1.0	1	mg/L	1	09/04/2019 12:59



#### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	WWII-Grab							Work	Order/ID:	1910103-08
Sample Description:	WWII							Sampl	ed:	09/04/2019 7:00
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide									Prep Date/	Time:09/04/2019 11:35
Cyanide, Total		eij	Α	0.0066	0.0020	0.0050		mg/L	1	09/04/2019 14:14



### **Analytical Results**

Client: Client Project:	Arcelor Mittal USA Daily	A, Inc.								
Client Sample ID:	Coldwell-Grab							Work C	Order/ID:	1910103-09
Sample Description:	Coldwell							Sample	ed:	09/04/2019 7:40
Matrix:	Aqueous							Receiv	ed:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	M 4500-CN	C/E-1999			Ana	alyst: ABG
Total Cyanide									Prep Date/	Time:09/04/2019 11:35
Cyanide, Total		eij	A	0.080	0.0020	0.0050	mg/L	_	1	09/04/2019 14:16
				Method: E	PA 350.1 Re	v 2.0			Ana	alyst: ABG
Nitrogen, Ammonia as	5 N								Prep Date/	Time:09/04/2019 11:39
Nitrogen, Ammonia (A	s N)	ei	Α	44	0.54	1.0	mg/L	_	1	09/04/2019 14:05
				Method: S	M 2540 D-19	997			Ana	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	lime:09/04/2019 10:57
Total Suspended Solid	ls	eij	Α	99	1.0	1.0	mg/L	_	1	09/04/2019 12:59



### **Analytical Results**

Client:	Arcelor Mittal USA	, Inc.								
Client Project:	Daily									
Client Sample ID:	RSB FT Overflow	Grab						Work (	Order/ID:	1910103-10
Sample Description:	RSB FT Overflow							Sampl	ed:	09/04/2019 7:50
Matrix:	Aqueous							Receiv	/ed:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	EPA 350.1 Re	v 2.0			An	alyst: ABG
Nitrogen, Ammonia as	s N								Prep Date/	Time: 09/04/2019 11:39
Nitrogen, Ammonia (A	ls N)	ei	A	6.1	0.054	0.10	r	mg/L	1	09/04/2019 14:08
				Method:	SM 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Solie	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ls	eij	Α	10	1.0	1.0	I	ng/L	1	09/04/2019 12:59

## MICROBAC<sup>®</sup>



### Analytical Results

Client: Client Project:	Arcelor Mittal US/ Daily	A, Inc.								
Client Sample ID:	RSB FT Influent-0	Grab							Order/ID:	1910103-11
Sample Description:	RSB FT Influent							Sampl	ed:	09/04/2019 7:49
Matrix:	Aqueous							Receiv	/ed:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	SM 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ls	eij	Α	15000	1.0	1.0		mg/L	1	09/04/2019 12:59



### **Analytical Results**

Client:	Arcelor Mittal US	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	WPL-Grab							Work C	rder/ID:	1910103-12
Sample Description:	WPL							Sample	ed:	09/02/2019 8:20
Matrix:	Aqueous							Receive	ed:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2710 F-20	004			An	alyst: EF
Specific Gravity									Prep Date/	Time:09/04/2019 15:29
Specific Gravity			A	1.31	0.0100	0.0100		T/4 C	1	09/04/2019 15:29



### Analytical Results

Client: Client Project:	Arcelor Mittal U Daily	SA, Inc.								
Client Sample ID:	999-Grab							Work	Order/ID:	1910103-13
Sample Description:	999							Samp	ed:	09/04/2019 8:27
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	997			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ds	eij	Α	1.5	1.0	1.0		mg/L	1	09/04/2019 12:59

### MICROBAC<sup>®</sup>



### **Analytical Results**

Total Suspended Solid	S	eij	Α	36	1.0	1.0	r	ng/L	1	09/04/2019 12:59
<b>Total Suspended Solid</b>	ls								Prep Date/1	lime:09/04/2019 10:57
				Method:	SM 2540 D-1	997			Ana	alyst: <b>KMT</b>
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Sample Description:	BFTC							Sampl	ed:	09/04/2019 8:10
Client Sample ID:	BFTC-Grab							Work	Order/ID:	1910103-14
Client: Client Project:	Arcelor Mittal US Daily	5A, IIIC.								



### **Analytical Results**

Client:	Arcelor Mittal US	A, Inc.								
Client Project:	Daily									
Client Sample ID:	002-Composite							Work	Order/ID:	1910103-15
Sample Description:	002							Samp	led:	09/03/2019 8:15
Matrix:	Aqueous							Recei	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	M 4500-CN	C/E-1999			Ana	alyst: ABG
Total Cyanide									Prep Date/	Time:09/04/2019 11:35
Cyanide, Total		eij	Α	ND	0.0020	0.0050	U	mg/L	1	09/04/2019 14:18
				Method: S	M 2540 D-1	997			Ana	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ls	eij	A	1.8	1.0	1.0		mg/L	1	09/04/2019 12:59

## MICROBAC<sup>®</sup>



#### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	002-Grab							Work	Order/ID:	1910103-16
Sample Description:	002							Sampl	ed:	09/03/2019 8:15
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: <b>KMT</b>
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:09/04/2019 07:40
Oil & Grease (HEM)		eij	Α	ND	1.4	5.0	U	mg/L	1	09/04/2019 13:55



### **Analytical Results**

Client: Client Project:	Arcelor Mittal USA Daily	., Inc.								
Client Sample ID:	WAL-Grab							Work	Order/ID:	1910103-17
Sample Description:	WAL							Sampl	ed:	09/03/2019 8:00
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: <b>KMT</b>
Oil & Grease (HEM) by	/ SPE								Prep Date/	Time:09/04/2019 07:40
Oil & Grease (HEM)		eij	Α	16.2	1.4	5.0	m	g/L	1	09/04/2019 13:55
				Method: S	M 2710 F-20	04			An	alyst: EF
Specific Gravity									Prep Date/	Time:09/04/2019 15:29
Specific Gravity			Α	0.999	0.0100	0.0100	T/	4 C	1	09/04/2019 15:29
				Method: S	M 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Solid	ls								Prep Date/	Time:09/04/2019 10:57
Total Suspended Solid	ls	eij	Α	8.4	1.0	1.0	m	g/L	1	09/04/2019 12:59



#### **Analytical Results**

Total Suspended Solid		eij	Α	11	1.0	1.0	I	mg/L	1	09/04/2019 12:59
Total Suspended Soli	ds								Prep Date/	Time:09/04/2019 10:57
				Method:	SM 2540 D-1	997			Ana	alyst: <b>KMT</b>
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Sample Description:	CM1							Samp	led:	09/04/2019 0:00
Client Sample ID:	CM1-Grab							Work	Order/ID:	1910103-19
Client Project:	Daily									
Client:	Arcelor Mittal U	ISA, Inc.								

### MICROBAC<sup>®</sup>



### **Analytical Results**

Total Suspended Solid		eij	Α	10	1.0	1.0		mg/L	1	09/04/2019 12:59
Total Suspended Soli	de			Method.	5WI 2540 D-1	551				Fime:09/04/2019 10:57
				Method:	SM 2540 D-1	997			An	alyst: KMT
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Sample Description:	CM6							Samp	ed:	09/04/2019 0:00
Client Sample ID:	CM6 Grab							Work	Order/ID:	1910103-21
Client Project:	Daily									
Client:	Arcelor Mittal U	SA, Inc.								



#### **Analytical Results**

Total Suspended Solid		eij	Α	14	1.0	1.0	r	ng/L	1	09/04/2019 12:59
Total Suspended Soli	ds								Prep Date/	Time:09/04/2019 10:57
				Method:	SM 2540 D-1	997			Ana	alyst: <b>KMT</b>
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Sample Description:	HM2							Samp	led:	09/04/2019 0:00
Client Sample ID:	HM2-Grab							Work	Order/ID:	1910103-22
Client Project:	Daily									
Client:	Arcelor Mittal U	ISA, Inc.								



#### **Analytical Results**

Total Suspended Solid		eij	Α	11	1.0	1.0	r	ng/L	1	09/04/2019 12:59
Total Suspended Soli	ds								Prep Date/	Time:09/04/2019 10:57
				Method:	SM 2540 D-1	997			Ana	alyst: <b>KMT</b>
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Matrix:	Aqueous							Receiv	ved:	09/04/2019 10:10
Sample Description:	HM3							Samp	led:	09/04/2019 0:00
Client Sample ID:	HM3-Grab							Work	Order/ID:	1910103-23
Client Project:	Daily									
Client:	Arcelor Mittal U	ISA, Inc.								

#### A,B = Target Analyte I = Internal Standard

- M = Summation Analyte
- S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

MICROBAC<sup>®</sup>



#### 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

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

ICSA = Interference Check Standard "A"

#### 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)
- e Illinois DOPH Micro analysis of drinking water (#1755266)
- <sup>i</sup> Kansas Dept Health & Env. NELAP (#E-10397)
- <sup>j</sup> 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



### Partial 9/4/2019

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



# Chain of Custody ArcelorMittal Burns Harbor/Microbac Labs

Wednesday

Lab Work No: 19 10/03

\* Date Obtained \*\* Sample Date:

Location	Time	Sampler	Туре	Preserved	Cooled	Containers			D	
		Campier		Tieserveu	COOled	Туре	Qty	Vol. (ml)	Parameters	Comments
011 **	06.	Ð	Comp	No	Yes	Glass	1	4000	NH3, TSS, Phenol, Zn, Cn, Pb	01
	-1p		Grab	No	No	Plastic	1	500	pH. Tot Res CI	02
	10		Grab	Yes	<u>No</u>	Glass	1	1000	FOG (prepreserved)	¥
	A/		Comp	No	Yes	Glass	1	4000	NH3, Phenol, TSS	03
001 **	FRize		Grab	No	Yes	Plastic	1	500	pH, Tot Res CI	04
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	J.
0044	p		Grab	No	No	Plastic	1	1000	TSS	05
031 *	16.01		Grab	No	No	Plastic	1	1000	BOD	1 I
	76		Grab	Yes	No	Plastic	1	125	Fecal (sterilized bottle)	1
Mixed Liquor *	06:50		Grab	No	No	Plastic	1	2000	TSS, Settling	06
J-Box *	06:40		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	07
DIW-131 *	Nor		Grab	No	No	Plastic	1	125	pH	
WWII *	07:00		Grab	No.	No	Plastic	1	1000	Cn	08
Coldwell	07:40		Grab	No	No	Plastic	2	2000	NH3, CN, Pb, Zn, TSS	09
RSB FT Overflow *	07:50		Grab	No	No	Plastic	2	1000	NH3, pH, TSS, Pb, Zn	10
RSB FT Influent *	07:49		Grab	No	No	Plastic	1	500	TSS	
BFTD *	5~0		Grab	No	No	Plastic	1	500	TSS	<u> </u>
WPL***	08:20		Grab	No	No	Glass	1	1000	SpG, pH	12
999 *	08:27		Grab	No	No	Plastic	1	500	TSS, pH	13
BFTC *	08:10		Grab	No	No	Plastic	1	500	TSS	14
			Comp	No	Yes	Plastic	1	500	TSS	19
002 **	815		Grab	No	No	Plastic	1	125		16
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	
WAL 1**	A.C.		Grab	No	No	Glass	1	1000	TSS, SpG, pH	17
	08:00		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	+ 18
WAL 2**			Grab	No	No	Glass	1	1000	TSS, SpG, pH	<u> </u>
	51		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	$\rightarrow$
WAL 3**	e.C.		Grab	No	No	Glass	1 1	1000	TSS, SpG, pH	
VVAL J	08:00		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	$\rightarrow$
SWTP*	120	- ** *	Grab	No	No	Plastic	75	1000	TSS	19-23

\*\*\* WPL is for previous sample date

\*\*\*\* Sample collected by Water Process personnel

Relinquished by: - · OD Received by:

Date: 9 Date:

No HMI+CM3

Time: 08:40 Time: OE40

Env 3x Rev. 15 04/27/17 (TEK)

19|0103 Carey Gadzala ArcelorMittal - Burns Harbor, IN Daily 09/04/2019



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

	Ha	Analyst	Dete (Time	
4: (20000			Date/ I me	of Analysis
·	188312	191040		
A) DIQ			9/2/20	4000
4/0/10	7.00		1/ 5// 7	0800
				<u> </u>
			······································	<u> </u>
				<u> </u>
	8.10			<u> </u>
	1.07			
	849			
				· · ·
	10 90			
	1.01	+ - +	¥	<u> </u>
		-		
		· · · · · · · · · · · · · · · · · · ·		
	1			
	185909 AIDIQ	A) DIQ	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Sample ID		рН	Analyst	Date/Time of Analysis
Buffer ID: Meter ID:	<sup>4:</sup> 189909	<sup>7:</sup> 188312	10: 191040	
Calibration	Ø1010		BAO	Alulia
CV	4/1/10	6.99	UAO	9/4/19 0000
Slope		101.7		
ake 999		7.99	+	
ocation 001		7.79		
ocation 002		8.24		
ocation 011		7.75		
VAL 1		9.01		
VAL 2			+	
WTP J-Box		8.33		
NW 131		0. ) )	· · · · · · · · · · · · · · · · · · ·	
SB		8.95		
up-WAL		9.01		
CV		7.01		
		7.01		
		· · · · · · · · · · · · · · · · · · ·		
······································				

revision: \_d\_10-15

2 of 50

ME-3493

Page 29 of 32

Microbac Laboratories, Inc. - Chicagoland Division Residual Chlorine - METHOD SM 4500-Cl I-2000 Arcelor Mittal /Burns Harbor NPDES

Meter ID: BH		Residual Chlorin	e Standard:	A9074		
Iodine Reagent:	146367	Acid Reagent:	147996	· · · · · ·	 •	· · · · · · · · · · · · · · · · · · ·
Sample ID	Residual Chlorine		Analyst		Dette/Him	erof Amelysis
Gal Std 1	0.02-mg/L-		BAO		9/2/19	0810
Gal Std-2	0.05 mg/L-		1		, ,	ſ
Cal-Std-3	<del>0.1 mg/L</del>					
Slope Dimk	0.00					
LCS 0.02 mg/L	0.10					
011	0.00					
011 DUP	0.00					
001	0.00			i		
002	0.00					
003	0.00					
DUP 003	0.00		¥			V

Meter ID:		Residual Chlorine Standard:A 9 c	74
lodine Reagent:	146367	Acid Reagent: <u>/47996</u>	
Sample ID	Residual Chlorine	Analyst	Date/Time of Analysis
Cal-Std-1	0.02 mg/L	DAO	9/3/19 0800
Cal-Std 2	0.05-mg/L	1	
Cal-Std-3	<del></del>		
Stope Bland	k 0.00		
LCS 0.02 mg/L	0.08		
011	0.00		
011 DUP	0-00	· · ·	
001	0.00		
002	0.00		
003	0.00		
DUP 00(	0.00		

Meter ID: Iodine Reagent:		ual Chlorine Standard: <u>A 9</u> Reagent: イイフ 9 9 6	<u> </u>
Sample ID	Residual Chlorine	Analyst	Date/Time of Analysis
Cal-Std 1	<u>0_02 mg/L</u>	BAO	9/4/19 0800
Cat Std 2		r	
Cal Std 3			
-Stope Plank	0.00		
LCS 0.02 mg/L	0.05		
011	0.00		
011 DUP	0.00		
001	0.00		
002	0.00		
003	0.00		
DUP 002	0,00	V	

Revision\_e\_6-2012

- (3)

Page 30 of 32

Burns Harbor								ł	
Contractor timesheet	sheet						Arc	ArcelorMittal	
Date Shift Shift	Lei Contracto	Contractor company name M. crobac	Labs	Contractor ref #/job #	ref #/job #		Form number	309680	
ArcelorMittal Representative	Hendy		PO number			Requisition number	number 099897		
Department F	Descrip	Description of work to	Sample S					Percent job complete	
Section 2 Badge no.   Last name	First name	Craft	I ST OT	DT	Billa Total equi	Billable equipment/subcontractors/material	Job notes		
164042 Otto	Brian	75C	~		0	Description		2	
					GtA	Hours/amt total			
					0	Description			
					Ê				
					62				
					<u>Q</u>	Description	1		
					Qty	Hours/amt total			
					9	Description			
					Qty	Hours/amt total		-	
	6				0	Description			
			5		Gty		5		
		Total hours this sheet	-			Docreitation			
Shift start time		Previous hours	-	£	2		Is this job o	is this job capital work?	
Shift end time		Total hours to date	-		l Qty	Hours/amt total	Yes	N	
Section 3 Enter the total hours v	Enter the total hours worked by each craft in the box to the right of each	e box to the right of eac	ch abbreviation. Se	e reverse side of fo	rm for an explanat	abbreviation. See reverse side of form for an explanation of the abbreviations.		4	
BL CO	EN	INS INS	LA	MW	PT PT	TEC TST	ä		
i.	FN	IW	ПС		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.	recorded on the timesheet	t were actually worked l		Section 5 Work authorization	Section 6 I the undersign	ed have verified that con	Section 6 I the undersigned have verified that contractor employees, hours, and date listed on the	and date listed on the	
Contractor authorization signature	Job title	Service Te	5		Arcelor Mittal âu	uniesneet are accurate, complete, valid ArcelorMittal authorization signature	complete, valid for the date and plant work location listed above ign signature	K location listed above.	
Printed name Ho	Date	14/19	i i	307290	VO		Date 9	(el la	
White - Contractor Canary - Contractor	Canary - Contractor Pink - AM Receiver Gold	·It ·			nan.	Page of		2013-08-BH-Contractor TimeSheet	

307290 Daily work authorization form for all visiting workers For each job, and before starting work at the job site, a contractor representative must meet face to face with the ArcelorMittal representative responsible for the work and discuss the work to be performed and any specific safety requirements	Jg V tative r and	ng workers ntative must meet fa	ace to face with the csafety requirement	ArcelorMittal					1
Section 1 Commany name M. combo. Labs	0.114	The named	The named contractor or work crew is cleared to perform the job described herein:	w is cleared to per	form the job				
t/phone no Carry Gedrals 769-837	8 Ples	ArcelorMitta	ArcelorMittal representative department	tment <u>E</u> e number <u>-</u>	-Duce 1	$\frac{1}{Cell}$ Date $\frac{7}{4}$	116	197	
	Ţ.				Clinic pic	Clinic pickup point		2	
HIRAC-Lite	Yes	N/A No			10 01		Yes 1	N/A N	No
1) Are emergency evacuation areas identified and known?	J.		10) Could someone be caught in or between anything?	be caught in or b	etween anyth	ing?	•		A
2) Is there a current and valid isolation (LOTO) procedure?			11) Could someone get hurt as a result of a fall from height?	get hurt as a resu	lt of a fall fror	m height?	•		A
3) Will everyone apply a personal safety lock?	ø		12) Can something fall and/or strike me or someone else?	fall and/or strike r	ne or someon	ie else?	•	4 0	-
4) Are there adjacent work crews exposed (including ArcelorMittal employees)?	٢	<b>d</b> ,	13) Is everyone properly trained for this job?	perly trained for t	his job?		Į.		
5) Are there potential hazards or high risk job steps?	٢		14) Are flags and derails in place if needed?	erails in place if ne	eded?	for the subscript	<u></u>		
6) Do we have the correct tools for the job?	à		15) Can we slip or tr	rip on anything (ir	Icluding trave	15) Can we slip or trip on anything (including travel to and from the job)?	þ		-
7) Is additional PPE required?		0	16) Have all affected people been notified?	d people been no	tified?	120 - 1 - 2 - 121			
8) Is there a potential for exposure (chemical, radiation, laser, temperature)?	0		17) Can we strain or overexert ourselves?	r overexert oursel	ves?		b		-
<ol> <li>Is someone working on or near energized electrical equipment (motor control rooms, overhead power lines, etc.)?</li> </ol>			18) Has equipment been inspected prior to use? (tools, PPE, mobile equipment, etc.)	been inspected pi	rior to use? (to	ools, PPE, mobile	à		
Other Hazards and Considerations for Discussion		-				Permits			
Yes N/A No	No		Yes N/A No	Yes N/A	N/A No		Ye	Yes N/A No	N
🛑 🛄 🐔 24) Housekeeping 🛑	29	29) Scaffold work		33) Asbestos 🛑 👔	þ	37) Confined space			À
	00 00 00 00 00 00 00 00 00 00 00 00 00	30) Explosives		34) Noise 🛛 🚺		38) Energized electrical work	work 🧲		
	₩ 31 31	31) Barricades	🛑 🛄 🚰 35)	35) Lasers 🛛 🛑 🚺		39) Excavation / drilling			C)
22) Hot process, metal, temp. 🔴 🛄 🎢 27) Crane and rigging 🔴 🛄	32	32) Radiation	36)	36) Sewers 🛑 🛿	¢	40) Hot work			đđ
	)					4.1) Uther			3
rker name (print) Badge # Hazard # Hazard #	Controls	Hierarchy of Controls <b>Crols</b>	1. Elimination 2. Substitution Responsible Person 13. 0+Lo	ion 3. Engineering 4. Administrative		5. PPE Controls	Respon	Responsible Person	uos
				10.50	and a free of the second		Set a fail		ĺΙ
	1		C,		1	The second second second		fits .	.1
1) Beware	計	anove	30	~				10200	
2) 12/20		10 4	(2) (2)	1.18.1		The second states are		E.	1
					1 - N			10	
									11
The second se							A Constraint	2. 414 S	
			A 100 M 100			1			
	3			4					1
			100 PK 1000			ALCONT OF THE		and and	1
My crew and I are familiar with the safety hazards/considerations for this job. We are prepared to perform the work in a ArcelorMittal representative named below.	e prepa	red to perfor	m the work in a safe "v	workmanship" like	e manner. I ha	afe "wormanship" like manner. I have reviewed these considerations with the	iderations	with the	1
Contractor or crew leader A - ArcelorMittal representative -	repres	entative -	2 N C	Rep	Replacement rep/phone	ep/phone			
(Ensure form is fully completed prior to signing) Original to contractor, (1) copy to AreclorMittal representative	reclorM	ittal represent	ative	Controlled by Ma	aintenance Ad	Controlled by Maintenance Administration Dept. Arcelbr해태려 Burnf Harbor	IBraghta R	Sards 1932	bor
						2016-04-BH-DailyWorkAuthorization	ailyWork/	Authorizat	tion

а,