

Work Order No.: 1910418

September 16, 2019

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

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 22 sample(s) on 9/9/2019 11:00:00AM for the analyses presented in the following report as Work Order 19I0418.

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.

Carry Hadgala

Carey Gadzala Project Manager



WORK ORDER SAMPLE SUMMARY

Client: Arcelor Mittal USA, Inc.

Project: Daily Lab Order: 1910418

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1910418-01	011-Composite	011	09/08/2019 06:00	9/9/2019 11:00:00AM
1910418-02	011-Grab	011	09/08/2019 06:00	9/9/2019 11:00:00AM
1910418-04	001-Composite	001	09/08/2019 06:20	9/9/2019 11:00:00AM
1910418-05	001-Grab	001	09/08/2019 06:20	9/9/2019 11:00:00AM
1910418-06	031-Grab	031	09/09/2019 06:38	9/9/2019 11:00:00AM
1910418-07	Mixed Liquor-Grab	Mixed Liquor	09/09/2019 06:42	9/9/2019 11:00:00AM
1910418-08	J-Box-Grab	J-Box	09/09/2019 06:36	9/9/2019 11:00:00AM
1910418-09	WWII-Grab	WWII	09/09/2019 07:19	9/9/2019 11:00:00AM
1910418-10	Coldwell-Grab	Coldwell	09/09/2019 07:33	9/9/2019 11:00:00AM
1910418-11	RSB FT Overflow-Grab	RSB FT Overflow	09/09/2019 07:58	9/9/2019 11:00:00AM
1910418-12	RSB FT Influent-Grab	RSB FT Influent	09/09/2019 07:39	9/9/2019 11:00:00AM
1910418-13	BFTD-Grab	BFTD	09/09/2019 07:57	9/9/2019 11:00:00AM
1910418-14	999-Grab	999	09/09/2019 07:45	9/9/2019 11:00:00AM
1910418-15	BFTC-Grab	BFTC	09/09/2019 08:05	9/9/2019 11:00:00AM
1910418-16	002-Grab	002	09/08/2019 08:09	9/9/2019 11:00:00AM
1910418-17	WAL-Grab	WAL	09/08/2019 08:19	9/9/2019 11:00:00AM
1910418-18	CM1-Grab	CM1	09/09/2019 00:00	9/9/2019 11:00:00AM
1910418-19	CM2-Grab	CM2	09/09/2019 00:00	9/9/2019 11:00:00AM
1910418-20	CM6-Grab	CM6	09/09/2019 00:00	9/9/2019 11:00:00AM
1910418-21	HM2-Grab	HM2	09/09/2019 00:00	9/9/2019 11:00:00AM
1910418-22	HM3-Grab	HM3	09/09/2019 00:00	9/9/2019 11:00:00AM

Monday, September 16, 2019

Date:



Field Results		Date: Monday, S	September 16, 2019
Client: Client Project:	Arcelor Mittal USA, Inc. Daily	Work Order:	1910418
Client Sample ID:	011-Grab	Work Order/ID:	1910418-02
Sample Description:	011	Sampled:	09/08/2019 06:00
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses FLD_CL_TITR		Result 0.00	Units mg/L
pH		7.71	pH Units
		·	
Client Sample ID:	001-Grab	Work Order/ID:	1910418-05
Sample Description:	001	Sampled:	09/08/2019 06:20
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.8	pH Units
Client Sample ID:	J-Box-Grab	Work Order/ID:	1910418-08
Sample Description:	J-Box	Sampled:	09/09/2019 06:36
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses		Result 8.4	Units
рН		0.4	pH Units
Client Sample ID:	RSB FT Overflow-Grab	Work Order/ID:	1910418-11
Sample Description:	RSB FT Overflow	Sampled:	09/09/2019 07:58
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses		Result	Units
рН		8.5	pH Units
Client Sample ID:	999-Grab	Work Order/ID:	1910418-14
Sample Description:	999	Sampled:	09/09/2019 07:45
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses		Result	Units
pH		7.7	pH Units
·		'	-
Client Sample ID:	002-Grab	Work Order/ID:	1910418-16
Sample Description:	002	Sampled:	09/08/2019 08:09
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses		Result	Units
pH		8.0	pH Units
Olient Semale ID:	WAL Crob	Mind And III	1010449 47
Client Sample ID:	WAL-Grab	Work Order/ID:	1910418-17
Sample Description:	WAL	Sampled:	09/08/2019 08:19
Matrix:	Aqueous	Received:	09/09/2019 11:00
Analyses		Result	Units
рН		9.0	pH Units



Field Results

Date: Monday, September 16, 2019



CASE NARRATIVE Date: Monday, September 16, 2019

Client: Arcelor Mittal USA, Inc.

Project: Daily Lab Order: 1910418

The Matrix Spike and Matrix Spike Duplicate performed on the following sample failed the accuracy criteria for free cyanide with a low bias. The precision criteria were met. This data is indicative of a bias related to sample

matrix.

<u>Laboratory ID</u> <u>Sample Name</u> 1910418-01 <u>Sample Name</u>



Analytical Results Monday, September 16, 2019 Date:

Arcelor Mittal USA, Inc. Client:

Daily **Client Project:**

011-Composite Work Order/ID: 1910418-01 **Client Sample ID: Sample Description:** 011 Sampled: 09/08/2019 6:00

Matrix:	Aqueous							Recei	ved:	09/09/2019 11:00	
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
				Method: EF	PA 200.7 Re	v 4.4			Analyst: RPL		
Total Recoverable Metals	s by ICP								Prep Date/	Time: 09/09/2019 12:22	
Lead	_	eij	Α	ND	0.0033	0.0075	U	mg/L	1	09/09/2019 14:49	
Zinc		eij	Α	0.017	0.0073	0.020		mg/L	1	09/09/2019 14:49	
				Method: SN	И 4500-CN	C/E-1999			An	alyst: ABG	
Total Cyanide									Prep Date/	Time: 09/09/2019 12:35	
Cyanide, Total		eij	Α	ND	0.0020	0.0050	U	mg/L	1	09/09/2019 15:48	
				Method: SV	V-846 9014				An	alyst: ABG	
Free Cyanide									Prep Date/	Time: 09/09/2019 15:28	
Free Cyanide			Α	ND		0.0062		mg/L	1	09/09/2019 16:05	
				Method: EF	PA 350.1 Re	v 2.0			An	alyst: ABG	
Nitrogen, Ammonia as N									Prep Date/	Time: 09/09/2019 13:27	
Nitrogen, Ammonia (As N)	ei	Α	0.28	0.054	0.10		mg/L	1	09/09/2019 16:35	
				Method: EF	PA 420.4 Re	v 1.0			An	alyst: ABG	
Total Phenolics									Prep Date/	Time: 09/09/2019 13:04	
Phenolics, Total Recovera	able	eij	Α	ND	0.0060	0.010	U	mg/L	1	09/09/2019 17:31	
				Method: SN	/I 2540 D-19	997			An	alyst: KMT	
Total Suspended Solids									Prep Date/	Time: 09/09/2019 10:40	
Total Suspended Solids		eij	Α	1.6	1.0	1.0		mg/L	1	09/09/2019 13:50	



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 011-Grab
 Work Order/ID:
 1910418-02

 Sample Description:
 011
 Sampled:
 09/08/2019
 6:00

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: E	PA 1664B				Ana	alyst: KMT
Oil & Grease (HEM) by SPE								Prep Date/T	ime:09/09/2019 07:27
Oil & Grease (HEM)	eij	Α	ND	1.4	5.0	U	mg/L	1	09/09/2019 14:42



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

Total Suspended Solids

 Client Sample ID:
 001-Composite
 Work Order/ID:
 1910418-04

 Sample Description:
 001
 Sampled:
 09/08/2019
 6:20

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Matrix: Aqueous							Recei	ved:	09/09/2019 11:00
Analyses	Certs	ΑT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: E	PA 200.7 R	ev 4.4			An	alyst: RPL
Total Recoverable Metals by ICP								Prep Date/	Time: 09/09/2019 12:22
Copper	eij	Α	ND	0.0013	0.010		mg/L	1	09/09/2019 14:54
Lead	eij	Α	ND	0.0033	0.0075	U	mg/L	1	09/09/2019 14:54
Zinc	eij	Α	ND	0.0073	0.020		mg/L	1	09/09/2019 14:54
			Method: E	PA 200.8 R	ev 5.4			An	alyst: BTM
Total Recoverable Metals by ICP/MS	3							Prep Date/	Time: 09/09/2019 12:22
Silver	eij	Α	ND	0.000053	0.00060	U	mg/L	1	09/09/2019 16:21
			Method: S	M 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide								Prep Date/	Time: 09/09/2019 12:35
Cyanide, Total	eij	Α	ND	0.0020	0.0050	U	mg/L	1	09/09/2019 15:49
			Method: S	W-846 9014	ı			An	alyst: ABG
Free Cyanide								Prep Date/	Time: 09/09/2019 15:28
Free Cyanide		Α	ND		0.0062		mg/L	1	09/09/2019 16:10
			Method: E	PA 350.1 R	ev 2.0			An	alyst: ABG
Nitrogen, Ammonia as N								Prep Date/	Time: 09/09/2019 13:27
Nitrogen, Ammonia (As N)	ei	Α	0.34	0.054	0.10		mg/L	1	09/09/2019 16:42
			Method: E	PA 420.4 R	ev 1.0			An	alyst: ABG
Total Phenolics								Prep Date/	Time: 09/09/2019 13:04
Phenolics, Total Recoverable	eij	Α	ND	0.0060	0.010	U	mg/L	1	09/09/2019 17:33
			Method: S	M 2540 D-1	997			An	alyst: KMT
Total Suspended Solids									Time: 09/09/2019 10:40
•		_					1		

1.0

1.0

mg/L

eij

A 1.7

09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 001-Grab
 Work Order/ID:
 1910418-05

 Sample Description:
 001
 Sampled:
 09/08/2019
 6:20

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: E	PA 1664B				Ar	alyst: KMT
Oil & Grease (HEM) by SPE								Prep Date/	Time: 09/09/2019 07:27
Oil & Grease (HEM)	eij	Α	ND	1.4	5.0	U	mg/L	1	09/09/2019 14:42



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 031-Grab
 Work Order/ID:
 1910418-06

 Sample Description:
 031
 Sampled:
 09/09/2019
 6:38

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 5210 B-20	001			Ana	alyst: EF
Biochemical Oxygen Demand								Prep Date/	Time:09/10/2019 15:35
Biochemical Oxygen Demand	eij	Α	ND	2.0	2.0	U	mg/L	1	09/15/2019 19:40
			Method: S	M 2540 D-19	997			Ana	alyst: KMT
Total Suspended Solids Prep Date/Time: 09/09/2019 10:40									
Total Suspended Solids	eij	Α	3.1	1.0	1.0		mg/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 Mixed Liquor-Grab
 Work Order/ID:
 1910418-07

 Sample Description:
 Mixed Liquor
 Sampled:
 09/09/2019
 6:42

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: S	M 2540 F-19	97			An	alyst: DAT
Settleable Solids								Prep Date/	Time: 09/09/2019 12:32
Settleable Solids	i	Α	160	1.0	1.0	m	nI/L	1	09/09/2019 12:32
			Method: S	M 2540 D-19	97			An	alyst: KMT
Total Suspended Solids								Prep Date/	Time: 09/09/2019 10:40
Total Suspended Solids	eij	Α	1600	1.0	1.0	m	ng/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

Total Suspended Solids

 Client Sample ID:
 J-Box-Grab
 Work Order/ID:
 1910418-08

 Sample Description:
 J-Box
 Sampled:
 09/09/2019
 6:36

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

1									
Analyses	Certs	ΑT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: E	PA 350.1 Re	v 2.0			An	alyst: ABG
Nitrogen, Ammonia as N								Prep Date/	Time: 09/09/2019 13:27
Nitrogen, Ammonia (As N)	ei	Α	0.47	0.054	0.10	n	ng/L	1	09/09/2019 16:45
Total Phenolics			Method: E	PA 420.4 Re	v 1.0				alyst: ABG Fime: 09/09/2019 13:04
Phenolics, Total Recoverable	eij	Α	ND	0.0060	0.010	II n	ng/L	1	09/09/2019 17:38
Theread, real redoverable	Cij					<u> </u>	<u> </u>		
			Method: S	SM 2540 D-19	997				alyst: KMT
Total Suspended Solids								Prep Date/	Time: 09/09/2019 10:40

1.0

1.0

mg/L

A 16

eij

09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 WWII-Grab
 Work Order/ID:
 1910418-09

 Sample Description:
 WWII
 Sampled:
 09/09/2019
 7:19

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 4500-CN C/E-1999 Analyst: ABG **Total Cyanide** Prep Date/Time: 09/09/2019 12:35 A 0.022 0.0020 0.0050 mg/L 09/09/2019 15:51 Cyanide, Total eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

Total Suspended Solids
Total Suspended Solids

 Client Sample ID:
 Coldwell-Grab
 Work Order/ID:
 1910418-10

 Sample Description:
 Coldwell
 Sampled:
 09/09/2019
 7:33

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Matrix:	Aqueous						Re	eceived:	09/09/2019 11:00	
Analyses		Certs	AT Result	MDL	RL	Qual Ur	nits DF	Analyzed		
		Method: EPA 200.7 Rev 4.4 Analyst: RPL								
Total Recoverable	e Metals by ICP							Prep Date	/Time:09/11/2019 11:17	
Lead		eij	Α	0.10	0.0033	0.0075	mg/L	1	09/11/2019 13:52	
Zinc		eij	Α	0.65	0.0073	0.020	mg/L	1	09/11/2019 13:52	
				Method	:SM 4500-CN	C/E-1999		Aı	nalyst: ABG	
Total Cyanide								Prep Date	/Time: 09/09/2019 12:35	
Cyanide, Total		eij	Α	0.024	0.0020	0.0050	mg/L	1	09/09/2019 15:53	
				Method	:EPA 350.1 Re	ev 2.0		Aı	nalyst: ABG	
Nitrogen, Ammon	ia as N							Prep Date	/Time: 09/09/2019 13:27	
Nitrogen, Ammor	nia (As N)	ei	Α	52	0.54	1.0	mg/L	1	09/09/2019 16:47	
				Method	:SM 2540 D-1	997		Aı	nalyst: KMT	

1.0

1.0

mg/L

A 87

eij

Prep Date/Time: 09/09/2019 10:40

09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 RSB FT Overflow-Grab
 Work Order/ID:
 1910418-11

 Sample Description:
 RSB FT Overflow
 Sampled:
 09/09/2019
 7:58

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

7.194.004.0						1,1000		00,00,20.0
Analyses	Certs	AT	Result	MDL	RL	Qual Units	DF	Analyzed
			Method:	EPA 200.7 Re	v 4.4		Ar	alyst: RPL
Total Recoverable Metals by ICP							Prep Date/	Time:09/10/2019 08:42
Lead	eij	Α	0.020	0.0033	0.0075	mg/L	1	09/10/2019 12:13
			Method:	EPA 350.1 Re	v 2.0		Ar	alyst: ABG
Nitrogen, Ammonia as N							Prep Date/	Time: 09/09/2019 13:27
Nitrogen, Ammonia (As N)	ei	Α	7.3	0.054	0.10	mg/L	1	09/09/2019 16:49
			Method:	SM 2540 D-19	997		Ar	ıalyst: KMT
Total Suspended Solids							Prep Date/	Time:09/09/2019 10:40
Total Suspended Solids	eij	Α	10	1.0	1.0	mg/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 RSB FT Overflow-Grab
 Work Order/ID:
 19I0418-11RE1

 Sample Description:
 RSB FT Overflow
 Sampled:
 09/09/2019
 7:58

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Certs ΑT Result MDL RL Units DF **Analyses** Qual Analyzed Method: EPA 200.7 Rev 4.4 Analyst: RPL **Total Recoverable Metals by ICP** Prep Date/Time: 09/11/2019 08:59 A 0.050 0.0073 0.020 mg/L 09/11/2019 12:27 eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 RSB FT Influent-Grab
 Work Order/ID:
 1910418-12

 Sample Description:
 RSB FT Influent
 Sampled:
 09/09/2019
 7:39

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
	Method: SM 2540 D-1997 Analyst: KMT								
Total Suspended Solids								Prep Date/	/Time: 09/09/2019 10:40
Total Suspended Solids	eij	Α	1200	1.0	1.0	mg	/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 BFTD-Grab
 Work Order/ID:
 1910418-13

 Sample Description:
 BFTD
 Sampled:
 09/09/2019
 7:57

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	ΑT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: §	SM 2540 D-1	997			Ar	alyst: KMT
Total Suspended Solids								Prep Date/	Time: 09/09/2019 10:40
Total Suspended Solids	eij	Α	44	1.0	1.0	m	g/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 999-Grab
 1910418-14

 Sample Description:
 999
 Sampled:
 09/09/2019
 7:45

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: §	SM 2540 D-1	997			Anal	yst: KMT
Total Suspended Solids								Prep Date/Ti	me:09/09/2019 10:40
Total Suspended Solids	eij	A 3	2.1	1.0	1.0	n	ng/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 BFTC-Grab
 Work Order/ID:
 1910418-15

 Sample Description:
 BFTC
 Sampled:
 09/09/2019
 8:05

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual L	Jnits	DF	Analyzed
			Method:	SM 2540 D-1	997			An	alyst: KMT
Total Suspended Solids							Pr	ep Date/	Time: 09/09/2019 10:40
Total Suspended Solids	eij	Α	48	1.0	1.0	mg/L		1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 WAL-Grab
 Work Order/ID:
 1910418-17

 Sample Description:
 WAL
 Sampled:
 09/08/2019
 8:19

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method:	SM 2540 D-1	997			Anal	yst: KMT
Total Suspended Solids								Prep Date/Ti	me:09/09/2019 10:40
Total Suspended Solids	eij	Α	6.2	1.0	1.0	n	ng/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 CM1-Grab
 Work Order/ID:
 1910418-18

 Sample Description:
 CM1
 Sampled:
 09/09/2019
 0:00

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method:	SM 2540 D-1	997			Anal	yst: KMT
Total Suspended Solids								Prep Date/Ti	me:09/09/2019 10:40
Total Suspended Solids	eij	Α /	11	1.0	1.0	n	ng/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 CM2-Grab
 1910418-19

 Sample Description:
 CM2
 Sampled:
 09/09/2019
 0:00

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

ΑT Result MDL RL Units DF **Analyses** Certs Qual Analyzed Method: SM 2540 D-1997 Analyst: KMT **Total Suspended Solids** Prep Date/Time: 09/09/2019 10:40 A 16 1.0 1.0 mg/L 09/09/2019 13:50 Total Suspended Solids eij



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 CM6-Grab
 Work Order/ID:
 1910418-20

 Sample Description:
 CM6
 Sampled:
 09/09/2019
 0:00

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: §	SM 2540 D-1	997			Anal	yst: KMT
Total Suspended Solids								Prep Date/Ti	me:09/09/2019 10:40
Total Suspended Solids	eij	A 1	1	1.0	1.0	n	ng/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 HM2-Grab
 Work Order/ID:
 1910418-21

 Sample Description:
 HM2
 Sampled:
 09/09/2019
 0:00

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method:	SM 2540 D-1	997			Anal	yst: KMT
Total Suspended Solids								Prep Date/Ti	me:09/09/2019 10:40
Total Suspended Solids	eij	Α	13	1.0	1.0	n	ng/L	1	09/09/2019 13:50



Client: Arcelor Mittal USA, Inc.

Client Project: Daily

 Client Sample ID:
 HM3-Grab
 Work Order/ID:
 1910418-22

 Sample Description:
 HM3
 Sampled:
 09/09/2019
 0:00

 Matrix:
 Aqueous
 Received:
 09/09/2019
 11:00

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method:	SM 2540 D-1	997			Anal	lyst: KMT
Total Suspended Solids								Prep Date/Ti	me:09/09/2019 10:40
Total Suspended Solids	eij	Α :	17	1.0	1.0	r	ng/L	1	09/09/2019 13:50

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

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

QCS = Quality Control Standard 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



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



Chain of Custody ArcelorMittal Burns Harbor/Microbac Labs

Monday

Lab Work No: 1976418

Date Obtained	9-9-17
Sample Date:	9-8-19

Location	Time	Sampler	Туре	Preserved	Cooled	Containers		***************************************	D	T_
		00		1 reserved	Cooled	Туре	Qty	Vol. (ml)	Parameters	Comments
04444	Oh-	الم	Comp	No	Yes	Glass	1	4000	NH3, TSS, Zn, Pb	01
011 **	100		Grab	No	No	Plastic	1	500	pH. Tot Res CI	02
	<u> </u>		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	V 05
001 **	0000		Comp	No	Yes	Glass	1	4000	NH3	04
	10.20		Grab	No	No	Plastic	1	125	На	05
031 *	06:38		Grab	No	Yes	Plastic	1	. 1000	TSS	06
			Grab	No	No	Plastic	1	1000	BOD	*
Mixed Liguor *	06:42		Grab	No	No	Plastic	1	2000	TSS, Settling	07
J-Box *	06:36		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	රුදු .
DIW-131 *	NA.		Grab	No	No	Plastic	1	125	Hq	
WWII *	07.19		Grab	No	No	Plastic	1	1000	Cn	09
Coldwell *	07:33		Grab	No	No	Plastic	2	2000	NH3, CN, Pb, Zn, TSS	10
RSB FT Overflow *	07:58		Grab	No	No	Plastic	2	1000	NH3, pH, TSS, Pb, Zn	1
RSB FT Influent *	07:34		Grab	No	No	Plastic	1	500	TSS	1.5
BFTD*	07:57		Grab	No	No	Plastic	1	500	TSS	12
999 *	07:45		Grab	No	No	Plastic	1	500	TSS, pH	(4
BFTC *	08:05	\	Grab	No	No	Plastic	1	500	TSS	
002 **	08:09		Grab	No	No	Plastic	1	125	На	72
WAL 1 **	08:19		Grab	No	No	Glass	1	1000	TSS, pH	16
WAL 2 **	5-0		Grab	No	No	Glass	1 1	1000	TSS, pH	17
WAL 3 **	08:19		Grab	. No	No	Glass	1 1	1000	TSS, pH	
SWTP *	50	***	Grab	No	No	Plastic	45	1000	TSS, pri	18 - 22

**** Sample collected by Water Process personnel

NO CM 3 HO HMI

Relinquished by:

Received by:

Time: 08:25

Time: 🗢& > S

Env 1x Rev. 14 07/01/16 (TEK)

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



Microbac Laboratories, Inc. - Chicagoland Division

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

	,					
	9/0/19				STD ID / Lot #	
Date/Time:	1 / 0 / 1			Kl Solution:	146367	6/20/20
Analyst	710			Acetate buffer:	147996	7/29/20
pH Paper Lot #: H J 6 6 6	#1000°	Exp. Pate		PAO Titrant:	148 348	5/31/20
CS ID:	1-072				Titront \/ol	Result
Sample	Sample Vol.	(office] 1 1 -) 1 -	Titrant Start	litrant Stop (mL)	(mL)	(mg/L)
QI	(mL)	(SIIIO LIG) LIG	7,111		QV: (ů, o
740	200	0,7	0.05	0.00		
Dialih		0 11	*	0.07	200	70.0
TCS		}				0.00
Confession of		4.0		5.00) }	
Outlan oo		0 7		000	30.0	0
Outfall 002		j -			00.00	00.00
Outfall 003		o t		5		0 3 8
		7		00.0	00.00	
Outfall 011		} ~		5.0	0.00	60,00
Outfall 011 Dup	-	4.0			C 76	000
Cuttoll Cott	>	0.7		୍ ପ୍ର	00:0	
Contail 700 Jury						

. 1	1	ı	Г	T	
6/30/20	7/29/20	5/31/20	Docult	(mg/L)	
STD ID / Lot # (46 367	766241	145 S48	1 7 1 7	(ml)	
KI Solution:	Acetate buffer:	- PAO Titrant		Titrant Stop	7
				Titrant Start	(1111)
	7. 7. 0. 0.	EXP. Date	22/11		L DH (DH OUITS)
8/4/16	בוג	7 2626	LCS ID: A4014	Sample Vol.	(lm)
Date/Time:	Analyst	pH Paper Lot # " # v626	LCS ID:	Sample	2
ı				<u> </u>	

				Titant Oton	-trant 00	ייייייייייייייייייייייייייייייייייייייי
Sample	Sample Vol.		Titrant Start	dois illiam (w)	(m)	(mg/L)
	(m)	(shints)	(m)	(1111)		
5		(T)	00 %	0.0	0.00	. Sc
Blank	2,00	0	3		7 7	10°0
	•	4.0	7	0.01	5	
CCS				4	\$. 00	00.0
700		0.77		0.00		
Outrall 001				0.00	0.00	0.0
000		- -				
Courtail OUZ					0.00	0 0
000		-		o.co		
Outfall 003				0.00	00.0	9
C.:#60 044		- - -				08
Outrail 011				00.0	0000	9
Cutfall 011 Dire	_	- - -		2		6
		4 -		(0	3
Outfall Cal	>	5:0				
						9700 70

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

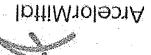
Microbac Laboratories - Chicagoland Division PH - METHOD 9045D Arcelor Mittal /Burns Harbor NPDES

		1.01.		CCV
	1	10.5		
-)	PZ. B		, <u>, , , , , , , , , , , , , , , , , , </u>
		12.8		RSB
				181 WIG
		F.8		xoa-l 9TWs
	?			S JAW
		79.8		. I JAW
		12.64		Location 011
		10.8		Location 002
		8L'L		Location 001
		sr.r		Гяке 888
		8.69		Slope
		Z9'L	OL 1 (L) 1 t	ICV
0680 61/6/6	Fra		0)1010	Calibration
10/0		718881		Meter ID:
Ť	940/91	LIZ 201	606 \$81 :4	Buffer ID:
sisylsnA to əmiT\ətsU	taylanA	Hq		Sample ID
cicylon A to comit 1 - 4-0 Ci				

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				V00
				-dng
				RSB
				DIW 131
				XOB-L 9TWS
				S JAW
,				r JAW
				Location 011
				Location 002
				Location 001
				гчке 888
				Slope
	<u></u>		01/2/7	ICV
			01/2/1	Calibration
			OFIZIV	Meter ID:
	:01	:7	:4	
sizylsnA to emiT\etsU	faylanA .	Hd		Sample ID

ME-3493



Chain of Custody

ArcelorMittal Burns Harbor/Microbac Labs

Lab Work No: Daily During Zebra Muscle Treatment

80.0	total residual chlorine	009	. l	plastic	οN	ON	Grab		1	109 and
00.0	total residual chlorine	909	l	plastic	οN	ON	Grab		91:20	600
60.0	total residual chlorine	009	J	plastic	οN	ON	Grab		60:80	
00.0	total residual chlorine	900	Į.	plastic	οN	οN	Grab	12	27.90	100
Comments	Parameters	(lm) loV	Óίγ	Containers Type	Cooled	Preserved	Туре	Sampler	əmiT	Location

** Sample Date:

* Date Obtained

* From composite sample bottle for that day

65 30 :emil Time: **35:25**

Relinquished by:

Env 66x Rev. 1 07/01/16(TEK)

B 8

	imashaat
urns Harbor	ontractor timesheet

Arcelor/WIIIGI Form number 309695			Percent job complete	Job notes											20 mm				Is this job capital work?	Ves		3			I the undersigned have verified that contractor employees, hours, and date listed on the limesheet are accurate complete valid for the date and plant work location listed above	Job title	1000
Form	Requisition number	07449		Billable equipment/subcontractors/material	Description	Hours/amt total	6 I I I I I I I I I I I I I I I I I I I	Description	Hours/amt total	Description	Hours/amt total		Description	Hours/amt total		Description	Hours/amt total	Description		Hours/amt total 	of the abbreviations.	TEC	TST		ave verified that contractor	rization signature	1
# qo[/#;			701	Billable Total equipme	<u>0</u>	Qty		Ω	Qty	Ω	Qty		Ω	Otty		Ω	Qty	<u>Ω</u>		Oty Oth	for an explanation of	PF	PT S	Section 6	I the undersigned ha	Arcelor Mittal authorization signature)
Contractor ref #/job #			8	TO.																	everse side of form	LTR	MW	1			
S	PO number		SAMPLE	TO	٠						17							_		-	abbreviation. See r	JAN	LA	Section 5		t	
pany name			of work	Craft	7EC										0 Y 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		27.7	Total hours this sheet	Previous hours	Total hours to date	the right of each				ictually worked by	SERVICE TEC	
Contractor company name			Description of work	First name	DARKEN							7						Total ho	Δ.	Total	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.	CIZ	SIN		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.	Job title	ì
Section 1 Date $ $	17	Clowa d	0			10			16				k P	10 to					*		hours worked by ea	古			blant work location	Jr.	
Shift		11.6	TT	Last name	FACELS	\$.								- I					Shift start time	Shift end time	Enter the total	ל	88	<u>;</u>	gned attest that the	Contractor authorization signature	
Section 1 Date	ArcelorMittal	Ma	Department	Section 2 Badge no.	188897														Shift	Shi	Section 3	ABW	BM	Section 4	I the undersig the contracto	Contractor auth	-

307302 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

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	1	3
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representative responsible for the work and discuss the work to be performed and any specific safety requirements.	be performed an	d any spec	citic sat	ety requirements.				Arcelor/WITG	MITO	_
Company name # 1C Po BAC LAGS		The name ArcelorM	ed conti littal rer	The named contractor or work crew is cleared to perform the job described herein: ArcelorMittal representative	s cleared to p	erform the jo	ob described herein:			
PEY GADZALA	769 8378	ArcelorM	littal re	ArcelorMittal representative department	ent		Date 9	3/19	E.	
d project/job description ENVIRG BLひら/	ENTRE	100	littal rep	ArcelorMittal representative phone number	nmber	4863	Cell	97.78	J- ox V	
Section 2	SHANCES					Clinic	Clinic pickup point 76			-
HIRAC-Lite	Yes	N/A N	No			A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		Yes	N/A	No
1) Are emergency evacuation areas identified and known?	4		1	10) Could someone be caught in or between anything?	caught in or	between an	ything?	•		
2) Is there a current and valid isolation (LOTO) procedure?	•		1	11) Could someone get hurt as a result of a fall from height?	t hurt as a re	sult of a fall f	from height?	•		1
3) Will everyone apply a personal safety lock?			1	12) Can something fall and/or strike me or someone else?	and/or strike	e me or some	eone else?	0		
4) Are there adjacent work crews exposed (including ArcelorMittal employees)?	mployees)?		F	13) Is everyone properly trained for this job?	ly trained for	r this job?		4		
5) Are there potential hazards or high risk job steps?	• 89		7	14) Are flags and derails in place if needed?	Is in place if	needed?		Ų		
6) Do we have the correct tools for the job?	•	Q	1	5) Can we slip or trip	on anything	(including tra	15) Can we slip or trip on anything (including travel to and from the job)?	P		
7) Is additional PPE required?			1-1	16) Have all affected people been notified?	eople been r	notified?		No.		
8) Is there a potential for exposure (chemical, radiation, laser, temperature)?	rature)?	O	<u>-1</u>	17) Can we strain or overexert ourselves?	verexert ours	selves?		þ		
9) Is someone working on or near energized electrical equipment (motor control rooms, overhead power lines, etc.)?	otor control	0	a	18) Has equipment been inspected prior to use? (tools, PPE, mobile equipment, etc.)	en inspected	prior to use	(tools, PPE, mobile	7		
Other Hazards and Considerations for Discussion				3			Permits			
Yes N/A No	Yes N/A No	Į.	>	Yes N/A No	Yes	N/A No		Ϋ́	Yes N/A	No
1	P	29) Scaffold work		33) Asbestos	bestos		37) Confined space			4
20) Vehicle / mob equip traffic 🏉 🧀 🚭 25) Production hazards		30) Explosives	se	3 4) Noise	oise		38) Energized electrical work	I work	Y]	d
21) Gas hazards-CO, CO2, etc. 🛑 🗀 🛂 26) Material handling		31) Barricades	es	a 25) Lasers	sers		39) Excavation / drilling	b0		þ
		32) Radiation	L	36) Sewers	wers		40) Hot work	-		
23) Pressurized / steam pipe 🍴 🦳 🌅 🔼 28) Overhead work							41) Other			\$
Section 3	Hie	Hierarchy of Controls		1. Elimination 2. Substitution	3. Engineering	4. Administrative	e 5. PPE			
Visiting worker name (print) Badge # Hazard #	Controls	slo	E.	Responsible Person	Hazard #		Controls	Respo	Responsible Person	rson
									1	
	,				A 50 8490					-
(4)	worke of a	1 8 CO	777	C. Arla						
17 Prop	o lithu	of Lo	(c)	5						
20 Vc	hick 'w	rover	D	+				4		
	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				- ASSO				1 N	
								200	× 90	
	4							Š	2	
							9	10		1
						130				1
					2.				THE THE	
My crew and I are familiar with the safety hazards/considerations for this job. We ArcelorMittal representative named below	his job. We are prep	ared to per	form th	are prepared to perform the work in a safe "wor	rkmanship"	ike manner.	safe "workmanship" like manner. I have reviewed these considerations with the	sideration	s with th	ω.
" tamp	ArcelorMittal representative	sentative	19	in X	/ Re	placemen	Replacement rep/phone	0.		

Controlled by Maintenance Administration Dept. Arceितिश्वसिविश्वेता निर्माण

(Ensure form is fully completed prior to signing) Original to contractor, (1) copy to AreclorMittal representative

Replacement rep/phone

2016-04-BH-DailyWorkAuthorization