

September 18, 2019

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

Work Order No.: 1911087

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 25 sample(s) on 9/18/2019 10:20:00AM for the analyses presented in the following report as Work Order 1911087.

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

WORK ORDER SAMPLE SUMMARY

Date: *Wednesday, September 18, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Daily
Lab Order: 19I1087

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I1087-01	011-Composite	011	09/17/2019 06:10	9/18/2019 10:20:00AM
19I1087-02	011-Grab	011	09/17/2019 06:10	9/18/2019 10:20:00AM
19I1087-03	001-Composite	001	09/17/2019 06:30	9/18/2019 10:20:00AM
19I1087-04	001-Grab	001	09/17/2019 06:30	9/18/2019 10:20:00AM
19I1087-05	031-Grab	031	09/18/2019 06:43	9/18/2019 10:20:00AM
19I1087-06	Mixed Liquor-Grab	Mixed Liquor	09/18/2019 06:45	9/18/2019 10:20:00AM
19I1087-07	J-Box-Grab	J-Box	09/18/2019 06:41	9/18/2019 10:20:00AM
19I1087-08	WWII-Grab	WWII	09/18/2019 07:30	9/18/2019 10:20:00AM
19I1087-09	Coldwell-Grab	Coldwell	09/18/2019 07:45	9/18/2019 10:20:00AM
19I1087-10	RSB FT Overflow-Grab	RSB FT Overflow	09/18/2019 07:50	9/18/2019 10:20:00AM
19I1087-11	RSB FT Influent-Grab	RSB FT Influent	09/18/2019 07:51	9/18/2019 10:20:00AM
19I1087-12	BFTD-Grab	BFTD	09/18/2019 08:15	9/18/2019 10:20:00AM
19I1087-13	WPL-Grab	WPL	09/16/2019 07:59	9/18/2019 10:20:00AM
19I1087-14	999-Grab	999	09/18/2019 08:05	9/18/2019 10:20:00AM
19I1087-15	BFTC-Grab	BFTC	09/18/2019 08:20	9/18/2019 10:20:00AM
19I1087-16	002-Composite	002	09/17/2019 08:26	9/18/2019 10:20:00AM
19I1087-17	002-Grab	002	09/17/2019 08:26	9/18/2019 10:20:00AM
19I1087-18	WAL-Grab	WAL	09/17/2019 08:40	9/18/2019 10:20:00AM
19I1087-20	CM1-Grab	CM1	09/18/2019 00:00	9/18/2019 10:20:00AM
19I1087-21	CM2-Grab	CM2	09/18/2019 00:00	9/18/2019 10:20:00AM
19I1087-22	CM3-Grab	CM3	09/18/2019 00:00	9/18/2019 10:20:00AM
19I1087-23	CM6-Grab	CM6	09/18/2019 00:00	9/18/2019 10:20:00AM
19I1087-24	HM2-Grab	HM2	09/18/2019 00:00	9/18/2019 10:20:00AM
19I1087-25	HM3-Grab	HM3	09/18/2019 00:00	9/18/2019 10:20:00AM

Field Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order:	1911087
Client Project:	Daily		
Client Sample ID:	011-Grab	Work Order/ID:	1911087-02
Sample Description:	011	Sampled:	09/17/2019 06:10
Matrix:	Aqueous	Received:	09/18/2019 10:20

Analyses	Result	Units
FLD_CL_TITR	0.00	mg/L
pH	8.0	pH Units

Client Sample ID:	001-Grab	Work Order/ID:	1911087-04
Sample Description:	001	Sampled:	09/17/2019 06:30
Matrix:	Aqueous	Received:	09/18/2019 10:20

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

Client Sample ID:	J-Box-Grab	Work Order/ID:	1911087-07
Sample Description:	J-Box	Sampled:	09/18/2019 06:41
Matrix:	Aqueous	Received:	09/18/2019 10:20

Analyses	Result	Units
pH	9.0	pH Units

Client Sample ID:	RSB FT Overflow-Grab	Work Order/ID:	1911087-10
Sample Description:	RSB FT Overflow	Sampled:	09/18/2019 07:50
Matrix:	Aqueous	Received:	09/18/2019 10:20

Analyses	Result	Units
pH	8.6	pH Units

Client Sample ID:	999-Grab	Work Order/ID:	1911087-14
Sample Description:	999	Sampled:	09/18/2019 08:05
Matrix:	Aqueous	Received:	09/18/2019 10:20

Analyses	Result	Units
pH	7.9	pH Units

Client Sample ID:	002-Grab	Work Order/ID:	1911087-17
Sample Description:	002	Sampled:	09/17/2019 08:26
Matrix:	Aqueous	Received:	09/18/2019 10:20

Analyses	Result	Units
pH	8.2	pH Units

Client Sample ID:	WAL-Grab	Work Order/ID:	1911087-18
Sample Description:	WAL	Sampled:	09/17/2019 08:40
Matrix:	Aqueous	Received:	09/18/2019 10:20

Analyses	Result	Units
pH	8.9	pH Units

Field Results

Date: *Wednesday, September 18, 2019*

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-01
Client Project:	Daily	Sampled:	09/17/2019 6:10
Client Sample ID:	011-Composite	Received:	09/18/2019 10:20
Sample Description:	011		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 200.7 Rev 4.4				Analyst: RPL			
Prep Date/Time: 09/18/2019 10:43										
Total Recoverable Metals by ICP										
Lead	ejj	A	ND	0.0033	0.0075	U	mg/L	1	09/18/2019 13:13	
Zinc	ejj	A	0.0093	0.0073	0.020		mg/L	1	09/18/2019 13:13	
			Method: SM 4500-CN C/E-1999				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:28										
Total Cyanide										
Cyanide, Total	ejj	A	0.0042	0.0020	0.0050		mg/L	1	09/18/2019 14:37	
			Method: SW-846 9014				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:28										
Free Cyanide										
Free Cyanide		A	ND		0.0062		mg/L	1	09/18/2019 14:07	
			Method: EPA 350.1 Rev 2.0				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:14										
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	0.30	0.054	0.10		mg/L	1	09/18/2019 12:58	
			Method: EPA 420.4 Rev 1.0				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:14										
Total Phenolics										
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	09/18/2019 15:23	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids										
Total Suspended Solids	ejj	A	1.9	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-02
Client Project:	Daily	Sampled:	09/17/2019 6:10
Client Sample ID:	011-Grab	Received:	09/18/2019 10:20
Sample Description:	011		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Prep Date/Time: 09/18/2019 08:00										
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	09/18/2019 13:53	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-03
Client Project:	Daily	Sampled:	09/17/2019 6:30
Client Sample ID:	001-Composite	Received:	09/18/2019 10:20
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
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Method: EPA 200.7 Rev 4.4						Analyst: RPL			
Total Recoverable Metals by ICP									
Prep Date/Time: 09/18/2019 10:43									
Copper	ejj	A	ND	0.0013	0.010		mg/L	1	09/18/2019 13:18
Lead	ejj	A	ND	0.0033	0.0075	U	mg/L	1	09/18/2019 13:18
Zinc	ejj	A	ND	0.0073	0.020	U	mg/L	1	09/18/2019 13:18

Method: SM 4500-CN C/E-1999						Analyst: ABG			
Total Cyanide									
Prep Date/Time: 09/18/2019 11:28									
Cyanide, Total	ejj	A	0.0031	0.0020	0.0050		mg/L	1	09/18/2019 14:39

Method: SW-846 9014						Analyst: ABG			
Free Cyanide									
Prep Date/Time: 09/18/2019 11:28									
Free Cyanide		A	ND		0.0062		mg/L	1	09/18/2019 14:09

Method: EPA 350.1 Rev 2.0						Analyst: ABG			
Nitrogen, Ammonia as N									
Prep Date/Time: 09/18/2019 11:14									
Nitrogen, Ammonia (As N)	ei	A	0.27	0.054	0.10		mg/L	1	09/18/2019 13:01

Method: EPA 420.4 Rev 1.0						Analyst: ABG			
Total Phenolics									
Prep Date/Time: 09/18/2019 11:14									
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	09/18/2019 15:25

Method: SM 2540 D-1997						Analyst: KMT			
Total Suspended Solids									
Prep Date/Time: 09/18/2019 11:05									
Total Suspended Solids	ejj	A	5.1	1.0	1.0		mg/L	1	09/18/2019 12:35

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-04
Client Project:	Daily	Sampled:	09/17/2019 6:30
Client Sample ID:	001-Grab	Received:	09/18/2019 10:20
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Oil & Grease (HEM) by SPE										
Prep Date/Time: 09/18/2019 08:00										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	09/18/2019 13:53	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-05
Client Project:	Daily	Sampled:	09/18/2019 6:43
Client Sample ID:	031-Grab	Received:	09/18/2019 10:20
Sample Description:	031		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: SM 2540 D-1997				Analyst: KMT				
										Prep Date/Time: 09/18/2019 11:05	
Total Suspended Solids											
Total Suspended Solids	ejj	A	3.2	1.0	1.0		mg/L	1	09/18/2019 12:35		

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-06
Client Project:	Daily	Sampled:	09/18/2019 6:45
Client Sample ID:	Mixed Liquor-Grab	Received:	09/18/2019 10:20
Sample Description:	Mixed Liquor		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
										Prep Date/Time: 09/18/2019 11:05
Total Suspended Solids										
Total Suspended Solids	ejj	A	1900	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-07
Client Project:	Daily	Sampled:	09/18/2019 6:41
Client Sample ID:	J-Box-Grab	Received:	09/18/2019 10:20
Sample Description:	J-Box		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 350.1 Rev 2.0				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:14										
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	0.077	0.054	0.10		mg/L	1	09/18/2019 13:03	
			Method: EPA 420.4 Rev 1.0				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:14										
Total Phenolics										
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	09/18/2019 15:27	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids										
Total Suspended Solids	ejj	A	14	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-08
Client Project:	Daily	Sampled:	09/18/2019 7:30
Client Sample ID:	WWII-Grab	Received:	09/18/2019 10:20
Sample Description:	WWII		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Method: SM 4500-CN C/E-1999					Analyst: ABG				
Prep Date/Time: 09/18/2019 11:28									
Total Cyanide									
Cyanide, Total	ejj	A	0.036	0.0020	0.0050		mg/L	1	09/18/2019 14:41

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-09
Client Project:	Daily	Sampled:	09/18/2019 7:45
Client Sample ID:	Coldwell-Grab	Received:	09/18/2019 10:20
Sample Description:	Coldwell		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 4500-CN C/E-1999				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:28										
Total Cyanide										
Cyanide, Total	ejj	A	0.14	0.0020	0.0050		mg/L	1	09/18/2019 14:42	
			Method: EPA 350.1 Rev 2.0				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:14										
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	54	0.54	1.0		mg/L	1	09/18/2019 13:05	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids										
Total Suspended Solids	ejj	A	48	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-10
Client Project:	Daily	Sampled:	09/18/2019 7:50
Client Sample ID:	RSB FT Overflow-Grab	Received:	09/18/2019 10:20
Sample Description:	RSB FT Overflow		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 350.1 Rev 2.0				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:14										
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	6.7	0.054	0.10		mg/L	1	09/18/2019 13:46	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids										
Total Suspended Solids	ejj	A	24	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I1087-11
Client Project:	Daily	Sampled:	09/18/2019 7:51
Client Sample ID:	RSB FT Influent-Grab	Received:	09/18/2019 10:20
Sample Description:	RSB FT Influent		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: SM 2540 D-1997				Analyst: KMT				
										Prep Date/Time: 09/18/2019 11:05	
Total Suspended Solids											
Total Suspended Solids	ejj	A	16000	1.0	1.0		mg/L	1	09/18/2019 12:35		

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-12
Client Project:	Daily	Sampled:	09/18/2019 8:15
Client Sample ID:	BFTD-Grab	Received:	09/18/2019 10:20
Sample Description:	BFTD		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: SM 2540 D-1997				Analyst: KMT				
										Prep Date/Time: 09/18/2019 11:05	
Total Suspended Solids											
Total Suspended Solids	ejj	A	44	1.0	1.0		mg/L	1	09/18/2019 12:35		

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-13
Client Project:	Daily	Sampled:	09/16/2019 7:59
Client Sample ID:	WPL-Grab	Received:	09/18/2019 10:20
Sample Description:	WPL		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2710 F-2004				Analyst: EF			
			Prep Date/Time: 09/18/2019 16:39							
Specific Gravity										
Specific Gravity		A	1.28	0.0100	0.0100		T/4 C	1	09/18/2019 16:39	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-14
Client Project:	Daily	Sampled:	09/18/2019 8:05
Client Sample ID:	999-Grab	Received:	09/18/2019 10:20
Sample Description:	999		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: SM 2540 D-1997				Analyst: KMT				
										Prep Date/Time: 09/18/2019 11:05	
Total Suspended Solids											
Total Suspended Solids	ejj	A	2.8	1.0	1.0		mg/L	1	09/18/2019 12:35		

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-15
Client Project:	Daily	Sampled:	09/18/2019 8:20
Client Sample ID:	BFTC-Grab	Received:	09/18/2019 10:20
Sample Description:	BFTC		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
Total Suspended Solids										
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids	ejj	A	45	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-16
Client Project:	Daily	Sampled:	09/17/2019 8:26
Client Sample ID:	002-Composite	Received:	09/18/2019 10:20
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 4500-CN C/E-1999				Analyst: ABG			
Prep Date/Time: 09/18/2019 11:28										
Total Cyanide										
Cyanide, Total	ejj	A	ND	0.0020	0.0050	U	mg/L	1	09/18/2019 14:47	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids										
Total Suspended Solids	ejj	A	1.6	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-17
Client Project:	Daily	Sampled:	09/17/2019 8:26
Client Sample ID:	002-Grab	Received:	09/18/2019 10:20
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Prep Date/Time: 09/18/2019 08:00										
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	09/18/2019 13:53	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-18
Client Project:	Daily	Sampled:	09/17/2019 8:40
Client Sample ID:	WAL-Grab	Received:	09/18/2019 10:20
Sample Description:	WAL		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
Prep Date/Time: 09/18/2019 08:00										
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	11.8	1.4	5.0		mg/L	1	09/18/2019 13:53	
			Method: SM 2710 F-2004				Analyst: EF			
Prep Date/Time: 09/18/2019 16:39										
Specific Gravity										
Specific Gravity		A	1.00	0.0100	0.0100		T/4 C	1	09/18/2019 16:39	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids										
Total Suspended Solids	ejj	A	6.0	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	191087-20
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	CM1-Grab	Received:	09/18/2019 10:20
Sample Description:	CM1		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
Total Suspended Solids										
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids	ejj	A	10	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-21
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	CM2-Grab	Received:	09/18/2019 10:20
Sample Description:	CM2		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
Total Suspended Solids										
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids	ejj	A	10	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-22
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	CM3-Grab	Received:	09/18/2019 10:20
Sample Description:	CM3		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
Total Suspended Solids										
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids	ejj	A	15	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-23
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	CM6-Grab	Received:	09/18/2019 10:20
Sample Description:	CM6		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
Total Suspended Solids										
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids	ejj	A	10	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-24
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	HM2-Grab	Received:	09/18/2019 10:20
Sample Description:	HM2		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
Total Suspended Solids										
Prep Date/Time: 09/18/2019 11:05										
Total Suspended Solids	ejj	A	23	1.0	1.0		mg/L	1	09/18/2019 12:35	

Analytical Results

Date: *Wednesday, September 18, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	1911087-25
Client Project:	Daily	Sampled:	09/18/2019 0:00
Client Sample ID:	HM3-Grab	Received:	09/18/2019 10:20
Sample Description:	HM3		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: SM 2540 D-1997				Analyst: KMT			
			Prep Date/Time: 09/18/2019 11:05							
Total Suspended Solids										
Total Suspended Solids	ejj	A	24	1.0	1.0		mg/L	1	09/18/2019 12:35	

ANALYTE TYPES: (AT)

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

**Partial**
9/18/2019

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)

e Illinois DOPH Micro analysis of drinking water (#1755266)

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



Partial

9/18/2019

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

Wednesday

Lab Work No: 19I 1087

* Date Obtained 9-18-19

** Sample Date: 9-17-19

Location	Time	Sampler	Type	Preserved	Cooled	Containers			Parameters	Comments
						Type	Qty	Vol. (ml)		
011 **	06:10	CD	Comp	No	Yes	Glass	1	4000	NH3, TSS, Phenol, Zn, Cn, Pb	01
			Grab	No	No	Plastic	1	500	pH, Tot Res Cl	02
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	↓
001 **	06:30		Comp	No	Yes	Glass	1	4000	NH3, Phenol, TSS	03
			Grab	No	Yes	Plastic	1	500	pH, Tot Res Cl	04
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	↓
031 *	06:43		Grab	No	No	Plastic	1	1000	TSS	05
			Grab	No	No	Plastic	1	1000	BOD	↓
			Grab	Yes	No	Plastic	1	125	Fecal (sterilized bottle)	↓
Mixed Liquor *	06:45		Grab	No	No	Plastic	1	2000	TSS, Settling	06
J-Box *	06:41		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	07
DIW-131 *	NA		Grab	No	No	Plastic	1	125	pH	08
WWII *	07:30		Grab	No	No	Plastic	1	1000	Cn	08
Coldwell	07:45		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 *	07:51		Grab	No	No	Plastic	1	500	TSS	11
BFTD *	08:15		Grab	No	No	Plastic	1	500	TSS	12
WPL***	07:59		Grab	No	No	Glass	1	1000	SpG, pH	13
999 *	08:05		Grab	No	No	Plastic	1	500	TSS, pH	14
BFTC *	08:20		Grab	No	No	Plastic	1	500	TSS	15
002 **	08:26		Comp	No	Yes	Plastic	1	500	TSS	16
			Grab	No	No	Plastic	1	125	pH	17
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	↓
WAL 1**	08:40		Grab	No	No	Glass	1	1000	TSS, SpG, pH	18
			Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	↓ 19
WAL 2**	SD		Grab	No	No	Glass	1	1000	TSS, SpG, pH	X
			Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	X
WAL 3**	08:40		Grab	No	No	Glass	1	1000	TSS, SpG, pH	X
			Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	X
SWTP *	NA	***	Grab	No	No	Plastic	76	1000	TSS	20-25

No HM 1

*** WPL is for previous sample date

**** Sample collected by Water Process personnel

4.8
0.3

4.5 C

Relinquished by: CD [Signature]

Date: 9-18-19

Time: 08:45

Received by: [Signature]

Date: 9/18/19

Time: 0845

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

1911087 Carey Gadzala
ArcelorMittal - Burns Harbor, IN
Daily
09/18/2019



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	9/17/19 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: 185909	7: 188312	10: 191040	
Calibration	(4)(7)(10)		BAO	9/18/19 0800
ICV	4 (7) 10	7.00	↓	↓
Slope		101.5		
Lake 999		7.93		
Location 001		7.85		
Location 002		8.23		
Location 011		7.96		
WAL 1		8.90		
WAL 2	_____	_____		
SWTP J-Box		8.56		
DIW 131	_____	_____		
RSB		8.59		
Dup- JBox		8.58		
CCV		7.02		

Microbac Laboratories, Inc. - Chicagoland Division

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

Date/Time: 9/18/19 0800
 Analyst: BAO
 pH Paper Lot #: HJ626
 LCS ID: A 9074

STD ID / Lot #
 KI Solution: 146367
 Acetate buffer: 147996
 PAO Titrant: 145348

Exp. Date
6/30/20
7/29/20
5/31/20

Exp. Date
11/20

Sample ID	Sample Vol. (mL)	pH (pH Units)	Titration Start (mL)	Titration Stop (mL)	Titration Vol. (mL)	Result (mg/L)
Blank	200	4.0	0.00	0.00	0.00	0.00
LCS		4.0		0.04	0.04	0.04
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: _____ Exp. Date _____
 Analyst: _____
 pH Paper Lot #: _____
 LCS ID: _____

TI Solution: _____
 Acetate buffer: _____
 PAO Titrant: _____

STD ID / Lot # _____ Exp. Date _____

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

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

revision: a_01_2016

Section 1
 Date 9/18/19 Shift Day Contractor company name Microbac Labs Form number 309612
 ArcelorMittal Representative Warren Howard PO number 0799897
 Department EMD Description of work Water Samples Requisition number 0799897
 Percent job complete

Section 2
 Badge no. 164042 Last name Otto First name Brian Craft TEC ST 1 OT DT Total 1
 Job notes

ID	Qty	Billable equipment/subcontractors/material	
		Description	Hours/amt total

Shift start time Total hours this sheet 1
 Shift end time Previous hours
 Total hours to date 1
 Is this job capital work? Yes No

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 LTR PF TEC
 BL CO EN LA MW TST
 BM CP FN IW 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 M. Otto Job title FLD Service Tech
 Printed name P. Otto Date 9/18/19
 Printed name Warren Howard ArcelorMittal authorization signature
 Job title Supervisor
 Date 9/18/19

307342

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.

Section 1

The named contractor or work crew is cleared to perform the job described herein:

Company name Microbac Labs
 Company contact/phone no Carey Gabcala 769-8378
 Location and project/job description Enrico Bldg/water Samples
 ArcelorMittal representative Warren Howard Date 7/18/19
 ArcelorMittal representative department E-0
 ArcelorMittal representative phone number 4863 Cell
 Clinic pickup point -16



Section 2

HIRAC-Lite

1) Are emergency evacuation areas identified and known?	Yes <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	No <input type="checkbox"/>	10) Could someone be caught in or between anything?	Yes <input type="checkbox"/>	N/A <input type="checkbox"/>	No <input checked="" type="checkbox"/>
2) Is there a current and valid isolation (LOTO) procedure?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11) Could someone get hurt as a result of a fall from height?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
3) Will everyone apply a personal safety lock?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12) Can something fall and/or strike me or someone else?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
4) Are there adjacent work crews exposed (including ArcelorMittal employees)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13) Is everyone properly trained for this job?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5) Are there potential hazards or high risk job steps?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14) Are flags and derrails in place if needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
6) Do we have the correct tools for the job?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15) Can we slip or trip on anything (including travel to and from the job)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
7) Is additional PPE required?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16) Have all affected people been notified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8) Is there a potential for exposure (chemical, radiation, laser, temperature)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17) Can we strain or overexert ourselves?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
9) Is someone working on or near energized electrical equipment (motor control rooms, overhead power lines, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	18) Has equipment been inspected prior to use? (tools, PPE, mobile equipment, etc.)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other Hazards and Considerations for Discussion

19) Pneumatic air tools & lines	Yes <input checked="" type="checkbox"/>	N/A <input type="checkbox"/>	No <input type="checkbox"/>	24) Housekeeping	Yes <input type="checkbox"/>	N/A <input type="checkbox"/>	No <input checked="" type="checkbox"/>
20) Vehicle / mob equip traffic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	29) Scaffold work	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
21) Gas hazards-CO, CO2, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	30) Explosives	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
22) Hot process, metal, temp.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	33) Asbestos	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
23) Pressurized / steam pipe	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34) Noise	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
				35) Lasers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
				36) Sewers	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Permits

37) Confined space	Yes <input type="checkbox"/>	N/A <input type="checkbox"/>	No <input checked="" type="checkbox"/>
38) Energized electrical work	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
39) Excavation / drilling	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
40) Hot work	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
41) Other	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Section 3

Visiting worker name (print) B. Otto Badge # 164042
 ArcelorMittal representative name (print) B. Otto
 Hierarchy of Controls: 1. Elimination, 2. Substitution, 3. Engineering, 4. Administrative, 5. PPE
 Controls: B. Otto Hazard #

Hazard #
 Responsible Person B. Otto
 Replacement rep/phone

15 Beware of unsecured surfaces
 17 Proper lifting of spools
 20 Vehicle movement

My crew and I are familiar with the safety hazards/considerations for this job. We are prepared to perform the work in a safe "workmanship" like manner. I have reviewed these considerations with the ArcelorMittal representative named below.

Contractor or crew leader B. Otto ArcelorMittal representative B. Otto