

September 17, 2019

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

Work Order No.: 19I0957

Re: NPDES Parameters

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 6 sample(s) on 9/17/2019 10:05:00AM for the analyses presented in the following report as Work Order 19I0957.

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:** *Tuesday, September 17, 2019***Client:** Arcelor Mittal USA, Inc.
Project: NPDES Parameters
Lab Order: 19I0957

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0957-01	001-Composite	001	09/16/2019 00:00	9/17/2019 10:05:00AM
19I0957-02	001-Grab	001	09/16/2019 00:00	9/17/2019 10:05:00AM
19I0957-03	011-Composite	011	09/16/2019 00:00	9/17/2019 10:05:00AM
19I0957-04	011-Grab	011	09/16/2019 00:00	9/17/2019 10:05:00AM
19I0957-05	002-Composite	002	09/16/2019 00:00	9/17/2019 10:05:00AM
19I0957-06	002-Grab	002	09/16/2019 00:00	9/17/2019 10:05:00AM

Field Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order:	19I0957
Client Project:	NPDES Parameters		
Client Sample ID:	001-Grab	Work Order/ID:	19I0957-02
Sample Description:	001	Sampled:	09/16/2019 00:00
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
FLD_CL_TITR	0.00	mg/L

Client Sample ID:	011-Grab	Work Order/ID:	19I0957-04
Sample Description:	011	Sampled:	09/16/2019 00:00
Matrix:	Aqueous	Received:	09/17/2019 10:05

Analyses	Result	Units
FLD_CL_TITR	0.00	mg/L

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0957-01
Client Project:	NPDES Parameters	Sampled:	09/16/2019 0:00
Client Sample ID:	001-Composite	Received:	09/17/2019 10:05
Sample Description:	001		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 200.7 Rev 4.4							
							Analyst: RPL			
							Prep Date/Time: 09/17/2019 10:46			
Total Recoverable Metals by ICP										
Copper	ejj	A	ND	0.0013	0.010		mg/L	1	09/17/2019 13:21	
Lead	ejj	A	ND	0.0033	0.0075		mg/L	1	09/17/2019 13:21	
Zinc	ejj	A	ND	0.0073	0.020		mg/L	1	09/17/2019 13:21	
			Method: SM 4500-CN C/E-1999							
							Analyst: ABG			
							Prep Date/Time: 09/17/2019 11:17			
Total Cyanide										
Cyanide, Total	ejj	A	0.0047	0.0020	0.0050		mg/L	1	09/17/2019 13:54	
			Method: SW-846 9014							
							Analyst: ABG			
							Prep Date/Time: 09/17/2019 11:00			
Free Cyanide										
Free Cyanide		A	ND		0.0062		mg/L	1	09/17/2019 13:37	
			Method: EPA 350.1 Rev 2.0							
							Analyst: ABG			
							Prep Date/Time: 09/17/2019 11:27			
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	0.31	0.054	0.10		mg/L	1	09/17/2019 15:02	
			Method: EPA 420.4 Rev 1.0							
							Analyst: ABG			
							Prep Date/Time: 09/17/2019 11:27			
Total Phenolics										
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	09/17/2019 14:46	
			Method: SM 2540 D-1997							
							Analyst: KMT			
							Prep Date/Time: 09/17/2019 10:45			
Total Suspended Solids										
Total Suspended Solids	ejj	A	1.0	1.0	1.0		mg/L	1	09/17/2019 12:45	

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0957-02
Client Project:	NPDES Parameters	Sampled:	09/16/2019 0:00
Client Sample ID:	001-Grab	Received:	09/17/2019 10:05
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: 09/17/2019 07:36									
Oil & Grease (HEM)	ejj	A	<i>ND</i>	1.4	5.0	U	mg/L	1	09/17/2019 14:20

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0957-03
Client Project:	NPDES Parameters	Sampled:	09/16/2019 0:00
Client Sample ID:	011-Composite	Received:	09/17/2019 10:05
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: 09/17/2019 10:46										
Total Recoverable Metals by ICP										
Lead	ejj	A	ND	0.0033	0.0075	U	mg/L	1	09/17/2019 13:26	
Zinc	ejj	A	0.013	0.0073	0.020		mg/L	1	09/17/2019 13:26	
			Method: SM 4500-CN C/E-1999				Analyst: ABG			
Prep Date/Time: 09/17/2019 11:17										
Total Cyanide										
Cyanide, Total	ejj	A	0.0055	0.0020	0.0050		mg/L	1	09/17/2019 13:56	
			Method: SW-846 9014				Analyst: ABG			
Prep Date/Time: 09/17/2019 11:00										
Free Cyanide										
Free Cyanide		A	ND		0.0062		mg/L	1	09/17/2019 13:39	
			Method: EPA 350.1 Rev 2.0				Analyst: ABG			
Prep Date/Time: 09/17/2019 11:27										
Nitrogen, Ammonia as N										
Nitrogen, Ammonia (As N)	ei	A	0.26	0.054	0.10		mg/L	1	09/17/2019 15:04	
			Method: EPA 420.4 Rev 1.0				Analyst: ABG			
Prep Date/Time: 09/17/2019 11:27										
Total Phenolics										
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	09/17/2019 14:48	
			Method: SM 2540 D-1997				Analyst: KMT			
Prep Date/Time: 09/17/2019 10:45										
Total Suspended Solids										
Total Suspended Solids	ejj	A	1.8	1.0	1.0		mg/L	1	09/17/2019 12:45	

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0957-04
Client Project:	NPDES Parameters	Sampled:	09/16/2019 0:00
Client Sample ID:	011-Grab	Received:	09/17/2019 10:05
Sample Description:	011		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed	
			Method: EPA 1664B				Analyst: KMT			
										Prep Date/Time: 09/17/2019 07:36
Oil & Grease (HEM) by SPE										
Oil & Grease (HEM)	ejj	A	6.5	1.4	5.0		mg/L	1	09/17/2019 14:20	

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0957-05
Client Project:	NPDES Parameters	Sampled:	09/16/2019 0:00
Client Sample ID:	002-Composite	Received:	09/17/2019 10:05
Sample Description:	002		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: SM 4500-CN C/E-1999			Analyst: ABG		
Total Cyanide									
Prep Date/Time: 09/17/2019 11:17									
Cyanide, Total	ejj	A	ND	0.0020	0.0050	U	mg/L	1	09/17/2019 13:57

Analytical Results

Date: *Tuesday, September 17, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0957-06
Client Project:	NPDES Parameters	Sampled:	09/16/2019 0:00
Client Sample ID:	002-Grab	Received:	09/17/2019 10:05
Sample Description:	002		
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: 09/17/2019 07:36										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	09/17/2019 14:20	

ANALYTE TYPES: (AT)

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



Partial
9/17/2019

QC SAMPLE IDENTIFICATIONS

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

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

Cooler Receipt Log

Cooler ID: Default Cooler



Partial
9/17/2019

Comments

No time

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?	No
Containers Intact?	Yes
COC includes requested analyses?	Yes
Enough sample volume for indicated tests received?	Yes
Sample labels match COC (Name, Date & Time?)	No
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

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

CHAIN OF CUSTODY RECORD

Number **152537**

Instructions on back

TO BE COMPLETED BY MICROBAC

Temperature Upon Receipt (°C) **5.2**

Therm ID **23**

Holding Time **4.9**

Samples Received on Ice? Yes No N/A

Custody Seals Intact? Yes No N/A

Turnaround Time

Routine (5 to 7 business days)

RUSH* (notify lab)

(needed by)

Report Type

Results Only Level 1 Level 2 Level 3 Level 4 EDD

Send Invoice via: Mail Fax e-mail (address)

Compliance Monitoring? Yes No

Agency/Program

Invoice Address

Client Name:

Address:

City, State, Zip:

Contact:

Telephone No.:

Arcebor Mittal Btl

Tom Kirk

Lab Report Address

Client Name:

Address:

City, State, Zip:

Contact:

Telephone No.:

Send Report via: Mail Fax e-mail (address)

Location:

PO No.:

Sampler Phone No.:

Sampler Signature:

Wanna Howard

Sampled by (PRINT): **Wanna Howard**

* Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify)

** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved

1910957 Carey Gadzala
ArceborMittal - Burns Harbor, IN
NPDES Parameters
09/17/2019

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Aspirate	TSS	Residual	Zn	Cd	Pb	Copper	Silica	FOG	Residual	Additional Notes
001	9/16/19		1		G												1910957
001	9/16/19		2		G												-01
011	9/16/19		1		G												-02
011	9/16/19		3		G												-03
002	9/16/19		1		G												-04
002	9/16/19		2		G												-05
Log on Chemical Intert	9/17/19		1		G												-06
South Lakeview Intert	9/17/19		1		G												
Oil	9/17/19		1		G												

Possible Hazard Identification Hazardous Non-Hazardous Radioactive Sample Disposition Dispose as appropriate Return Archive

Comments

Relinquished By (signature)	<i>Wanna Howard</i>	Date/Time	9/17/19 0800
Relinquished By (signature)	<i>Tom Kirk</i>	Date/Time	9/17/19 1005
Received By (signature)	<i>Tom Kirk</i>	Date/Time	9/17/19 0800
Received By (signature)	<i>Tom Kirk</i>	Date/Time	9/17/19 1005