



September 11, 2019

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

Work Order No.: 19H1102

Re: NPDES Parameters

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 8/18/2019 10:40:00AM for the analyses presented in the following report as Work Order 19H1102.

The enclosed results were obtained from and are applicable to the sample(s) as received at the laboratory. All sample results are reported on an "as received" basis unless otherwise noted.

All data included in this report have been reviewed and meet the applicable project specific and certification specific requirements, unless otherwise noted. A qualifications page is included in this report and lists the programs under which Microbac maintains certification.

This report has been paginated in its entirety and shall not be reproduced except in full, without the written approval of Microbac Laboratories.

We appreciate the opportunity to service your analytical needs. If you have any questions, please contact your project manager. For any feedback, please contact Ron Misiunas, Division Manager, at ron.misiunas@microbac.com.

Sincerely,
Microbac Laboratories, Inc.

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

Carey Gadzala
Project Manager

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

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



WORK ORDER SAMPLE SUMMARY**Date:** *Wednesday, September 11, 2019*

Client: Arcelor Mittal USA, Inc.**Project:** NPDES Parameters**Lab Order:** 19H1102

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1102-01	001-Composite	001	08/17/2019 07:05	8/18/2019 9:45:00AM
19H1102-02	011-Composite	011	08/17/2019 06:35	8/18/2019 9:45:00AM
19H1102-03	002-Composite	002	08/17/2019 08:15	8/18/2019 9:45:00AM

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

CASE NARRATIVE**Date:** *Wednesday, September 11, 2019*

Client: Arcelor Mittal USA, Inc.
Project: NPDES Parameters
Lab Order: 19H1102

Samples in this work order are logged in per the COC submitted. The composite samples that were submitted NH₄, TSS, Phenol, Cn, Pb and Zn should have a collection date of 8/17/19. The Grab samples Oil & Grease and Chlorine are the correct date listed 8/17/19. A Revised report has been issued to include this information.

Report has been revised to include Pb, Zn and Free Cn for Outfall 011 and Free Cn for 00. 8/28/19
Report has been revised at the clients request to include Cu and Ag for Outfall 001. 9/11/19

Analytical Results

Date: Wednesday, September 11, 2019

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Parameters
Client Sample ID: 001-Composite
Sample Description: 001
Matrix: Aqueous
Work Order/ID: 19H1102-01
Sampled: 08/17/2019 7:05
Received: 08/18/2019 9:45

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed		
			Method: EPA 200.7 Rev 4.4				Analyst: BTM				
										Prep Date/Time: 08/18/2019 11:30	
Total Recoverable Metals by ICP											
Copper	ejj	A	0.0026	0.0013	0.010		mg/L	1	08/18/2019 14:12		
Lead	ejj	A	ND	0.0033	0.0075	U	mg/L	1	08/18/2019 14:12		
Zinc	ejj	A	0.011	0.0073	0.020		mg/L	1	08/18/2019 14:12		
			Method: EPA 200.8 Rev 5.4				Analyst: BTM				
										Prep Date/Time: 09/08/2019 12:49	
Total Recoverable Metals by ICP/MS											
Silver	ejj	A	ND	0.000053	0.00060	U	mg/L	1	09/09/2019 11:38		
			Method: EPA 1664B				Analyst: KMT				
										Prep Date/Time: 08/18/2019 10:09	
Oil & Grease (HEM) by SPE											
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/18/2019 14:12		
			Method: SM 4500-CN C/E-1999				Analyst: EF				
										Prep Date/Time: 08/18/2019 11:16	
Total Cyanide											
Cyanide, Total	ejj	A	0.0042	0.0020	0.0050		mg/L	1	08/18/2019 13:56		
			Method: SW-846 9014				Analyst: AJR				
										Prep Date/Time: 08/27/2019 12:44	
Free Cyanide											
Free Cyanide		A	ND		0.0062		mg/L	1	08/27/2019 13:11		
			Method: EPA 350.1 Rev 2.0				Analyst: lachat3				
										Prep Date/Time: 08/18/2019 11:37	
Nitrogen, Ammonia as N											
Nitrogen, Ammonia (As N)	ei	A	0.48	0.054	0.10		mg/L	1	08/18/2019 12:18		
			Method: EPA 420.4 Rev 1.0				Analyst: AJR				
										Prep Date/Time: 08/18/2019 11:56	
Total Phenolics											
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	08/18/2019 13:41		
			Method: SM 2540 D-1997				Analyst: KMT				
										Prep Date/Time: 08/18/2019 10:47	
Total Suspended Solids											
Total Suspended Solids	ejj	A	2.1	1.0	1.0		mg/L	1	08/18/2019 12:45		

Analytical Results

Date: Wednesday, September 11, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1102-02
Client Project:	NPDES Parameters	Sampled:	08/17/2019 6:35
Client Sample ID:	011-Composite	Received:	08/18/2019 9:45
Sample Description:	011		
Matrix:	Aqueous		

Analyses	Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
			Method: EPA 200.7 Rev 4.4			Analyst: RPL			
Total Recoverable Metals by ICP						Prep Date/Time: 08/20/2019 14:18			
Lead	ejj	A	ND	0.0033	0.0075	U	mg/L	1	08/20/2019 22:58
Zinc	ejj	A	ND	0.0073	0.020	U	mg/L	1	08/20/2019 22:58
			Method: EPA 1664B			Analyst: KMT			
Oil & Grease (HEM) by SPE						Prep Date/Time: 08/18/2019 10:09			
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/18/2019 14:12
			Method: SM 4500-CN C/E-1999			Analyst: EF			
Total Cyanide						Prep Date/Time: 08/18/2019 11:16			
Cyanide, Total	ejj	A	0.0067	0.0020	0.0050		mg/L	1	08/18/2019 13:34
			Method: SW-846 9014			Analyst: AJR			
Free Cyanide						Prep Date/Time: 08/27/2019 12:44			
Free Cyanide		A	0.0076		0.0062		mg/L	1	08/27/2019 13:13
			Method: EPA 350.1 Rev 2.0			Analyst: lachat3			
Nitrogen, Ammonia as N						Prep Date/Time: 08/18/2019 11:37			
Nitrogen, Ammonia (As N)	ei	A	0.39	0.054	0.10		mg/L	1	08/18/2019 12:26
			Method: EPA 420.4 Rev 1.0			Analyst: AJR			
Total Phenolics						Prep Date/Time: 08/18/2019 11:56			
Phenolics, Total Recoverable	ejj	A	ND	0.0060	0.010	U	mg/L	1	08/18/2019 13:39
			Method: SM 2540 D-1997			Analyst: KMT			
Total Suspended Solids						Prep Date/Time: 08/18/2019 10:47			
Total Suspended Solids	ejj	A	3.1	1.0	1.0		mg/L	1	08/18/2019 12:45

Analytical Results

Date: Wednesday, September 11, 2019

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19H1102-03
Client Project:	NPDES Parameters	Sampled:	08/17/2019 8:15
Client Sample ID:	002-Composite	Received:	08/18/2019 9:45
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: 08/18/2019 10:09										
Oil & Grease (HEM)	ejj	A	ND	1.4	5.0	U	mg/L	1	08/18/2019 14:12	

ANALYTE TYPES: (AT)

A, B = Target Analyte

I = Internal Standard

M = Summation Analyte

S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)



QC SAMPLE IDENTIFICATIONS

BLK = Method Blank

DUP = Method Duplicate

BS = Method Blank Spike

MS = Matrix Spike

ICB = Initial Calibration Blank

CCB = Continuing Calibration Blank

CRL = Client Required Reporting Limit

PDS = Post Digestion Spike

QCS = Quality Control Standard

ICSA = Interference Check Standard "A"

ICSAB = Interference Check Standard "AB"

BSD = Method Blank Spike Duplicate

MSD = Matrix Spike Duplicate

ICV = Initial Calibration Verification

CCV = Continuing Calibration Verification

OPR = Ongoing Precision and Recovery Standard

SD = Serial Dilution

CERTIFICATIONS (Certs)

Below is a list of certifications maintained by the Microbac Merrillville Laboratory. All data included in this report has been reviewed for and meets all project specific and quality control requirements of the applicable accreditation, unless otherwise noted. Complete lists of individual analytes pursuant to each certification below are available upon request.

d Illinois EPA drinking water, wastewater and solid waste analysis (#200064)

i Kansas Dept Health & Env. NELAP (#E-10397)

j Kentucky Wastewater Laboratory Certification Program (#108202)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)**MDL:** Minimum Detection Limit**RL:** Reporting Limit**RPD:** Relative Percent Difference**U:** The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

Cooler Receipt Log

Cooler ID: Default Cooler

Temp: 0.6°C
 MICROBAC®

Comments

Unable to analyze CN on 002 due to only receiving 2
H2SO4 preserved containers

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	No
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

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

RUSH!

CHAIN OF CUSTODY RECORD



Number **152330**
Instructions on back

Lab Report Address

Client Name: *Arcelor Mittal*

Address:

City, State, Zip:

Contact:

Telephone No.:

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

Project:

Location:

PO No.:

Sampled by (PRINT): *Warren Hand*

Sampler Signature: *Warren Hand*

Sampler Phone No.:

* 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

Client Sample ID	Date Collected	Time Collected	No. of Containers	Grab / Comp	Preservative Types **	Analysis	Requested Analysis	Additional Notes
001	8/18/19	07:05	65	9/6		TSS	Phenol	19H1102
011	8/18/19	06:35	65	9/6			Phenol	
002	8/18/19	08:15	2	9/6				

19H1102 Carey Gadzala
ArcelorMittal - Burns Harbor, IN
NPDES Parameters
08/18/2019

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

Comments

Relinquished By (signature) *Warren Hand*
Date/Time 8/18/19 09:00

Received By (signature) *Dan Farnsworth*
Date/Time 8/18/19 09:00

Relinquished By (signature) *Dan Farnsworth*
Date/Time 8/18/19 10:46

Received By (signature) *Nicole Rando*
Date/Time 8/18/19 10:40