



September 7, 2019

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

Work Order No.: 19I0379

Re: NPDES Excursion-CN

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 9/7/2019 9:45:00AM for the analyses presented in the following report as Work Order 19I0379.

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)



WORK ORDER SAMPLE SUMMARY**Date:** *Saturday, September 7, 2019*

Client: Arcelor Mittal USA, Inc.
Project: NPDES Excursion-CN
Lab Order: 19I0379

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19I0379-01	Lagoon Channel Inlet		09/07/2019 07:45	9/7/2019 9:45:00AM
19I0379-02	South Lagoon Inlet		09/07/2019 07:50	9/7/2019 9:45:00AM
19I0379-03	011		09/07/2019 07:55	9/7/2019 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

Analytical Results

Date: *Saturday, September 7, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0379-01
Client Project:	NPDES Excursion-CN	Sampled:	09/07/2019 7:45
Client Sample ID:	Lagoon Channel Inlet	Received:	09/07/2019 9:45
Sample Description:			
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SM 4500-CN C/E-1999			Analyst: AJR			
Total Cyanide		Prep Method: NA			Prep Date/Time: 09/07/2019 10:33			
Cyanide, Total	dij	A	ND	0.0050		mg/L	1	09/07/2019 13:01

Analytical Results

Date: *Saturday, September 7, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0379-02
Client Project:	NPDES Excursion-CN	Sampled:	09/07/2019 7:50
Client Sample ID:	South Lagoon Inlet	Received:	09/07/2019 9:45
Sample Description:			
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: SM 4500-CN C/E-1999		Analyst: AJR			
Total Cyanide			Prep Method: NA		Prep Date/Time: 09/07/2019 10:33			
Cyanide, Total	dij	A	ND	0.0050		mg/L	1	09/07/2019 13:02

Analytical Results

Date: *Saturday, September 7, 2019*

Client:	Arcelor Mittal USA, Inc.	Work Order/ID:	19I0379-03
Client Project:	NPDES Excursion-CN	Sampled:	09/07/2019 7:55
Client Sample ID:	011	Received:	09/07/2019 9:45
Sample Description:			
Matrix:	Aqueous		

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
		Method: SM 4500-CN C/E-1999			Analyst: AJR			
Total Cyanide		Prep Method: NA			Prep Date/Time: 09/07/2019 10:33			
Cyanide, Total	dij	A	ND	0.0050		mg/L	1	09/07/2019 13:04

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)**RL:** Reporting Limit**RPD:** Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler



Comments

No times on sample 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?	No
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?)	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

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CHAIN OF CUSTODY RECORD



Number **152360**
Instructions on back

RUSH

Turnaround Time

Routine (5 to 7 business days)
 RUSH* (notify lab)

Invoice Address

Lab Report Address
 Client Name: **Acceler with Ael**

TO BE COMPLETED BY MICROBAC
 Temperature Upon Receipt (°C) **6.1-0.3**
 Therm ID
 Holding Time **= 58⁰C**

Address:

Samples Received on Ice? Yes No N/A
 Custody Seals Intact? Yes No N/A

City, State, Zip:

(needed by)

Contact: **Terril Kirk**

Report Type

Telephone No.:

Level 1 Level 2 Level 3 Level 4 EDD

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

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

Project:

Compliance Monitoring? Yes No
 Agency/Program

Sampled by (PRINT): **Warren Hand**

Sampler Phone No.:

Sampler Signature:

* 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

REQUESTED ANALYSIS

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	HAZ	TSS	Nit	NO3	NO2	NO	AS	FS	Additional Notes
001	9/6/19		1		C		K	A	K	K	X			X	1970379
001	9/6/19		1		C		K	A	K	K	X			X	
001	9/6/19		3		C		K	A	K	K	X			X	
002	9/6/19		1		C										
002	9/6/19		2		C										
Legacy Chemical Isolat	9/7/19	0745	1		C						X				01
South Lake Superior Isolat	9/7/19	0750	1		C						X				02
011	9/7/19	0755	1		C						X				03

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

Comments

Relinquished By (signature): **Warren Hand** Date/Time: **9/7/19 0800**

Relinquished By (signature): **Warren Hand** Date/Time: **9/7/19 0810**

Received By (signature): **Warren Hand** Date/Time: **9/7/19 0810**

Received By (signature): **Warren Hand** Date/Time: **9/7/19 0815**