

Work Order No.: 19H1390

August 22, 2019

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

Re: NPDES Excursion-CN

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 8/22/2019 9:50:00AM for the analyses presented in the following report as Work Order 19H1390.

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

Date:

Thursday, August 22, 2019

Client: Arcelor Mittal USA, Inc.
Project: NPDES Excursion-CN

Lab Order: 19H1390

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1390-01	Lagoon Channel Inlet		08/22/2019 07:45	8/22/2019 9:50:00AM
19H1390-02	South Lagoon Inlet		08/22/2019 07:40	8/22/2019 9:50:00AM
19H1390-03	011		08/22/2019 07:55	8/22/2019 9:50:00AM



Analytical Results Thursday, August 22, 2019 Date:

Arcelor Mittal USA, Inc. Client: NPDES Excursion-CN **Client Project:**

Lagoon Channel Inlet Work Order/ID: 19H1390-01 **Client Sample ID:**

Sampled: 08/22/2019 7:45 **Sample Description:** Matrix: Aqueous Received: 08/22/2019 9:50

DF

Certs AT Result RL Units **Analyses** Qual Analyzed Method: SM 4500-CN C/E-1999 Analyst: ABG **Total Cyanide** Prep Method: NA Prep Date/Time: 08/22/2019 10:45 Cyanide, Total dij A 0.012 0.0050 mg/L 08/22/2019 14:49



Analytical Results Date: Thursday, August 22, 2019

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion-CN

Client Sample ID: South Lagoon Inlet Work Order/ID: 19H1390-02

 Sample Description:
 Sampled:
 08/22/2019
 7:40

 Matrix:
 Aqueous
 Received:
 08/22/2019
 9:50

Analyses Certs AT Result RL Qual Units DF Analyzed

 Method: SM 4500-CN C/E-1999
 Analyst: ABG

 Total Cyanide
 Prep Method: NA
 Prep Date/Time: 08/22/2019 10:45

 Cyanide, Total
 dij
 A
 0.0054
 0.0050
 mg/L
 1
 08/22/2019 14:51



Analytical Results Date: Thursday, August 22, 2019

Client: Arcelor Mittal USA, Inc.
Client Project: NPDES Excursion-CN

 Client Sample ID:
 011
 Work Order/ID:
 19H1390-03

 Sample Description:
 Sampled:
 08/22/2019
 7:55

 Matrix:
 Aqueous
 Received:
 08/22/2019
 9:50

Analyses Certs AT Result RL Qual Units DF Analyzed

 Method: SM 4500-CN C/E-1999
 Analyst: ABG

 Total Cyanide
 Prep Method: NA
 Prep Date/Time: 08/22/2019 10:45

 Cyanide, Total
 dij
 A
 0.0051
 0.0050
 mg/L
 1
 08/22/2019 14:53

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

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

PDS = Post Digestion Spike 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)

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?	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?)	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



CHAIN OF CUSTODY RECORD

RUSHI

MICROBAC*

DH1360 Prage 8 of Samples Received on Ice? W Yes □ No □ N/A Temperature Upon Receipt (°C) 5 - 0 - 5Therm ID 0890 Custody Seals Intact? ☐ Yes ☐ No ☐ N/A Additional Notes Date/Time 8/22/19 TO BE COMPLETED BY MICROBAC ☐ Level 1 ☐ Level 2 ☐ Level 3 ☐ Level 4 ☐ EDD Number 15231 Instructions on back Date/Time % □ ☐ Dispose as appropriate ☐ Return ☐ Archive ** Preservative Types: (1) HNO3, (2) H2SO4, (3) HCI, (4) NaOH, (5) Zinc Acetate, (6) Methanol, (7) Sodium Bisulfate, (8) Sodium Thiosulfate, (9) Hexane, (U) Unpreserved □ Yes Holding Time Compliance Monitoring? Received By (signature) * Matrix Types: Soil/Solid (S), Sludge, Oil, Wipe, Drinking Water (DW), Groundwater (GW), Surface Water (SW), Waste Water (WW), Other (specify) Received By (signature) Received By (signature) e-mail (address) ☐ Routine (5 to 7 business days) ☐ RUSH* (notify lab) Sampler Phone No.: **Furnaround Time** ☐ Results Only ☐ Mail ☐ Fax (needed by) Report Type 0560 282 Sample Disposition Send Invoice via: PO No.: 8 Date/Time 8/22 //9 Date/Time Preservative Types ** Grab / Comp Relinquished By (signature) Relinquished By (signature) Relinquished By (signature) Aatrix Sampler Signature: ☐ Hazardous ☐ Non-Hazardous ☐ Radioactive do. of Containers nvoice Address City, State, Zip: Telephone No.: Client Name: Address: Time Contact: Location: 1250 7470 0475 Date ☐ Fax ☐ e-mail (address) +buch 10/1 けっして TON KIT Client Name: Arcelor - ital Client Sample ID Clanne Sampled by (PRINT): Warth mag 600 4 ☐ Mail Possible Hazard Identification Lab Report Address rev.12/26/2017 Send Report via: City, State, Zip: Telephone No.: 19H1390 Carey Gadzala ArcelorMittal - Burns Harbor, IN Carey Gadzala Contact: Project: NPDES Excursion-CN 08/22/2019