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August 23, 2019

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

Work Order No.: 19H1497

Re: NPDES Excursion-CN

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 3 sample(s) on 8/23/2019 10:00:00AM for the analyses presented in the following report as Work Order 19H1497.

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

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## WORK ORDER SAMPLE SUMMARY

**Date:** *Friday, August 23, 2019*

**Client:** Arcelor Mittal USA, Inc.
**Project:** NPDES Excursion-CN
**Lab Order:** 19H1497

| Lab Sample ID | Client Sample ID | Tag Number | Collection Date | Date Received |
|---|---|---|---|---|
| 19H1497-01 | Lagoon Channel Inlet | | 08/23/2019 07:55 | 8/23/2019 10:00:00AM |
| 19H1497-02 | South Lagoon Inlet | | 08/23/2019 08:00 | 8/23/2019 10:00:00AM |
| 19H1497-03 | 011 | | 08/23/2019 08:10 | 8/23/2019 10:00:00AM |

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# Analytical Results

**Date:** *Friday, August 23, 2019*

**Client:** Arcelor Mittal USA, Inc.
**Client Project:** NPDES Excursion-CN
**Client Sample ID:** Lagoon Channel Inlet
**Sample Description:**
**Matrix:** Aqueous

**Work Order/ID:** 19H1497-01
**Sampled:** 08/23/2019 7:55
**Received:** 08/23/2019 10:00

| 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: **08/23/2019 14:00** |
| Cyanide, Total | **dij** | A | ***ND*** | 0.0059 | | mg/L | 1 | 08/23/2019 15:59 |

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# Analytical Results

**Date:** *Friday, August 23, 2019*

**Client:** Arcelor Mittal USA, Inc.
**Client Project:** NPDES Excursion-CN
**Client Sample ID:** South Lagoon Inlet
**Sample Description:**
**Matrix:** Aqueous

**Work Order/ID:** 19H1497-02
**Sampled:** 08/23/2019 8:00
**Received:** 08/23/2019 10:00

| 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: **08/23/2019 14:00** |
| Cyanide, Total | **dij** | A | ***ND*** | 0.0050 | | mg/L | 1 | 08/23/2019 16:00 |

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# Analytical Results

**Date:** *Friday, August 23, 2019*

**Client:** Arcelor Mittal USA, Inc.
**Client Project:** NPDES Excursion-CN
**Client Sample ID:** 011
**Sample Description:**
**Matrix:** Aqueous

**Work Order/ID:** 19H1497-03
**Sampled:** 08/23/2019 8:10
**Received:** 08/23/2019 10:00

| 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: **08/23/2019 14:00** |
| Cyanide, Total | **dij** | A | ***ND*** | 0.0050 | | mg/L | 1 | 08/23/2019 16:02 |

**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 Temp: °C

**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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**RUSH!**

# CHAIN OF CUSTODY RECORD

Number 152320

*Instructions on back*

**Lab Report Address**

Client Name: Arcelor Mittal

Address:

City, State, Zip:

Contact: Teri Kirk

Telephone No.:

**Invoice Address**

Client Name:

Address:

City, State, Zip:

Contact:

Telephone No.:

**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

*TO BE COMPLETED BY MICROBAC*

Temperature Upon Receipt (°C) 2.9 − 0.3 = 2.6

Therm ID

Holding Time

Samples Received on Ice? ☒ Yes ☐ No ☐ N/A

Custody Seals Intact? ☐ Yes ☐ No ☒ N/A

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

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

Project:

Location:

PO No.:

Compliance Monitoring? ☐ Yes ☐ No
☐ Agency/Program

Sampled by (PRINT): Warren Howard

Sampler Signature:

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

REQUESTED ANALYSIS

| Lab ID | Client Sample ID | Date Collected | Time Collected | No. of Containers | Matrix | Grab / Comp | Preservative Types ** | Cyanide | | | | | | | | | | Additional Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Lagoon Channel Inlet | 8/23/19 | 0755 | 1 | | G | | X | | | | | | | | | | 19H1497 -01 |
| | South Lagoon Inlet | " | 0800 | 1 | | G | | X | | | | | | | | | | -02 |
| | 011 | " | 0810 | 1 | | G | | X | | | | | | | | | | -03 |
| | | | | | | | | | | | | | | | | | | |
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Hazard Identification ☐ Hazardous ☐ Non-Hazardous ☐ Radioactive

Sample Disposition ☐ Dispose as appropriate ☐ Return ☐ Archive

| Relinquished By (signature) | Date/Time | Received By (signature) | Date/Time |
|---|---|---|---|
| | 8/23/19 0840 | | 8/23/19 0840 |
| | 8/23/19 1000 | | |
| | | | 8/23/19 1600 |

19H1497 Carey Gadzala
ArcelorMittal - Burns Harbor, IN
NPDES Excursion-CN
08/23/2019

2017