August 27, 2019

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

Work Order No.: 19H1668

Re: Ammonia-Storm Ditch

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 8 sample(s) on 8/27/2019 9:55:00AM for the analyses presented in the following report as Work Order 19H1668.

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: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Project: Ammonia-Storm Ditch
Lab Order: 19H1668

Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
19H1668-01	Plate Mill Storm Ditch		08/27/2019 00:00	8/27/2019 9:55:00AM
19H1668-02	Main Storm Ditch		08/26/2019 00:00	8/27/2019 9:55:00AM
19H1668-03	Cannon Storm Ditch		08/27/2019 00:00	8/27/2019 9:55:00AM
19H1668-04	NW Storm Ditch		08/27/2019 00:00	8/27/2019 9:55:00AM
19H1668-05	SWTP Effluent/Clarifiers		08/27/2019 00:00	8/27/2019 9:55:00AM
19H1668-06	001		08/27/2019 00:00	8/27/2019 9:55:00AM
19H1668-07	999		08/27/2019 00:00	8/27/2019 9:55:00AM
19H1668-08	031		08/27/2019 00:00	8/27/2019 9:55:00AM

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: Plate Mill Storm Ditch
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-01
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/27/2019 14:57

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: Main Storm Ditch
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-02
Sampled: 08/26/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/27/2019 15:09

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: Cannon Storm Ditch
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-03
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/27/2019 15:12

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: NW Storm Ditch
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-04
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***0.10***	0.10		mg/L	1	08/27/2019 15:14

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: SWTP Effluent/Clarifiers
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-05
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***0.16***	0.10		mg/L	1	08/27/2019 15:17

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: 001
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-06
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***0.34***	0.10		mg/L	1	08/27/2019 15:19

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: 999
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-07
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***ND***	0.10		mg/L	1	08/27/2019 15:21

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Analytical Results

Date: *Tuesday, August 27, 2019*

Client: Arcelor Mittal USA, Inc.
Client Project: Ammonia-Storm Ditch
Client Sample ID: 031
Sample Description:
Matrix: Aqueous

Work Order/ID: 19H1668-08
Sampled: 08/27/2019 0:00
Received: 08/27/2019 9:55

Analyses	Certs	AT	Result	RL	Qual	Units	DF	Analyzed
			Method: **EPA 350.1 Rev 2.0**				Analyst: **ABG**	
Nitrogen, Ammonia as N			Prep Method: **EPA 350.1 Rev 2.0**				Prep Date/Time: **08/27/2019 14:15**	
Nitrogen, Ammonia (As N)	**di**	A	***0.17***	0.10		mg/L	1	08/27/2019 15:33

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)

FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

RL: Reporting Limit
RPD: Relative Percent Difference

Cooler Receipt Log

Cooler ID: Default Cooler Temp: 1.1°C

Comments

No time. Samples preserved at lab

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?)	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

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CHAIN OF CUSTODY RECORD

Number 152555

Instructions on back

Lab Report Address
Client Name: Arcelor mittal Burns Harbor
Address:
City, State, Zip:
Contact: Terri Rist
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) 1.4
Therm ID -0.3
Holding Time 1.1
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): Eric Warren Hawley
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

Client Sample ID	Date Collected	Time Collected	No. of Containers	Matrix	Grab / Comp	Preservative Types **	Ammonia									19H1668 Additional Notes
Storm Ditch Plate	8/27/19		1		G		X									-01
Storm Ditch main	8/26/19		1		C		X									-02
Storm Ditch Cannon	8/27/19		1		G		X									-03
Storm Ditch Mill	8/27/19		1		G		X									-04
SWTP clarifier	8/27/19		1		G		X									-05
001 flume	8/27/19		1		G		X									-06
999	8/27/19		1		G		X									-07
03	8/27/19		1		G		X									-08

19H1668
Carey Gadzala
ArcelorMittal - Burns Harbor, IN
Ammonia-Storm Ditch
08/27/2019

Hazard Identification ☐ Hazardous ☐ Non-Hazardous ☐ Radioactive

Sample Disposition ☐ Dispose as appropriate ☐ Return ☐ Archive

Relinquished By (signature)	Date/Time	Received By (signature)	Date/Time
Warren Hawley	8/27/19 0800	[illegible]	8/27/19 0800
[illegible]	8/27/19 0955		
		[illegible]	8/27/19 0955

rev.12/26/2017