

September 20, 2019

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

Work Order No.: 19I1262

Re: Ammonia-Storm Ditch

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 8 sample(s) on 9/20/2019 10:25:00AM for the analyses presented in the following report as Work Order 19/1262.

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.

Carup Macizala

Carey Gadzala Project Manager

Microbac Laboratories, Inc.



	DER SAMPLE SUMMARY		Date:	Friday, September 20, 2019
Project: A	Arcelor Mittal USA, Inc. Ammonia-Storm Ditch 911262			
Lab Sample II	D Client Sample ID	Tag Number	Collection Date	Date Received
1911262-01	Plate Mill Storm Ditch		09/20/2019 00:00	9/20/2019 10:25:00AM
1911262-02	Main Storm Ditch		09/20/2019 00:00	9/20/2019 10:25:00AM
1911262-03	Cannon Storm Ditch		09/20/2019 00:00	9/20/2019 10:25:00AM
19 1262-04	NW Storm Ditch		09/20/2019 00:00	9/20/2019 10:25:00AM
1911262-05	SWTP Effluent/Clarifiers		09/20/2019 00:00	9/20/2019 10:25:00AM
1911262-06	031		09/20/2019 00:00	9/20/2019 10:25:00AM
1911262-07	001		09/20/2019 00:00	9/20/2019 10:25:00AM
1911262-08	999		09/20/2019 00:00	9/20/2019 10:25:00AM

Analytical Re	esults					Date:	Frida	ay, Se	eptember 20, 2019
Client: Client Project:	Arcelor Mittal USA, Inc. Ammonia-Storm Ditch					Wo	ork Order/IE	):	19 1262-01
Client Sample ID: Sample Description:	Plate Mill Storm Ditch						mpled: ceived:		09/20/2019 0:00 09/20/2019 10:25
Matrix:	Aqueous								
Analyses		Certs	AT	Result	RL	Qual	Units	DF	Analyzed
				Meth	od: EPA 350.1 Rev	2.0		Analy	st: ABG
Nitrogen, Ammonia	as N			Prep Meth	od: EPA 350.1 Rev	2.0	Prep Da	ate/Tim	e:09/20/2019 11:41

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

Analytical Re	esults					Date	e: Frie	day, S	eptember 20, 2019
Client: Client Project:	Arcelor Mittal USA, Inc. Ammonia-Storm Ditch						Work Order/	ID:	19 1262-02
Client Sample ID:	Main Storm Ditch						Sampled:		09/20/2019 0:00
Sample Description: Matrix:	Aqueous						Received:		09/20/2019 10:25
Analyses		Certs	AT	Result	R	L Qual	Units	DF	Analyzed
				Meth	od: EPA 350.1 F	ev 2.0		Analy	/st:ABG
Nitrogen, Ammonia a	as N			Prep Meth	od: EPA 350.1 F	lev 2.0	Prep [	Date/Tir	ne:09/20/2019 11:41

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

Analytical Re	esults						Date:	Fric	day, Se	eptember 20, 2019
Client: Client Project:	Arcelor Mittal USA, Inc. Ammonia-Storm Ditch						Wo	ork Order/	ID:	19 1262-03
Client Sample ID: Sample Description:	Cannon Storm Ditch							mpled: ceived:		09/20/2019 0:00 09/20/2019 10:25
Matrix:	Aqueous									
Analyses		Certs	AT	Result	F	٦L	Qual	Units	DF	Analyzed
				Meth	od: EPA 350.1	Rev	2.0		Analy	rst: ABG
Nitrogen, Ammonia	as N			Prep Meth	od: EPA 350.1	Rev	2.0	Prep [	Date/Tim	ne:09/20/2019 11:41

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

Analytical Re	esults						Date:	Frida	ay, Se	eptember 20, 2019
Client: Client Project:	Arcelor Mittal USA, Inc. Ammonia-Storm Ditch						Wo	ork Order/II	D:	1911262-04
Client Sample ID: Sample Description:	NW Storm Ditch							mpled: ceived:		09/20/2019 0:00 09/20/2019 10:25
Matrix:	Aqueous						Re	ceiveu.		09/20/2019 10.25
Analyses		Certs	AT	Result		RL	Qual	Units	DF	Analyzed
				Meth	nod: EPA 350.1	Rev	2.0		Analy	st: ABG
Nitrogen, Ammonia a	as N			Prep Meth	nod: EPA 350.1	l Rev	2.0	Prep Da	ate/Tin	ne:09/20/2019 11:41

ND

0.10

А

di

Nitrogen, Ammonia (As N)

mg/L

1

Analytical Re	esults					Date:	Friday,	September 20, 2	019
Client: Client Project:	Arcelor Mittal USA, Inc. Ammonia-Storm Ditch					Wa	ork Order/ID:	1911262	2-05
Client Sample ID:	SWTP Effluent/Clarifiers					Sa	mpled:	09/20/2019 (	0:00
Sample Description:						Re	ceived:	09/20/2019 10	0:25
Matrix:	Aqueous								
Analyses		Certs	AT	Result	RL	Qual	Units	DF Analyzed	
				Method:	EPA 350.1 Rev	2.0	Ar	nalyst: ABG	
Nitrogen, Ammonia	as N			Prep Method:	EPA 350.1 Rev	2.0	Prep Date/	/Time:09/20/2019 11:4	1

A 0.16

di

Nitrogen, Ammonia (As N)

mg/L

0.10

#### **Analytical Results** Date: Friday, September 20, 2019 Arcelor Mittal USA, Inc. **Client:** Ammonia-Storm Ditch **Client Project:** Work Order/ID: 1911262-06 031 09/20/2019 0:00 **Client Sample ID:** Sampled: 09/20/2019 10:25 Sample Description: Received: Matrix: Aqueous Certs AT Result RL Units Analyses Qual DF Analyzed Method: EPA 350.1 Rev 2.0 Analyst: ABG Prep Method: EPA 350.1 Rev 2.0 Prep Date/Time: 09/20/2019 11:41 Nitrogen, Ammonia as N

0.13

А

di

Nitrogen, Ammonia (As N)

0.10

mg/L

1

#### **Analytical Results** Date: Friday, September 20, 2019 Arcelor Mittal USA, Inc. **Client:** Ammonia-Storm Ditch **Client Project:** Work Order/ID: 19|1262-07 001 09/20/2019 0:00 **Client Sample ID:** Sampled: 09/20/2019 10:25 Sample Description: Received: Matrix: Aqueous Certs AT Result RL Units Analyses Qual DF Analyzed Method: EPA 350.1 Rev 2.0 Analyst: ABG Prep Date/Time: 09/20/2019 11:41 Prep Method: EPA 350.1 Rev 2.0 Nitrogen, Ammonia as N

0.28

А

di

Nitrogen, Ammonia (As N)

0.10

mg/L

1

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#### **Analytical Results** Date: Friday, September 20, 2019 Arcelor Mittal USA, Inc. **Client: Client Project:** Ammonia-Storm Ditch Work Order/ID: 1911262-08 999 09/20/2019 0:00 **Client Sample ID:** Sampled: 09/20/2019 10:25 Sample Description: Received: Matrix: Aqueous Certs AT Result RL Units Analyses Qual DF Analyzed Method: EPA 350.1 Rev 2.0 Analyst: ABG Prep Method: EPA 350.1 Rev 2.0 Prep Date/Time: 09/20/2019 12:51 Nitrogen, Ammonia as N

0.17

А

di

Nitrogen, Ammonia (As N)

0.10

mg/L

1

#### 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

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#### 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)
- <sup>i</sup> 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

#### 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



Cur   Ministry     Cur   Ministry     Cur   Ministry     Cur   Ministry     Cur   Ministry     Cur   Ministry     Ministry   Ministry	MICROBAC*				CHAIN OF CUSTODY RECORD
And Marken   Three conditions   Three conditions   Three conditions     Inter Name:   Provide (5 to 7 basheses day)   Provide (5 to 7 basheses day)     Address:   Provide (5 to 7 basheses day)   Provide (5 to 7 basheses day)     Inter Name:   Provide (5 to 7 bashese day)   Provide (5 to 7 bashese day)     Inter Name:   Provide (5 to 7 bashese day)   Provide (5 to 7 bashese day)     Inter Name:   Provide (5 to 7 bashese day)   Provide (5 to 7 bashese day)     Inter Name:   Provide (5 to 7 bashese day)   Provide (5 to 7 bashese day)     Inter Name:   Provide (5 to 7 bashese day)   Provide (5 to 7 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to 1 bashese day)   Provide (1 to 1 bashese day)     Inter Name:   Provide (1 to		1			Number Jooo
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Cーント   Sampler Priore No:   Sampler Signatue:   Sampler Priore No:   Sampler Signatue:   Sampler Signatue:   Sampler O(N), Grundweter (GN), Surface Water (SN), Water Water (WN), Other (specify)   (1) HNO3, (2) H2504, (3) Ed), (5) Zinc Aztata, (5) Meathanol, (7) Sodium Bisulfate, (9) Aster Water (WN), Other (specify)   (1) HNO3, (2) H2504, (3) Ed), (5) Zinc Aztata, (5) Meathanol, (7) Sodium Bisulfate, (9) Aster Water (WN), Other (specify)   (1) HNO3, (2) H2504, (3) Ed), (5) Zinc Aztata, (5) Meathanol, (7) Sodium Bisulfate, (9) Haster (10) Inpresented   (1) HNO3, (2) H2504, (3) H2, (4) NaOh, (5) Zinc Aztata, (5) Meathanol, (7) Sodium Bisulfate, (9) Haster (10) Inpresented   (1) HNO3, (2) H2504, (3) H3, (4) H3   (1) HAD   (1) HAD   (1) H2   (1) H2   (1) H2   (1) H2   (1) H2   (1) H2   (2) H2	ject:	Location:	PO No.:	Compliance Monit	□ Yes
* Writh Type: SoliCold (3), Sudge, Oil, Weite Dividing Weiter (DW), Genuchaterer (DW), Weite Weiter (DW), Other (specify) * Preservative Types: (1) HNO3, (2) HSO4, (3) HO4, (5) Zinc Acetater, (6) Methand, (7) Sodum Bialitate, (8) Sodum Thomater, (0) Upreservat * Collection Type: Collection Coll	Ĩ	Sampler Signature:	Sampler Ph	one No.:	
RECRET IN ALL     RECRET IN ALL     RECRET IN ALL     Constances     Start Dirty Dirt		ludge, Oil, Wipe, Drinking Water (DW), Groundwater (GV 42SO4, (3) HCl, (4) NaOH, (5) Zinc Acetate, (6) Methar	W), Surface Water (SW), Waste V nol, (7) Sodium Bisulfate, (8) Soc	Vater (WW), Other (specify dium Thiosulfate, (9) Hexan	) e, (U) Unpreserved
Static Dist.   Date   The   Contract   Contract   Contract   Contract     Static Dist.   Contract   Contract   Contract   Contract   Contract   Contract   Contract     Static Dist.   Contract   Contract   Contract   Contract   Contract   Contract   Contract     Static Dist.   Contract   Contract   Contract   Contract   Contract   Contract   Contract     Static Dist.   Contract   Contract   Contract   Contract   Contract   Contract   Contract     State Dist.   Contract   Contract   Contract   Contract   Contract   Contract   Contract     State Dist.   Contract   Contract   Contract   Contract   Contract   Contract     Contract   Contract<		LIS		REQUESTED ANALYSIS	
Total   Clear Same ID   Date   Time   Mill     Status Distance ID   Collected	Arc				6
Star. Dist.   Picte   Picto   Picto <td>262 elorMiti</td> <td>Collected Mo. of C Matrix Grab / C Grab / C</td> <td></td> <td></td> <td>19 Il 262</td>	262 elorMiti	Collected Mo. of C Matrix Grab / C Grab / C			19 Il 262
Star   Dit   M <th< td=""><td>Total Ditch P</td><td>26/19 1</td><td></td><td></td><td>-0/</td></th<>	Total Ditch P	26/19 1			-0/
Stor-Di-L   Nu   Nu   Nu     Stor-Di-L   Nu   Nu </td <td>THE DIFL</td> <td></td> <td>7</td> <td></td> <td>20-</td>	THE DIFL		7		20-
Place Circle Construction of the construction	Stor-Dity		Х		20.2
Surp Clearly in   In   In   In   In   In   In     031   031   0   0   0   0   0   0     031   031   0   0   0   0   0   0     031   0   0   0   0   0   0   0     031   0   0   0   0   0   0   0     031   0   0   0   0   0   0   0     031   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   0     201   0   0   0   0   0   0   <	フキン ロンナラ ala	-	*		100
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ILL   ILL   ILL   ILL   ILL     Hazardous   Non-Hazardous   Radioactive   Sample Disposition   Dispose as appropriate   Return   - 10%     Hazardous   Non-Hazardous   Radioactive   Sample Disposition   Dispose as appropriate   Return   - 10%     Relinquished By (signature)   Date/Time   Received By (signature)   Date/Time   Received By (signature)   Date/Time     Relinquished By (signature)   Date/Time   Received By (signature)   Date/Time   Received By (signature)   Date/Time     Relinquished By (signature)   Date/Time   Received By (signature)   Date/Time   Received By (signature)   Date/Time			<		00,
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