

## Partial 9/11/2019

September 11, 2019

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

Work Order No.: 1910576

Re: Daily

Dear Teri Kirk:

Microbac Laboratories, Inc. - Chicagoland Division received 23 sample(s) on 9/11/2019 10:05:00AM for the analyses presented in the following report as Work Order 1910576.

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 Macipala

Carey Gadzala Project Manager

Microbac Laboratories, Inc.



# Partial 9/11/2019

#### WORK ORDER SAMPLE SUMMARY

Daily

Arcelor Mittal USA, Inc.

Client:

Project:

Lab Order: 19105	576			
Lab Sample ID	Client Sample ID	Tag Number	Collection Date	Date Received
1910576-01	011-Composite	011	09/10/2019 06:00	9/11/2019 10:05:00AM
1910576-02	011-Grab	011	09/10/2019 06:00	9/11/2019 10:05:00AM
1910576-03	001-Composite	001	09/10/2019 06:20	9/11/2019 10:05:00AM
1910576-04	001-Grab	001	09/10/2019 06:20	9/11/2019 10:05:00AM
1910576-05	031-Grab	031	09/11/2019 06:42	9/11/2019 10:05:00AM
1910576-06	Mixed Liquor-Grab	Mixed Liquor	09/11/2019 06:45	9/11/2019 10:05:00AM
1910576-07	J-Box-Grab	J-Box	09/11/2019 06:40	9/11/2019 10:05:00AM
1910576-08	WWII-Grab	WWII	09/11/2019 07:10	9/11/2019 10:05:00AM
1910576-09	Coldwell-Grab	Coldwell	09/11/2019 07:30	9/11/2019 10:05:00AM
1910576-10	RSB FT Overflow-Grab	RSB FT Overflow	09/11/2019 08:00	9/11/2019 10:05:00AM
1910576-11	RSB FT Influent-Grab	RSB FT Influent	09/11/2019 08:01	9/11/2019 10:05:00AM
1910576-12	WPL-Grab	WPL	09/09/2019 07:20	9/11/2019 10:05:00AM
1910576-13	999-Grab	999	09/11/2019 08:22	9/11/2019 10:05:00AM
1910576-14	BFTC-Grab	BFTC	09/11/2019 08:30	9/11/2019 10:05:00AM
1910576-15	002-Composite	002	09/10/2019 08:33	9/11/2019 10:05:00AM
1910576-16	002-Grab	002	09/10/2019 08:33	9/11/2019 10:05:00AM
1910576-17	WAL-Grab	WAL	09/10/2019 08:43	9/11/2019 10:05:00AM
1910576-19	CM1-Grab	CM1	09/11/2019 00:00	9/11/2019 10:05:00AM
1910576-20	CM2-Grab	CM2	09/11/2019 00:00	9/11/2019 10:05:00AM
1910576-21	CM6 Grab	CM6	09/11/2019 00:00	9/11/2019 10:05:00AM
1910576-22	HM2-Grab	HM2	09/11/2019 00:00	9/11/2019 10:05:00AM
1910576-23	HM3-Grab	HM3	09/11/2019 00:00	9/11/2019 10:05:00AM



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## Field Results

Date: Wednesday, September 11, 2019

Client: Client Project:	Arcelor Mittal USA, Inc. Daily	Work Order:	1910576
Client Sample ID:	011-Grab	Work Order/ID:	1910576-02
Sample Description:	011	Sampled:	09/10/2019 06:00
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.8	pH Units
Client Sample ID:	001-Grab	Work Order/ID:	1910576-04
Sample Description:	001	Sampled:	09/10/2019 06:20
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
FLD_CL_TITR		0.00	mg/L
рН		7.7	pH Units
Client Sample ID:	J-Box-Grab	Work Order/ID:	1910576-07
Sample Description:	J-Box	Sampled:	09/11/2019 06:40
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
pН		8.7	pH Units
Client Sample ID:	RSB FT Overflow-Grab	Work Order/ID:	1910576-10
Sample Description:	RSB FT Overflow	Sampled:	09/11/2019 08:00
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
рН		8.9	pH Units
Client Sample ID:	999-Grab	Work Order/ID:	1910576-13
Sample Description:	999	Sampled:	09/11/2019 08:22
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
рН		7.9	pH Units
Client Sample ID:	002-Grab	Work Order/ID:	1910576-16
Sample Description:	002	Sampled:	09/10/2019 08:33
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
рН		8.2	pH Units
Client Sample ID:	WAL-Grab	Work Order/ID:	1910576-17
Sample Description:	WAL	Sampled:	09/10/2019 08:43
Matrix:	Aqueous	Received:	09/11/2019 10:05
Analyses		Result	Units
pH		8.9	pH Units

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## **Field Results**

## Partial 9/11/2019

### **Analytical Results**

Date: Wednesday, September 11, 2019

Client: Client Project:	Arcelor Mittal US/ Daily	A, Inc.								
Client Sample ID:	011-Composite							Work (	Order/ID:	1910576-01
Sample Description:	011							Sampl	ed:	09/10/2019 6:00
Matrix:	Aqueous							Receiv		09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: El	PA 200.7 Re	v 4.4			Ana	alyst: RPL
<b>Total Recoverable Me</b>	tals by ICP								Prep Date/1	Time:09/11/2019 10:36
Lead		eij	Α	ND	0.0033	0.0075	U	mg/L	1	09/11/2019 13:42
Zinc		eij	Α	0.0075	0.0073	0.020		mg/L	1	09/11/2019 13:42
				Method: SI	M 4500-CN	C/E-1999			Ana	alyst: ABG
Total Cyanide										Time: 09/11/2019 11:43
Cyanide, Total		eij	Α	0.0027	0.0020	0.0050		mg/L	1	09/11/2019 13:56
				Method: 81	N-846 9014				٨٣	alyst: ABG
Free Cyanide				Method. 3	19-040 5014					lime:09/11/2019 11:33
Free Cyanide			Α	ND		0.0062		mg/L	1	09/11/2019 13:41
				Mathad: E	PA 350.1 Re				٨٣	alvst: ABG
Nitrogen, Ammonia a	e N			Method. El	PA 350.1 Re	V 2.0				lime:09/11/2019 12:35
Nitrogen, Ammonia (A		ei	A	0.21	0.054	0.10		mg/L	1	09/11/2019 13:31
	,			Matha di El						
Total Phenolics				Method: El	PA 420.4 Re	v 1.0				alyst: <b>ABG</b> Fime: <b>09/11/2019 12:17</b>
	vorabla	eij	A	ND	0.0060	0.010	U	mg/L	1	09/11/2019 13:39
Phenolics, Total Reco	VEIADIE	eij	A	ND	0.0000	0.010	U	mg/L		09/11/2019 13.39
				Method: SI	M 2540 D-19	997			Ana	alyst: <b>KMT</b>
<b>Total Suspended Soli</b>	ds								Prep Date/1	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	2.8	1.0	1.0		mg/L	1	09/11/2019 12:24

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### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	011-Grab							Work (	Order/ID:	1910576-02
Sample Description:	011							Sampl	ed:	09/10/2019 6:00
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				Ar	nalyst: <b>KMT</b>
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:09/11/2019 07:52
Oil & Grease (HEM)		eij	Α	ND	1.4	5.0	U	mg/L	1	09/11/2019 14:09

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### **Analytical Results**

Date: Wednesday, September 11, 2019

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	001-Composite							Work C	Order/ID:	1910576-03
Sample Description:	001							Sample	ed:	09/10/2019 6:20
Matrix:	Aqueous							Receiv	ed:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 200.7 Re	ev 4.4				lyst: RPL
Total Recoverable Me	tals by ICP								Prep Date/T	ïme:09/11/2019 10:36
Copper		eij	Α	ND	0.0013	0.010		mg/L	1	09/11/2019 13:47
Lead		eij	Α	ND	0.0033	0.0075	U	mg/L	1	09/11/2019 13:47
Zinc		eij	A	ND	0.0073	0.020	U	mg/L	1	09/11/2019 13:47
				Method: E	PA 200.8 Re	ev 5.4			Ana	alyst: BTM
Total Recoverable Me	tals by ICP/MS								Prep Date/T	ime:09/11/2019 10:36
Silver		eij	Α	ND	0.000053	0.00060	U	mg/L	1	09/11/2019 13:58
				Method: 6	M 4500-CN	C/E 1000			۸nc	alyst: ABG
Total Cyanide				Wethou. 3	WI 4500-CIN	C/E-1999				ime:09/11/2019 11:43
Cyanide, Total		eij	Α	0.0027	0.0020	0.0050		mg/L	1	09/11/2019 14:04
Oyanide, Iotai		Cij								
				Method: S	W-846 9014	ŀ				alyst: ABG
Free Cyanide									· ·	ïme:09/11/2019 11:33
Free Cyanide			A	ND		0.0062		mg/L	1	09/11/2019 13:42
				Method: E	PA 350.1 Re	ev 2.0			Ana	alyst: ABG
Nitrogen, Ammonia as	5 N								Prep Date/T	ime:09/11/2019 12:35
Nitrogen, Ammonia (A	s N)	ei	Α	0.24	0.054	0.10		mg/L	1	09/11/2019 13:33
				Method: E	PA 420.4 Re	av 1.0			Δna	alyst: ABG
Total Phenolics				moulou.E	1 A 420.4 IX					ime:09/11/2019 12:17
Phenolics, Total Reco	verable	eij	A	ND	0.0060	0.010	U	mg/L	1	09/11/2019 13:41
		0.j					~	5		
				Method: S	M 2540 D-1	997				alyst: <b>KMT</b>
Total Suspended Solid									· · ·	ïme:09/11/2019 10:45
Total Suspended Solid	IS	eij	A	ND	1.0	1.0	U	mg/L	1	09/11/2019 12:24

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### **Analytical Results**

Client:	Arcelor Mittal US	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	001-Grab							Work (	Order/ID:	1910576-04
Sample Description:	001							Sampl	ed:	09/10/2019 6:20
Matrix:	Aqueous							Receiv	ed:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				Ar	nalyst: <b>KMT</b>
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:09/11/2019 07:52
Oil & Grease (HEM)		eij	Α	ND	1.4	5.0	U	mg/L	1	09/11/2019 14:09

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### **Analytical Results**

Client:	Arcelor Mittal L	ISA, Inc.								
Client Project:	Daily									
Client Sample ID:	031-Grab							Work	Order/ID:	1910576-05
Sample Description:	031							Samp	ed:	09/11/2019 6:42
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	3.6	1.0	1.0		mg/L	1	09/11/2019 12:24

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### **Analytical Results**

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID:	Mixed Liquor-Grat	)						Work	Order/ID:	1910576-06
Sample Description:	Mixed Liquor							Samp	led:	09/11/2019 6:45
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	6M 2540 F-19	97			An	alyst: DAT
Settleable Solids									Prep Date/	Time:09/11/2019 11:35
Settleable Solids		i	Α	150	1.0	1.0		ml/L	1	09/11/2019 11:35
				Method: S	6M 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solic	ls	eij	Α	1600	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal USA Daily	A, Inc.								
Client Project: Client Sample ID:	J-Box-Grab							Work	Order/ID:	1910576-07
Sample Description:	J-Box							Sampl		09/11/2019 6:40
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: El	PA 350.1 Re	v 2.0			Ana	alyst: ABG
Nitrogen, Ammonia as	5 N								Prep Date/1	Time: 09/11/2019 12:35
Nitrogen, Ammonia (A	s N)	ei	A	0.43	0.054	0.10		mg/L	1	09/11/2019 13:36
				Method: El	PA 420.4 Rev	v 1.0			Ana	alyst: ABG
Total Phenolics									Prep Date/1	Time:09/11/2019 12:17
Phenolics, Total Reco	verable	eij	Α	ND	0.0060	0.010	U	mg/L	1	09/11/2019 13:43
				Method: SI	M 2540 D-19	97			Ana	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/1	Time: 09/11/2019 10:45
Total Suspended Solid	ls	eij	Α	10	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal US	A, Inc.								
Client Project:	Daily									
Client Sample ID:	WWII-Grab							Work	Order/ID:	1910576-08
Sample Description:	WWII							Samp	ed:	09/11/2019 7:10
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide									Prep Date/	Time:09/11/2019 11:43
Cyanide, Total		eij	Α	0.012	0.0020	0.0050		mg/L	1	09/11/2019 14:06

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### **Analytical Results**

Client:	Arcelor Mittal USA	A, Inc.								
Client Project:	Daily									
Client Sample ID:	Coldwell-Grab							Work C	Order/ID:	1910576-09
Sample Description:	Coldwell							Sample	ed:	09/11/2019 7:30
Matrix:	Aqueous							Receiv	ed:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	M 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide									Prep Date/	Time:09/11/2019 11:43
Cyanide, Total		eij	A	0.0064	0.0020	0.0050	mg/	L	1	09/11/2019 14:08
				Method: E	PA 350.1 Re	v 2.0			An	alyst: ABG
Nitrogen, Ammonia as	s N								Prep Date/	Time:09/11/2019 12:35
Nitrogen, Ammonia (A	ls N)	ei	A	55	0.54	1.0	mg/	L	1	09/11/2019 13:38
				Method: S	M 2540 D-19	997			An	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ls	eij	Α	110	1.0	1.0	mg/	L	1	09/11/2019 12:24

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### **Analytical Results**

Client: Client Project:	Arcelor Mittal USA Daily	, Inc.								
Client Sample ID: Sample Description: Matrix:	RSB FT Overflow- RSB FT Overflow Aqueous	Grab						Work Sampl Receiv		19I0576-10 09/11/2019 8:00 09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
Nitrogen, Ammonia as	: N			Method:	EPA 350.1 Re	v 2.0				alyst: <b>ABG</b> Time: <b>09/11/2019 12:35</b>
Nitrogen, Ammonia (A		ei	A	8.2	0.054	0.10	r	ng/L	1	09/11/2019 13:45
				Method:	SM 2540 D-19	97				alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solic	ls	eij	Α	10	1.0	1.0	r	ng/L	1	09/11/2019 12:24



### **Analytical Results**

Client: Client Project:	Arcelor Mittal US	A, Inc.								
Client Sample ID:	RSB FT Influent-0	Grab						Work	Order/ID:	1910576-11
Sample Description:	RSB FT Influent							Sampl	ed:	09/11/2019 8:01
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	997			Ar	nalyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ls	eij	Α	1000	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal USA	A, Inc.								
Client Project:	Daily									
Client Sample ID:	WPL-Grab							Work C	Order/ID:	1910576-12
Sample Description:	WPL							Sample	ed:	09/09/2019 7:20
Matrix:	Aqueous							Receiv	ed:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	M 2710 F-20	004			An	alyst: DAT
Specific Gravity									Prep Date/	Time:09/11/2019 12:08
Specific Gravity			Α	1.31	0.0100	0.0100		T/4 C	1	09/11/2019 12:08

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#### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	999-Grab							Work	Order/ID:	1910576-13
Sample Description:	999							Sampl	ed:	09/11/2019 8:22
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			Ar	nalyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	/Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	4.3	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	BFTC-Grab							Work	Order/ID:	1910576-14
Sample Description:	BFTC							Sampl	ed:	09/11/2019 8:30
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			Ar	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	47	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client: Client Project:	Arcelor Mittal US Daily	A, Inc.								
Client Sample ID:	002-Composite							Work	Order/ID:	1910576-15
Sample Description:	002							Samp	ed:	09/10/2019 8:33
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: S	M 4500-CN	C/E-1999			An	alyst: ABG
Total Cyanide									Prep Date/	Time: 09/11/2019 11:43
Cyanide, Total		eij	A	ND	0.0020	0.0050	U	mg/L	1	09/11/2019 14:09
				Method: S	M 2540 D-1	997			An	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ls	eij	Α	2.3	1.0	1.0		mg/L	1	09/11/2019 12:24

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### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	002-Grab							Work	Order/ID:	1910576-16
Sample Description:	002							Sampl	ed:	09/10/2019 8:33
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method: E	PA 1664B				An	alyst: <b>KMT</b>
Oil & Grease (HEM) by	y SPE								Prep Date/	Time:09/11/2019 07:52
Oil & Grease (HEM)		eij	A	ND	1.4	5.0	U	mg/L	1	09/11/2019 14:09



### **Analytical Results**

Client:	Arcelor Mittal USA	A, Inc.								
Client Project:	Daily									
Client Sample ID:	WAL-Grab							Work	Order/ID:	1910576-17
Sample Description:	WAL							Samp	ed:	09/10/2019 8:43
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	PA 1664B				Ana	alyst: <b>KMT</b>
Oil & Grease (HEM) by	/ SPE								Prep Date/	Time:09/11/2019 07:52
Oil & Grease (HEM)		eij	A	20.5	1.4	5.0	r	ng/L	1	09/11/2019 14:09
				Method: S	M 2710 F-20	04			Ana	alyst: <b>DAT</b>
Specific Gravity									Prep Date/	Time:09/11/2019 12:08
Specific Gravity			A	1.00	0.0100	0.0100	T	/4 C	1	09/11/2019 12:08
				Method: S	6M 2540 D-19	97			Ana	alyst: <b>KMT</b>
Total Suspended Solid	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ls	eij	Α	9.2	1.0	1.0	r	ng/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	CM1-Grab							Work	Order/ID:	1910576-19
Sample Description:	CM1							Sampl	ed:	09/11/2019 0:00
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			Ar	nalyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	11	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	CM2-Grab							Work	Order/ID:	1910576-20
Sample Description:	CM2							Samp	ed:	09/11/2019 0:00
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	10	1.0	1.0		mg/L	1	09/11/2019 12:24



### **Analytical Results**

Client:	Arcelor Mittal U	SA, Inc.								
Client Project:	Daily									
Client Sample ID:	CM6 Grab							Work	Order/ID:	1910576-21
Sample Description:	CM6							Sampl	ed:	09/11/2019 0:00
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-19	97			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	14	1.0	1.0		mg/L	1	09/11/2019 12:24

# MICROBAC<sup>®</sup>



### **Analytical Results**

Client:	Arcelor Mittal U	ISA, Inc.								
Client Project:	Daily									
Client Sample ID:	HM2-Grab							Work	Order/ID:	1910576-22
Sample Description:	HM2							Sampl	ed:	09/11/2019 0:00
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	16	1.0	1.0		mg/L	1	09/11/2019 12:24

# MICROBAC<sup>®</sup>



### **Analytical Results**

Client:	Arcelor Mittal U	ISA, Inc.								
Client Project:	Daily									
Client Sample ID:	HM3-Grab							Work	Order/ID:	1910576-23
Sample Description:	HM3							Samp	ed:	09/11/2019 0:00
Matrix:	Aqueous							Receiv	ved:	09/11/2019 10:05
Analyses		Certs	AT	Result	MDL	RL	Qual	Units	DF	Analyzed
				Method:	SM 2540 D-1	997			An	alyst: <b>KMT</b>
Total Suspended Soli	ds								Prep Date/	Time:09/11/2019 10:45
Total Suspended Solid	ds	eij	Α	10	1.0	1.0		mg/L	1	09/11/2019 12:24

#### A,B = Target Analyte I = Internal Standard

- M = Summation Analyte
- S = Surrogate

T = Tentatively Identified Compound (TIC, concentration estimated)

## MICROBAC<sup>®</sup>



#### 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)
- e Illinois DOPH Micro analysis of drinking water (#1755266)
- <sup>i</sup> Kansas Dept Health & Env. NELAP (#E-10397)
- <sup>j</sup> Kentucky Wastewater Laboratory Certification Program (#108202)

#### FLAGS, FOOTNOTES AND ABBREVIATIONS (as needed)

MDL:	Minimum Detection Limit
RL:	Reporting Limit
RPD:	Relative Percent Difference
U:	The analyte was analyzed for but was not detected above the reported quantitation limit. The quantitation limit has been adjusted for any dilution or concentration of the sample.

#### **Cooler Receipt Log**

Cooler ID: Default Cooler



## Partial 9/11/2019

-	
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



## **Chain of Custody**

#### ArcelorMittal Burns Harbor/Microbac Labs

Wednesday

Lab Work No: 1920576

\* Date O \*\* Sampl

Obtained	9-11-19	
le Date:	9-10-19	

Location	Time	Sampler	Туре	Preserved	Cooled	Containers			Doromoteus	
				110001700		Туре	Qty	Vol. (ml)	Parameters	Commente
011 **	() I	CD	Comp	No	Yes	Glass	1	4000	NH3, TSS, Phenol, Zn, Cn, Pb	05
- / /	P.00	4	Grab	No	No	Plastic	1	500	pH. Tot Res Cl	02
	.00		Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	I I
004 ++	06.		Comp	No	Yes	Glass	1	4000	NH3, Phenol, TSS	03
001 **	10.L)		Grab	No	Yes	Plastic	1	500	pH, Tot Res Cl	04
			Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	$\checkmark$
004 +	$\rho_{I}$		Grab	No	No	Plastic	1	1000	TSS	05
031 *	6:42		Grab	No	No	Plastic	1	1000	BOD	
			Grab	Yes	<u>No</u>	Plastic	1	125	Fecal (sterilized bottle)	Y
Mixed Liquor *	06:45		Grab	No	No	Plastic	1	2000	TSS, Settling	06
J-Box *	06:40		Grab	No	No	Glass	2	1000	NH3, Phenol, TSS, pH	07
DIW-131 *	A.		Grab	No	No	Plastic	1	125	pН	
WWII *	07:10		Grab	No	No	Plastic	1	1000	Cn	08
Coldwell	07:30		Grab	No	No	Plastic	2	2000	NH3, CN, Pb, Zn, TSS	09
RSB FT Overflow *	08:00		Grab	No	No	Plastic	2	1000	NH3, pH, TSS, Pb, Zn	10
RSB FT Influent *	08:01		Grab	No	No	Plastic	1	500	TSS	11
BFTD *	5-0		Grab	No	No	Plastic	1	500	TSS	
WPL***	07:20		Grab	No	No	Glass	1	1000	SpG, pH	13
999 *	08:22		Grab	No	No	Plastic	1	500	TSS, pH	13
BFTC *	08:30		Grab	No	No	Plastic	1	500	TSS	14
			Comp	No	Yes	Plastic	1	500	TSS	15
002 **	8:33		Grab	No	No	Plastic	1	125	Ha	(6
	-23		Grab	Yes	No	Glass	1	1000	FOG (prepreserved)	 
WAL 1**	001112		Grab	No	No	Glass	1 1	1000	TSS, SpG, pH	17
	08:43		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	+18
WAL 2**	50		Grab	No	No	Glass	1 1	1000	TSS, SpG, pH	
۲۲/۱۵ ۵			Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	$\rightarrow \!$
WAL 3**	684/3		Grab	No	No	Glass	1 1	1000	TSS, SpG, pH	
	000		Grab	Yes	No	Glass	2	1000	FOG (prepreserved)	$\rightarrow$
SWTP *		** *	Grab	No	No	Plastic	75	1000	TSS	19-23

\*\*\* WPL is for previous sample date

\*\*\*\* Sample collected by Water Process personnel

Relinguished by: R Received by: .

Date: <u>9-11-19</u> Date: <u>9/11/14</u>

No HMI+CM3

Time: Time: 0850

Env 3x Rev. 15 04/27/17 (TEK)

1910576 Carey Gadzala ArcelorMittal - Burns Harbor, IN Daily 09/11/2019 

#### Microbac Laboratories - Chicagoland Division pH - METHOD 9045D Arcelor Mittal /Burns Harbor NPDES

Sample ID	· ·	рН	Analyst	Date/Time of Analysis
Buffer ID: Meter ID:	4: 185909	7: 188312	<sup>10:</sup> /9/040	
Calibration	QIDI O		BAO	9/11/19 0830
ICV	4/0/10	7.00		
Slope		100.9		
Lake 999		7.94		
Location 001		7.73		
Location 002	· ·	8.24		
Location 011		7.75		
WAL 1		8.90		
WAL 2	·		i	
SWTP J-Box		8-66		
DIW 131				
RSB		8.90		
Dup- WAL		8.90		
CCV		7.01		

Sample ID		рН	Analyst	Date/Time of Analysis
Buffer ID:	4:	7:	10:	
Meter ID:				
Calibration	4 / 7 / 10			
ICV	4 / 7 / 10			
Slope				
Lake 999				
Location 001				
Location 002				
Location 011				,
WAL 1				
WAL 2	-			
SWTP J-Box				
DIW 131				
RSB				
Dup-				
CCV				
· ·				<u>'</u>
-				

Microbac Laboratories, Inc. - Chicagoland Division

Total Residual Chlorine - Amperometric Titration - SM Method 4500-CI E - 2000 for Arcelor Mittal - Burns Harbor

Date/Time:	7/10/19				STD ID / Lot #	Exp. Date
- Analyst:				KI Solution:	KI Solution: 146367	6/30/26
pH Paper Lot #:	I	- Exp. Date		Acetate buffer:	Acetate buffer: IH 741 6	7/29/20
	1 1	11/20		PAO Titrant:	PAO Titrant: 14 5 348	5/31/20
Sample	Sample Vol.		Titrant Start	Titrant Stop	Titrant Vol.	Result
D	(mL)	pH (pH Units)	(mL)	(mL)	(mL)	(mg/L)
Blank	200	4.0	0.00	0.00	00-0	0.00
LCS		4.0		60.03	0.03	0.03
Outfall 001		4.0		0.00	0-00	0.00
Outfall 002		4.0		0 - 0	0.00	0 - 0
Outfall 003		4.0		00-0	0.00	00.0
Outfall 011		4.0		00.0	00.0	0.00
Outfall 011 Dup		4.0		00-0	0.00	0.00
Outfall 00 2 Dup	>	4.0	Ż	0.00	000	0-00
Date/Time:	Date/Time: 9/11/19				STD ID / Lot #	Exp. Date
Analvst	BAO	ſ		KI Solution:	KI Solution: 146367	6/30/20
		I				

Anaiysi.	のよの					
pH Paper Lot #: H T626	H7626	Exp. Date		Acetate buffer:	Acetate buffer. 147996	7/29/20
	A 9074	11/20		PAO Titrant:	PAO Titrant: 14 5348	5/31/20
Sample	Sample Vol.	-	Titrant Start	Titrant Stop	Titrant Vol.	Result
<u> </u>	(m)	pH (pH Units)	(ml)	(m)	(m)	(mg/L)
Blank	200	4.0	0.00	0.00	0.00	0.00
LCS		6.5		6.03	0.03	0.03
Outfall 001		4,0		00.0	000	0.00
Outfall 002		4.0		00.0	00.0	0.00
Outfall 003		4, 0		0.00	0.00	0.00
Outfall 011		4.0		0,00	0.00	0.00
Outfall 011 Dup		4.0		0.00	00.00	0.00
Outfall 003 Dup	>	4.0	Ŷ	8.00	90 ° Q	0.00
Chlorine, mg/L =	(Titrant Vol., mL) (20	Chlorine, mg/L = (Titrant Vol., mL) (200 mL) / (Sample Vol., mL)	mL)		revisi	revision: a_01_2016

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3 of 50

Contractor ref #/job # mber	ACCI S Contractor ref #/job # mber mber MCCI Contractor ref #/job # mber moner MCCI Contractor ref #/job # moner MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI Mones MCCI M	ACCINTRACTOR ref #/job #       Contractor ref #/job #       Contractor ref #/job #       Contractor ref #/job #       Form number       Form number       Profile	ACCI       ACCI       Imple								Æ
Softwactor ref #/job #     Form number       Imber     Imperiation number       Imber     Imperiation number       Imperiation     Imperiation number       Imperiation     Imperiation	S     Contractor ref #/job #     Form number       Imber     Imber     Requisition number       Imber     Imperiation number     Requisition number       Imperiation     Imperiation number     Imperiation number       Imperiation     Imperiation     Imperiation	S     Contractor ref #/job #     Form number       mber     Image: Signature in the	Name     Luks     Contractor ref #/0b #     Form number       Po number     Po number     Po number     Po number       Po number     Po pecciption     Po number     Po number       Provident provident provident perception     Po pecciption     Po number       Provident provident perception     Po pecciption     Po pecciption       Provident provident perception     Po pecciption     Po pecciption	Contractor timesheet						Arcelo	orMittal
Implet     Requisition number       P     OT     DT     Total       OT     DT     Total     Billable       P     OT     DT     Total       OT     DT     Total     Billable       P     OT     DT     Total       OT     DT     Total     Billable       P     D     Description     Description       Oty     Hours/ant total     Dob       Oty     Hours/ant total     Dob       Oty     Hours/ant total     Dob       D     Description     Description       D     D     D	Production     Requisition number       Production     OT     DT     Total       Production     DT     DT     Description       Production     DP     Description     Do notes       Production     DP     DP     Description       Production     DP     DP     Description       Production     DP     DP     DP       Prod     DP     DP     DP	Model     Requisition number       A     OT     DT     Total       M     OT     DT     Total       M     OT     DT     Total       M     OT     DT     Total       M     D     Description       M     DV     Hours/ant total       M     DV     Hours/ant total       DV     DV     Hours/ant total       DV     DV     Description       DV     DV     Hours/ant total       DV     DV     Hours/ant total       DV     DV     Hours/ant total       DV     D     Description       DV     Hours/ant total     Nes       DV     Hours/ant total     Nes       DV     Hours/ant total     D       DV     Hours/ant total     Nes       DV     D     Description       DV     D     D       DV     Hours/ant total	PO number     Requisition number       Carit     Dr     Requisition number       Carit     ST     Or       Carit     St     Hours/ant total       Recordion     D     Description       Resolution     D         Resolution	Contractor company name		Labs	Contractor r	ef #/job #	Form nur	nber	309697
A     A       0T     DT     Total     Billable       0T     DT     Total     Bullable       0     D     Description     Do notes       0     D     D     Description     Do notes       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D       0     D     D     D     D <t< th=""><th>Ay less     Dir     Total     Billable       I     Dr     Total     Bullable       I     Dr     Total     Bullable       I     Dr     Dr     Dob notes       Qty     Hours/amt total     Qty       Qty     Hours/amt total       Qty     Hours/amt total       D     Description       D     D   <!--</th--><th>A     Lotal     Billable       0T     DT     Total     Billable       0     DT     Total     Billable       0     D     Description     Do hotes       0     Dy     Hours/ant total     Do hotes/ant total       1     D     Description     Description       1     D     Description     Description       1     D     Description     Do       1     D     Description     Description       1     D     Description     Do       1     D</th><th>K     Exceptes       Cart     Dr     Dr     Total     Billable       Cart     Dr     Dr     Point     Point       TEC     I     Dr     Dr     Point       TEC     I     Dr     Point     Point       TEC     I     Dr     Point     Point       TEC     I     Dr     Point     Point       Pint     Dr     Point     Point     Point       Pint     Point     Point     Point     Point       Pint     Point     Point     Point     Point       Pint     Pint     Pint     Point     Point       Pint     Pint     Pint     Pint     Point</th><th>a.lC)</th><th>1</th><th>PO number</th><th></th><th></th><th>Requisition number</th><th>97</th><th>=</th></th></t<>	Ay less     Dir     Total     Billable       I     Dr     Total     Bullable       I     Dr     Total     Bullable       I     Dr     Dr     Dob notes       Qty     Hours/amt total     Qty       Qty     Hours/amt total       Qty     Hours/amt total       D     Description       D     D </th <th>A     Lotal     Billable       0T     DT     Total     Billable       0     DT     Total     Billable       0     D     Description     Do hotes       0     Dy     Hours/ant total     Do hotes/ant total       1     D     Description     Description       1     D     Description     Description       1     D     Description     Do       1     D     Description     Description       1     D     Description     Do       1     D</th> <th>K     Exceptes       Cart     Dr     Dr     Total     Billable       Cart     Dr     Dr     Point     Point       TEC     I     Dr     Dr     Point       TEC     I     Dr     Point     Point       TEC     I     Dr     Point     Point       TEC     I     Dr     Point     Point       Pint     Dr     Point     Point     Point       Pint     Point     Point     Point     Point       Pint     Point     Point     Point     Point       Pint     Pint     Pint     Point     Point       Pint     Pint     Pint     Pint     Point</th> <th>a.lC)</th> <th>1</th> <th>PO number</th> <th></th> <th></th> <th>Requisition number</th> <th>97</th> <th>=</th>	A     Lotal     Billable       0T     DT     Total     Billable       0     DT     Total     Billable       0     D     Description     Do hotes       0     Dy     Hours/ant total     Do hotes/ant total       1     D     Description     Description       1     D     Description     Description       1     D     Description     Do       1     D     Description     Description       1     D     Description     Do       1     D	K     Exceptes       Cart     Dr     Dr     Total     Billable       Cart     Dr     Dr     Point     Point       TEC     I     Dr     Dr     Point       TEC     I     Dr     Point     Point       TEC     I     Dr     Point     Point       TEC     I     Dr     Point     Point       Pint     Dr     Point     Point     Point       Pint     Point     Point     Point     Point       Pint     Point     Point     Point     Point       Pint     Pint     Pint     Point     Point       Pint     Pint     Pint     Pint     Point	a.lC)	1	PO number			Requisition number	97	=
OT     DT     Total     Billable       In     Dr     Description       In     Description	OT     DT     Total     Billable equipment/subcontractors/material       P     P     Pescription       P     P       P     P       <	OT     DT     Total     Billable       Perception     Perception       Perception     Perception <td>OT     DT     Total     Billable       In     Description     Description       OV     Hours/antrital     Job notes       OV     D     Description       D     Description     Description       D     D     &lt;</td> <td>Description of work</td> <td>5</td> <td>ar</td> <td></td> <td>1811 1918 - 1</td> <td>111</td> <td></td> <td>ercent job complete</td>	OT     DT     Total     Billable       In     Description     Description       OV     Hours/antrital     Job notes       OV     D     Description       D     Description     Description       D     D     <	Description of work	5	ar		1811 1918 - 1	111		ercent job complete
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307304 Daily work authorization form for all visition					1
For each job, and before starting work at the job site, a contractor representative must meet face to face with the ArcelorMittal representative responsible for the work and discuss the work to be performed and any specific safety requirements.	LE WOINCIS Itative must meet fa ned and any specific	ace to face with the ArcelorMi : safety requirements.	ittal	ArcelorMitta	Mittal
Section 1 Company name Microlae Labs	The named c ArcelorMitta	The named contractor or work crew is cleared to perform the job described herein:	I to perform the jo		
Lyphone no Carry Gadzala 768-8378- ject/job description Ervine Bldg/ Water Sand	ArcelorMitta	departme ohone nu	AXL?	Date <u>9/11/1</u> Cell	6
			Clinic	Clinic pickup point 46	1. 1. T. T.
HIRAC-Lite	Yes N/A No			Yes	N/A No
1) Are emergency evacuation areas identified and known?		10) Could someone be caught in or between anything?	in or between any		
2) Is there a current and valid isolation (LOTO) procedure?		11) Could someone get hurt as a result of a fall from height?	s a result of a fall fr	om height?	
3) Will everyone apply a personal safety lock?		12) Can something fall and/or strike me or someone else?	strike me or some	one else?	•
4) Are there adjacent work crews exposed (including ArcelorMittal employees)?	) [] ()	13) Is everyone properly trained for this job?	ed for this job?		
5) Are there potential hazards or high risk job steps?		14) Are flags and derails in place if needed?	ce if needed?		
6) Do we have the correct tools for the job?		15) Can we slip or trip on anything (including travel to and from the job)?	hing (including trav	vel to and from the job)?	
7) Is additional PPE required?		🗍 16) Have all affected people been notified?	een notified?		
8) Is there a potential for exposure (chemical, radiation, laser, temperature)?	•	17) Can we strain or overexert ourselves?	ourselves?		
9) Is someone working on or near energized electrical equipment (motor control rooms, overhead power lines, etc.)?	× 0 0 0 0 0	18) Has equipment been inspected prior to use? (tools, PPE, mobile equipment, etc.)	cted prior to use?	(tools, PPE, mobile	
Other Hazards and Considerations for Discussion				Permits	0.1
Yes N/A No Yes N/A	No	Yes N/A No	Yes N/A No		Yes N/A No
🛑 💭 🚰 24) Housekeeping	29) Scaffold work	-		37) Confined space	
	🋃 (30) Explosives	🛑 🛄 🚰 34) Noise		38) Energized electrical work	
	🛃 31) Barricades	🛑 🚞 🛃 35) Lasers		39) Excavation / drilling	
	🛃 32) Radiation	🛑 🛄 🚰 36) Sewers		40) Hot work	
23) Pressurized / steam pipe 🔰 🕌 🔁 28) Overhead work 💮 🔚				41) Other	
Section 3	Hierarchy of Controls	Hierarchy of Controls 1. Elimination 2. Substitution 3. Engineering	ering 4. Administrative	5. PPE	
Visiting worker name (print) Badge # Hazard # B. oHo (しんりょう)	Controls			Controls	Responsible Person
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My crew and I are familiar with the safety hazards/considerations for this job. We ar	e prepared to perfor	e prepared to perform the work in a safe "workmanshin"/like manner   have reviewed these considerations with the	in"/like manner 1	have reviewed these considerativ	one with the
elow.		. 1 2		וומיה וכיוכיאכת נווכסר נסווסומכו מנוי	
(Finite form is fully completed minimum).	representative	- A con		rep/phone	033 of 33
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