



# QUARTERLY VISIBLE EMISSION AND OPACITY REPORT

American Zinc Recycling Corp. > Chicago Plant

1<sup>st</sup> Quarter 2019 Report

Prepared By:

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Project 191401.0059



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# 1. EXECUTIVE SUMMARY

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On February 28, March 21, and March 25, 2019, Trinity Consultants (Trinity) performed visible emission observations at the American Zinc Recycling Corp. (AZR) facility located in Chicago, Illinois (Chicago Plant). These observations were conducted to comply with the City of Chicago Department of Public Health (CDPH) Rules and Regulations for Bulk Materials Storage (CDPH Bulk Storage Rules)<sup>1</sup>. Sections 3.0(2)(d) and 3.0(3)(f)(ii) of the CDPH Bulk Storage Rules require that any facility that processes, handles on-site, transfers, loads, unloads, stockpiles, or stores bulk solid materials conduct quarterly testing to demonstrate compliance with the prohibition on fugitive dust set forth in Section 3.0(2)(b). The quarterly testing followed the protocol established in section 3.1.7.1 – Quarterly Visible Emissions and Opacity Testing of the Consolidated Fugitive Dust Control Plan and Operating program for Fugitive Particulate Matter for American Zinc Recycling Corp. (Chicago Plant), January 25, 2019.<sup>2</sup> The opacity observations were conducted in accordance with the requirements of 40 Code of Federal Regulations (CFR) 60, Appendix A, Method 9 (USEPA Method 9) and the visible emission observations were conducted in accordance with the requirements of 40 CFR 60, Appendix A, Method 22 (USEPA Method 22).<sup>3</sup>

Supporting information for the report is included in the appendices. The visible emission and opacity observations for the first quarter report were conducted by Mr. Matt Sloan of Trinity. A copy of Mr. Sloan's current Method 9 certification is included in Appendix A.<sup>4</sup> A site plan of the Chicago Plant, denoting the locations of fugitive dust emission sources, is included in Appendix B. The visible emission and opacity observation data sheets are included in Appendix C. Meteorological data from February 28, March 21, and March 25, 2019 for the AZR Chicago Plant are included in Appendix D, which indicates that the observations were performed over a range of weather conditions occurring over this period.<sup>5</sup> Data in Appendix D is from AZR's onsite weather monitoring station and summarizes the weather conditions on the dates of observation.<sup>6</sup>

The results of the February 28, March 21, and March 25, 2019 tests demonstrated that there were no instances of visible dust beyond the property line of the facility and that affected sources were below the applicable opacity limit of 10% pursuant to CDPH Bulk Storage Rules Section 3.0(2)(a) and (b), respectively. A summary of the results is included in Section 2 of this report.

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<sup>1</sup> Article II. Air Pollution Control Rules and Regulations, Part B: Bulk Solid Material Facilities.

<sup>2</sup> While AZR originally submitted the Consolidated Fugitive Dust Control Plan and Operating Program for Fugitive Particulate Matter for AZR (Chicago Plant) to the City of Chicago on June 11, 2014, and has since submitted required annual updates, most recently on January 25, 2019, there has been no formal approval of such plan from the City of Chicago to AZR.

<sup>3</sup> Visible emissions and opacity observation methods used as specified in CDPH Bulk Storage Rules Section 3.0(3)(f)(ii)(a).

<sup>4</sup> Per CDPH Bulk Storage Rules Section 3.0(3)(f)(ii)(a) a professional trained and certified to read opacity in accordance with 40 CFR 60, Appendix A, Method 9 shall conduct the opacity observations.

<sup>5</sup> Per CDPH Bulk Storage Rules Section 3.0(3)(f)(ii)(b), observations were included over a range of weather conditions.

<sup>6</sup> AZR installed the weather monitoring station to comply with the wind monitoring requirements per CDPH Bulk Storage Rules Section 3.0(5) in accordance with the variance request submitted to the City of Chicago dated June 13, 2014.

## 2. VISIBLE EMISSIONS AND OPACITY OBSERVATIONS RESULTS SUMMARY

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The following table summarizes the results of the visible emission and opacity observations conducted at the Chicago Plant for the first quarter of 2019. As previously discussed, all observations of opacity for fugitive dust emission sources were conducted in accordance with USEPA Method 9, and all of the property line visible emission observations were conducted in accordance with USEPA Method 22.<sup>7</sup> Observation points were selected to comply with the requirement of CDPH Bulk Storage Rules Section 3.0(2)(a) to verify that there was no fugitive dust that is visible beyond the property line and with CDPH Bulk Storage Rules Section 3.0(2)(b) to verify that any bulk solid material storage pile, transfer point, roadway, or parking area does not exceed the applicable opacity limit.<sup>8</sup> The Temp. IRM Storage Pile (Outlet of Kiln #2), Off Spec Coke Pile, the Main IRM Storage Pile, the Coke Loading Pile, and the Main IRM Storage Bunkers were not disturbed during their respective observation periods. Note that the IRM Screener and Conveyors were out of service for repairs during the observation days. Subsequently, there was no Screened IRM Pile to be observed.

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<sup>7</sup> Visible emission and opacity observation methods used as specified in CDPH Bulk Storage Rules Section 3.0(3)(f)(ii)(a).

<sup>8</sup> CDPH Bulk Storage Rules Section 2.0 an Internal Road is defined as, any route within a facility that is not located in an area normally used for staging or storage of material and that has evidence of repeated prior travel by, or is otherwise regularly used by vehicles for transporting materials to, from or, or within the facility. A Transfer Point is the location at or within a facility where material being moved, carried, or conveyed is dropped or deposited.

**Table 1. AZR (Chicago Plant) 1<sup>st</sup> Quarter 2019 Visible Emissions and Opacity Summary**

<b>Location (Date Observed)</b>	<b>Type of Fugitive Emissions Source</b>	<b>Duration of Observation (Minutes)</b>	<b>Average Opacity (%)</b>
Coke Hopper <sup>1</sup> (3/21)	Transfer Point	3:00	0
Off Spec Coke Pile (2/28)	Material Storage Pile	20	0
Coke Loading Pile (3/21)	Material Storage Pile	20	0
Temp. IRM Storage Pile (Outlet of Kiln #2) (2/28)	Material Storage Pile	20	0
Main IRM Storage Pile (2/28)	Material Storage Pile	20	0
Main IRM Storage Bunkers (2/28)	Material Storage Pile	20	0
IRM Truck Loading <sup>2</sup> (3/25)	Transfer Point	4:00	2.19
IRM Screener and Conveyors <sup>3</sup>	Transfer Points	n/a	n/a
Screened IRM Pile <sup>3</sup>	Material Storage Pile and Transfer Point	n/a	n/a
Paved Road – Main Truck Road (3/21)	Roadway	4 Vehicle Passes	0
Parking Lot (3/21)	Roadway	4 Vehicle Passes	0
Paved Road – To IRM Truck Loading (3/21)	Roadway	4 Vehicle Passes	0
Unpaved Road – Section of 114 <sup>th</sup> Street (3/25)	Roadway	4 Vehicle Passes	0
Property Line Locations (Method 22) <sup>4</sup> (2/28)	Property Line	7 x 10 minutes	No visible emissions
IRM Barge Loading Hopper (3/21)	Transfer Point	20	0
IRM Barge Loading Conveyor/Chute (3/21)	Transfer Point	20	0

1. Observations were taken over the course of 1 bucket of coke being loaded into the hopper. The coke loading process observed spanned a total of 3:00 minutes.
2. Observations were taken over the course of 1 truck being loaded with IRM. The loading process observed spanned a total of 4:00 minutes.
3. IRM Screener and Conveyors were out of service for repairs during the observation days. Subsequently, there was no Screened IRM Pile to be observed.
4. There were 7 property line observations conducted using EPA Method 22: North property line looking east and west, east property line looking north and south, south property line looking west, southwest property line looking southeast, and the west property line looking north.

The Method 9 opacity observation results for the coke storage areas, coke pile material handling, IRM storage piles, IRM pile handling, IRM truck loading, IRM barge loading, paved roadways, and unpaved roadways were all below the applicable opacity standard per the CDPH’s Bulk Storage Rules. As noted in Section 1, the IRM Screener and Conveyors (and Screened IRM Pile) were out of service for repairs during the observation days. The Method 22 observations of visible emissions at the property boundaries showed no visible emissions crossing the plant property lines.

As discussed in the executive summary, supporting information for the report is included in the appendices. A copy of Mr. Sloan’s current Method 9 certification is included in Appendix A. A site plan of the Chicago Plant, denoting the locations of fugitive dust emission sources, is included in Appendix B. The visible emission and opacity observation data sheets are included in Appendix C. Meteorological data from February 28, March 21, and March 25, 2019 for the AZR Chicago Plant is included in Appendix D.

**APPENDIX A: METHOD 9 VISIBLE EMISSIONS OBSERVER CERTIFICATION**

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# AeroMet

Engineering, Inc.

Solutions for a Changing Environment

## Certification of Visible Opacity Reading

**Matthew Sloan**

qualified to conduct EPA Method 9 Tests for visible opacity in accordance with the methods established for such qualification in 40 CFR Part 60 Appendix A.

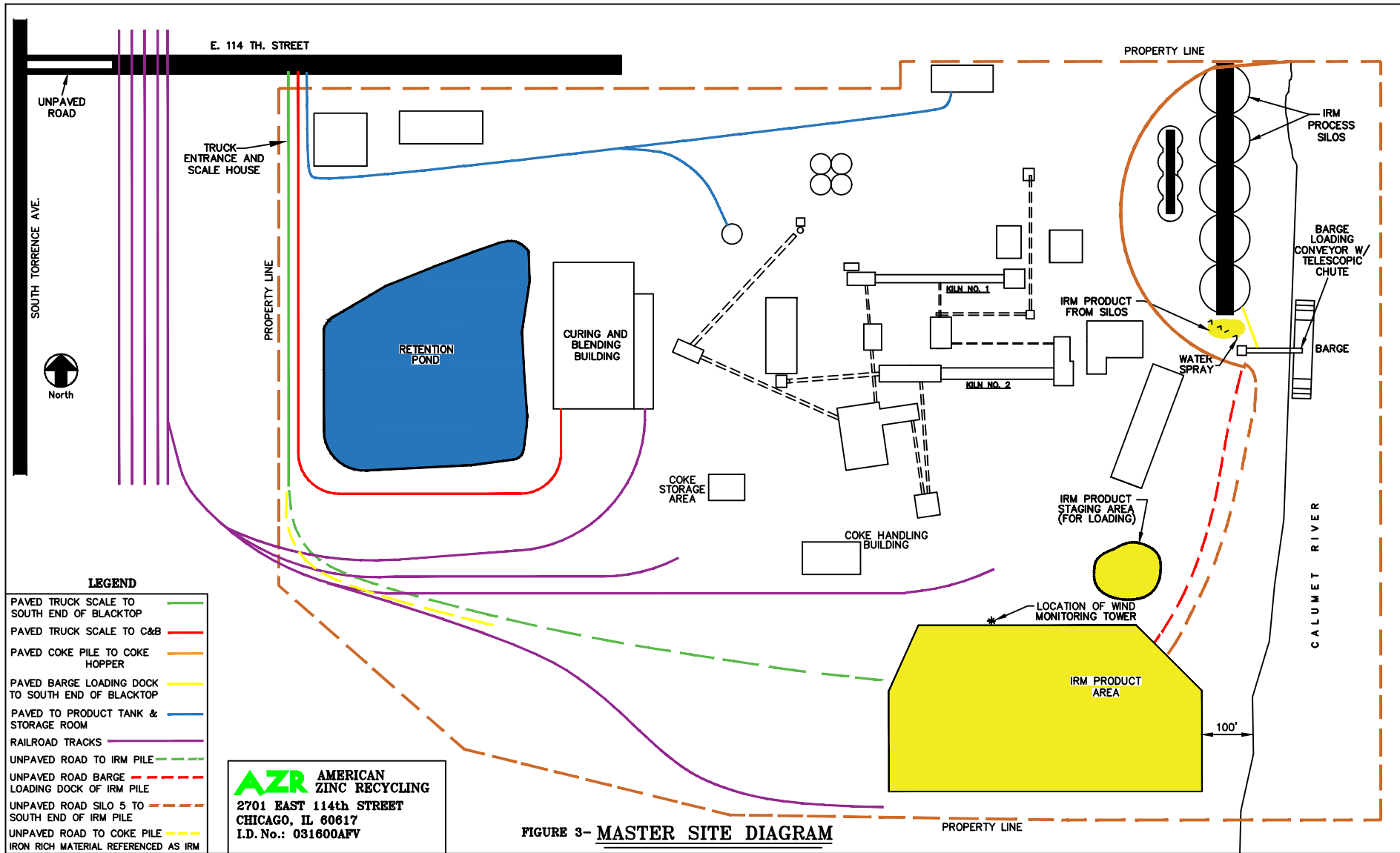
Certification Date: October 10, 2018

Expiration Date: April 10, 2019

AeroMet Instructor: Nathan Neely

## APPENDIX B: FACILITY SITE DIAGRAM

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## APPENDIX C: VISIBLE EMISSIONS AND OPACITY OBSERVATIONS DATA SHEETS

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Visible Emissions Observations Form

SOURCE NAME American Zinc Recycling Corp. (Chicago Plant)			OBSERVATION DATE 3/21/19				START TIME 1:30				STOP TIME 1:33			
ADDRESS 2701 East 114th Street			SEC MIN	0	15	30	45	SEC MIN	0	15	30	45		
CITY Chicago			STATE IL		ZIP 60617		1	0	0	0	0	31	} one coke load	
PHONE 773-933-9260			SOURCE ID NUMBER 031600AFV				2	0	0	0	0	32		
PROCESS EQUIPMENT coke hopper			OPERATING MODE loading				3	0	0	0	0	33		
CONTROL EQUIPMENT			OPERATING MODE				4					34		
DESCRIBE EMISSION POINT							5					35		
START coke hopper							6					36		
HEIGHT ABOVE GROUND LEVEL 20ft			HEIGHT RELATIVE TO OBSERVER START 20 STOP 20				7					37		
DISTANCE FROM OBSERVER START 150 STOP 150			DIRECTION FROM OBSERVER START NW STOP NW				8					38		
DESCRIBE EMISSIONS START N/A STOP N/A							9					39		
EMISSION COLOR START N/A STOP N/A			PLUME TYPE: CONTINUOUS <input type="checkbox"/> FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>				10					40		
WATER DROPLETS PRESENT: NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>			IF WATER DROPLET PLUME: N/A ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>				11					41		
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED START 3ft above STOP 3ft above							12					42		
DESCRIBE BACKGROUND START building STOP buildings							13					43		
BACKGROUND COLOR START brown STOP brown			SKY CONDITIONS START cloudy STOP cloudy				14					44		
WIND SPEED START 0-5 STOP 0-5			WIND DIRECTION START S STOP S				15					45		
AMBIENT TEMP START 35-40 STOP 35-40			WET BULB TEMP -		RH.percent -		16					46		
Source Layout Sketch			Draw North Arrow				17					47		
							18					48		
<p>Sun  Wind  Plume and Stack</p> <p>Emission Point</p> <p>Observers Position</p> <p>140°</p> <p>Sun Location Line</p>			<p>AVERAGE OPACITY FOR HIGHEST PERIOD 0%</p> <p>NUMBER OF READINGS ABOVE 10 % WERE 0</p> <p>RANGE OF OPACITY READINGS MINIMUM 0% MAXIMUM 0%</p> <p>OBSERVER'S NAME (PRINT) Matt Sloan</p>				19					49		
COMMENTS No emissions no sun visible			OBSERVER'S SIGNATURE 				20					50		
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			ORGANIZATION Trinity Consultants				21					51		
TITLE			CERTIFIED BY: Aeromet Engineering				22					52		
DATE			DATE 10/10/18				23					53		
			VERIFIED BY:				24					54		
			DATE				25					55		
			DATE				26					56		
			DATE				27					57		
			DATE				28					58		
			DATE				29					59		
			DATE				30					60		

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME			
American Zinc Recycling Corp. (Chicago Plant)			2/28/19				8:00		8:20			
ADDRESS			SEC	0	15	30	45	SEC	0	15	30	45
2701 East 114th Street			MIN					MIN				
CITY	STATE	ZIP	1	0	15	30	45	31				
Chicago	IL	60617	2	0	15	30	45	32				
PHONE	SOURCE ID NUMBER		3	0	15	30	45	33				
773-933-9260	031600AFV		4	0	15	30	45	34				
PROCESS EQUIPMENT		OPERATING MODE	5	0	15	30	45	35				
off-spec coke pile		N/A	6	0	15	30	45	36				
CONTROL EQUIPMENT		OPERATING MODE	7	0	15	30	45	37				
N/A		N/A	8	0	15	30	45	38				
DESCRIBE EMISSION POINT			9	0	15	30	45	39				
START pile, segment.			10	0	15	30	45	40				
HEIGHT ABOVE GROUND LEVEL		HEIGHT RELATIVE TO OBSERVER		11	0	15	30	45	41			
START		START STOP		12	0	15	30	45	42			
DISTANCE FROM OBSERVER		DIRECTION FROM OBSERVER		13	0	15	30	45	43			
START STOP		START STOP		14	0	15	30	45	44			
DESCRIBE EMISSIONS			15	0	15	30	45	45				
START N/A STOP N/A			16	0	15	30	45	46				
EMISSION COLOR		PLUME TYPE: CONTINUOUS <input type="checkbox"/>		17	0	15	30	47				
START NA STOP NA		FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>		18	0	15	30	48				
WATER DROPLETS PRESENT:		IF WATER DROPLET PLUME:		19	0	15	30	49				
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		NA ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>		20	0	15	30	50				
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			21					51				
START 3ft above STOP 3ft above			22					52				
DESCRIBE BACKGROUND			23					53				
START trees STOP trees			24					54				
BACKGROUND COLOR		SKY CONDITIONS		25				55				
START brown STOP brown		START overcast STOP overcast		26				56				
WIND SPEED		WIND DIRECTION		27				57				
START 0-5 STOP 0-5		START NA STOP NA		28				58				
AMBIENT TEMP		WET BULB TEMP		29				59				
START 25 STOP 25		RH.percent		30				60				
Source Layout Sketch			AVERAGE OPACITY FOR HIGHEST PERIOD 0% NUMBER OF READINGS ABOVE 10 % WERE 0									
Draw North Arrow			RANGE OF OPACITY READINGS 0 MINIMUM 0 MAXIMUM									
<p>The sketch shows an 'X' for the Emission Point and a circle for the Observers Position. A north arrow points to the right. Wind direction is indicated by an arrow pointing right. The Sun Location Line is shown as a dashed line at a 140-degree angle from the observers position. A note says 'calm wind'.</p>			OBSERVER'S NAME (PRINT) Matt Sloan									
COMMENTS			OBSERVER'S SIGNATURE						DATE			
No emissions.									2/28/19			
			ORGANIZATION									
			Trinity Consultants									
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			CERTIFIED BY:				DATE					
			Aeromet Engineering				10/10/18					
TITLE			VERIFIED BY:				DATE					

Visible Emissions Observations Form

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME			
American Zinc Recycling Corp. (Chicago Plant)			3/2/19				1:37		1:54			
ADDRESS			SEC					SEC				
2701 East 114th Street			MIN	0	15	30	45	MIN	0	15	30	45
CITY			1	0	0	0	0	31				
Chicago		STATE	2	0	0	0	0	32				
IL		ZIP	3	0	0	0	0	33				
60617			4	0	0	0	0	34				
PHONE		SOURCE ID NUMBER		5	0	0	0	35				
773-933-9260		031600AFV		6	0	0	0	36				
PROCESS EQUIPMENT		OPERATING MODE		7	0	0	0	37				
cake loading pile		stagnant		8	0	0	0	38				
CONTROL EQUIPMENT		OPERATING MODE		9	0	0	0	39				
				10	0	0	0	40				
DESCRIBE EMISSION POINT			11	0	0	0	0	41				
START			12	0	0	0	0	42				
pile			13	0	0	0	0	43				
HEIGHT ABOVE GROUND LEVEL		HEIGHT RELATIVE TO OBSERVER		14	0	0	0	44				
START		START		15	0	0	0	45				
25 ft		25 STOP 25		16	0	0	0	46				
DISTANCE FROM OBSERVER		DIRECTION FROM OBSERVER		17	0	0	0	47				
START		START		18	0	0	0	48				
70 STOP 70		SW STOP SW		19	0	0	0	49				
DESCRIBE EMISSIONS			20	0	0	0	0	50				
START			21					51				
N/A STOP N/A			22					52				
EMISSION COLOR		PLUME TYPE: CONTINUOUS <input type="checkbox"/>		23				53				
START		FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>		24				54				
N/A STOP N/A				25				55				
WATER DROPLETS PRESENT:		IF WATER DROPLET PLUME: N/A		26				56				
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>		ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>		27				57				
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			28					58				
START			29					59				
3ft above STOP 3ft above			30					60				
DESCRIBE BACKGROUND			AVERAGE OPACITY FOR HIGHEST PERIOD 0% NUMBER OF READINGS ABOVE 10 % WERE 0									
START			RANGE OF OPACITY READINGS MINIMUM 0% MAXIMUM 0%									
sky STOP sky			OBSERVER'S NAME (PRINT) Matt Sloan									
BACKGROUND COLOR		SKY CONDITIONS		OBSERVER'S SIGNATURE <i>Matt Sloan</i> DATE 3/2/19								
START		START		ORGANIZATION Trinity Consultants								
grey STOP grey		cloudy STOP cloudy		CERTIFIED BY: Aeromet Engineering DATE 10/10/18								
WIND SPEED		WIND DIRECTION		TITLE DATE								
START		START		VERIFIED BY: DATE								
0-5 STOP 0-5		S STOP S										
AMBIENT TEMP		WET BULB TEMP										
START		RH.percent										
35-40 STOP 35-40												
Source Layout Sketch			I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE									
Draw North Arrow			I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE									
<p>The sketch shows a building with an 'X' marking the 'Emission Point'. Below it is the 'Observers Position'. A dashed line indicates the 'Sun Location Line' at a 140-degree angle. A north arrow is drawn, and a note says 'N wind'. A legend shows 'Sun' as a circle with a dot, 'Wind' as an arrow, and 'Plume and Stack' as a trapezoid.</p>			COMMENTS									
			no emissions									
			no sun visible									

Visible Emissions Observations Form

SOURCE NAME			OBSERVATION DATE				START TIME				STOP TIME			
American Zinc Recycling Corp. (Chicago Plant)			2/28/19				8:22				8:42			
ADDRESS			SEC	0	15	30	45	SEC	0	15	30	45		
2701 East 114th Street			MIN					MIN						
CITY			1	0	0	0	0	31						
Chicago			2	0	0	0	0	32						
STATE			3	0	0	0	0	33						
IL			4	0	0	0	0	34						
ZIP			5	0	0	0	0	35						
60617			6	0	0	0	0	36						
PHONE			7	0	0	0	0	37						
773-933-9260			8	0	0	0	0	38						
SOURCE ID NUMBER			9	0	0	0	0	39						
031600AFV			10	0	0	0	0	40						
PROCESS EQUIPMENT			11	0	0	0	0	41						
Temp 12m storage pile (outlet)			12	0	0	0	0	42						
OPERATING MODE			13	0	0	0	0	43						
N/A			14	0	0	0	0	44						
CONTROL EQUIPMENT			15	0	0	0	0	45						
N/A			16	0	0	0	0	46						
OPERATING MODE			17	0	0	0	0	47						
N/A			18	0	0	0	0	48						
DESCRIBE EMISSION POINT			19	0	0	0	0	49						
START pile, storage			20	0	0	0	0	50						
HEIGHT ABOVE GROUND LEVEL			21	0	0	0	0	51						
10ft			22	0	0	0	0	52						
HEIGHT RELATIVE TO OBSERVER			23	0	0	0	0	53						
START 10ft STOP 10ft			24	0	0	0	0	54						
DISTANCE FROM OBSERVER			25	0	0	0	0	55						
START 30ft STOP 30ft			26	0	0	0	0	56						
DIRECTION FROM OBSERVER			27	0	0	0	0	57						
START NW STOP NW			28	0	0	0	0	58						
DESCRIBE EMISSIONS			29	0	0	0	0	59						
START N/A STOP N/A			30	0	0	0	0	60						
EMISSION COLOR			AVERAGE OPACITY FOR HIGHEST PERIOD				NUMBER OF READINGS ABOVE % WERE							
START N/A STOP N/A			0				10 0							
PLUME TYPE: CONTINUOUS <input type="checkbox"/>			RANGE OF OPACITY READINGS				MINIMUM MAXIMUM							
FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>			0 0				0 0							
WATER DROPLETS PRESENT: NO <input checked="" type="checkbox"/> YES <input checked="" type="checkbox"/>			OBSERVER'S NAME (PRINT)				Matt Sloan							
IF WATER DROPLET PLUME: ATTACHED <input checked="" type="checkbox"/> DETACHED <input type="checkbox"/>			OBSERVER'S SIGNATURE				DATE							
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			Sun Location Line				2/28/19							
START 4ft above STOP 4ft above			OBSERVER'S SIGNATURE				DATE							
DESCRIBE BACKGROUND			OBSERVER'S SIGNATURE				DATE							
START process building STOP process building			OBSERVER'S SIGNATURE				DATE							
BACKGROUND COLOR			OBSERVER'S SIGNATURE				DATE							
START brown STOP brown			OBSERVER'S SIGNATURE				DATE							
SKY CONDITIONS			OBSERVER'S SIGNATURE				DATE							
START overcast STOP overcast			OBSERVER'S SIGNATURE				DATE							
WIND SPEED			OBSERVER'S SIGNATURE				DATE							
START 0-5 STOP 0-5			OBSERVER'S SIGNATURE				DATE							
WIND DIRECTION			OBSERVER'S SIGNATURE				DATE							
START calm STOP calm			OBSERVER'S SIGNATURE				DATE							
AMBIENT TEMP			OBSERVER'S SIGNATURE				DATE							
START 25 STOP 25			OBSERVER'S SIGNATURE				DATE							
WET BULB TEMP			OBSERVER'S SIGNATURE				DATE							
RH.percent			OBSERVER'S SIGNATURE				DATE							
-			OBSERVER'S SIGNATURE				DATE							
-			OBSERVER'S SIGNATURE				DATE							
Source Layout Sketch			OBSERVER'S SIGNATURE				DATE							
Draw North Arrow			OBSERVER'S SIGNATURE				DATE							
			OBSERVER'S SIGNATURE				DATE							
<p>                     Sun  Wind  Plume and Stack  Observers Position  Sun Location Line  </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     Emission Point  </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     140°  </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     calm wind  </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     COMMENTS: no emissions                 </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE                 </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     TITLE DATE                 </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     ORGANIZATION: Trinity Consultants                 </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     CERTIFIED BY: Aeromet Engineering DATE: 10/10/18                 </p>			OBSERVER'S SIGNATURE				DATE							
<p>                     VERIFIED BY: DATE:                 </p>			OBSERVER'S SIGNATURE				DATE							

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME				
American Zinc Recycling Corp. (Chicago Plant)			2/28/19				8:44		9:04				
ADDRESS			SEC	0	15	30	45	SEC	0	15	30	45	
2701 East 114th Street			MIN					MIN					
CITY			1	0	0	0	0	31					
Chicago			2	0	0	0	0	32					
STATE			3	0	0	0	0	33					
IL			4	0	0	0	0	34					
ZIP			5	0	0	0	0	35					
60617			6	0	0	0	0	36					
PHONE			7	0	0	0	0	37					
773-933-9260			8	0	0	0	0	38					
SOURCE ID NUMBER			9	0	0	0	0	39					
031600AFV			10	0	0	0	0	40					
PROCESS EQUIPMENT			11	0	0	0	0	41					
Main Iron Pile			12	0	0	0	0	42					
OPERATING MODE			13	0	0	0	0	43					
N/A			14	0	0	0	0	44					
CONTROL EQUIPMENT			15	0	0	0	0	45					
N/A			16	0	0	0	0	46					
OPERATING MODE			17	0	0	0	0	47					
N/A			18	0	0	0	0	48					
DESCRIBE EMISSION POINT			19	0	0	0	0	49					
START			20	0	0	0	0	50					
pile, stagnant			21	0	0	0	0	51					
HEIGHT ABOVE GROUND LEVEL			22	0	0	0	0	52					
START			23	0	0	0	0	53					
20ft			24	0	0	0	0	54					
HEIGHT RELATIVE TO OBSERVER			25	0	0	0	0	55					
START			26	0	0	0	0	56					
20ft			27	0	0	0	0	57					
STOP			28	0	0	0	0	58					
20ft			29	0	0	0	0	59					
DISTANCE FROM OBSERVER			30	0	0	0	0	60					
START			AVERAGE OPACITY FOR HIGHEST PERIOD									NUMBER OF READINGS ABOVE % WERE	
80ft			RANGE OF OPACITY READINGS									OBSERVER'S NAME (PRINT)	
STOP			MINIMUM									MAXIMUM	
80ft			OBSERVER'S SIGNATURE									DATE	
DIRECTION FROM OBSERVER			Trinity Consultants									10/10/18	
START			CERTIFIED BY: Aeromet Engineering									DATE	
W			VERIFIED BY:									DATE	
STOP			TITLE									DATE	
W			I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE									DATE	
DESCRIBE EMISSIONS			COMMENTS									DATE	
START			NO emissions									DATE	
STOP			DATE									DATE	
N/A			DATE									DATE	
STOP			DATE									DATE	
N/A			DATE									DATE	
EMISSION COLOR			DATE									DATE	
START			DATE									DATE	
N/A			DATE									DATE	
STOP			DATE									DATE	
N/A			DATE									DATE	
WATER DROPLETS PRESENT:			DATE									DATE	
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>			DATE									DATE	
IF WATER DROPLET PLUME:			DATE									DATE	
ATTACHED <input type="checkbox"/> DETACHED <input type="checkbox"/>			DATE									DATE	
N/A			DATE									DATE	
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			DATE									DATE	
START			DATE									DATE	
4ft above			DATE									DATE	
STOP			DATE									DATE	
4ft above			DATE									DATE	
DESCRIBE BACKGROUND			DATE									DATE	
START			DATE									DATE	
sky			DATE									DATE	
STOP			DATE									DATE	
sky			DATE									DATE	
BACKGROUND COLOR			DATE									DATE	
START			DATE									DATE	
grey			DATE									DATE	
STOP			DATE									DATE	
grey			DATE									DATE	
WIND SPEED			DATE									DATE	
START			DATE									DATE	
0-5			DATE									DATE	
STOP			DATE									DATE	
0-5			DATE									DATE	
WIND DIRECTION			DATE									DATE	
START			DATE									DATE	
NE			DATE									DATE	
STOP			DATE									DATE	
NE			DATE									DATE	
AMBIENT TEMP			DATE									DATE	
START			DATE									DATE	
75			DATE									DATE	
STOP			DATE									DATE	
75			DATE									DATE	
WET BULB TEMP			DATE									DATE	
-			DATE									DATE	
RH.percent			DATE									DATE	
-			DATE									DATE	
Source Layout Sketch			DATE									DATE	
Draw North Arrow			DATE									DATE	
			DATE									DATE	

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME			
American Zinc Recycling Corp. (Chicago Plant)			2/28/19				9:40		10:00			
ADDRESS			SEC	0	15	30	45	SEC	0	15	30	45
2701 East 114th Street			MIN					MIN				
CITY	STATE	ZIP	1	0	0	0	0	31				
Chicago	IL	60617	2	0	0	0	0	32				
PHONE	SOURCE ID NUMBER		3	0	0	0	0	33				
773-933-9260	031600AFV		4	0	0	0	0	34				
PROCESS EQUIPMENT		OPERATING MODE	5	0	0	0	0	35				
IRM Storage Bunker		N/A	6	0	0	0	0	36				
CONTROL EQUIPMENT		OPERATING MODE	7	0	0	0	0	37				
N/A		N/A	8	0	0	0	0	38				
DESCRIBE EMISSION POINT			9	0	0	0	0	39				
START piles, stagnant			10	0	0	0	0	40				
HEIGHT ABOVE GROUND LEVEL	HEIGHT RELATIVE TO OBSERVER		11	0	0	0	0	41				
8ft	START 8ft STOP 8ft		12	0	0	0	0	42				
DISTANCE FROM OBSERVER	DIRECTION FROM OBSERVER		13	0	0	0	0	43				
START 30ft STOP 30ft	START NW STOP NW		14	0	0	0	0	44				
DESCRIBE EMISSIONS			15	0	0	0	0	45				
START N/A STOP N/A			16	0	0	0	0	46				
EMISSION COLOR	PLUME TYPE: CONTINUOUS <input type="checkbox"/>		17	0	0	0	0	47				
START N/A STOP N/A	FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>		18	0	0	0	0	48				
WATER DROPLETS PRESENT:	IF WATER DROPLET PLUME:		19	0	0	0	0	49				
NO <input checked="" type="checkbox"/> YES <input type="checkbox"/>	ATTACHED <input type="checkbox"/> DETACHED <input checked="" type="checkbox"/> N/A		20	0	0	0	0	50				
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			21					51				
START 4ft above STOP 4ft above			22					52				
DESCRIBE BACKGROUND			23					53				
START sky STOP sky			24					54				
BACKGROUND COLOR	SKY CONDITIONS		25					55				
START grey STOP grey	START overcast STOP overcast		26					56				
WIND SPEED	WIND DIRECTION		27					57				
START 0-5 STOP 0-5	START NE STOP NE		28					58				
AMBIENT TEMP	WET BULB TEMP	RH.percent	29					59				
START 25 STOP 25			30					60				
Source Layout Sketch			AVERAGE OPACITY FOR HIGHEST PERIOD 0									
<p>Draw North Arrow</p> <p>Emission Point</p> <p>Observers Position</p> <p>140°</p> <p>Sun Location Line</p> <p>Sun</p> <p>Wind</p> <p>Plume and Stack</p>			NUMBER OF READINGS ABOVE 10 % WERE 0									
<p>Comments: no emission</p>			RANGE OF OPACITY READINGS									
			0 MINIMUM 0 MAXIMUM									
			OBSERVER'S NAME (PRINT) Matt Sloan									
			OBSERVER'S SIGNATURE						DATE			
			Trinity Consultants						2/28/19			
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			CERTIFIED BY: Aeromet Engineering						DATE 10/10/18			
TITLE			VERIFIED BY:						DATE			

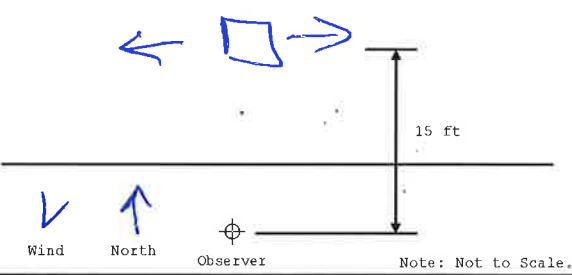
SOURCE NAME			OBSERVATION DATE				START TIME				STOP TIME				
American Zinc Recycling Corp. (Chicago Plant)			3/25/19				11:15				11:19				
ADDRESS			SEC				SEC								
2701 East 114th Street			MIN	0	15	30	45	MIN	0	15	30	45			
CITY			1	0	5	5	5	31							
Chicago			2	0	0	0	0	32	} 1 dump truck						
STATE			3	10	5	5	0	33							
IL			4	0	0	0	0	34							
ZIP			5												
60617			6												
PHONE			7												
773-933-9260			8												
SOURCE ID NUMBER			9												
031600AFV			10												
PROCESS EQUIPMENT			11												
12m Trade Loading			12												
OPERATING MODE			13												
Loading			14												
CONTROL EQUIPMENT			15												
			16												
OPERATING MODE			17												
			18												
DESCRIBE EMISSION POINT			19												
START Dumping 12m to truck			20												
HEIGHT ABOVE GROUND LEVEL			21												
15 ft			22												
HEIGHT RELATIVE TO OBSERVER			23												
START 15 STOP 15			24												
DISTANCE FROM OBSERVER			25												
START 100 STOP 100			26												
DIRECTION FROM OBSERVER			27												
START S STOP S			28												
DESCRIBE EMISSIONS			29												
START dust STOP dust			30												
EMISSION COLOR															
START brown STOP brown															
WATER DROPLETS PRESENT:															
NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>															
PLUME TYPE: CONTINUOUS <input type="checkbox"/>															
FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>															
IF WATER DROPLET PLUME:															
ATTACHED <input checked="" type="checkbox"/> DETACHED <input type="checkbox"/>															
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED															
START 3 ft above STOP 3 ft above															
DESCRIBE BACKGROUND															
START clear STOP sky															
BACKGROUND COLOR															
START blue STOP blue															
SKY CONDITIONS															
START clear STOP clear															
WIND SPEED															
START 10-15 STOP 10-15															
WIND DIRECTION															
START S STOP S															
AMBIENT TEMP															
START 35-40 STOP 35-40															
WET BULB TEMP															
RH.percent															
Source Layout Sketch															
<p>Draw North Arrow</p> <p>X Emission Point</p> <p>Observers Position</p> <p>140°</p> <p>Sun Location Line</p> <p>Sun Wind Plume and Stack</p> <p>1 wind</p>															
AVERAGE OPACITY FOR HIGHEST PERIOD			2.19%				NUMBER OF READINGS ABOVE 10% WERE				0				
RANGE OF OPACITY READINGS			MINIMUM 0%				MAXIMUM 10%								
OBSERVER'S NAME (PRINT)			Matt Sloan												
OBSERVER'S SIGNATURE							DATE				3/25/19				
COMMENTS			sun directly overhead												
ORGANIZATION			Trinity Consultants												
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			CERTIFIED BY: Aeromet Engineering				DATE				10/10/18				
TITLE			VERIFIED BY:				DATE								



**Method 9 Visual Emissions Observation Record Form**  
**Paved and Unpaved Roadways**

Company: American Zinc Recycling Corp. (Chicago Plant)		Provide sketch of observer's position relative to the source:		
Address: 2701 East 114th Street, Chicago, IL 60617		<p align="center">Note: Not to Scale.</p>		
Facility ID: 031600AFV				
Date: 3/21/15				
Location Description: Paved Road - Main Truck Road				
Control Device: Watering				
Hours of Observation: < 0.5				
Observer's Name: Matt Sloan		Observer's Affiliation: TCM, Inc.		
Certification Date of Observer: 10/10/18		Height of Discharge Point: 0 ft		
Point of Emissions: Roadway/Tire Interface				
CLOCK TIME	Initial	1:13	Final	1:16
OBSERVER LOCATION				
Distance to discharge	15 ft	15 ft		
Direction from discharge	90 degrees	90 degrees		
Height of observation point	4 ft	4 ft		
BACKGROUND DESCRIPTION	Reeds			
WEATHER CONDITIONS				
Wind Direction	From the N		From the N	
Wind Speed	0-5 mph		0-5 mph	
Ambient Temperature	35-40 F		35-40 F	
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	cloudy			
PLUME DESCRIPTION				
Color	N/A			
Distance Visible	miles		miles	
OTHER INFORMATION				
SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity (%)	
	Start	End	Sum	Average
1	1:13:15	- 1:13:30	0	0
2	1:13:45	- 1:14:00	0	0
3	1:14:15	- 1:14:30	0	0
4	1:15:00	- 1:15:15	0	0
Readings ranged from <u>0</u> to <u>0</u> % opacity.				
Average of 12 readings: <u>0</u>				

**Method 9 Visual Emissions Observation Record Form**  
**Paved and Unpaved Roadways**

Company: American Zinc Recycling Corp. (Chicago Plant)		Provide sketch of observer's position relative to the source:		
Address: 2701 East 114th Street, Chicago, IL 60617				
Facility ID: 031600AFV				
Date: 3/21/19				
Location Description: Parking Lot				
Control Device: Watering				
Hours of Observation: < 0.5				
Observer's Name: Matt Sloan				
Certification Date of Observer: 10/10/18		Observer's Affiliation: Trinity		
Point of Emissions: Roadway/Tire Interface		Height of Discharge Point: 0 ft		
CLOCK TIME	Initial	1:20	Final	1:24
OBSERVER LOCATION				
Distance to discharge	15 ft	15 ft		
Direction from discharge	90 degrees	90 degrees		
Height of observation point	4 ft	4 ft		
BACKGROUND DESCRIPTION	cars, plants		cars, plants	
WEATHER CONDITIONS				
Wind Direction	From the N		From the N	
Wind Speed	0-5 mph		0-5 mph	
Ambient Temperature	35-40 F		35-40 F	
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	cloudy		cloudy	
PLUME DESCRIPTION				
Color	N/A		N/A	
Distance Visible	miles		miles	
OTHER INFORMATION				
SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity (%)	
	Start	End	Sum	Average
1	1:20:00	- 1:20:15	0	0
2	1:21:15	- 1:21:30	0	0
3	1:22:45	- 1:23:00	0	0
4	1:24:00	- 1:24:15	0	0
Readings ranged from <u>0</u> to <u>0</u> % opacity.				
Average of 12 readings: <u>0</u>				

**Method 9 Visual Emissions Observation Record Form**  
**Paved and Unpaved Roadways**

Company: American Zinc Recycling Corp. (Chicago Plant)		Provide sketch of observer's position relative to the source:		
Address: 2701 East 114th Street, Chicago, IL 60617				
Facility ID: 031600AFV				
Date: 3/21/19				
Location Description: Paved Road - To RPM Truck Loading				
Control Device: Watering				
Hours of Observation: < 0.5				
Observer's Name: Matt Sloan				
Certification Date of Observer: 10/10/18		Observer's Affiliation: Trinity		
Point of Emissions: Roadway/Tire Interface		Height of Discharge Point: 0 ft		
CLOCK TIME	Initial	12:52	Final	1:10
OBSERVER LOCATION				
Distance to discharge	15 ft	15 ft		
Direction from discharge	90 degrees	90 degrees		
Height of observation point	4 ft	4 ft		
BACKGROUND DESCRIPTION	trailers			
WEATHER CONDITIONS				
Wind Direction	From the N		From the N	
Wind Speed	0-5 mph		0-5 mph	
Ambient Temperature	35-40 F		35-40 F	
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	cloudy		cloudy	
PLUME DESCRIPTION				
Color	N/A		N/A	
Distance Visible	miles		miles	
OTHER INFORMATION				
SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity (%)	
	Start - End		Sum	Average
1	12:52:00 - 12:52:15		0	0
2	1:07:15 - 1:07:45		0	0
3	1:07:45 - 1:08:00		0	0
4	1:09:45 - 1:10:00		0	0
Readings ranged from <u>0</u> to <u>0</u> % opacity.				
Average of 12 readings: <u>0</u>				

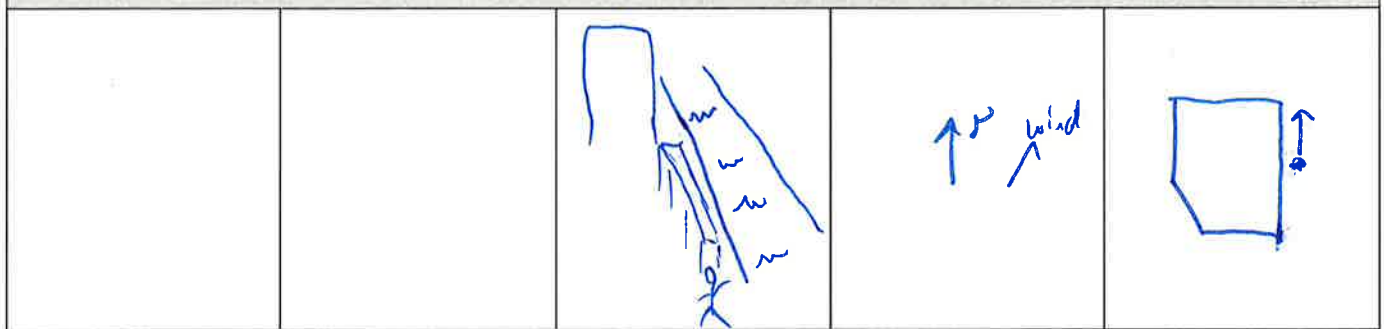
**Method 9 Visual Emissions Observation Record Form**  
**Paved and Unpaved Roadways**

Company: American Zinc Recycling Corp. (Chicago Plant)		Provide sketch of observer's position relative to the source:		
Address: 2701 East 114th Street, Chicago, IL 60617				
Facility ID: 031600AFV				
Date: 3/25/19				
Location Description: Unpaved Road - Section of 114th				
Control Device: Water spray				
Hours of Observation: < 0.5 hrs		Note: Not to Scale.		
Observer's Name: Matt Sloan		Observer's Affiliation: Trinity		
Certification Date of Observer: 10/10/18		Height of Discharge Point: 0 ft		
Point of Emissions: Roadway/Tire Interface				
CLOCK TIME	Initial	11:45	Final	11:56
OBSERVER LOCATION				
Distance to discharge	15 ft	15 ft		
Direction from discharge	90 degrees	90 degrees		
Height of observation point	4 ft	4 ft		
BACKGROUND DESCRIPTION	grasses	grasses		
WEATHER CONDITIONS				
Wind Direction	From the N	From the N		
Wind Speed	10-15 mph	10-15 mph		
Ambient Temperature	40 F	40 F		
SKY CONDITIONS (e.g., clear, overcast, % clouds, etc.)	clear	clear		
PLUME DESCRIPTION				
Color	N/A	N/A		
Distance Visible	miles	miles		
OTHER INFORMATION				
SUMMARY OF AVERAGE OPACITY				
Set Number	Time		Opacity (%)	
	Start - End		Sum	Average
1	11:45:45	- 11:46:00	0	0
2	11:50:00	- 11:50:15	0	0
3	11:50:15	- 11:50:30	0	0
4	11:56:30	- 11:56:45	0	0
Readings ranged from <u>0</u> to <u>0</u> % opacity.				
Average of 12 readings: <u>0</u>				

## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28/19
<b>Sky Conditions</b> overcast	<b>Wind Direction</b> NE
<b>Precipitation</b> ☉	<b>Wind Speed</b> 0-5
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> <del>East</del> boundary, looking North

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

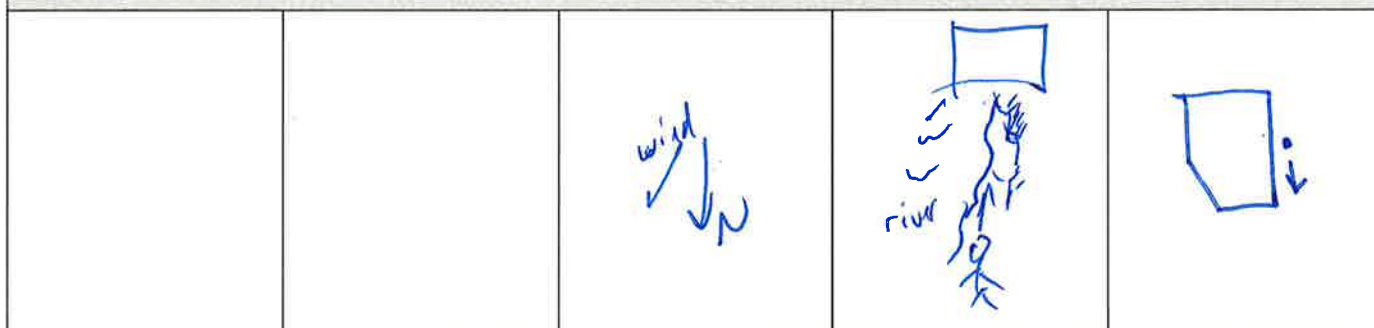
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	9:05		
		2:00	0:00
	9:07		
		2:00	0:00
	9:09		
		2:00	0:00
	9:11		
		2:00	0:00
	9:13		
<b>End Observation</b>	9:15	2:00	0:00

<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b>	0%
<small>(Total Emission Time/Total Sample Time) x 100%</small>	

## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28/19
<b>Sky Conditions</b> Overcast	<b>Wind Direction</b> <del>SE</del> NE
<b>Precipitation</b> 0	<b>Wind Speed</b> 0-5
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> East boundary, looks South

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

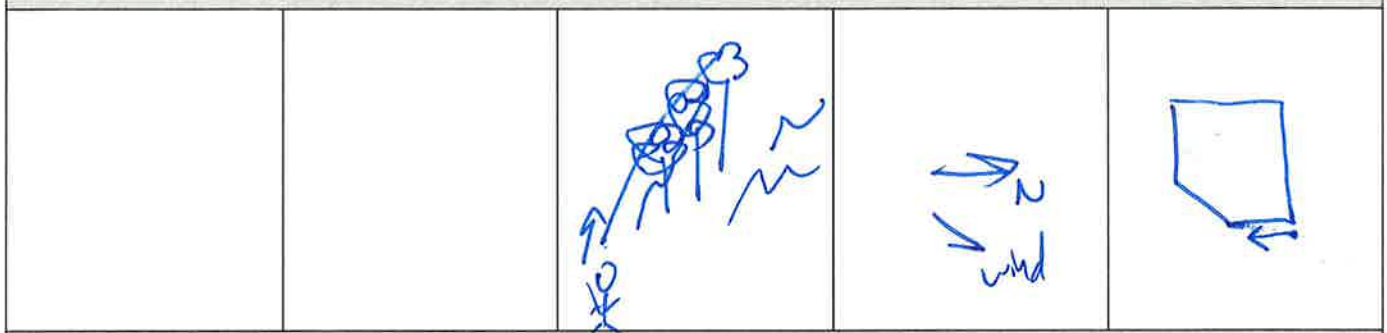
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	9:16		
		2:00	0:00
	9:18		
		2:00	0:00
	9:20		
		2:00	0:00
	9:22		
		2:00	0:00
	9:24		
<b>End Observation</b>	9:26	2:00	0:00

<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b>	0%
(Total Emission Time/Total Sample Time) x 100%	

## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28/19
<b>Sky Conditions</b> Overcast	<b>Wind Direction</b> NE
<b>Precipitation</b> 0	<b>Wind Speed</b> 0-5
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> South boundary

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

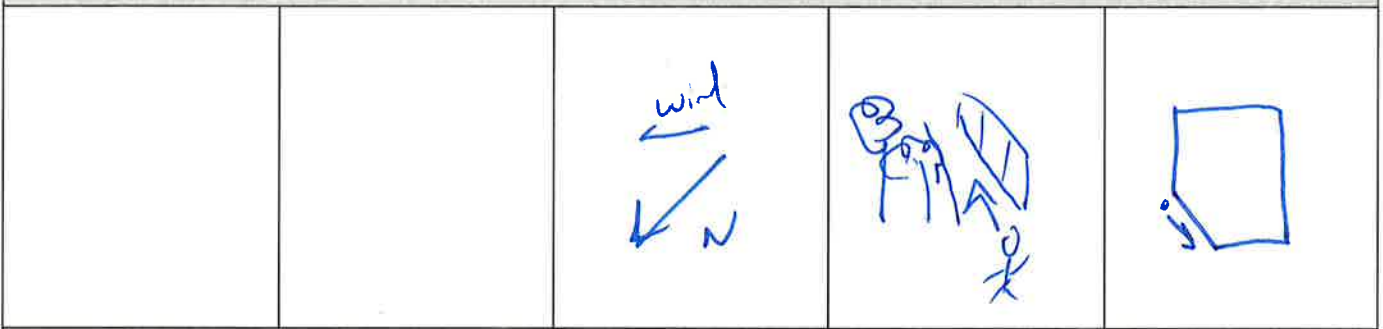
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	9:28		
		2:00	0:00
	9:30		
		2:00	0:00
	9:32		
		2:00	0:00
	9:34		
		2:00	0:00
	9:36		
<b>End Observation</b>	9:38	2:40	0:00

<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b> (Total Emission Time/Total Sample Time) x 100%	0%

## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28
<b>Sky Conditions</b> overcast	<b>Wind Direction</b> NE
<b>Precipitation</b> 0	<b>Wind Speed</b> 0-5
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> SW boundary, looking SE

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	10:15		
		2:00	0:00
	10:17		
		2:00	0:00
	10:19		
		2:00	0:00
	10:21		
		2:00	0:00
	10:23		
<b>End Observation</b>	10:25	2:00	0:00

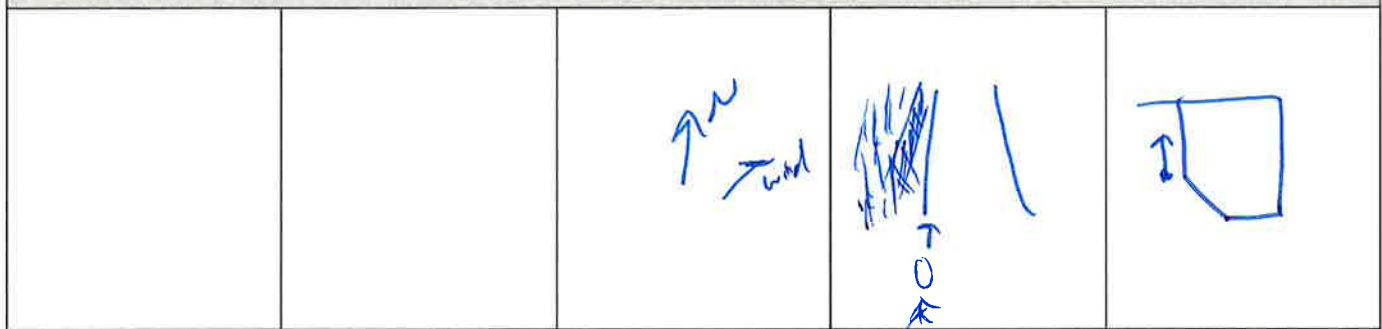
<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b>	0%
(Total Emission Time/Total Sample Time) x 100%	



## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28/19
<b>Sky Conditions</b> overcast	<b>Wind Direction</b> NE
<b>Precipitation</b> 0	<b>Wind Speed</b> 0-5
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> West boundary, looking N

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

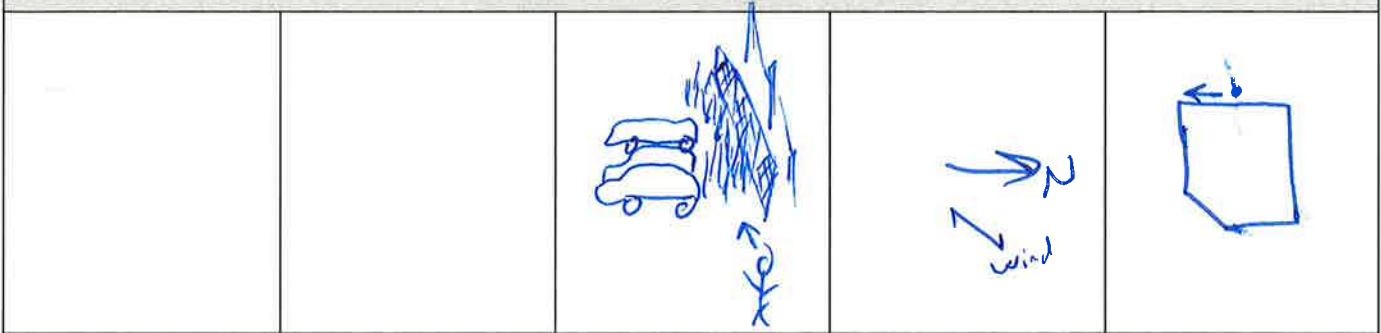
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	10:26		
		2:00	0:00
	10:28		
		2:00	0:00
	10:30		
		2:00	0:00
	10:32		
		2:00	0:00
	10:34		
<b>End Observation</b>	10:36	2:00	0:00

<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b>	0%
(Total Emission Time/Total Sample Time) x 100%	

## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28/19
<b>Sky Conditions</b> overcast	<b>Wind Direction</b> NE / SW
<b>Precipitation</b> 0	<b>Wind Speed</b> 0-5 (calm)
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> N boundary, looking W

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

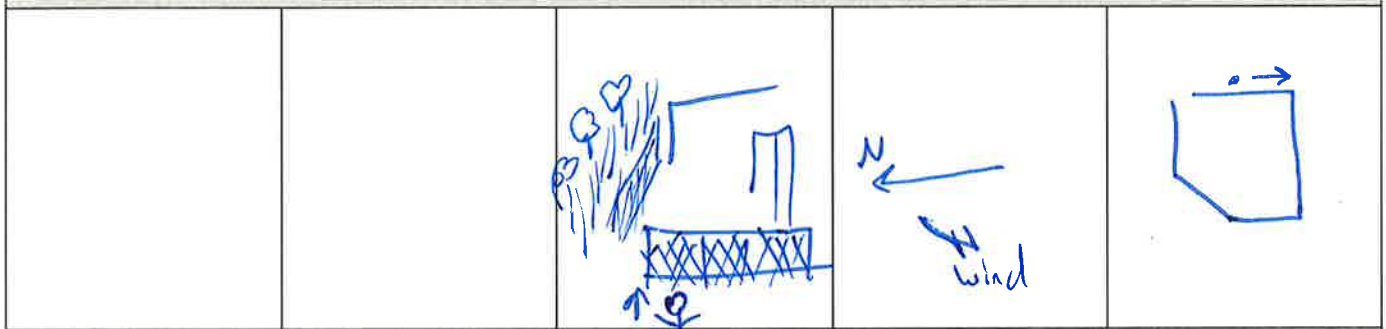
	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	10:38		
		2:00	0:00
	10:40		
		2:00	0:00
	10:42		
		2:00	0:00
	10:44		
		2:00	0:00
	10:46		
<b>End Observation</b>	10:48	2:00	0:00

<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b>	0%
(Total Emission Time/Total Sample Time) x 100%	

## FUGITIVE OR SMOKE EMISSION INSPECTION OUTSIDE LOCATION – METHOD 22

<b>Company</b> American Zinc Recycling Corp. (Chicago Plant)	<b>Observer</b> Matt Sloan
<b>Location</b> Chicago Plant, 2701 E. 114th St, Chicago, IL 60617	<b>Affiliation</b> Trinity Consultants
<b>Company Rep.</b> Ruth Grissman	<b>Date</b> 2/28/19
<b>Sky Conditions</b> overcast	<b>Wind Direction</b> SW
<b>Precipitation</b> 0	<b>Wind Speed</b> 0-5 (calm)
<b>Industry</b> Secondary Refining of Non Ferrous Metals	<b>Process Unit</b> N boundary, looking E

**Sketch Process Unit: Indicate observer position relative to source; indicate potential emission points and/or actual emission points.**



### OBSERVATIONS

	Clock Time	Observation Period Duration (min:sec)	Actual Emission Time (min:sec)
<b>Begin Observation</b>	10:49		
		2:00	0:00
	10:51		
		2:00	0:00
	10:53		
		2:00	0:00
	10:55		
		2:00	0:00
	10:57		
<b>End Observation</b>	10:59	2:00	0:00

<b>Total Sample Time:</b>	10:00
<b>Total Emission Time:</b>	0:00
<b>Emission Frequency:</b>	0%
(Total Emission Time/Total Sample Time) x 100%	

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME											
American Zinc Recycling Corp. (Chicago Plant)			3/21/19				9:00		9:20											
ADDRESS			SEC				SEC													
2701 East 114th Street			MIN	0	15	30	45	MIN	0	15	30	45								
CITY			1	0	0	0	0	31												
Chicago			2	0	0	0	0	32												
STATE			3	0	0	0	0	33												
IL			4	0	0	0	0	34												
ZIP			5	0	0	0	0	35												
60617			6	0	0	0	0	36												
PHONE			7	0	0	0	0	37												
773-933-9260			8	0	0	0	0	38												
SOURCE ID NUMBER			9	0	0	0	0	39												
031600AFV			10	0	0	0	0	40												
PROCESS EQUIPMENT			11	0	0	0	0	41												
Barge Loading hopper			12	0	0	0	0	42												
OPERATING MODE			13	0	0	0	0	43												
Loading			14	0	0	0	0	44												
CONTROL EQUIPMENT			15	0	0	0	0	45												
			16	0	0	0	0	46												
OPERATING MODE			17	0	0	0	0	47												
			18	0	0	0	0	48												
DESCRIBE EMISSION POINT			19	0	0	0	0	49												
START hopper being loaded			20	0	0	0	0	50												
HEIGHT ABOVE GROUND LEVEL			21					51												
20 ft			22					52												
HEIGHT RELATIVE TO OBSERVER			23					53												
START 20 STOP 20			24					54												
DISTANCE FROM OBSERVER			25					55												
START 150ft STOP 150			26					56												
DIRECTION FROM OBSERVER			27					57												
START N STOP N			28					58												
DESCRIBE EMISSIONS			29					59												
START N/A STOP N/A			30					60												
EMISSION COLOR			PLUME TYPE: CONTINUOUS <input type="checkbox"/>						AVERAGE OPACITY FOR HIGHEST PERIOD			NUMBER OF READINGS ABOVE HIGHEST PERIOD								
START N/A STOP N/A			FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>						0%			10 % WERE 0								
WATER DROPLETS PRESENT:			IF WATER DROPLET PLUME:						RANGE OF OPACITY READINGS			OBSERVER'S NAME (PRINT)								
NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>			ATTACHED <input checked="" type="checkbox"/> DETACHED <input type="checkbox"/>						MINIMUM 0% MAXIMUM 0%			Matt Sloan								
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			START 4ft above hopper STOP 4ft above hopper						OBSERVER'S SIGNATURE			DATE								
DESCRIBE BACKGROUND			START sky/silo STOP sky/silo						Trinity Consultants			3/21/19								
BACKGROUND COLOR			SKY CONDITIONS						CERTIFIED BY:			DATE								
START Grey STOP grey			START Clouds STOP clouds						Aeromet Engineering			10/10/18								
WIND SPEED			WIND DIRECTION						VERIFIED BY:			DATE								
START 5-10 STOP 5-10			START S STOP S																	
AMBIENT TEMP			WET BULB TEMP			RH.percent														
START 35-40 STOP 35-40			-			-														
<p>Source Layout Sketch</p> <p>Draw North Arrow</p> <p>X Emission Point</p> <p>Observers Position</p> <p>140°</p> <p>Sun Location Line</p> <p>Sun</p> <p>Wind</p> <p>Plume and Stack</p> <p>wind</p>												COMMENTS			OBSERVER'S SIGNATURE			DATE		
<p>no emission</p> <p>sun not visible</p>												Matt Sloan			3/21/19					
I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE												ORGANIZATION			CERTIFIED BY:			DATE		
												Trinity Consultants			Aeromet Engineering			10/10/18		
TITLE												DATE			VERIFIED BY:			DATE		

SOURCE NAME			OBSERVATION DATE				START TIME		STOP TIME			
American Zinc Recycling Corp. (Chicago Plant)			3/21/19				9:22		9:42			
ADDRESS			SEC					SEC				
2701 East 114th Street			MIN	0	15	30	45	MIN	0	15	30	45
CITY			1	0	0	0	0	31				
Chicago			2	0	0	0	0	32				
STATE			3	0	0	0	0	33				
IL			4	0	0	0	0	34				
ZIP			5	0	0	0	0	35				
60617			6	0	0	0	0	36				
PHONE			7	0	0	0	0	37				
773-933-9260			8	0	0	0	0	38				
SOURCE ID NUMBER			9	0	0	0	0	39				
031600AFV			10	0	0	0	0	40				
PROCESS EQUIPMENT			11	0	0	0	0	41				
Barge Loading Conveyor/chute loading			12	0	0	0	0	42				
OPERATING MODE			13	0	0	0	0	43				
CONTROL EQUIPMENT			14	0	0	0	0	44				
OPERATING MODE			15	0	0	0	0	45				
DESCRIBE EMISSION POINT			16	0	0	0	0	46				
START conveyor drop point			17	0	0	0	0	47				
HEIGHT ABOVE GROUND LEVEL			18	0	0	0	0	48				
25 ft			19	0	0	0	0	49				
HEIGHT RELATIVE TO OBSERVER			20	0	0	0	0	50				
START 25 STOP 25			21	0	0	0	0	51				
DISTANCE FROM OBSERVER			22	0	0	0	0	52				
START 150 ft STOP 150 ft			23	0	0	0	0	53				
DIRECTION FROM OBSERVER			24	0	0	0	0	54				
START N STOP N			25	0	0	0	0	55				
DESCRIBE EMISSIONS			26	0	0	0	0	56				
START STOP			27	0	0	0	0	57				
EMISSION COLOR			28	0	0	0	0	58				
START STOP			29	0	0	0	0	59				
PLUME TYPE: CONTINUOUS <input type="checkbox"/>			30	0	0	0	0	60				
FUGITIVE <input checked="" type="checkbox"/> INTERMITTENT <input type="checkbox"/>			AVERAGE OPACITY FOR HIGHEST PERIOD			NUMBER OF READINGS ABOVE						
WATER DROPLETS PRESENT: NO <input type="checkbox"/> YES <input checked="" type="checkbox"/>			RANGE OF OPACITY READINGS			MINIMUM			MAXIMUM			
IF WATER DROPLET PLUME: ATTACHED <input checked="" type="checkbox"/> DETACHED <input type="checkbox"/>			0%			0%			10 % WERE 0			
POINT IN THE PLUME AT WHICH OPACITY WAS DETERMINED			OBSERVER'S NAME (PRINT)			Matt Sloan						
START 3ft above drop STOP 3ft above drop			OBSERVER'S SIGNATURE			Trinity Consultants			DATE 3/21/19			
DESCRIBE BACKGROUND			I HAVE RECEIVED A COPY OF THESE OPACITY OBSERVATIONS SIGNATURE			CERTIFIED BY: Aeromet Engineering			DATE 10/10/18			
START sky STOP sky			TITLE			VERIFIED BY:			DATE			
BACKGROUND COLOR			DATE									
START grey STOP grey												
SKY CONDITIONS												
START cloudy STOP cloudy												
WIND SPEED												
START 5-10 STOP 5-10												
WIND DIRECTION												
START S STOP S												
AMBIENT TEMP												
START 35-40 STOP 35-40												
WET BULB TEMP												
RH.percent												
Source Layout Sketch												
<p>Draw North Arrow</p> <p>X Emission Point</p> <p>Observers Position</p> <p>140°</p> <p>Sun Location Line</p> <p>Sun</p> <p>Wind</p> <p>Plume and Stack</p> <p>wind</p>												
COMMENTS												
no emissions												
sun not visible												

## APPENDIX D: METEOROLOGICAL DATA

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### Met Data from February 28, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
2/28/2019 0:04	3.704	316.3	5.991	17.39	0	0
2/28/2019 0:09	4.77	307.4	7.778	17.3	0	0
2/28/2019 0:14	3.287	317	6.587	17.23	0	0
2/28/2019 0:19	3.396	321.2	5.991	17.22	0	0
2/28/2019 0:24	2.868	323.2	5.991	17.11	0	0
2/28/2019 0:29	2.854	312.2	5.991	17.01	0	0
2/28/2019 0:34	3.862	306.9	7.182	16.87	0	0
2/28/2019 0:39	3.958	305.8	5.991	16.89	0	0
2/28/2019 0:44	4.264	310.1	7.778	16.89	0	0
2/28/2019 0:49	3.797	331.1	7.182	16.84	0	0
2/28/2019 0:54	5.401	330.2	8.97	16.98	0	0
2/28/2019 0:59	5.55	329.9	8.97	17	0	0
2/28/2019 1:04	4.669	328.6	7.778	16.99	0	0
2/28/2019 1:09	2.954	309.4	4.204	16.81	0	0
2/28/2019 1:14	3.626	294.2	5.395	16.58	0	0
2/28/2019 1:19	3.338	298.3	5.991	16.51	0	0
2/28/2019 1:24	3.612	304.3	5.991	16.35	0	0
2/28/2019 1:29	2.735	322.1	5.991	16.34	0	0
2/28/2019 1:34	1.751	308.8	4.204	16.24	0	0
2/28/2019 1:39	2.196	315.2	4.204	16.12	0	0
2/28/2019 1:44	2.21	318	4.8	16.12	0	0
2/28/2019 1:49	2.636	325.1	4.8	16.14	0	0
2/28/2019 1:54	2.414	305.8	4.204	16.13	0	0
2/28/2019 1:59	2.986	306	4.204	16.11	0	0
2/28/2019 2:04	2.407	307.2	4.204	15.95	0	0
2/28/2019 2:09	2.086	311.6	3.608	15.82	0	0
2/28/2019 2:14	2.587	307.4	4.8	15.67	0	0
2/28/2019 2:19	2.652	297.1	4.204	15.67	0	0
2/28/2019 2:24	3.163	291.3	5.395	15.67	0	0
2/28/2019 2:29	2.811	300	4.204	15.67	0	0
2/28/2019 2:34	3.008	304.2	5.991	15.67	0	0
2/28/2019 2:39	3.543	301	5.395	15.67	0	0
2/28/2019 2:44	3.995	300	5.991	15.67	0	0
2/28/2019 2:49	4.192	298.4	5.991	15.67	0	0
2/28/2019 2:54	4.752	298	7.182	15.67	0	0
2/28/2019 2:59	3.242	311.4	5.991	15.66	0	0
2/28/2019 3:04	4.597	299.2	7.182	15.5	0	0
2/28/2019 3:09	4.758	298.2	5.991	15.45	0	0
2/28/2019 3:14	4.156	302	5.991	15.37	0	0
2/28/2019 3:19	3.422	301.8	5.991	15.23	0	0
2/28/2019 3:24	3.408	300.9	4.8	15.23	0	0
2/28/2019 3:29	3.465	297.4	4.8	15.23	0	0
2/28/2019 3:34	3.894	297.8	5.991	15.23	0	0
2/28/2019 3:39	3.904	295.8	5.991	15.27	0	0
2/28/2019 3:44	3.393	300.6	5.395	15.23	0	0
2/28/2019 3:49	4.329	296.2	5.991	15.24	0	0
2/28/2019 3:54	4.514	296.1	6.587	15.42	0	0
2/28/2019 3:59	4.168	296.3	5.991	15.35	0	0
2/28/2019 4:04	4.466	293.4	6.587	15.35	0	0
2/28/2019 4:09	5.217	297.4	7.182	15.48	0	0
2/28/2019 4:14	3.305	309.5	5.991	15.57	0	0
2/28/2019 4:19	3.918	319.1	5.991	15.66	0	0
2/28/2019 4:24	4.303	327.4	7.182	15.73	0	0
2/28/2019 4:29	4.144	324.9	7.182	15.85	0	0
2/28/2019 4:34	4.692	319.7	7.778	15.72	0	0
2/28/2019 4:39	3.257	305.1	5.395	15.69	0	0
2/28/2019 4:44	3.83	310.9	6.587	15.64	0	0

### Met Data from February 28, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
2/28/2019 4:49	4.931	329.6	7.778	15.8	0	0
2/28/2019 4:54	5.234	332.2	7.778	15.89	0	0
2/28/2019 4:59	4.103	327.6	7.182	15.89	0	0
2/28/2019 5:04	2.903	310.9	5.395	15.88	0	0
2/28/2019 5:09	2.993	321.6	5.395	15.84	0	0
2/28/2019 5:14	3.389	308	5.991	15.9	0	0
2/28/2019 5:19	3.894	300.1	5.991	15.9	0	0
2/28/2019 5:24	3.662	306	5.991	15.86	0	0
2/28/2019 5:29	5.032	299.4	7.182	15.68	0	0
2/28/2019 5:34	5.735	293.8	7.778	15.63	0	0
2/28/2019 5:39	5.324	294.9	7.778	15.62	0	0
2/28/2019 5:44	4.383	292.1	5.991	15.68	0	0
2/28/2019 5:49	4.859	297.9	7.182	15.68	0	0
2/28/2019 5:54	4.549	295.9	5.991	15.68	0	0
2/28/2019 5:59	4.865	294	7.778	15.68	0	0
2/28/2019 6:04	4.097	290.6	5.991	15.68	0	0
2/28/2019 6:09	5.514	295.9	7.778	15.68	0	0
2/28/2019 6:14	4.835	300.5	7.182	15.69	0	0
2/28/2019 6:19	4.625	304.2	7.182	15.77	0	0
2/28/2019 6:24	3.616	315.8	6.587	15.9	0	0
2/28/2019 6:29	3.555	316.6	6.587	15.9	0	0
2/28/2019 6:34	3.946	320.6	5.991	15.9	0	0
2/28/2019 6:39	4.392	319.9	7.778	15.69	0	0
2/28/2019 6:44	3.547	301.8	4.8	15.68	0	0
2/28/2019 6:49	4.198	291.6	7.182	15.56	0	0
2/28/2019 6:54	4.71	298.3	6.587	15.46	0	0
2/28/2019 6:59	4.335	295.4	5.395	15.46	0	0
2/28/2019 7:04	4.526	296.8	6.587	15.58	0	0
2/28/2019 7:09	5.092	297.1	7.182	15.8	0	0
2/28/2019 7:14	5.103	292	6.587	16.21	0	0
2/28/2019 7:19	4.794	298.7	7.182	16.83	0	0
2/28/2019 7:24	4.818	299.4	7.182	16.86	0	0
2/28/2019 7:29	4.806	292.6	6.587	16.57	0	0
2/28/2019 7:34	3.912	304.4	5.991	16.79	0	0
2/28/2019 7:39	4.746	297.6	5.991	16.85	0	0
2/28/2019 7:44	3.799	299.1	5.395	17.04	0	0
2/28/2019 7:49	4.216	298.1	5.991	17.36	0	0
2/28/2019 7:54	4.579	283.7	6.587	17.34	0	0
2/28/2019 7:59	4.061	289.3	5.991	17.58	0	0
2/28/2019 8:04	4.204	328.4	5.991	17.78	0	0
2/28/2019 8:09	3.936	308.5	6.587	17.9	0	0
2/28/2019 8:14	4.52	291.2	6.587	18.01	0	0
2/28/2019 8:19	4.367	313.1	6.587	18.37	0	0
2/28/2019 8:24	3.399	316.7	7.182	18.49	0	0
2/28/2019 8:29	3.8	303.2	5.991	18.74	0	0
2/28/2019 8:34	3.173	273.9	4.204	18.88	0	0
2/28/2019 8:39	3.079	266.8	4.8	19.33	0	0
2/28/2019 8:44	3.682	295.6	5.991	19.36	0	0
2/28/2019 8:49	2.812	304.7	5.991	19.44	0	0
2/28/2019 8:54	1.727	253.2	4.204	19.56	0	0
2/28/2019 8:59	2.942	298	4.8	20.16	0	0
2/28/2019 9:04	2.977	281	5.395	19.94	0	0
2/28/2019 9:09	2.879	305.5	4.8	20.34	0	0
2/28/2019 9:14	3.907	324.2	5.991	20.51	0	0
2/28/2019 9:19	3.04	270.9	4.8	20.62	0	0
2/28/2019 9:24	3.745	305.6	5.991	20.71	0	0
2/28/2019 9:29	3.57	328.3	5.395	20.63	0	0



### Met Data from February 28, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
2/28/2019 9:34	3.898	309.6	7.778	20.81	0	0
2/28/2019 9:39	4.222	311	5.991	20.81	0	0
2/28/2019 9:44	2.174	310.3	4.8	21.29	0	0
2/28/2019 9:49	2.694	323.1	5.991	21.51	0	0
2/28/2019 9:54	2.395	340.8	5.395	21.73	0	0
2/28/2019 9:59	4.681	331.6	7.182	21.33	0	0
2/28/2019 10:04	2.013	299.4	4.204	21.44	0	0
2/28/2019 10:09	2.454	344.9	4.204	21.93	0	0
2/28/2019 10:14	4.353	73.46	6.587	21.92	0	0
2/28/2019 10:19	3.702	68.24	5.991	21.83	0	0
2/28/2019 10:24	3.99	71.11	5.991	21.99	0	0
2/28/2019 10:29	3.668	9.38	5.395	22.05	0	0
2/28/2019 10:34	2.11	21.98	4.8	22.39	0	0
2/28/2019 10:39	3.164	51.16	5.395	22.47	0	0
2/28/2019 10:44	2.076	358.1	4.204	22.61	0	0
2/28/2019 10:49	1.738	355.3	4.204	22.8	0	0
2/28/2019 10:54	3.366	46.23	4.8	22.61	0	0
2/28/2019 10:59	2.047	82.8	4.8	22.59	0	0
2/28/2019 11:04	4.093	84.6	5.991	22.16	0	0
2/28/2019 11:09	2.773	55.65	4.8	22.29	0	0
2/28/2019 11:14	2.727	60.07	4.8	22.66	0	0
2/28/2019 11:19	4.438	86.7	5.991	22.28	0	0
2/28/2019 11:24	3.562	71.95	5.991	22.34	0	0
2/28/2019 11:29	2.365	77.86	4.204	22.58	0	0
2/28/2019 11:34	3.375	67.62	5.395	22.72	0	0
2/28/2019 11:39	3.817	66	5.991	22.57	0	0
2/28/2019 11:44	4.436	70.29	6.587	22.68	0	0
2/28/2019 11:49	3.351	25.45	5.395	22.98	0	0
2/28/2019 11:54	4.055	2.049	7.182	23.11	0	0
2/28/2019 11:59	4.3	58.92	7.778	23.12	0	0
2/28/2019 12:04	4.871	71.14	7.778	23.16	0	0
2/28/2019 12:09	4.223	66.71	6.587	23.45	0	0
2/28/2019 12:14	3.061	9.47	4.8	23.68	0	0
2/28/2019 12:19	3.485	356.4	5.991	23.79	0	0
2/28/2019 12:24	4.015	357.8	7.182	23.86	0	0
2/28/2019 12:29	4.639	349.9	7.182	24.08	0	0
2/28/2019 12:34	5.08	345.7	7.778	24.01	0	0
2/28/2019 12:39	5.354	343.2	8.37	24.14	0	0
2/28/2019 12:44	5.032	338.9	7.182	24.11	0	0
2/28/2019 12:49	5.086	340.2	7.778	24.1	0	0
2/28/2019 12:54	5.395	338.5	7.778	23.83	0	0
2/28/2019 12:59	6.074	340.9	8.97	23.9	0	0
2/28/2019 13:04	5.747	343.6	7.778	23.85	0	0
2/28/2019 13:09	5.777	338.9	7.778	24.09	0	0
2/28/2019 13:14	4.593	354.9	8.97	24.38	0	0
2/28/2019 13:19	5.318	340.2	7.778	24.46	0	0
2/28/2019 13:24	4.371	349	7.778	24.56	0	0
2/28/2019 13:29	4.172	10.65	7.778	24.99	0	0
2/28/2019 13:34	3.665	31.73	5.991	25.27	0	0
2/28/2019 13:39	3.828	40.45	6.587	25.28	0	0
2/28/2019 13:44	3.597	53.15	6.587	25.54	0	0
2/28/2019 13:49	3.172	35.91	5.991	25.61	0	0
2/28/2019 13:54	5.157	75.02	7.778	25.4	0	0
2/28/2019 13:59	4.567	74.92	7.182	25.38	0	0
2/28/2019 14:04	4.055	73.76	5.991	25.65	0	0
2/28/2019 14:09	4.561	75.76	6.587	25.64	0	0
2/28/2019 14:14	4.104	56.73	7.182	25.71	0	0

### Met Data from February 28, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
2/28/2019 14:19	3.641	69.99	6.587	25.71	0	0
2/28/2019 14:24	5.556	81.8	7.182	25.34	0	0
2/28/2019 14:29	4.527	77.12	7.778	25.52	0	0
2/28/2019 14:34	4.389	76.81	5.991	25.7	0	0
2/28/2019 14:39	4.249	72.79	7.182	25.67	0	0
2/28/2019 14:44	4.883	76.84	7.182	25.68	0	0
2/28/2019 14:49	4.883	82.7	6.587	25.57	0	0
2/28/2019 14:54	4.508	84.4	6.587	25.64	0	0
2/28/2019 14:59	4.919	82.4	7.182	25.85	0	0
2/28/2019 15:04	3.487	76.16	5.395	26.33	0	0
2/28/2019 15:09	4.601	76.56	7.778	26.73	0	0
2/28/2019 15:14	5.167	82.9	7.778	26.08	0	0
2/28/2019 15:19	4.481	64.16	7.778	26.33	0	0
2/28/2019 15:24	5.066	73.11	8.37	26.05	0	0
2/28/2019 15:29	4.311	70.86	7.182	26.07	0	0
2/28/2019 15:34	3.964	66.76	6.587	26.36	0	0
2/28/2019 15:39	4.728	69.34	7.778	26.11	0	0
2/28/2019 15:44	5.514	72.86	8.37	25.81	0	0
2/28/2019 15:49	6.033	82.7	8.97	25.26	0	0
2/28/2019 15:54	5.884	83.8	7.778	25.18	0	0
2/28/2019 15:59	5.884	84.3	7.778	25.25	0	0
2/28/2019 16:04	4.8	71.3	6.587	25.48	0	0
2/28/2019 16:09	5.181	76.67	7.182	25.33	0	0
2/28/2019 16:14	5.282	78.26	8.97	25.25	0	0
2/28/2019 16:19	5.014	77.81	8.97	25.52	0	0
2/28/2019 16:24	5.276	79.28	7.778	25.71	0	0
2/28/2019 16:29	5.211	69.8	8.37	25.77	0	0
2/28/2019 16:34	6.045	69.19	8.97	25.38	0	0
2/28/2019 16:39	6.36	77.81	9.56	25.1	0	0
2/28/2019 16:44	5.455	78.54	8.97	25.05	0	0
2/28/2019 16:49	4.859	63.86	8.37	25.47	0	0
2/28/2019 16:54	5.121	72.88	8.37	25.32	0	0
2/28/2019 16:59	5.443	64.46	8.37	25.49	0	0
2/28/2019 17:04	4.752	70.25	7.182	25.33	0	0
2/28/2019 17:09	4.776	74.55	7.182	25.42	0	0
2/28/2019 17:14	4.204	72.22	5.991	25.63	0	0
2/28/2019 17:19	4.621	74.91	7.778	25.68	0	0
2/28/2019 17:24	5.854	81.1	7.778	25.31	0	0
2/28/2019 17:29	6.259	78.03	8.97	25.1	0	0
2/28/2019 17:34	5.616	74.3	8.37	25.06	0	0
2/28/2019 17:39	5.83	76.57	8.37	25.08	0	0
2/28/2019 17:44	4.18	70.28	5.991	25.31	0	0
2/28/2019 17:49	4.883	76.62	7.182	25.47	0	0
2/28/2019 17:54	5.669	79.65	8.97	25.1	0	0
2/28/2019 17:59	4.227	71.96	7.182	25.46	0	0
2/28/2019 18:04	4.448	80.2	7.182	25.5	0	0
2/28/2019 18:09	4.716	71.98	7.182	25.63	0	0
2/28/2019 18:14	3.579	67.93	6.587	25.93	0	0
2/28/2019 18:19	3.879	58.9	7.182	25.91	0	0
2/28/2019 18:24	4.384	70.24	7.778	25.82	0	0
2/28/2019 18:29	4.058	64.59	8.37	25.75	0	0
2/28/2019 18:34	3.064	55.16	5.991	25.93	0	0
2/28/2019 18:39	2.268	42.14	4.8	25.99	0	0
2/28/2019 18:44	3.043	1.237	5.991	25.98	0	0
2/28/2019 18:49	2.949	83	5.991	25.96	0	0
2/28/2019 18:54	4.048	80.7	6.587	26.02	0	0
2/28/2019 18:59	3.982	62.99	6.587	25.93	0	0

### Met Data from February 28, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
2/28/2019 19:04	2.319	69.86	4.8	25.9	0	0
2/28/2019 19:09	3.984	77.82	7.182	25.83	0	0
2/28/2019 19:14	3.302	75.76	5.991	25.86	0	0
2/28/2019 19:19	3.597	66.06	7.182	25.78	0	0
2/28/2019 19:24	2.862	50.11	5.395	25.74	0	0
2/28/2019 19:29	3.561	56.92	5.991	25.76	0	0
2/28/2019 19:34	2.265	6.486	4.8	25.73	0	0
2/28/2019 19:39	3.348	18.56	7.778	25.75	0	0
2/28/2019 19:44	2.261	78.86	4.8	25.82	0	0
2/28/2019 19:49	3.704	79.54	6.587	25.84	0	0
2/28/2019 19:54	3.786	72.49	5.395	25.93	0	0
2/28/2019 19:59	3.105	60.32	4.8	25.93	0	0
2/28/2019 20:04	2.706	19.1	4.8	25.92	0	0
2/28/2019 20:09	2.756	13.46	5.991	25.85	0	0
2/28/2019 20:14	2.306	344.9	4.8	25.91	0	0
2/28/2019 20:19	2.996	58.57	5.395	25.89	0	0
2/28/2019 20:24	3.039	79.74	5.991	25.88	0	0
2/28/2019 20:29	3.216	74.08	5.395	25.94	0	0
2/28/2019 20:34	3.08	82.7	5.991	25.93	0	0
2/28/2019 20:39	2.636	59.33	4.8	25.95	0	0
2/28/2019 20:44	3.016	81.7	4.204	26.04	0	0
2/28/2019 20:49	3.393	82.4	5.395	25.98	0	0
2/28/2019 20:54	3.591	82.1	6.587	26.06	0	0
2/28/2019 20:59	3.991	77.85	6.587	26.21	0	0
2/28/2019 21:04	3.538	71.17	6.587	26.35	0	0
2/28/2019 21:09	4.283	71.59	5.991	26.37	0	0
2/28/2019 21:14	5.258	73.08	8.37	26.24	0	0
2/28/2019 21:19	5.27	78.29	7.778	25.99	0	0
2/28/2019 21:24	5.103	78.28	7.182	25.93	0	0
2/28/2019 21:29	4.532	74.61	7.778	25.92	0	0
2/28/2019 21:34	4.383	79.66	6.587	25.93	0	0
2/28/2019 21:39	3.29	75.66	5.991	26.01	0	0
2/28/2019 21:44	2.849	73.89	5.991	26.08	0	0
2/28/2019 21:49	2.037	80.2	4.204	26.02	0	0
2/28/2019 21:54	2.29	354.9	4.8	26.01	0	0
2/28/2019 21:59	4.532	335.3	5.991	25.89	0	0
2/28/2019 22:04	3.012	334.4	4.204	25.7	0	0
2/28/2019 22:09	2.878	328.5	4.204	25.5	0	0
2/28/2019 22:14	1.991	328.3	4.204	25.44	0	0
2/28/2019 22:19	3.749	337	5.991	25.27	0	0
2/28/2019 22:24	5.979	344.5	8.97	25.39	0	0
2/28/2019 22:29	5.246	339.5	7.778	25.48	0	0
2/28/2019 22:34	6.027	341.6	8.37	25.31	0	0
2/28/2019 22:39	5.985	342.3	7.778	25.31	0	0
2/28/2019 22:44	5.914	341.9	8.37	25.46	0	0
2/28/2019 22:49	5.187	346	7.182	25.51	0	0
2/28/2019 22:54	4.098	344.1	6.587	25.72	0	0
2/28/2019 22:59	2.644	62.62	4.8	25.74	0	0
2/28/2019 23:04	2.638	5.047	5.991	25.76	0	0
2/28/2019 23:09	4.609	341.3	5.991	25.71	0	0
2/28/2019 23:14	4.943	341.5	6.587	25.51	0	0
2/28/2019 23:19	4.853	346.7	6.587	25.68	0	0
2/28/2019 23:24	4.615	339.3	6.587	25.71	0	0
2/28/2019 23:29	3.261	331.3	5.991	25.52	0	0
2/28/2019 23:34	2.152	317.1	3.608	25.33	0	0
2/28/2019 23:39	2.741	327.7	4.204	25.31	0	0
2/28/2019 23:44	3.096	328.1	4.204	25.49	0	0

**Met Data from February 28, 2019**

<b>Time Stamp</b>	<b>Wind Speed (mph)</b>	<b>Wind Direction (degrees)</b>	<b>Wind Gust Speed (mph)</b>	<b>Average Temperature (F)</b>	<b>5-min Precipitation (in.)</b>	<b>24-hour Precipitation (in.)</b>
2/28/2019 23:49	2.713	304.8	3.608	25.49	0	0
2/28/2019 23:54	2.523	300.5	3.608	25.39	0	0
2/28/2019 23:59	2.236	303	3.608	25.28	0	0

### Met Data from March 21, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/21/2019 0:04	3.894	288.9	5.395	40.67	0	0
3/21/2019 0:09	4.657	285.3	8.37	40.6	0	0
3/21/2019 0:14	5.532	288.4	8.37	40.51	0	0
3/21/2019 0:19	5.294	281.5	7.182	40.38	0	0
3/21/2019 0:24	5.937	293.9	10.16	40.32	0	0
3/21/2019 0:29	5.288	297.7	7.778	40.45	0	0
3/21/2019 0:34	3.924	290.2	7.182	40.32	0	0
3/21/2019 0:39	4.651	293.2	5.991	40.11	0	0
3/21/2019 0:44	7.891	299.1	12.54	40	0	0
3/21/2019 0:49	8.44	298.9	10.76	39.87	0	0
3/21/2019 0:54	6.652	299.8	8.97	39.67	0	0
3/21/2019 0:59	7.462	299.7	11.95	39.53	0	0
3/21/2019 1:04	7.778	299.2	11.35	39.4	0	0
3/21/2019 1:09	6.348	305.7	9.56	39.2	0	0
3/21/2019 1:14	5.997	314.8	9.56	39.09	0	0
3/21/2019 1:19	6.33	310.1	11.95	39.03	0	0
3/21/2019 1:24	6.072	312.1	11.35	39.02	0	0
3/21/2019 1:29	6.986	321.4	10.76	39.02	0	0
3/21/2019 1:34	6.402	321.2	11.95	39.02	0	0
3/21/2019 1:39	6.456	317.7	10.16	39.02	0	0
3/21/2019 1:44	6.424	329.8	9.56	39.02	0	0
3/21/2019 1:49	5.771	323.4	10.76	38.94	0	0
3/21/2019 1:54	5.872	323.8	7.778	38.89	0	0
3/21/2019 1:59	4.214	317.5	8.37	38.8	0	0
3/21/2019 2:04	5.497	312.5	11.35	38.62	0	0
3/21/2019 2:09	7.218	304.1	11.95	38.31	0	0
3/21/2019 2:14	5.848	315.7	9.56	38.15	0	0
3/21/2019 2:19	5.568	317.1	9.56	38	0	0
3/21/2019 2:24	5.288	325.8	10.16	37.88	0	0
3/21/2019 2:29	4.47	313.7	7.778	37.81	0	0
3/21/2019 2:34	3.602	320.3	7.778	37.79	0	0
3/21/2019 2:39	5.288	316.5	8.37	37.7	0	0
3/21/2019 2:44	4.226	312	7.778	37.73	0	0
3/21/2019 2:49	4.472	305.8	7.182	37.7	0	0
3/21/2019 2:54	4.627	301.7	7.182	37.61	0	0
3/21/2019 2:59	6.17	304.7	10.76	37.48	0.01	0.01
3/21/2019 3:04	5.342	316.9	9.56	37.44	0	0.01
3/21/2019 3:09	4.341	315.3	8.37	37.48	0	0.01
3/21/2019 3:14	4.865	306.9	7.778	37.47	0	0.01
3/21/2019 3:19	4.841	300.6	7.182	37.42	0	0.01
3/21/2019 3:24	5.133	308.5	8.37	37.41	0	0.01
3/21/2019 3:29	4.21	310.5	7.182	37.4	0	0.01
3/21/2019 3:34	4.502	302.1	7.182	37.37	0	0.01
3/21/2019 3:39	4.972	305.2	9.56	37.42	0	0.01
3/21/2019 3:44	5.252	311.3	8.97	37.5	0	0.01
3/21/2019 3:49	4.943	313.9	9.56	37.58	0	0.01
3/21/2019 3:54	5.592	327.6	8.97	37.59	0	0.01
3/21/2019 3:59	4.144	316.1	6.587	37.59	0	0.01
3/21/2019 4:04	5.985	323.7	11.35	37.59	0	0.01
3/21/2019 4:09	5.598	328.9	8.97	37.59	0	0.01
3/21/2019 4:14	4.722	321	7.778	37.59	0	0.01
3/21/2019 4:19	5.163	326.4	8.97	37.53	0	0.01
3/21/2019 4:24	5.054	320.6	7.778	37.56	0	0.01
3/21/2019 4:29	5.961	327.2	11.35	37.51	0	0.01
3/21/2019 4:34	4.532	325.8	8.37	37.48	0	0.01
3/21/2019 4:39	5.628	325.3	9.56	37.41	0.01	0.02
3/21/2019 4:44	4.363	318.1	8.37	37.37	0	0.02

### Met Data from March 21, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/21/2019 4:49	6.062	328.7	11.35	37.37	0	0.02
3/21/2019 4:54	6.646	322.2	11.35	37.37	0	0.02
3/21/2019 4:59	6.515	333	11.35	37.37	0	0.02
3/21/2019 5:04	7.671	330.2	12.54	37.38	0	0.02
3/21/2019 5:09	7.564	334.2	11.35	37.39	0	0.02
3/21/2019 5:14	7.427	332.4	15.52	37.37	0	0.02
3/21/2019 5:19	7.004	330.8	11.95	37.37	0	0.02
3/21/2019 5:24	6.068	333.4	10.16	37.37	0	0.02
3/21/2019 5:29	7.575	329.1	15.52	37.37	0	0.02
3/21/2019 5:34	7.51	335.5	12.54	37.37	0	0.02
3/21/2019 5:39	7.873	335.5	14.93	37.38	0	0.02
3/21/2019 5:44	8.3	335.4	14.33	37.39	0	0.02
3/21/2019 5:49	7.587	336.5	11.95	37.41	0	0.02
3/21/2019 5:54	8.25	331.5	12.54	37.37	0.01	0.03
3/21/2019 5:59	6.676	331.4	11.35	37.37	0	0.03
3/21/2019 6:04	5.753	332.3	8.97	37.37	0	0.03
3/21/2019 6:09	7.278	334.5	11.35	37.4	0	0.03
3/21/2019 6:14	7.891	337.7	14.33	37.56	0	0.03
3/21/2019 6:19	12.03	340.9	19.69	37.31	0	0.03
3/21/2019 6:24	11.65	336.7	16.71	37.17	0	0.03
3/21/2019 6:29	9.8	338.7	15.52	37.04	0	0.03
3/21/2019 6:34	8.7	339.4	13.73	37.01	0	0.03
3/21/2019 6:39	10.83	337.4	17.31	37.06	0	0.03
3/21/2019 6:44	9.76	341.3	16.12	37.15	0	0.03
3/21/2019 6:49	10.99	340.4	16.12	37.1	0	0.03
3/21/2019 6:54	12.14	340.9	20.29	36.86	0	0.03
3/21/2019 6:59	11.4	342.8	17.31	36.58	0	0.03
3/21/2019 7:04	11.89	338.7	20.88	36.45	0	0.03
3/21/2019 7:09	11.04	339.2	16.71	36.38	0	0.03
3/21/2019 7:14	10.83	341.7	16.12	36.32	0	0.03
3/21/2019 7:19	10.27	339.2	17.31	36.29	0	0.03
3/21/2019 7:24	11.37	340.1	19.1	36.36	0	0.03
3/21/2019 7:29	10.1	344	16.71	36.36	0	0.03
3/21/2019 7:34	9.85	343.4	16.71	36.35	0	0.03
3/21/2019 7:39	8.25	340	13.14	36.4	0	0.03
3/21/2019 7:44	7.349	340.6	13.73	36.47	0	0.03
3/21/2019 7:49	10.46	340.4	19.1	36.37	0	0.03
3/21/2019 7:54	10.06	342.2	17.9	36.3	0	0.03
3/21/2019 7:59	10.63	338.3	17.31	36.3	0	0.03
3/21/2019 8:04	9.96	342	17.31	36.22	0	0.03
3/21/2019 8:09	10.02	342.5	17.9	36.25	0	0.03
3/21/2019 8:14	8.84	343.1	18.5	36.27	0	0.03
3/21/2019 8:19	10.1	340.7	17.31	36.18	0	0.03
3/21/2019 8:24	9.73	340.1	19.1	36.09	0	0.03
3/21/2019 8:29	9.99	340.8	17.9	36.11	0	0.03
3/21/2019 8:34	7.295	340.6	17.31	36.26	0	0.03
3/21/2019 8:39	6.235	338.6	11.35	36.3	0	0.03
3/21/2019 8:44	6.483	340.3	12.54	36.49	0	0.03
3/21/2019 8:49	8.9	339.8	14.33	36.41	0	0.03
3/21/2019 8:54	8.92	341	14.93	36.28	0	0.03
3/21/2019 8:59	8.12	338.8	13.14	36.35	0	0.03
3/21/2019 9:04	8.81	340.9	13.14	36.43	0	0.03
3/21/2019 9:09	8.67	340.3	13.73	36.44	0	0.03
3/21/2019 9:14	8.92	341.3	15.52	36.49	0	0.03
3/21/2019 9:19	10.05	340.2	14.93	36.48	0	0.03
3/21/2019 9:24	11.25	341.4	16.71	36.39	0	0.03
3/21/2019 9:29	10.82	339.9	18.5	36.31	0	0.03

### Met Data from March 21, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/21/2019 9:34	10.79	339.7	17.31	36.23	0	0.03
3/21/2019 9:39	10.2	338.8	14.33	36.14	0	0.03
3/21/2019 9:44	10.88	338.3	16.12	36.13	0	0.03
3/21/2019 9:49	11.33	344.5	18.5	36.17	0	0.03
3/21/2019 9:54	9.42	343.3	16.71	36.52	0	0.03
3/21/2019 9:59	7.188	342.1	11.95	36.92	0	0.03
3/21/2019 10:04	8.5	341.7	18.5	37.2	0	0.03
3/21/2019 10:09	7.76	343.7	14.93	37.34	0	0.03
3/21/2019 10:14	8.07	340.8	15.52	37.35	0	0.03
3/21/2019 10:19	8.82	341.8	16.71	37.24	0	0.03
3/21/2019 10:24	8.43	346.4	14.93	37.18	0	0.03
3/21/2019 10:29	6.563	340.8	10.76	37.27	0	0.03
3/21/2019 10:34	6.473	339	10.76	37.37	0	0.03
3/21/2019 10:39	7.385	339.9	11.95	37.53	0	0.03
3/21/2019 10:44	8.43	343.1	14.33	37.49	0	0.03
3/21/2019 10:49	7.063	345.7	11.95	37.48	0	0.03
3/21/2019 10:54	8.58	339.3	12.54	37.57	0	0.03
3/21/2019 10:59	6.932	340.8	12.54	38	0	0.03
3/21/2019 11:04	7.701	340.4	11.95	38.37	0	0.03
3/21/2019 11:09	10.07	340.7	16.12	38.27	0	0.03
3/21/2019 11:14	9.55	342.2	15.52	38.08	0	0.03
3/21/2019 11:19	9	339.8	16.12	38.08	0	0.03
3/21/2019 11:24	6.908	343.4	12.54	38.25	0	0.03
3/21/2019 11:29	7.849	342.8	15.52	38.24	0	0.03
3/21/2019 11:34	7.98	340.3	12.54	38.34	0	0.03
3/21/2019 11:39	7.486	341.1	13.14	38.34	0	0.03
3/21/2019 11:44	7.301	337.6	12.54	38.3	0	0.03
3/21/2019 11:49	6.408	343.4	11.95	38.2	0	0.03
3/21/2019 11:54	6.045	342.1	11.95	38.29	0	0.03
3/21/2019 11:59	5.711	339.6	10.16	38.39	0	0.03
3/21/2019 12:04	5.113	349.6	11.35	38.5	0	0.03
3/21/2019 12:09	6.604	339.8	12.54	38.43	0	0.03
3/21/2019 12:14	4.809	340.1	8.97	38.48	0	0.03
3/21/2019 12:19	5.258	341.7	9.56	38.55	0	0.03
3/21/2019 12:24	4.762	348.5	8.97	38.7	0	0.03
3/21/2019 12:29	3.513	61.09	7.182	39.1	0	0.03
3/21/2019 12:34	3.637	69.48	7.182	39.17	0	0.03
3/21/2019 12:39	3.102	69.86	5.991	39.16	0	0.03
3/21/2019 12:44	3.744	54.75	6.587	38.99	0	0.03
3/21/2019 12:49	3.323	51.85	5.395	38.99	0	0.03
3/21/2019 12:54	3.396	44.08	5.991	38.92	0	0.03
3/21/2019 12:59	2.367	30.44	5.991	38.97	0	0.03
3/21/2019 13:04	3.332	67.52	5.991	38.99	0	0.03
3/21/2019 13:09	3.576	54.92	6.587	38.89	0	0.03
3/21/2019 13:14	2.984	71.53	5.395	38.9	0	0.03
3/21/2019 13:19	2.66	70.94	4.204	38.95	0	0.03
3/21/2019 13:24	3.376	352.6	5.991	38.89	0	0.03
3/21/2019 13:29	3.297	351.1	5.991	38.64	0	0.03
3/21/2019 13:34	3.999	344.4	5.991	38.59	0	0.03
3/21/2019 13:39	4.585	334.5	7.182	38.42	0	0.03
3/21/2019 13:44	3.49	340.9	5.991	38.41	0	0.03
3/21/2019 13:49	2.869	347.4	5.395	38.42	0	0.03
3/21/2019 13:54	3.448	355.5	5.991	38.54	0	0.03
3/21/2019 13:59	2.737	339.4	4.204	38.55	0	0.03
3/21/2019 14:04	2.271	334.2	3.608	38.48	0	0.03
3/21/2019 14:09	1.46	316.1	3.013	38.67	0	0.03
3/21/2019 14:14	1.061	303.1	3.013	38.95	0	0.03

### Met Data from March 21, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/21/2019 14:19	1.788	97.3	3.013	39.08	0	0.03
3/21/2019 14:24	1.373	141.2	3.013	39.22	0	0.03
3/21/2019 14:29	0.483	123.5	2.417	39.58	0	0.03
3/21/2019 14:34	1.482	134.5	2.417	39.69	0	0.03
3/21/2019 14:39	2.551	155.6	3.608	39.63	0	0.03
3/21/2019 14:44	2.413	186.5	4.204	39.52	0	0.03
3/21/2019 14:49	2.037	164.7	3.608	39.63	0	0.03
3/21/2019 14:54	2.192	202	3.608	39.84	0	0.03
3/21/2019 14:59	4.204	189.5	6.587	39.88	0	0.03
3/21/2019 15:04	3.201	205.3	4.8	39.93	0	0.03
3/21/2019 15:09	3.408	193.7	4.8	40.05	0	0.03
3/21/2019 15:14	3.78	203.9	5.991	40.13	0	0.03
3/21/2019 15:19	3.45	184	7.182	40.3	0	0.03
3/21/2019 15:24	3.298	199.4	5.395	40.46	0	0.03
3/21/2019 15:29	3.941	182.5	5.991	40.72	0	0.03
3/21/2019 15:34	4.275	184.1	5.991	40.93	0	0.03
3/21/2019 15:39	3.361	196.4	6.587	41.22	0	0.03
3/21/2019 15:44	4.335	205.7	7.182	41.38	0	0.03
3/21/2019 15:49	2.93	199.2	5.991	41.53	0	0.03
3/21/2019 15:54	3.313	207.2	5.395	41.94	0	0.03
3/21/2019 15:59	3.59	209.5	7.778	42.36	0	0.03
3/21/2019 16:04	5.729	252.5	8.97	43.01	0	0.03
3/21/2019 16:09	5.872	251.8	8.97	43.37	0	0.03
3/21/2019 16:14	6.247	259.1	10.76	43.55	0	0.03
3/21/2019 16:19	6.89	257	13.14	43.68	0	0.03
3/21/2019 16:24	6.182	250.9	9.56	43.75	0	0.03
3/21/2019 16:29	5.723	250.5	9.56	43.81	0	0.03
3/21/2019 16:34	6.807	260.6	11.35	43.93	0	0.03
3/21/2019 16:39	5.687	262.7	10.76	44.1	0	0.03
3/21/2019 16:44	9.26	273.2	14.33	44.34	0	0.03
3/21/2019 16:49	10.19	291.3	14.33	44.43	0	0.03
3/21/2019 16:54	9.64	286.1	14.33	44.31	0	0.03
3/21/2019 16:59	10.66	292	14.93	44.21	0	0.03
3/21/2019 17:04	10.05	285.1	14.33	44.12	0	0.03
3/21/2019 17:09	8.63	292.8	13.73	44.05	0	0.03
3/21/2019 17:14	9.63	290.9	13.73	44.03	0	0.03
3/21/2019 17:19	8.03	284.9	11.35	44.04	0	0.03
3/21/2019 17:24	9.18	280	13.14	44.04	0	0.03
3/21/2019 17:29	8.09	289.3	11.95	43.94	0	0.03
3/21/2019 17:34	9.7	283.3	13.73	43.72	0	0.03
3/21/2019 17:39	6.533	280.6	11.95	43.71	0	0.03
3/21/2019 17:44	6.14	273	8.97	43.79	0	0.03
3/21/2019 17:49	6.777	274.8	10.76	43.68	0	0.03
3/21/2019 17:54	6.861	271.1	10.76	43.54	0	0.03
3/21/2019 17:59	5.419	262.4	9.56	43.36	0	0.03
3/21/2019 18:04	5.121	250.4	8.37	43.1	0	0.03
3/21/2019 18:09	4.949	257.7	7.182	42.77	0	0.03
3/21/2019 18:14	4.065	248.9	6.587	42.55	0	0.03
3/21/2019 18:19	3.796	246.6	8.37	42.37	0	0.03
3/21/2019 18:24	3.576	243.4	7.778	42.13	0	0.03
3/21/2019 18:29	3.978	247.1	7.182	42.06	0	0.03
3/21/2019 18:34	3.316	244.8	4.204	41.95	0	0.03
3/21/2019 18:39	2.711	234	4.204	41.81	0	0.03
3/21/2019 18:44	2.252	216.9	3.608	41.48	0	0.03
3/21/2019 18:49	2.18	214.2	3.608	41.31	0	0.03
3/21/2019 18:54	1.287	212.3	3.013	41.04	0	0.03
3/21/2019 18:59	2.127	218.5	3.608	40.88	0	0.03



### Met Data from March 21, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/21/2019 19:04	1.883	216.5	3.013	40.69	0	0.03
3/21/2019 19:09	2.402	211.5	3.608	40.6	0	0.03
3/21/2019 19:14	2.136	206.5	4.204	40.72	0	0.03
3/21/2019 19:19	1.792	210.8	3.013	40.52	0	0.03
3/21/2019 19:24	2.307	203.3	3.608	40.6	0	0.03
3/21/2019 19:29	2.353	198.1	3.013	40.56	0	0.03
3/21/2019 19:34	2.613	202.4	3.608	40.51	0	0.03
3/21/2019 19:39	2.095	211	3.608	40.23	0	0.03
3/21/2019 19:44	2.426	215.1	4.204	40.02	0	0.03
3/21/2019 19:49	2.932	213.3	5.395	39.92	0	0.03
3/21/2019 19:54	2.702	216.5	5.395	39.76	0	0.03
3/21/2019 19:59	2.542	223.5	5.395	39.64	0	0.03
3/21/2019 20:04	3.218	209.5	5.991	39.6	0	0.03
3/21/2019 20:09	2.652	215.3	5.991	39.71	0	0.03
3/21/2019 20:14	2.774	214.4	4.8	39.75	0	0.03
3/21/2019 20:19	3.296	209.6	5.991	39.68	0	0.03
3/21/2019 20:24	3.004	213.2	5.991	39.64	0	0.03
3/21/2019 20:29	2.948	219.4	5.991	39.59	0	0.03
3/21/2019 20:34	2.802	224.6	5.991	39.55	0	0.03
3/21/2019 20:39	3.101	236.4	6.587	39.57	0	0.03
3/21/2019 20:44	4.083	240	7.182	39.72	0	0.03
3/21/2019 20:49	4.46	247	7.778	39.89	0	0.03
3/21/2019 20:54	4.535	248.4	8.37	39.95	0	0.03
3/21/2019 20:59	4.901	249	9.56	40.01	0	0.03
3/21/2019 21:04	5.199	249.7	8.37	40.03	0	0.03
3/21/2019 21:09	5.044	250.7	9.56	40.06	0	0.03
3/21/2019 21:14	5.193	252.2	8.97	40.1	0	0.03
3/21/2019 21:19	4.984	254.8	7.778	39.97	0	0.03
3/21/2019 21:24	5.127	252.6	8.37	39.96	0	0.03
3/21/2019 21:29	4.686	254.6	7.182	39.84	0	0.03
3/21/2019 21:34	4.829	254.4	7.778	39.82	0	0.03
3/21/2019 21:39	4.639	255.5	7.778	39.87	0	0.03
3/21/2019 21:44	3.918	262.1	5.991	39.84	0	0.03
3/21/2019 21:49	4.883	260.3	7.182	40.05	0	0.03
3/21/2019 21:54	4.835	259.5	8.37	40.17	0	0.03
3/21/2019 21:59	5.342	257.2	8.37	40.25	0	0.03
3/21/2019 22:04	5.854	257.9	11.35	40.51	0	0.03
3/21/2019 22:09	5.598	260	10.16	40.74	0	0.03
3/21/2019 22:14	5.812	263.1	8.97	41.01	0	0.03
3/21/2019 22:19	5.377	262.9	8.37	41.05	0	0.03
3/21/2019 22:24	4.955	263.2	7.778	41.08	0	0.03
3/21/2019 22:29	5.074	262.4	7.182	41.1	0	0.03
3/21/2019 22:34	4.704	262	7.778	41.1	0	0.03
3/21/2019 22:39	4.931	261.5	8.97	41.03	0	0.03
3/21/2019 22:44	4.663	264.6	6.587	40.94	0	0.03
3/21/2019 22:49	4.377	261.8	7.778	40.9	0	0.03
3/21/2019 22:54	4.015	264.2	8.37	40.78	0	0.03
3/21/2019 22:59	3.793	268	5.991	40.69	0	0.03
3/21/2019 23:04	2.482	256.1	4.204	40.49	0	0.03
3/21/2019 23:09	3.737	264.3	5.395	40.42	0	0.03
3/21/2019 23:14	3.807	265.6	6.587	40.53	0	0.03
3/21/2019 23:19	3.9	267.9	5.991	40.34	0	0.03
3/21/2019 23:24	3.65	263.8	5.395	40.41	0	0.03
3/21/2019 23:29	4.097	268.5	5.991	40.29	0	0.03
3/21/2019 23:34	4.27	259.4	7.182	40.24	0	0.03
3/21/2019 23:39	3.853	255.2	5.991	40.05	0	0.03
3/21/2019 23:44	3.02	252.3	4.204	39.81	0	0.03

### Met Data from March 21, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/21/2019 23:49	3.769	254	5.395	39.77	0	0.03
3/21/2019 23:54	4.538	256.3	5.991	39.86	0	0.03
3/21/2019 23:59	4.073	255.9	6.587	39.64	0	0.03

### Met Data from March 25, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/25/2019 0:04	5.32	358.3	10.16	36.29	0	0
3/25/2019 0:09	6.408	358.2	13.14	36.25	0	0
3/25/2019 0:14	5.578	346.6	13.73	36.24	0	0
3/25/2019 0:19	5.61	347.7	13.73	36.27	0	0
3/25/2019 0:24	4.841	348.2	10.76	36.25	0	0
3/25/2019 0:29	5.848	356.8	14.93	36.27	0	0
3/25/2019 0:34	5.443	353.8	14.33	36.28	0	0
3/25/2019 0:39	5.363	343.2	11.95	36.3	0	0
3/25/2019 0:44	5.127	345.7	11.35	36.26	0	0
3/25/2019 0:49	6.557	348.5	13.73	36.19	0	0
3/25/2019 0:54	6.456	346	13.73	36.21	0	0
3/25/2019 0:59	6.61	347.2	13.73	36.26	0	0
3/25/2019 1:04	6.098	348.4	12.54	36.29	0	0
3/25/2019 1:09	6.182	349.8	13.14	36.35	0	0
3/25/2019 1:14	5.997	344	11.95	36.32	0	0
3/25/2019 1:19	6.062	354.3	11.35	36.37	0	0
3/25/2019 1:24	6.092	355.3	10.76	36.37	0	0
3/25/2019 1:29	6.384	347.4	10.16	36.34	0	0
3/25/2019 1:34	7.129	352.3	13.73	36.27	0	0
3/25/2019 1:39	7.712	349.1	16.71	36.2	0	0
3/25/2019 1:44	6.962	346.5	13.14	36.23	0	0
3/25/2019 1:49	7.534	348.2	14.93	36.21	0	0
3/25/2019 1:54	6.944	352.1	11.95	36.22	0	0
3/25/2019 1:59	6.908	351.4	13.73	36.23	0	0
3/25/2019 2:04	8.6	344.4	19.1	36.23	0	0
3/25/2019 2:09	7.635	347	14.93	36.26	0	0
3/25/2019 2:14	7.421	353.4	17.31	36.26	0	0
3/25/2019 2:19	6.545	352.8	14.33	36.27	0	0
3/25/2019 2:24	7.033	349.4	13.73	36.29	0	0
3/25/2019 2:29	8.46	348.7	16.12	36.29	0	0
3/25/2019 2:34	6.867	347.5	11.95	36.29	0	0
3/25/2019 2:39	8.25	350.6	16.71	36.36	0	0
3/25/2019 2:44	6.759	345.3	14.33	36.43	0	0
3/25/2019 2:49	7.2	346.8	15.52	36.45	0	0
3/25/2019 2:54	6.444	342.1	17.31	36.48	0	0
3/25/2019 2:59	5.937	349	12.54	36.54	0	0
3/25/2019 3:04	6.473	354.3	15.52	36.65	0	0
3/25/2019 3:09	7.391	9.68	16.12	36.79	0	0
3/25/2019 3:14	5.947	2.504	17.31	36.92	0	0
3/25/2019 3:19	5.83	33.02	17.31	36.95	0	0
3/25/2019 3:24	5.078	18.02	12.54	37.09	0	0
3/25/2019 3:29	5.169	56.13	12.54	37.11	0	0
3/25/2019 3:34	4.348	89.9	10.76	37.11	0	0
3/25/2019 3:39	4.75	83.7	11.95	37.03	0	0
3/25/2019 3:44	5.099	100.3	12.54	36.93	0	0
3/25/2019 3:49	5.306	66.87	14.93	36.84	0	0
3/25/2019 3:54	5.129	82.4	10.16	36.82	0	0
3/25/2019 3:59	6.039	67.1	14.33	36.76	0	0
3/25/2019 4:04	5.86	75.08	12.54	36.62	0	0
3/25/2019 4:09	5.595	54.28	13.73	36.42	0	0
3/25/2019 4:14	5.55	75.21	9.56	36.28	0	0
3/25/2019 4:19	5.403	60.4	13.73	36.21	0	0
3/25/2019 4:24	5.683	85.3	14.33	36.04	0	0
3/25/2019 4:29	6.182	58.52	13.73	36.03	0	0
3/25/2019 4:34	5.989	61	12.54	35.87	0	0
3/25/2019 4:39	7.772	59.41	16.12	35.82	0	0

### Met Data from March 25, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/25/2019 4:44	5.967	66.19	12.54	35.68	0	0
3/25/2019 4:49	6.807	57.52	14.93	35.62	0	0
3/25/2019 4:54	7.075	59.66	14.33	35.61	0	0
3/25/2019 4:59	4.651	70.03	9.56	35.59	0	0
3/25/2019 5:04	4.982	58.38	16.12	35.43	0	0
3/25/2019 5:09	6.045	67.06	12.54	35.34	0	0
3/25/2019 5:14	5.425	57.34	10.76	35.18	0	0
3/25/2019 5:19	6.062	70.61	13.73	35.18	0	0
3/25/2019 5:24	7.367	65.16	19.69	35.14	0	0
3/25/2019 5:29	8.08	57.2	14.93	35.1	0	0
3/25/2019 5:34	8.51	53.42	17.31	35.04	0	0
3/25/2019 5:39	8.59	58.27	18.5	35	0	0
3/25/2019 5:44	7.605	66.89	14.93	34.97	0	0
3/25/2019 5:49	6.628	63.97	12.54	34.9	0	0
3/25/2019 5:54	7.403	67.28	20.88	34.89	0	0
3/25/2019 5:59	7.254	62.16	19.69	34.88	0	0
3/25/2019 6:04	6.724	55.99	14.33	34.76	0	0
3/25/2019 6:09	7.421	68.53	18.5	34.73	0	0
3/25/2019 6:14	8.82	52.2	18.5	34.92	0	0
3/25/2019 6:19	8.23	53.09	19.1	35.05	0	0
3/25/2019 6:24	9.84	60.64	20.88	35.12	0	0
3/25/2019 6:29	8.83	54.64	17.9	35.17	0	0
3/25/2019 6:34	10.16	54.32	18.5	35.2	0	0
3/25/2019 6:39	8.89	60.73	16.12	35.26	0	0
3/25/2019 6:44	9.79	54.41	19.1	35.28	0	0
3/25/2019 6:49	8.61	58.54	17.31	35.42	0	0
3/25/2019 6:54	8.45	58.43	16.71	35.54	0	0
3/25/2019 6:59	10.22	60.84	16.71	35.46	0	0
3/25/2019 7:04	8.75	63.77	19.1	35.51	0	0
3/25/2019 7:09	9.87	51.37	19.69	35.49	0	0
3/25/2019 7:14	7.969	62.86	17.31	35.65	0	0
3/25/2019 7:19	8.38	54.69	16.12	35.77	0	0
3/25/2019 7:24	8.89	55.8	17.9	35.6	0	0
3/25/2019 7:29	11.67	50.46	19.1	35.38	0	0
3/25/2019 7:34	7.843	58.22	14.33	35.56	0	0
3/25/2019 7:39	8.96	56.12	19.1	35.75	0	0
3/25/2019 7:44	9.64	56.05	16.71	35.63	0	0
3/25/2019 7:49	11.14	53.75	21.48	35.39	0	0
3/25/2019 7:54	9.45	50.9	18.5	35.6	0	0
3/25/2019 7:59	9.02	55.69	17.31	35.58	0	0
3/25/2019 8:04	6.807	59.14	14.33	35.98	0	0
3/25/2019 8:09	8.33	53.79	18.5	35.71	0	0
3/25/2019 8:14	8.7	51.53	16.71	35.72	0	0
3/25/2019 8:19	7.939	57.83	16.12	35.84	0	0
3/25/2019 8:24	7.903	51.59	19.1	36.13	0	0
3/25/2019 8:29	7.317	53.93	17.9	36.01	0	0
3/25/2019 8:34	8.87	56.15	17.9	36.14	0	0
3/25/2019 8:39	6.998	54.02	15.52	36.19	0	0
3/25/2019 8:44	6.616	48.64	14.93	36.47	0	0
3/25/2019 8:49	7.424	47.61	17.31	36.68	0	0
3/25/2019 8:54	7.712	58.79	14.93	36.02	0	0
3/25/2019 8:59	6.573	61.69	17.31	36.61	0	0
3/25/2019 9:04	8.16	56.62	17.9	36.59	0	0
3/25/2019 9:09	10.58	54.88	19.69	36.1	0	0
3/25/2019 9:14	9.83	58.26	17.9	36.07	0	0
3/25/2019 9:19	7.992	52.84	18.5	36.32	0	0

### Met Data from March 25, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/25/2019 9:24	5.367	42.25	14.93	37.04	0	0
3/25/2019 9:29	8.7	60.13	17.9	36.75	0	0
3/25/2019 9:34	7.599	60.22	14.93	36.75	0	0
3/25/2019 9:39	8.98	58.74	16.71	36.96	0	0
3/25/2019 9:44	9.26	50.96	20.29	36.69	0	0
3/25/2019 9:49	7.528	44.89	15.52	36.65	0	0
3/25/2019 9:54	7.98	46.25	17.9	37.07	0	0
3/25/2019 9:59	7.397	42.94	16.71	36.74	0	0
3/25/2019 10:04	7.284	46.45	16.71	37.06	0	0
3/25/2019 10:09	6.759	64.22	13.73	37.24	0	0
3/25/2019 10:14	9.03	55.69	17.9	37.14	0	0
3/25/2019 10:19	6.587	38.67	14.33	37.08	0	0
3/25/2019 10:24	7.325	55.3	13.73	37.39	0	0
3/25/2019 10:29	6.467	36.92	15.52	37.4	0	0
3/25/2019 10:34	5.961	29.69	12.54	37.75	0	0
3/25/2019 10:39	5.127	55.88	12.54	38.37	0	0
3/25/2019 10:44	7.552	13.99	15.52	37.77	0	0
3/25/2019 10:49	5.611	34.1	14.33	37.6	0	0
3/25/2019 10:54	7.456	34.38	16.12	37.63	0	0
3/25/2019 10:59	4.788	32.79	15.52	38.2	0	0
3/25/2019 11:04	5.913	26.74	13.14	38.37	0	0
3/25/2019 11:09	5.086	37.35	14.33	38.02	0	0
3/25/2019 11:14	5.586	39.54	13.73	38.46	0	0
3/25/2019 11:19	4.923	51.04	10.16	38.9	0	0
3/25/2019 11:24	4.803	58.75	8.97	39.05	0	0
3/25/2019 11:29	6.205	3.549	13.14	38.4	0	0
3/25/2019 11:34	6.295	1.49	13.14	38.11	0	0
3/25/2019 11:39	6.348	33.94	14.33	38.5	0	0
3/25/2019 11:44	4.674	12.6	11.35	39.02	0	0
3/25/2019 11:49	7.587	358.8	14.93	38.84	0	0
3/25/2019 11:54	5.782	22.44	12.54	38.67	0	0
3/25/2019 11:59	4.738	353.2	11.35	38.94	0	0
3/25/2019 12:04	8.02	7.026	18.5	38.77	0	0
3/25/2019 12:09	6.235	4.848	16.71	38.82	0	0
3/25/2019 12:14	6.319	350.9	12.54	38.85	0	0
3/25/2019 12:19	6.134	359.1	11.35	38.76	0	0
3/25/2019 12:24	5.403	354.1	15.52	39.45	0	0
3/25/2019 12:29	5.568	1.797	12.54	39.5	0	0
3/25/2019 12:34	6.142	348.4	13.14	39.38	0	0
3/25/2019 12:39	6.356	10.92	13.73	39.1	0	0
3/25/2019 12:44	5.296	344.8	13.73	39.59	0	0
3/25/2019 12:49	5.538	357	11.95	39.8	0	0
3/25/2019 12:54	7.438	10.48	19.69	39.22	0	0
3/25/2019 12:59	6.16	344.1	16.12	39.85	0	0
3/25/2019 13:04	6.45	341.9	14.93	39.13	0	0
3/25/2019 13:09	5.717	10.37	13.73	39.4	0	0
3/25/2019 13:14	6.962	353.4	14.33	39.2	0	0
3/25/2019 13:19	6.867	349	13.73	38.91	0	0
3/25/2019 13:24	5.903	351.1	12.54	39.33	0	0
3/25/2019 13:29	6.428	358.8	13.14	39.31	0	0
3/25/2019 13:34	8.12	358	13.14	38.97	0	0
3/25/2019 13:39	7.79	348.8	12.54	38.55	0	0
3/25/2019 13:44	6.956	10.12	17.31	38.59	0	0
3/25/2019 13:49	8.04	353.5	22.07	38.59	0	0
3/25/2019 13:54	7.992	354.6	22.07	38.08	0	0
3/25/2019 13:59	7.129	8.71	13.14	38.35	0	0

### Met Data from March 25, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/25/2019 14:04	8.4	345.3	16.71	38.02	0	0
3/25/2019 14:09	8.49	352.3	19.69	37.92	0	0
3/25/2019 14:14	6.019	349.4	13.73	38.37	0	0
3/25/2019 14:19	7.826	347.1	15.52	38.44	0	0
3/25/2019 14:24	6.765	0.408	15.52	38.34	0	0
3/25/2019 14:29	9.35	351.6	20.29	37.97	0	0
3/25/2019 14:34	8.04	356.3	14.93	37.98	0	0
3/25/2019 14:39	6.962	357.4	13.73	38.05	0	0
3/25/2019 14:44	8.93	351.2	17.31	37.95	0	0
3/25/2019 14:49	8.33	354	16.12	37.95	0	0
3/25/2019 14:54	9.92	347	17.31	37.45	0	0
3/25/2019 14:59	10	348.3	21.48	37.22	0	0
3/25/2019 15:04	7.242	358.4	16.12	37.75	0	0
3/25/2019 15:09	8.18	351.3	16.12	37.82	0	0
3/25/2019 15:14	7.355	347.4	14.33	37.8	0	0
3/25/2019 15:19	9.98	347.1	18.5	36.94	0	0
3/25/2019 15:24	8.84	346.8	17.9	36.65	0	0
3/25/2019 15:29	7.903	350.4	14.33	37.16	0	0
3/25/2019 15:34	8.34	347.9	18.5	37.5	0	0
3/25/2019 15:39	7.861	352.3	14.93	37.31	0	0
3/25/2019 15:44	8.25	351.7	14.33	37.69	0	0
3/25/2019 15:49	8.17	352.9	17.31	37.4	0	0
3/25/2019 15:54	8.09	359.7	15.52	37.31	0	0
3/25/2019 15:59	9.1	348.5	19.1	37.17	0	0
3/25/2019 16:04	8.2	348.9	14.93	36.95	0	0
3/25/2019 16:09	7.742	2.534	16.12	37.17	0	0
3/25/2019 16:14	7.212	0.999	19.1	37.55	0	0
3/25/2019 16:19	6.144	335	12.54	37.96	0	0
3/25/2019 16:24	7.206	349.6	16.12	37.86	0	0
3/25/2019 16:29	6.92	350.9	16.71	37.54	0	0
3/25/2019 16:34	7.712	348.2	14.33	37.31	0	0
3/25/2019 16:39	9.14	356.1	19.1	36.91	0	0
3/25/2019 16:44	9.14	344.7	14.33	36.7	0	0
3/25/2019 16:49	8.22	350.6	13.73	36.84	0	0
3/25/2019 16:54	6.962	340.6	17.9	36.92	0	0
3/25/2019 16:59	7.468	343.6	14.33	36.87	0	0
3/25/2019 17:04	7.915	344.9	14.93	36.47	0	0
3/25/2019 17:09	8.96	343.2	16.12	36.37	0	0
3/25/2019 17:14	7.206	352.5	17.31	36.24	0	0
3/25/2019 17:19	6.366	343.1	11.95	36.46	0	0
3/25/2019 17:24	6.998	354.1	14.93	36.36	0	0
3/25/2019 17:29	7.272	344.8	21.48	36.21	0	0
3/25/2019 17:34	9.12	347.1	15.52	35.64	0	0
3/25/2019 17:39	7.617	345.2	14.93	35.5	0	0
3/25/2019 17:44	7.236	343.4	14.33	35.49	0	0
3/25/2019 17:49	9.27	343.2	16.71	35.08	0	0
3/25/2019 17:54	7.498	346.6	16.12	35.04	0	0
3/25/2019 17:59	8.02	345	17.9	34.82	0	0
3/25/2019 18:04	7.617	346.4	15.52	34.55	0	0
3/25/2019 18:09	6.551	340.9	13.73	34.34	0	0
3/25/2019 18:14	6.027	347.3	11.95	34.13	0	0
3/25/2019 18:19	6.7	346.2	13.73	34.01	0	0
3/25/2019 18:24	5.753	340	11.35	33.99	0	0
3/25/2019 18:29	6.372	350.8	12.54	33.97	0	0
3/25/2019 18:34	6.051	349.9	11.95	34	0	0
3/25/2019 18:39	5.514	342.6	11.95	33.98	0	0

### Met Data from March 25, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/25/2019 18:44	6.319	337.9	10.76	33.86	0	0
3/25/2019 18:49	6.295	347.9	13.14	33.84	0	0
3/25/2019 18:54	6.825	342.4	11.35	33.82	0	0
3/25/2019 18:59	6.08	351.2	11.95	33.67	0	0
3/25/2019 19:04	5.878	342	13.14	33.61	0	0
3/25/2019 19:09	6.164	343.2	13.73	33.53	0	0
3/25/2019 19:14	5.401	340.1	9.56	33.49	0	0
3/25/2019 19:19	5.973	347.3	10.16	33.41	0	0
3/25/2019 19:24	6.301	342.2	10.76	33.41	0	0
3/25/2019 19:29	5.776	338.6	12.54	33.41	0	0
3/25/2019 19:34	6.956	348.2	15.52	33.41	0	0
3/25/2019 19:39	7.575	344.3	14.93	33.4	0	0
3/25/2019 19:44	5.645	341.9	11.35	33.3	0	0
3/25/2019 19:49	6.221	344.1	10.76	33.27	0	0
3/25/2019 19:54	5.288	348	10.76	33.29	0	0
3/25/2019 19:59	6.575	341.2	11.95	33.3	0	0
3/25/2019 20:04	7.403	343.6	15.52	33.35	0	0
3/25/2019 20:09	6.801	344.2	12.54	33.35	0	0
3/25/2019 20:14	7.552	344.1	14.93	33.34	0	0
3/25/2019 20:19	6.176	342.1	10.76	33.31	0	0
3/25/2019 20:24	7.653	341.8	13.14	33.37	0	0
3/25/2019 20:29	7.617	343.1	12.54	33.38	0	0
3/25/2019 20:34	6.932	346	13.73	33.4	0	0
3/25/2019 20:39	8.08	339.2	13.14	33.41	0	0
3/25/2019 20:44	7.224	341.4	12.54	33.44	0	0
3/25/2019 20:49	7.01	340.2	13.14	33.43	0	0
3/25/2019 20:54	6.962	342.5	11.95	33.46	0	0
3/25/2019 20:59	5.872	341.7	11.35	33.56	0	0
3/25/2019 21:04	6.896	342.4	13.14	33.57	0	0
3/25/2019 21:09	6.575	344	11.35	33.62	0	0
3/25/2019 21:14	6.569	342.6	10.76	33.6	0	0
3/25/2019 21:19	6.718	345.3	12.54	33.64	0	0
3/25/2019 21:24	7.325	341.4	14.33	33.64	0	0
3/25/2019 21:29	7.951	345	12.54	33.63	0	0
3/25/2019 21:34	6.205	347.2	10.16	33.64	0	0
3/25/2019 21:39	5.425	340.4	8.37	33.66	0	0
3/25/2019 21:44	6.199	343.6	10.76	33.63	0	0
3/25/2019 21:49	4.767	346.9	9.56	33.64	0	0
3/25/2019 21:54	5.103	341.5	9.56	33.64	0	0
3/25/2019 21:59	6.462	341.6	11.35	33.61	0	0
3/25/2019 22:04	5.693	337.5	10.16	33.53	0	0
3/25/2019 22:09	6.342	339.3	10.16	33.52	0	0
3/25/2019 22:14	7.123	344.3	12.54	33.53	0	0
3/25/2019 22:19	6.259	343.5	10.76	33.49	0	0
3/25/2019 22:24	6.122	339.8	9.56	33.5	0	0
3/25/2019 22:29	6.408	340.4	10.16	33.51	0	0
3/25/2019 22:34	6.235	343.2	9.56	33.57	0	0
3/25/2019 22:39	6.247	345.2	10.16	33.6	0	0
3/25/2019 22:44	4.651	341.8	8.97	33.59	0	0
3/25/2019 22:49	5.181	339.8	7.778	33.59	0	0
3/25/2019 22:54	4.012	349.5	7.778	33.65	0	0
3/25/2019 22:59	3.607	340.1	7.778	33.68	0	0
3/25/2019 23:04	3.376	341.4	7.778	33.7	0	0
3/25/2019 23:09	2.8	320.6	5.395	33.73	0	0
3/25/2019 23:14	4.121	339.7	6.587	33.78	0	0
3/25/2019 23:19	4.045	340.3	7.182	33.78	0	0

### Met Data from March 25, 2019

Time Stamp	Wind Speed (mph)	Wind Direction (degrees)	Wind Gust Speed (mph)	Average Temperature (F)	5-min Precipitation (in.)	24-hour Precipitation (in.)
3/25/2019 23:24	3.948	345.1	7.182	33.77	0	0
3/25/2019 23:29	4.039	340.2	6.587	33.65	0	0
3/25/2019 23:34	4.244	339.4	7.182	33.63	0	0
3/25/2019 23:39	4.156	343.6	6.587	33.63	0	0
3/25/2019 23:44	2.845	353	5.395	33.6	0	0
3/25/2019 23:49	3.633	334.9	5.395	33.53	0	0
3/25/2019 23:54	3.373	328.5	5.991	33.45	0	0
3/25/2019 23:59	4.482	338	7.778	33.58	0	0