



Wood Buffalo Environmental Association
**Ambient Air Monitoring Station
Site Documentation**

Surmont 2

LAST UPDATED: MARCH 28, 2024



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General Site Information

Revision Date: March 28, 2024

Station

Station ID	AMS 29
Station name	Surmont 2
Date station established	2019

Location

Station street address	NA
Legal land description	10-20-83-6-W4
Airshed Zone	Wood Buffalo Environmental Association
Latitude	56.2124224862
Longitude	-110.914925019
UTM East	505285
UTM North	6229755
Nearest community	Anzac
Community population	555
Census Year	2021

Owner/Operator/Approval Holder

Operating Agency	Wood Buffalo Environmental Association
Address of Operating Agency	Unit 3, 805 Memorial Drive, Fort McMurray, Alberta T9K 0K4
Name of Approval Holder	ConocoPhillips Canada Resources Corp.
Approval number	48263-01-00
Contact Name	Heather Pitt
Address	401 9 Ave SW, Calgary, Alberta, T2P 3C5
Phone number	780-334-7914
Email address	heather.d.pitt@conocophillips.com

Site Description

Land use by sector	0 – 90 degrees	Trees
	91 – 180 degrees	Trees/shed/potable water access point
	181 – 270 degrees	Trees
	271 – 360 degrees	Trees/ laydown yard
Site elevation (m) (above sea level)	550	
Angle of elevation to nearby buildings	Greatest angle	0
	Building direction	NA
Airflow restrictions	North	None

	East	None
	South	None
	West	None
Distance to nearest trees (m)	North	60 m
	East	50 m
	West	100 m
	South	55 m
Sample manifold	Type	All glass
	Inlet height above roof	1 metre
Wind Sensors	Type	Cup and vane
	Height above ground (m)	10 m
	Distance from station (m)	0

Site Influences

Localized Sources (within 20 metres of station)

Type	Distance (m)	Description
Vehicles	20 m NW	Moving vehicles around station

Roadway Influences

Type	Traffic Volume	Distance (m)	Description
Dirt/gravel road	low	20	Used by site personnel for accessing various sections around plant.

Major Point Sources

Facility Name	Source Type	Distance from site (km)	Compass direction from site
ConocoPhillips	SAGD	0.36 km	NW

Station Equipment

Equipment Owner: ConocoPhillips

Analytical Equipment

Parameter	Make	Model	Serial Number	Date Instrument Installed	WBEA Data Start Date
SO ₂	Thermo Environmental	43i	1170050150	2016	April, 2019
H ₂ S	Thermo Environmental	43iQTL	1200326170	2023	April, 2019
NO/NO _x /NO ₂	Thermo Environmental	42i	1170050148	2016	April, 2019
THC	Thermo Environmental	51i	1170050149	2021	April, 2019
PM _{2.5}	Teledyne/API	T640	253	2019	April, 2019

Meteorological Equipment

Parameter	Make	Model	Serial Number	WMO Site Class	Date Sensor Installed	WBEA Data Start Date
AT/RH	Vaisala	HMP155	G4340046	3	2016	April, 2019
WS	Met One	010C-1	P10039	2	2019	April, 2019
WD	Met One	020C-1	P22885	2	2016	April, 2019

Support Equipment

Name	Description	Make	Model	Serial Number
Datalogger	Datalogger	Campbell Scientific	CR3000	9037
Gas Dilution Calibrator	Dynamic dilution calibrator	Teledyne/API	T700	5472
Zero air generator	Zero Air Generator	Teledyne/API	701	4297
Shelter / Building	Air monitoring portable	ITB	8 x 16 trailer	ITB-17-17154
HVAC	Heating and air conditioning system. Wall mount unit	BARD	1 ton	NA
Tower	10m Tower	Aluma	T-135	AT21403Z32
H ₂ S converter	H ₂ S Converter	Global Analyzer Systems	G150	2022-220

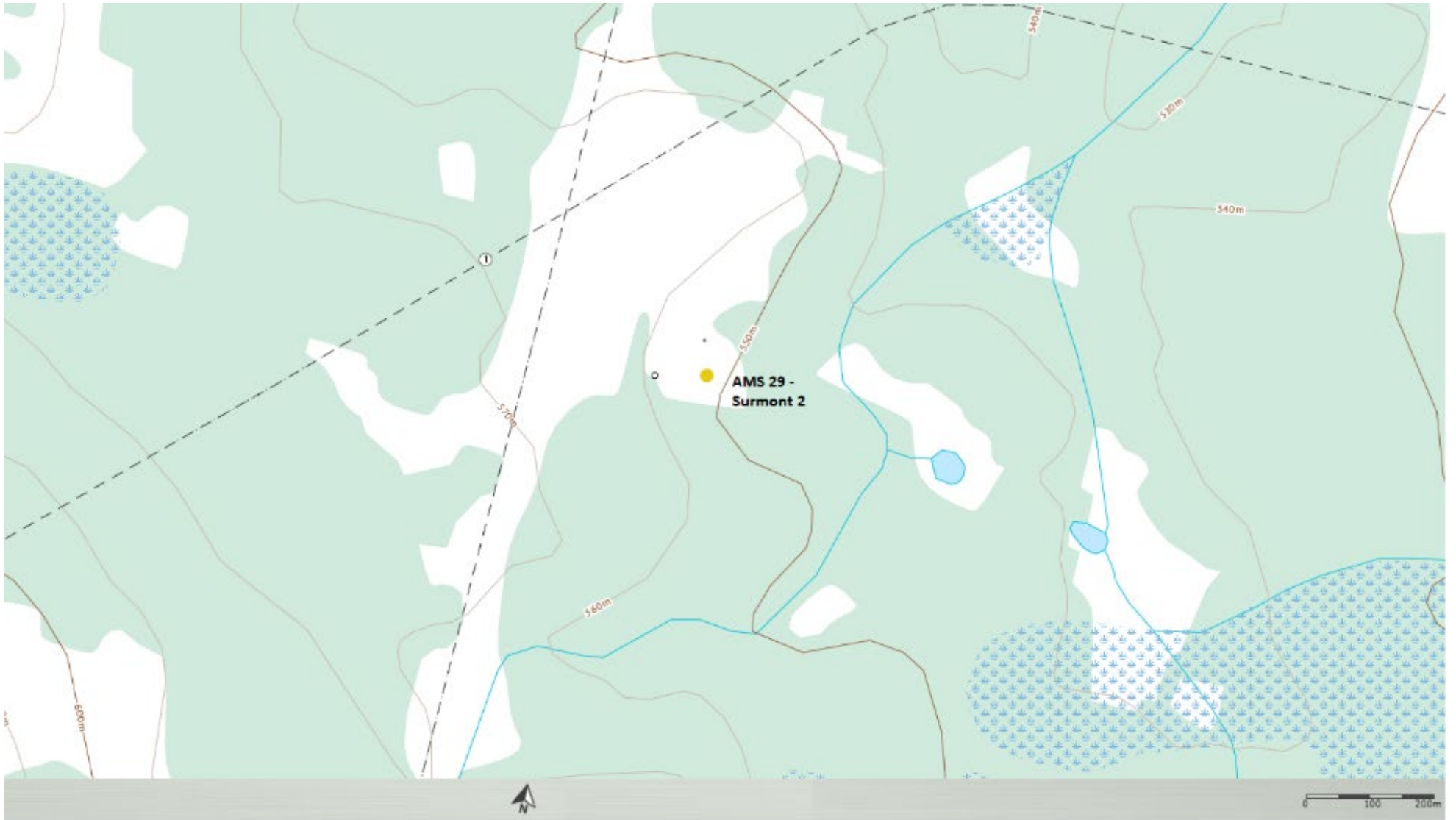


Figure 1 – Area topographic map showing AMS 29

PLAN VIEW:



CLIENT:



- NOTES:
1. ALL DIMENSIONS AND DISTANCES ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.
 2. ALL ELEVATIONS ARE IN METRES AND REFERENCED TO CAN-MET BASE STATION.
 3. UTM COORDINATES:
 - UTM ZONE: 18Q UTM ZONE 18Q
 - EASTING: 471845.11m
 - ELEVATION: 615.77m
 4. HORIZONTAL REFERENCE DATUM: NAD83

THE INFORMATION CONTAINED ON THIS DRAWING, AND ANY DOCUMENTATION PERTAINING TO THIS DRAWING IS CURRENT AS OF 24-NOV-2022. ANY FACILITIES UNDER OR ABOVE GROUND INSTALLED AFTER THE ABOVE MENTIONED DATE MAY NOT HAVE BEEN CONSIDERED IN THE PREPARATION OF THIS DOCUMENT, OR ITS SUPPORT DOCUMENTS.

LEGEND:

SITE MAP:



REVISIONS		
NO.	DESCRIPTION	DATE
0	PLAN ISSUED	7-Nov-22



DRAWING TITLE:
 WBEA AMS#29
 AIR MONITORING STATION
 SITE PLAN

SCALE:

 SCALE: 1:5000

DRAWN BY: ZF	SURVEILED BY: ES	REV: 0
DWG NO: LND00671-029-WBE_0	EMP NO:	
DATE: 07-NOV-2022	SHEET: 1 OF 3	

Figure 2 – Aerial photo showing AMS 29

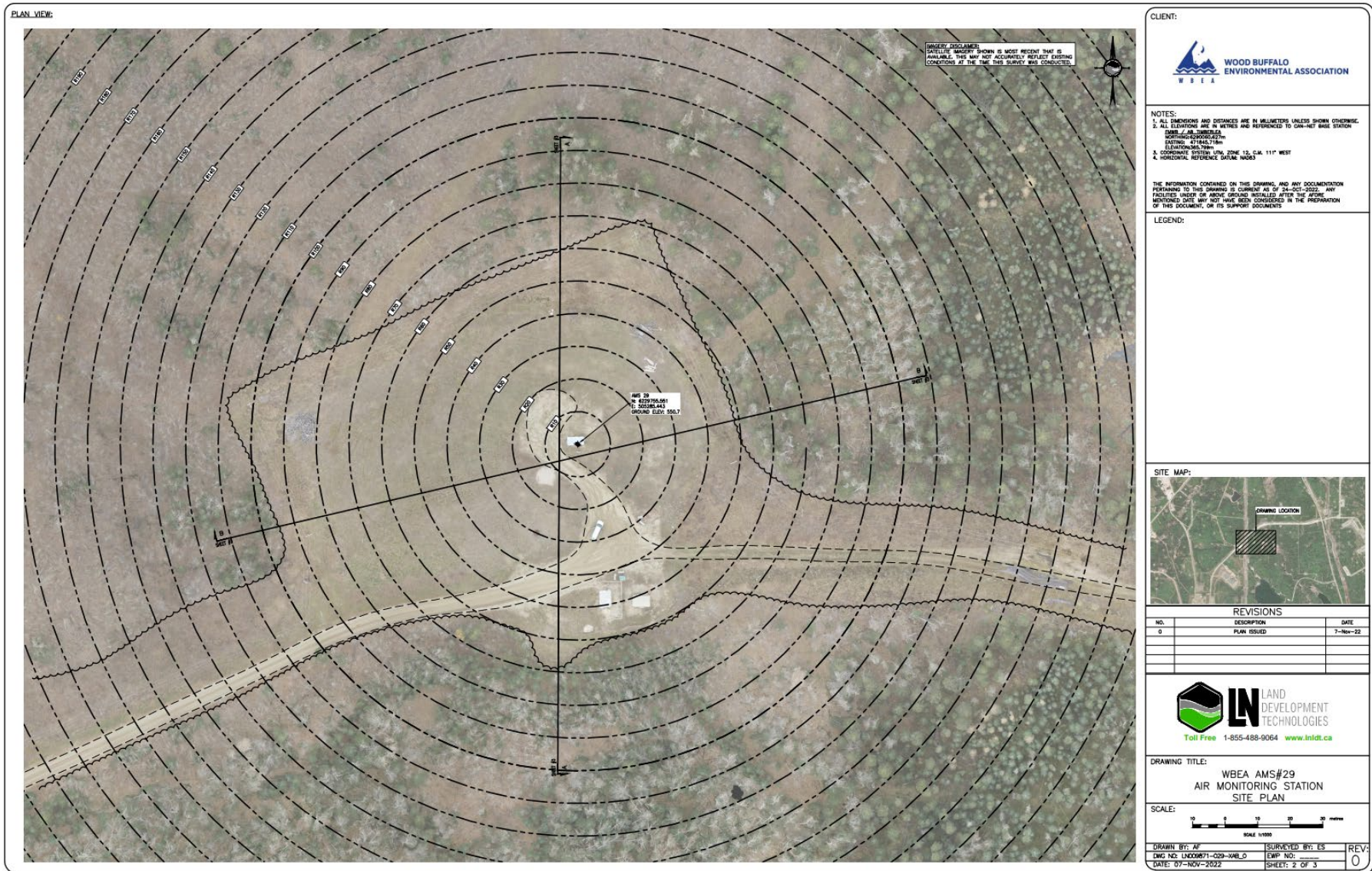
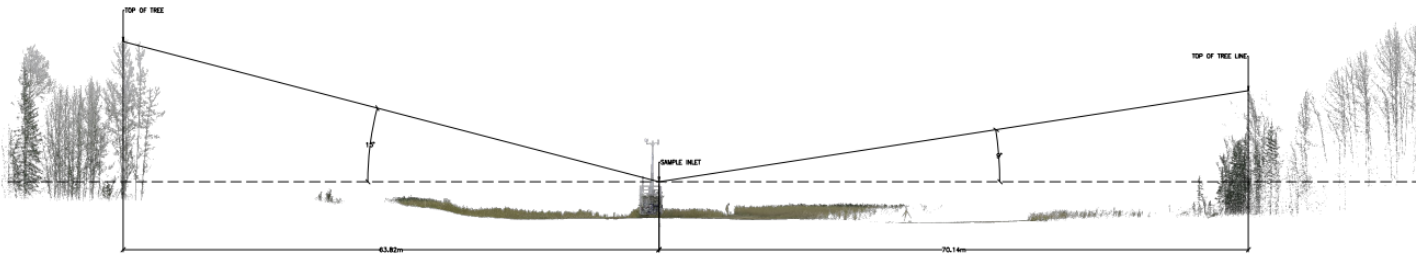
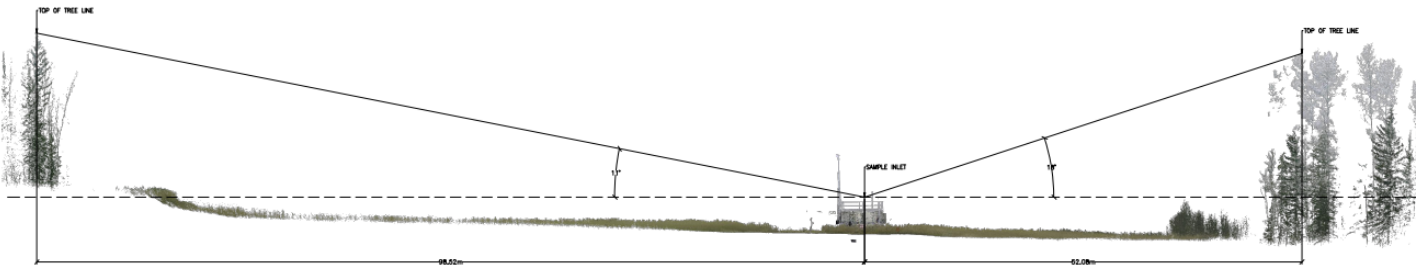


Figure 3 – Plan view sketch for AMS 29 site

SECTION VIEW:



SECTION A-A
1:800



SECTION B-B
1:800

CLIENT:



- NOTES:
1. ALL DIMENSIONS AND DISTANCES ARE IN MILLIMETERS UNLESS SHOWN OTHERWISE.
 2. ALL ELEVATIONS ARE IN METRES AND REFERENCED TO CAN-NET BAIL STATION.
 3. DATE: 07-26-2022
 4. WORKING ADDRESS: 4270 HWY 118
 5. ELEVATION: 471.80m
 6. ELECTRONIC FILE TYPE: .DWG
 7. COORDINATE SYSTEM: UTM, ZONE 12, CLM, 11° WEST
 8. HORIZONTAL REFERENCE DATUM: NAD83

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LEGEND:

SITE MAP:



REVISIONS

NO.	DESCRIPTION	DATE
0	PLAN ISSUED	7-Nov-22



DRAWING TITLE:

WBEA AMS#29
AIR MONITORING STATION
SITE PLAN

SCALE:



DRAWN BY: AF	SURVEYED BY: ES	REV:
DWG NO: LND00071-2020-AMBLD	EMP NO:	0
DATE: 07-26-2022	SHEET: 3 OF 3	

Figure 4 – Elevation view image for AMS 29 site

Site photos

The following photos show the environment surrounding the monitoring station.



Figure 5 – Environment looking North



Figure 6 – Environment looking East



Figure 7 – Environment looking South



Figure 8 – Environment looking West



Figure 9 – Meteorological Tower

Station Photos

The following photos show the monitoring station and instrumentation.

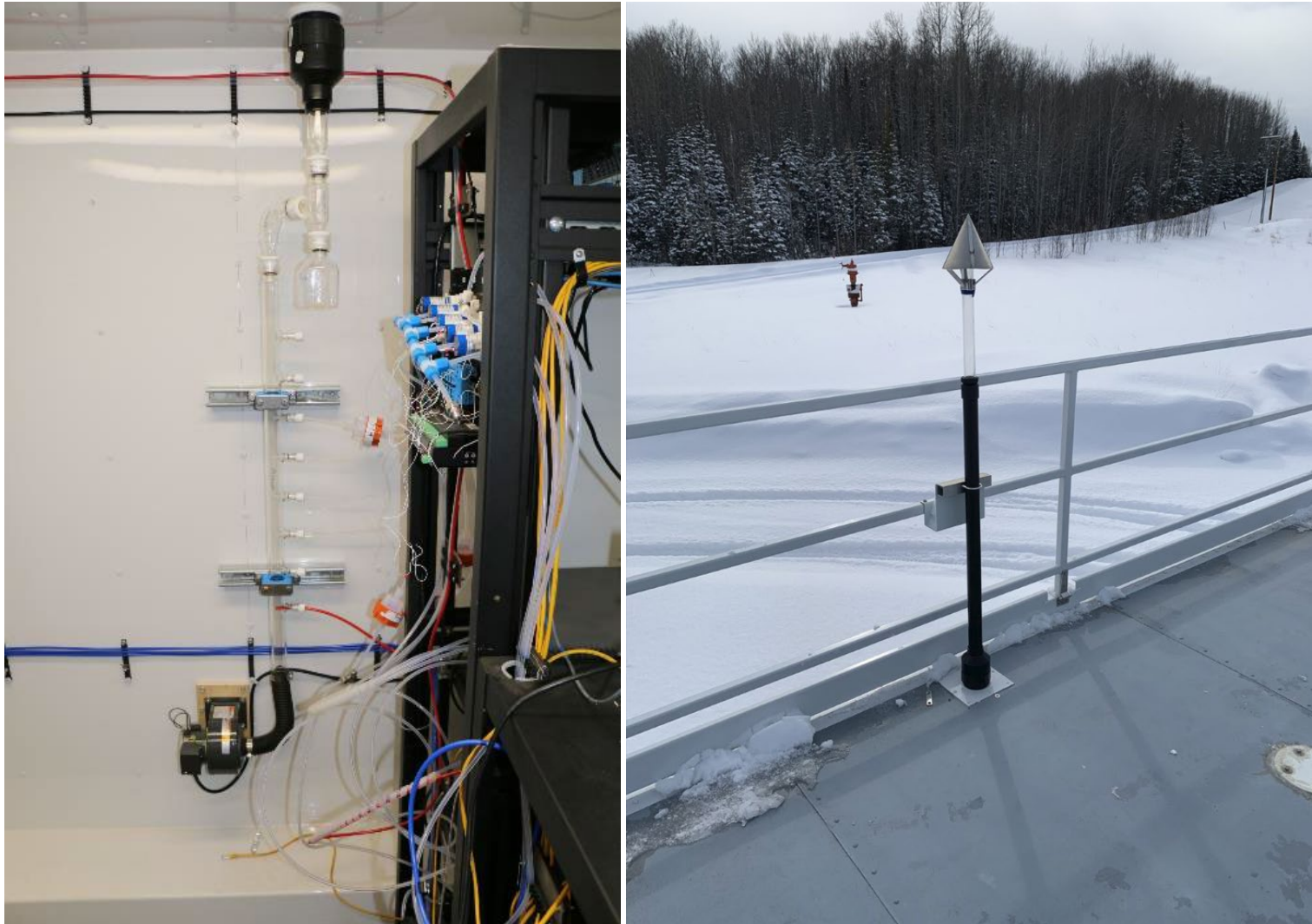


Figure 10 – Photo showing the inlet and sample manifold



Figure 11 – Curb shot of the monitoring station



Figure 12 –Photo of the front and the back of instrument rack



Figure 13 –Photo of the T640 Analyzer



Wood Buffalo Environmental Association
Wind Rose 2019 - 2024

Wind Speed (WS) - km/h
Surmont 2

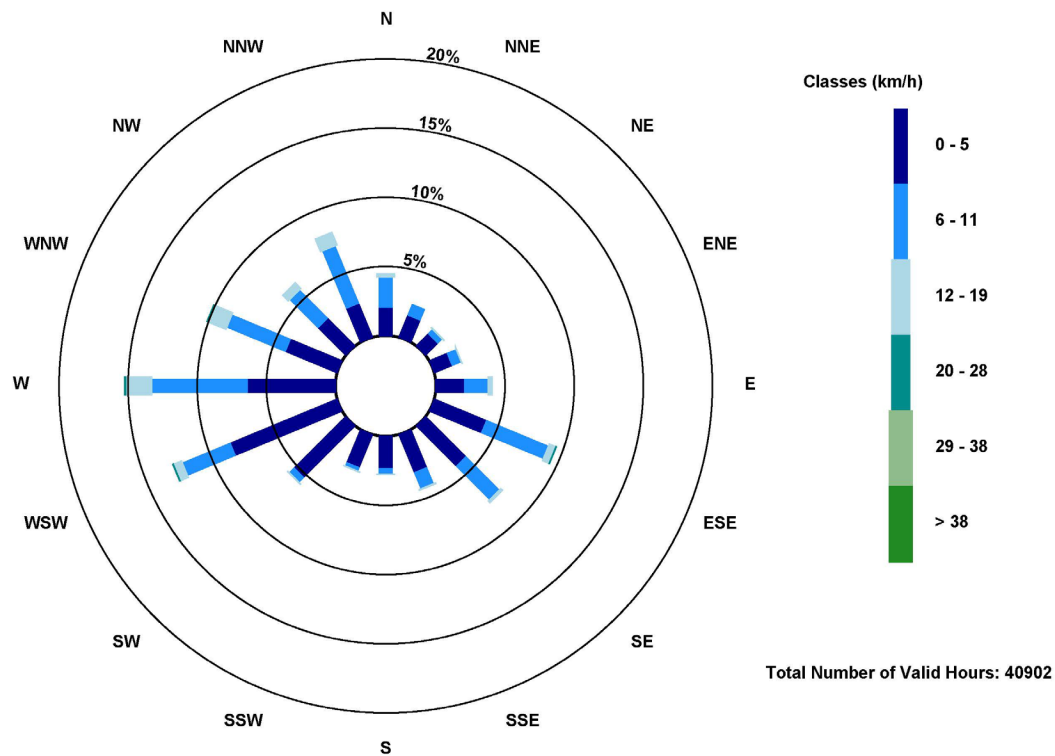


Figure 14 – Windrose (2019 – 2024)