

Wood Buffalo Environmental Association
Ambient Air Monitoring Station
Site Documentation

Sawbones Bay

LAST UPDATED: MARCH 28, 2024



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General Site Information

Revision Date: March 28, 2024

Station

Station ID	AMS 505
Station name	Sawbones Bay
Date station established	June 23, 2021

Location

Station street address	Station located in laydown yard at Christina Lake facility
Legal land description	1-16-77-5 W4
Airshed Zone	Wood Buffalo Environmental Association
Latitude	55.667847
Longitude	-110.705711
UTM East	518511
UTM North	6169152
Nearest community	Conklin
Community population	229
Census Year	2018

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	MEG Energy Corp.
Approval number	00216466-01-00
Contact Name	Natasha Rowden
Address	NA
Phone number	403-770-5558
Email address	Natasha.rowden@megenergy.com

Site Description

Land use by sector	0 – 90 degrees	Forest
	91 – 180 degrees	Forest
	181 – 270 degrees	SAGD operations
	271 – 360 degrees	Forest
Site elevation (m) (above sea level)	471 m	
Angle of elevation to nearby buildings	Greatest angle	0
	Building direction	None
Airflow restrictions	North	None
	East	None



	South	None
	West	None
Distance to nearest trees (m)	North	190
	East	75
	West	NA
	South	15
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 m

Site Influences

Localized Sources (within 20 metres of station)

Type	Distance (m)	Description
SAGD Operations	500m W	MEG Energy operations
Laydown yard	100m S	Heavy equipment

Roadway Influences

Type	Traffic Volume	Distance (m)	Description
Roadway	Low	100	Gravel access road
Roadway	Low	500	Gravel access road

Major Point Sources

Facility Name	Source Type	Distance from site (km)	Compass direction from site
MEG Christina Lake	SAGD operations	500m	West



Station Equipment

Equipment Owner: WBEA

Analytical Equipment

Parameter	Make	Model	Serial Number	Date Instrument Installed	WBEA Data Start Date
SO ₂	Thermo Scientific	43i	710321323	2021	July, 2017
H ₂ S	Thermo Scientific	43i-QTL	12113311965	2023	July, 2017
NO/NO _x /NO ₂	Teledyne/API	42iQ	12227620777	2023	July, 2017

Meteorological Equipment

Parameter	Make	Model	Serial Number	WMO Site Class	Date Sensor Installed	WBEA Data Start Date
AT/RH	Vaisala	HMP155	N2910504	Class 3	2021	July, 2017
WS	Met One	010C-1	CA 03845	Class 4	2023	July, 2017
WD	Met One	020C-1	B4693	Class 4	2023	July, 2017

Support Equipment

Name	Description	Make	Model	Serial Number
Datalogger	Datalogger	Campbell Scientific	CR3000	6894
Gas Dilution Calibrator	Dynamic dilution calibrator	Teledyne/API	T700	5112
Zero air generator	Zero Air Generator	Teledyne/API	701	690
Shelter / Building	Air monitoring portable	ITB	8 x 16 trailer	ITB1315940
HVAC	Heating and air conditioning system. Wall mount unit	BARD	1 ton	NA



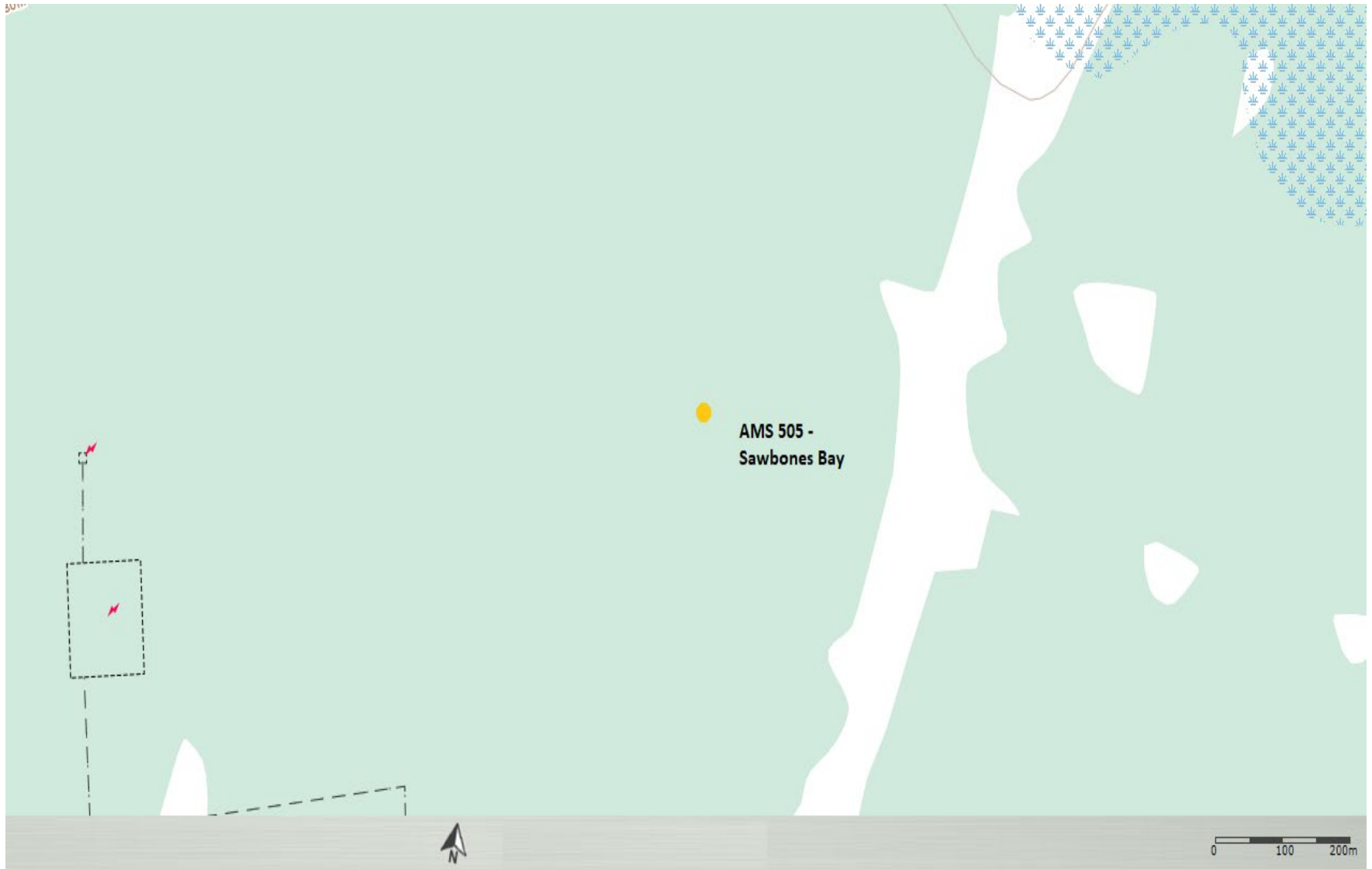


Figure 1 – Area Topographic map showing AMS 505



Figure 2 – Aerial image showing AMS 505



Station Name: AMS 505 - Sawbones Bay

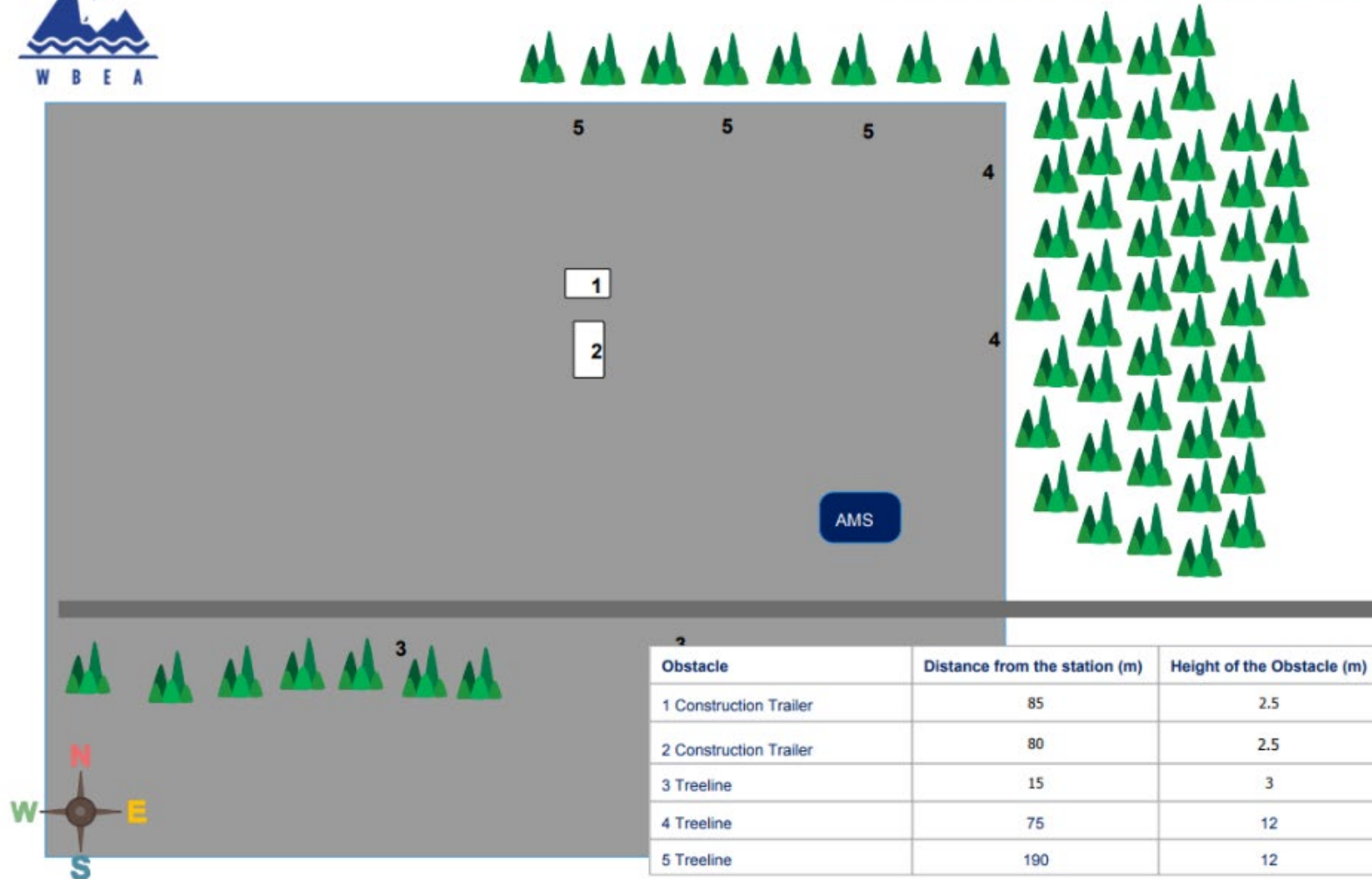


Figure 3 – Plan view sketch for AMS 505 – Sawbones Bay

Site photos

The following photos show the environment surrounding the monitoring station.

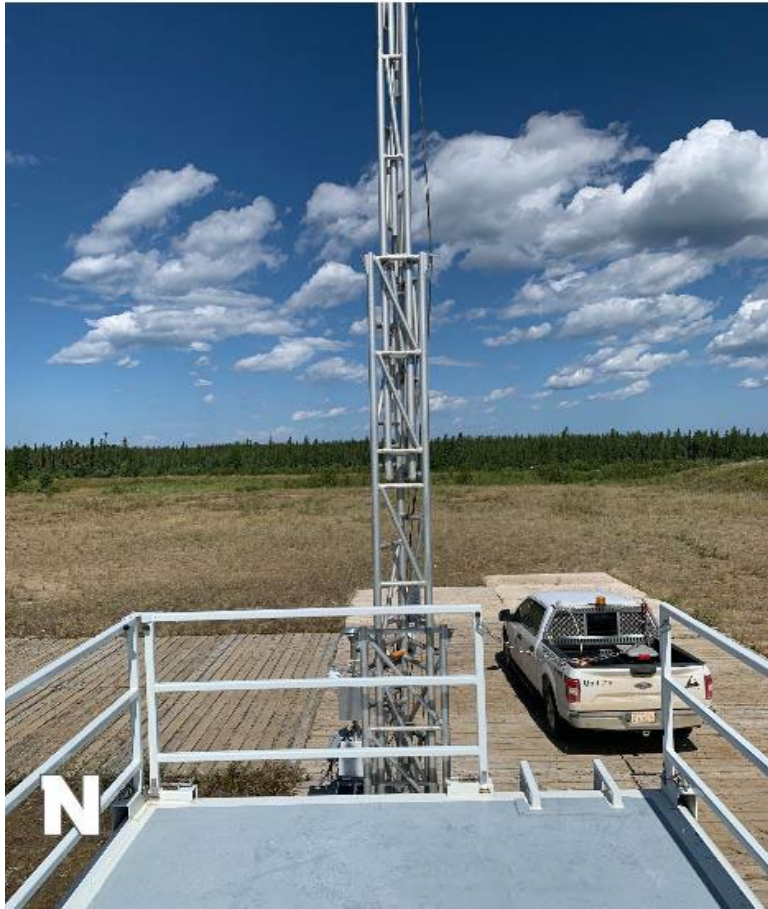


Figure 4 – Environment looking North.



Figure 5 – Environment looking East.



Figure 6 – Environment looking South.



Figure 7 – Environment looking West.



Figure 8 – Meteorological Tower

Station Photos

The following photos show the monitoring station and instrumentation.



Figure 9 – Photo showing the inlet and sample manifold.



Figure 10 – Curb shot of the monitoring station.



Figure 11 –Photo of the front and the back of instrument rack



Wood Buffalo Environmental Association
Wind Rose 2019 - 2024

Wind Speed (WS) - km/h
Sawbones Bay

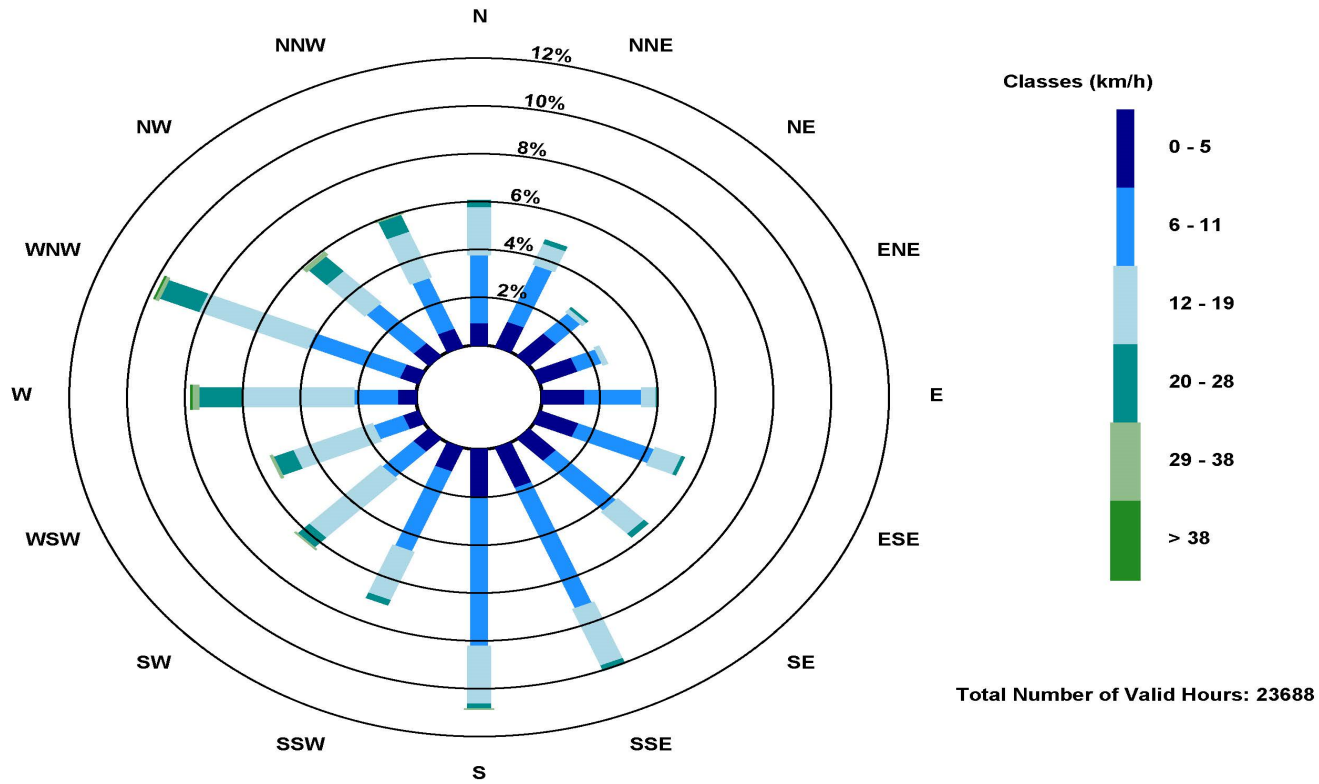


Figure 12 – Windrose (2019-2024)