



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

BlackGold

LAST UPDATED: MARCH 28, 2024



Table of Contents

General Site Information	4
Station	4
Location.....	4
Owner/Operator/Approval Holder	4
Site Description	4
Site Influences	5
Localized Sources (within 20 metres of station).....	5
Roadway Influences	5
Major Point Sources.....	5
Station Equipment	6
Analytical Equipment	6
Meteorolical Equipment	6
Support Equipment.....	6
Site photos	10
Station Photos.....	15

Tables and Figures

Figure 1 – Area topographic map showing AMS 511.....	7
Figure 2 – Aerial photo showing AMS 511.....	8
Figure 3 – Plan view sketch for AMS 507 – Blackgold site	9
Figure 4 – Environment looking North.....	10
Figure 5 – Environment looking East	11
Figure 6 – Environment looking South.....	12
Figure 7 – Environment looking West.....	13
Figure 8 – Meteorological Tower	14
Figure 9 – Photo showing the inlet and sample manifold	15
Figure 10 – Curb shot of the monitoring station	16
Figure 11 –Photo of the front and the back of instrument rack.....	17
Figure 12 – Windrose (2019-2024)	18

General Site Information

Revision Date: March 28, 2024

Station

Station ID	AMS 511
Station name	BlackGold
Date station established	Oct 1, 2023

Location

Station street address	n/a
Legal land description	07-14-76-07, W4M
Airshed Zone	Wood Buffalo Environmental Association
Latitude	55.582983
Longitude	110.973061
UTM East	501691
UTM North	6159684
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	Harvest Operations Corp.
Approval number	246984-01
Contact Name	Eric Deegan
Address	1500, 700 2 nd Street S.W. Calgary, AB T2P 2W1
Phone number	403-387-1203
Email address	Eric.deegan@harvestenergy.ca

Site Description

Land use by sector	0 – 90 degrees	Lay-down yard/Access Road/Muskeg
	91 – 180 degrees	Lay-down yard/Muskeg
	181 – 270 degrees	Lay-down yard/SAGD Facility
	271 – 360 degrees	Lay-down yard/Access Road/Camp Facility
Site elevation (m) (above sea level)	600	
Angle of elevation to nearby buildings	Greatest angle	0
	Building direction	South
Airflow restrictions	North	N/A

	East	N/A
	South	N/A
	West	N/A
Distance to nearest trees (m)	North	85
	East	110
	West	110
	South	165
Sample manifold	Type	All glass
	Inlet height above roof	1 metre
Wind Sensors	Type	Cup and vane
	Height above ground (m)	10
	Distance from station (m)	0

Site Influences

Localized Sources (within 20 metres of station)

Type	Distance (m)	Description
None	n/a	n/a

Roadway Influences

Type	Traffic Volume	Distance (m)	Description
Access Road	Low	160	Roadway used by the site workers

Major Point Sources

Facility Name	Source Type	Distance from site (km)	Compass direction from site
BlackGold	SAGD	0.5	W

Station Equipment

Equipment Owner: WBEA

Analytical Equipment

Parameter	Make	Model	Serial Number	Date Instrument Installed	WBEA Data Start Date
SO ₂	Thermo Environmental	43i	1160290014	October, 2023	October, 2023
H ₂ S	Teledyne/API	T101	197	October, 2023	October, 2023
NO/NO _x /NO ₂	Teledyne/API	T200	7029	October, 2023	October, 2023
THC	Thermo Environmental	51i	1317958295	October, 2023	October, 2023

Meteorological Equipment

Parameter	Make	Model	Serial Number	WMO Site Class	Date Instrument Installed	WBEA Data Start Date
AT/RH	Vaisala	HMP155	H5110025	4	October, 2023	October, 2023
WS	Met One	010C-1	B10017	4	October, 2023	October, 2023
WD	Met One	020C-1	D13603	4	October, 2023	October, 2023

Support Equipment

Name	Description	Make	Model	Serial Number
Datalogger	Datalogger	Campbell Scientific	CR3000	2575
Gas Dilution Calibrator	Dynamic dilution calibrator	Teledyne/API	T700	2445
Zero air generator	Zero Air Generator	Teledyne/API	701	138
Shelter / Building	Air monitoring portable	ITB	8 x 16 trailer	ITB-13-16018
HVAC	Heating and air conditioning system. Wall mount unit	BARD	1 ton	N/A



Figure 1 – Area topographic map showing AMS 511



Figure 2 – Aerial photo showing AMS 511



Figure 3 – Plan view sketch for AMS 507 – Blackgold site

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.

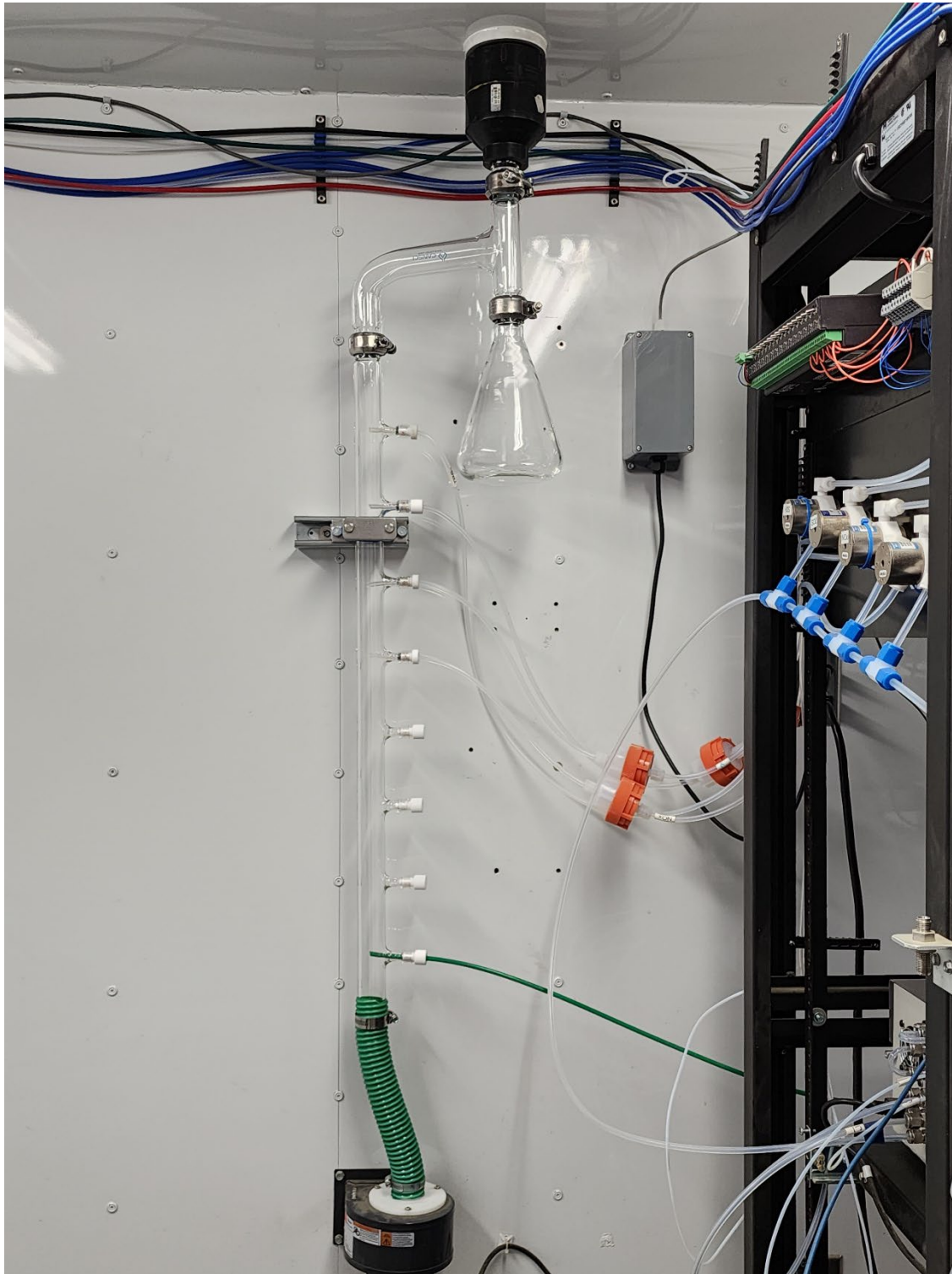


Figure 9 – Photo showing the inlet and sample manifold



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
Blackgold

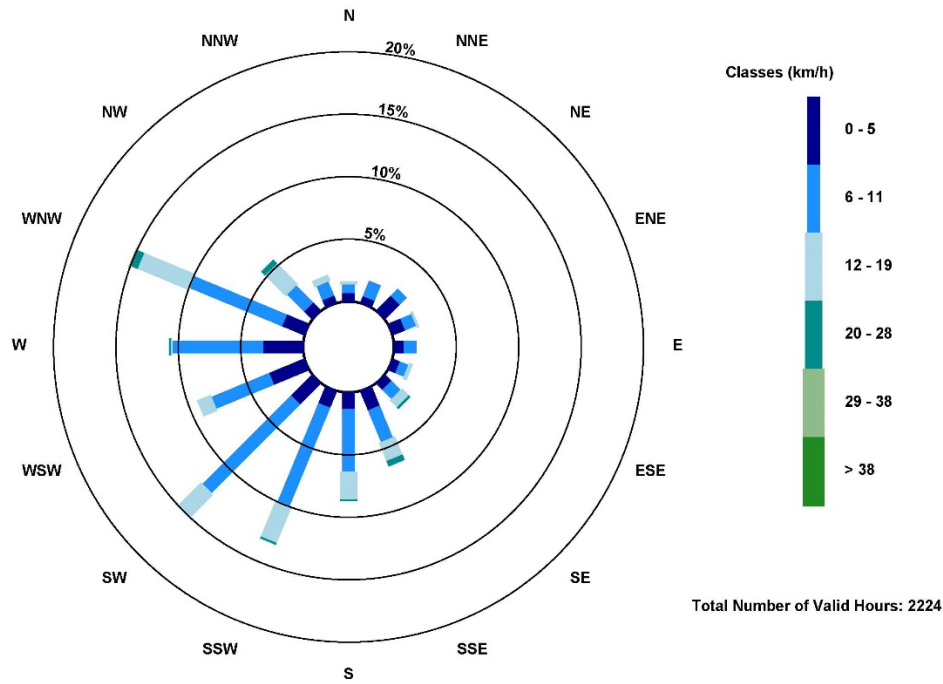


Figure 12 – Windrose (2019-2024)