

Oil Sands Monitoring (OSM)

2016-2017 PROJECT PLAN SUMMARY

Project Name:	A1-1-1 Ambient Air Monitoring: Athabasca Oil Sands (North of Fort McMurray)
Type of Project:	Long Term
Delivery Agent:	Wood Buffalo Environmental Association (WBEA)
Project Contact:	Bob Myrick (AEP) - bob.myrick@gov.ab.ca Sanjay Prasad (WBEA) - sprasad@wbea.org
Budget:	\$ 8,973,120

Project Description:

The long-term Ambient Air Monitoring Program for the Athabasca oil sands region consists of continuous analyzers and integrated (semi-continuous) air sampling systems. WBEA currently operates 25 continuous monitoring stations in its ambient air monitoring network. For ease of administration and cost tracking purposes these stations are distributed in multiple work plans; project A1-1-1 comprises of continuous and integrated monitoring at 19 air monitoring stations north of Fort McMurray in the Athabasca oil sands region. The air monitoring stations measure from three to ten air quality parameters each. The air quality parameters continuously measured include CH₄, CO, H₂S, NH₃, NO, NO₂, NO_x, O₃, PM_{2.5}, SO₂, total hydrocarbons (THC), CH₄/ non-methane hydrocarbons (NMHC) and total reduced sulphur (TRS). Temperature, wind speed and wind direction are measure at all sites, while relative humidity, barometric pressure, global radiation, precipitation, dew point, surface wetness and vertical temperature gradient are measured at selected sites. Routine operation and maintenance including calibration, maintenance, and quality assurance processes and procedures as well as preventive maintenance of analyzers, sensors and supporting/maintenance equipment, occurs at all sites within the air monitoring network.

Project Objectives:

Continuity and accuracy in continuous and integrated air monitoring for compliance, trending and modelling purposes

Key Outcomes:

Transparent, timely access to highly credible air quality data

Geographic Scope:

Regional Municipality of Wood Buffalo (RMWB) including the Athabasca Oil Sands Region (AOSR)

Associated Data and Reports:

All monitoring data are sent to the WBEA website for public reporting as well as the AEMERA/AEP air data online repository. The data is summarized and reported annually as part of AEP assessments; results are published as appropriate in peer reviewed scientific literature with open access privileges.