

Oklahoma Mesonet / ARS Quality Assurance Report

September 2018

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- Mesonet technicians completed scheduled rotations of 20 batteries (BATV/BVAS), 9 rain gauges (RAIN), 5 barometers (PRES), 9 relative humidity sensors (RELH/TSLO), 7 pyranometers (SRAD), 9 PRT thermometers (TAIR/TA9M), 2 wind sentries (WS2M), 5 wind monitor nose cones (WSPD), and 2 current excitations.
- Water damaged the CDM at the Eufaula Mesonet Site (EUFA), causing some data from the site to be lost.
- Aspirator fan problem at the Holdenville Mesonet Site (HOLD) is causing the aspirated air temperature to experience a high bias during calm and sunny conditions. Data are flagged.
- A current exciter problem at the Bixby Mesonet Site (BIXB) is preventing soil sensors from heating properly. Soil moisture data are flagged.

MESO QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH				
WSPD				
WDIR				
PRES				
SRAD				
RAIN	Resolved	SULP	36599	Primary rain gauge reports significantly less than secondary. Replaced.
	Current	BLAC	36789	Primary gauge stops reporting shortly after rain begins.

	Current	HECT	36701	Primary gauge reports less than expected.
	Current	MTHE	36704	Primary gauge reports less than expected.
	Current	CARL	36699	Secondary rain gauge fails to report rain.
TA9M				
WS2M				
TB10	Current	TIPT	36632	10cm bare sensor reports errant data.
TS05				
TS10				
TS25				
TS60				
TR05				
TRB10	Current	BOIS	36589	10 cm under bare soil reports errant data.
TRS10				
TR25	Resolved	IDAB	36604	25 cm sensor reports errant data. Replaced sensor.
TR60				

ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Current	A133	36612	5 cm soil moisture errantly reports near 0 values for voltages 1-3.

VW25	Resolved	A235	36553	25 cm soil moisture frequently reports 0 for voltages 1-3. Replaced.
	Resolved	A249	36594	25 cm soil moisture reports values near 0 for voltages 1-3. Replaced.
	Current	A235	36794	25cm soil moisture out of range.
VW45	Resolved	A282	36549	45 cm soil moisture errantly reports values near 0 for voltages 1-3. Replaced.
V05T				
V25T				
V45T				

FCARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Current	F102	36608	5 cm soil moisture reports much lower than expected for voltages 1-3.
VW25	Resolved	F113	36523	25 cm soil moisture reports values near 0 for voltages 2-4. Replaced.
	Current	F110	36786	25cm soil moisture values near zero.
VW45				
V05T				
V25T				
V45T				

'Current' tickets are the unresolved tickets as of the last day of the month OR those tickets added based on the Monthly QA analysis.

'Resolved' tickets are the sensor problems that were fixed during the entire month.

Variable	Description
TAIR	Air temperature at 1.5 meters
RELH	Relative humidity at 1.5 meters
WDIR	Wind direction at 10 meters
WSPD	Wind speed at 10 meters
PRES	Air pressure
SRAD	Incident solar radiation
RAIN	Rainfall
TA9M	Air temperature at 9 meters
WS2M	Wind speed at 2 meters
TB10	Soil temperature at 10 cm under bare soil
TS05	Soil temperature at 5 cm under native sod
TS10	Soil temperature at 10 cm under native sod
TS25	Soil temperature at 25 cm under native sod
TS60	Soil temperature at 60 cm under native sod
TR05	Soil moisture: Calibrated DeltaT at 5 cm under native sod
TRB10	Soil moisture: Calibrated DeltaT at 10 cm under bare soil
TRS10	Soil moisture: Calibrated DeltaT at 10 cm under native sod
TR25	Soil moisture: Calibrated DeltaT at 25 cm under native sod
TR60	Soil moisture: Calibrated DeltaT at 60 cm under native sod
VW05	Soil moisture: Volumetric water content at 5 cm under native sod
VW25	Soil moisture: Volumetric water content at 25 cm under native sod
VW45	Soil moisture: Volumetric water content at 45 cm under native sod
V05T	Soil temperature at 5 cm under native sod
V25T	Soil temperature at 25 cm under native sod
V45T	Soil temperature at 45 cm under native sod