

Oklahoma Mesonet / ARS Quality Assurance Report

November 2017

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- Mesonet technicians completed scheduled rotations of 11 batteries, 2 rain gauges (RAIN), 1 relative humidity sensor (RELH), and 1 PRT thermometer (TAIR/TA9M).
- Aspirator fan problem at the Sulphur Mesonet Site (SULP) caused the aspirated air temperature to have a high bias during sunny, low wind periods. Aspirator fan was replaced.

MESO QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH				
WSPD	Current	BOWL	33909	Low bias in 10m wind.
WDIR				
PRES				
SRAD	Resolved	BRIS	33660	Solar radiation has 5% high bias. Sensor replaced.
RAIN	Resolved	KETC	33824	Secondary rain gauge did not report precipitation during thunderstorms. Fixed.
	Current	BLAC	33955	Primary gauge did not report precipitation during thunderstorms.
	Current	TAHL	33956	Primary rain gauge reports significantly less than secondary gauge.

TA9M				
WS2M				
TB10				
TS05				
TS10				
TS25				
TS60				
TR05	Current	BLAC	33728	Outside allowed calibration error.
	Current	STUA	33727	Outside allowed calibration error.
TRB10				
TRS10				
TR25				
TR60				

ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Current	A236	33969	Sensor frequently reports values near 0 for voltages 1-3.

VW25	Current	A154	33976	Sensor frequently reports values near 0 for voltages 1-3. Soil temperature not affected.
VW45	Current	A249	33973	Large errant spikes in soil moisture and temperature.
V05T				
V25T				
V45T				

FCARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN	Resolved	F104	33805	Rain gauge has low bias. Sensor replaced.
VW05				
VW25	Resolved	F215	33525	Sensor frequently reports values near 0 for voltages 1-3. Soil temperature not affected. Sensor replaced.
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