

Oklahoma Mesonet / ARS Quality Assurance Report

May 2018

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- Mesonet technicians completed scheduled rotations of 2 batteries, 5 rain gauges (RAIN), 1 barometer (PRES), 3 pyranometers (SRAD), 4 PRT thermometers (TAIR/TA9M), 1 wind sentries (WS2M), 2 wind monitor nose cones (WSPD), and 1 current excitation.

MESO QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH				
WSPD				
WDIR	Resolved	MEDI	35091	Wind direction errantly reported zero. Cable replaced.
PRES				
SRAD	Resolved	COPA	35299	Sensor randomly reported errant values on clear days. Sensor replaced.
	Resolved	FAIR	35197	Sensor intermittently reported -99999. Sensor replaced.
RAIN	Resolved	ERIC	35196	Primary gauge did not report precipitation during thunderstorms. Sensor inspected, cleaned and tested.
	Resolved	BUFF	35142	Gauge had low bias. Sensor replaced.
	Resolved	BUTL	35318	Secondary gauge reported less than primary gauge. Sensor inspected, cleaned and tested.
	Current	TALI	35147	Gauge occasionally misses portion of rain event.

TA9M				
WS2M				
TB10	Resolved	HOLL	35295	Sensor reported -7999 when soil temperature greater than ~ 25C. Sensor replaced.
TS05	Current	KIN2	35373	5cm sod temperature has less diurnal variation than 10cm sod. Suspect sensor too deep.
TS10	Current	BURN	35159	Sensor has more diurnal variation than expected.
TS25				
TS60				
TR05	Resolved	ALTU	35362	Soil moisture and temperature reported -7999. Sensor replaced.
	Resolved	APAC	35304	Sensor stopped heating. Sensor replaced.
	Current	CENT	35378	Sensor not heating properly.
TRB10	Resolved	CHER	35327	Sensor stopped heating. Sensor replaced.
	Current	OKCE	35332	Soil moisture and temperature reporting errant values.
	Current	SEIL	35359	Sensor stopped heating.
TRS10	Resolved	TAHL	35321	Sensor not heating properly. Sensor replaced.
TR25				
TR60				

ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN	Resolved	A132	35191	Rain gauge reported significantly less than expected. Sensor cleaned and clog removed from funnel.
VW05				
VW25				
VW45				
V05T				
V25T				
V45T				

FCARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05				
VW25				
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