

Oklahoma Mesonet / ARS Quality Assurance Report

February 2021

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- Mesonet technicians completed scheduled rotations of 1 battery, 4 barometers (PRES), 3 rain gauges (RAIN/TIP2), 6 relative humidity sensors (RELH/TSLO), 8 PRT thermometers (TAIR/TA9M), 5 wind direction sensors (WDIR), 6 wind sentries (WS2M), 3 wind monitor nose cones (WSPD), and 3 current excitation modules.
- Few missing records due to issues with datalogger at Pauls Valley (PAUL) during communications troubleshooting. Resolved on February 25.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH	Resolved	BEAV	43471	RELH sometimes reports incorrect values. Remotely resetting did not resolve issue. Replaced.
	Resolved	BEAV	43472	If HMP155 cable not replaced after wildfire, please replace sensor cabling. Replaced.
WSPD				
WDIR				
PRES				
SRAD				
RAIN	Resolved	OKCE	43483	Primary gauge fails to record rain. Before problem began, gauge had history of very low drip tests. Replaced sensor and cabling.

	Resolved	OKCE	43484	TIP2 measured below allowed values for in-field calibration. Replaced.
TA9M				
WS2M	Resolved	HECT	43459	Mice nest found inside enclosure. Technician confirmed damage to WS2M cable. Replaced.
	Resolved	WEST	43935	2m wind sensor frequently reports zero when WSPD > 3 m/s. Replaced.
TB10				
TS05				
TS10				
TS25				
TS60				
TR05				
TRB10	Resolved	TALI	43911	Sensor heater failing. Replaced.
TRS10				
TR25	Resolved	WATO	43907	Both starting and final temperature reporting missing values. Replaced.
TR60	Resolved	EVAX	43257	Both soil temperature and soil moisture frequently report missing values. Replaced.

ARS QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
RAIN				
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