

**OKLAHOMA MESONET / ARS
QUALITY ASSURANCE REPORT**

November 2013

Prepared by Cindy Luttrell
qamgr@mesonet.org

- Mesonet technicians completed scheduled rotations of 6 batteries (BATV), 3 barometers (PRES), 2 rain gauges (RAIN), 10 temperature and relative humidity sensors (RELH), 2 pyranometers (SRAD), 6 fasttherms (TAIR), 9 wind monitors (WDIR), 8 windsentries (WS2M), and 8 wind monitor nose cones (WSPD).
- Soil temperature measurements changed December 1, 2013
 - sensor used changed from BetaTherm stainless steel encased thermistor to Campbell Scientific 229L thermocouple
 - 5cm soil temperature under bare soil no longer measured
 - 30cm soil temperature under native sod moved to 25cm
 - 60cm soil temperature under native sod added at select locations
- 60cm soil moisture at the Mangum Mesonet site (MANG) will be decommissioned due to an irrigation ditch next to the site.
- Multiplexer at the Goodwell Mesonet site (GOOD) causes errant spikes in soil temperature during daytime hours. Errant data are flagged.
- Current excitation at the Tipton Mesonet site (TIPT) causes errant spikes in soil moisture and soil temperature data. Errant data are flagged.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR	Resolved	BEAV	25636	Replaced sensor due to errant data spikes.
	Resolved	BEAV	25654	Fixed wiring problem.
	Current	GUTH	25677	Sensor has a high bias.
RELH	Resolved	TALI	25645	Replaced sensor covered in wasp nest.
WSPD				
WDIR	Current	BEAV	25671	Wind direction reports constant values.
PRES				

SRAD	Resolved	KIN2	25625	Replaced sensor that had a low bias.
RAIN				
TA9M				
WS2M				
TB10				
TS10	Resolved	ACME	25647	No problem with sensor. Ticket canceled.
	Resolved	COOK	25438	Disconnected sensor that had a low bias.
	Resolved	WEST	24770	Disconnected sensor that had a low bias.
	Current	BOWL	25660	Sensor reports errant spikes in data.
TB05				
TS05	Resolved	CHAN	24789	Disconnected sensor that had a low bias.
	Resolved	COOK	25157	Disconnected sensor that had a low bias.
	Current	APAC	25608	Sensor reports large negative values.
	Current	BYAR	25631	Sensor reports errant data spikes.
	Current	FITT	25633	Sensor has a low bias.
TS30	Resolved	WATO	25562	Disconnected sensor that had a low bias.
	Current	ACME	25655	Sensor reports errant data spikes.
	Current	BREC	25590	Sensor has a significant low bias.

	Current	FTCB	25669	Sensor has a significant low bias.
	Current	HOLL	25635	Sensor reports small errant spikes in data.
TR05				
TR25				
TR60	Current	MANG	25537	Sensor reports large negative values.

ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05				
VW25				
VW45				
V05T				
V25T				
V45T				

ARS Fort Cobb Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				

VW05				
VW25				
VW45	Resolved	F105	25642	Replaced sensor that reported near-zero values.
V05T				
V25T				
V45T				

“Current” tickets are unresolved tickets as of the last day of the month OR tickets added after Monthly QA analysis.
“Resolved” tickets are the sensor problems fixed during the entire month.

Variable	Description
TAIR	Air temperature measured at 1.5 meters
RELH	Relative humidity measured at 1.5 meters
WDIR	Wind direction measured at 10 meters
WSPD	Wind speed measured at 10 meters
PRES	Pressure
SRAD	Incident solar radiation
RAIN	Rainfall
TA9M	Air temperature measured at 9 meters
WS2M	Wind speed measured at 2 meters
TS10	Soil temperature measured at 10 cm under native sod
TB10	Soil temperature measured at 10 cm under bare soil
TS05	Soil temperature measured at 5 cm under native sod
TB05	Soil temperature measured at 5 cm under bare soil
TS30	Soil temperature measured at 30 cm under native sod
TR05	Soil moisture: Calibrated DeltaT measured at 5 cm under native sod
TR25	Soil moisture: Calibrated DeltaT measured at 25 cm under native sod
TR60	Soil moisture: Calibrated DeltaT measured at 60 cm under native sod
VW05	Soil moisture: Volumetric water content measured at 5 cm under native sod
VW25	Soil moisture: Volumetric water content measured at 25 cm under native sod
VW45	Soil moisture: Volumetric water content measured at 45 cm under native sod
V05T	Soil Temperature measured at 5cm under native sod
V25T	Soil Temperature measured at 25cm under native sod
V45T	Soil Temperature measured at 45cm under native sod