

**OKLAHOMA MESONET / ARS  
QUALITY ASSURANCE REPORT**

June 2015

Cindy Luttrell and Amanda Ilk  
qamgr@mesonet.org

- Mesonet technicians completed scheduled rotations of 2 batteries (BATV), 8 barometers (PRES), 2 rain gauges (RAIN), 4 humidity sensor (RELH), 3 pyranometers (SRAD), 9 wind monitor directions (WDIR), 3 wind monitor nose cones, and 6 wind sentries.
- Little Washita Site A256 reported -7999 for some or all values from 1-2 and 23 June 2015. Datalogger was replaced and power system was cleaned and inspected.
- Little Washita Site A136 sometimes reported errant spikes in all soil temperature measurements. Datalogger was replaced.
- Boise City Mesonet Site (BOIS) soil moisture sensors stopped working. Current excitation was replaced.
- Grounding problem at the Idabel Mesonet Site (IDAB) caused soil moisture sensors to stop working. Problem was resolved.
- Current excitation problem at the Putnam Mesonet Site (PUTN) caused soil moisture sensors to stop working. Sensor was replaced.
- A loose connection at the Spencer Mesonet Site (SPEN) sometimes caused errant spikes in soil moisture measurements. Problem was resolved.

**Mesonet QA Report for Standard Variables**

<b>Variable</b>	<b>Status</b>	<b>Site</b>	<b>Ticket</b>	<b>Remarks</b>
<b>TAIR</b>	<b>Resolved</b>	<b>CARL</b>	<b>28197</b>	<b>Replaced sensor that had moisture bias.</b>
	<b>Resolved</b>	<b>PUTN</b>	<b>28170</b>	<b>Replaced damaged sensor.</b>
	<b>Resolved</b>	<b>SPEN</b>	<b>28195</b>	<b>Replaced sensor that had high bias.</b>
	<b>Current</b>	<b>SLAP</b>	<b>28356</b>	<b>Sensor exposed to sun.</b>
<b>RELH</b>				

<b>WSPD</b>	<b>Resolved</b>	<b>RETR</b>	<b>28184</b>	<b>Starting threshold problem. Site removed.</b>
<b>WDIR</b>	<b>Resolved</b>	<b>APAC</b>	<b>27999</b>	<b>Replaced sensor that had faulty grounding.</b>
<b>PRES</b>	<b>Resolved</b>	<b>ELRE</b>	<b>28194</b>	<b>Replaced sensor that had large bias.</b>
<b>SRAD</b>	<b>Resolved</b>	<b>FTCB</b>	<b>28392</b>	<b>Cleaned dirty sensor.</b>
<b>RAIN</b>	<b>Resolved</b>	<b>ACME</b>	<b>28196</b>	<b>Replaced rain gauge that stopped reporting.</b>
	<b>Resolved</b>	<b>STIL</b>	<b>28349</b>	<b>Replaced gauge that under reported.</b>
	<b>Resolved</b>	<b>COPA</b>	<b>28388</b>	<b>Reattached loose wire.</b>
<b>TA9M</b>	<b>Current</b>	<b>ALV2</b>	<b>28205</b>	<b>Sensor has high bias during high humidity.</b>
	<b>Current</b>	<b>HASK</b>	<b>27657</b>	<b>Sensor has low bias during high humidity.</b>
<b>WS2M</b>				
<b>TB10</b>	<b>Resolved</b>	<b>GOOD</b>	<b>28247</b>	<b>Verified sensor depth was correct and filled holes.</b>
	<b>Resolved</b>	<b>HOLL</b>	<b>28211</b>	<b>Ticket canceled.</b>
	<b>Resolved</b>	<b>TALI</b>	<b>28354</b>	<b>Verified datalogger panel and grounding correct.</b>
	<b>Current</b>	<b>LAHO</b>	<b>28352</b>	<b>Soil temperature noisy at all depths.</b>
	<b>Current</b>	<b>OILT</b>	<b>28353</b>	<b>Soil temperature noisy at all depths.</b>

<b>TS05</b>	<b>Resolved</b>	<b>SALL</b>	<b>28113</b>	<b>Reburied sensor that was too shallow.</b>
	<b>Current</b>	<b>BURB</b>	<b>28361</b>	<b>Suspect sensor at incorrect depth.</b>
	<b>Current</b>	<b>FREE</b>	<b>28385</b>	<b>Suspect sensor at incorrect depth.</b>
	<b>Current</b>	<b>MRSH</b>	<b>28384</b>	<b>Suspect sensor at incorrect depth.</b>
<b>TS10</b>	<b>Resolved</b>	<b>PERK</b>	<b>28383</b>	<b>Sensor depth verified as correct.</b>
<b>TS25</b>				
<b>TS60</b>				
<b>TR05</b>	<b>Resolved</b>	<b>HUGO</b>	<b>28150</b>	<b>Replaced sensor damaged by lightning.</b>
	<b>Resolved</b>	<b>TALI</b>	<b>28063</b>	<b>Replaced sensor that was slow to moisten.</b>
	<b>Current</b>	<b>BOWL</b>	<b>28210</b>	<b>Sensor damaged by lightning.</b>
	<b>Current</b>	<b>GOOD</b>	<b>28719</b>	<b>Sensor reports -7999.</b>
	<b>Current</b>	<b>HECT</b>	<b>28060</b>	<b>Sensor does not moisten as expected.</b>
	<b>Current</b>	<b>SKIA</b>	<b>28061</b>	<b>Sensor does not moisten as expected.</b>
<b>TRB10</b>	<b>Resolved</b>	<b>BOWL</b>	<b>28179</b>	<b>Replaced sensor damaged by lightning strike.</b>
	<b>Resolved</b>	<b>CAMA</b>	<b>28059</b>	<b>Replaced sensor that was slow to moisten.</b>
	<b>Resolved</b>	<b>HUGO</b>	<b>28151</b>	<b>Replaced sensor damaged by lightning.</b>
	<b>Current</b>	<b>GUTH</b>	<b>28716</b>	<b>Sensor reports -7999.</b>

TRS10	Resolved	MADI	28073	Replaced damaged sensor.
	Current	BOWL	28178	Sensor damaged by lightning.
	Current	HECT	28253	Sensor does not moisten as expected.
TR25	Current	BOWL	28176	Sensor damaged by lightning.
TR60	Current	BOWL	28177	Sensor damaged by lightning.

### ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Resolved	A146	28209	Replaced damaged sensor.
VW25				
VW45				
V05T				
V25T				
V45T				

### ARS Fort Cobb Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05	Resolved	F106	28365	Replaced sensor that reported errant spikes.
VW25				
VW45				
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
TB10	Soil temperature measured at 10 cm under bare sod
TS05	Soil temperature measured at 5 cm under native soil
TS10	Soil temperature measured at 10 cm under native sod

TS25	Soil temperature measured at 25 cm under native soil
TS60	Soil temperature measured at 60 cm under native sod
TR05	Soil moisture: Calibrated DeltaT measured at 5 cm under native sod
TRB10	Soil moisture: Calibrated DeltaT measured at 10 cm under bare soil
TRS10	Soil moisture: Calibrated DeltaT measured at 10 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