

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

July 2016

Prepared by Cindy Luttrell and Amanda Ilk
qamgr@mesonet.org

- Mesonet technicians completed scheduled rotations of 1 datalogger (LOGG), 6 barometers (PRES), 10 rain gauges (RAIN), 10 batteries (BATV), 2 humidity sensors (RELH), 6 pyranometers (SRAD), 4 wind directions (WDIR), 7 wind sentries (WS2M), and 2 wind monitor noses (WSPD).
- Battery problem at the Ada Mesonet Site (ADAX) caused the battery not to charge during sunny days.
- A lightning strike at the Chandler Mesonet Site (CHAN) caused a fuse to pop which resulted in the aspirated fan and aspirated batteries to report 0. Data were flagged. It also caused soil moisture to stopped heating under 10cm bare and sod. Data were flagged. The barometer reported -99999 and data were flagged.
- Current excitation problem at the Fittstown Mesonet Site (FITT) caused soil moisture to have erroneous spikes in data. Data were flagged.
- Datalogger problem at the F114 Micronet Site caused errant spikes in soil temperature. Replaced Datalogger. Data were flagged.

Mesonet QA Report for Standard Variables

Variable	Status	Site	Ticket	Remarks
TAIR				
RELH				
WSPD				
WDIR				
PRES	Resolved	CHAN	30837	Barometer reports -99999 after lightning storm. Replaced.
	Current	CARL	30844	Tubing prone to water entrapment.

	Current	OKMU	30846	Tubing prone to water entrapment.
	Current	STIL	30845	Tubing prone to water entrapment.
SRAD				
RAIN	Resolved	ARNE	30438	Primary rain gauge reports less than secondary gauge.
	Resolved	BIXB	30841	Primary rain gauge reports less than secondary gauge.
	Resolved	FAIR	30451	Rain gauges stops reporting during storms.
	Resolved	GOOD	29652	Rain gauges stops reporting during storms.
TA9M				
WS2M	Current	30854	FORA	Starting threshold problem.
TB10				
TS05	Current	APAC	29586	Suspect sensor is at incorrect depth.
	Current	HUGO	30852	Suspect sensor is at incorrect depth.
TS10				
TS25				
TS60				

TR05	Resolved	GOOD	29660	Sensor reports -7999 for a few observations. Resolved.
	Resolved	SULP	29653	Values errantly drift over time. Replaced.
TRB10	Resolved	BEAV	30434	Sensor reports -7999 for a few observations. Replaced.
	Resolved	BROK	29667	Sensor reports -7999 for a few observations. Replaced.
	Resolved	MIAM	30443	Sensor reports small errant spikes in the final temperature. Replaced.
	Resolved	PAWN	30442	Sensor overheats. Replaced.
	Current	DURA	29670	Sensor reports -7999.
	Current	GRA2	30439	Sensor extremes continue to drift over time.
TRS10	Resolved	CHAN	30839	Lightning strike. Replaced.
	Resolved	PORT	30847	Sensor stopped heating. Replaced.
TR25	Resolved	BYAR	29669	Sensor reports -7999. Replaced
	Resolved	CHAN	30838	Lightning strike. Replaced.
	Resolved	ERIC	30842	Sensor stopped heating. Replaced.
	Resolved	PORT	30831	Sensor stopped heating. Replaced
TR60	Resolved	FTCB	30832	Sensor extremes continue to drift over time. Replaced.

ARS Little Washita Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05				
VW25				
VW45	Resolved	A159	30444	Sensor is having erroneous spikes in data. Replaced.
V05T				
V25T				
V45T				

ARS Fort Cobb Watershed QA Report

Variable	Status	Site	Ticket	Remarks
RAIN				
VW05				
VW25	Current	F109	30445	Data consistently drier than other depths.
VW45	Current	F110	30824	First three voltages stepped down to values near 0.
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
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