

OKLAHOMA MESONET / ARS QUALITY ASSURANCE REPORT

August 2012

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- Mesonet technicians performed scheduled rotations of 5 barometers (PRES), 1 battery (BATV), 8 fasttherms (TAIR), 14 pyranometers (SRAD), 5 rain gauges (RAIN), 7 temperature and relative humidity sensors (RELH), 4 wind monitor nose cones (WSPD), and 25 windsentries (WS2M).
- Current excitation at Breckinridge (BREC) Mesonet station caused all soil moisture sensor to report errant values from the 19 July 2012 to the 2 August 2012, appropriate data flagged as erroneous.
- Data logger at Wynona (WYNO) Mesonet site caused wind speed and wind direction to be stuck at 0 from 12 July 2012 until the 1 August 2012, appropriate data flagged as erroneous.
- Data logger at Stillwater (STIL) Mesonet site caused soil temperature, soil moisture, air temperature at 1.5m, air temperature at 9m to report errant spikes in data from 4 August 2012 to 7 August 2012, appropriate data flagged as erroneous.
- Data logger at Fort Cobb ARS site F105 caused errant spikes in soil temperature data from 16 February 2012 to 15 August 2012, appropriate data flagged as erroneous.

Mesonet QA Report for Standard Variables

Variable	Status	Ticket	Site	Remarks
TAIR				
RELH	Resolved	23516	KIN2	Sensor had a low bias during high humidity
WSPD	Resolved	23829	LANE	Values greater than 0 during calm winds
	Current	23855	FTCB	Values greater than 0 during calm winds
	Current	23856	GUTH	Values greater than 0 during calm winds
	Current	23857	MEDI	Values greater than 0 during calm winds
	Current	23858	RING	Values greater than 0 during calm winds
	Current	23859	VANO	Values greater than 0 during calm winds
	Current	23860	BESS	Values greater than 0 during calm winds
	Current	23861	APAC	Values greater than 0 during calm winds
	Current	23862	BIXB	Values greater than 0 during calm winds
	Current	23863	CENT	Values greater than 0 during calm winds
	Current	23864	CLAY	Values greater than 0 during calm winds

WDIR				
PRES	Resolved	23772	CHEY	Sensor had a high bias
SRAD	Resolved	23791	WEST	Reported negative values overnight
	Current	23865	ARD2	Sensor has a 10% high bias
RAIN	Resolved	23827	CLRM	Gauge missed rain event
TA9M				
WS2M	Resolved	23648	BURB	Sensor had a starting threshold problem
	Resolved	23760	WEAT	Crack in wind sentry cup
TS10	Resolved	23713	FREE	Sensor had a low bias
	Resolved	23731	MEDF	Sensor had a low bias
	Resolved	23770	NEWK	Sensor had a low bias
TB10	Resolved	23707	HINT	Sensor had a low bias
	Resolved	23769	NEWK	Sensor had a low bias
	Resolved	23788	RETR	Sensor had a low bias
	Resolved	23789	TAHL	Sensor had a low bias
	Resolved	23790	OKEM	Bare plot had a large diurnal cycle
	Resolved	23795	ARD2	Bare plot 1cm too shallow
	Current	23787	MAYR	Bare plot has a large diurnal cycle
TS05	Resolved	23703	BREC	Cracks in plot caused high temperatures
TB05				
TS30	Resolved	23771	NEWK	Sensor had a low bias
	Current	23831	OKMU	Sensor has a low bias
TR05	Resolved	23700	BREC	Errant spikes in data
	Resolved	23739	WOOD	Sensor stopped heating causing errant values
	Resolved	23762	BREC	Errant spikes in data

TR25	Resolved	23704	ARNE	Sensor reports errant spikes in data
	Resolved	23753	TISH	Sensor reporting errant values
	Resolved	23765	ALV2	Crack in ground above sensor
	Current	23833	VINI	Sensor stopped heating
	Current	23793	BYAR	Sensor reports errant spikes in data
TR60	Current	23854	HOLL	Sensor stopped heating
	Current	23752	BOIS	Sensor reporting errant values

ARS Little Washita Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN	Resolved	23800	A253	Rain gauge was clogged
VW05				
VW25				
VW45				
V05T				
V25T				
V45T				

ARS Ft. Cobb Watershed QA Report

Variable	Status	Ticket	Site	Remarks
RAIN				
VW05	Current	23756	F112	Errant spikes in data
	Current	23720	F115	Errant spikes in data
VW25	Current	23834	F107	Errant spikes in data
	Current	23720	F115	Errant spikes in data
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 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
TS15	Soil temperature measured at 15 cm under native sod
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 5 cm under native sod
V25T	Soil Temperature measured at 25cm under native sod
V45T	Soil Temperature measured at 45cm under native sod