# Oklahoma Mesonet / ARS
# Quality Assurance Report

## April 2019

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- Mesonet technicians completed scheduled rotations of 1 radio, 1 aspirator fan, 2 barometers (PRES), 1 rain gauge (RAIN/TIP2), 5 relative humidity sensors (RELH), 5 pyranometers (SRAD), 4 PRT thermometers (TAIR/TA9M), 2 wind sentries (WS2M), 4 wind monitor nose cones (WSPD), and 3 current exciters.

## Mesonet QA Report for Standard Variables

| Variable | Status | Site | Ticket | Remarks |
|---|---|---|---|---|
| | | | | |
| **TAIR** | | | | |
| | | | | |
| **RELH** | | | | |
| | | | | |
| **WSPD** | | | | |
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| **WDIR** | | | | |
| | | | | |
| **PRES** | **Resolved** | **WAUR** | **39067** | **PRES reports constant value. Please rewire all connections. Reseated all cables to logger for appropriate connection.** |
| | **Current** | **MIAM** | **39157** | **Pressure samples sometimes 1-2mb too high. Tech reported ants inside enclosure during recent vegetation pass. Same problem occurred at this site in late 2018.** |
| | **Current** | **PRYO** | **39147** | **Pressure samples sometimes 1-2mb too high. Data flagged as needed.** |
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| **SRAD** | **Current** | **HUGO** | **39096** | **Solar radiation sometimes significantly less than expected for one or many observations, then returns to normal.** |
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| **RAIN** | **Resolved** | **FTCB** | **39109** | **Primary rain gauge sometimes reports much more than expected. Gauge top replaced. No visible issues with rain gauges, level and cleanliness is satisfactory.** |

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| | **Resolved** | **MADI** | **39088** | **TIP2 sometimes misses tips during rainfall. Connections cleaned. Area around tip 2 cleared. Both tests were satisfactory.** |
| | **Resolved** | **PAWN** | **39008** | **TIP2 sometimes records less rain than expected. Replaced crimped connectors with soldered connectors.** |
| | **Current** | **ERIC** | **39084** | **TIP2 sometimes misses tips during rainfall.** |
| | **Current** | **PRYO** | **39119** | **TIP2 over 10 percent higher than RTIP during heavy rain events.** |
| | **Current** | **TAHL** | **39114** | **TIP2 sometimes misses tips during rainfall.** |
| | **Current** | **TULN** | **39152** | **TIP2 sometimes misses tips during rainfall.** |
| | | | | |
| **TA9M** | | | | |
| | | | | |
| **WS2M** | | | | |
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| **TB10** | | | | |
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| **TS05** | **Resolved** | **TIPT** | **39062** | **5cm sod sensor has less diurnal variation than neighbors and is very similar to 10cm sod. Suspect sensor too deep. Please rebury sensor. Reburied sensor.** |
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| **TS10** | | | | |
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| **TS25** | | | | |
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| **TS60** | | | | |
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| **TR05** | **Resolved** | **MRSH** | **39090** | **5cm sod start and final temperature are identical. Starting and averaged soil temperature look fine. Sensor not heating. Loose connection fixed.** |
| | **Resolved** | **OKCE** | **38994** | **5 cm under sod reports errant values. Replaced sensor.** |
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| **TRB10** | **Resolved** | **FITT** | **39044** | **10 cm bare reports errant values. Replaced.** |
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| **TRS10** | | | | |
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|---|---|
| **TR25** | |
| | |
| **TR60** | |
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## ARS QA Report for Standard Variables

| Variable | Status | Site | Ticket | Remarks |
|---|---|---|---|---|
| | | | | |
| **RAIN** | **Resolved** | **A132** | **39071** | **Rain gauge reported 0. Neighbors reported at least 15 tips and radar indicated moderate rain moved over site. Installed new wiring.** |
| | **Resolved** | **A132** | **39106** | **Rain gauge failed to record rainfall while neighbors recorded over 2 inches of rain. Installed new cable.** |
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| **VW05** | | | | |
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| **VW25** | | | | |
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| **VW45** | | | | |
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| **V05T** | | | | |
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| **V25T** | | | | |
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| **V45T** | | | | |
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# FCARS QA Report for Standard Variables

| Variable | Status | Site | Ticket | Remarks |
|---|---|---|---|---|
| | | | | |
| **RAIN** | | | | |
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| **VW05** | | | | |
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| **VW25** | | | | |
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| **VW45** | **Current** | **F106** | **39160** | **45-cm soil moisture sometimes reports voltages near 0. Results in errant data.** |
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| **V05T** | | | | |
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| **V25T** | | | | |
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| **V45T** | | | | |
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'*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 |