

6312 NW 18<sup>th</sup> Drive  
 Suite 100  
 Gainesville, FL 32653  
  
 352.378.0332 PHONE  
 352.378.0354 FAX  
  
 www.TRCSolutions.com

May 2, 2017

Ms. Lori Simmons  
 Arkansas Department of Health  
 4815 West Markham Street  
 Little Rock, Arkansas 72205  
 Via email [Lori.Simmons@arkansas.gov](mailto:Lori.Simmons@arkansas.gov)

**Re: Georgia-Pacific, Crossett Mill - Biweekly Air Monitoring Report for Hydrogen Sulfide**

Dear Ms. Simmons,

Following is the biweekly data summary for the Georgia-Pacific (GP) hydrogen sulfide (H<sub>2</sub>S) and meteorological monitoring program, at the GP Crossett mill, covering the calendar period of April 5, 2017 through April 18, 2017.

Summary of Results

Included in this report are three plots presenting H<sub>2</sub>S concentrations calculated with varied rolling average periods (30-minute, 8-hour, and 24-hour). Please note, elevated H<sub>2</sub>S concentrations were recorded on April 14<sup>th</sup>. The highest recorded 30-minute and 8-hour rolling averages are presented in the table below.

| Date           | Maximum Concentrations and Time Recorded |                           |
|----------------|--|---------------------------|
|                | 30 minute                                | 8 hour                    |
| April 14, 2017 | 89.0 ppb at 07:36                        | 21.6 ppb at 07:46 - 07:52 |

Also included in this report is a summary of results from the daily 1-point QC checks performed during this biweekly period. The QAPP establishes goals for precision and bias as a coefficient of variation (CV) <10% and ± 10%, respectively. Precision and bias are calculated in accordance with 40 CFR Part 58 Appendix A, Section 4.1.

Additionally, weekly automated zero adjustments have been put in place beginning February 1, 2017, so as to limit the effect of the analyzer's zero drift. There were a total of two zero checks performed during this biweekly report period; both within the acceptable range of ± 1.5 ppb, as defined in the QAPP. Results for these zero checks are presented below.



| Date      | Zero Check |
|-----------|------------|
| 4/6/2017  | 0.2        |
| 4/13/2017 | 0.7        |

There were no occurrences of data loss during this monitoring period, other than those resulting from automated daily 1-point QC and weekly calibration checks. Results for available automated daily 1-point QC checks fall within the acceptable range, indicating the H<sub>2</sub>S monitor was operating in accordance with the QAPP.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final table. All met parameters have 100% data capture for this report period.

Please feel free to contact me if you have any questions or need any additional data.

Sincerely,



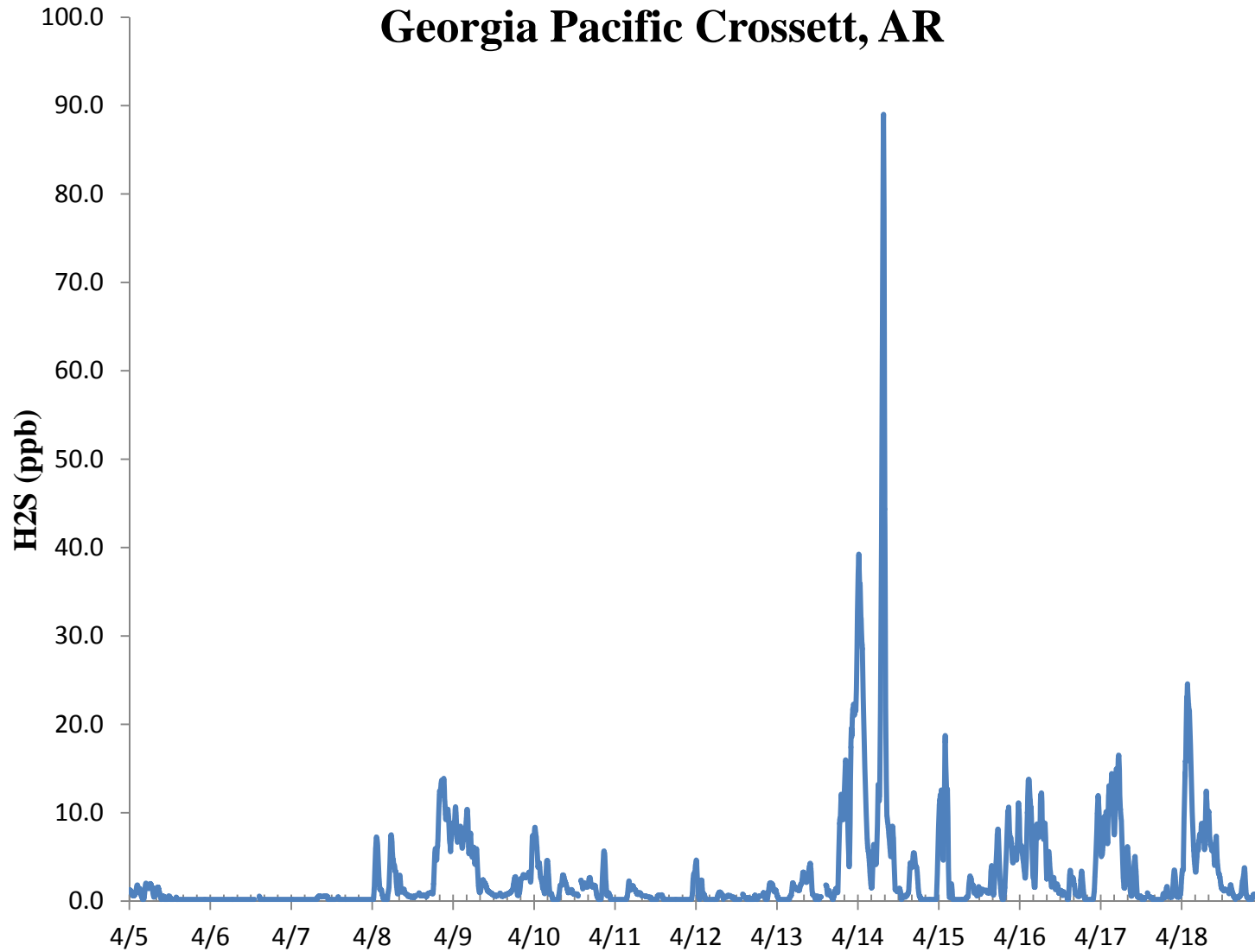

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Jonathan Bowser  
 Manager, Air Quality and Meteorological Monitoring

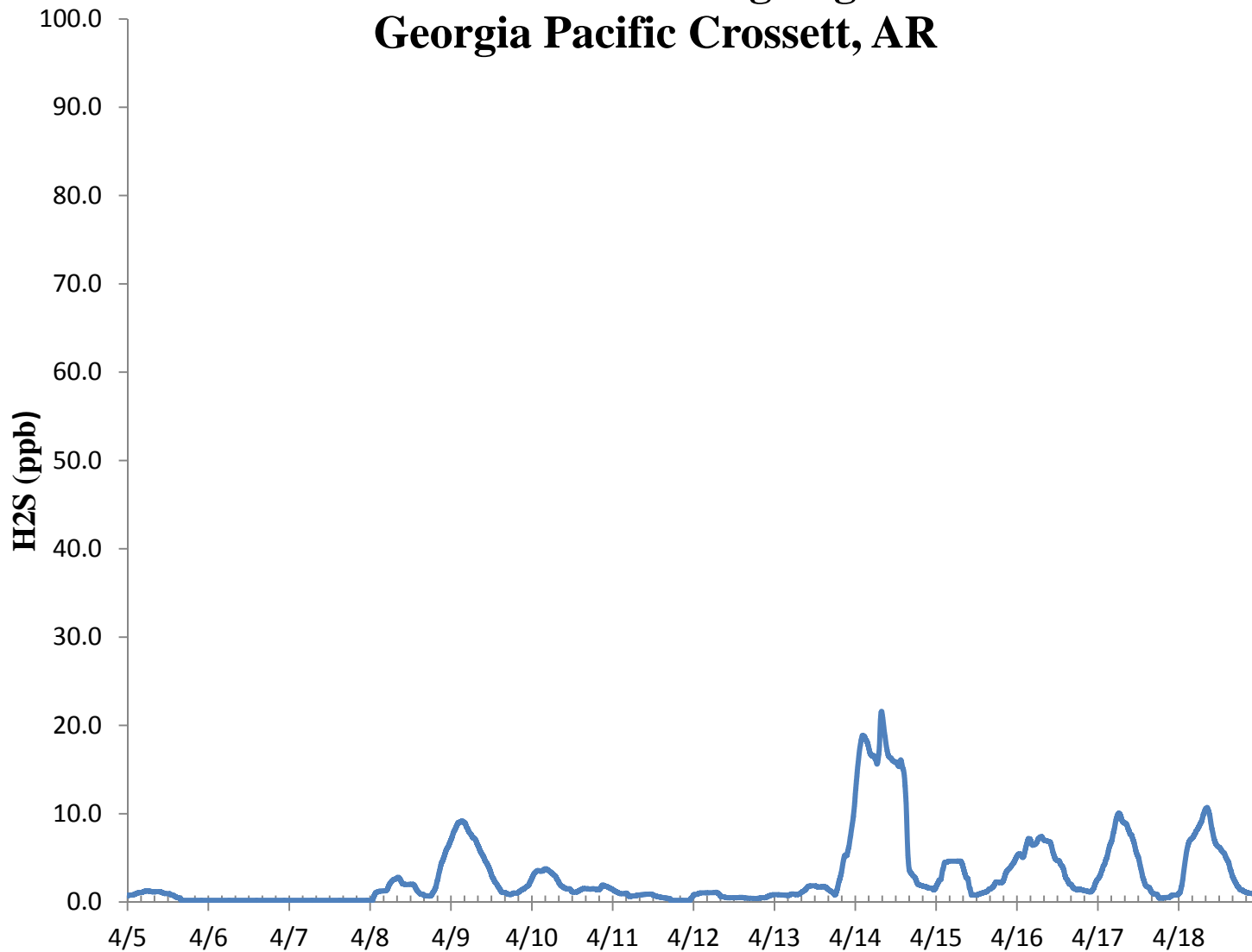
Air Measurements – Gainesville Office  
 6312 NW 18th Drive, Suite 100  
 Gainesville, Florida 32653  
 (352) 260-1162  
 Email: [jbowser@trcsolutions.com](mailto:jbowser@trcsolutions.com)

CC: Becky Keough, ADEQ Director via email: [keogh@adeq.state.ar.us](mailto:keogh@adeq.state.ar.us)  
 Kara Allen, Environmental Engineer, USEPA Region 6 via email [Allen.Kara@epa.gov](mailto:Allen.Kara@epa.gov)

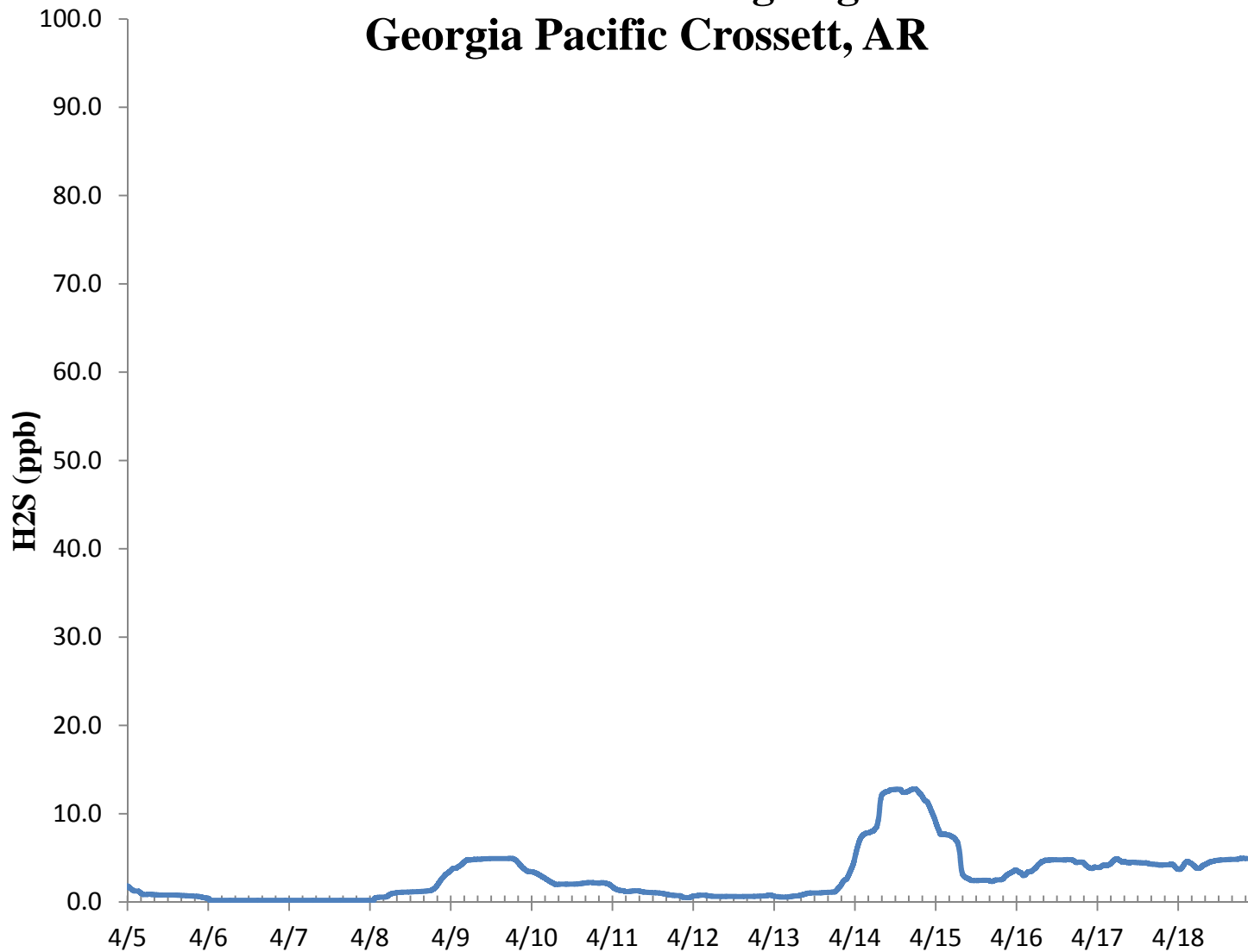
## H2S 30 Min Rolling Avg Georgia Pacific Crossett, AR



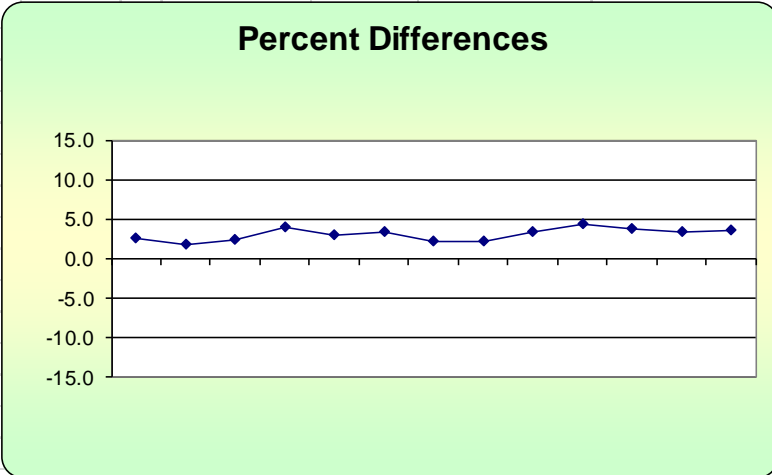
## H2S 8 Hr Rolling Avg Georgia Pacific Crossett, AR



## H2S 24 Hr Rolling Avg Georgia Pacific Crossett, AR



| GP - Crossett, AR       |                         |                 | Compound of Interest: H <sub>2</sub> S |                        |                |       |                 |   | CV <sub>ub</sub> (%)   | Bias (%)                |                     |                   |              |    |        |         |         |       |  |
|-------------------------|-------------------------|-----------------|--|------------------------|----------------|-------|-----------------|---|--|-------------------------|---------------------|-------------------|--------------|----|--------|---------|---------|-------|--|
| Date                    | Meas Val (Y)            | Audit Val (X)   | d (Eqn. 1)                             | 25th Percentile        | d <sup>2</sup> | d     | d  <sup>2</sup> |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/5/2017 13:00          | 71.8                    | 70.0            | 2.6                                    | 2.464                  | 6.612          | 2.571 | 6.612           |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/6/2017 13:00          | 71.2                    | 70.0            | 1.7                                    | <b>75th Percentile</b> | 2.939          | 1.714 | 2.939           | <table border="1"> <tr> <td>n</td> <td>S<sub>d</sub></td> <td>S<sub>d2</sub></td> <td>Σ d </td> <td>"AB" (Eqn 4)</td> </tr> <tr> <td>14</td> <td>0.759</td> <td>4.562</td> <td>42.857</td> <td>3.061</td> </tr> </table>        | n  | S <sub>d</sub>          | S <sub>d2</sub>     | Σ d               | "AB" (Eqn 4) | 14 | 0.759  | 4.562   | 42.857  | 3.061 |  |
| n                       | S <sub>d</sub>          | S <sub>d2</sub> | Σ d                                    | "AB" (Eqn 4)           |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 14                      | 0.759                   | 4.562           | 42.857                                 | 3.061                  |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/7/2017 13:00          | 71.7                    | 70.0            | 2.4                                    | 3.536                  | 5.898          | 2.429 | 5.898           | <table border="1"> <tr> <td>n-1</td> <td>Σd</td> <td>Σd<sup>2</sup></td> <td>Σ d <sup>2</sup></td> <td>"AS" (Eqn 5)</td> </tr> <tr> <td>13</td> <td>42.857</td> <td>138.694</td> <td>138.694</td> <td>0.759</td> </tr> </table> | n-1  | Σd                      | Σd <sup>2</sup>     | Σ d  <sup>2</sup> | "AS" (Eqn 5) | 13 | 42.857 | 138.694 | 138.694 | 0.759 |  |
| n-1                     | Σd                      | Σd <sup>2</sup> | Σ d  <sup>2</sup>                      | "AS" (Eqn 5)           |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 13                      | 42.857                  | 138.694         | 138.694                                | 0.759                  |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/8/2017 13:00          | 72.8                    | 70.0            | 4.0                                    |                        | 16.000         | 4.000 | 16.000          |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/9/2017 13:00          | 72.1                    | 70.0            | 3.0                                    |                        | 9.000          | 3.000 | 9.000           |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/10/2017 13:00         | 72.3                    | 70.0            | 3.3                                    |                        | 10.796         | 3.286 | 10.796          |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/11/2017 13:00         | 71.5                    | 70.0            | 2.1                                    |                        | 4.592          | 2.143 | 4.592           |   | <table border="1"> <tr> <td>Bias (%) (Eqn 3)</td> <td>Both Signs Positive</td> </tr> <tr> <td>3.42</td> <td>TRUE</td> </tr> </table> | Bias (%) (Eqn 3)        | Both Signs Positive | 3.42              | TRUE         |    |        |         |         |       |  |
| Bias (%) (Eqn 3)        | Both Signs Positive     |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 3.42                    | TRUE                    |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/12/2017 13:00         | 71.5                    | 70.0            | 2.1                                    |                        | 4.592          | 2.143 | 4.592           |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/13/2017 13:00         | 72.3                    | 70.0            | 3.3                                    |                        | 10.796         | 3.286 | 10.796          | <table border="1"> <tr> <td>CV (%) (Eqn 2)</td> <td rowspan="2">Both Signs Negative</td> </tr> <tr> <td>1.03</td> </tr> </table>  | CV (%) (Eqn 2)   | Both Signs Negative     | 1.03                |                   |              |    |        |         |         |       |  |
| CV (%) (Eqn 2)          | Both Signs Negative     |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 1.03                    |                         |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/14/2017 13:00         | 73.0                    | 70.0            | 4.3                                    |                        | 18.367         | 4.286 | 18.367          |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/15/2017 13:00         | 72.6                    | 70.0            | 3.7                                    |                        | 13.796         | 3.714 | 13.796          |   | <table border="1"> <tr> <td>Signed Bias (%)</td> <td>FALSE</td> </tr> <tr> <td>+3.42</td> </tr> </table>                             | Signed Bias (%)         | FALSE               | +3.42             |              |    |        |         |         |       |  |
| Signed Bias (%)         | FALSE                   |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| +3.42                   |                         |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/16/2017 13:00         | 72.3                    | 70.0            | 3.3                                    |                        | 10.796         | 3.286 | 10.796          |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/17/2017 13:00         | 72.5                    | 70.0            | 3.6                                    |                        | 12.755         | 3.571 | 12.755          | <table border="1"> <tr> <td>Upper Probability Limit</td> <td>Lower Probability Limit</td> </tr> <tr> <td>4.55</td> <td>1.57</td> </tr> </table>   | Upper Probability Limit  | Lower Probability Limit | 4.55                | 1.57              |              |    |        |         |         |       |  |
| Upper Probability Limit | Lower Probability Limit |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4.55                    | 1.57                    |                 |  |                        |                |       |                 |   |  |                         |                     |                   |              |    |        |         |         |       |  |
| 4/18/2017 13:00         | 72.4                    | 70.0            | 3.4                                    |                        | 11.755         | 3.429 | 11.755          |   |  |                         |                     |                   |              |    |        |         |         |       |  |



Meteorological Summary

