

6312 NW 18<sup>th</sup> Drive  
Suite 100  
Gainesville, FL 32653

352.378.0332 PHONE  
352.378.0354 FAX

[www.TRCSolutions.com](http://www.TRCSolutions.com)

January 20, 2015

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 a data summary for the seventh two-week operational period of the Georgia-Pacific (GP) hydrogen sulfide (H<sub>2</sub>S) and meteorological monitoring program at the GP Crossett mill.

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). 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.

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.

There were two occurrences of data loss during this two week period, in addition to those resulting from automated daily 1-point QC and weekly calibration checks.

On December 23<sup>rd</sup>, a direct or nearby lightning strike damaged the meteorological data logger as well as the wind and solar radiation (SR) sensors. A TRC field scientist visited the site on December 27<sup>th</sup> to assess the damage and facilitate repairs. A new data logger was installed, however, damage to the sensors was more severe than anticipated. A new SR and wind sensors were installed on December 30<sup>th</sup> and January 5<sup>th</sup>, respectively.

The town of Crossett experienced a power outage the morning of January 3<sup>rd</sup>, 2015. This power outage resulted in a period of H<sub>2</sub>S data loss beginning at 07:40 and lasting two hours.

Results for all automated daily 1-point QC checks fall within the acceptable range, indicating the H<sub>2</sub>S



Jan 20, 2015

monitor was operating in accordance with the QAPP.

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

Sincerely,



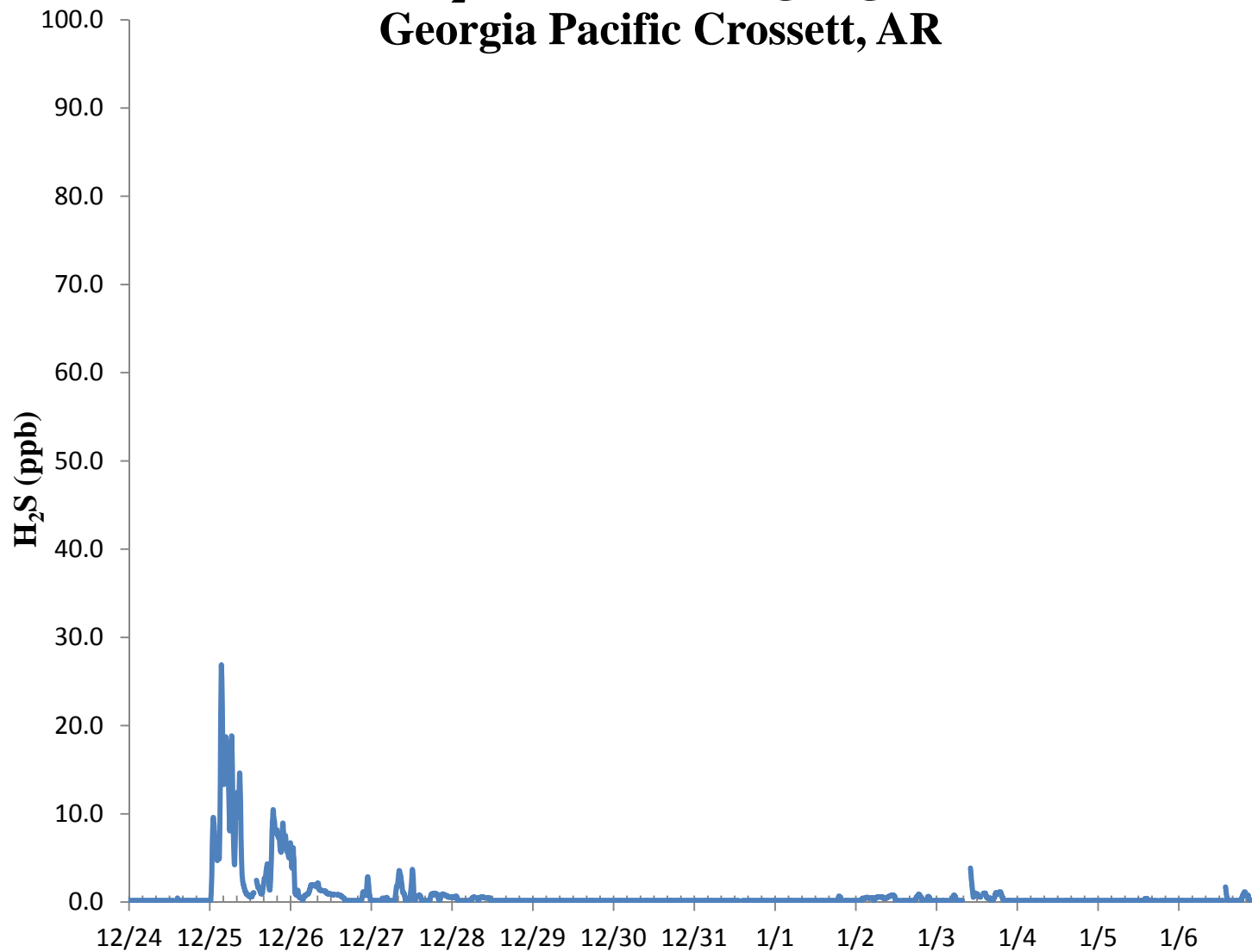
---

Jonathan Bowser  
Manager, Air Quality and Meteorological Monitoring

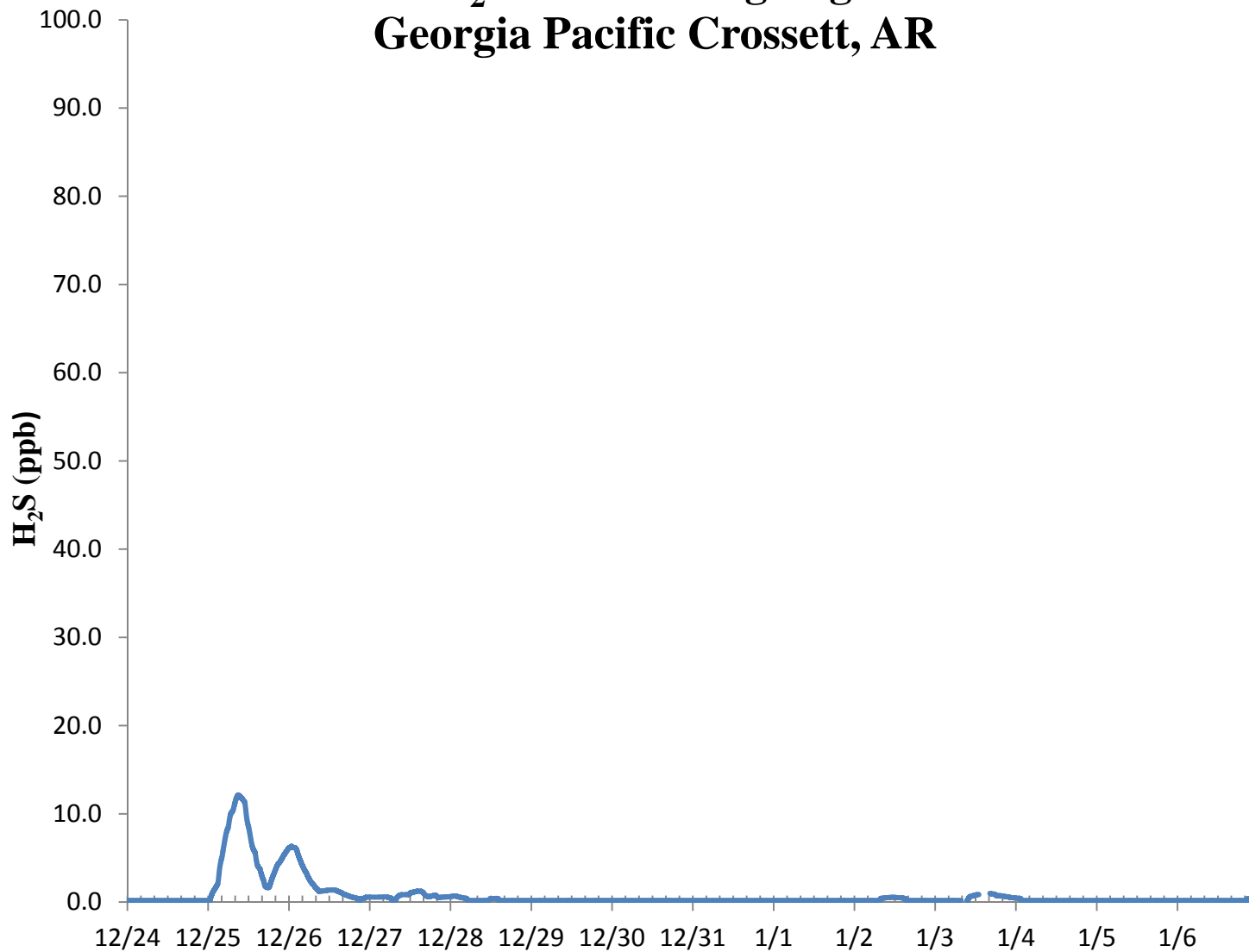
Air Measurements – Gainesville Office  
6312 NW 18th Drive, Suite 100  
Gainesville, Florida 32653  
(352) 260-1162  
Email: [jbowser@trcsolutions.com](mailto:jbowser@trcsolutions.com)

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

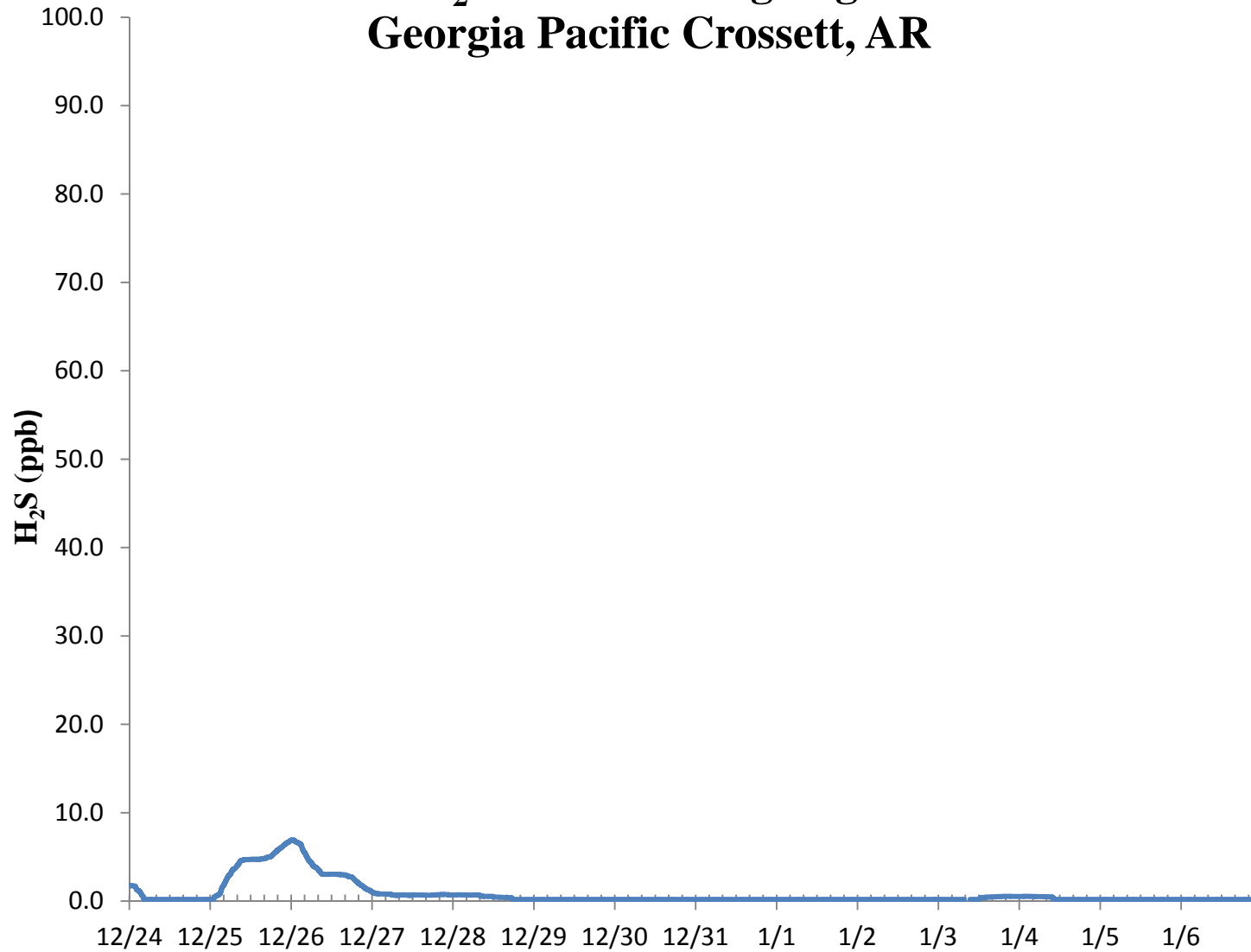
### H<sub>2</sub>S 30 Min Rolling Avg Georgia Pacific Crossett, AR



### H<sub>2</sub>S 8 Hr Rolling Avg Georgia Pacific Crossett, AR

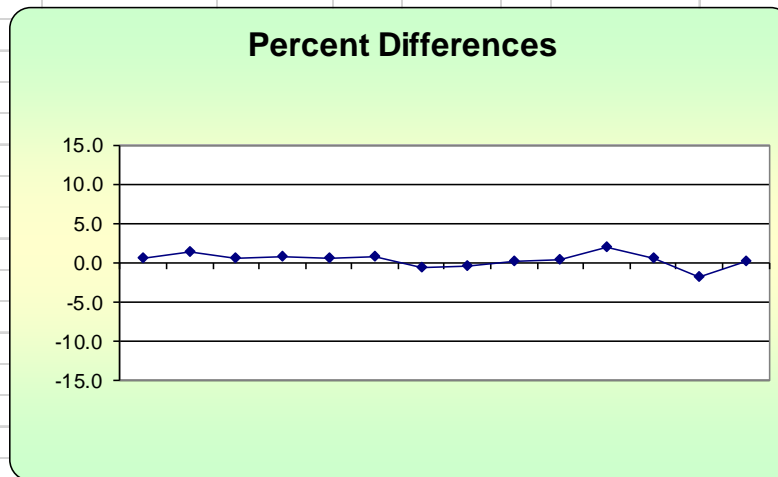


## H<sub>2</sub>S 24 Hr Rolling Avg Georgia Pacific Crossett, AR



### H<sub>2</sub>S Assessment

GP - Crossett, AR			Pollutant type: 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>																					
12/24/2014 13:00	70.4	70.0	0.6	0.143	0.327	0.571	0.327																					
12/25/2014 13:00	71.0	70.0	1.4	<b>75th Percentile</b>	2.041	1.429	2.041	<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>0.889</td> <td>1.228</td> <td>10.571</td> <td>0.755</td> </tr> <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>5.143</td> <td>12.163</td> <td>12.163</td> <td>0.567</td> </tr> </table>	n	S <sub>d</sub>	S <sub>d2</sub>	Σ d	"AB" (Eqn 4)	14	0.889	1.228	10.571	0.755	n-1	Σd	Σd <sup>2</sup>	Σ d  <sup>2</sup>	"AS" (Eqn 5)	13	5.143	12.163	12.163	0.567
n	S <sub>d</sub>	S <sub>d2</sub>	Σ d	"AB" (Eqn 4)																								
14	0.889	1.228	10.571	0.755																								
n-1	Σd	Σd <sup>2</sup>	Σ d  <sup>2</sup>	"AS" (Eqn 5)																								
13	5.143	12.163	12.163	0.567																								
12/26/2014 13:00	70.4	70.0	0.6	0.679	0.327	0.571	0.327																					
12/27/2014 13:00	70.6	70.0	0.9		0.735	0.857	0.735																					
12/28/2014 13:00	70.4	70.0	0.6		0.327	0.571	0.327																					
12/29/2014 13:00	70.5	70.0	0.7		0.510	0.714	0.510																					
12/30/2014 13:00	69.6	70.0	-0.6		0.327	0.571	0.327	<table border="1"> <tr> <td>Bias (%) (Eqn 3)</td> <td>Both Signs Positive</td> </tr> <tr> <td>1.02</td> <td>TRUE</td> </tr> </table>	Bias (%) (Eqn 3)	Both Signs Positive	1.02	TRUE																
Bias (%) (Eqn 3)	Both Signs Positive																											
1.02	TRUE																											
12/31/2014 13:00	69.7	70.0	-0.4		0.184	0.429	0.184																					
1/1/2015 13:00	70.1	70.0	0.1		0.020	0.143	0.020	<table border="1"> <tr> <td>CV (%) (Eqn 2)</td> <td>Signed Bias (%)</td> <td>Both Signs Negative</td> </tr> <tr> <td>1.21</td> <td>+1.02</td> <td>FALSE</td> </tr> </table>	CV (%) (Eqn 2)	Signed Bias (%)	Both Signs Negative	1.21	+1.02	FALSE														
CV (%) (Eqn 2)	Signed Bias (%)	Both Signs Negative																										
1.21	+1.02	FALSE																										
1/2/2015 13:00	70.2	70.0	0.3		0.082	0.286	0.082																					
1/3/2015 13:00	71.4	70.0	2.0		4.000	2.000	4.000																					
1/4/2015 13:00	70.4	70.0	0.6		0.327	0.571	0.327	<table border="1"> <tr> <td>Upper Probability Limit</td> <td>Lower Probability Limit</td> </tr> <tr> <td>2.11</td> <td>-1.38</td> </tr> </table>	Upper Probability Limit	Lower Probability Limit	2.11	-1.38																
Upper Probability Limit	Lower Probability Limit																											
2.11	-1.38																											
1/5/2015 13:00	68.8	70	-1.7		2.939	1.714	2.939																					
1/6/2015 13:00	70.1	70	0.1		0.020	0.143	0.020																					



Meteorological Summary

