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November 17, 2017

Ms. Lori Simmons
Arkansas Department of Health
4815 West Markham Street
Little Rock, Arkansas 72205
Via email Lori.Simmons@arkansas.gov

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

Dear Ms. Simmons,

Please find the following biweekly report for the Georgia-Pacific (GP) Crossett Mill hydrogen sulfide (H_2S) and meteorological monitoring program covering the calendar period of October 18, 2017 through October 31, 2017.

Summary of Results

Included in this report are three plots presenting H_2S concentrations across different rolling average periods (30-minute, 8-hour, and 24-hour), daily 1-point quality control (QC) checks with precision and bias estimates and time series plots for all recorded meteorological (met) parameters for the two week period.

Data Quality

The Quality Assurance Project Plan (QAPP) establishes measurement quality objectives (MQOs) for H_2S regarding precision and bias expressed 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. Precision and bias calculations are presented on page six of this report.

Results for available automated daily 1-point QC checks were within the accuracy objective, ± 10%, indicating the H_2S monitor was operating in accordance with MQOs as stated in the QAPP.

Additionally, weekly automated zero adjustments were implemented starting February 1, 2017. During this reporting period two automated zero checks were performed; within the acceptable range of ± 1.5 ppb, as defined in the QAPP. The result for these zero checks are presented below.

Date	Zero Check Response (ppb)
10/19/2017	0.1

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10/26/2017	0.4

Data Capture

There was a single occurrence of H$_2$S data loss this monitoring period, in addition those resulting from automated daily 1-point QC and weekly calibration checks. On the morning of October 25th, the logging software was updated, resulting in approximately one and a half hours of lost H$_2$S data.

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, with the exception of relative humidity. The sensor that records percent relative humidity began to malfunction late in the evening of October 27th. This sensor was later replaced during a site visit on November 7th.

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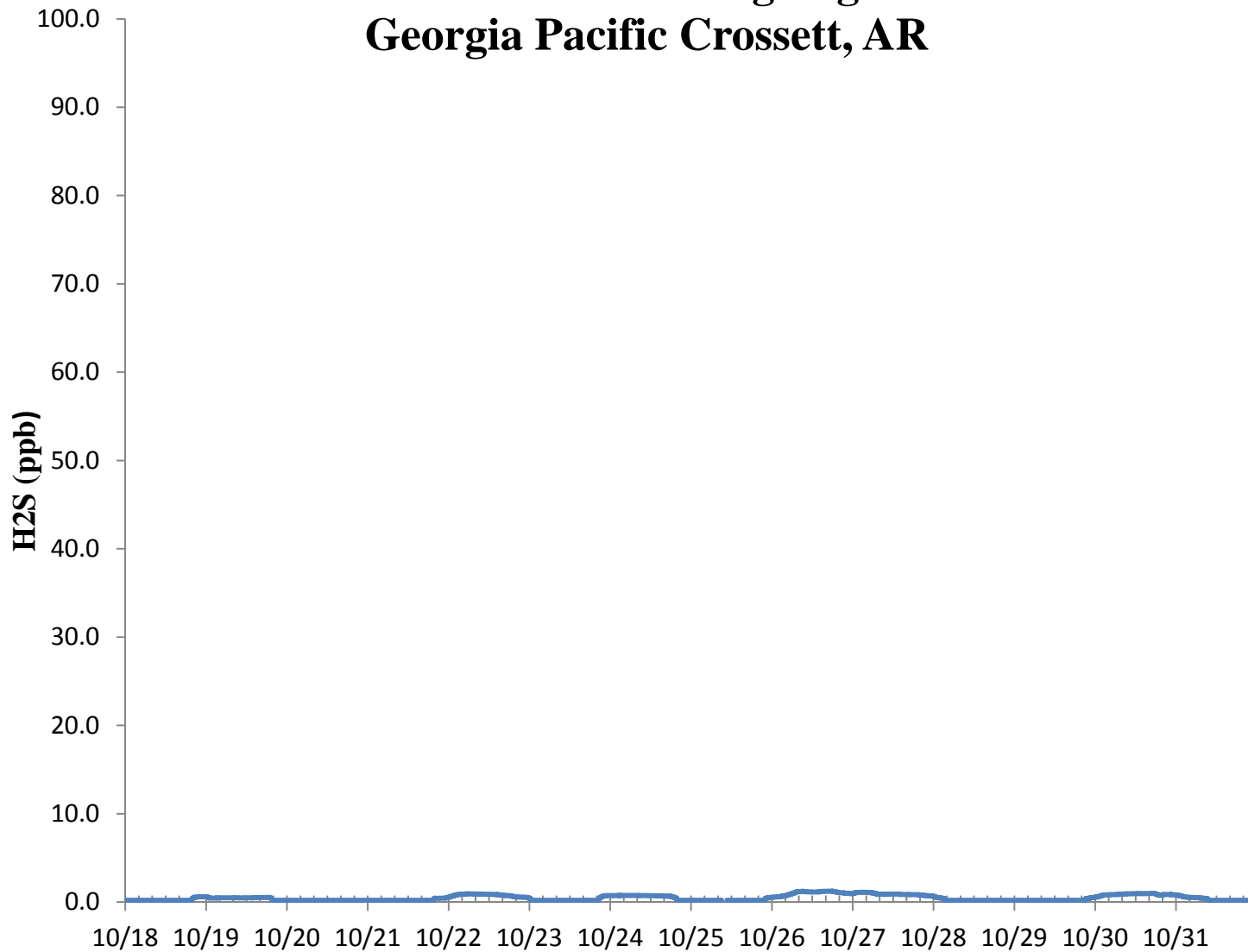   Kara Allen, Environmental Engineer, USEPA Region 6 via email Allen.Kara@epa.gov

H2S 30 Min Rolling Avg
Georgia Pacific Crossett, AR
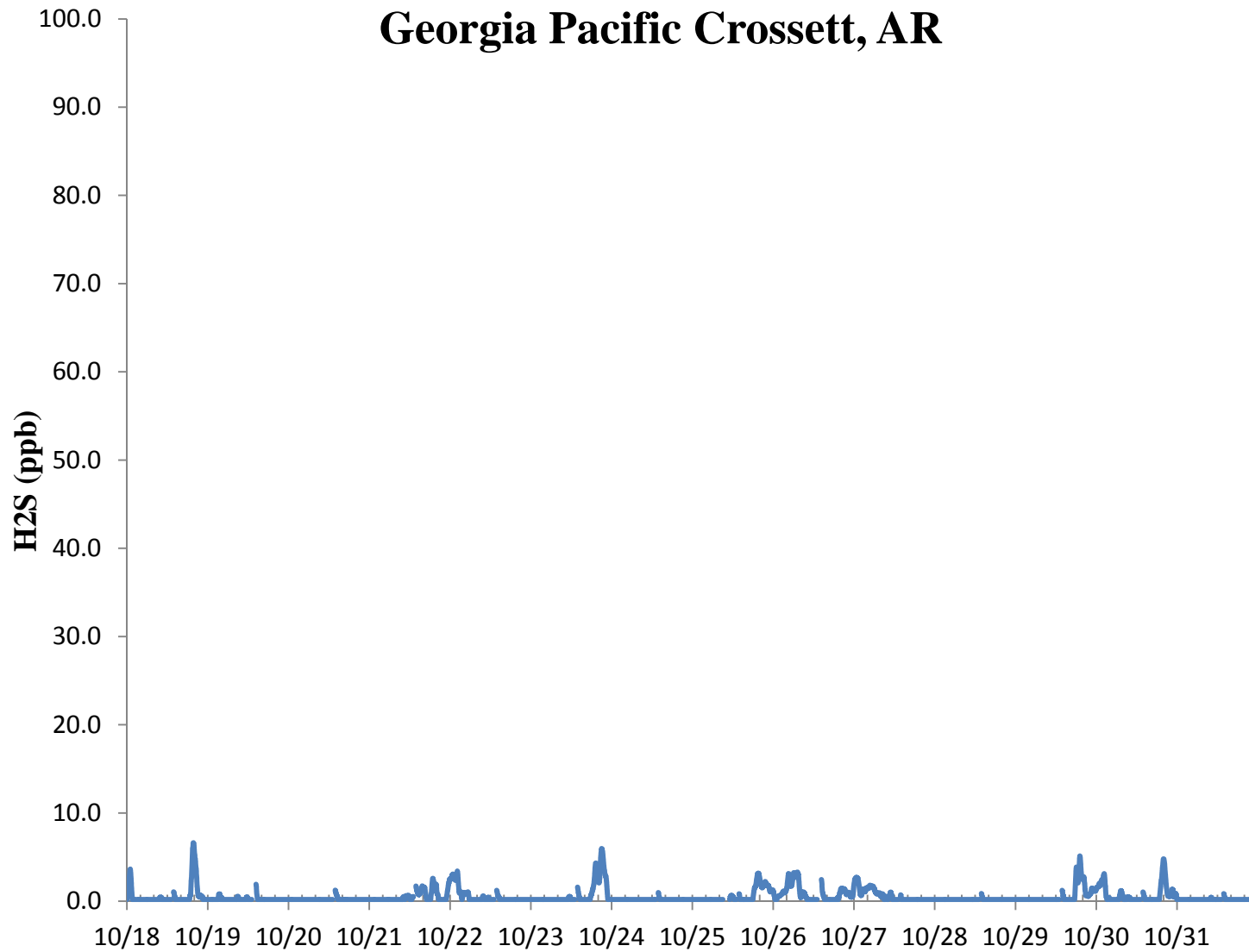
H2S 8 Hr Rolling Avg
Georgia Pacific Crossett, AR
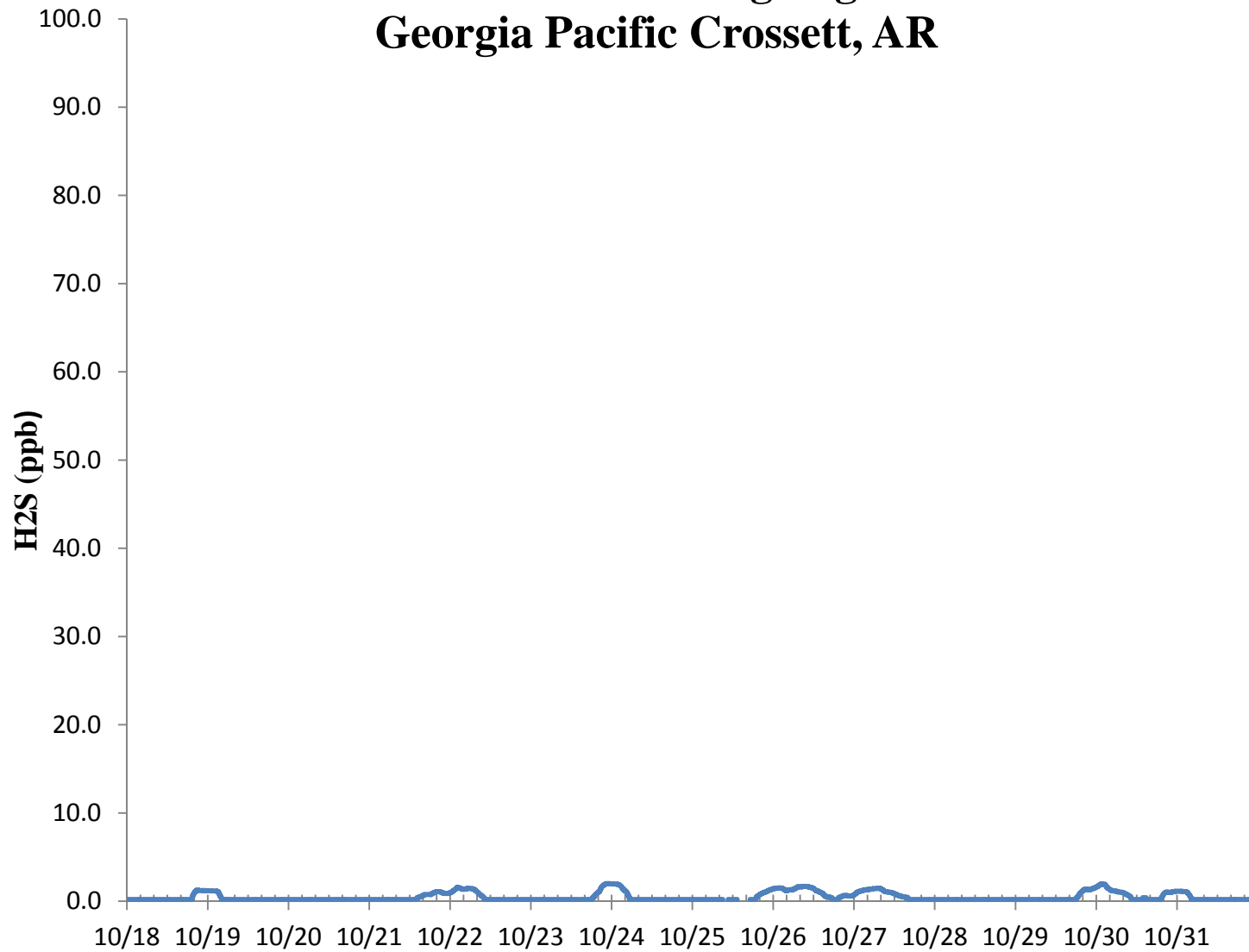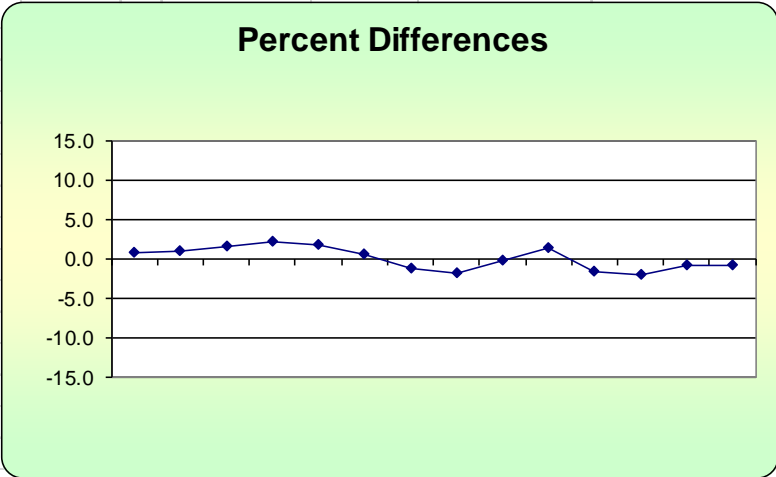
**H2S 24 Hr Rolling Avg
Georgia Pacific Crossett, AR**

H$_2$S Assessment

Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	|d|^2					
									CV$_{ub}$ (%)		**Bias (%)**	
10/18/2017 13:00	70.5	70.0	0.7	-1.143	0.510	0.714	0.510					
10/19/2017 13:00	70.7	70.0	1.0	**75th Percentile**	1.000	1.000	1.000	**n**	**S$_d$**	**S$_{d2}$**	**∑|d|**	**"AB" (Eqn 4)**
10/20/2017 13:00	71.1	70.0	1.6	1.321	2.469	1.571	2.469	14	1.427	1.474	17.571	1.255
10/21/2017 13:00	71.5	70.0	2.1		4.592	2.143	4.592	**n-1**	**∑d**	**∑d^2**	**∑|d|^2**	**"AS" (Eqn 5)**
10/22/2017 13:00	71.3	70.0	1.9		3.449	1.857	3.449	13	1.000	26.551	26.551	0.588
10/23/2017 13:00	70.4	70.0	0.6		0.327	0.571	0.327					
10/24/2017 13:00	69.1	70.0	-1.3		1.653	1.286	1.653			**Bias (%) (Eqn 3)**	Both Signs Positive
10/25/2017 13:00	68.8	70.0	-1.7		2.939	1.714	2.939				1.53	FALSE
10/26/2017 13:00	69.8	70.0	-0.3		0.082	0.286	0.082	**CV (%) (Eqn 2)**		**Signed Bias (%)**	Both Signs Negative
10/27/2017 13:00	71.0	70.0	1.4		2.041	1.429	2.041	1.94		+/-1.53	FALSE
10/28/2017 13:00	68.9	70.0	-1.6		2.469	1.571	2.469				
10/29/2017 13:00	68.6	70.0	-2.0		4.000	2.000	4.000	**Upper Probability Limit**	**Lower Probability Limit**		
10/30/2017 13:00	69.5	70.0	-0.7		0.510	0.714	0.510	2.87	-2.73		
10/31/2017 13:00	69.5	70.0	-0.7		0.510	0.714	0.510				

GP - Crossett, AR | **Compound of Interest: H$_2$S**

Percent Differences

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Meteorological Summary