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April 12, 2018

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 March 21, 2018 through April 3, 2018.

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.

During this reporting period two automated zero checks were performed. The check on March 28th exceeded the acceptable range of ± 1.5 ppb, as defined in the QAPP. The result for these zero checks

are presented below. Data usability is not affected since the daily 1-point QC checks were acceptable. TRC will implement updates to the logging program to perform daily automated zero checks, that will trigger adjustment should the zero value drift more than 1.5 ppb.

Date	Zero Check Response (ppb)
3/21/2018	1.3
3/28/2018	1.7

Data Capture

There was a single significant occurrence of H_2S data loss this monitoring period, in addition to those resulting from automated daily 1-point QC and weekly calibration checks. A server error on March 21st was responsible for approximately one hour of lost H_2S data.

Fourteen-day time series plots for all recorded meteorological (met) parameters are presented in the final table. The server error on March 21st also affected the collection of met data, resulting in a loss of one hour of all met parameters.

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

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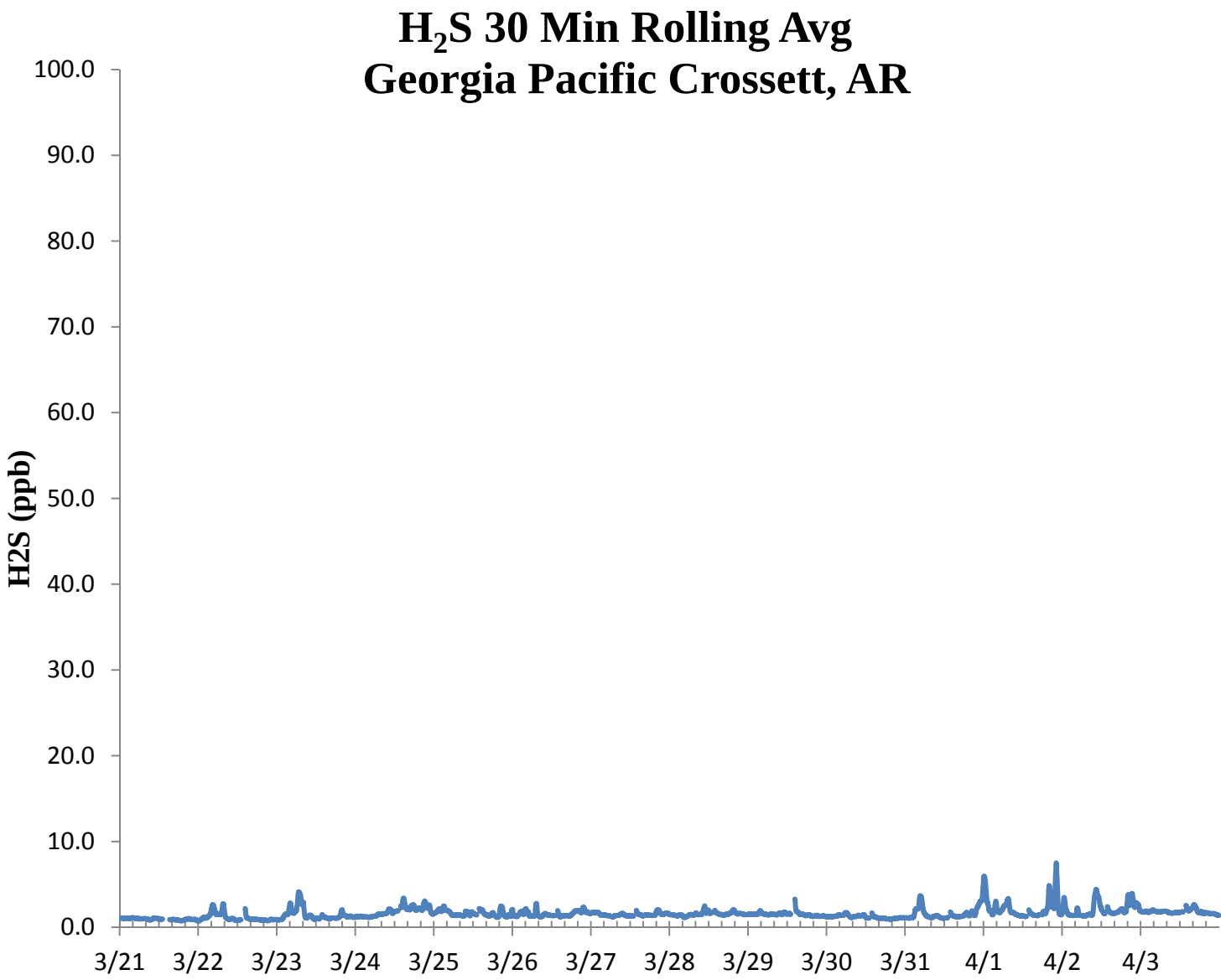
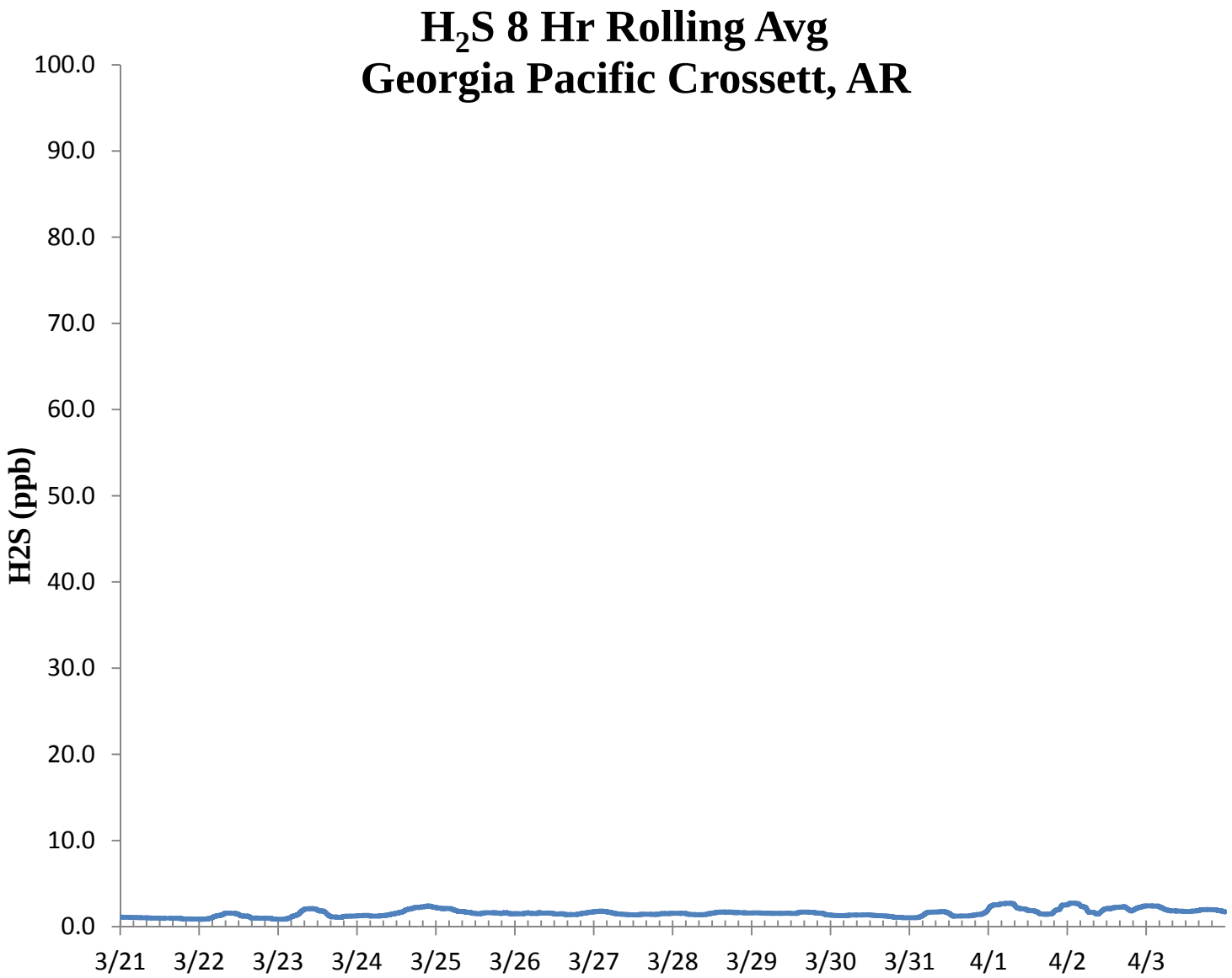
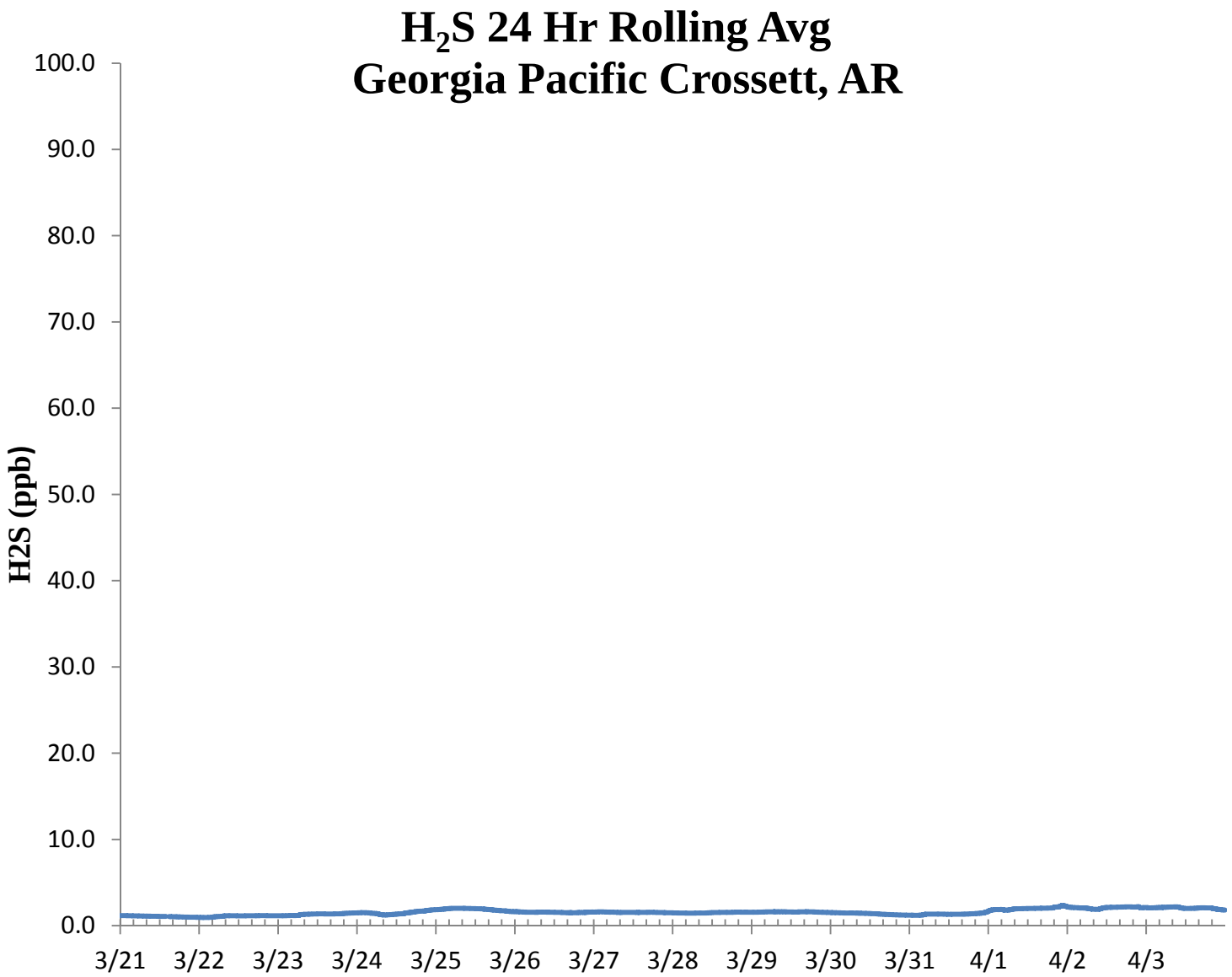
CC: Becky Keough, ADEQ Director via email: keogh@adeq.state.ar.us
Kara Allen, Environmental Engineer, USEPA Region 6 via email Allen.Kara@epa.gov

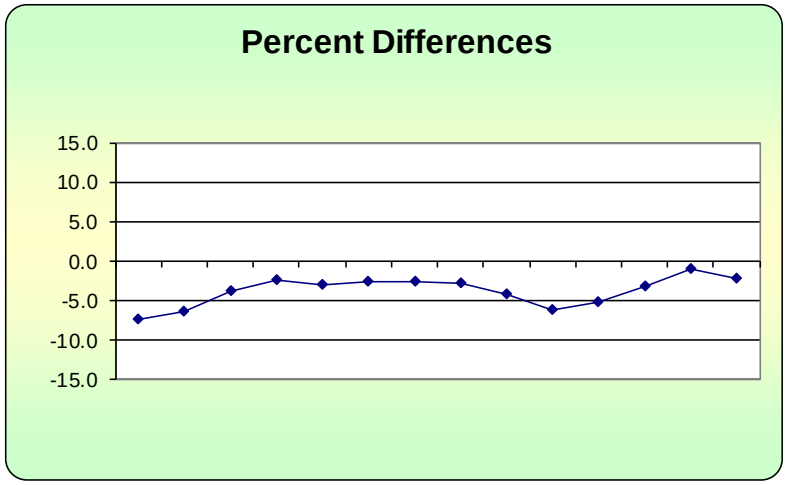

H2S 30 Min Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
3/21
3/22
3/23
3/24
3/25
3/26
3/27
3/28
3/29
3/30
3/31
4/1
4/2
4/3


H2S 8 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
3/21
3/22
3/23
3/24
3/25
3/26
3/27
3/28
3/29
3/30
3/31
4/1
4/2
4/3

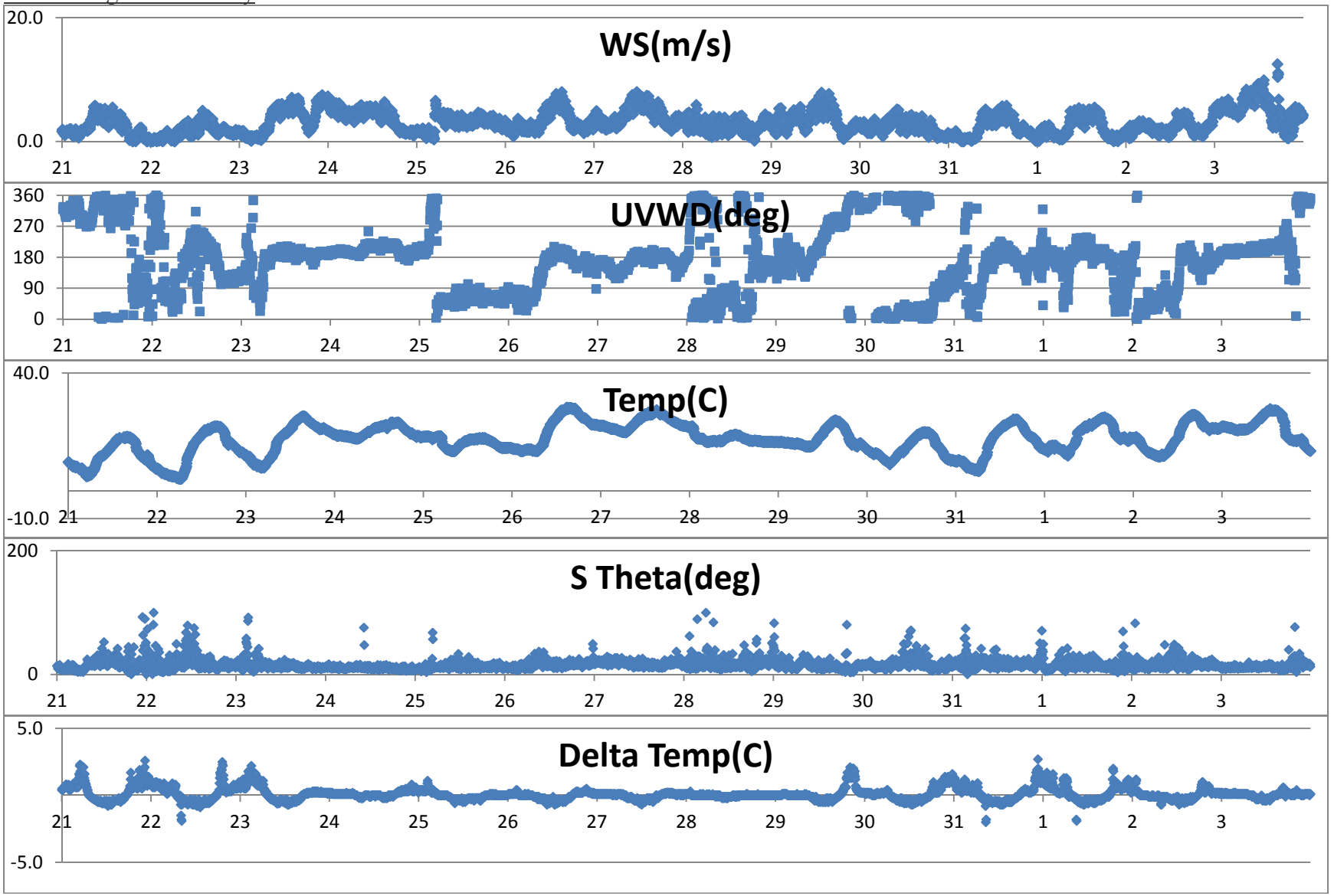

H2S 24 Hr Rolling Avg
Georgia Pacific Crossett, AR
H2S (ppb)
100.0
90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
3/21
3/22
3/23
3/24
3/25
3/26
3/27
3/28
3/29
3/30
3/31
4/1
4/2
4/3

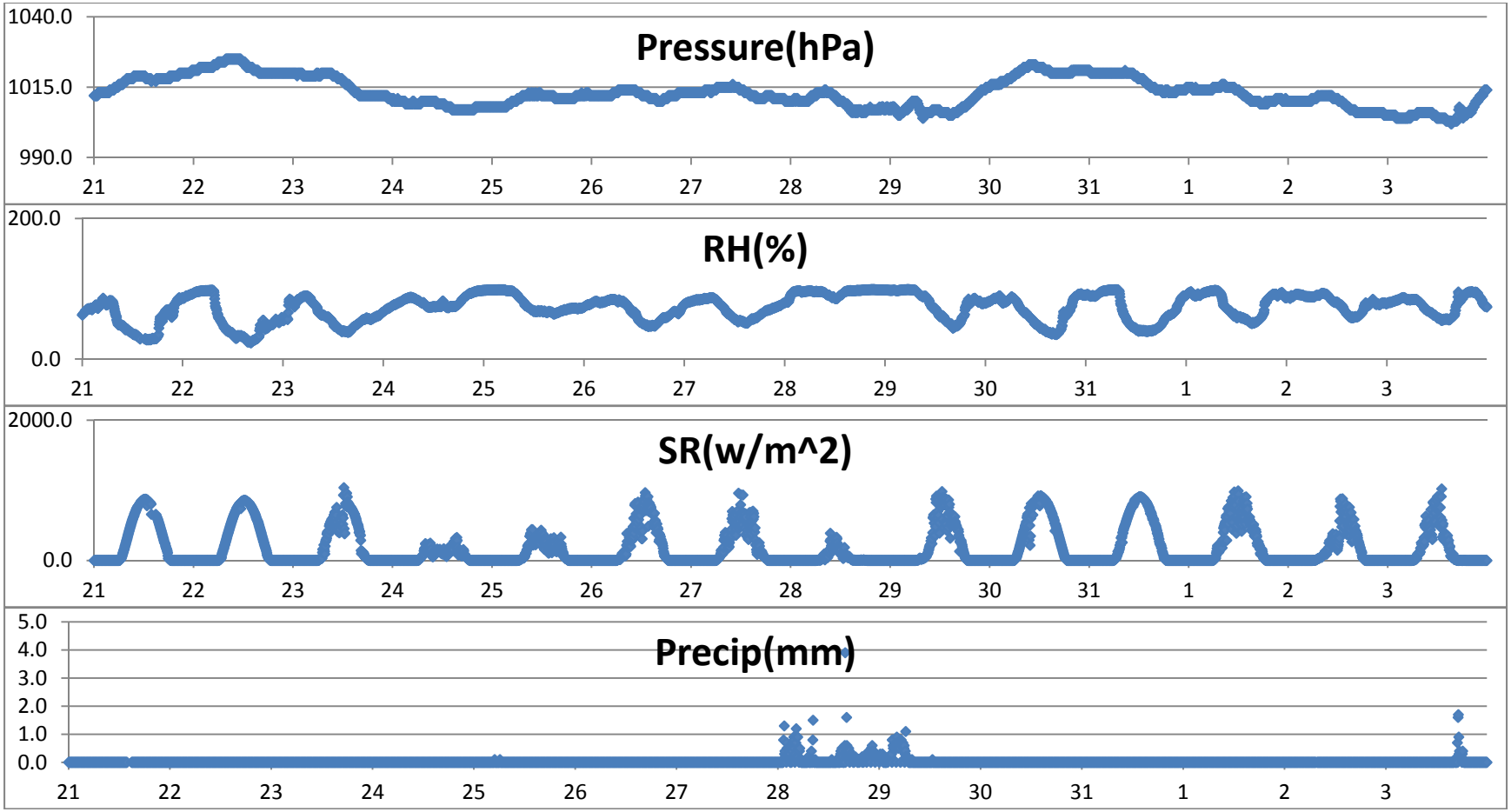
H_2S Assessment

GP - Crossett, AR			Compound of Interest: H_2S					CV_{ub} (%)		Bias (%)	
Date	Meas Val (Y)	Input Val (X)	d (Eqn. 1)	25th Percentile	d^2	|d|	$\|d\|^2$				
3/21/2018 13:00	64.8	70.0	-7.4	-4.893	55.184	7.429	55.184				
3/22/2018 13:00	65.5	70.0	-6.4	75th Percentile	41.327	6.429	41.327	n	S_d	S_{d2}	$\Sigma\|d\|$	"AB" (Eqn 4)
3/23/2018 13:00	67.3	70.0	-3.9	-2.571	14.878	3.857	14.878	14	1.859	16.437	52.857	3.776
3/24/2018 13:00	68.3	70.0	-2.4		5.898	2.429	5.898	n-1	Σd	Σd^2	$\Sigma\|d\|^2$	"AS" (Eqn 5)
3/25/2018 13:00	67.9	70.0	-3.0		9.000	3.000	9.000	13	-52.857	244.490	244.490	1.859
3/26/2018 13:00	68.2	70.0	-2.6		6.612	2.571	6.612					
3/27/2018 13:00	68.2	70.0	-2.6		6.612	2.571	6.612			Bias (%) (Eqn 3)	Both Signs Positive
3/28/2018 13:00	68.0	70.0	-2.9		8.163	2.857	8.163			4.66	FALSE
3/29/2018 13:00	67.1	70.0	-4.1		17.163	4.143	17.163	CV (%) (Eqn 2)		Signed Bias (%)	Both Signs Negative
3/30/2018 13:00	65.7	70.0	-6.1		37.735	6.143	37.735	2.53		-4.66	TRUE
3/31/2018 13:00	66.4	70.0	-5.1		26.449	5.143	26.449				
4/1/2018 13:00	67.8	70.0	-3.1		9.878	3.143	9.878	Upper Probability Limit		Lower Probability Limit	
4/2/2018 13:00	69.3	70.0	-1.0		1.000	1.000	1.000	-0.13		-7.42	
4/3/2018 13:00	68.5	70.0	-2.1		4.592	2.143	4.592				



Meteorological Summary




Pressure(hPa)
1040.0
1015.0
990.0
RH(%)
200.0
0.0
SR(w/m^2)
2000.0
0.0
Precip(mm)
5.0
4.0
3.0
2.0
1.0
0.0
21 22 23 24 25 26 27 28 29 30 31 1 2 3