Birla Carbon

Hickok Plant

30-Day Rolling Average Sulfur Content 1/1/2019 – 6/30/2019

Attachment 1

Attachment 1

30-Day Rolling Average Sulfur Content Weight Percent

For Reporting period 1/1/2019 - 6/30/2019

Tank 6 2019							
Date	30 day Rolling Avg [2% max]		Date	30 day Rolling Avg [2% max]		Date	30 day Rolling Avg [2% max]
1/1/19	0.73		3/7/19	0.93		5/11/19	1.02
1/2/19	0.72		3/8/19	0.94		5/12/19	1.03
1/3/19	0.71		3/9/19	0.95		5/13/19	1.05
1/4/19	0.70		3/10/19	0.96		5/14/19	1.06
1/5/19	0.69		3/11/19	0.97		5/15/19	1.07
1/6/19	0.68		3/12/19	0.97		5/16/19	1.07
1/7/19	0.68		3/13/19	0.98		5/17/19	1.08
1/8/19	0.67		3/14/19	0.99		5/18/19	1.08
1/9/19	0.66		3/15/19	1.00		5/19/19	1.09
1/10/19	0.63		3/16/19	1.01		5/20/19	1.10
1/11/19	0.62		3/17/19	1.03		5/21/19	1.11
1/12/19	0.61		3/18/19	1.04		5/22/19	1.11
1/13/19	0.59		3/19/19	1.05		5/23/19	1.11
1/14/19	0.58		3/20/19	1.06		5/24/19	1.11
1/15/19	0.57		3/21/19	1.07		5/25/19	1.12
1/16/19	0.56		3/22/19	1.08		5/26/19	1.12
1/17/19	0.55		3/23/19	1.08		5/27/19	1.11
1/18/19	0.54		3/24/19	1.09		5/28/19	1.12
1/19/19	0.53		3/25/19	1.09		5/29/19	1.12
1/20/19	0.52		3/26/19	1.09		5/30/19	1.12
1/21/19	0.52		3/27/19	1.09		5/31/19	1.13
1/22/19	0.52		3/28/19	1.09		6/1/19	1.14
1/23/19	0.52		3/29/19	1.08		6/2/19	1.14
1/24/19	0.52		3/30/19	1.08		6/3/19	1.15
1/25/19	0.53		3/31/19	1.09		6/4/19	1.15
1/26/19	0.55		4/1/19	1.09		6/5/19	1.14
1/27/19	0.56		4/2/19	1.09		6/6/19	1.13
1/28/19	0.58		4/3/19	1.09		6/7/19	1.13
1/29/19	0.60		4/4/19	1.08		6/8/19	1.12
1/30/19	0.62		4/5/19	1.08		6/9/19	1.12
1/31/19	0.63		4/6/19	1.08		6/10/19	1.11
2/1/19	0.63		4/7/19	1.08		6/11/19	1.12
2/2/19	0.64		4/8/19	1.08		6/12/19	1.11
2/3/19	0.65		4/9/19	1.07		6/13/19	1.11
2/4/19	0.66		4/10/19	1.06		6/14/19	1.11
2/5/19	0.66		4/11/19	1.06		6/15/19	1.11
2/6/19	0.67		4/12/19	1.05		6/16/19	1.11
2/7/19	0.68		4/13/19	1.04		6/17/19	1.11
2/8/19	0.69		4/14/19	1.03		6/18/19	1.11
2/9/19	0.71		4/15/19	1.02		6/19/19	1.10
2/10/19	0.72		4/16/19	1.00		6/20/19	1.09
2/11/19	0.73		4/17/19	0.99		6/21/19	1.09
2/12/19	0.74		4/18/19	0.99		6/22/19	1.09
2/13/19	0.75		4/19/19	0.98		6/23/19	1.08
2/14/19	0.77		4/20/19	0.97		6/24/19	1.08
2/15/19	0.78		4/21/19	0.96		6/25/19	1.08
2/16/19	0.79		4/22/19	0.96		6/26/19	1.08
2/17/19	0.80		4/23/19	0.95		6/27/19	1.06
2/18/19	0.82		4/24/19	0.94		6/28/19	1.06
2/19/19	0.83		4/25/19	0.94		6/29/19	1.05
2/20/19	0.84		4/26/19	0.94		6/30/19	1.04
2/21/19	0.86		4/27/19	0.94			
2/22/19	0.87		4/28/19	0.94			
2/23/19	0.89		4/29/19	0.94			
2/24/19	0.90		4/30/19	0.94			
2/25/19	0.90		5/1/19	0.94			
2/26/19	0.90		5/2/19	0.95			
2/27/19	0.90		5/3/19	0.95			
2/28/19	0.90		5/4/19	0.96			
3/1/19	0.89		5/5/19	0.96			
3/2/19	0.89		5/6/19	0.98			
3/3/19	0.90		5/7/19	0.98			
3/4/19	0.90		5/8/19	0.99			
3/5/19	0.91		5/9/19	1.00			
3/6/19	0.92		5/10/19	1.01			

Attachment 1

30-Day Rolling Average Sulfur Content Weight Percent

For Reporting period 1/1/2019 - 6/30/2019

Tank 7 2019

Date	30 day Rolling Avg [2% max]	Date	30 day Rolling Avg [2% max]	Date	30 day Rolling Avg [2% max]
1/1/19	0.73	3/7/19	1.53	5/11/19	1.21
1/2/19	0.76	3/8/19	1.53	5/12/19	1.20
1/3/19	0.79	3/9/19	1.53	5/13/19	1.19
1/4/19	0.82	3/10/19	1.53	5/14/19	1.18
1/5/19	0.85	3/11/19	1.53	5/15/19	1.17
1/6/19	0.87	3/12/19	1.53	5/16/19	1.17
1/7/19	0.90	3/13/19	1.53	5/17/19	1.17
1/8/19	0.93	3/14/19	1.53	5/18/19	1.18
1/9/19	0.96	3/15/19	1.53	5/19/19	1.18
1/10/19	0.99	3/16/19	1.53	5/20/19	1.18
1/11/19	1.02	3/17/19	1.53	5/21/19	1.19
1/12/19	1.05	3/18/19	1.53	5/22/19	1.19
1/13/19	1.07	3/19/19	1.53	5/23/19	1.19
1/14/19	1.10	3/20/19	1.53	5/24/19	1.19
1/15/19	1.13	3/21/19	1.53	5/25/19	1.19
1/16/19	1.16	3/22/19	1.53	5/26/19	1.19
1/17/19	1.19	3/23/19	1.53	5/27/19	1.19
1/18/19	1.22	3/24/19	1.53	5/28/19	1.20
1/19/19	1.24	3/25/19	1.53	5/29/19	1.20
1/20/19	1.27	3/26/19	1.53	5/30/19	1.20
1/21/19	1.30	3/27/19	1.53	5/31/19	1.20
1/22/19	1.33	3/28/19	1.53	6/1/19	1.21
1/23/19	1.36	3/29/19	1.53	6/2/19	1.22
1/24/19	1.39	3/30/19	1.53	6/3/19	1.22
1/25/19	1.42	3/31/19	1.53	6/4/19	1.23
1/26/19	1.44	4/1/19	1.53	6/5/19	1.23
1/27/19	1.47	4/2/19	1.53	6/6/19	1.24
1/28/19	1.50	4/3/19	1.53	6/7/19	1.24
1/29/19	1.53	4/4/19	1.53	6/8/19	1.23
1/30/19	1.53	4/5/19	1.53	6/9/19	1.23
1/31/19	1.53	4/6/19	1.53	6/10/19	1.23
2/1/19	1.53	4/7/19	1.53	6/11/19	1.22
2/2/19	1.53	4/8/19	1.53	6/12/19	1.22
2/3/19	1.53	4/9/19	1.53	6/13/19	1.21
2/4/19	1.53	4/10/19	1.53	6/14/19	1.21
2/5/19	1.53	4/11/19	1.53	6/15/19	1.20
2/6/19	1.53	4/12/19	1.53	6/16/19	1.19
2/7/19	1.53	4/13/19	1.53	6/17/19	1.19
2/8/19	1.53	4/14/19	1.53	6/18/19	1.18
2/9/19	1.53	4/15/19	1.53	6/19/19	1.17
2/10/19	1.53	4/16/19	1.52	6/20/19	1.17
2/11/19	1.53	4/17/19	1.51	6/21/19	1.16
2/12/19	1.53	4/18/19	1.50	6/22/19	1.16
2/13/19	1.53	4/19/19	1.49	6/23/19	1.15
2/14/19	1.53	4/20/19	1.48	6/24/19	1.15
2/15/19	1.53	4/21/19	1.47	6/25/19	1.14
2/16/19	1.53	4/22/19	1.45	6/26/19	1.14
2/17/19	1.53	4/23/19	1.44	6/27/19	1.13
2/18/19	1.53	4/24/19	1.43	6/28/19	1.13
2/19/19	1.53	4/25/19	1.42	6/29/19	1.12
2/20/19	1.53	4/26/19	1.41	6/30/19	1.12
2/21/19	1.53	4/27/19	1.40		
2/22/19	1.53	4/28/19	1.39		
2/23/19	1.53	4/29/19	1.38		
2/24/19	1.53	4/30/19	1.36		
2/25/19	1.53	5/1/19	1.35		
2/26/19	1.53	5/2/19	1.33		
2/27/19	1.53	5/3/19	1.32		
2/28/19	1.53	5/4/19	1.30		
3/1/19	1.53	5/5/19	1.28		
3/2/19	1.53	5/6/19	1.27		
3/3/19	1.53	5/7/19	1.25		
3/4/19	1.53	5/8/19	1.24		
3/5/19	1.53	5/9/19	1.23		
3/6/19	1.53	5/10/19	1.22		

Attachment 1

30-Day Rolling Average Sulfur Content Weight Percent

For Reporting period 1/1/2019 - 6/30/2019

Tank 8 2019

Date	30 day Rolling Avg [2% max]	Date	30 day Rolling Avg [2% max]	Date	30 day Rolling Avg [2% max]
1/1/19	0.52	3/7/19	0.61	5/11/19	0.57
1/2/19	0.53	3/8/19	0.62	5/12/19	0.56
1/3/19	0.53	3/9/19	0.62	5/13/19	0.56
1/4/19	0.53	3/10/19	0.63	5/14/19	0.55
1/5/19	0.53	3/11/19	0.63	5/15/19	0.55
1/6/19	0.53	3/12/19	0.64	5/16/19	0.55
1/7/19	0.53	3/13/19	0.64	5/17/19	0.54
1/8/19	0.53	3/14/19	0.65	5/18/19	0.54
1/9/19	0.53	3/15/19	0.65	5/19/19	0.53
1/10/19	0.53	3/16/19	0.66	5/20/19	0.53
1/11/19	0.54	3/17/19	0.66	5/21/19	0.52
1/12/19	0.54	3/18/19	0.67	5/22/19	0.52
1/13/19	0.54	3/19/19	0.67	5/23/19	0.52
1/14/19	0.54	3/20/19	0.67	5/24/19	0.51
1/15/19	0.54	3/21/19	0.68	5/25/19	0.51
1/16/19	0.54	3/22/19	0.68	5/26/19	0.50
1/17/19	0.54	3/23/19	0.68	5/27/19	0.51
1/18/19	0.54	3/24/19	0.68	5/28/19	0.51
1/19/19	0.54	3/25/19	0.68	5/29/19	0.52
1/20/19	0.54	3/26/19	0.68	5/30/19	0.53
1/21/19	0.54	3/27/19	0.68	5/31/19	0.53
1/22/19	0.54	3/28/19	0.68	6/1/19	0.54
1/23/19	0.54	3/29/19	0.68	6/2/19	0.54
1/24/19	0.54	3/30/19	0.68	6/3/19	0.55
1/25/19	0.54	3/31/19	0.68	6/4/19	0.55
1/26/19	0.54	4/1/19	0.68	6/5/19	0.55
1/27/19	0.54	4/2/19	0.68	6/6/19	0.55
1/28/19	0.54	4/3/19	0.68	6/7/19	0.55
1/29/19	0.54	4/4/19	0.68	6/8/19	0.55
1/30/19	0.54	4/5/19	0.68	6/9/19	0.55
1/31/19	0.54	4/6/19	0.68	6/10/19	0.55
2/1/19	0.54	4/7/19	0.68	6/11/19	0.55
2/2/19	0.54	4/8/19	0.68	6/12/19	0.55
2/3/19	0.54	4/9/19	0.68	6/13/19	0.55
2/4/19	0.54	4/10/19	0.68	6/14/19	0.55
2/5/19	0.54	4/11/19	0.68	6/15/19	0.55
2/6/19	0.54	4/12/19	0.68	6/16/19	0.55
2/7/19	0.54	4/13/19	0.68	6/17/19	0.55
2/8/19	0.54	4/14/19	0.68	6/18/19	0.55
2/9/19	0.54	4/15/19	0.68	6/19/19	0.55
2/10/19	0.54	4/16/19	0.68	6/20/19	0.55
2/11/19	0.54	4/17/19	0.68	6/21/19	0.55
2/12/19	0.54	4/18/19	0.68	6/22/19	0.55
2/13/19	0.54	4/19/19	0.68	6/23/19	0.55
2/14/19	0.54	4/20/19	0.68	6/24/19	0.54
2/15/19	0.54	4/21/19	0.68	6/25/19	0.54
2/16/19	0.54	4/22/19	0.68	6/26/19	0.54
2/17/19	0.54	4/23/19	0.68	6/27/19	0.54
2/18/19	0.54	4/24/19	0.68	6/28/19	0.54
2/19/19	0.55	4/25/19	0.68	6/29/19	0.54
2/20/19	0.55	4/26/19	0.68	6/30/19	0.54
2/21/19	0.55	4/27/19	0.67		
2/22/19	0.56	4/28/19	0.66		
2/23/19	0.56	4/29/19	0.65		
2/24/19	0.56	4/30/19	0.64		
2/25/19	0.57	5/1/19	0.63		
2/26/19	0.57	5/2/19	0.62		
2/27/19	0.58	5/3/19	0.61		
2/28/19	0.58	5/4/19	0.60		
3/1/19	0.59	5/5/19	0.59		
3/2/19	0.59	5/6/19	0.59		
3/3/19	0.60	5/7/19	0.58		
3/4/19	0.60	5/8/19	0.58		
3/5/19	0.61	5/9/19	0.58		
3/6/19	0.61	5/10/19	0.57		

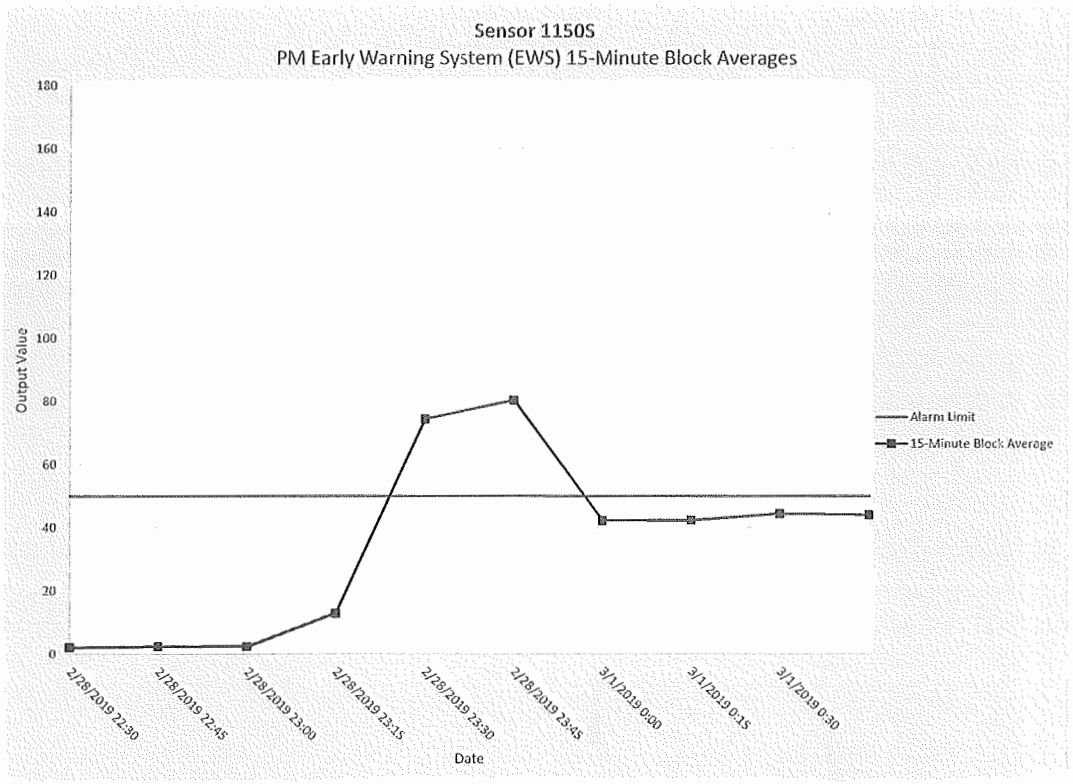
Birla Carbon

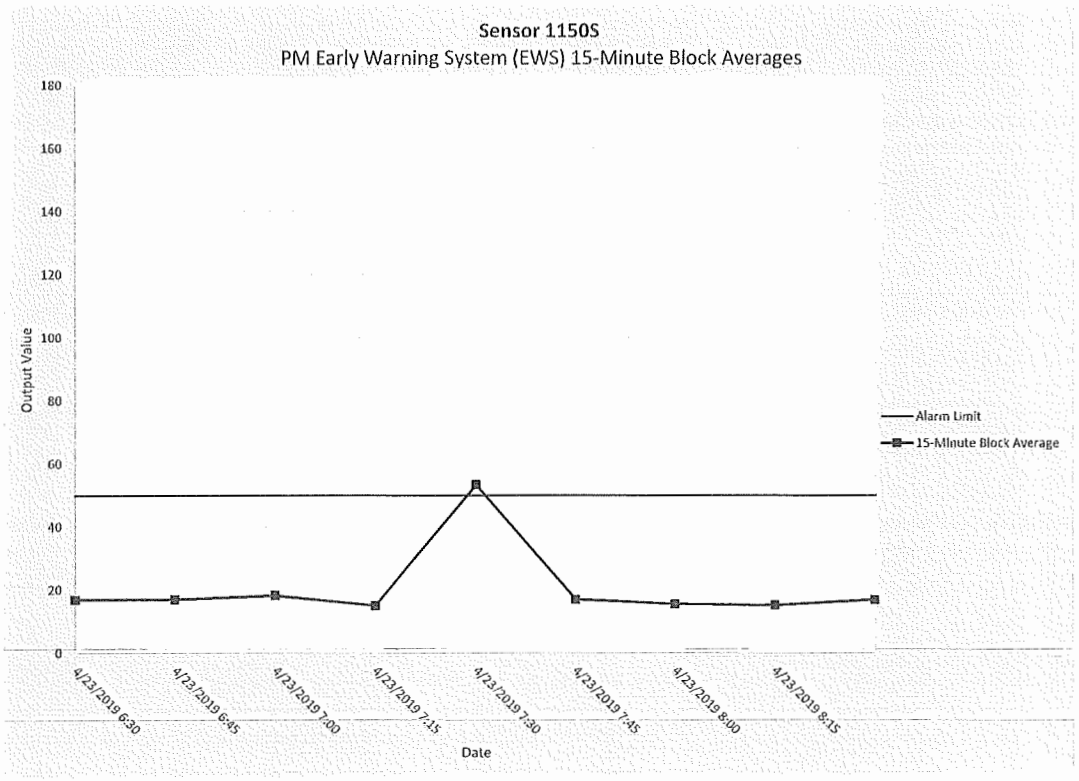
North Bend Plant

Particulate Matter Early Warning System Alarm Action Level Exceedances For 1/1/2019 – 6/30/2019

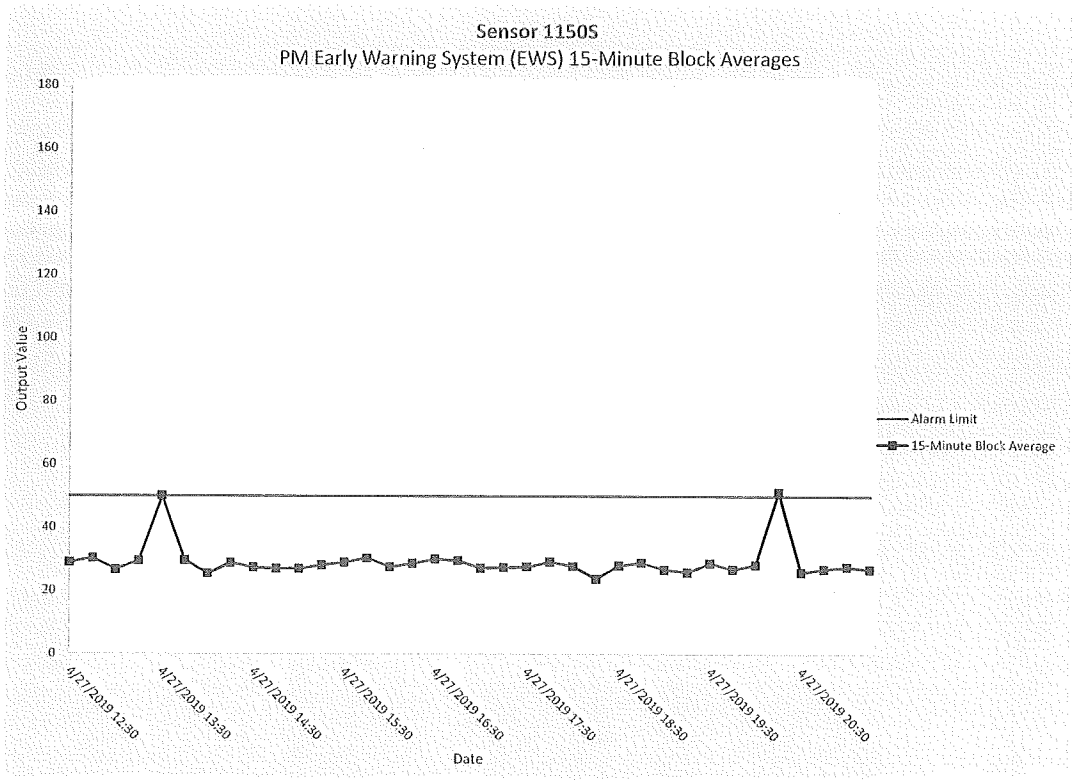
Attachment 2

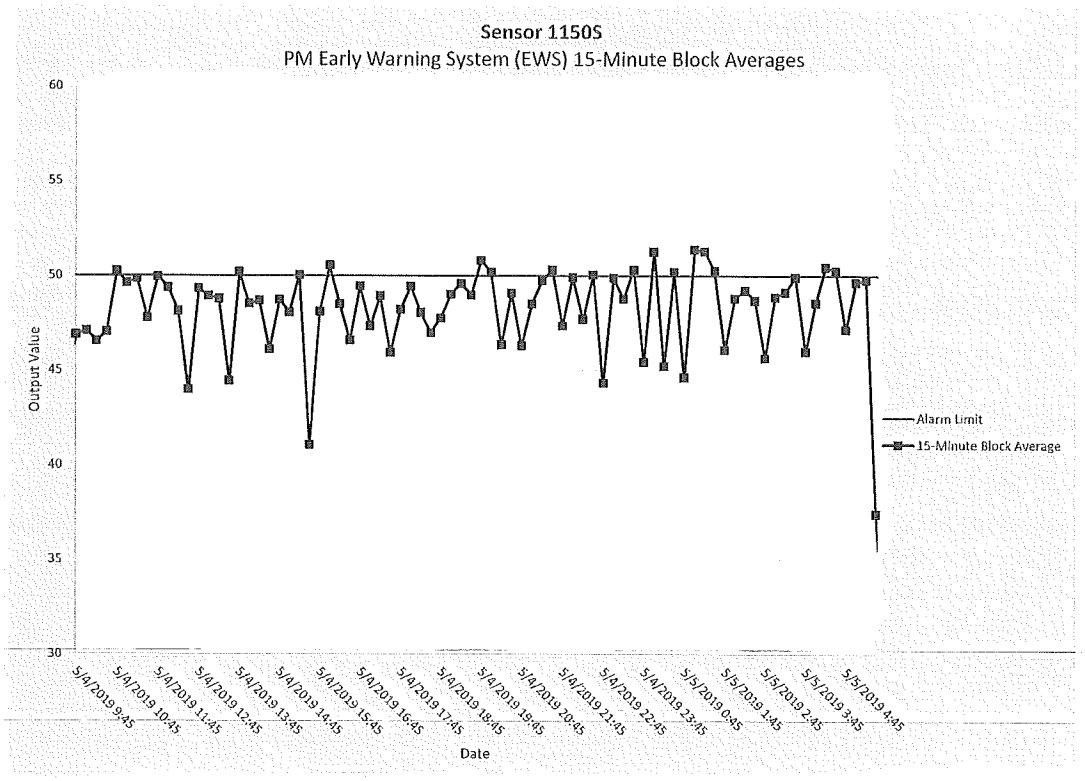
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



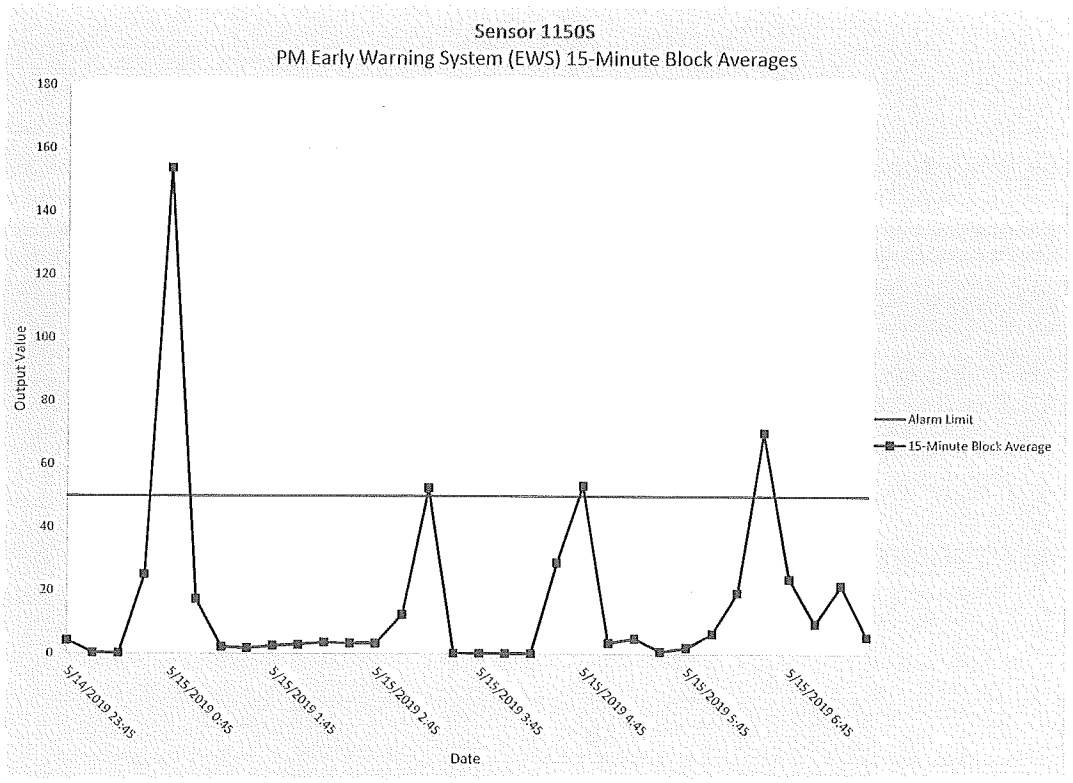


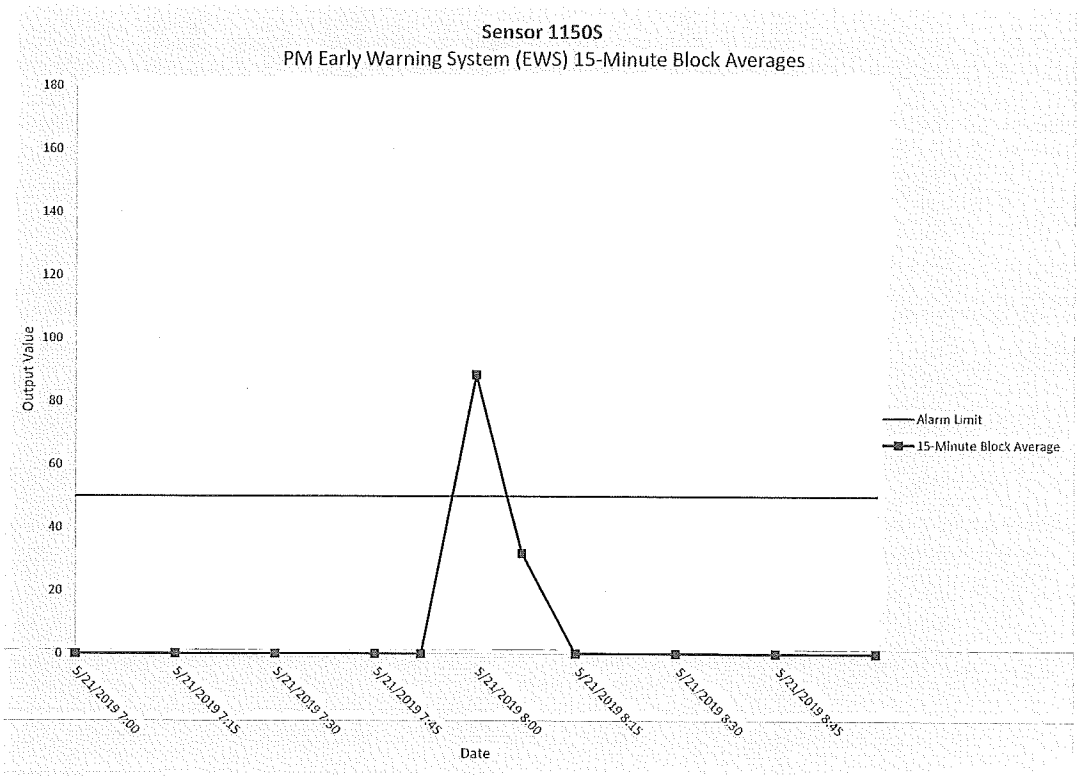
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



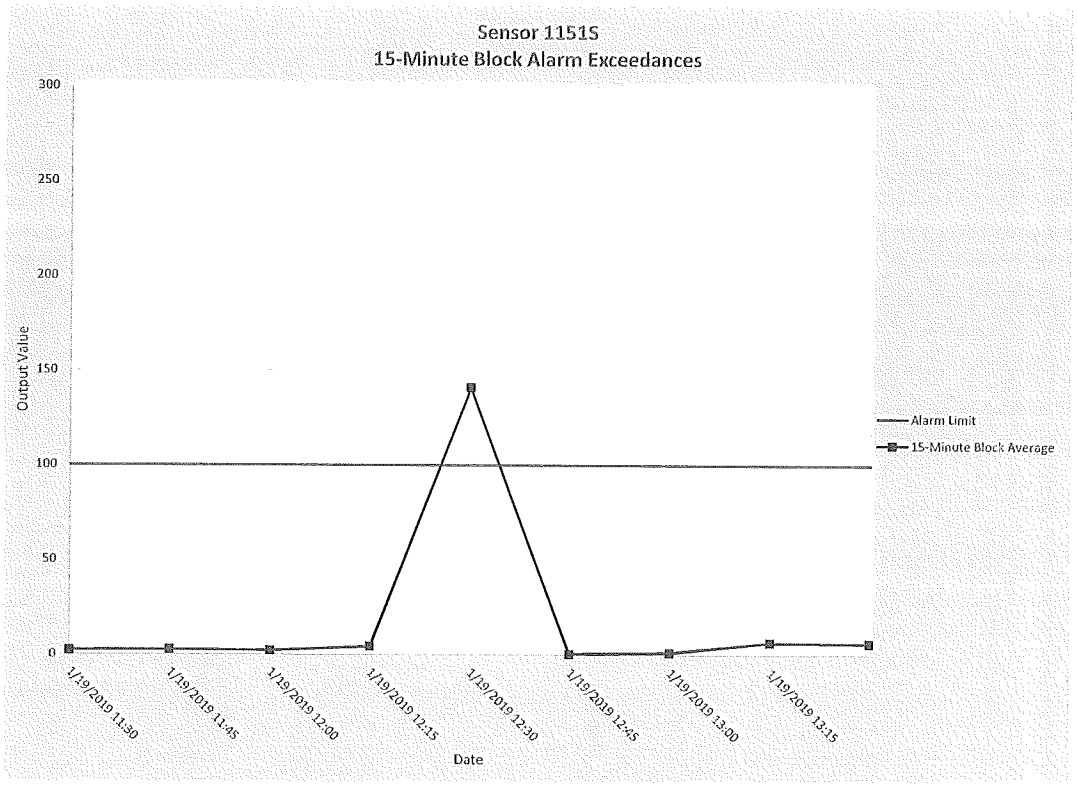


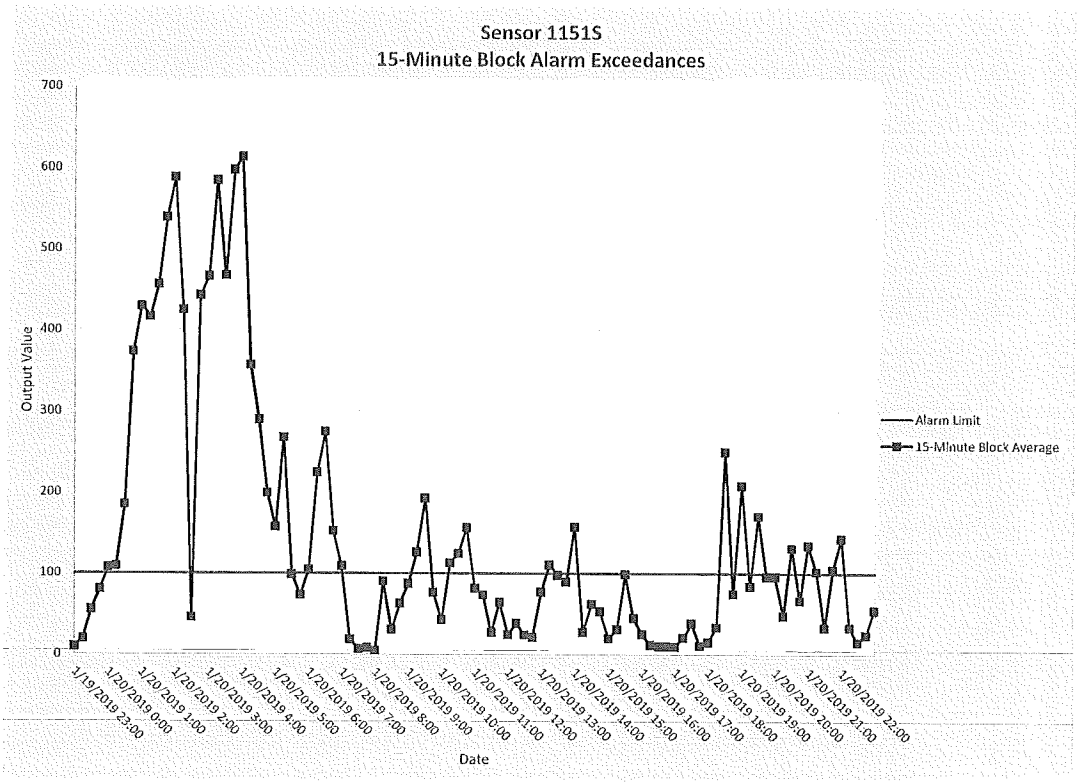
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



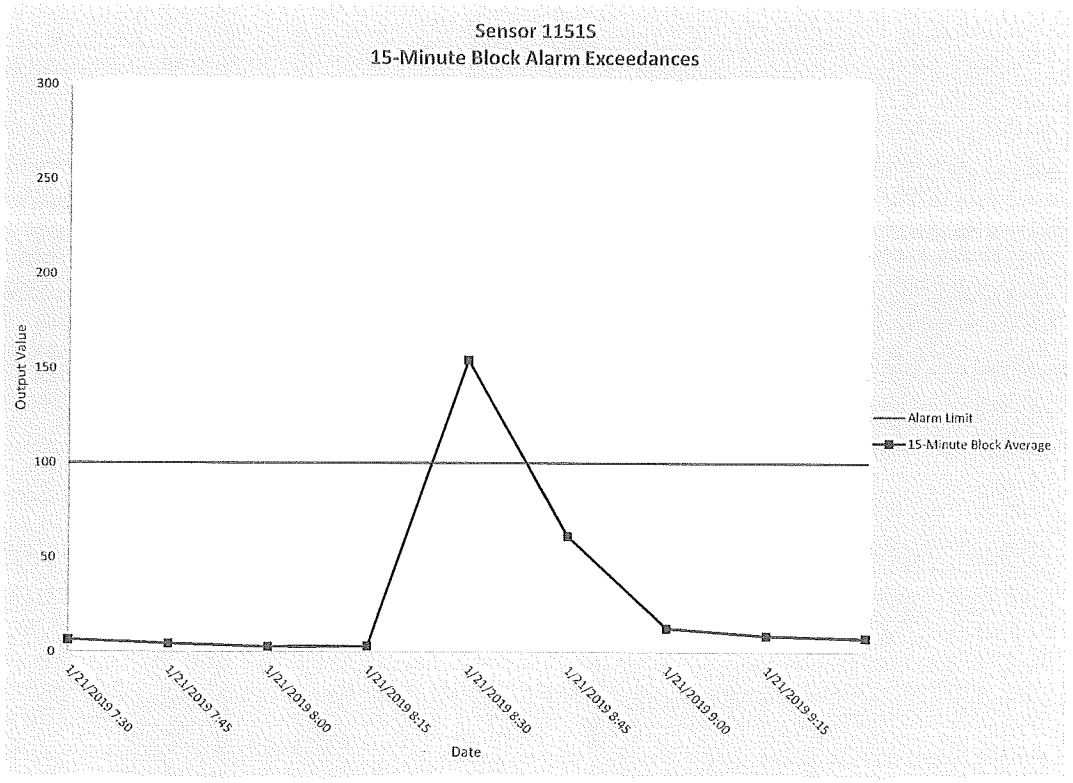


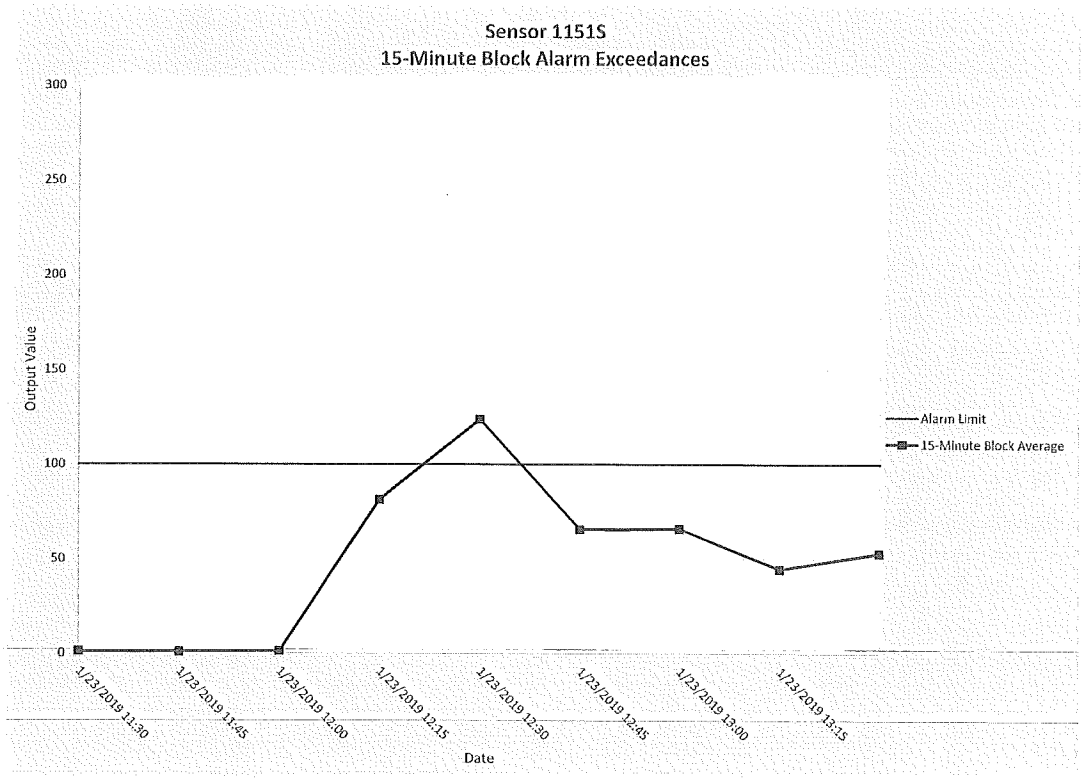
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



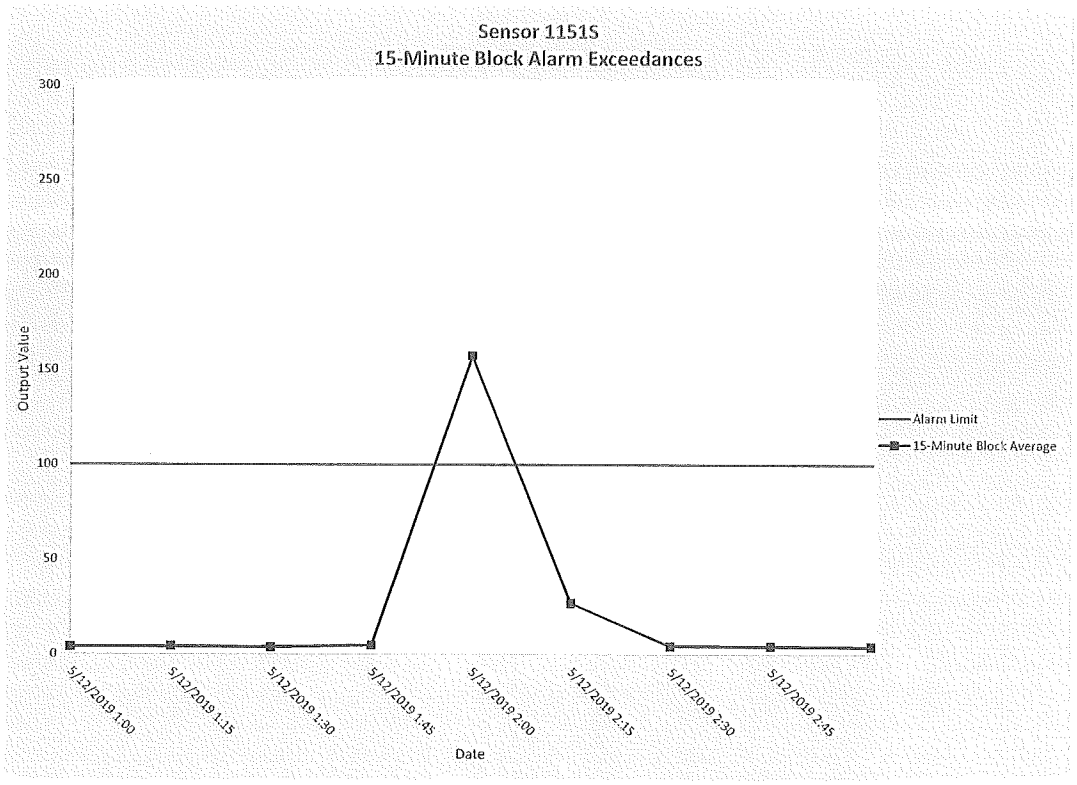


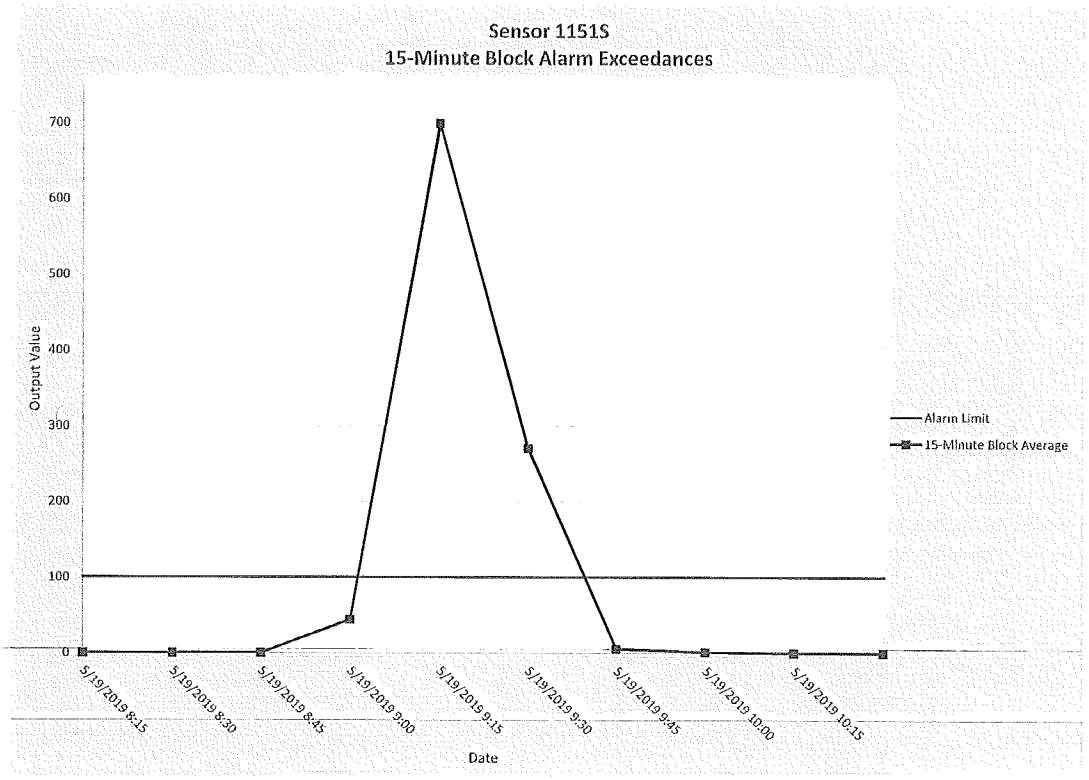
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



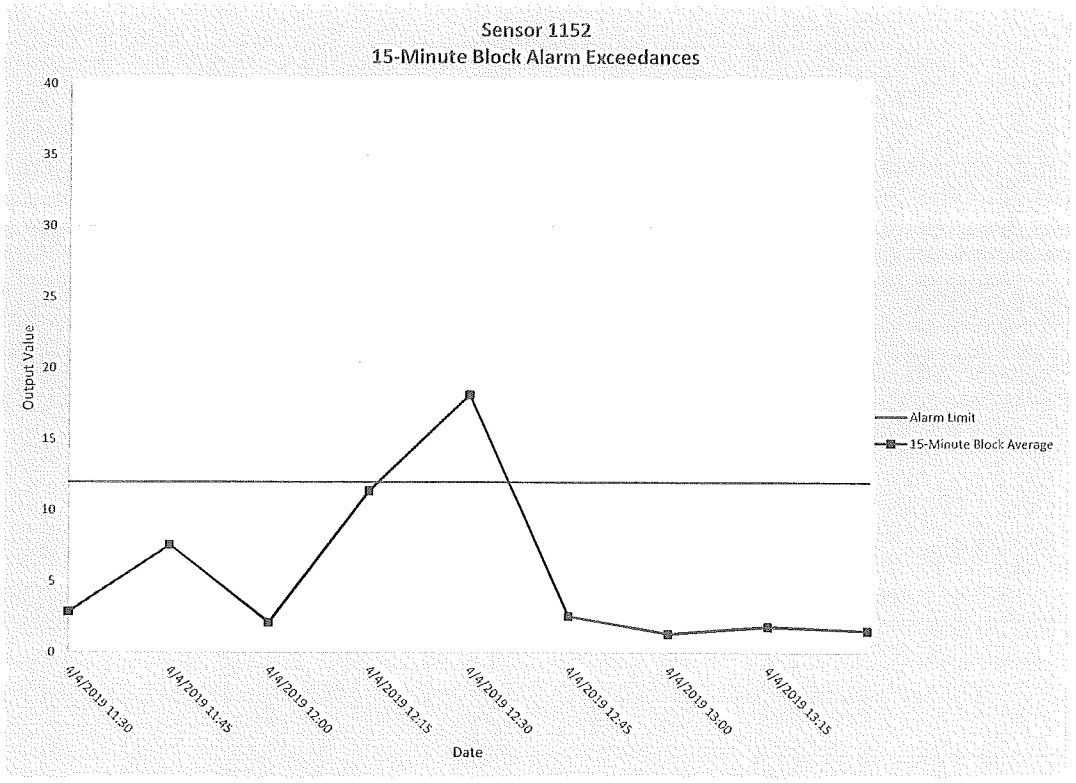


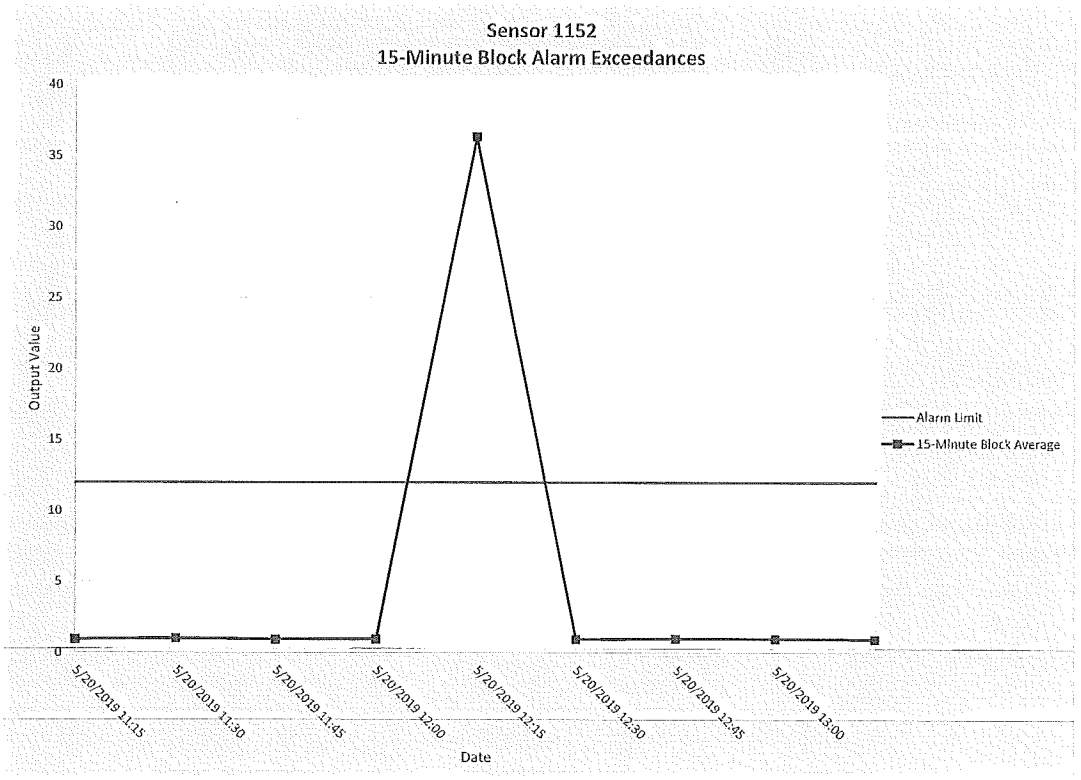
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



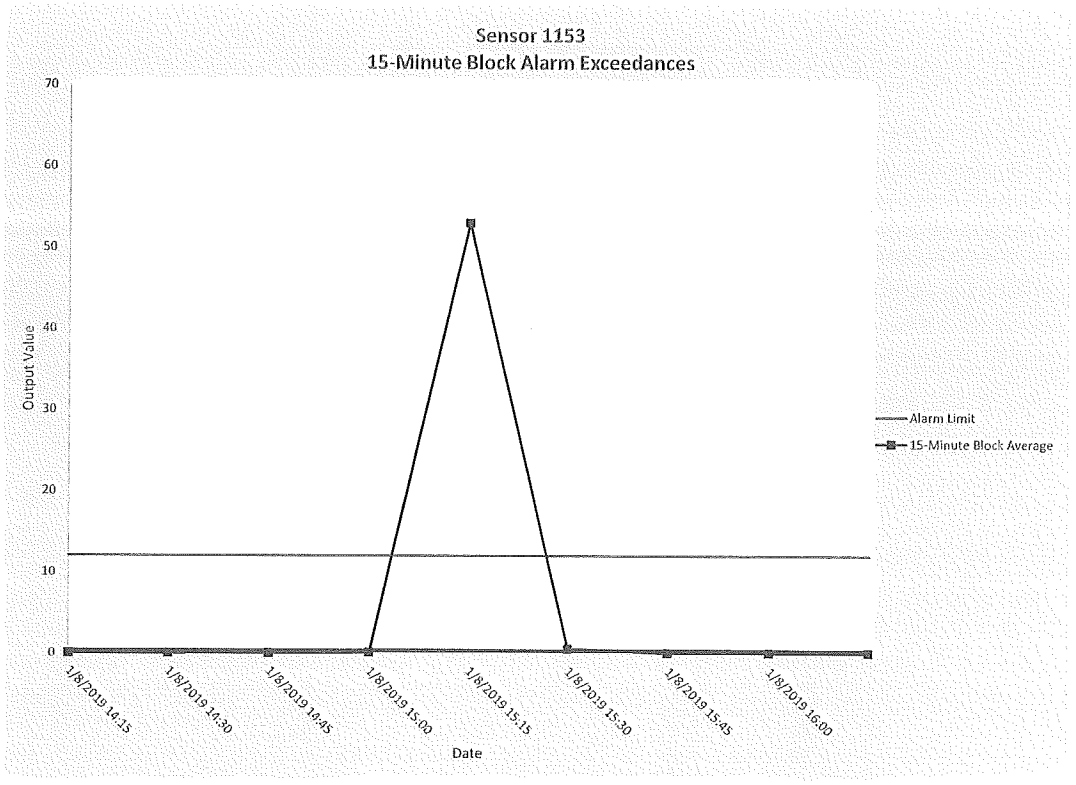


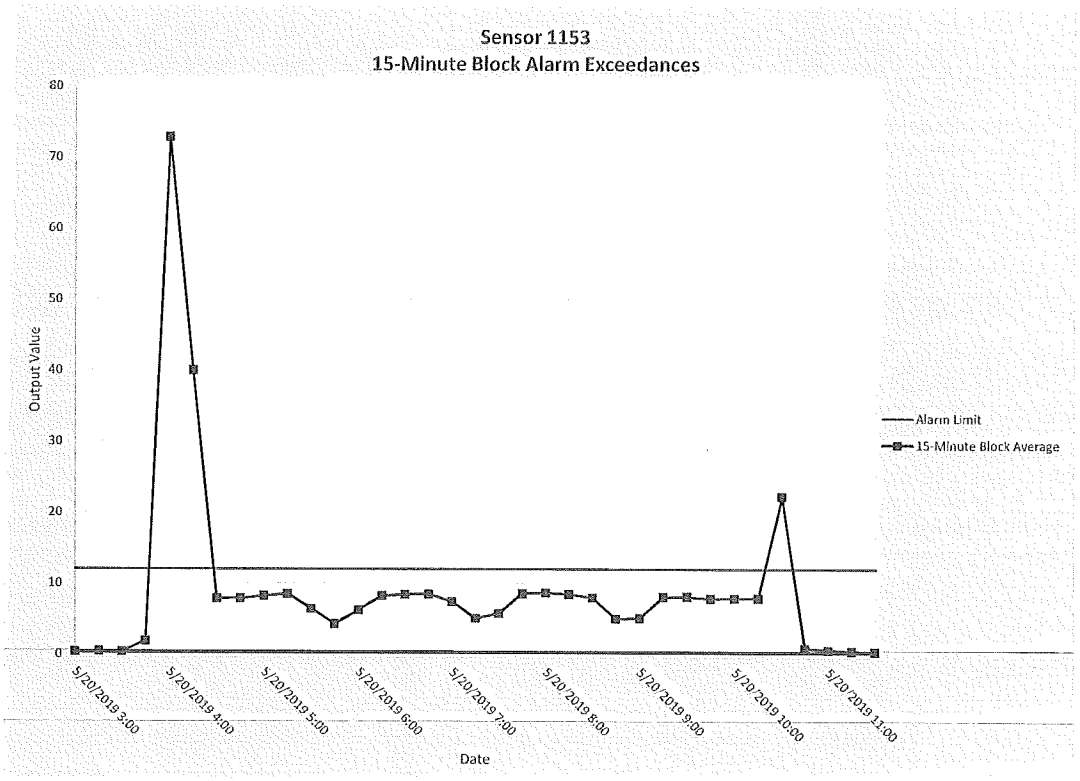
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





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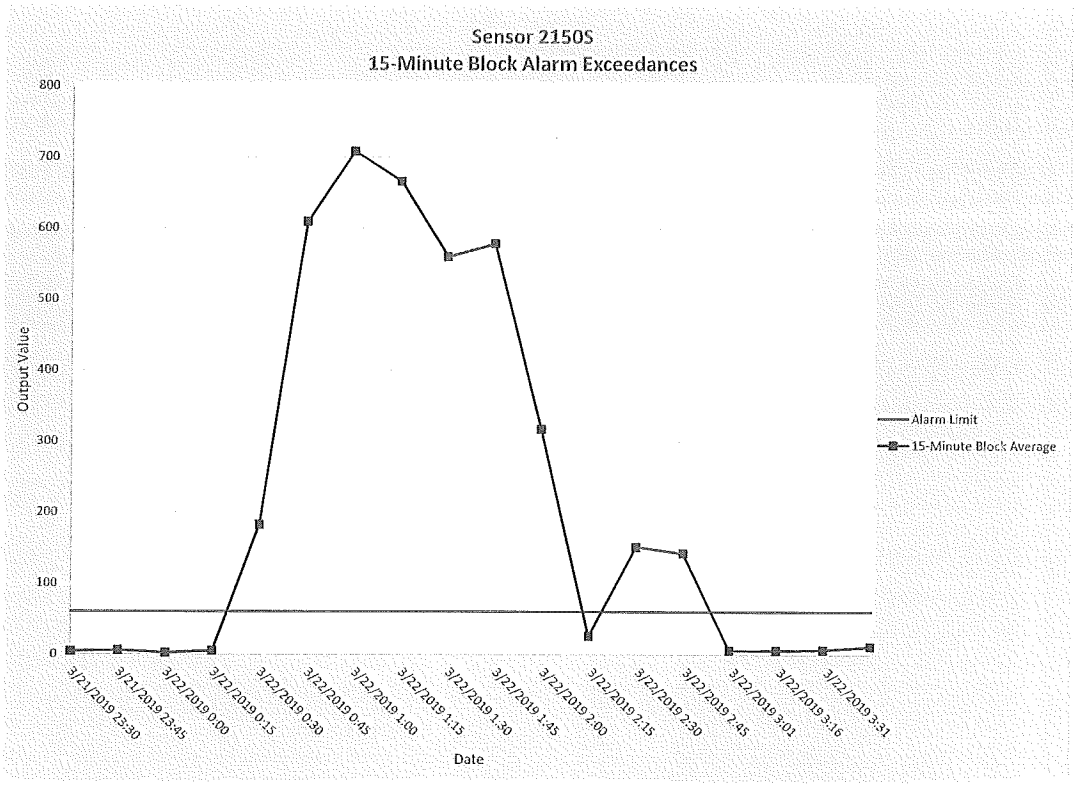

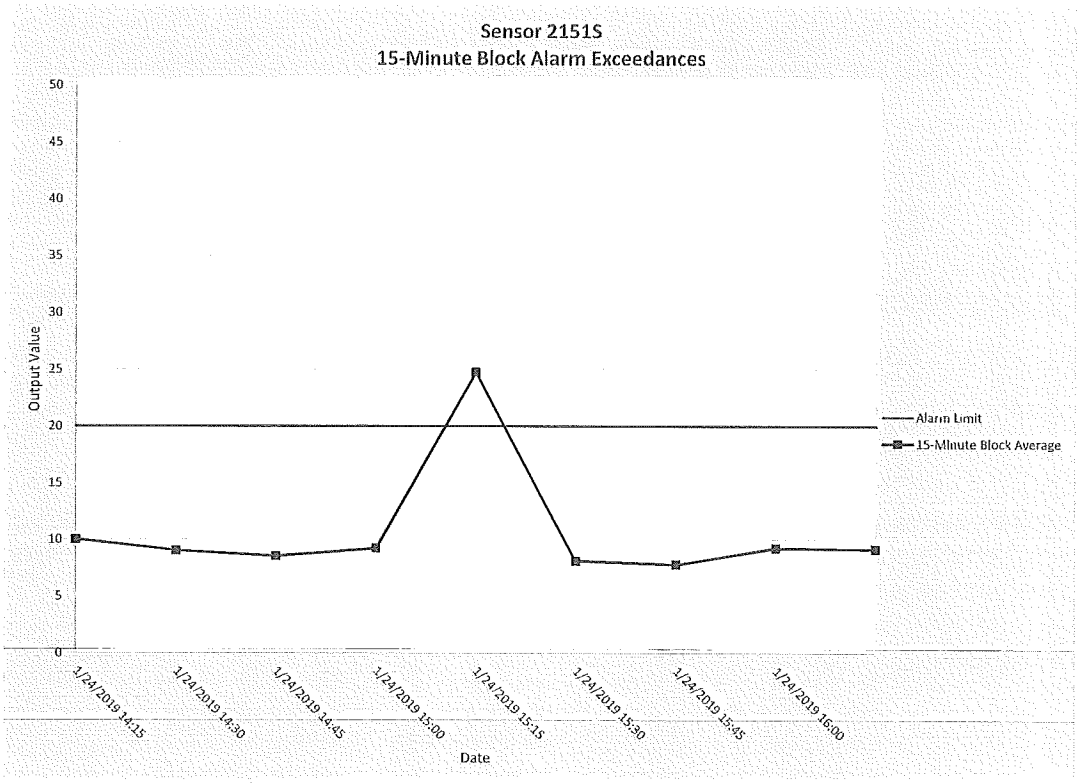

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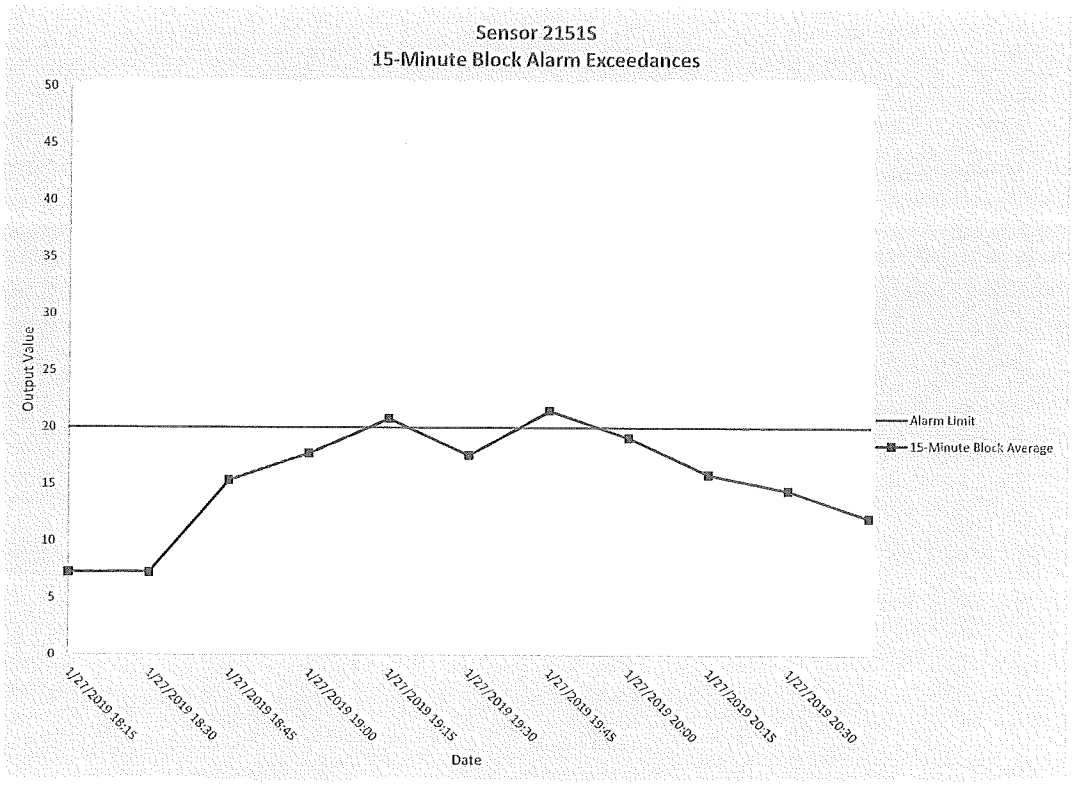

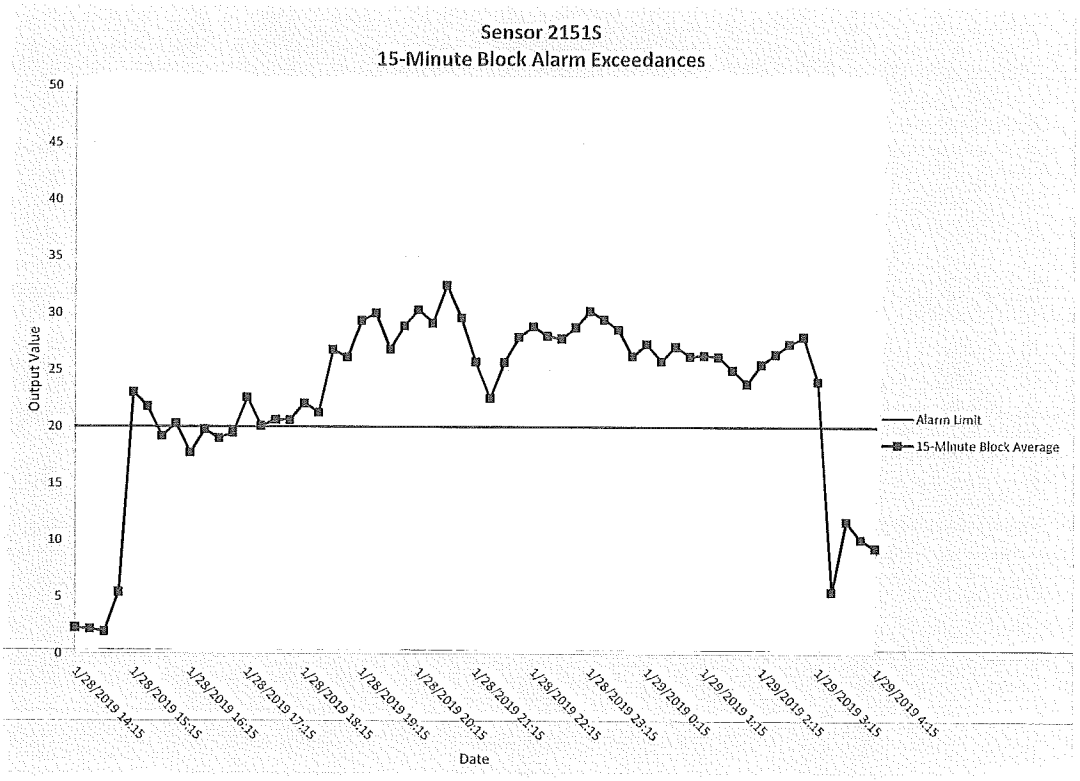

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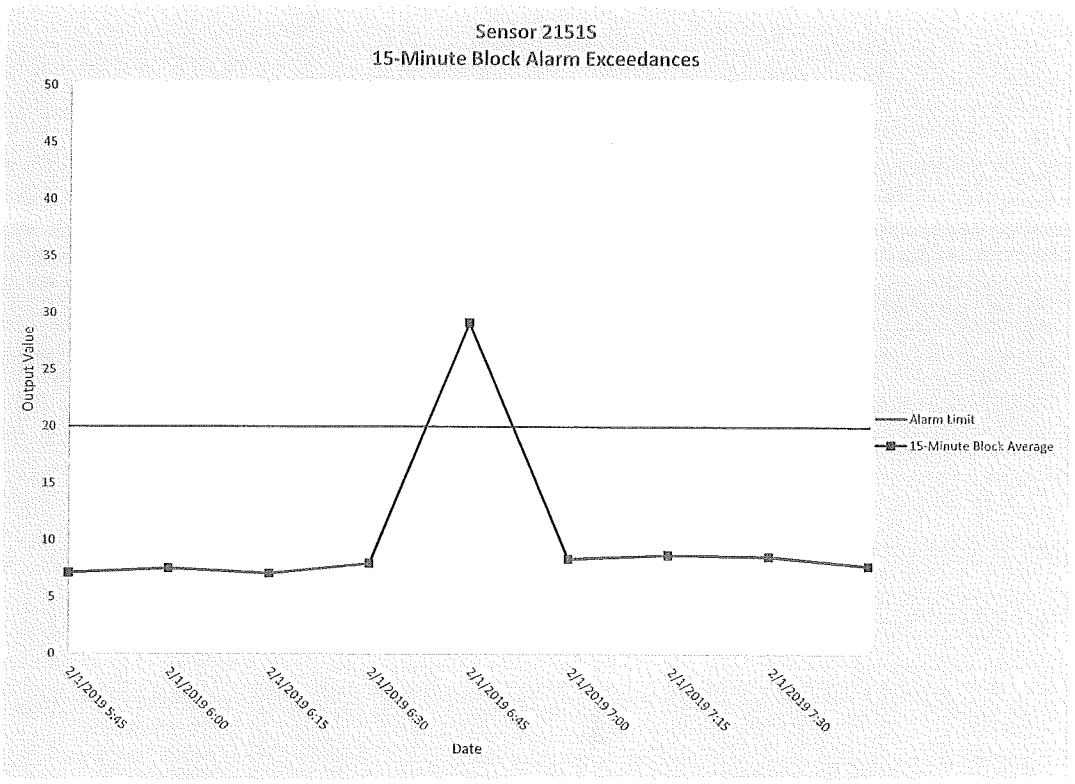

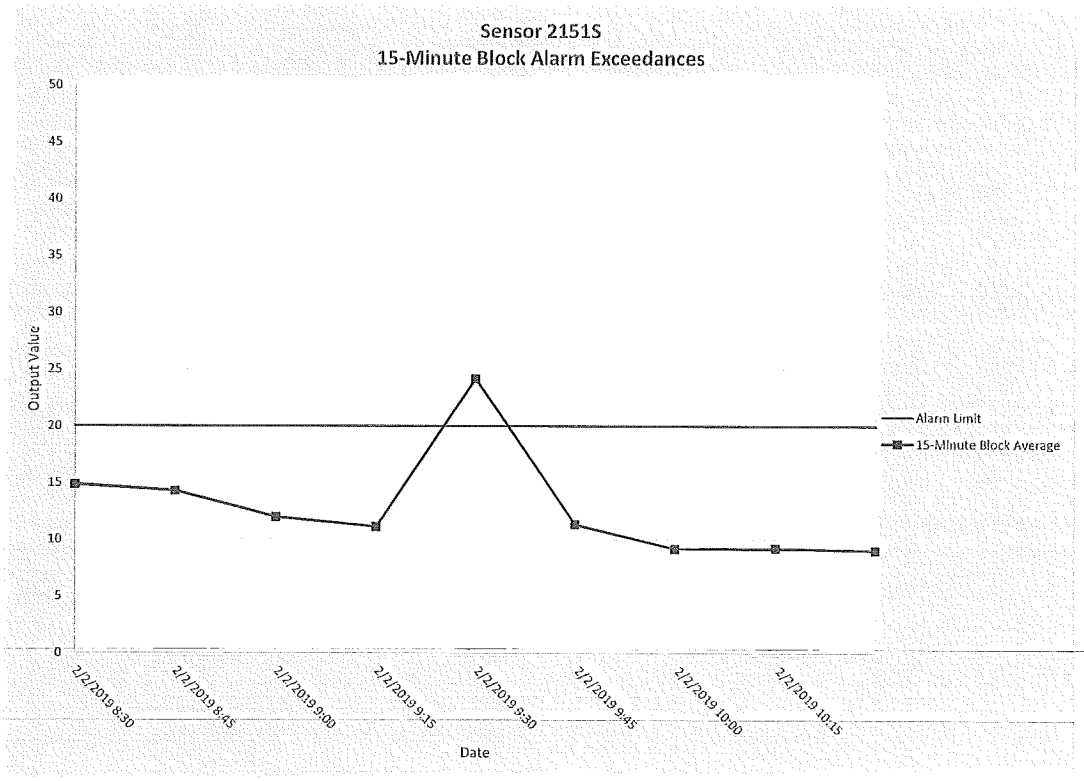

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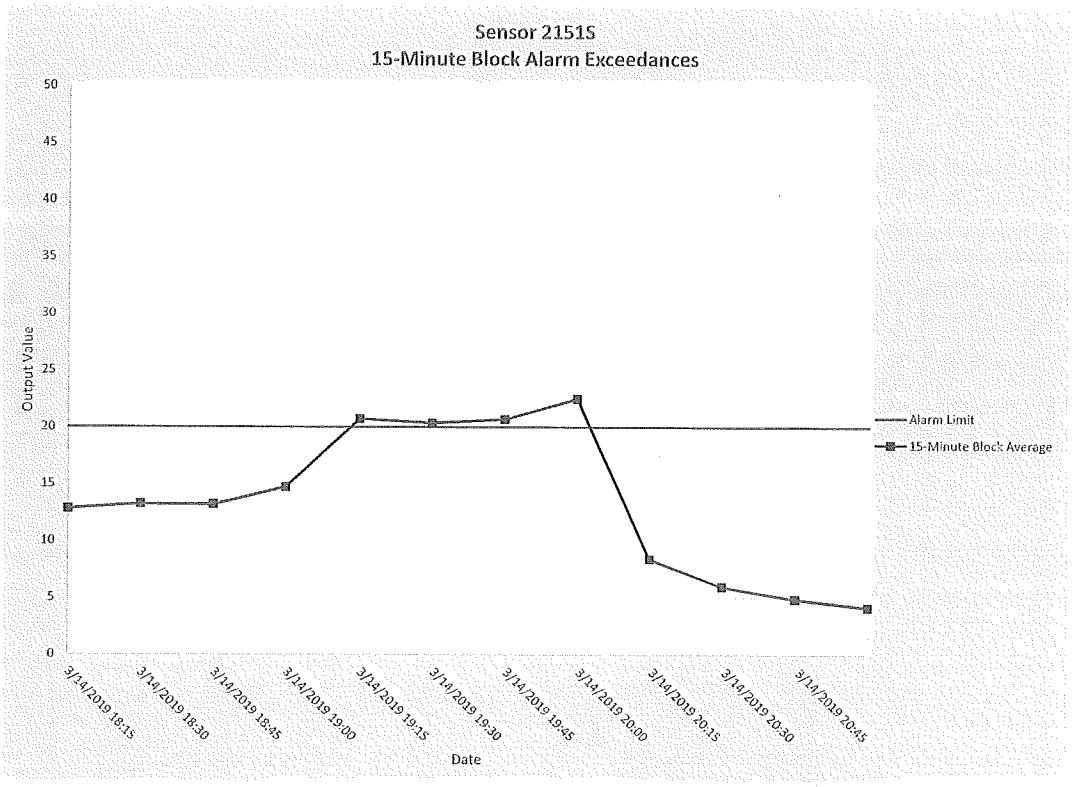

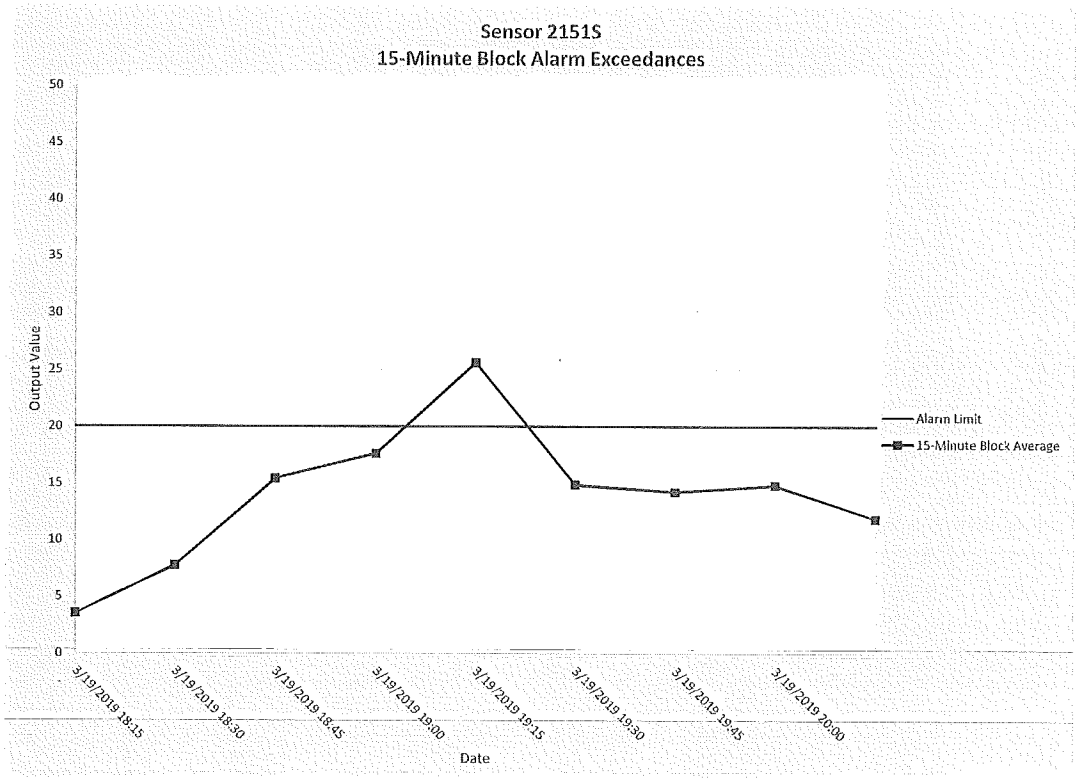

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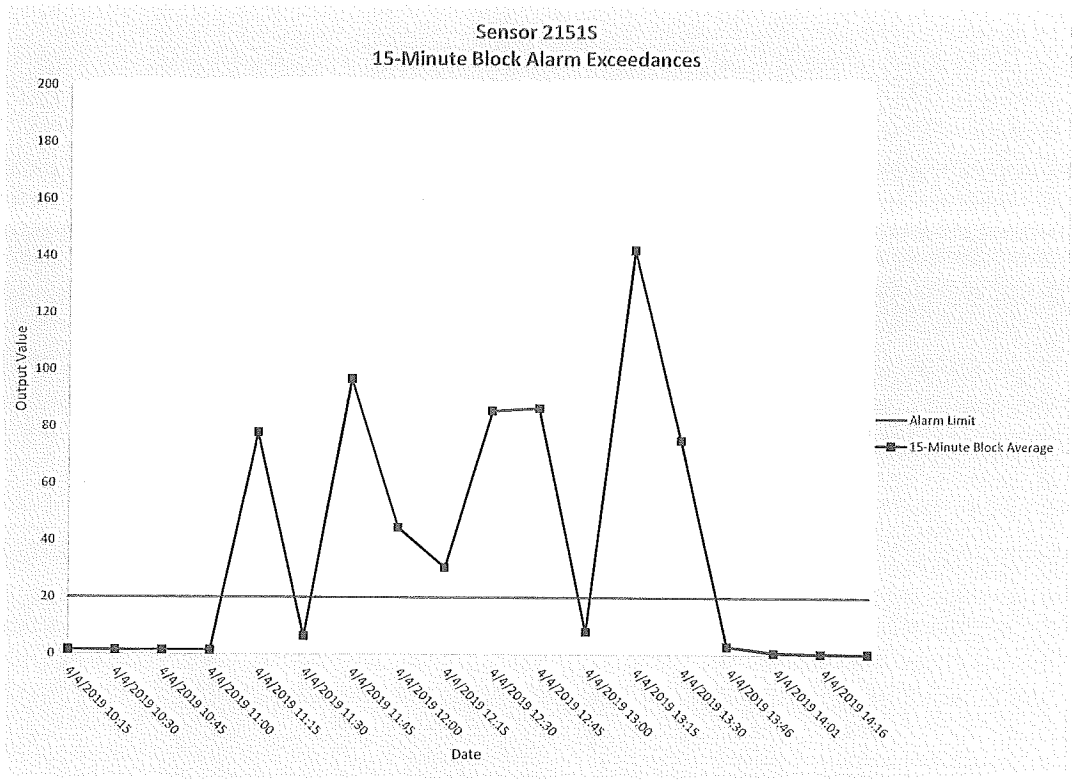

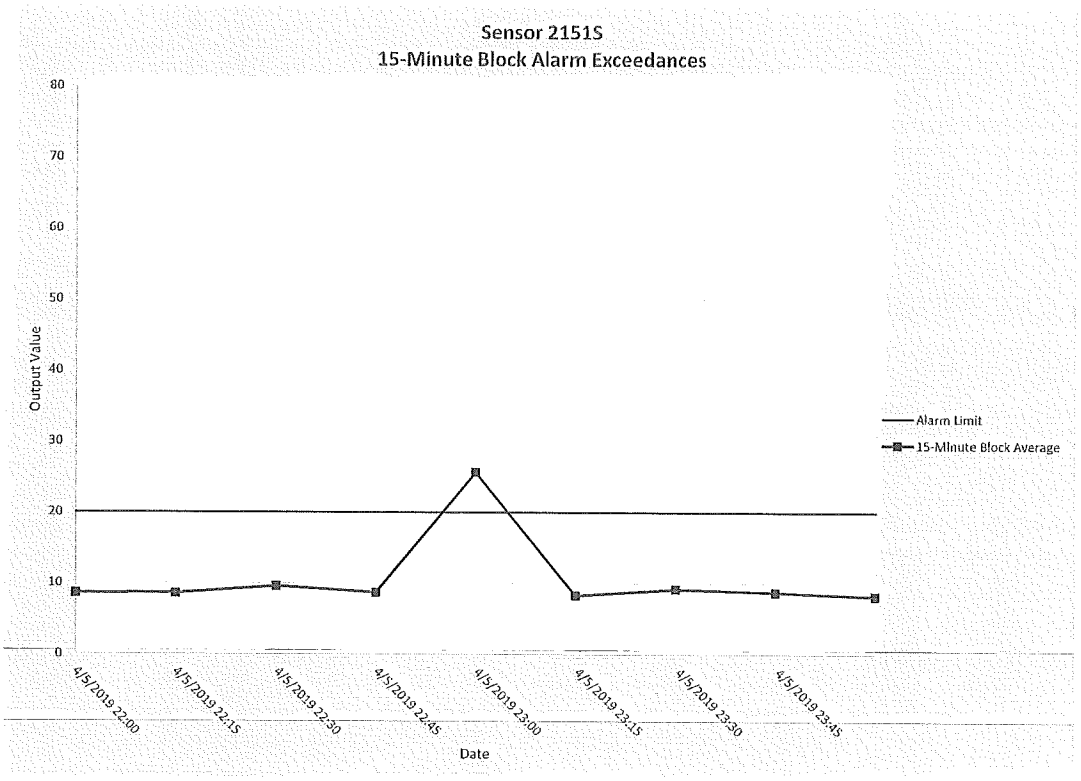

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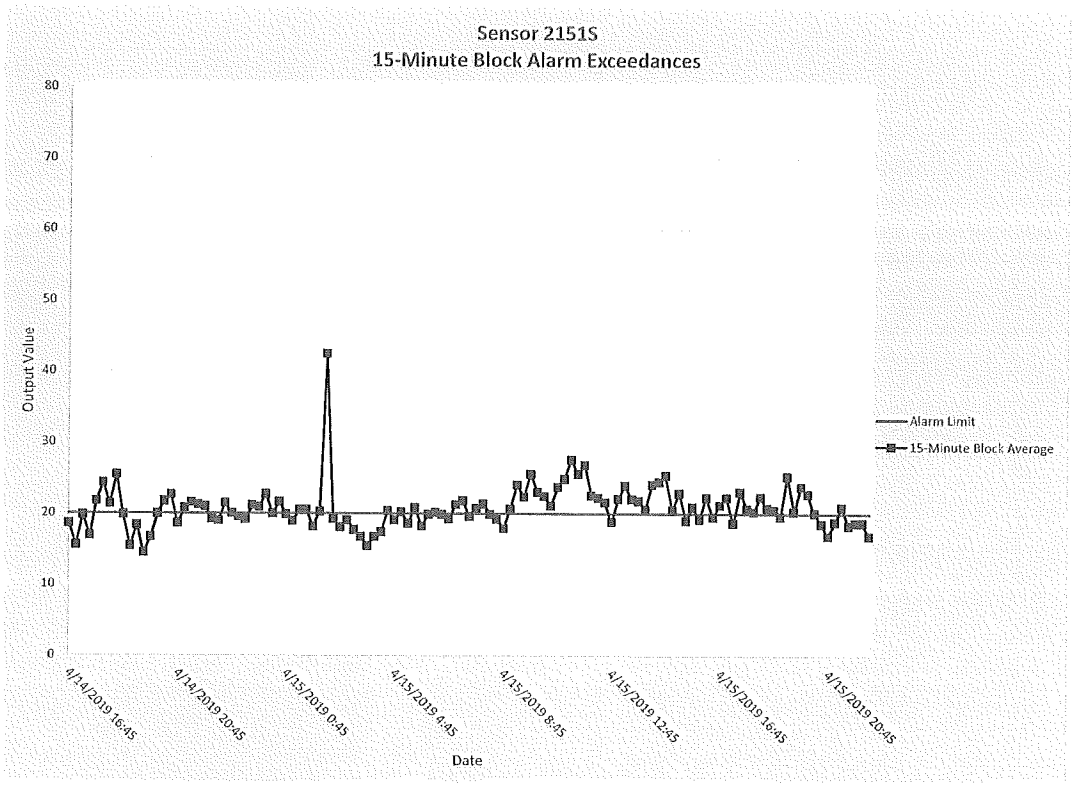

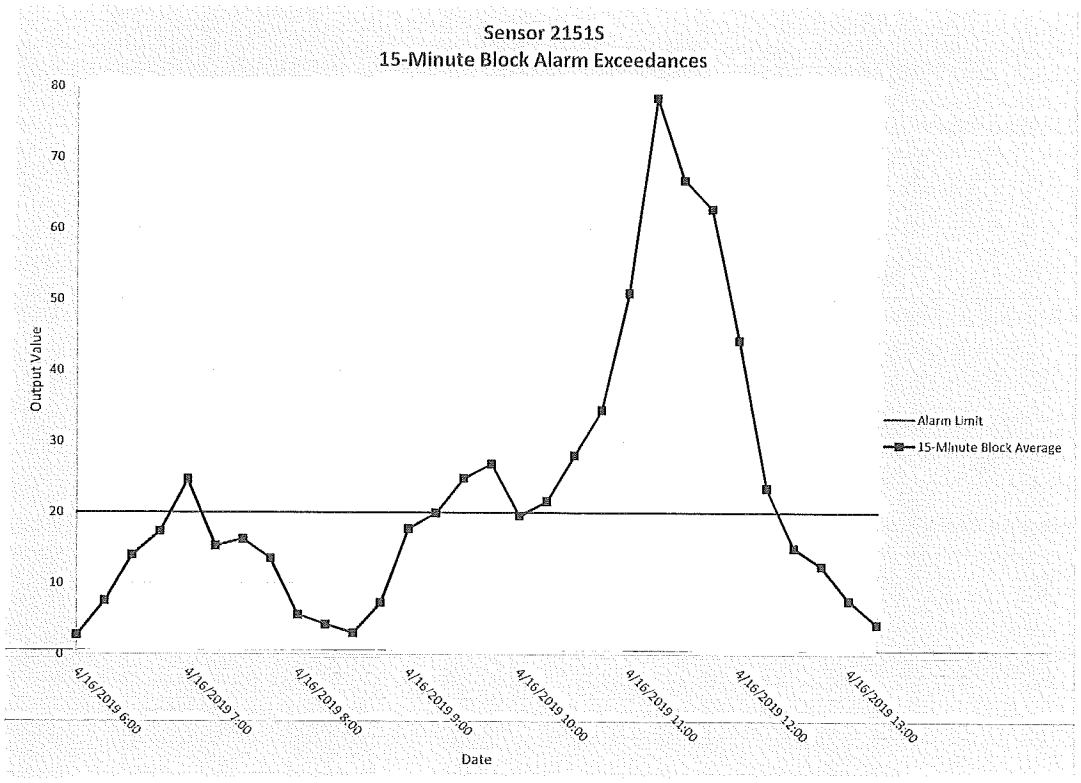

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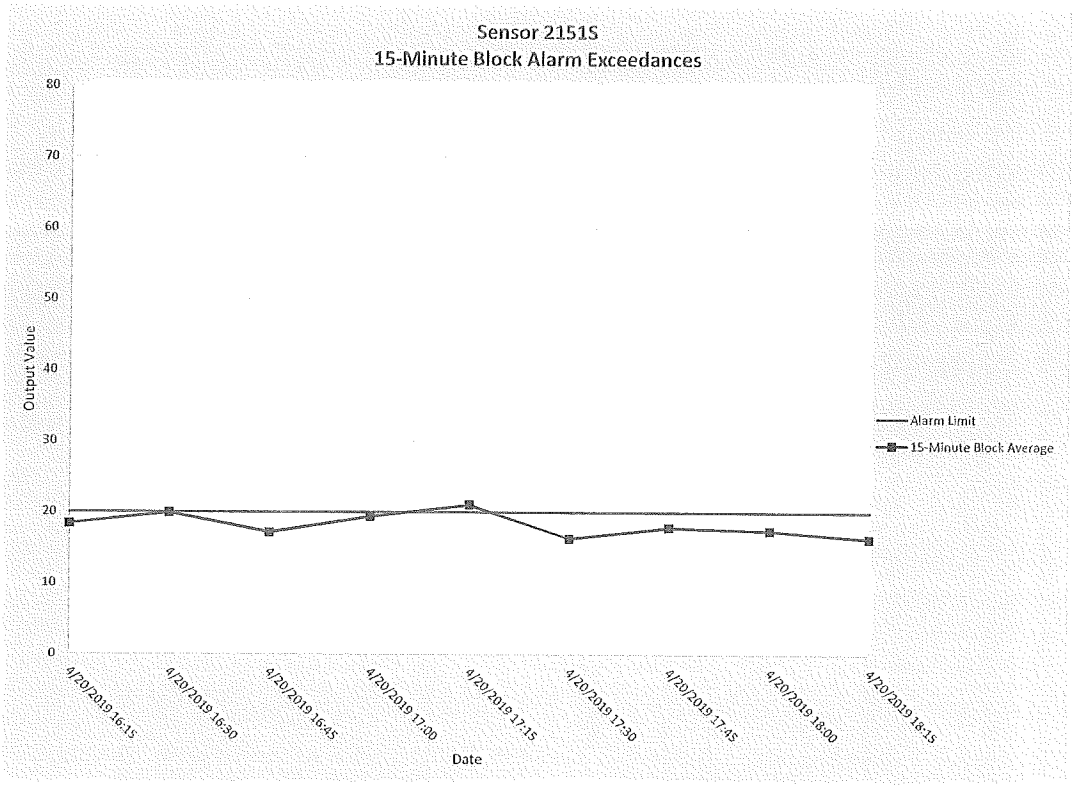

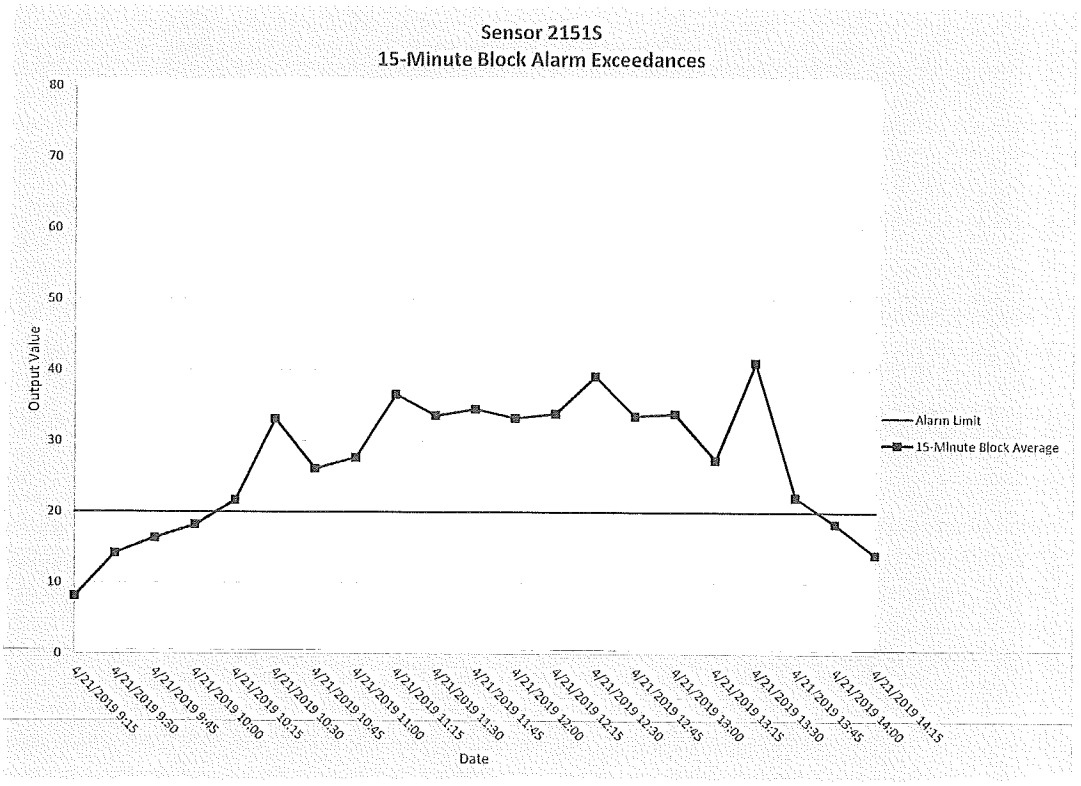

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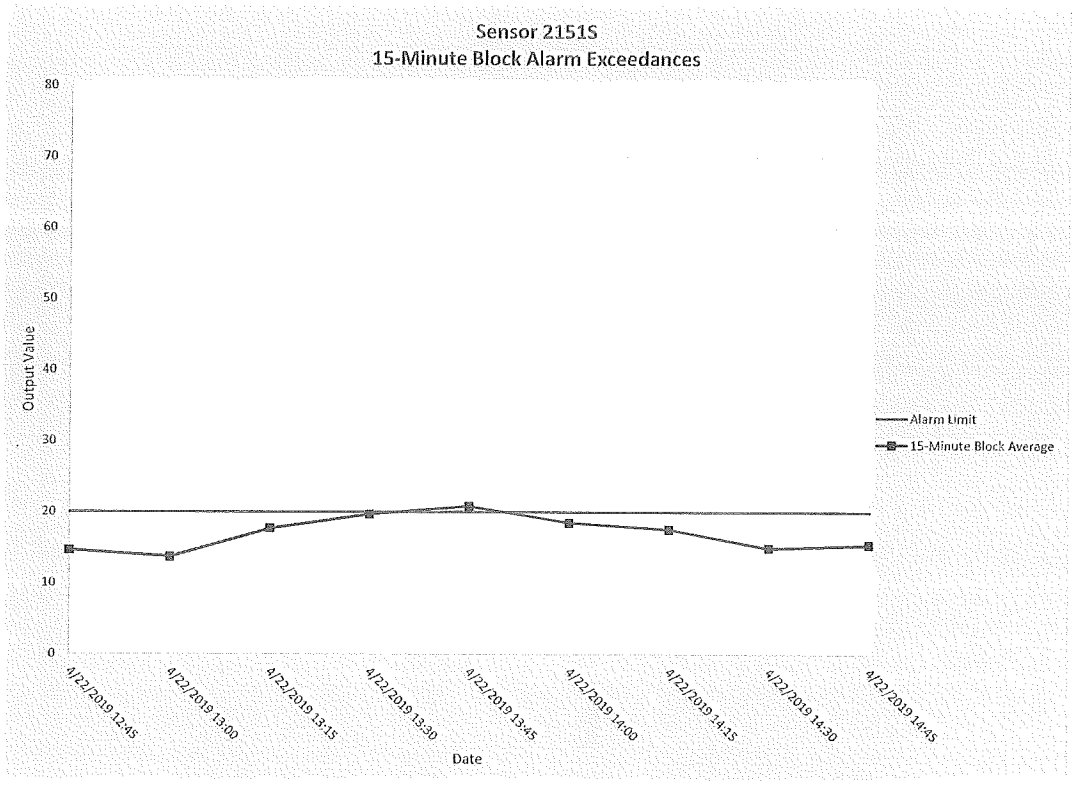

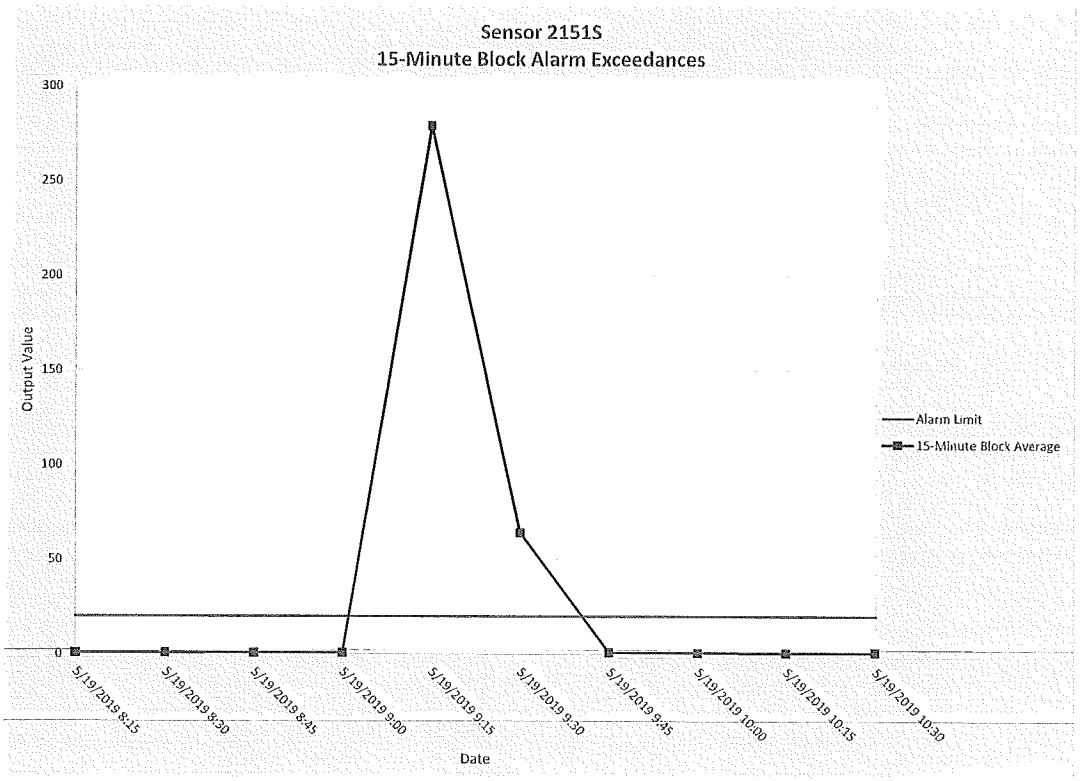

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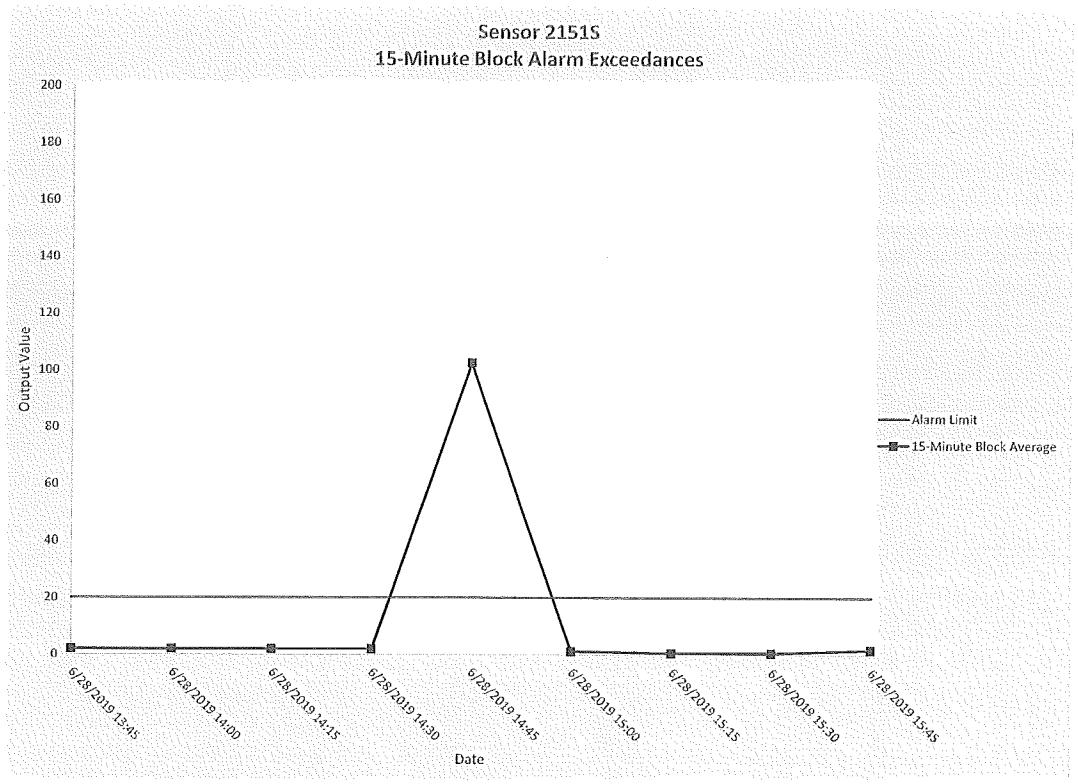

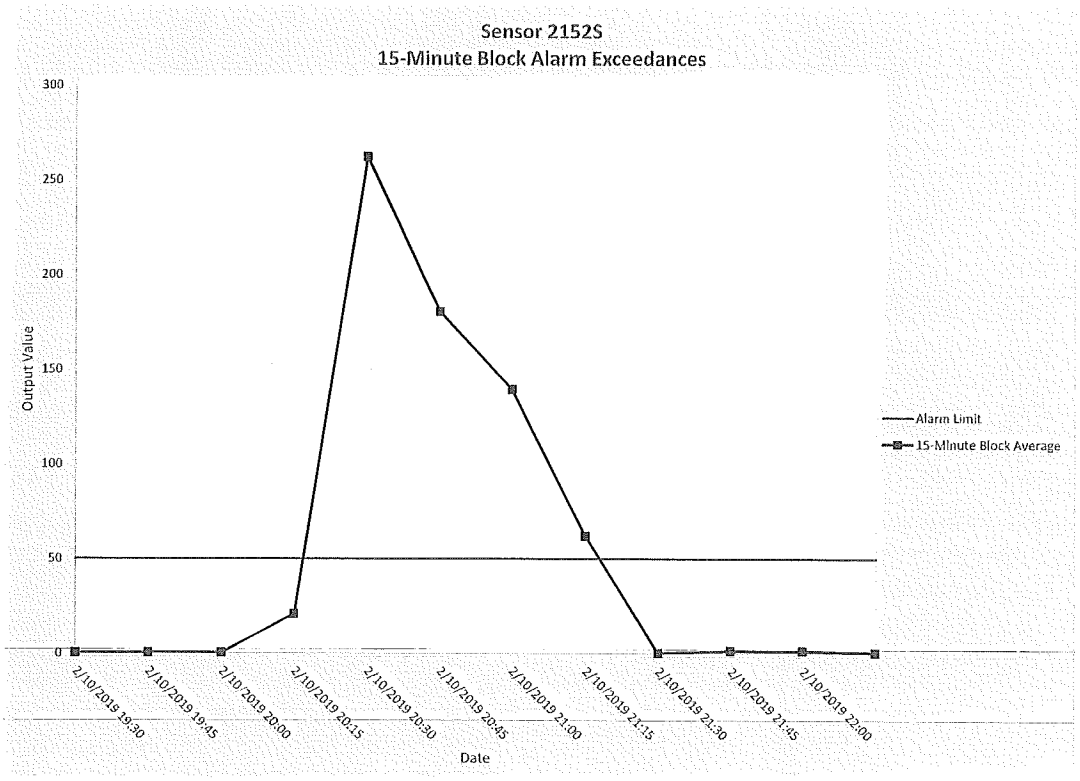

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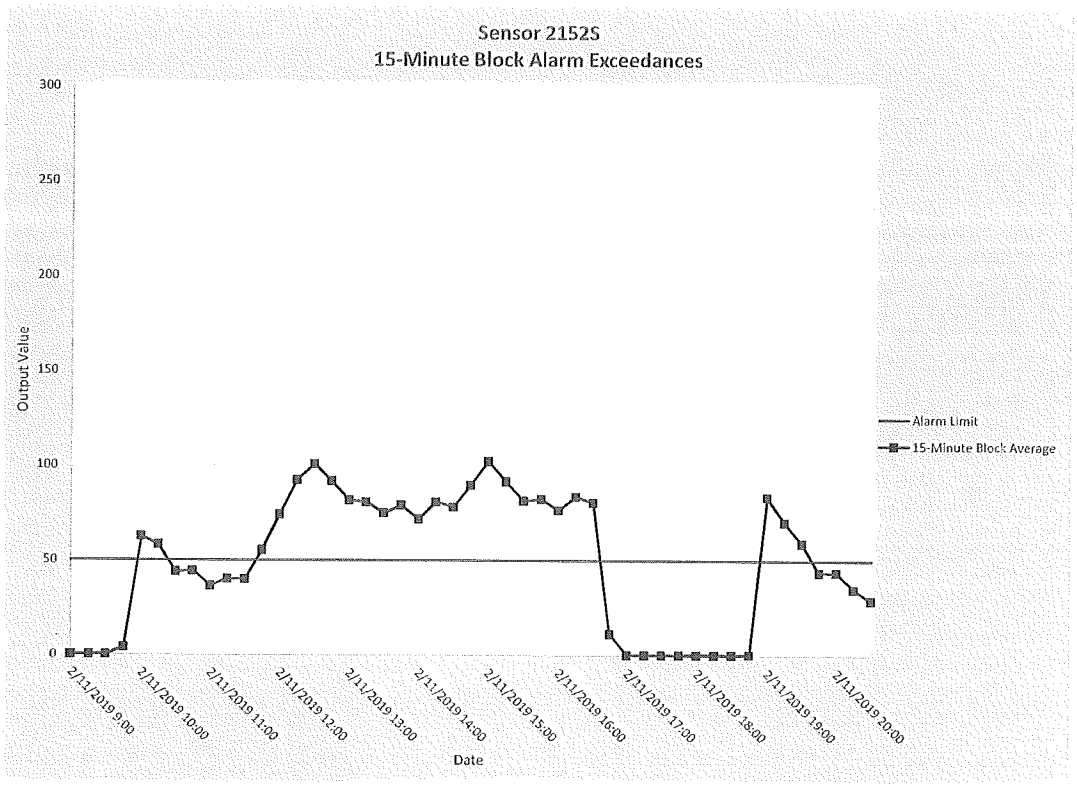

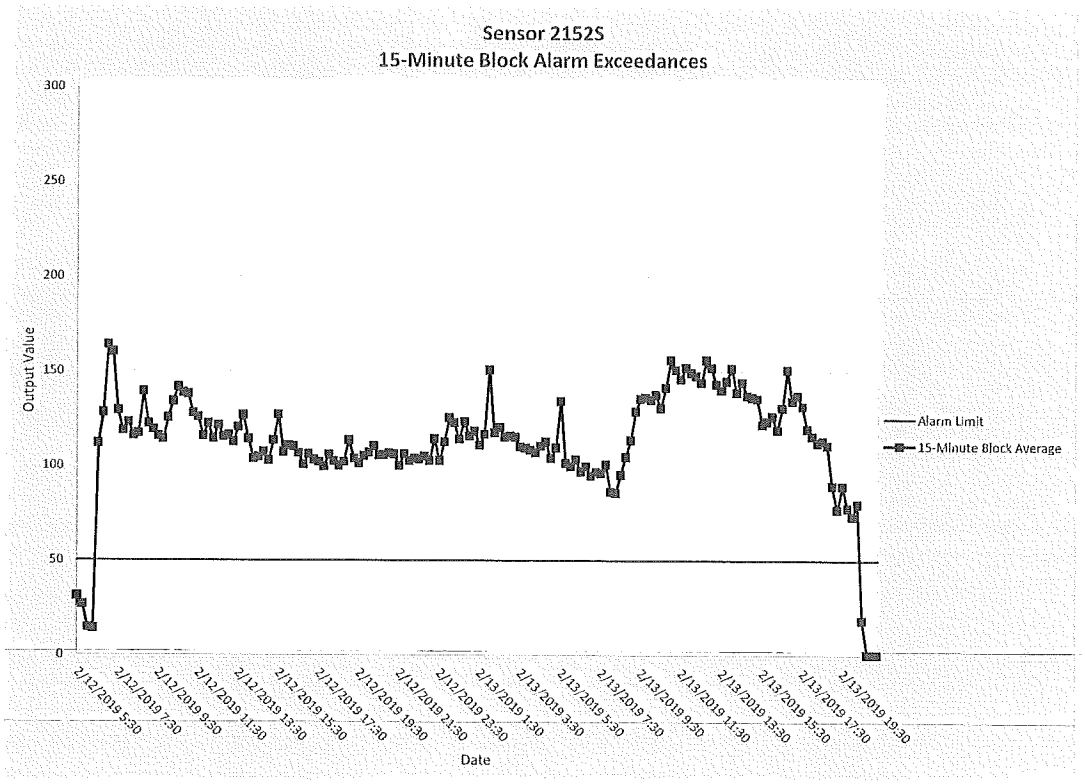

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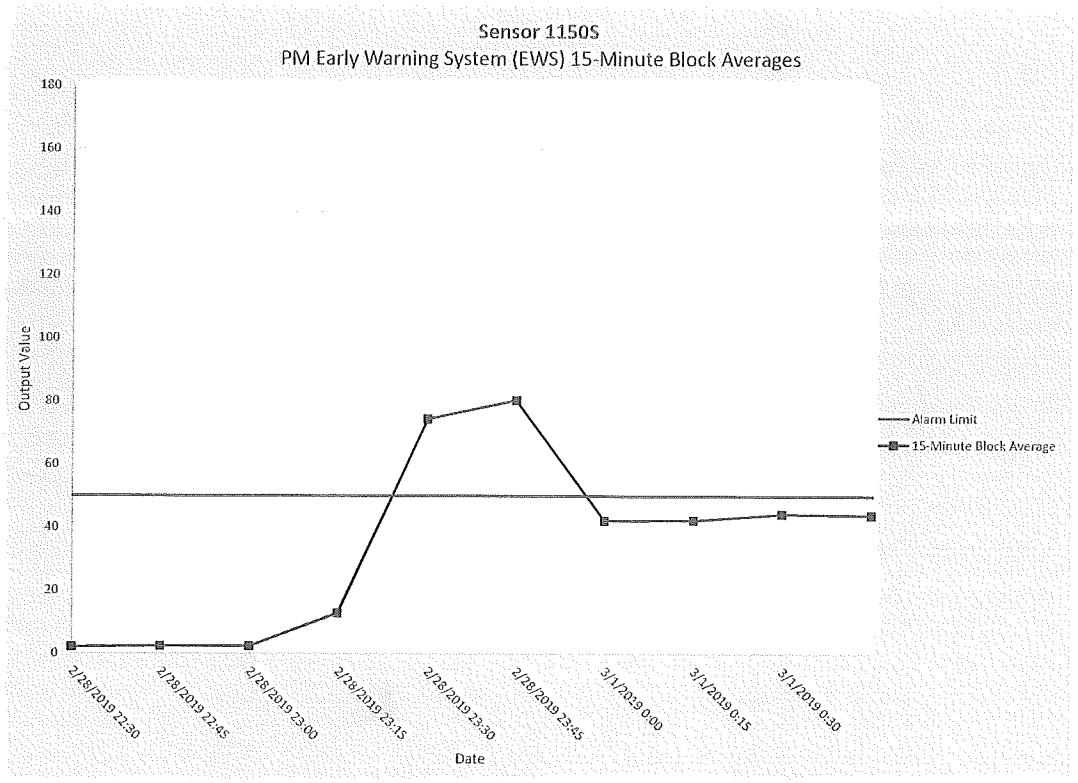

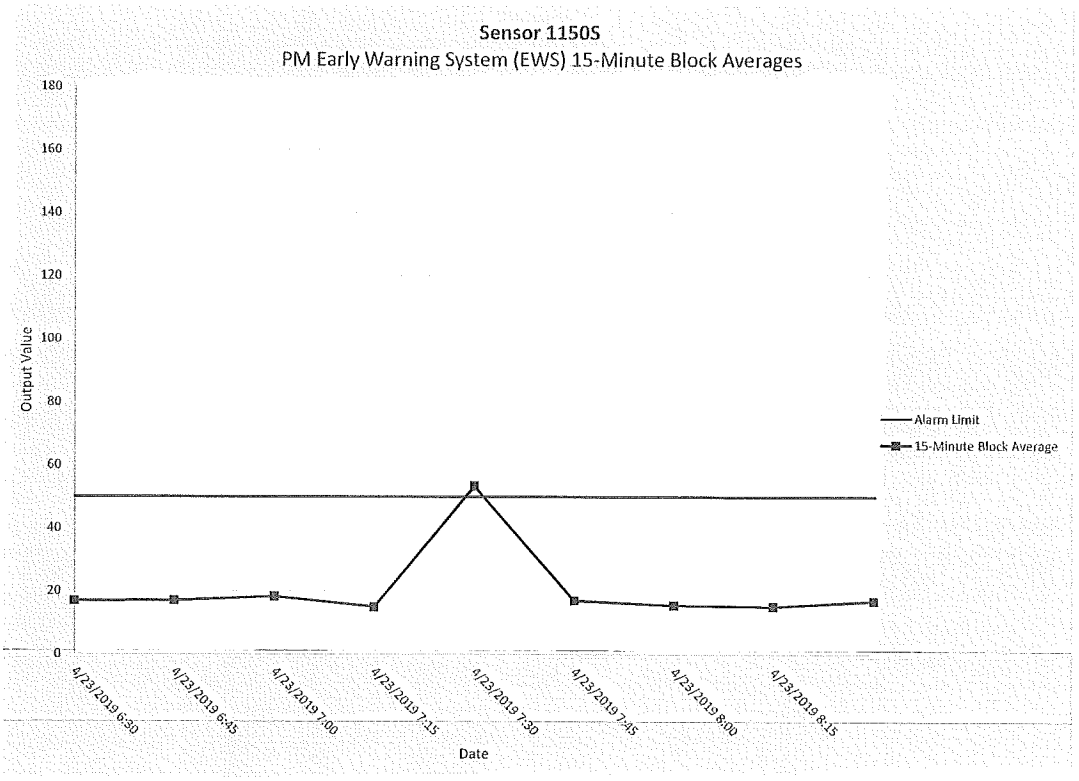

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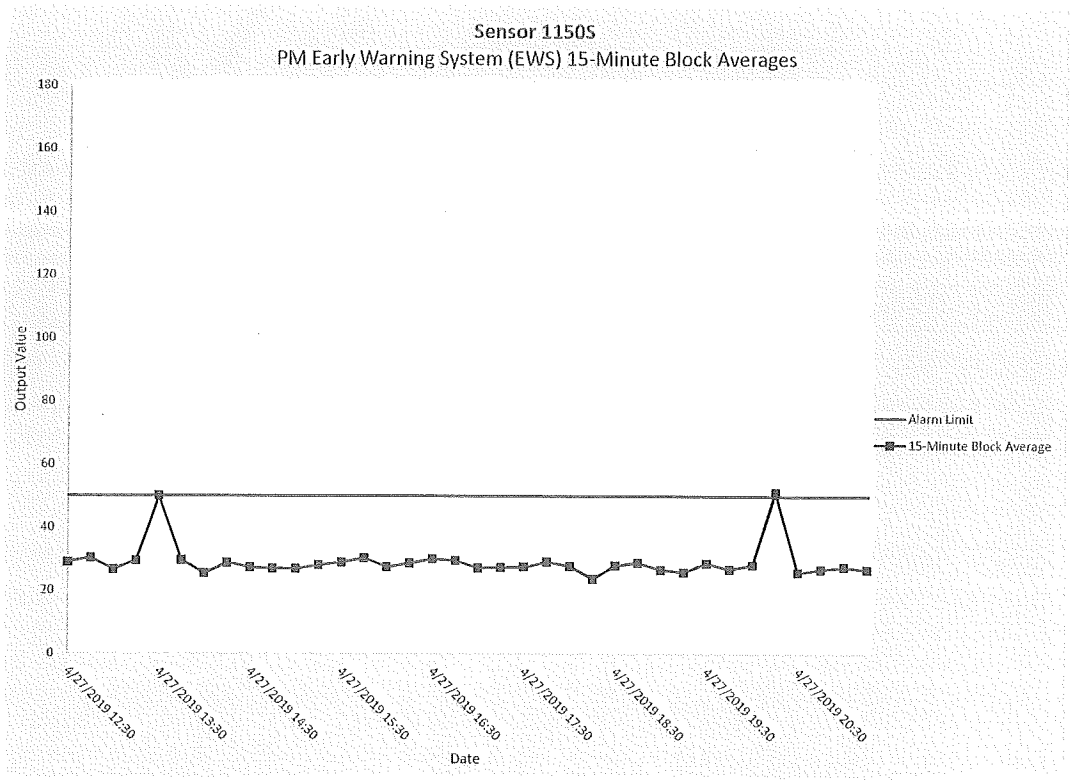

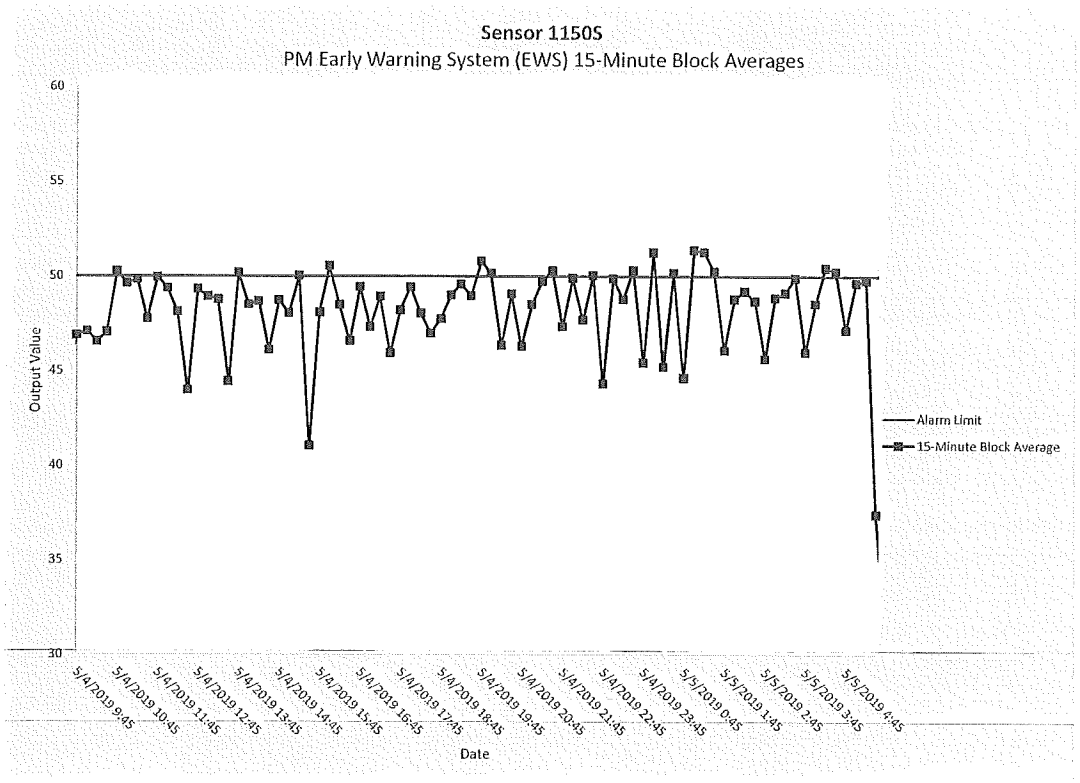

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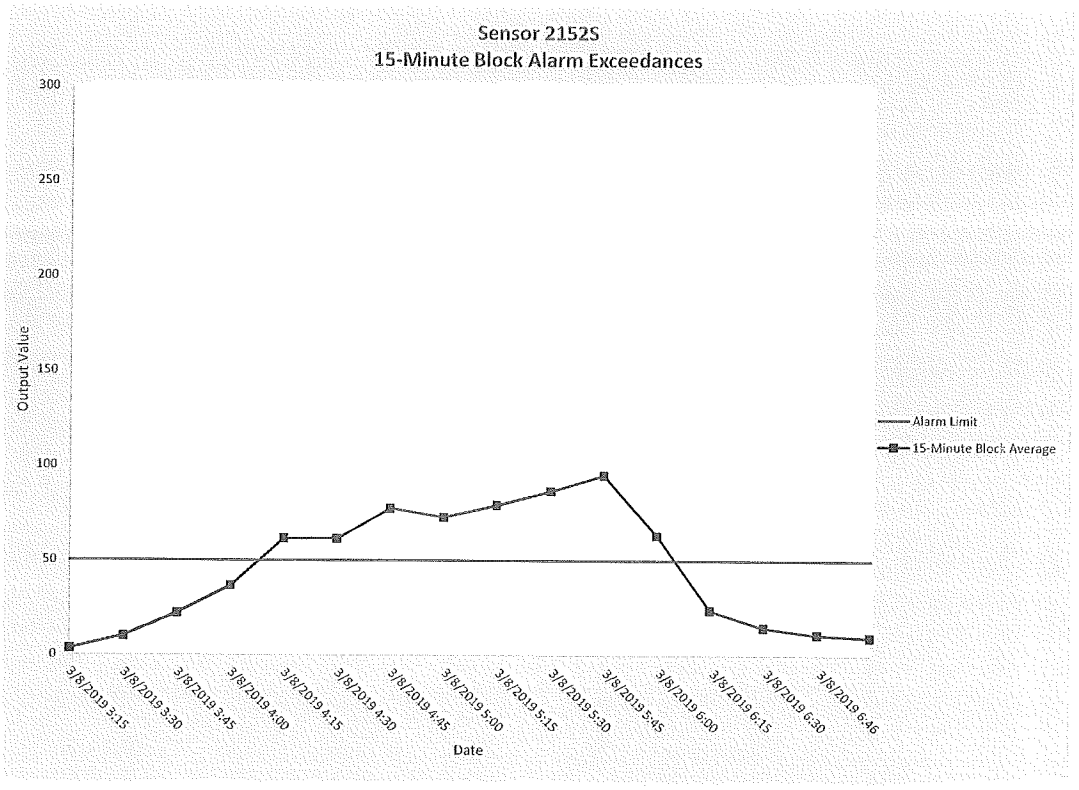

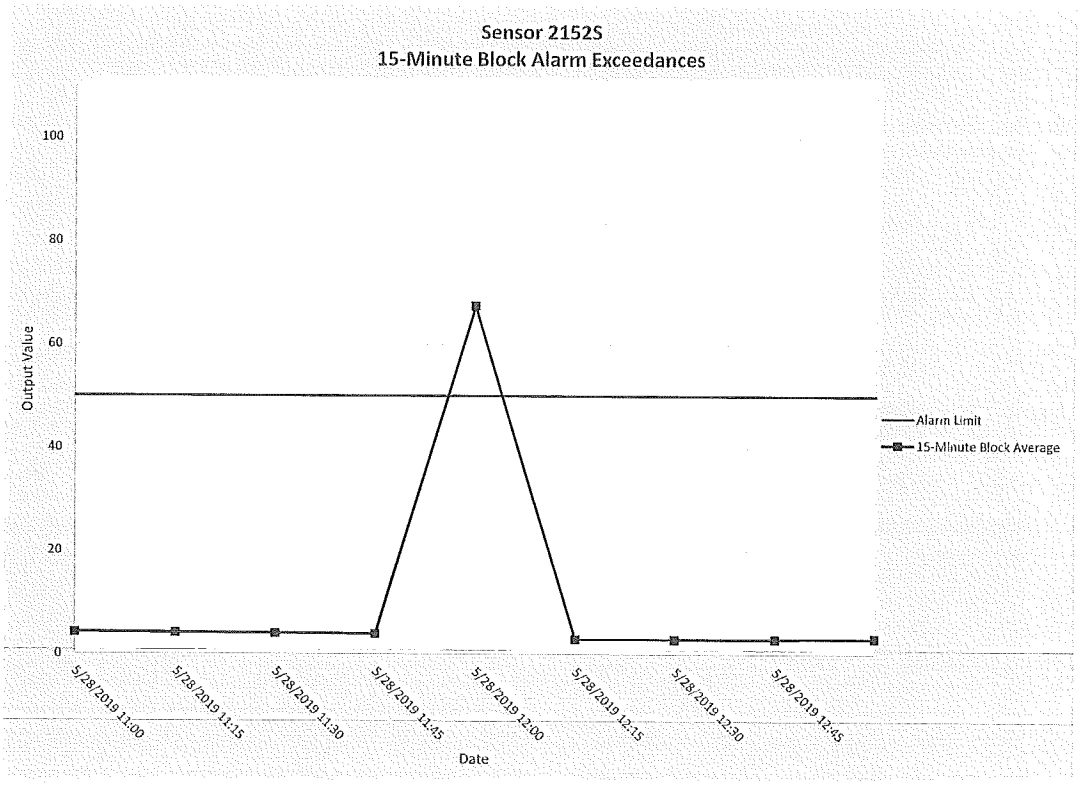

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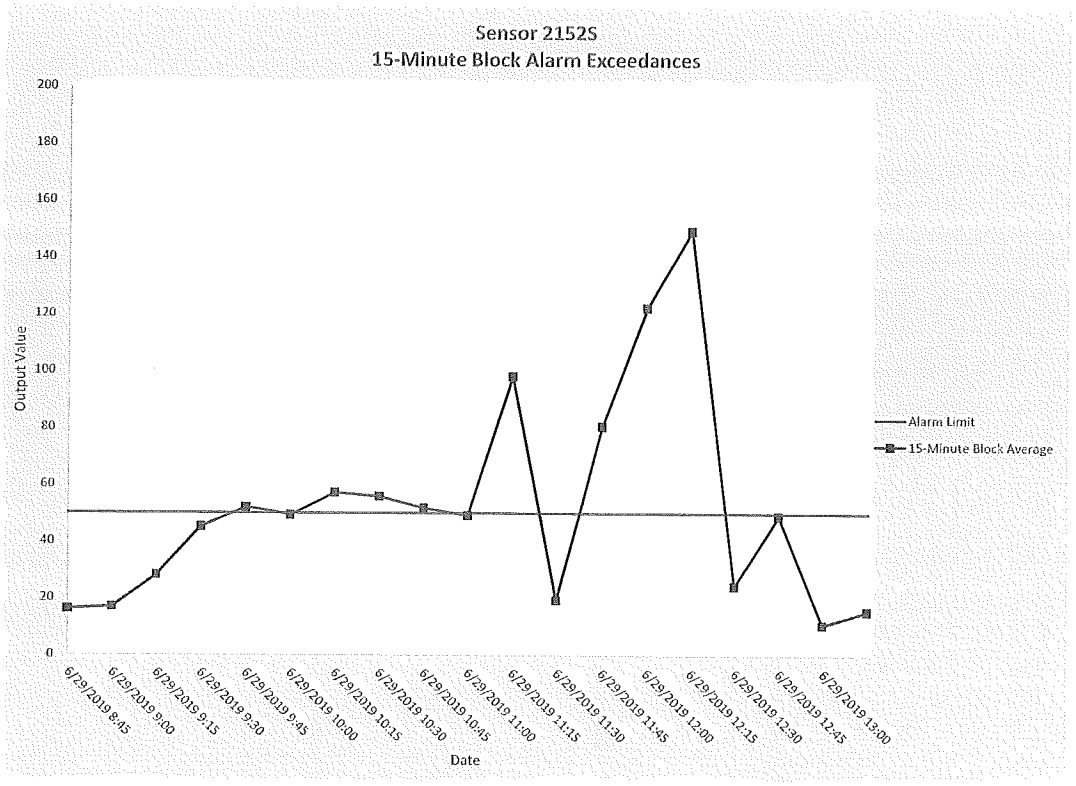

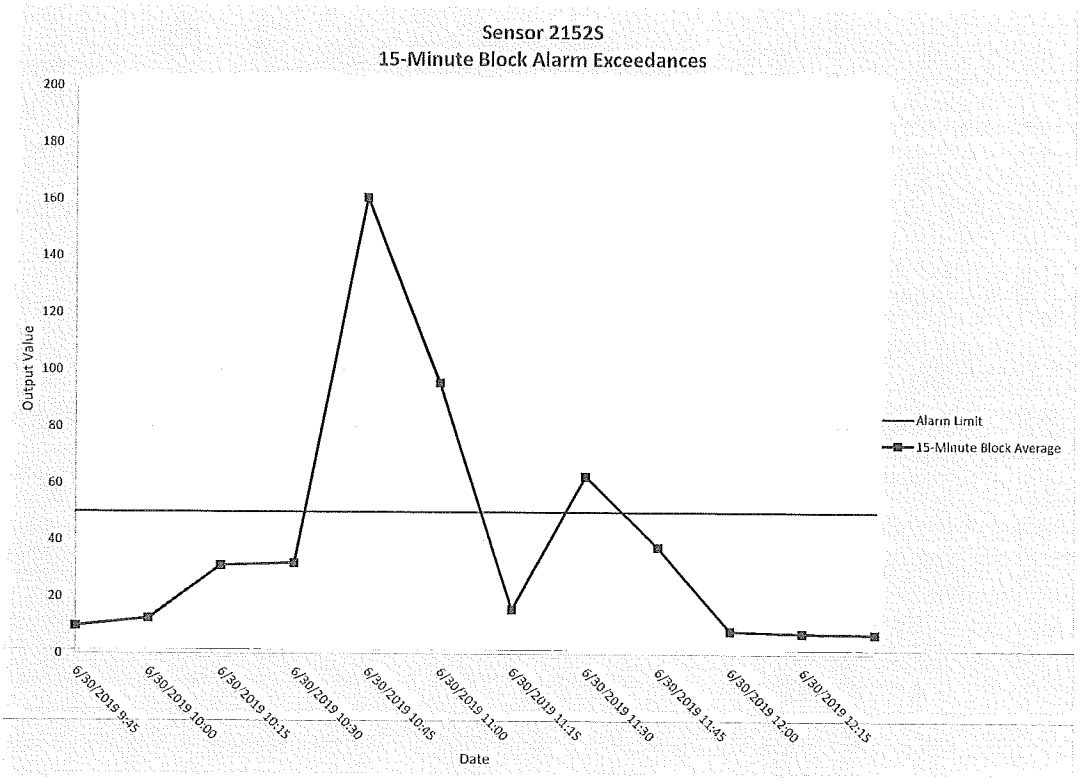

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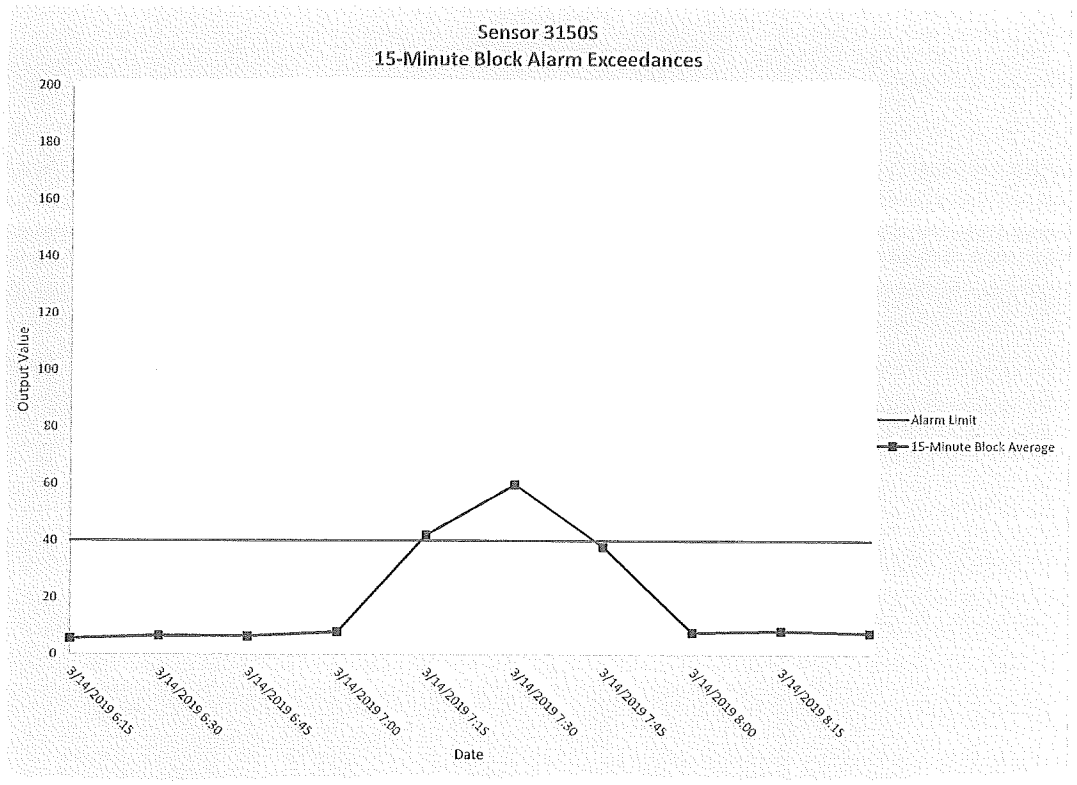

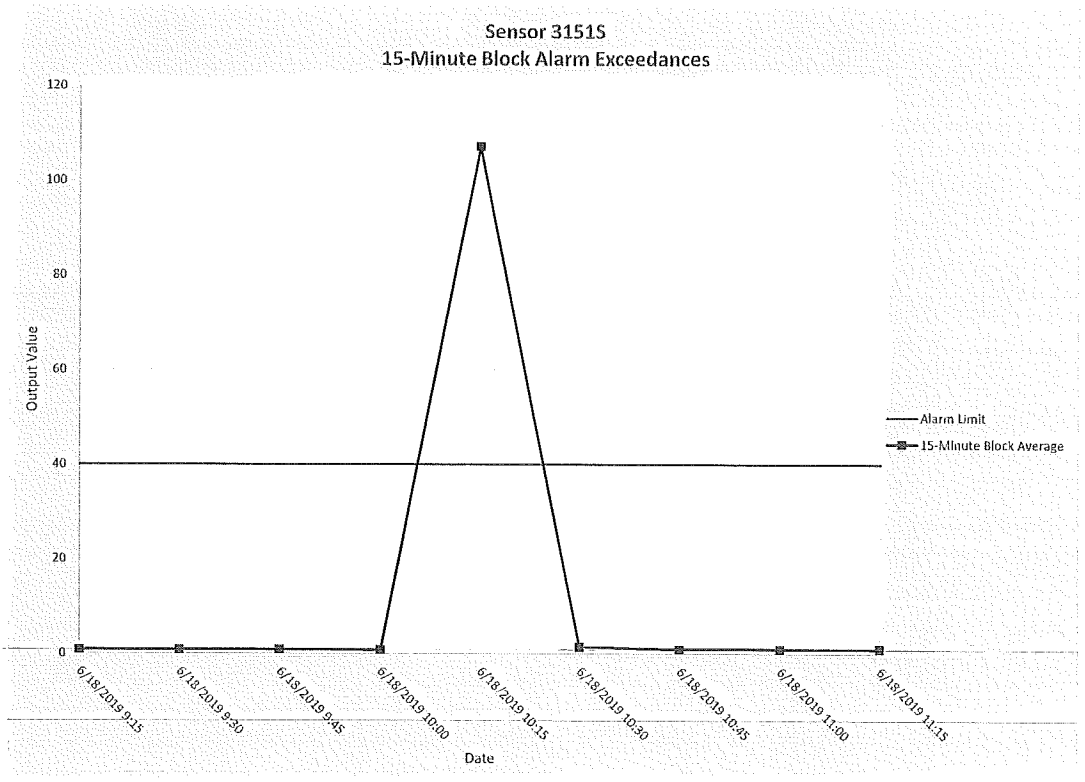

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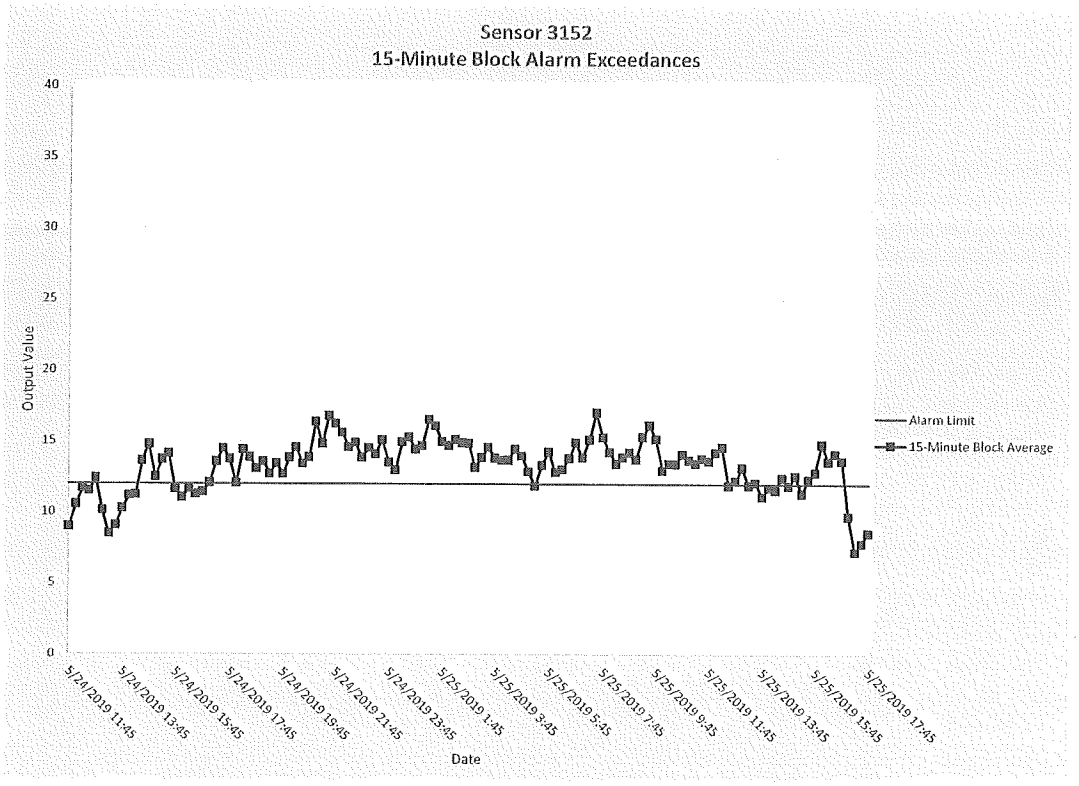

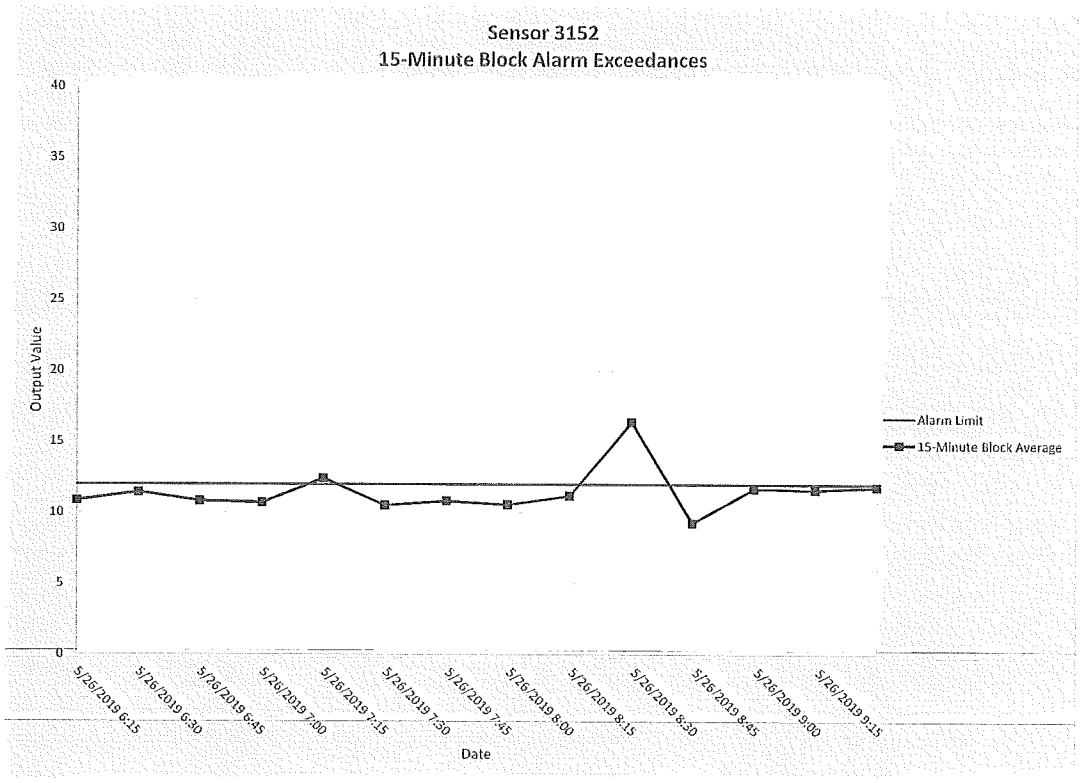

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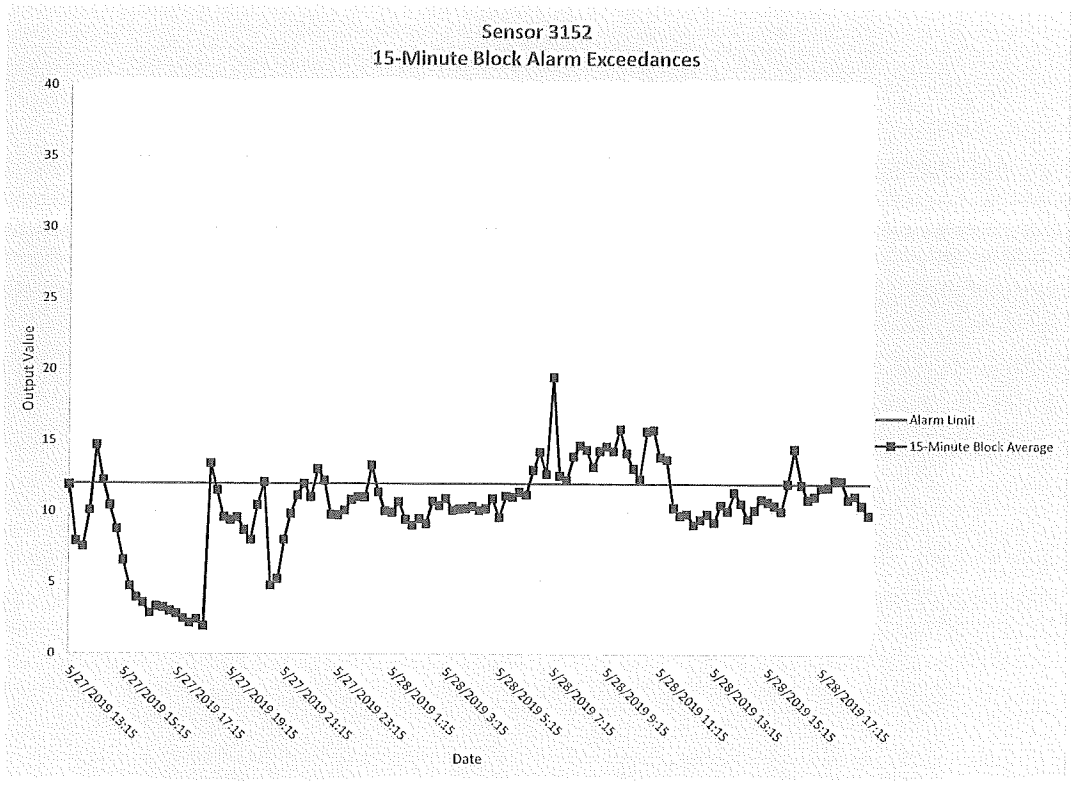

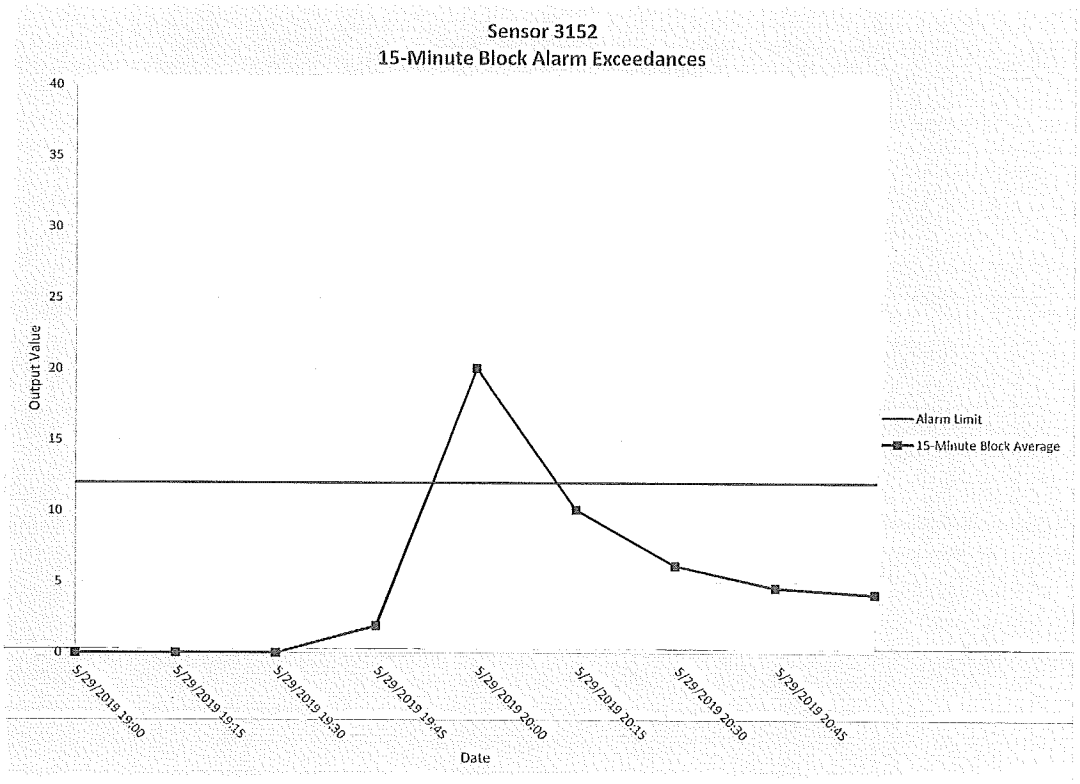

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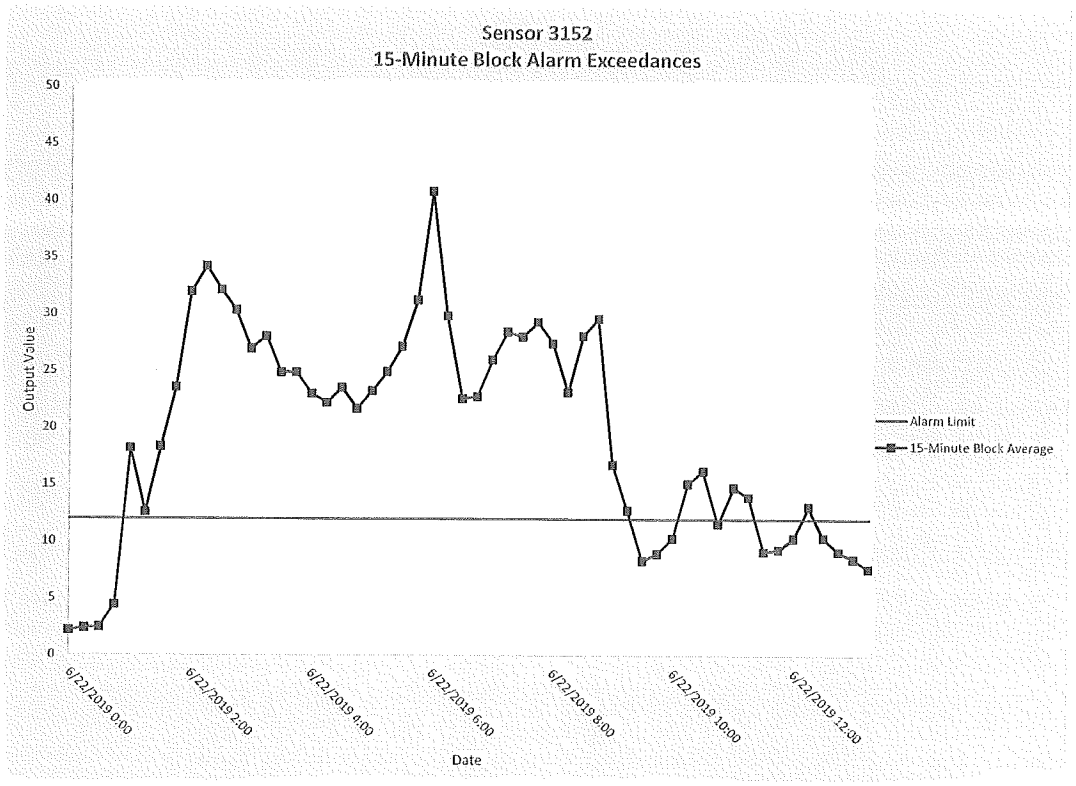

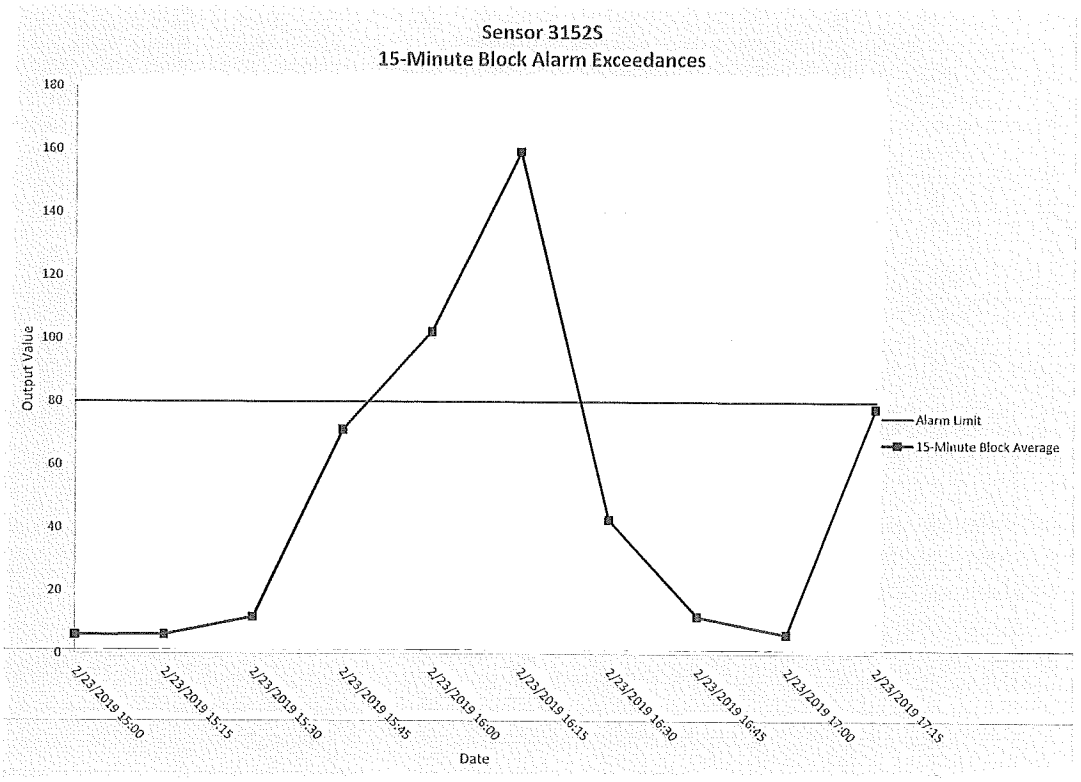

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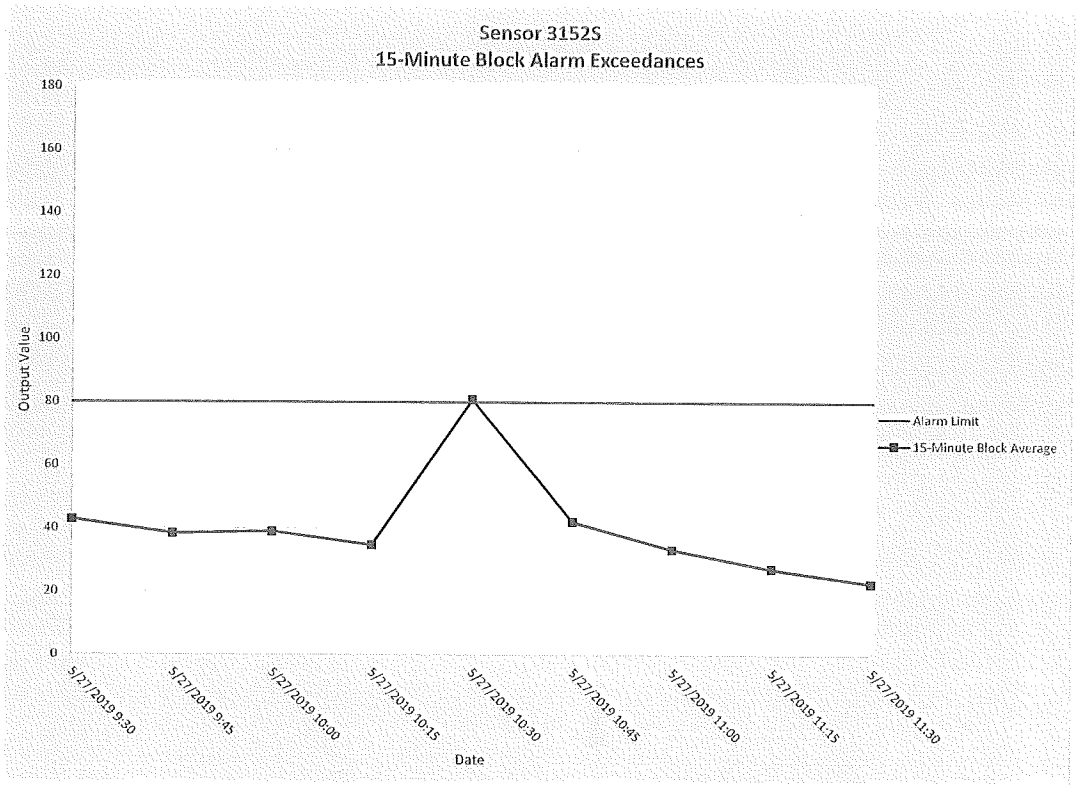

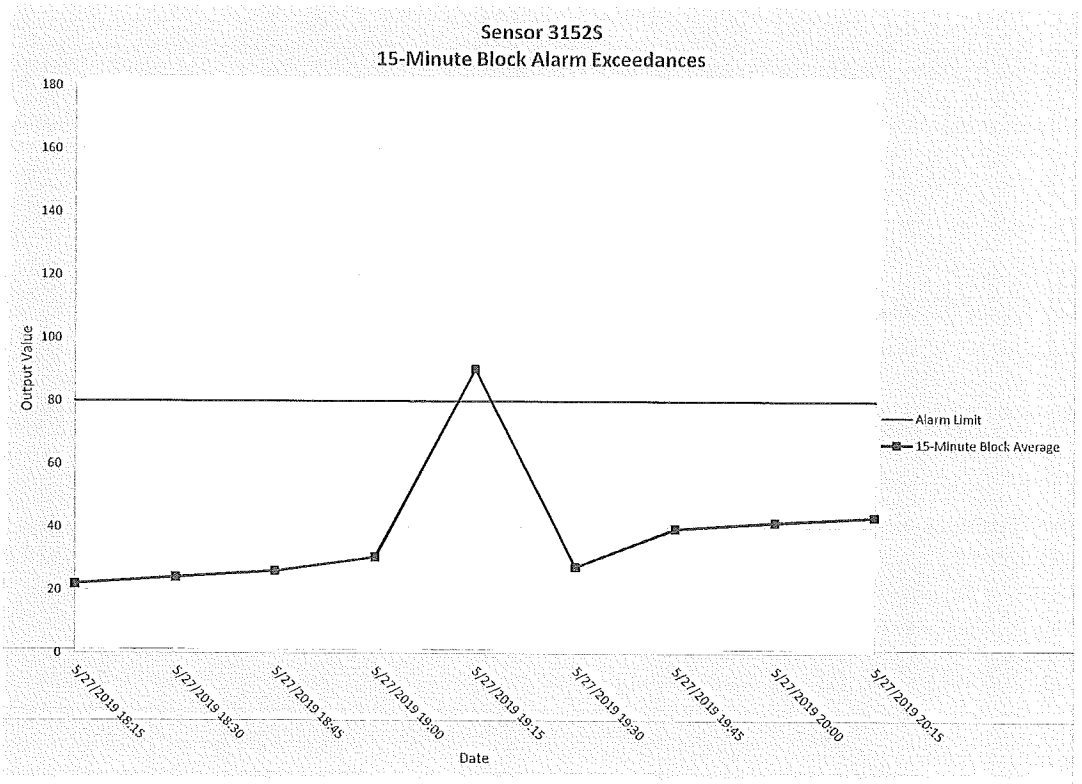

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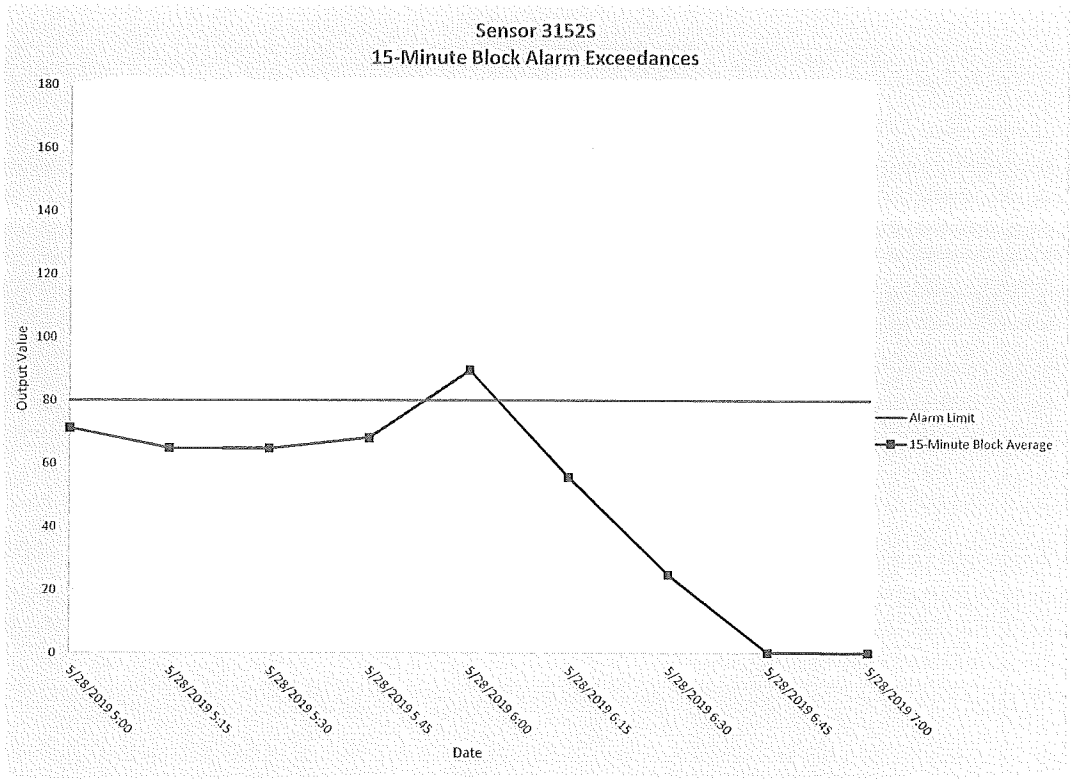

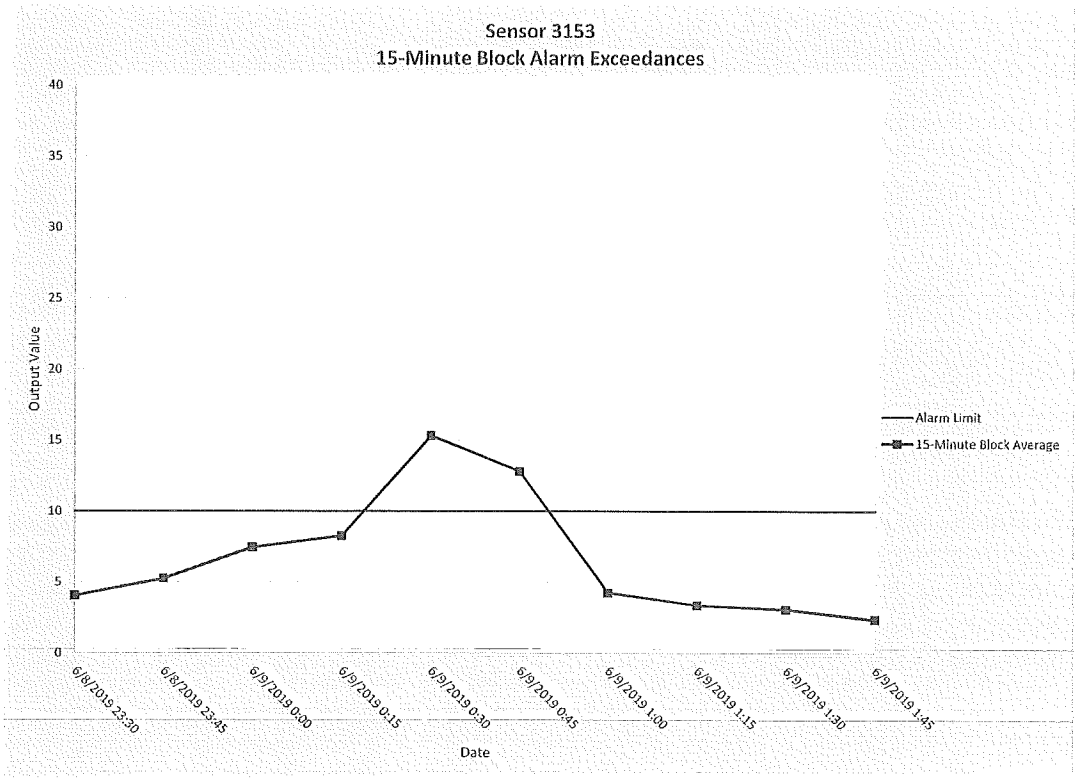

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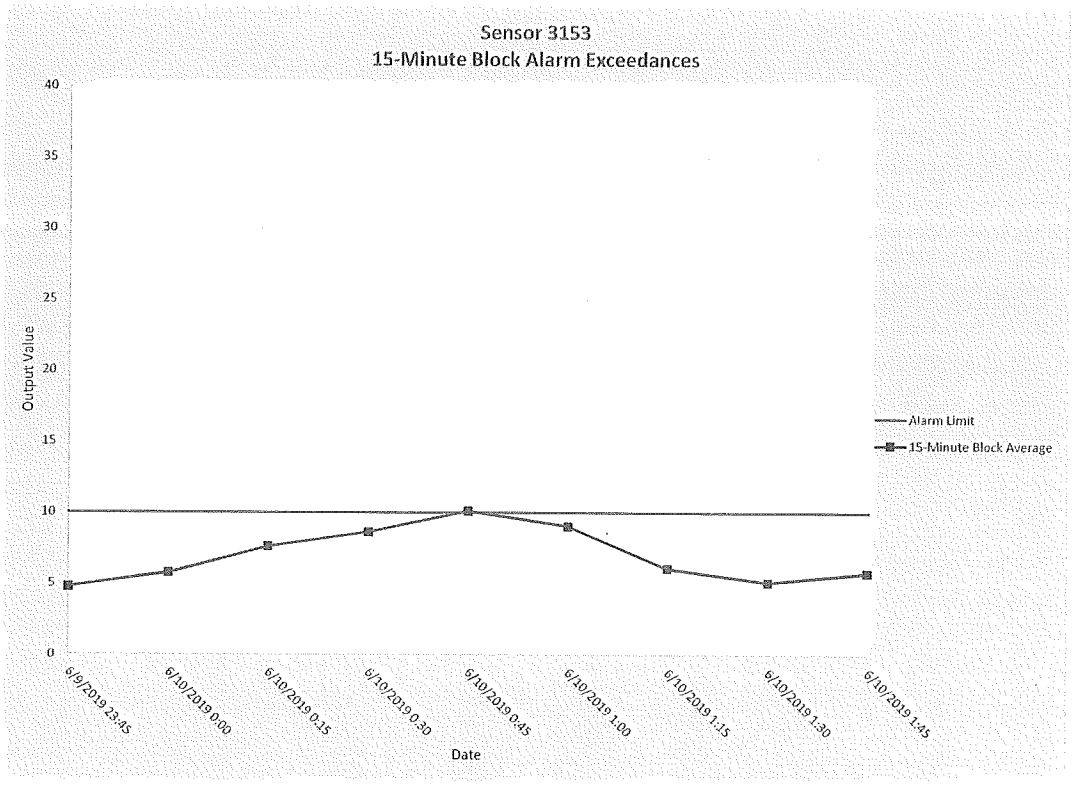

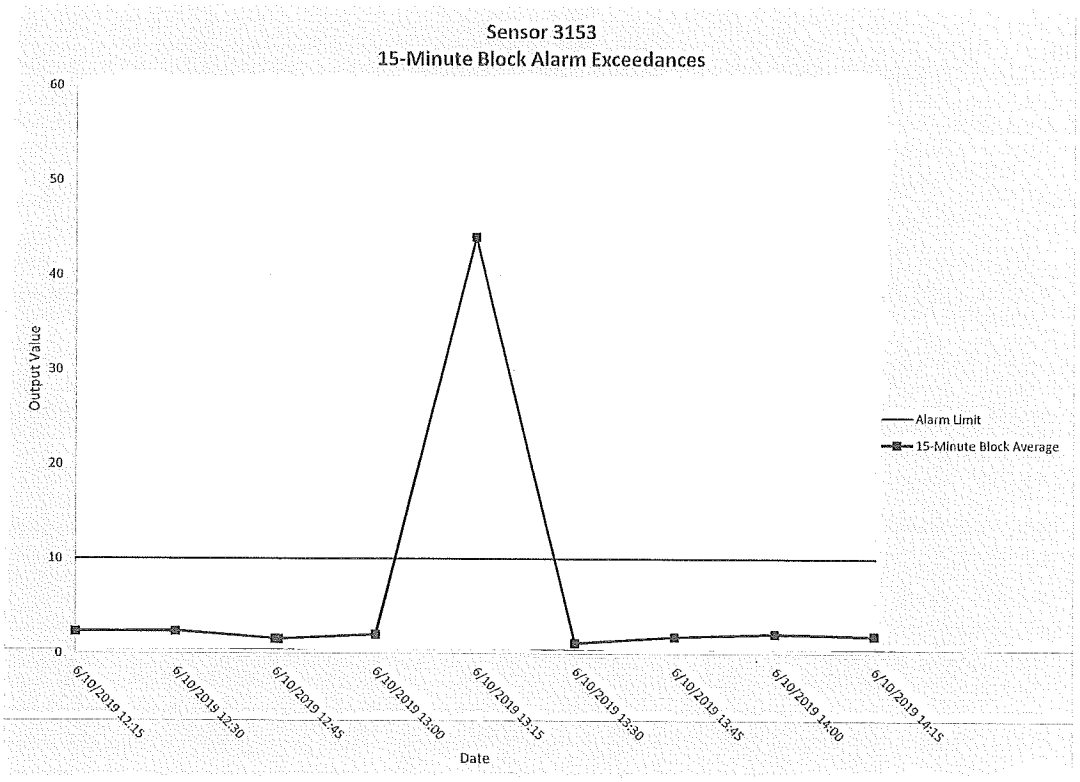

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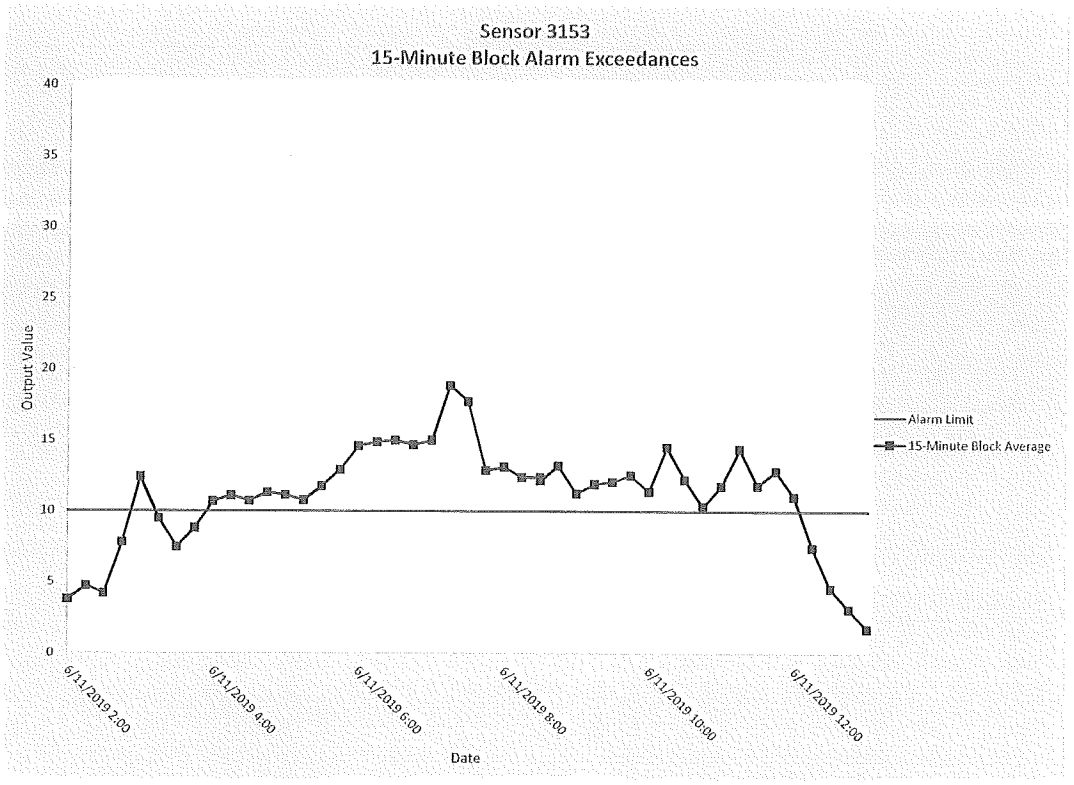

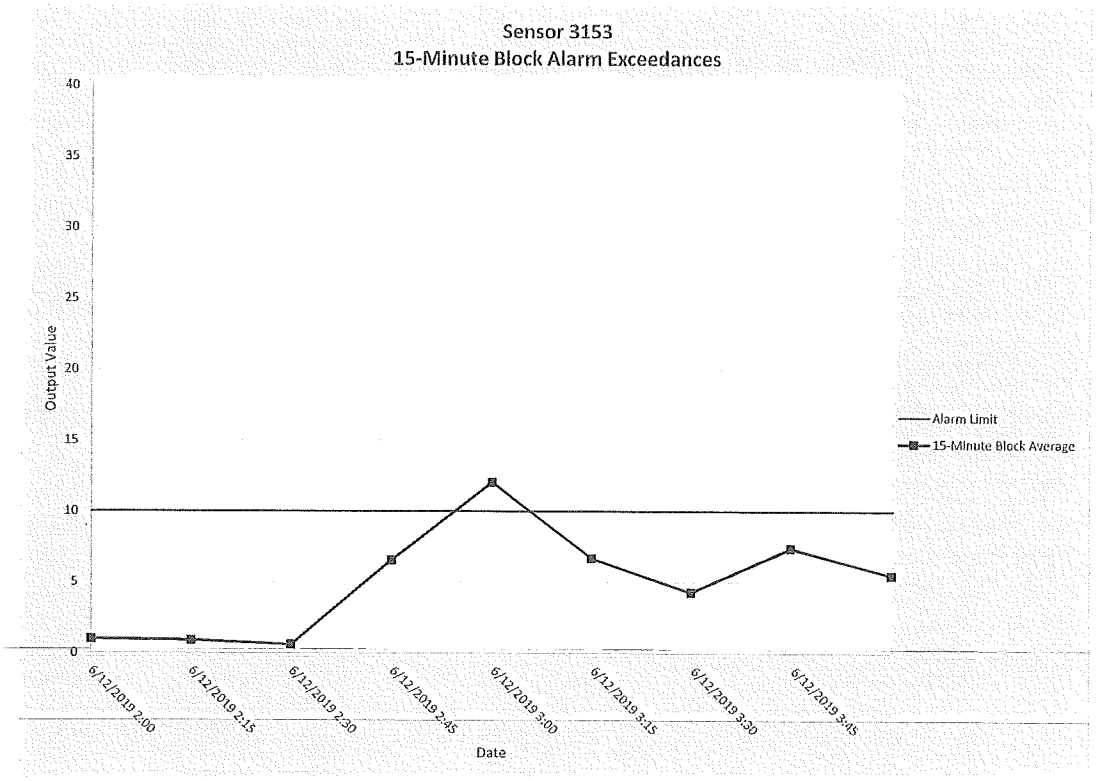

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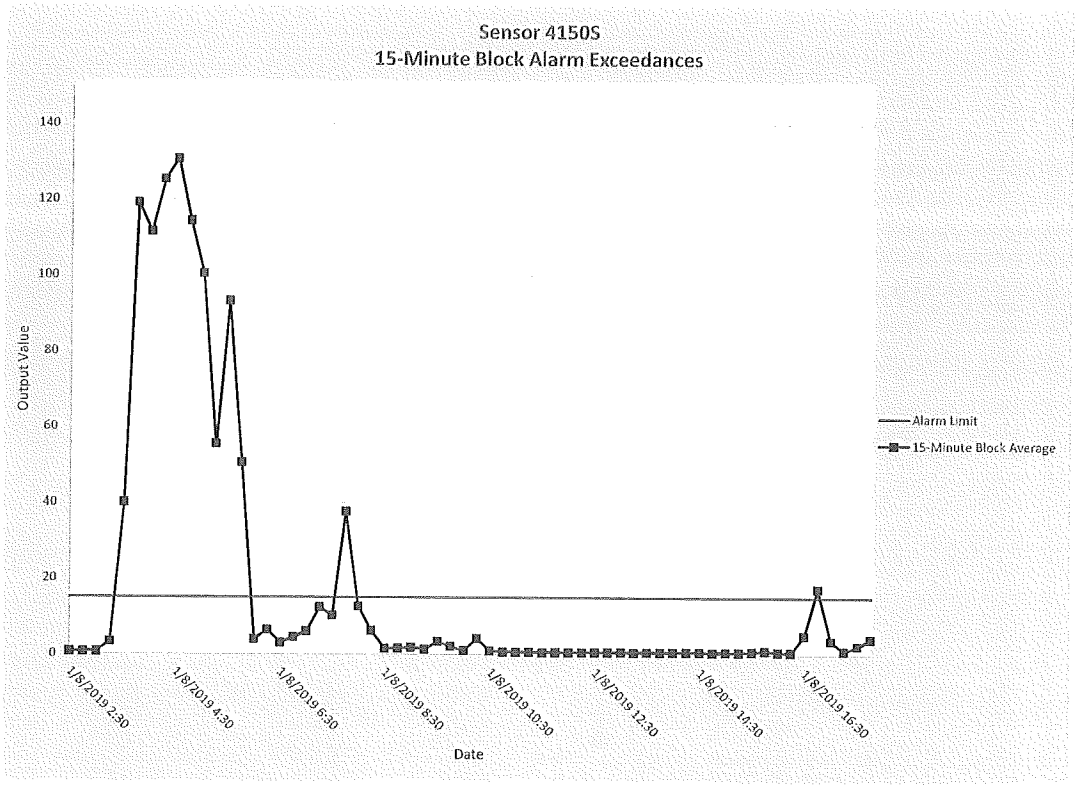

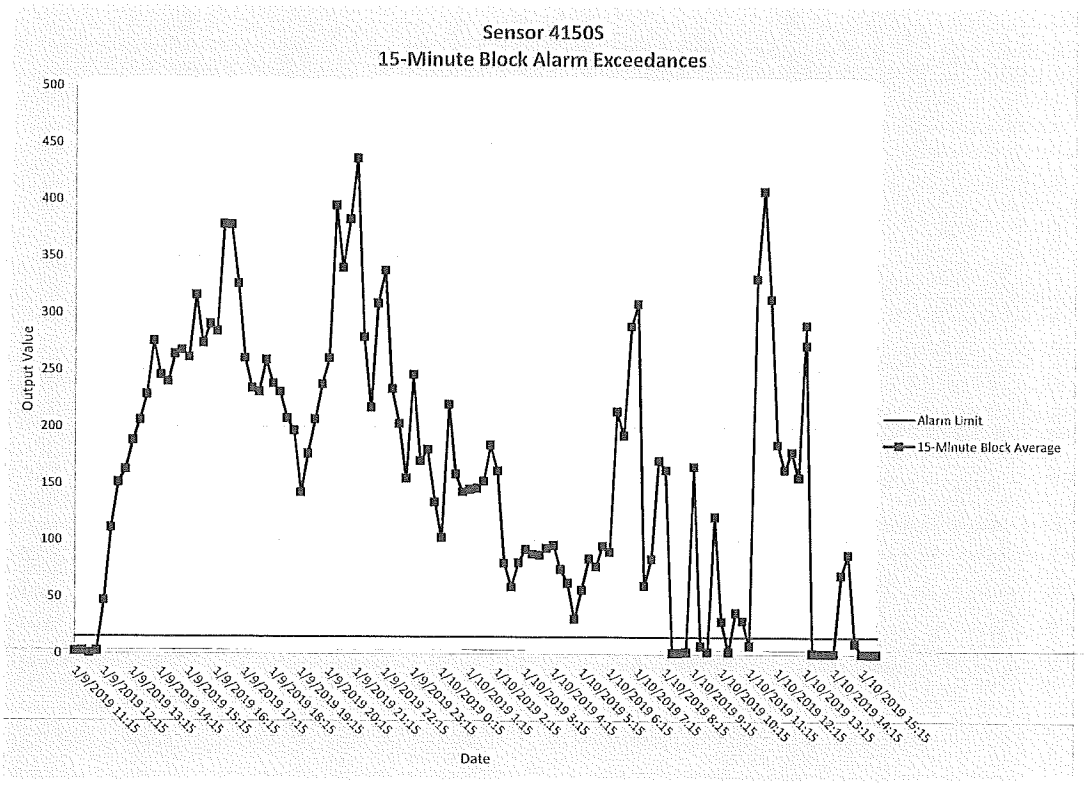

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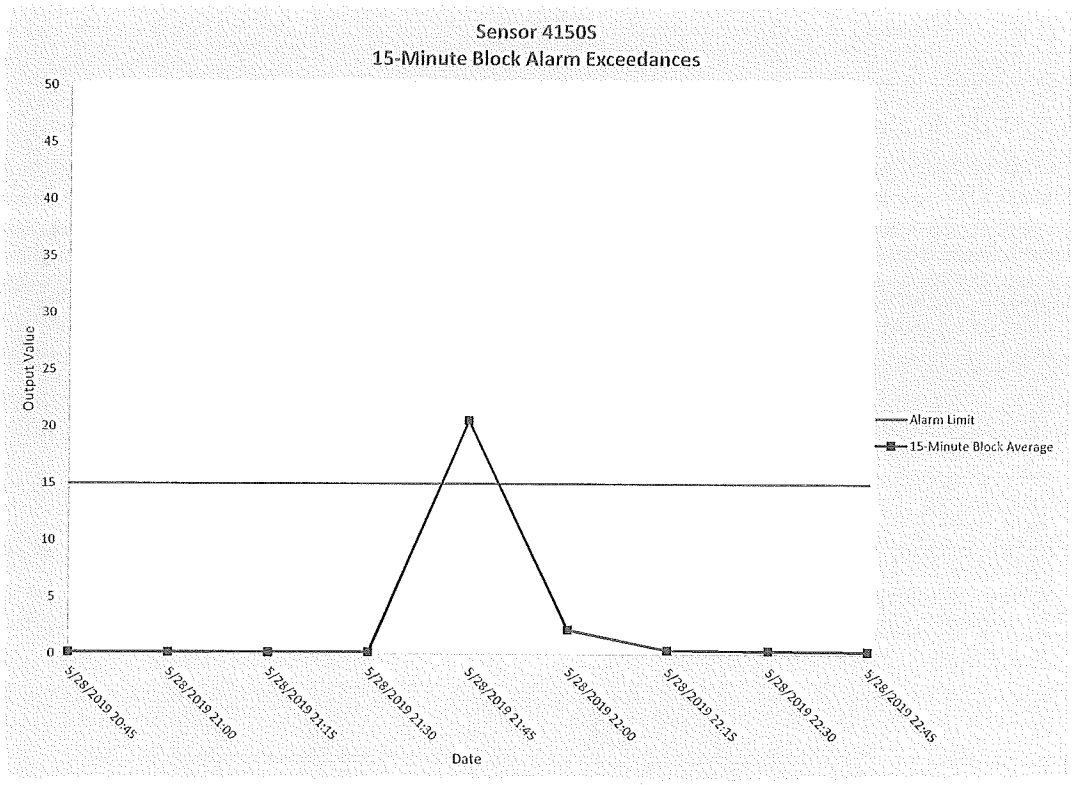

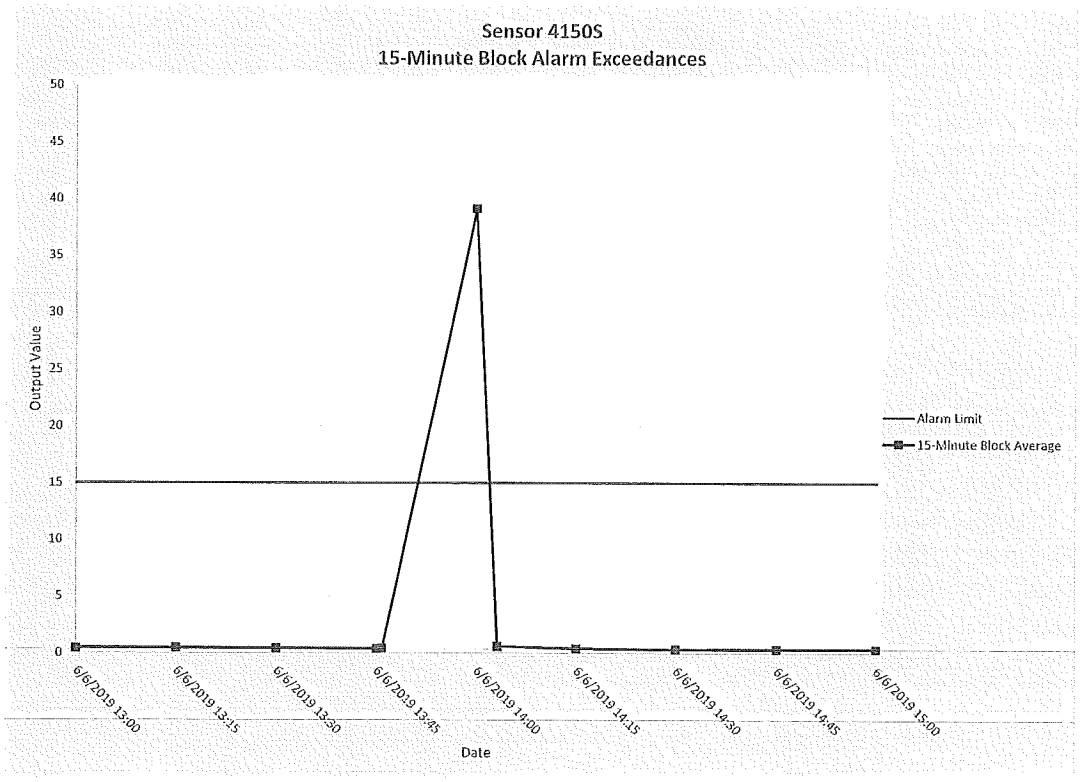

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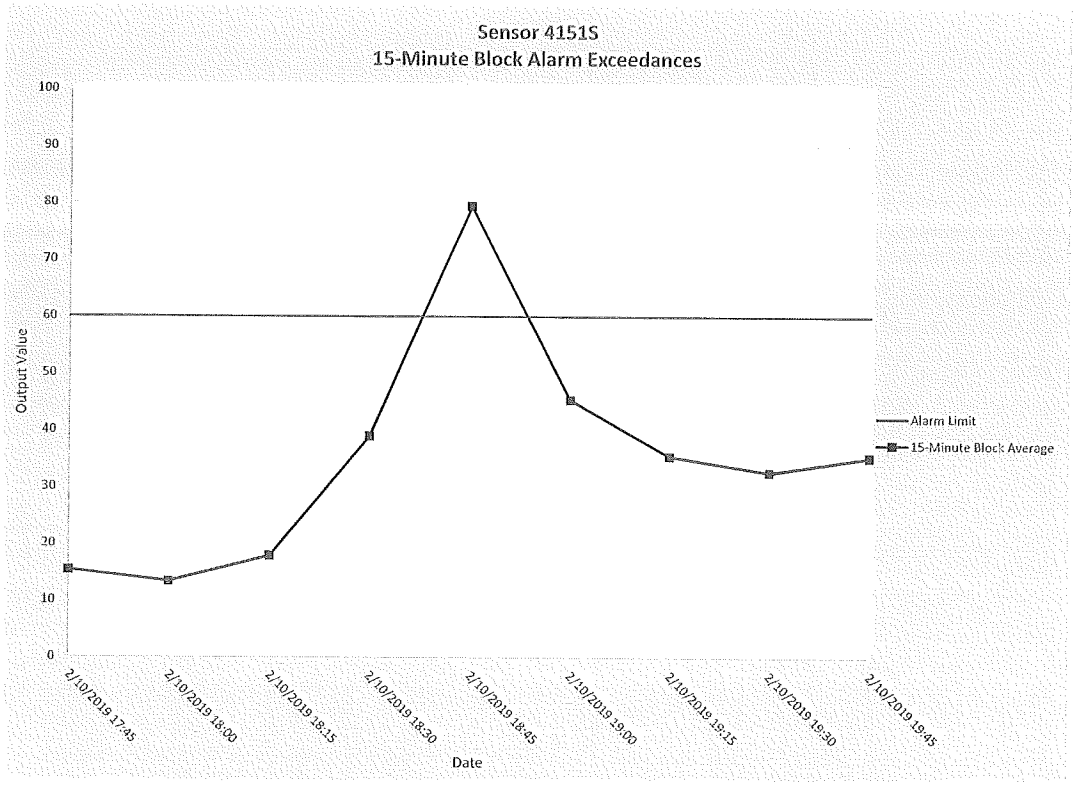

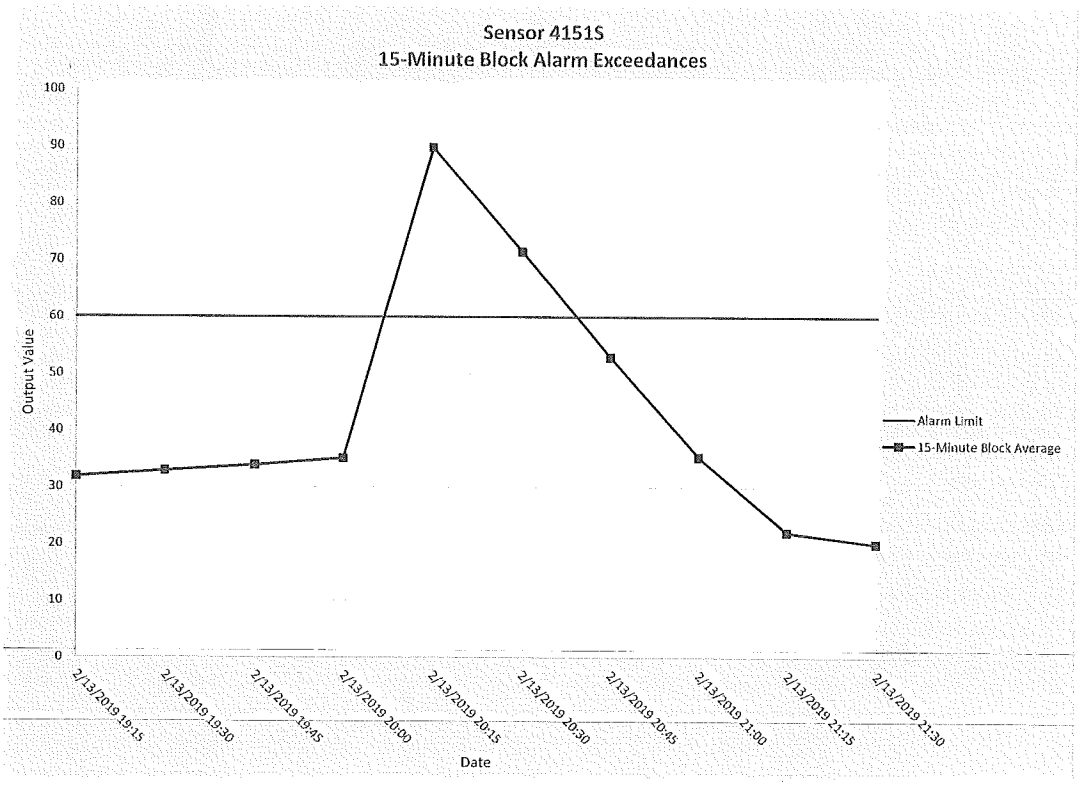

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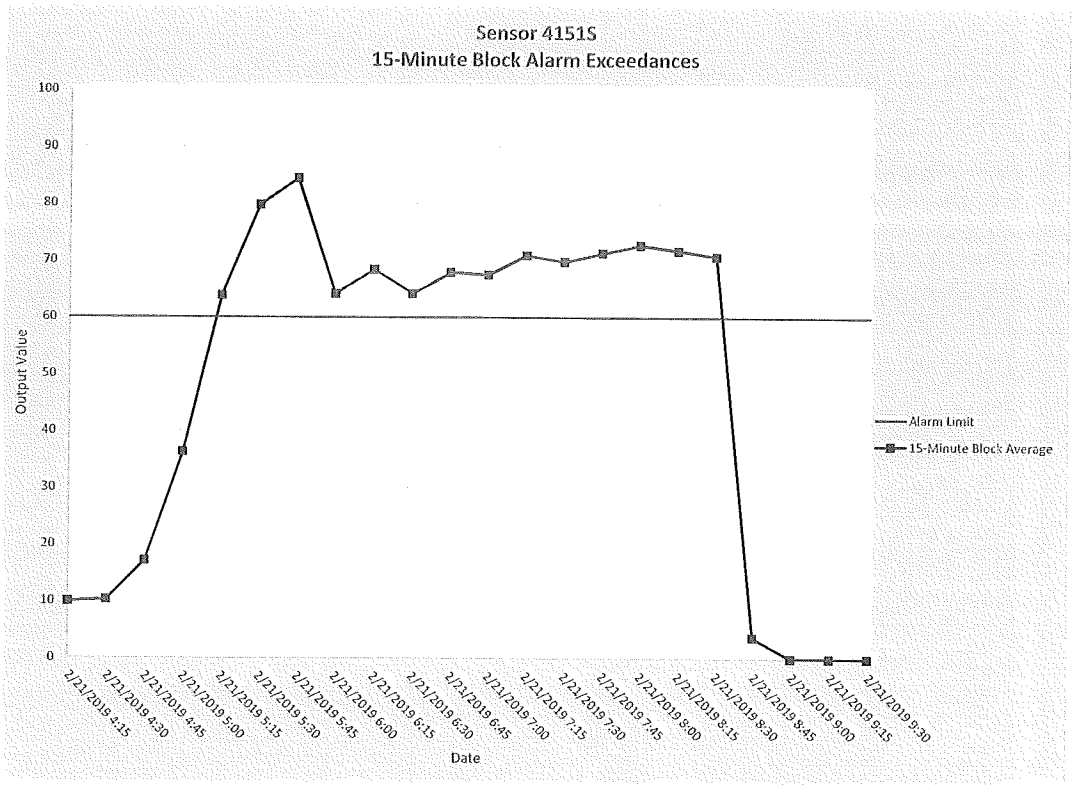
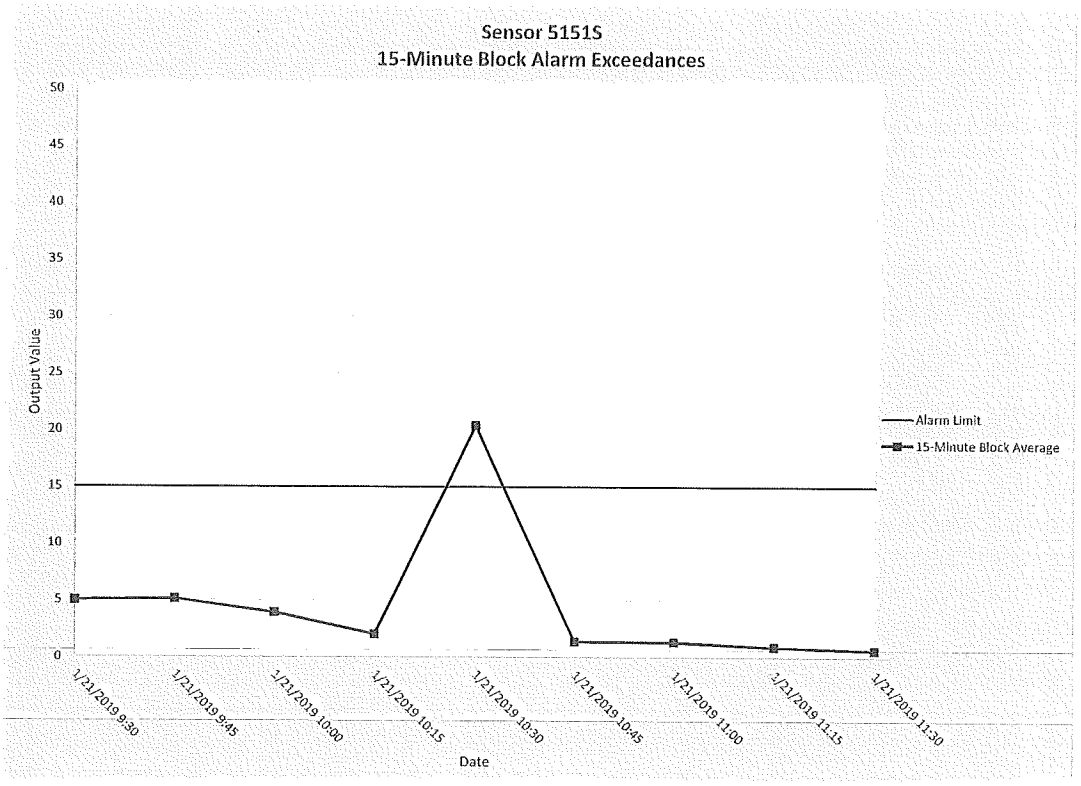
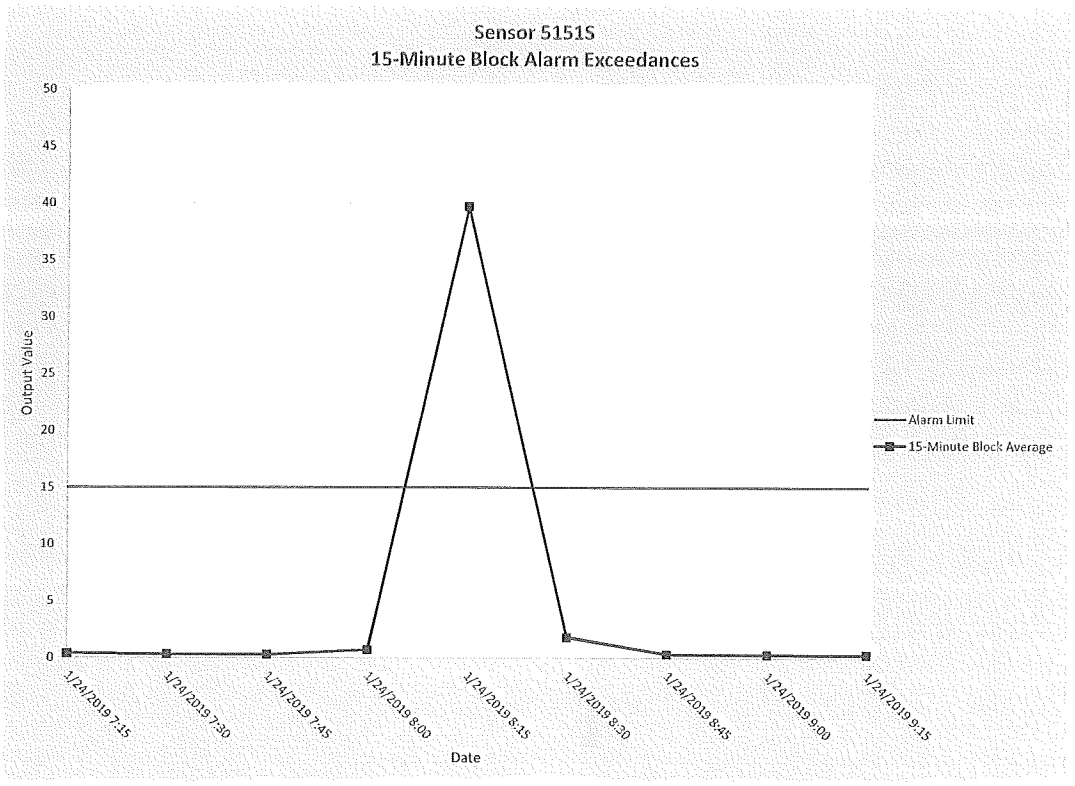
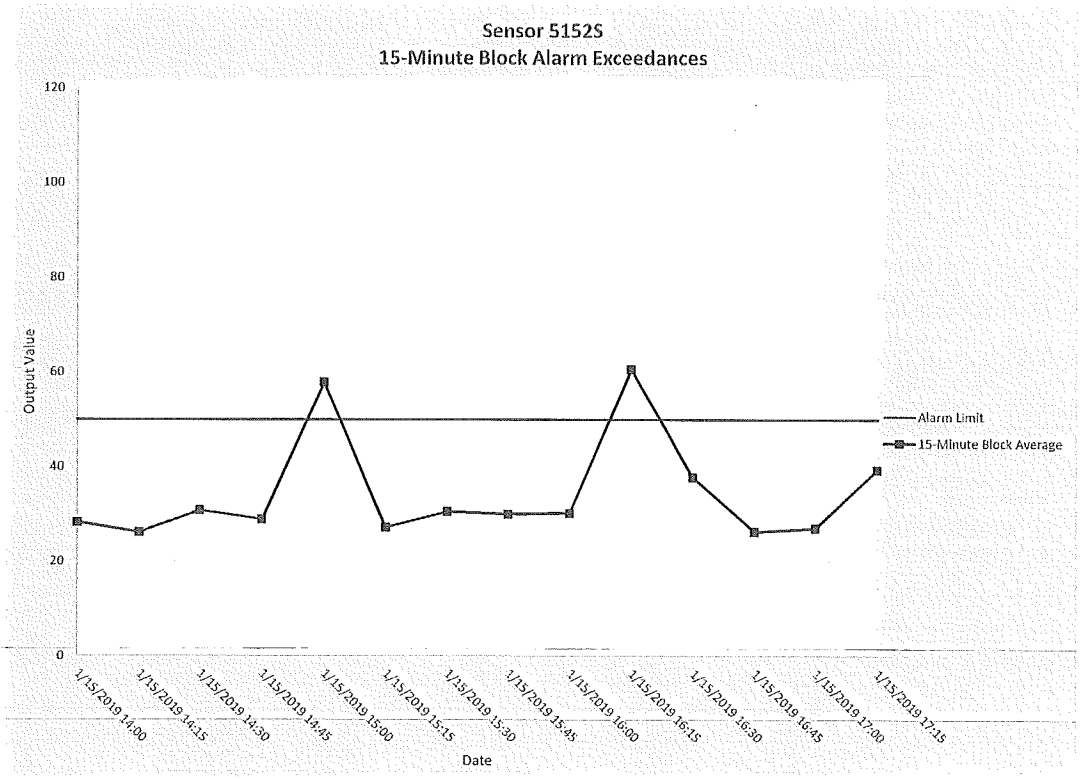
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



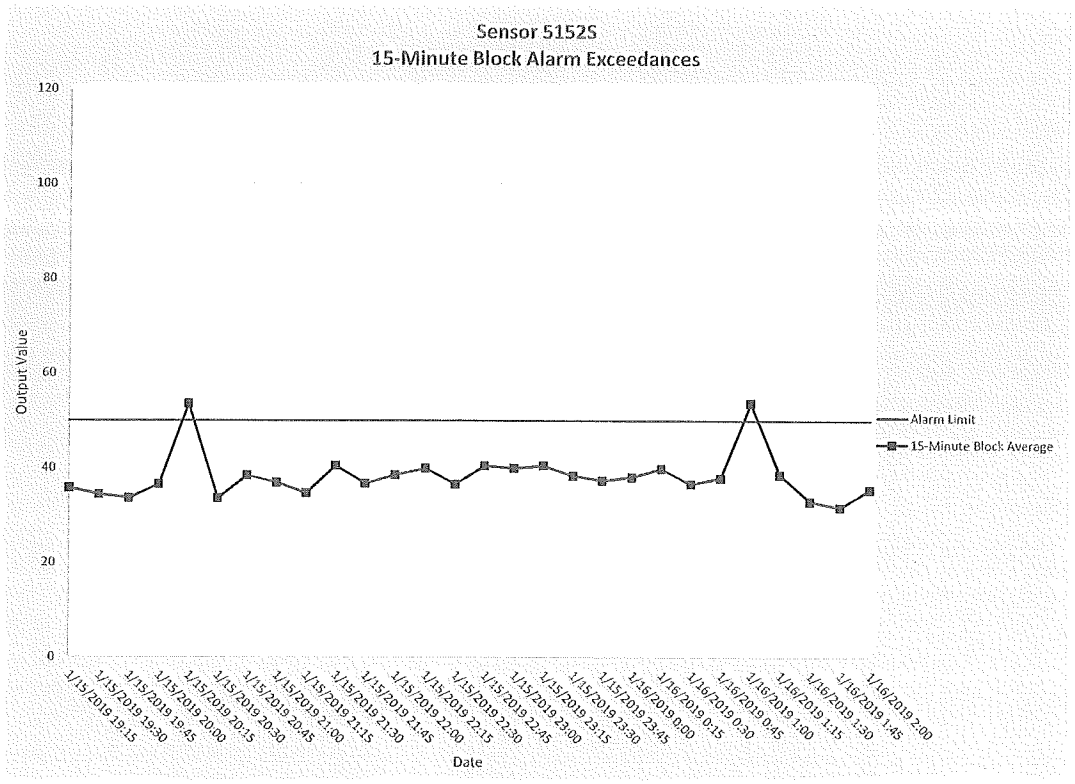


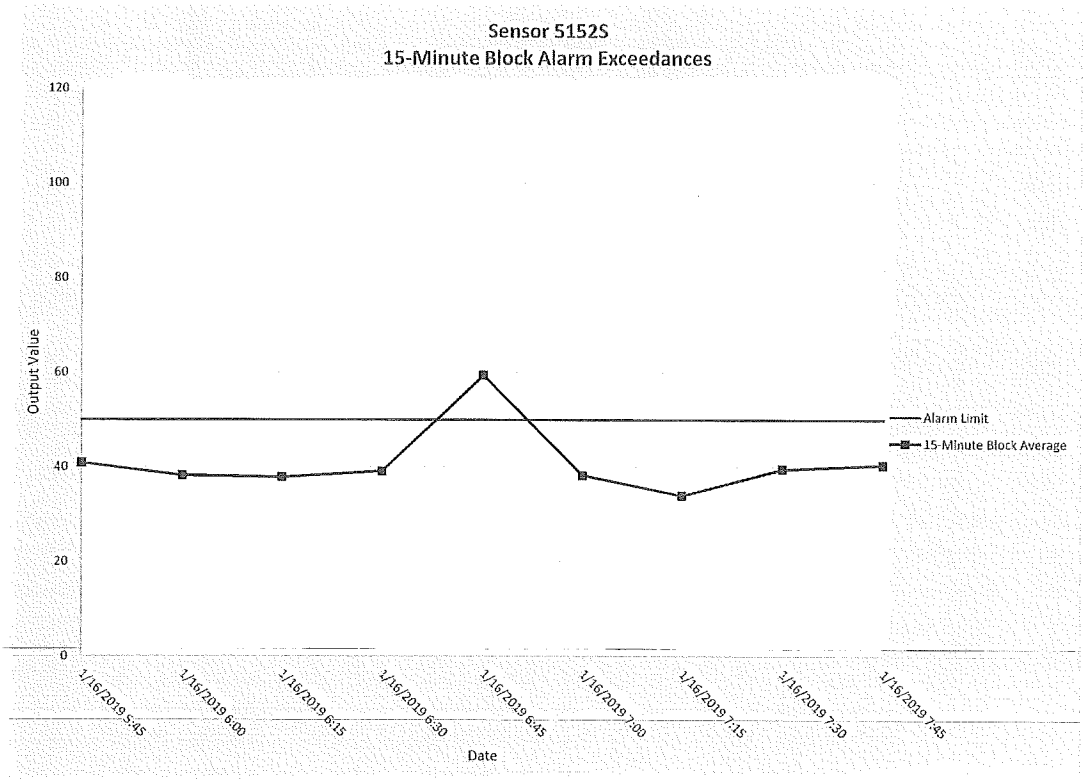
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



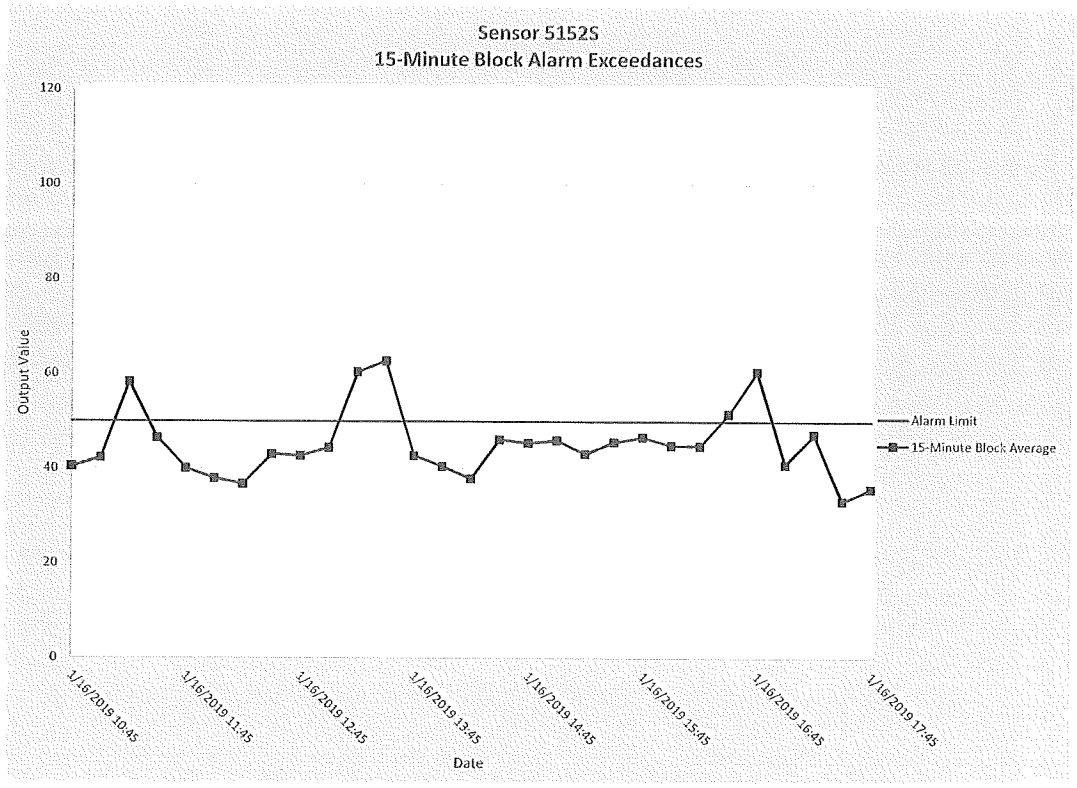


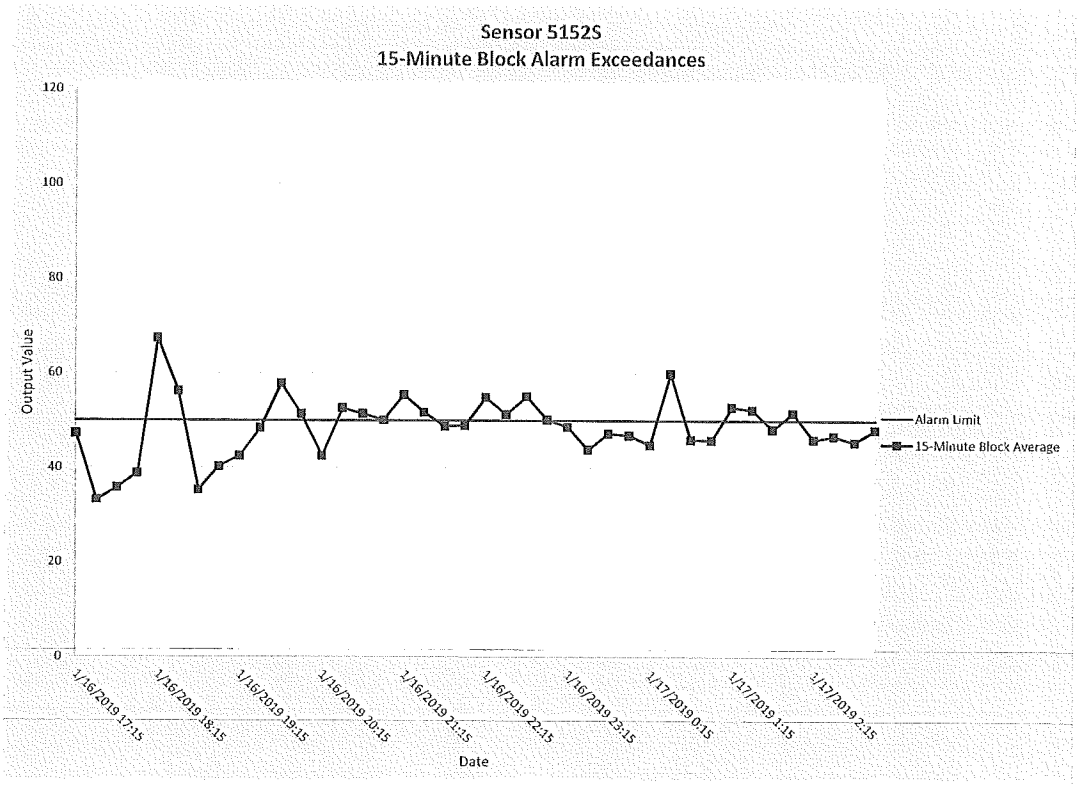
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



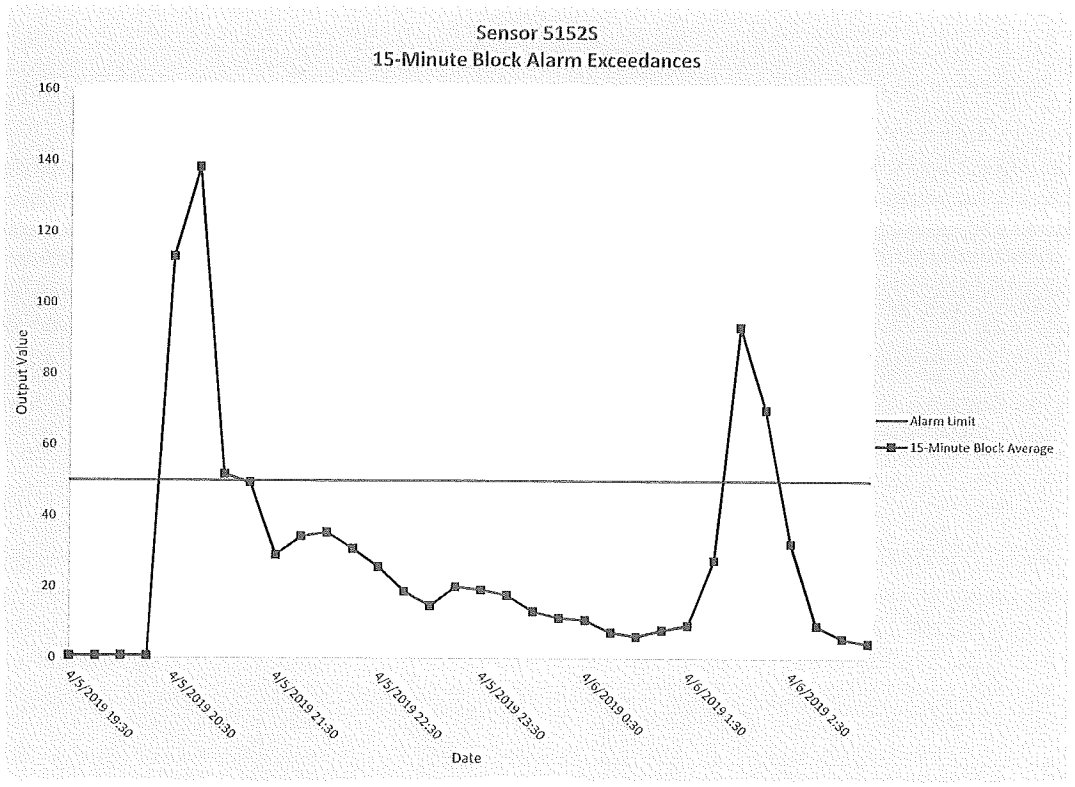


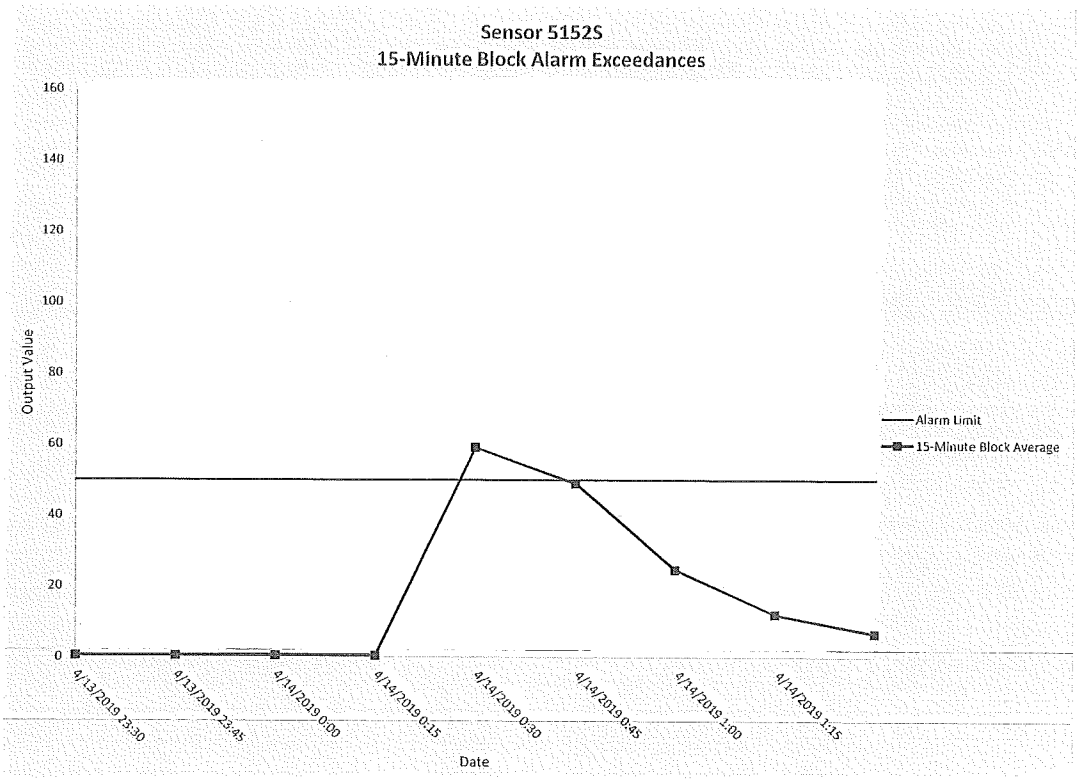
Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





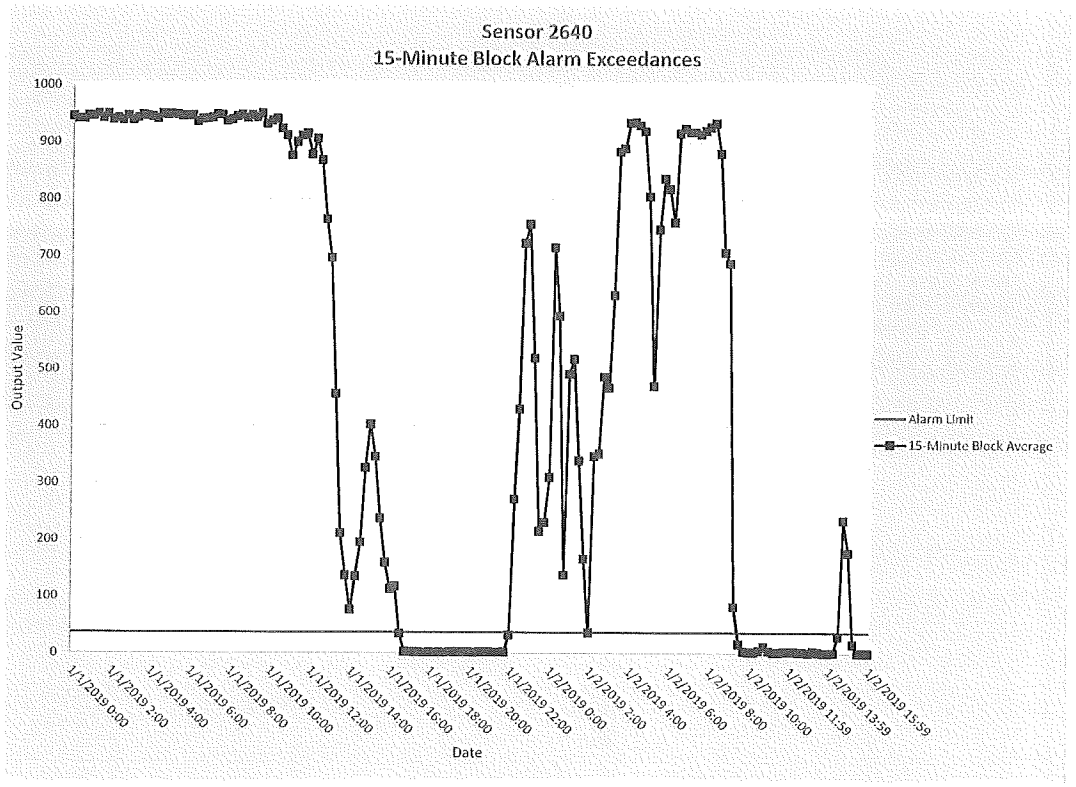
Birla Carbon

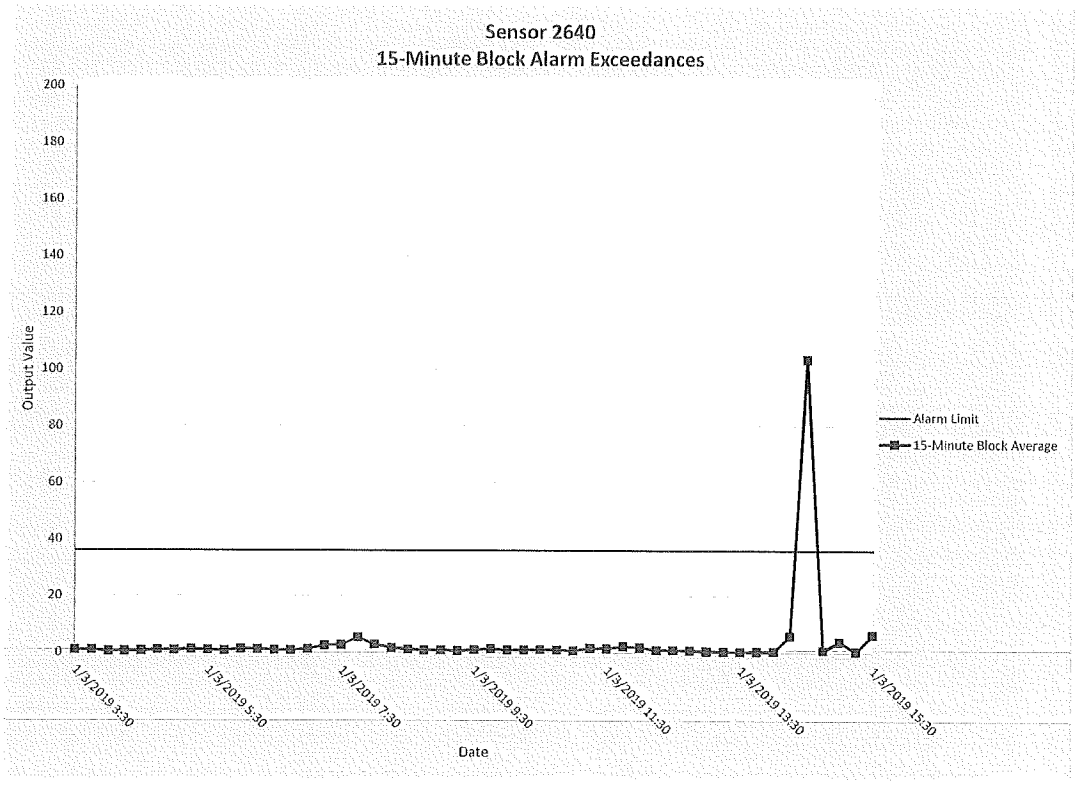
Hickok Plant

Particulate Matter Early Warning System Alarm Action Level Exceedances For 1/1/2019 – 6/30/2019

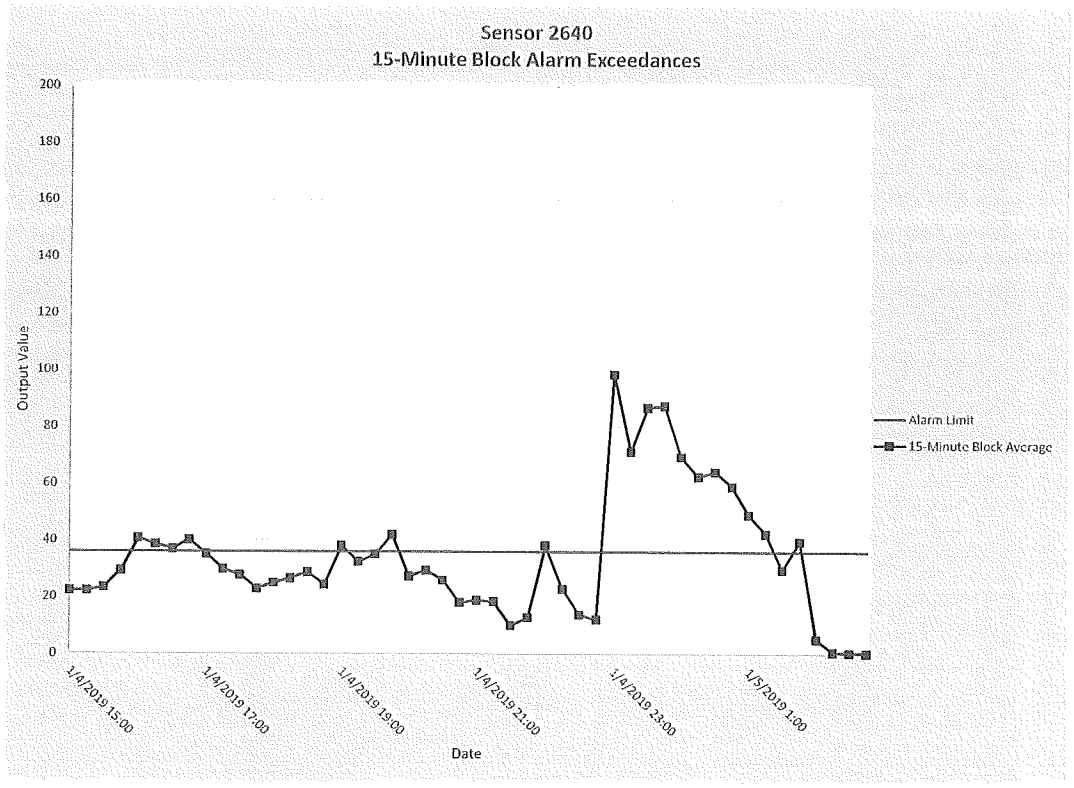
Attachment 2

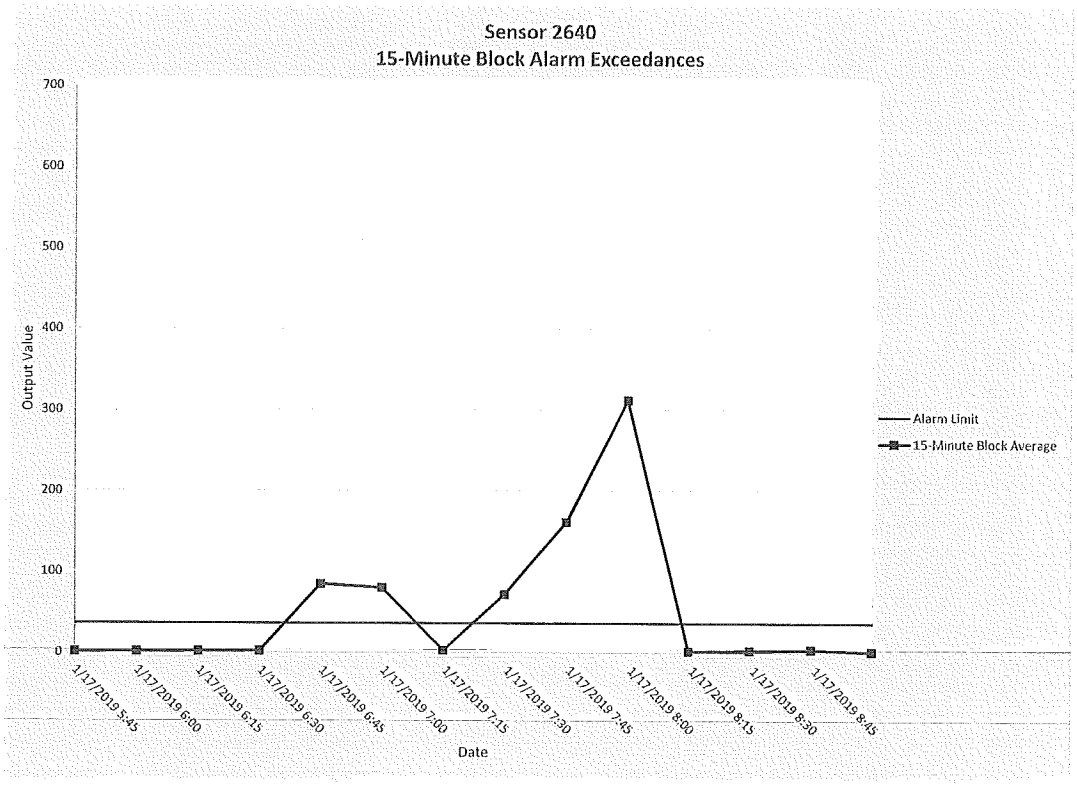
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



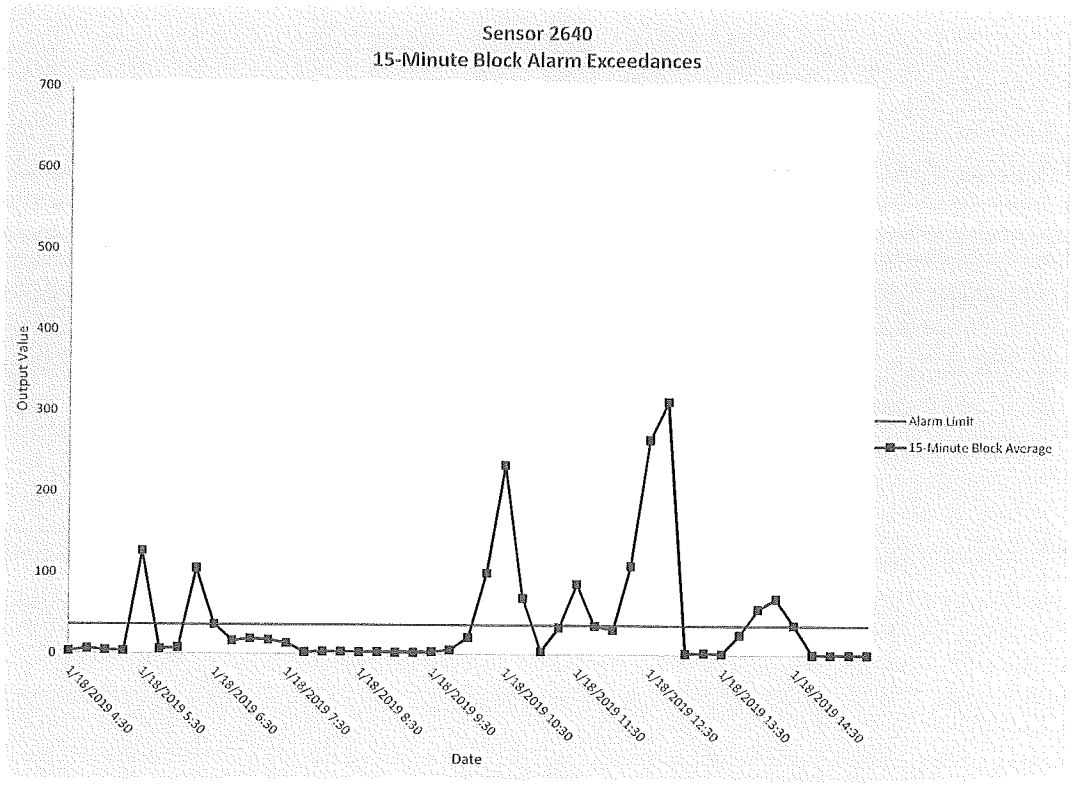


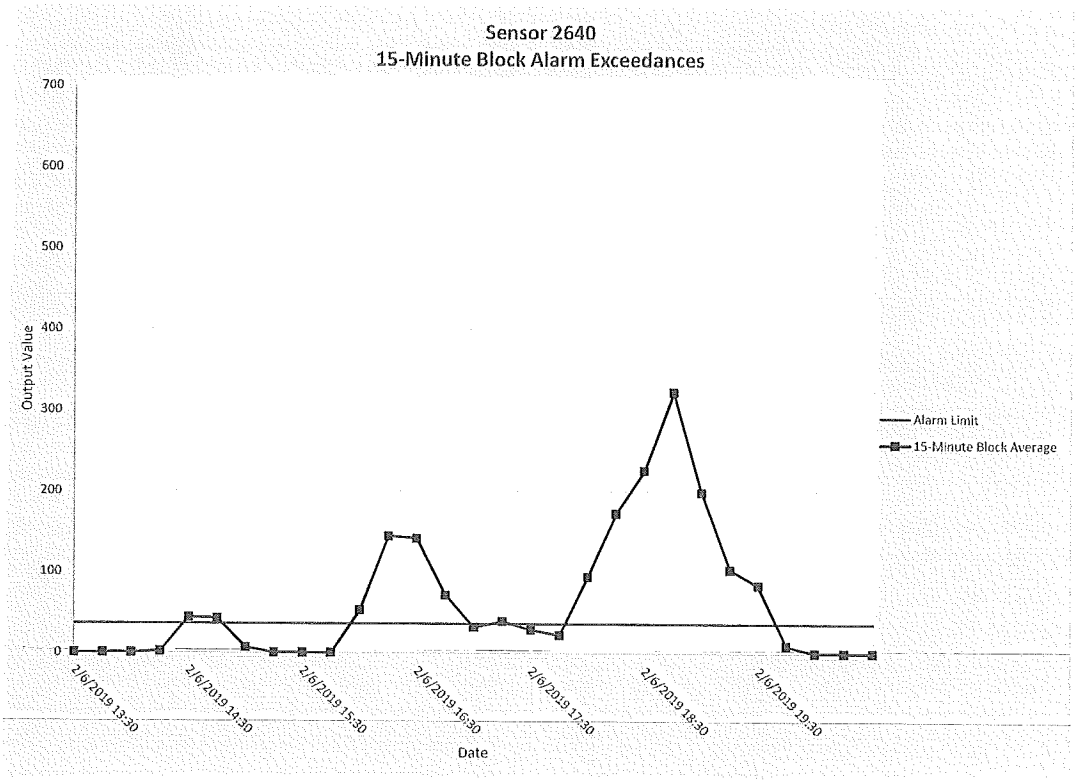
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



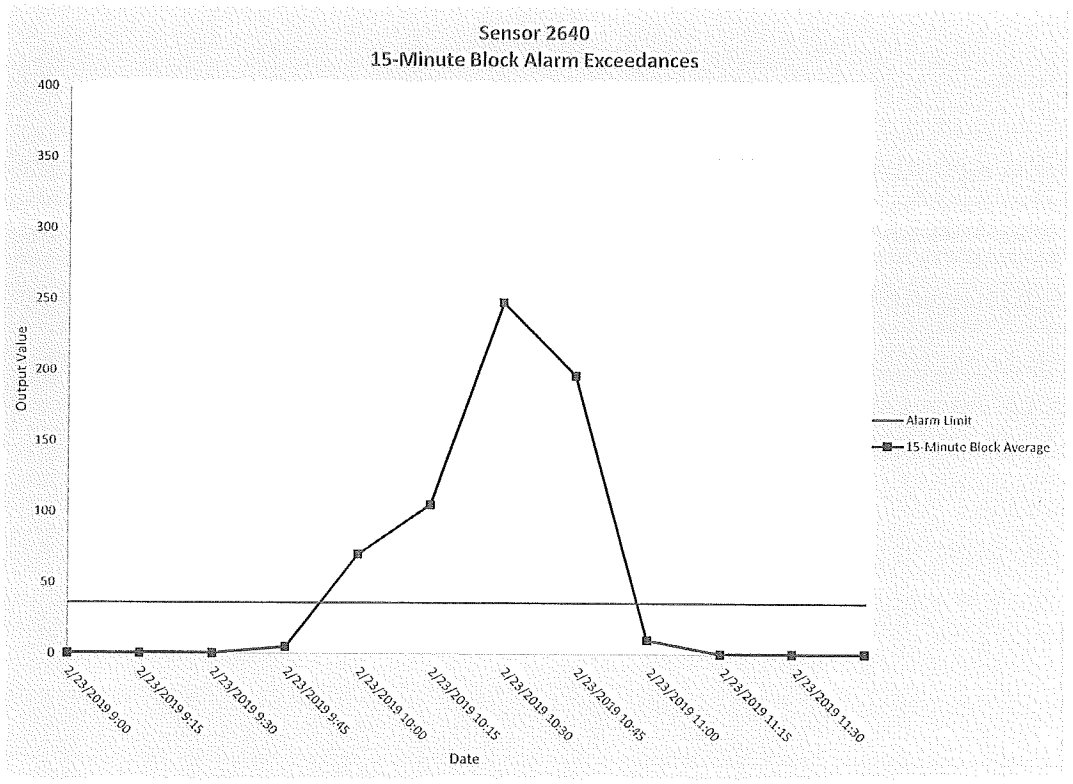


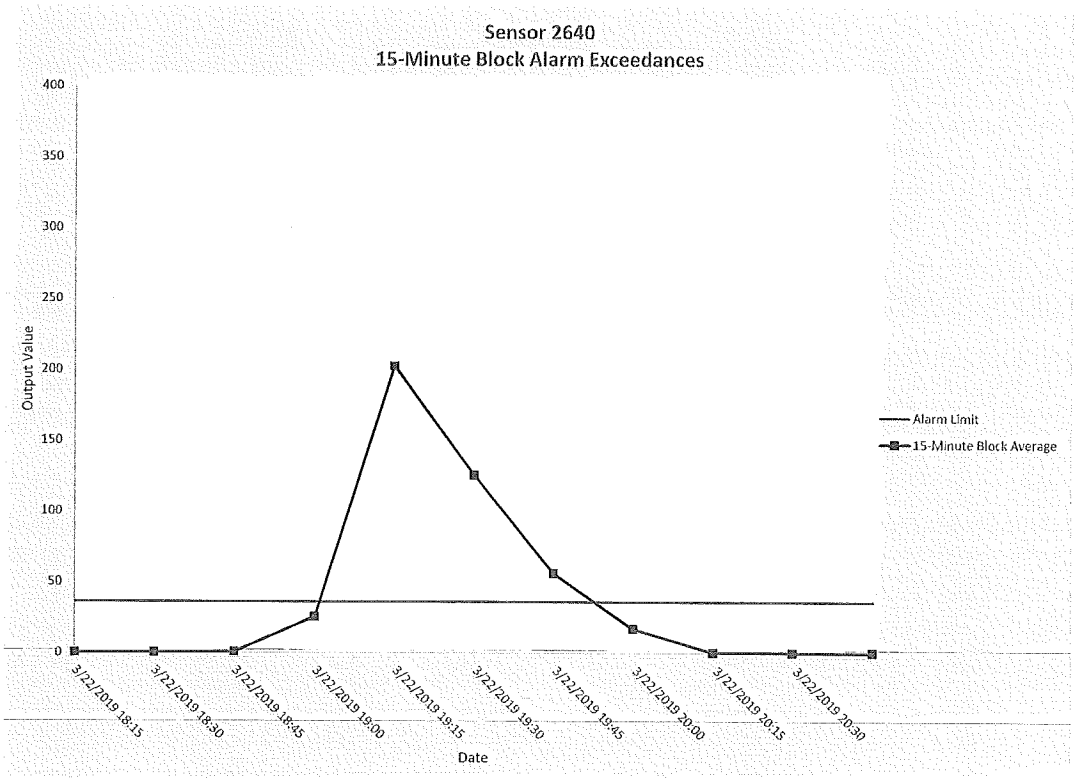
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



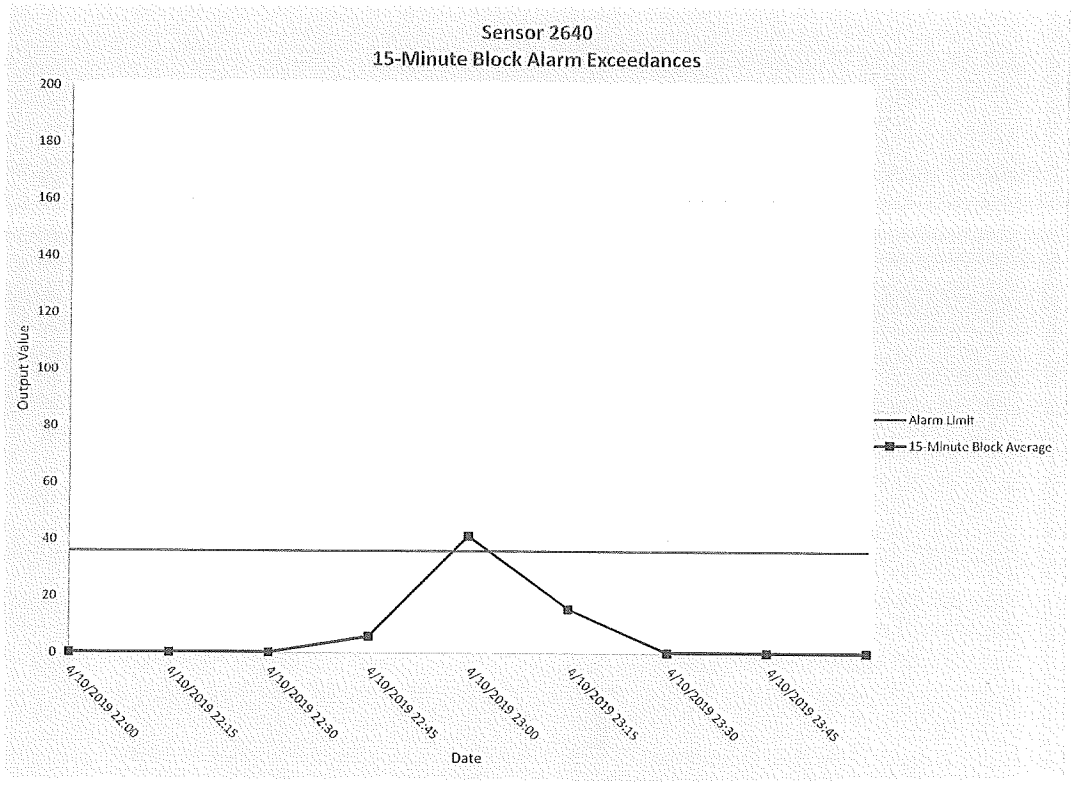


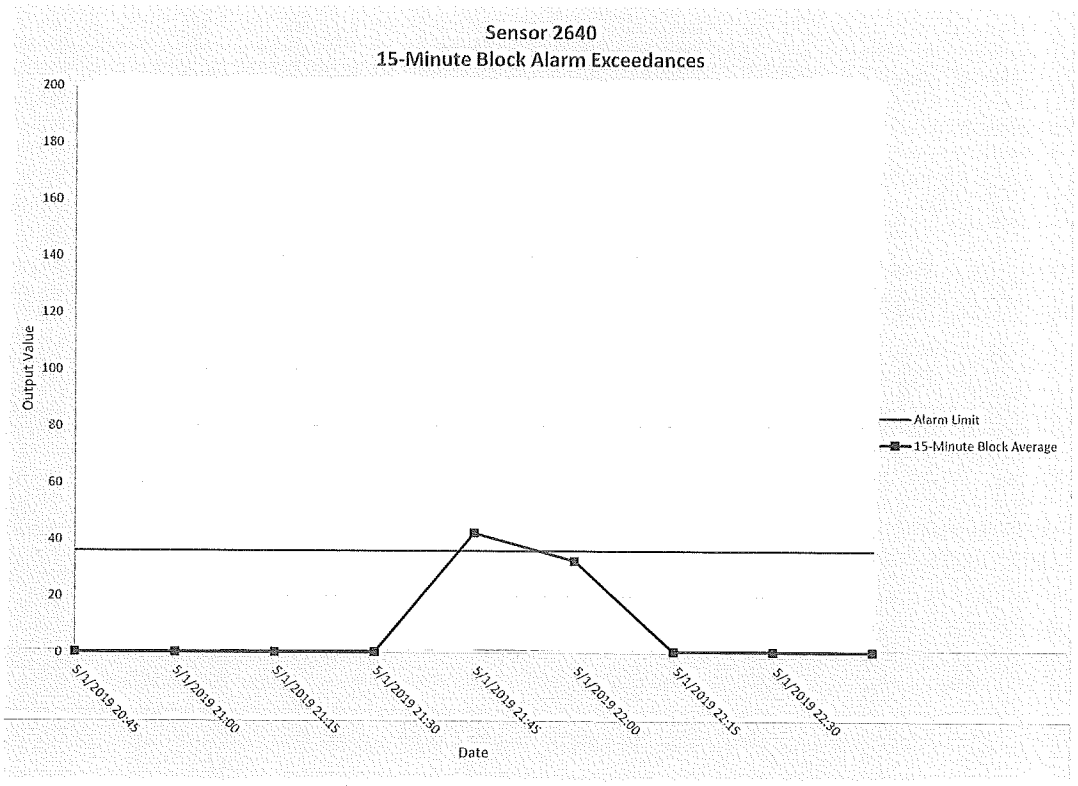
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



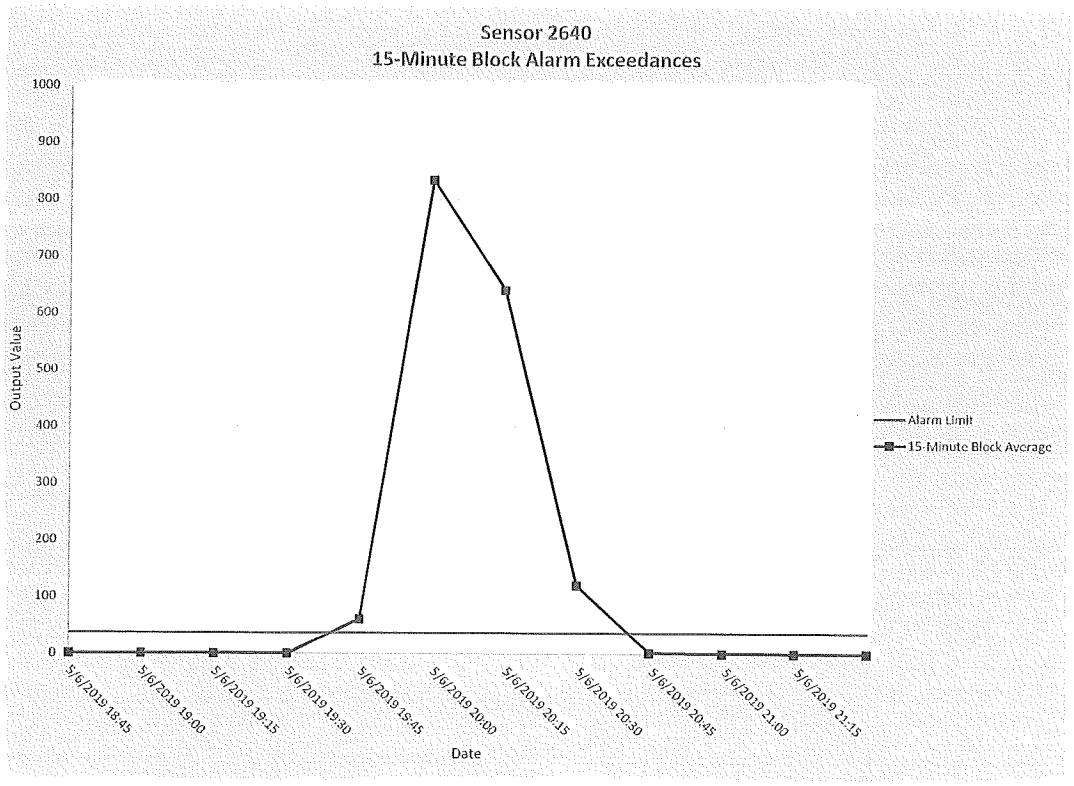


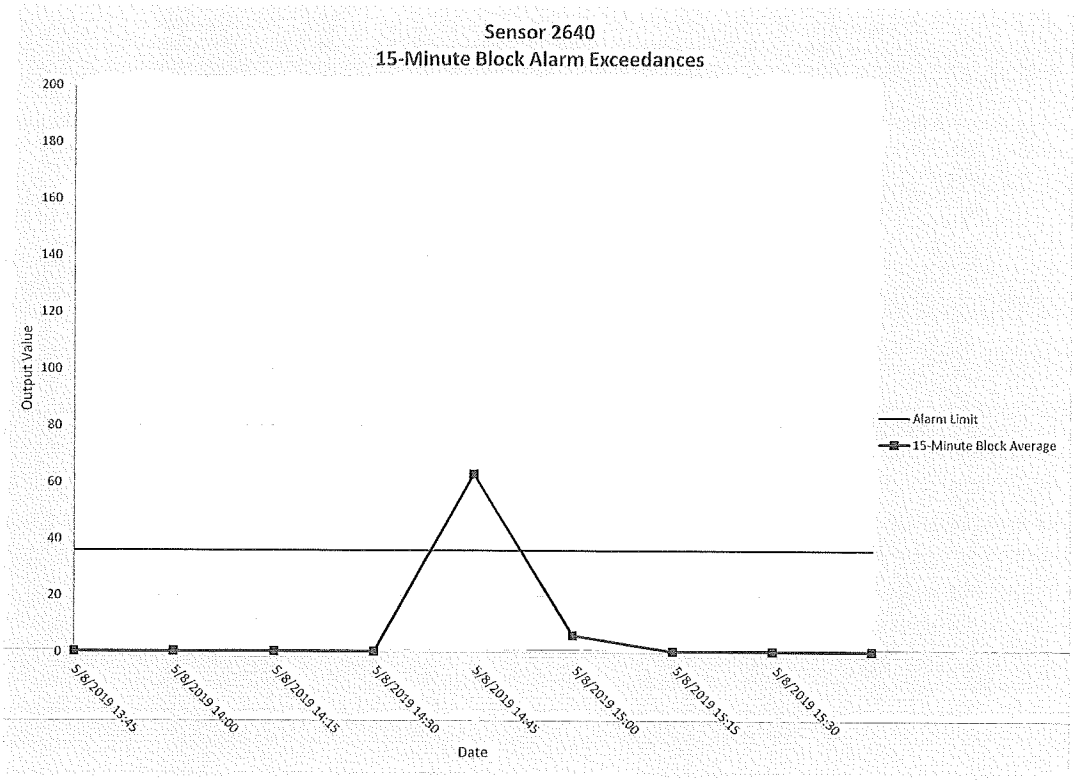
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





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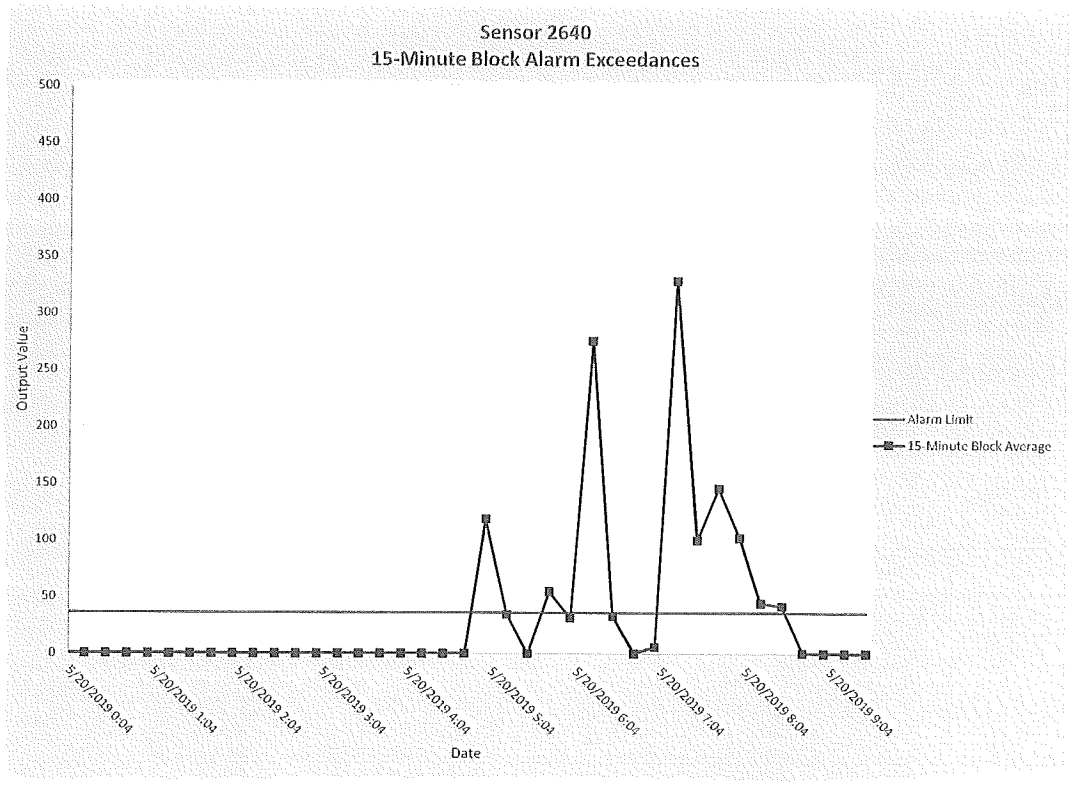
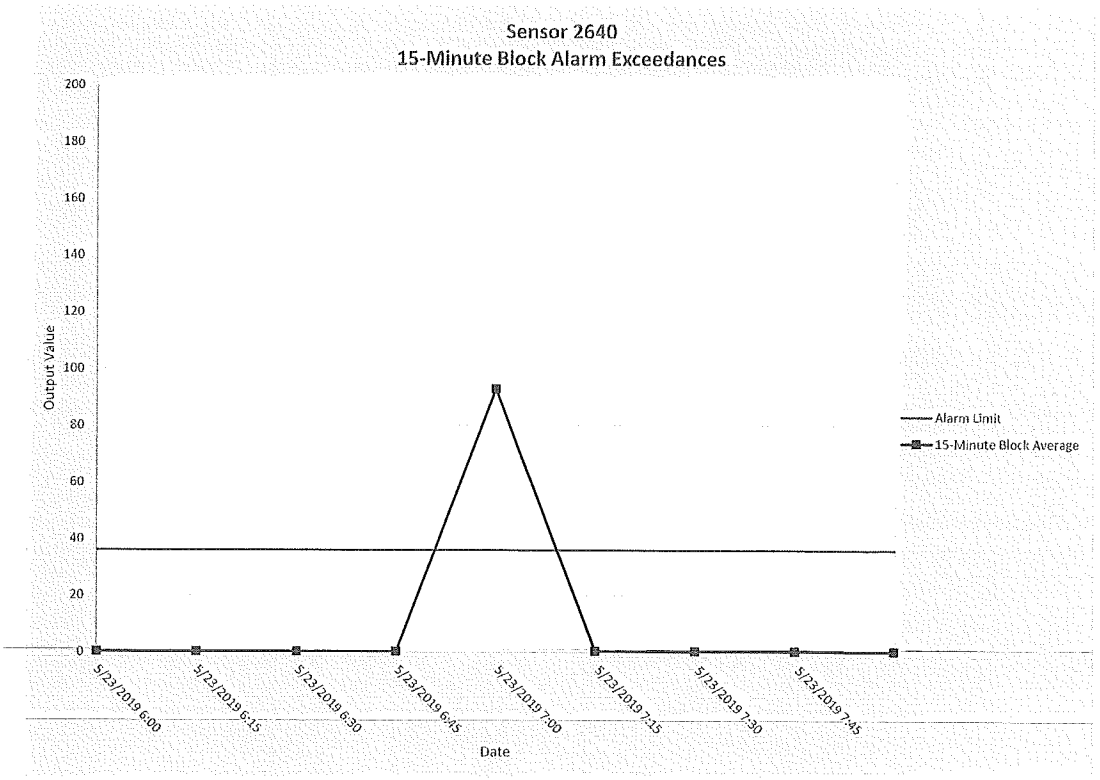
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





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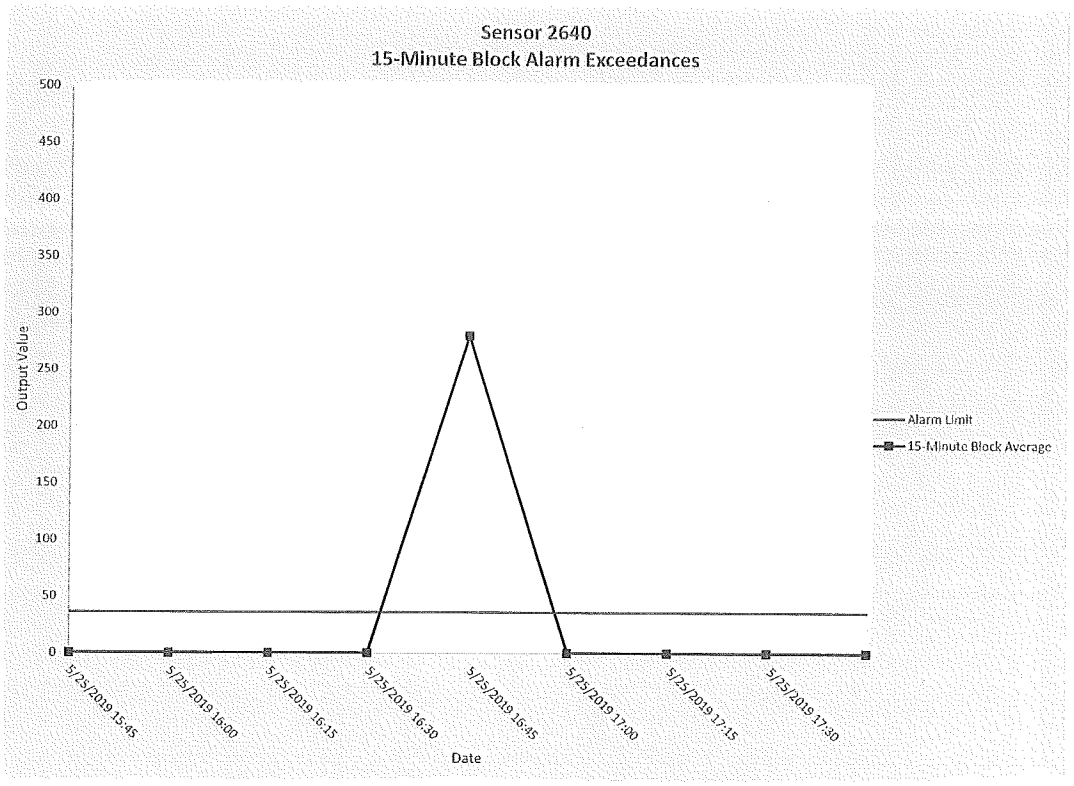
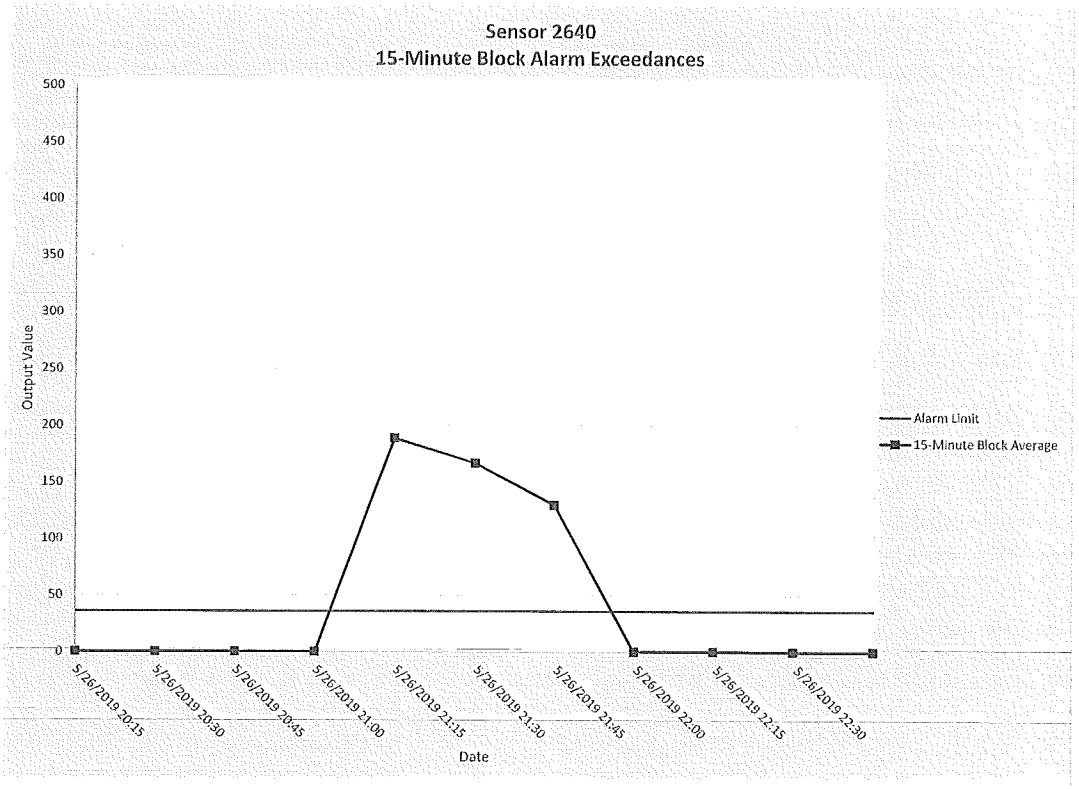
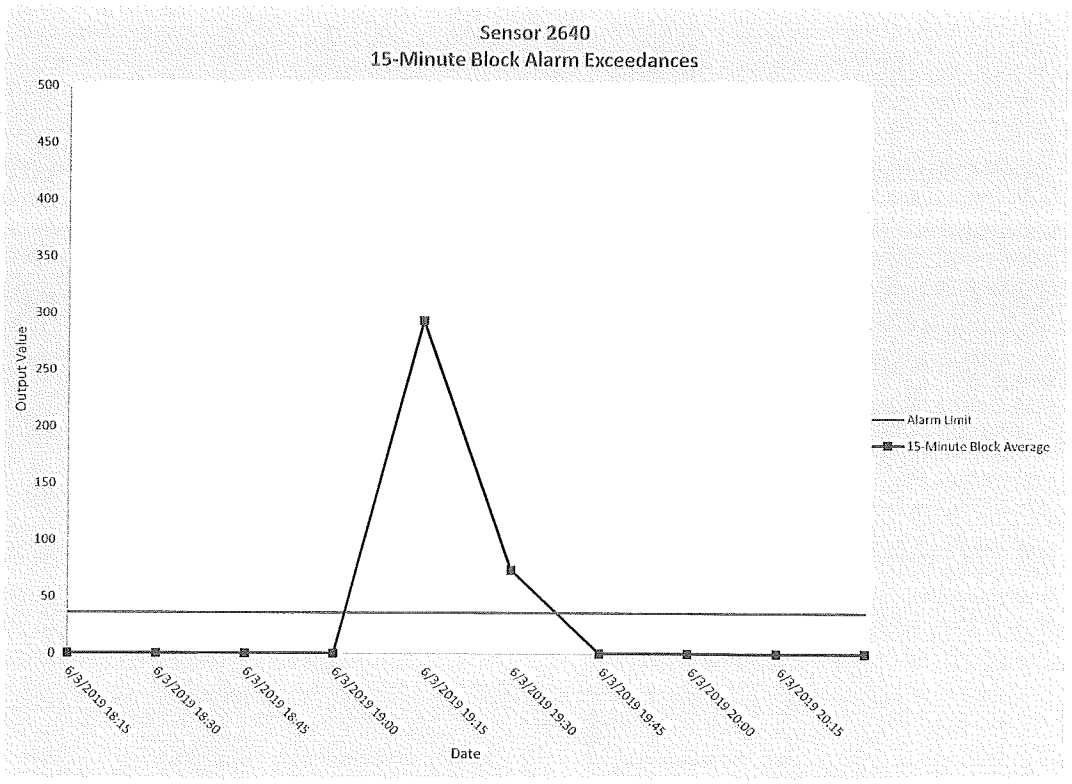
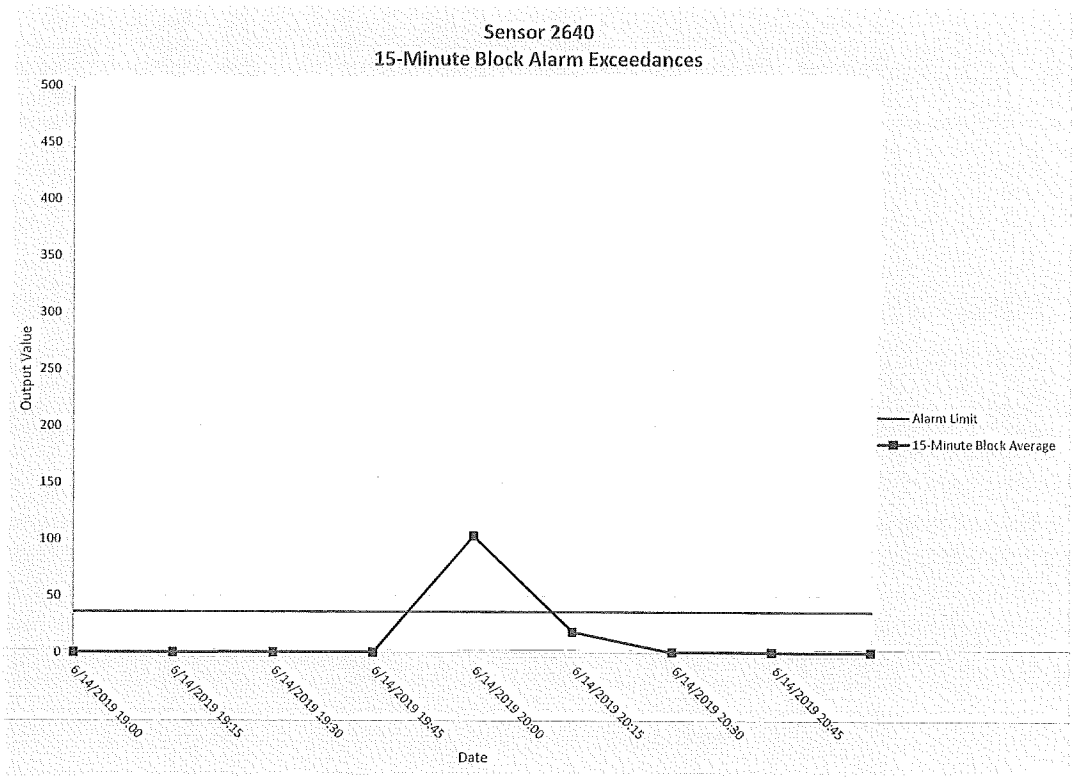
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





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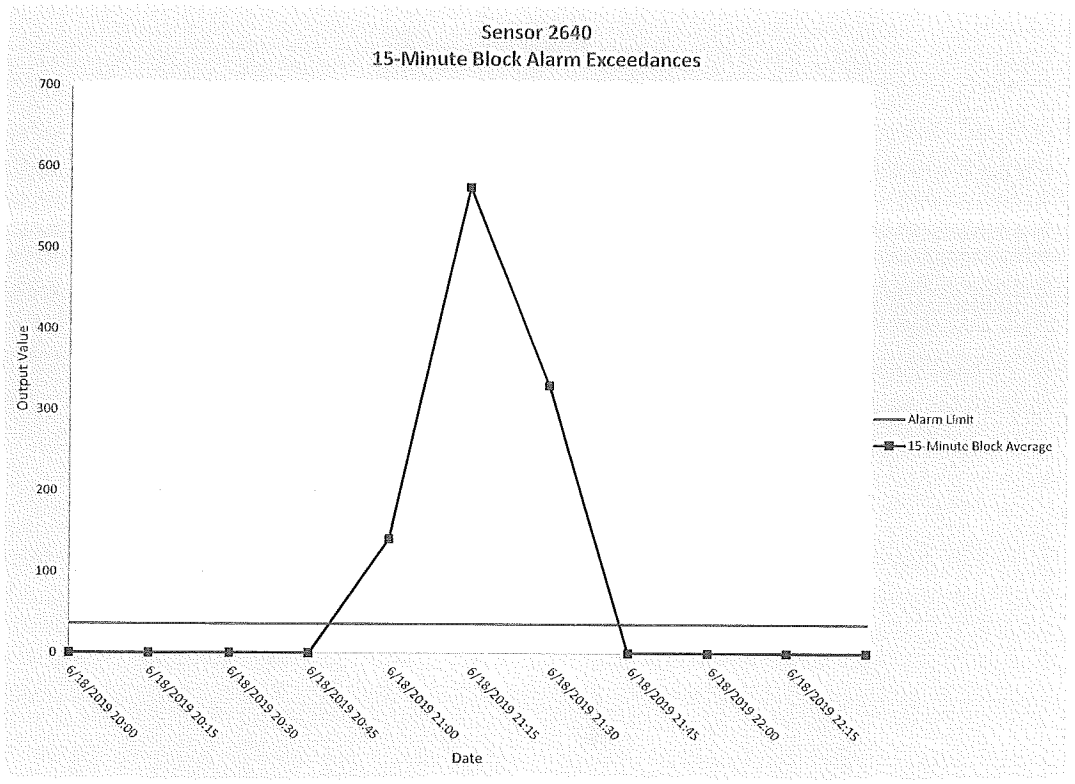
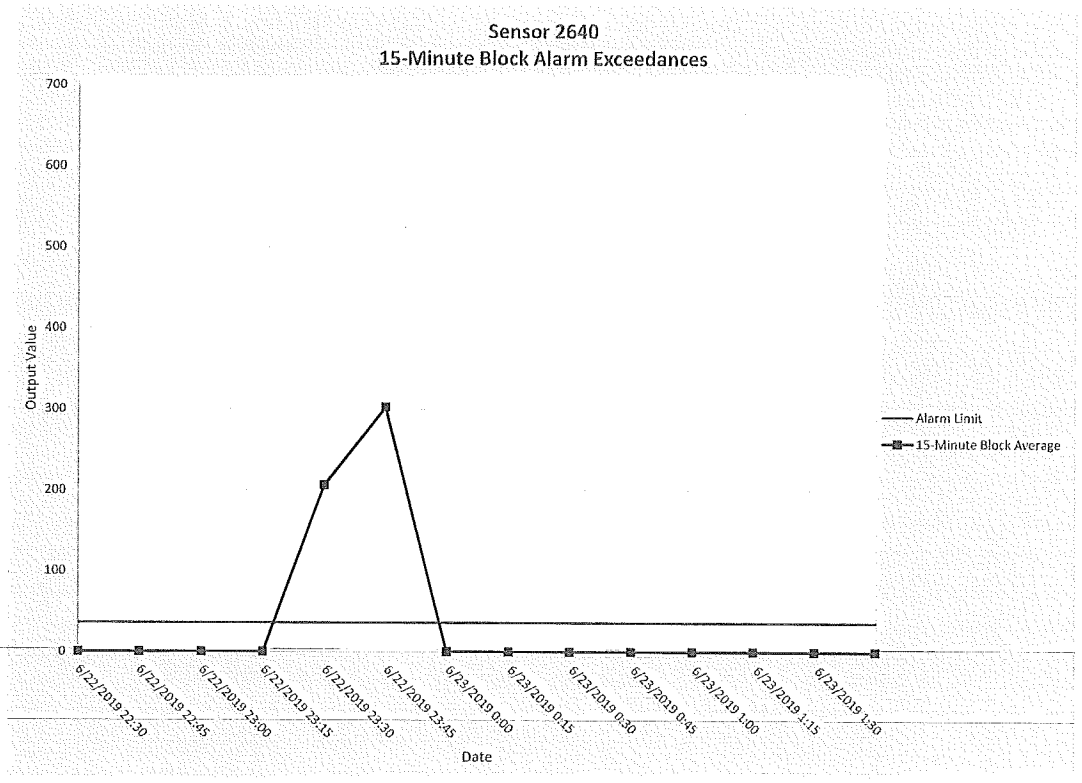
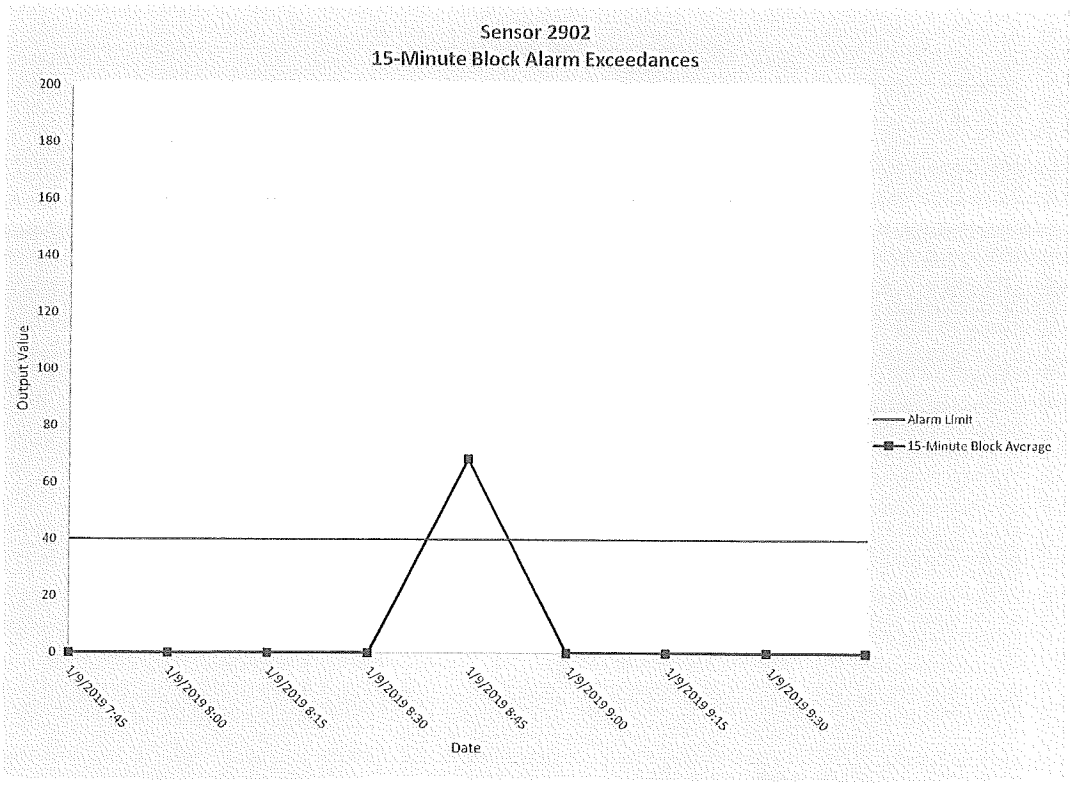
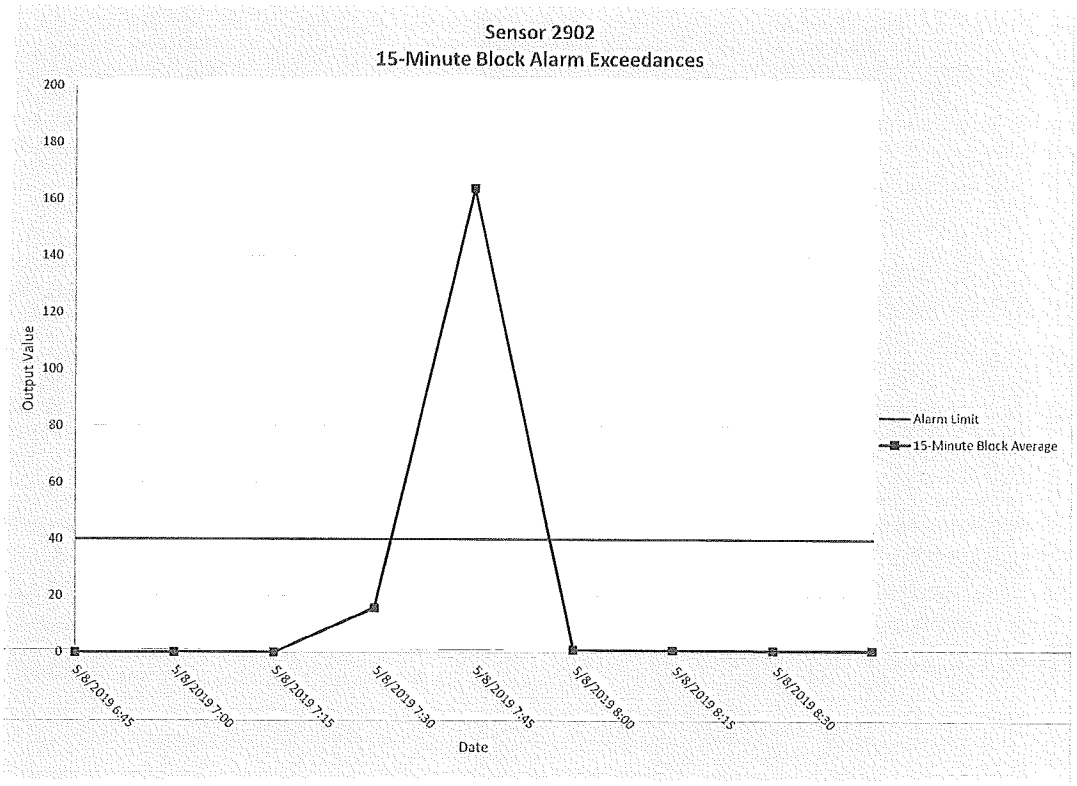
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





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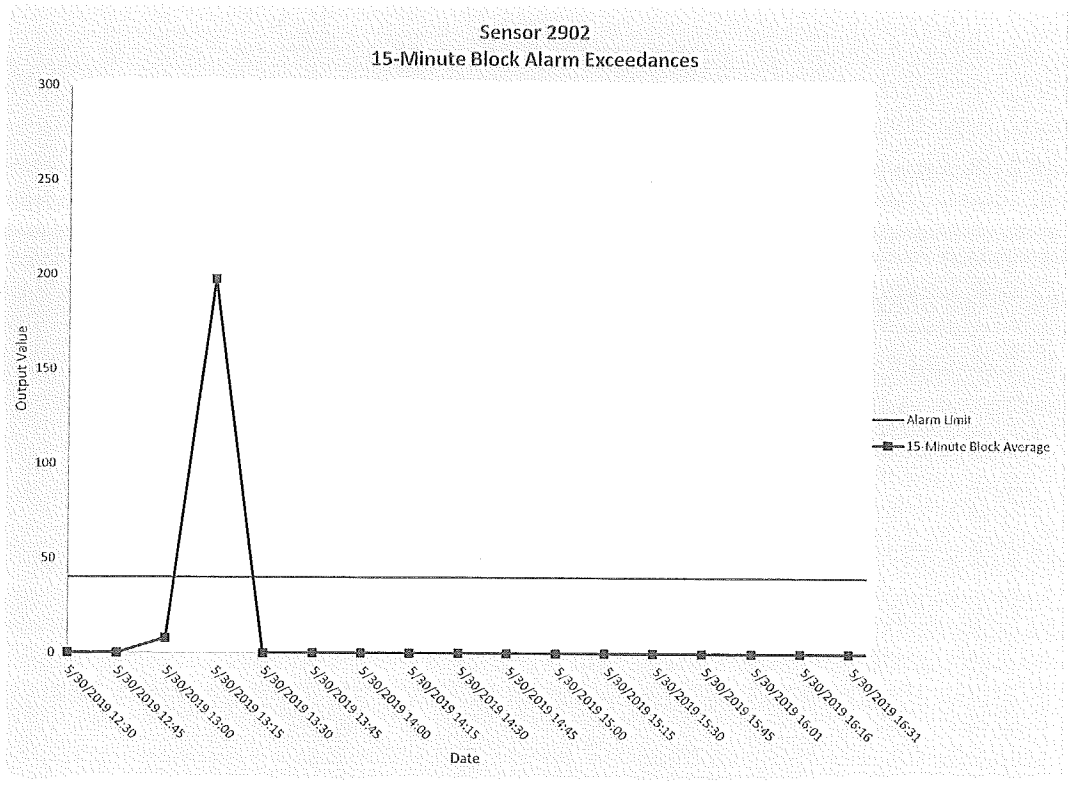
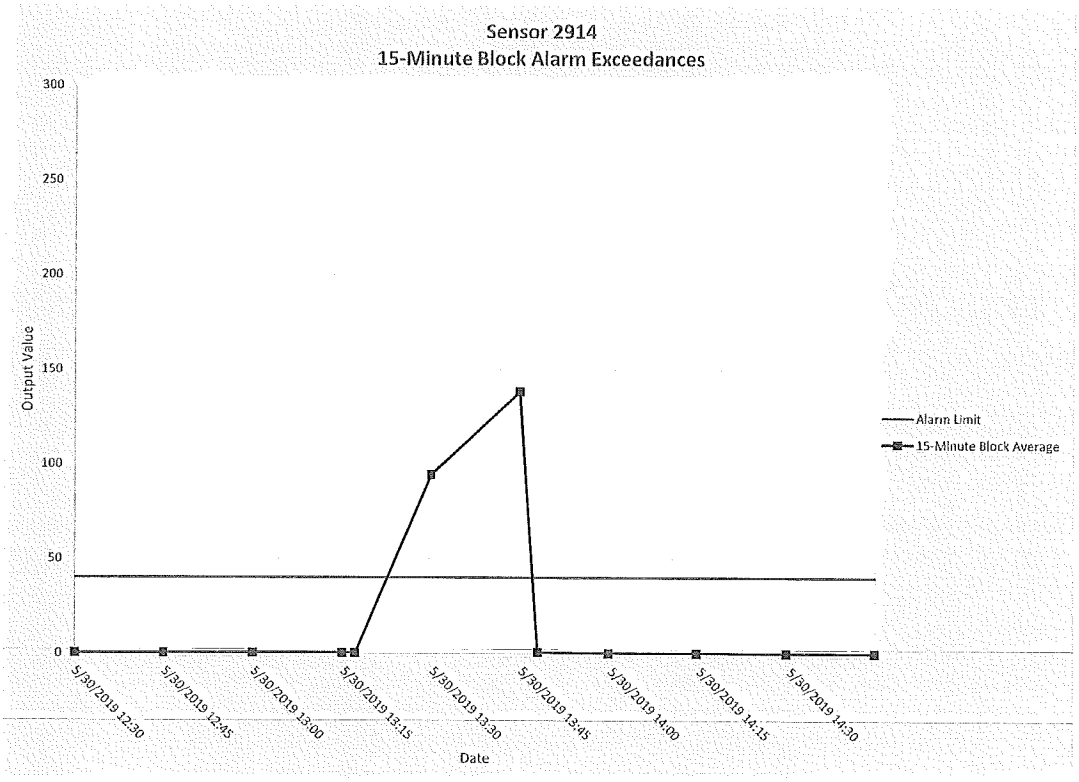
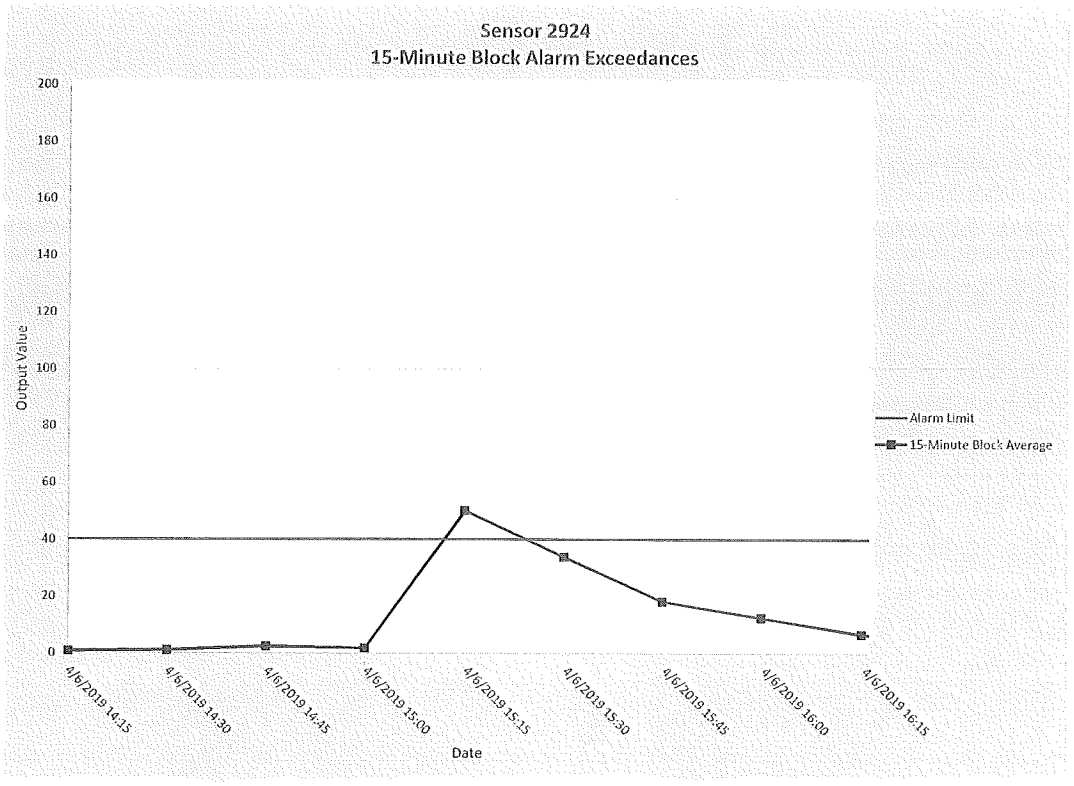
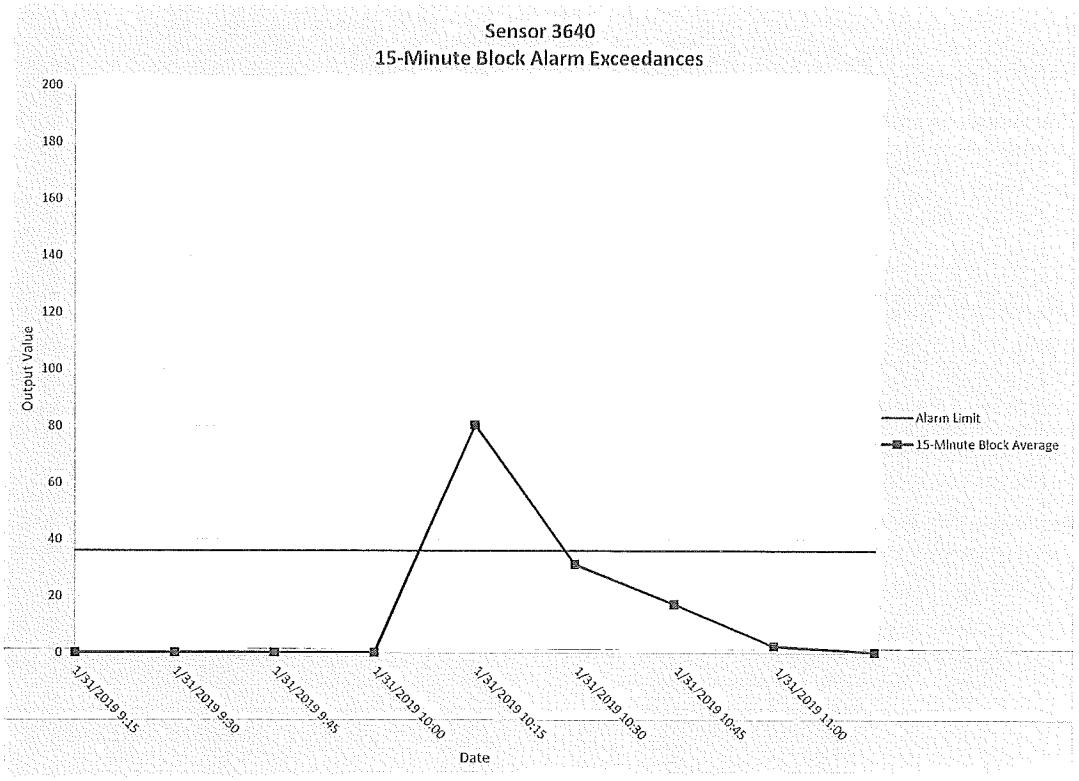
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



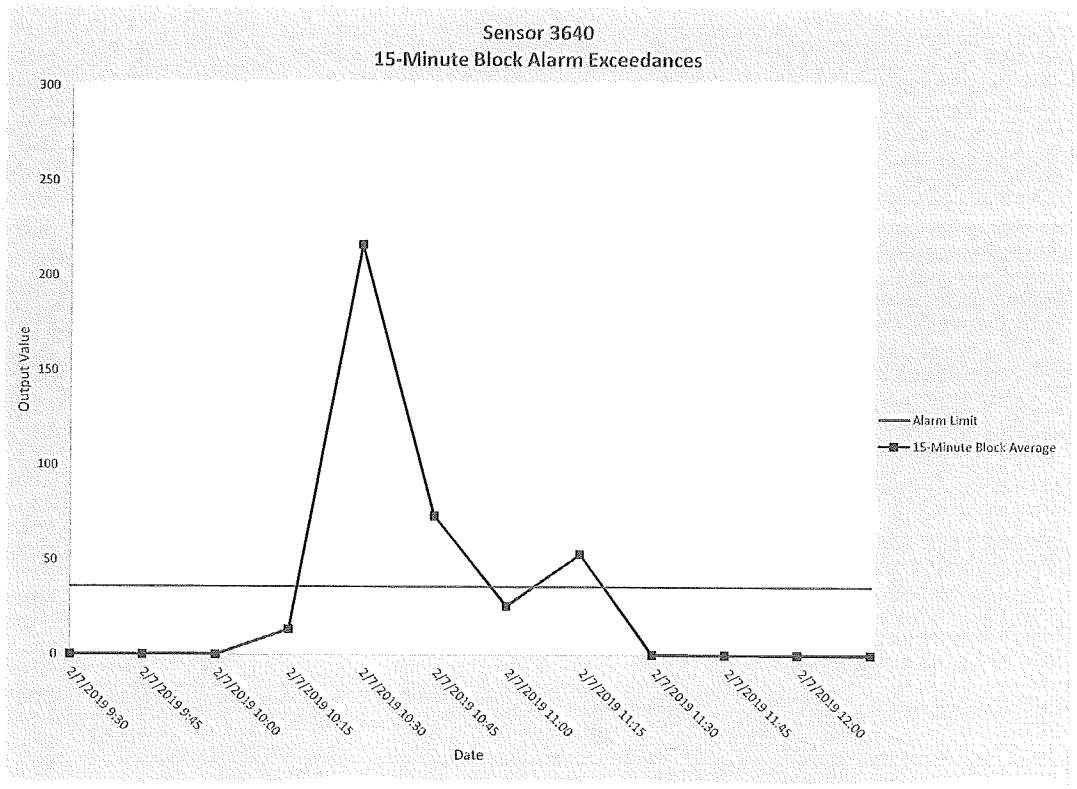


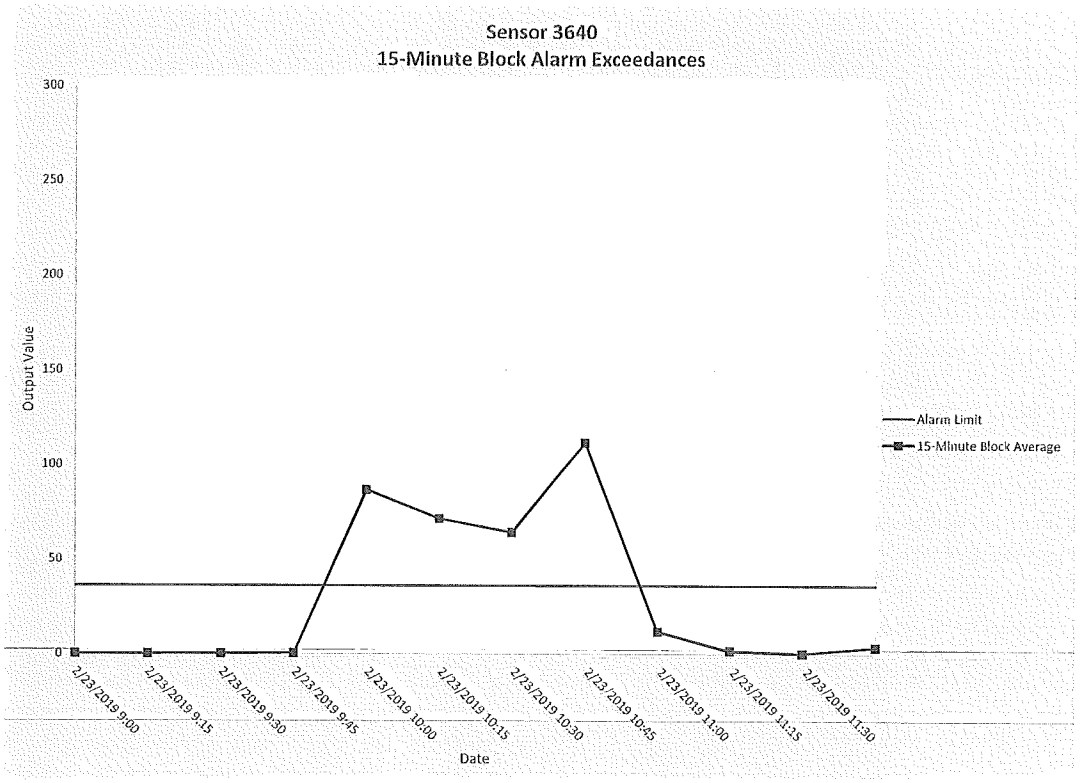
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



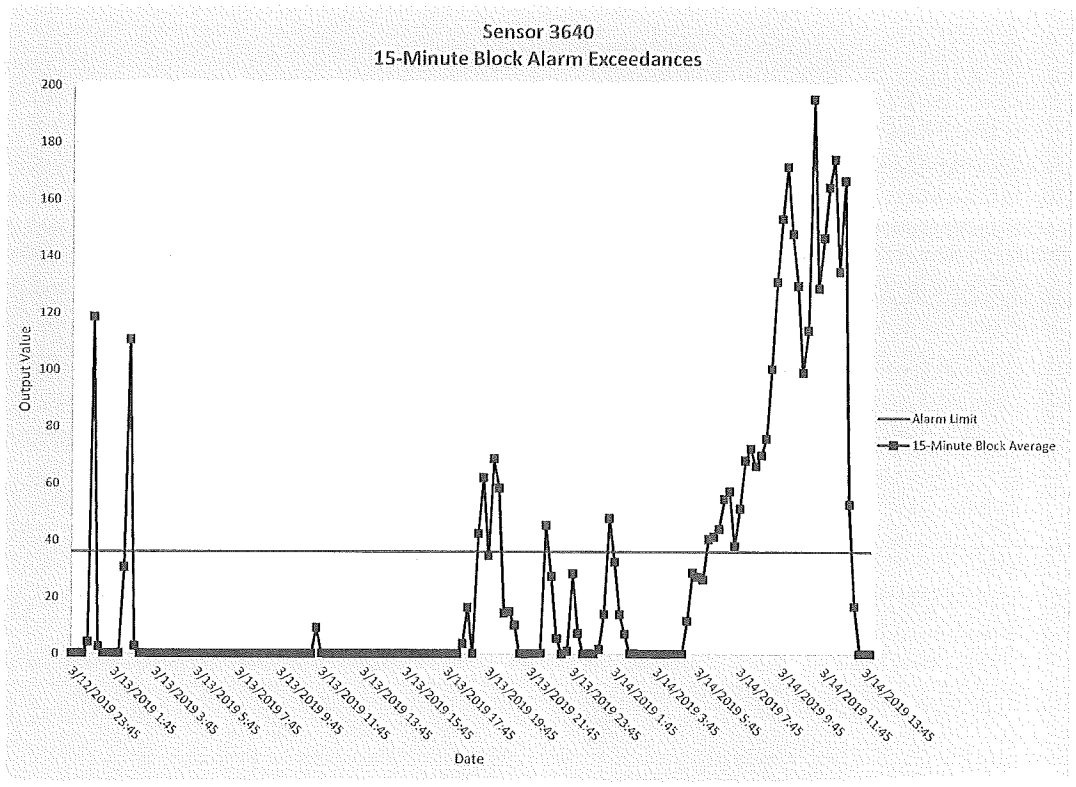


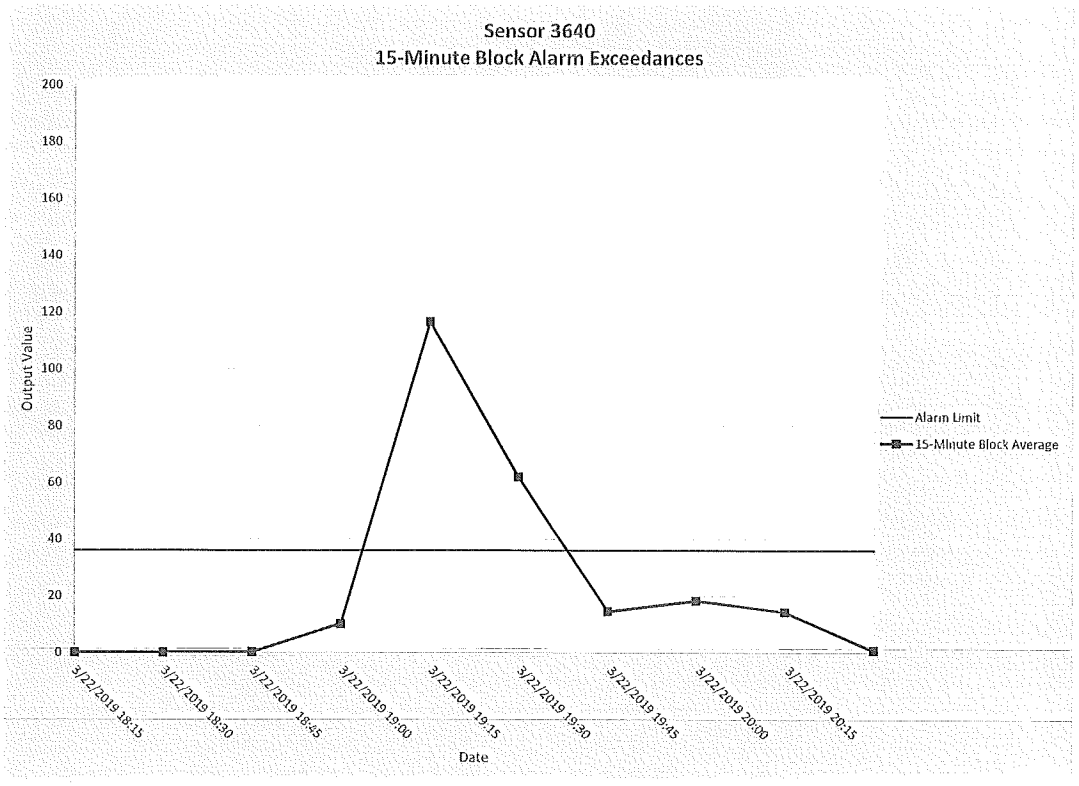
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



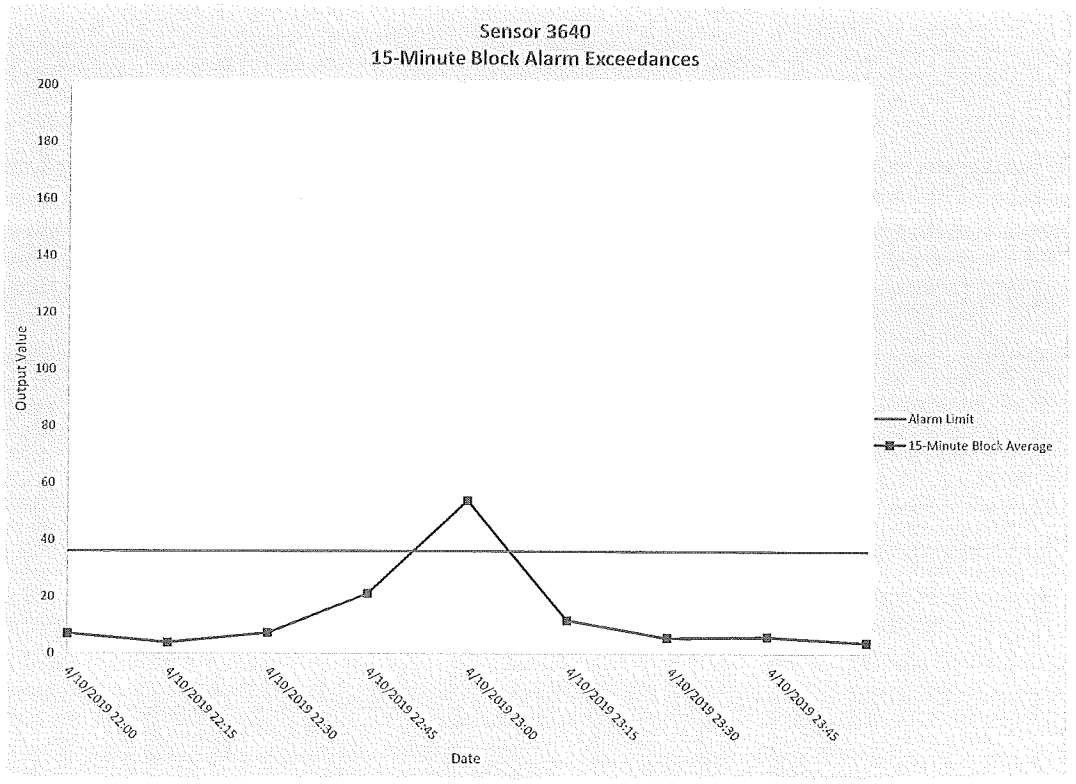


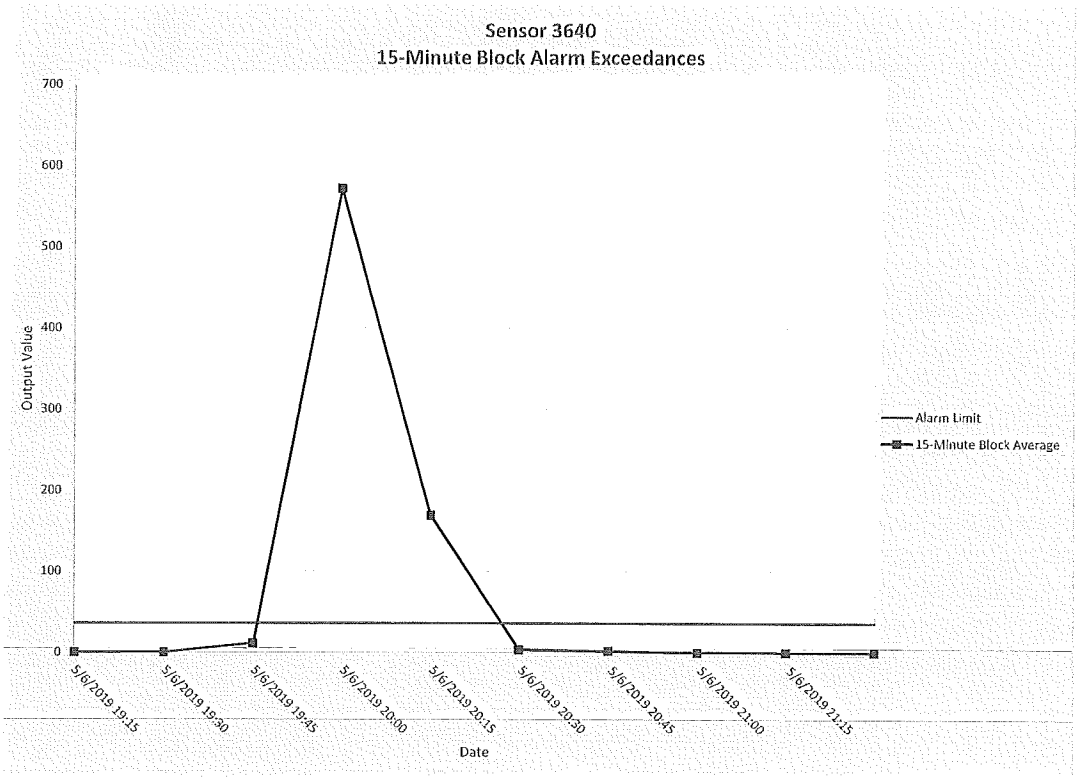
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



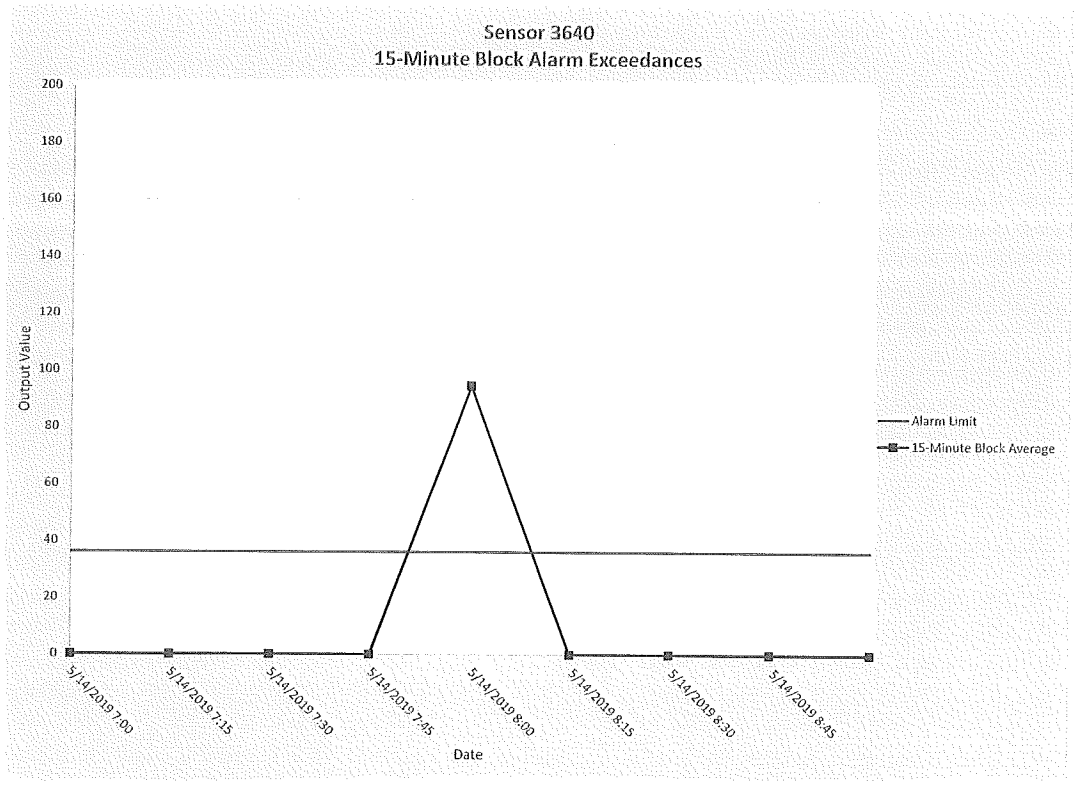


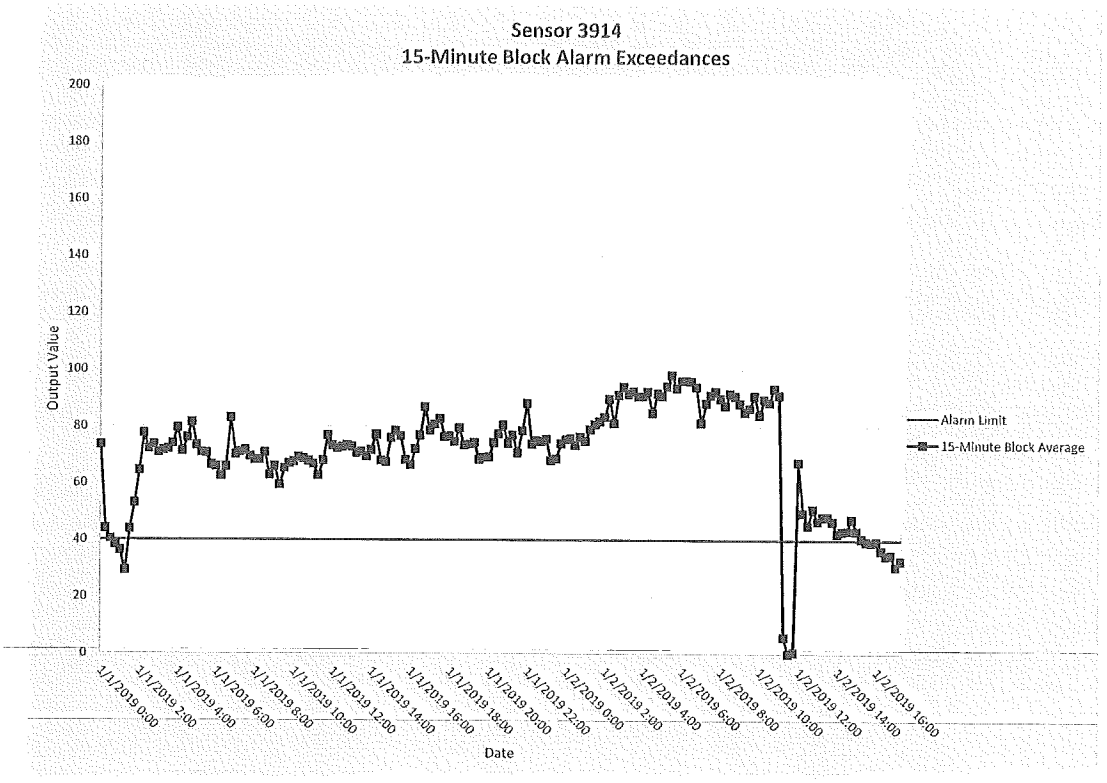
Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



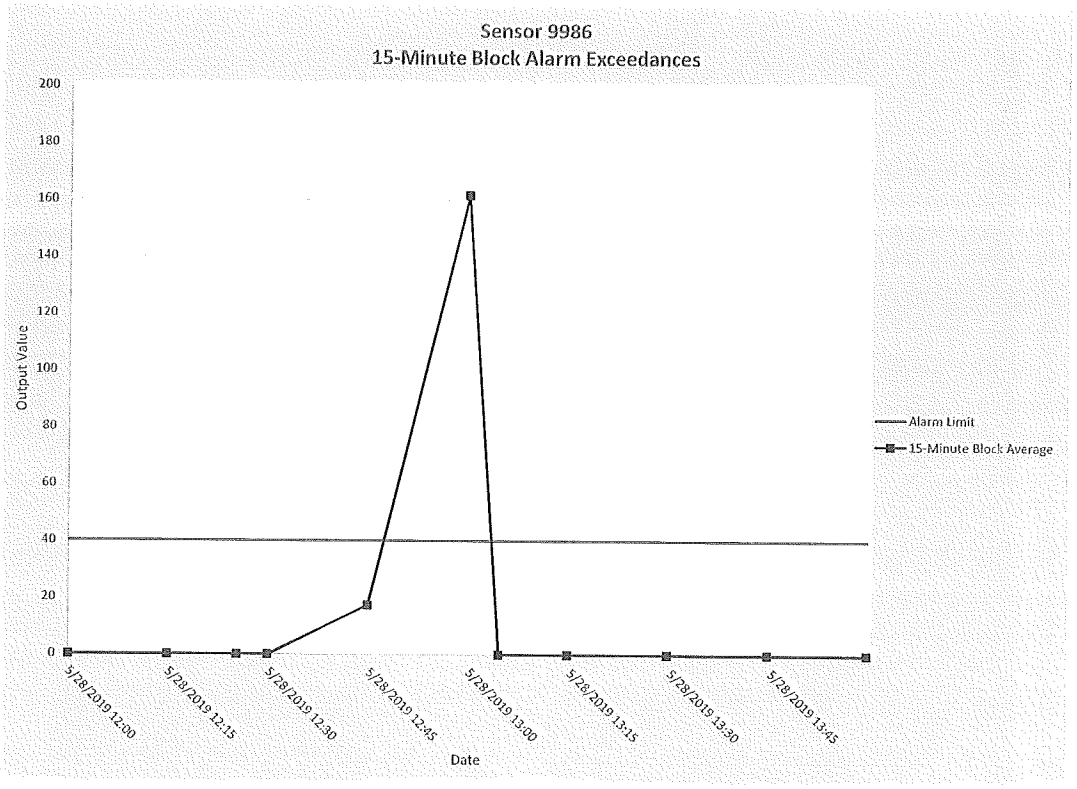


Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019





Birla Carbon
Hickok Plant
Particulate Matter Early Warning System Alarm Action Level Exceedances for 1/1/2019 - 6/30/2019



Birla Carbon
North Bend Plant
Particulate Matter Early Warning System Downtime Summary

Attachment 3

Birla Carbon
North Bend Plant
Particulate Matter Downtime Summary for 1/1/2019 - 6/30/2019

Sensor	Data Gap Beginning	Data Gap Ending	Data Gap Time (hours)	Monitor Down Time (hours)	Comments
1150S	1/18/2019 11:45	1/18/2019 12:15	0.50	0.50	Monitor Power Reset
	3/26/2019 8:15	3/26/2019 9:45	1.50	1.50	Monitor Power Reset
	5/3/2019 7:30	5/3/2019 8:15	0.75	0.75	Monitor Power Reset
1151	none				
1151S	1/18/2019 11:45	1/18/2019 12:15	0.50	0.50	Monitor Power Reset
	3/26/2019 8:15	3/26/2019 9:45	1.50	1.50	Monitor Power Reset
	5/3/2019 7:30	5/3/2019 8:15	0.75	0.75	Monitor Power Reset
1152	none				
1152S	1/18/2019 11:45	1/18/2019 12:15	0.50	0.50	Monitor Power Reset
	3/26/2019 8:15	3/26/2019 9:45	1.50	1.50	Monitor Power Reset
	5/3/2019 7:30	5/3/2019 8:15	0.75	0.75	Monitor Power Reset
1153	none				
2150S	1/18/2019 11:45	1/18/2019 12:15	0.50	0.50	Monitor Power Reset
	3/26/2019 8:15	3/26/2019 9:45	1.50	1.50	Monitor Power Reset
	3/26/2019 10:30	3/27/2019 11:45	25.25	25.25	Wiring short to monitor
	5/3/2019 7:30	5/3/2019 8:15	0.75	0.75	Monitor Power Reset
2151S	3/26/2019 8:15	3/26/2019 9:45	1.50	1.50	Monitor Power Reset
2152S	1/18/2019 11:45	1/18/2019 12:15	0.50	0.50	Monitor Power Reset
	3/26/2019 8:15	3/26/2019 9:45	1.50	1.50	Monitor Power Reset
	5/3/2019 7:30	5/3/2019 8:15	0.75	0.75	Monitor Power Reset
3150s	none				
3151	none				
3151S	none				
3152	none				
3152S	none				
3153	none				

Birla Carbon
North Bend Plant
Particulate Matter Downtime Summary for 1/1/2019 - 6/30/2019

Sensor	Data Gap Beginning	Data Gap Ending	Data Gap Time (hours)	Monitor Down Time (hours)	Comments
4150S	3/26/2019 11:15	3/27/2019 12:00	24.75	17.00	Unit was down on these days and times: 3/26/19 from 10:15 - 14:55, 3/27/19 6:30 - 9:20, 3/27/19 - 10:35 - 13:35
4151S	12/31/2018 23:00	1/1/2019 2:15	3.25	0.00	Unit was coasted at this time. No production.
	1/2/2019 11:45	1/2/2019 12:15	0.50	0.50	Wiring short to monitor
	1/2/2019 12:30	1/2/2019 15:00	2.50	2.50	Wiring short to monitor
	1/5/2019 11:15	1/5/2019 12:30	1.25	1.25	Wiring short to monitor
	1/6/2019 6:45	1/6/2019 7:45	1.00	1.00	Wiring short to monitor
	1/6/2019 15:30	1/6/2019 16:00	0.50	0.50	Wiring short to monitor
	1/6/2019 16:45	1/6/2019 17:15	0.50	0.50	Wiring short to monitor
	1/6/2019 17:15	1/6/2019 18:15	1.00	1.00	Wiring short to monitor
	1/6/2019 18:15	1/6/2019 19:30	1.25	1.25	Wiring short to monitor
	1/6/2019 19:45	1/6/2019 20:15	0.50	0.50	Wiring short to monitor
	1/6/2019 20:15	1/6/2019 21:00	0.75	0.75	Wiring short to monitor
	1/6/2019 21:00	1/6/2019 21:30	0.50	0.50	Wiring short to monitor
	1/6/2019 21:30	1/7/2019 3:15	5.75	5.75	Wiring short to monitor
	1/7/2019 11:15	1/7/2019 16:30	5.25	5.25	Wiring short to monitor
	1/7/2019 16:30	1/7/2019 17:00	0.50	0.50	Wiring short to monitor
	1/7/2019 17:00	1/7/2019 18:30	1.50	1.50	Wiring short to monitor
	1/7/2019 18:30	1/7/2019 19:45	1.25	1.25	Wiring short to monitor
	1/7/2019 23:00	1/8/2019 0:00	1.00	1.00	Wiring short to monitor
	1/8/2019 0:00	1/8/2019 1:30	1.50	1.50	Wiring short to monitor
	1/8/2019 1:30	1/8/2019 4:45	3.25	3.25	Wiring short to monitor
	1/8/2019 5:00	1/8/2019 8:45	3.75	3.75	Wiring short to monitor
	1/8/2019 8:45	1/8/2019 10:45	2.00	2.00	Wiring short to monitor
	1/8/2019 10:45	1/8/2019 15:00	4.25	4.25	Wiring short to monitor
	1/8/2019 16:30	1/8/2019 17:00	0.50	0.50	Wiring short to monitor
	1/8/2019 18:15	1/8/2019 23:15	5.00	5.00	Wiring short to monitor

Birla Carbon
North Bend Plant
Particulate Matter Downtime Summary for 1/1/2019 - 6/30/2019

Sensor	Data Gap Beginning	Data Gap Ending	Data Gap Time (hours)	Monitor Down Time (hours)	Comments
	1/8/2019 23:15	1/9/2019 6:00	6.75	6.75	Wiring short to monitor
	1/9/2019 6:45	1/9/2019 7:30	0.75	0.75	Wiring short to monitor
	1/9/2019 7:30	1/9/2019 8:00	0.50	0.50	Wiring short to monitor
	1/9/2019 8:15	1/9/2019 11:15	3.00	3.00	Wiring short to monitor
	1/9/2019 12:15	1/9/2019 14:00	1.75	1.75	Wiring short to monitor
	1/9/2019 16:00	1/9/2019 16:45	0.75	0.75	Wiring short to monitor
	1/9/2019 16:45	1/9/2019 19:00	2.25	2.25	Wiring short to monitor
	1/9/2019 19:00	1/9/2019 20:00	1.00	1.00	Wiring short to monitor
	1/9/2019 21:45	1/10/2019 2:45	5.00	5.00	Wiring short to monitor
	1/10/2019 3:45	1/10/2019 4:15	0.50	0.50	Wiring short to monitor
	1/10/2019 4:15	1/10/2019 7:15	3.00	3.00	Wiring short to monitor
	1/10/2019 11:30	1/10/2019 12:45	1.25	1.25	Wiring short to monitor
	1/10/2019 19:00	1/10/2019 20:00	1.00	1.00	Wiring short to monitor
	1/10/2019 22:00	1/10/2019 23:00	1.00	1.00	Wiring short to monitor
	1/10/2019 23:00	1/10/2019 23:30	0.50	0.50	Wiring short to monitor
	1/10/2019 23:30	1/11/2019 0:00	0.50	0.50	Wiring short to monitor
	1/11/2019 0:15	1/11/2019 1:15	1.00	1.00	Wiring short to monitor
	1/11/2019 3:30	1/11/2019 4:45	1.25	1.25	Wiring short to monitor
	1/11/2019 4:45	1/11/2019 6:30	1.75	1.75	Wiring short to monitor
	1/11/2019 6:30	1/11/2019 9:15	2.75	2.75	Wiring short to monitor
5150S	none				
5151S	5/3/2019 6:45	5/3/2019 7:15	0.50	0.50	Monitor Power Reset
5152S	5/3/2019 6:45	5/3/2019 7:15	0.50	0.50	Monitor Power Reset

Birla Carbon

Hickok Plant

Particulate Matter Early Warning System Downtime Summary

Attachment 3

Birla Carbon
Hickok Plant
Particulate Matter Downtime Summary for 1/1/2019 - 6/30/2019

Sensor	Data Gap Beginning	Data Gap Ending	Data Gap Time (hours)	Monitor Down Time (hours)	Comments
9986	5/2/2019 9:30	5/2/2019 13:15	3.75	3.75	Monitor communication error.
3750	5/2/2019 0:30	5/2/2019 1:15	0.75	0.75	Change out monitor circuit board.
	5/2/2019 1:45	5/2/2019 2:15	0.50	0.50	Change out monitor circuit board.
	5/6/2019 9:45	5/6/2019 10:15	0.50	0.50	Monitor communication error.