National Aeronautics and Space Administration
Goddard Space Flight Center
Wallops Flight Facility
Wallops Island, VA 23337-5099

July 10, 2019

eply to Attn of: 250.W

Office of Drinking Water
Attn: Mr. Dixon Tucker
District Engineer
Virginia Department of Health
830 South Hampton Avenue
Norfolk, VA 23510

Subject: June 2019 Water Chlorination and Orthophosphate Reports

Ref: PWSID: 3001500 Main Base, PWSID: 3001535 Mainland/Island, NASA Wallops Flight Facility

In accordance with the Virginia Department of Health Drinking Water Regulations, please find enclosed:

1. June 2019 Chlorination Reports for Main Base and Island Locations (Enclosures 1 and 2)
2. June 2019 Orthophosphate Reports for Main Base and Island Locations (Enclosures 3 and 4)
3. June 2019 Chincoteague Water Readings from Main Base NASA Grid (Enclosure 5)

Elevated chlorine residuals were noted by operators at the Island waterworks entry point on June 24, 2019, due to a failing valve in the chlorine dosing system, resulting in significantly increased chlorine levels in the ground storage tank. Operators were able to replace the valve within approximately 18 hours of discovery and initiated flushing to decrease chlorine levels. Chlorine residual in the ground storage tank returned to normal levels upon measurement the following day. Supplemental testing of several occupied buildings was performed to assure chlorine residuals below the MCLG, as normal monitoring sites W-71 and Y-61 are unoccupied.

If you have any questions or comments concerning this report, please contact Mr. Owen Hooks at (757) 824-1941.

T.J. Meyer
Associate Chief, Medical and Environmental Management Division

5 Enclosures
cc: (w/o encls.)
227/Mr. W. Redmond
250/Mr. R. Hooks

VIRGINIA STATE DEPARTMENT
OF HEALTH
WATER CHLORINATION REPORT

No. of Connections: 206
No. of people served: 1625

Year 2019 Month June
County: Accomack
Supply: NASA Wallops Flight Facility
PWSID: 3001500 Mainbase

DATE	Residual Chlorine								Lbs. of solution injected	No. Gal. Water Treated	Comments
	North End Results			Entry Point		South End Results					
	Bldg.	Free	Total	Free	Total	Bldg.	Free	Total			
1	D-50	0.85		1.73		N-162	0.35		98	148,000	
2	D-50	0.32		2.19		N-162	0.61		140	150,000	
3	D-50	0.58	0.63	1.33	1.49	N-162	0.77	0.89	20	144,000	
4	D-50	0.55		0.28		N-162	0.4		37	175,000	
5	D-50	0.8		1.21		N-162	0.68		122	185,000	
6	D-50	0.73		1.52		N-162	0.3		95	152,000	
7	D-50	0.52		1.89		N-162	0.49		120	155,000	
8	D-50	0.24		1.32		N-162	0.42		80	151,000	
9	D-50	0.67		1.66		N-162	0.42		116	227,000	
10	D-50	0.81	0.91	1.72	1.85	N-162	0.48	0.54	56	95,000	
11	D-50	0.68		1.49		N-162	0.6		71	152,000	
12	D-50	0.54		1.28		N-162	0.51		98	167,000	
13	D-50	0.61		1.44		N-162	0.71		67	167,000	
14	D-50	0.49		1.3		N-162	0.5		109	151,000	
15	D-50	0.51		1.38		N-162	0.54		62	144,000	
16	D-50	0.5		1.24		N-162	0.43		118	206,000	
17	D-50	0.53		1.16	1.32	N-162	0.47		43	96,000	
18	D-50	0.45		0.92		N-162	0.67		88	153,000	
19	D-50	0.38		0.99		N-162	0.27		88	155,000	
20	D-50	0.15		0.95		N-162	0.21		64	155,000	
21	D-50	0.32		0.49		N-162	0.22		52	148,000	
22	D-50	0.22		0.74		N-162	0.24		62	131,000	
23	D-50	0		0.71		N-162	0.09		70	126,000	
24	D-50	0.18	0.25	0.74	0.76	N-162			70	140,000	
25	D-50	0.11		0.96		N-162	0.14		96	176,000	
26	D-50	0.08		0.98		N-162	0		70	128,000	
27	D-50	0.1		1.19		N-162	0		86	156,000	
28	D-50	0.11		1.36		N-162	0.09		80	133,000	
29	D-50	0.04		1.28		N-162	0.08		96	145,000	
30	D-50	0.01		1.38		N-162	0.06		104	148,000	
Totals		12.08	1.79	36.83	5.42		10.75	1.43	2,478	4,559,000	
Min		0.00	0.25	0.28	0.76		0.00	0.54	20	95,000	
Max		0.85	0.91	2.19	1.85		0.77	0.89	140	227,000	
Ave		0.40	0.60	1.23	1.36		0.37	0.72	83	151,967	

Signed: Robert Wilt
Printed Name: Robert Wilt

VIRGINIA STATE DEPARTMENT
OF HEALTH
WATER CHLORINATION REPORT

No. of Connections: 38
No. of people served: 400

Year 2019 Month June
County: Accomack
Supply: NASA Wallops Flight Facility
PWSID: 3001535 Mainland(Island)

DATE	Residual Chlorine								Lbs. of solution injected	No. Gal. Water Treated	Comments
	North End Results			Entry Point		South End Results					
	Bldg.	Free	Total	Free	Total	Bldg.	Free	Total			
1	W 71	0.61		>2.2		Y 61	0.66		0	30,245	
2	W 71	0.8		0.21		Y 61	>2.2		0	29,533	
3	W 71	2.15	>2.2	0.95	0.97	Y 61	>2.2	>2.2	18	32,518	
4	W 71	1.08		0.84		Y 61	1.64		22	29,248	
5	W 71	0.62		0.77		Y 61	0.66		21	58,630	
6	W 71	0.73		1.65		Y 61	0.63		23	28,013	
7	W 71	0.4		0.90		Y 61	0.55		14	38,735	
8	W 71	0.45		0.99		Y 61	0.28		26	31,602	
9	W 71	0.56		1.28		Y 61	0.45		18	38,241	
10	W 71	0.58	0.63	1.71	1.67	Y 61	0.25	0.24	15	19,307	
11	W 71	0.63		1.59		Y 61	0.46		21	29,619	
12	W 71	0.76		1.60		Y 61	0.55		14	28,960	
13	W 71	0.84		1.75		Y 61	0.99		22	37,537	
14	W 71	0.63		1.46		Y 61	0.55		24	28,478	
15	W 71	0.64		1.65		Y 61	0.59		16	29,084	
16	W 71	0.68		1.50		Y 61	0.64		24	39,762	
17	W 71	0.71	0.71	1.85	1.88	Y 61	0.74	0.74	19	20,114	
18	W 71	0.67		1.64		Y 61	0.53		19	34,043	
19	W 71	0.66		1.70		Y 61	0.71		24	41,862	Filling Deluge
20	W 71	0.71		1.01		Y 61	1.16		26	55,983	
21	W 71	0.56		1.25		Y 61	0.88		22	30,490	
22	W 71	0.62		1.06		Y 61	0.65		22	30,202	
23	W 71	0.61		3.80		Y 61	0.73		68	36,916	Cl2 Issue
24	W 71	0.99	1.15	>8.8	>8.8	Y 61	1.03	1.13	98	30,890	Flow Switch
25	W 71	0.8		0.91		Y 61	0.68		9	66,489	Flushing
26	W 71	5.3		2.08		Y 61	7		34	40,681	
27	W 71	1.72		1.14		Y 61	0.88		24	41,845	
28	W 71	0.99		1.57		Y 61	1.2		24	40,498	
29	W 71	0.84		1.63		Y 61	1.86		48	79,336	Mars filling up tank
30	W 71	0.9		1.46		Y 61	0.25		34	48,854	
Totals		28.24	2.49	39.95	4.52		27.20	2.11	749	1,127,715	
Min		0.40	0.63	0.21	0.97		0.25	0.24	0	19,307	
Max		5.30	1.15	3.80	1.88		7.00	1.13	98	79,336	
Ave		0.94	0.83	1.43	1.51		0.97	0.70	25	37,591	

Signed: Robert Wilt
Printed Name: Robert Wilt

VIRGINIA STATE DEPARTMENT
OF HEALTH
ORTHOPHOSPHATE REPORT

No. of Connections: 206
No. of people served: 1625

Year 2019 Month June
County: Accomack
Supply: NASA Wallops Flight Facility
PWSID: 3001500 Mainbase

	Zinc Orthophosphate										
DATE	North End Results			Entry Point		South End Results			Lbs. of solution injected	No. Gal. Water Treated	Comments
	Bldg.	Free	Total	Free	Total	Bldg.	Free	Total			
1	D-50					N-162			12	148,000	
2	D-50					N-162			10	150,000	
3	D-50		2.34			N-162		2.41	10	144,000	
4	D-50					N-162			10	175,000	
5	D-50		2.66			N-162		2.42	0	185,000	
6	D-50					N-162			0	152,000	
7	D-50		2.17			N-162		2.37	0	155,000	
8	D-50					N-162			8	151,000	
9	D-50					N-162			8	227,000	
10	D-50		1.88			N-162		0.30	5	95,000	
11	D-50					N-162			7	152,000	
12	D-50		1.80			N-162		1.87	8	167,000	
13	D-50					N-162			9	167,000	
14	D-50		1.75			N-162		1.70	7	151,000	
15	D-50					N-162			6	144,000	
16	D-50					N-162			10	206,000	
17	D-50		1.80			N-162		1.92	4	96,000	
18	D-50					N-162			6	153,000	
19	D-50		1.45			N-162		2.17	6	155,000	
20	D-50					N-162			10	155,000	
21	D-50		1.19			N-162		1.51	10	148,000	
22	D-50					N-162			6	131,000	
23	D-50					N-162			8	126,000	
24	D-50		1.77			N-162		1.45	11	140,000	
25	D-50					N-162			13	176,000	
26	D-50		1.87			N-162		1.63	8	128,000	
27	D-50					N-162			8	156,000	
28	D-50		2.14			N-162		1.92	4	133,000	
29	D-50					N-162			8	145,000	
30	D-50					N-162			10	148,000	
Totals			22.82					21.67	222	4,559,000	
Min			1.19					0.30	0	95,000	
Max			2.66					2.42	13	227,000	
Ave			1.90					1.81	7	151,967	

Signed: Robert Witt
Printed Name: Robert W. Itt

VIRGINIA STATE DEPARTMENT
OF HEALTH
ORTHOPHOSPHATE REPORT

No. of Connections: 38
No. of people served: 400

Year 2019 Month June
County: Accomack
Supply: NASA Wallops Flight Facility
PWSID: 3001535 Mainland(Island)

	Zinc Orthophosphate										
DATE	North End Results			Entry Point		South End Results			Lbs. of solution injected	No. Gal. Water Treated	Comments
	Bldg.	Free	Total	Free	Total	Bldg.	Free	Total			
1	W-71					Y-61			4	30,245	
2	W-71					Y-61			4	29,533	
3	W-71		2.87			Y-61		2.53	2	32,518	
4	W-71					Y-61			6	29,248	
5	W-71		2.26			Y-61		3.38	3	58,630	
6	W-71					Y-61			3	28,013	
7	W-71		2.72			Y-61		3.17	3	38,735	
8	W-71					Y-61			3	31,602	
9	W-71					Y-61			4	38,241	
10	W-71		2.98			Y-61		3.10	2	19,307	
11	W-71					Y-61			3	29,619	
12	W-71		3.14			Y-61		2.99	3	28,960	
13	W-71					Y-61			4	37,537	
14	W-71		3.01			Y-61		3.01	2	28,478	
15	W-71					Y-61			4	29,084	
16	W-71					Y-61			4	39,762	
17	W-71		3.20			Y-61		3.73	1	20,114	
18	W-71					Y-61			4	34,043	
19	W-71		2.69			Y-61		2.98	5	41,862	
20	W-71					Y-61			6	55,983	
21	W-71		2.62			Y-61		2.95	2	30,490	
22	W-71					Y-61			4	30,202	
23	W-71					Y-61			4	36,916	
24	W-71		3.08			Y-61		3.11	2	30,890	
25	W-71					Y-61			6	66,489	
26	W-71		2.60			Y-61		3.13	2	40,681	
27	W-71					Y-61			4	41,845	
28	W-71		2.51			Y-61		3.09	6	40,498	
29	W-71					Y-61			8	79,336	
30	W-71					Y-61			2	48,854	
Totals			33.68					37.17	110	1,127,715	
Min			2.26					2.53	1	19,307	
Max			3.20					3.73	8	79,336	
Ave			2.81					3.10	4	37,591	

Signed: Robert Wilt
Printed Name: Robert Wilt

June 2019 Chincoteague Water Readings / from NASA grid		
Date	Current reading	gallons used
June 6th	67,938,000	664,000
June 13th	68,589,000	651,000
June 20nd	69,183,000	594,000
June 27th	69,734,000	551,000
June total		2,460,000