

**SANFORD LAW OFFICE, PLLC**

Jo Anne Sanford, Attorney at Law

January 30, 2023

**Via Electronic Filing**

Ms. A. Shonta Dunston, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4325

Re: Docket No. W-218, Sub 526A  
REPORTING REQUIREMENT DOCKET  
Fourth Quarter 2022 Notice of Deficiency Reports Provided to the  
North Carolina Department of Environmental Quality

Dear Ms. Dunston:

Attached for filing please find Aqua North Carolina, Inc.'s Fourth Quarter 2022 Notice of Deficiency Reports; these were provided to the North Carolina Department of Environmental Quality and the Public Staff on January 27, 2023.

I hereby certify that I have served a copy of this filing on all parties of record in the docket.

As always, thank you and your staff for your assistance and please feel free to contact me if there are any questions.

Sincerely,

**Electronically Submitted**

/s/ Jo Anne Sanford  
Sanford Law Office, PLLC  
State Bar No. 6831

Attorney for Aqua North Carolina, Inc.

c: Parties of Record



An Essential Utilities Company

January 26, 2023

Mr. Shawn F. Guyer, P.E.  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re Notice of Deficiency – Quarterly Update  
Iron and Manganese Concentration

Dear Mr. Guyer:

Attached you will find Aqua's Q-4 2022 responses and updates for the current notice of deficiency water systems. We have developed this cover letter to supply you with a summary of our current and ongoing efforts.

There are three wells that Aqua respectfully requests to be removed from quarterly NOD reporting.

- Foxboro Well #3 (P03) – New Filter Installed
- Hawthorne well #1 and #2 (P76) – Offline
- Barton Creek Bluffs well #10 (P67) - Zero Customer Complaints
- High Grove well #1 (P01)

If you have any questions, please feel free to contact me at 1-919-653-6982.

Sincerely,

*Robert Krueger*

Robert Krueger  
Area Manager  
Aqua North Carolina, Inc.

cc: Joseph Pearce  
Amanda Berger  
Shannon Becker  
State of North Carolina  
Utilities-Public Staff

OFFICIAL COPY

Jan 30 2023



January 26, 2023

Mr. Shawn F. Guyer, P.E.  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: Notice of Deficiency – Quarterly Update  
Manganese Concentration  
Foxboro Estates, Orange County  
WSF ID No. P03 Well #3  
Water System No: NC368144

Dear Mr. Guyer:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Branston Well #2, TP1. The Branston water system is comprised of one active well and one point of entry (POE). The current number of customers served is 44 and the system is approved to serve 44 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summary of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**

<u>Well Name and No.</u>	<u>Completed Activities</u>	<u>Planned Activities</u>
Foxboro Estates Well #3 (P03)	<ul style="list-style-type: none"> <li>April 19, 2022 -Obtained approval from the Utilities Commission for the installation of an iron and manganese filtration system.</li> <li>Filtration system installation completed in Q-3 2022.</li> </ul>	<ul style="list-style-type: none"> <li>Filter installation and filter start-up completed in Q3-2022</li> </ul>
Approved GPM (23)		
Avg. Quarterly Runtime (1.75) hours per day)		
<p><b><u>Comments:</u></b></p> <p>Based on the installation of the manganese dioxide filtration, Aqua respectfully requests this well be removed from the NOD quarterly reporting.</p>		

Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,

*Robert Krueger*

Robert Krueger  
 Area Manager  
 Aqua North Carolina, Inc.

Cc: Joseph Pearce  
 Amanda Berger  
 Shannon Becker  
 State of North Carolina  
 Utilities-Public Staff

**FOXBORO - NC0368144 - Well #3**

<b>Date</b>	<b>Avg. Sample Week Run Time</b>	<b>Raw-Fe Lab</b>	<b>Raw-Fe-Diss</b>	<b>Fe Lab</b>	<b>Fe-Diss</b>	<b>Distribution System-Fe Lab</b>	<b>Distribution System-Fe-Diss</b>	<b>Raw-Mn Lab</b>	<b>Raw-Mn-Diss</b>	<b>Mn Lab</b>	<b>Mn-Diss</b>
6/21/2022	1.67	10.4	<0.0220	4.82	<0.0220			0.458	0.403	0.409	0.357
8/31/2022	3	3.85	0.0436	3.38	0.0439			0.398	0.386	0.443	0.401
11/30/2022		0.064		0.02				0.33		0.0013	

Sample data will continue after filter installation to verify filter performance.

\* All units are in mg/L

\* Lab is Total Metals

Water Quality Complaints From 10/1/2022 - 12/31/2022

SO	SO Type	CR Number	Date of SO	Completion Date	Premise Address	City State Zip	Subdivision	Customer Name	Iron PPM	Iron PPM	Hardness PPM	Hardness PPM	pH PPM	pH PPM	Chlorine PPM	Chlorine PPM	FCR PPM	FCR PPM	Water Clarity	FCR Notes	FCR Comments
----	---------	-----------	------------	-----------------	-----------------	----------------	-------------	---------------	----------	----------	--------------	--------------	--------	--------	--------------	--------------	---------	---------	---------------	-----------	--------------



January 26, 2023

Mr. Shawn F. Guyer, P.E.  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office  
NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: Notice of Deficiency  
Iron and Manganese Concentration  
Bayleaf Master System  
Wake County  
WSF ID Nos: P67, P76  
Water System No: NC039373

Dear Mr. Guyer:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at Bayleaf Master System, P67, P76. The Bayleaf Master water system is comprised of 122 active wells and 117 points of entry (POE). The current number of connections served is 6,112 and the system is approved to serve 6,356 connections.

Due to the number of wells associated with our Bayleaf Master System Notice of Deficiencies, Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summary of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected at WSF ID Nos. P67, P76 as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

<b><u>Table 1 – Well Information, Completed Activities and Planned Activities</u></b>		
<b><u>Well Name and No.</u></b>	<b><u>Completed Activities</u></b>	<b><u>Planned Activities</u></b>
Hawthorne Well #1 & #2 (P76)	<ul style="list-style-type: none"> <li>• February 2016 -Started Using SeaQuest</li> <li>• Jan - Apr 2016 - Flushed system</li> <li>• February 2017 - Flushed system</li> <li>• June 2017 - Installed cartridge filter</li> <li>• September 2017 – Started Distribution and POE total and soluble sampling</li> <li>• December 2017 - Added raw sample data</li> <li>• March 2018 - Storage tank was cleaned</li> <li>• Q2-2018 system flushed</li> <li>• July 2018 - Adjusted Seaquest feed rate</li> <li>• Q4- 2018 performed jar testing at well #1 and adjusted sequestration feeds</li> </ul>	<ul style="list-style-type: none"> <li>• Continued investigation of well #1 and #2 production and water quality</li> <li>• Well 1 will be placed offline (not actively feeding distribution) by May 1, 2022</li> <li>• Evaluate alternative options (drilling new well, cleaning, etc.) to remediate the supply loss</li> </ul>
Approved GPM (73)		
Avg. Quarterly Runtime (0)		
<p><b><u>Comments:</u></b>          Aqua keeps these wells offline as much as possible. When peak demands exceed 14 hours, well #1 is utilized as it is the only source on a 5,000-gallon ground storage tank. Aqua is currently investigating multiple options to address the source water quality issues. Well #1 is currently only producing an average of 7 gpm which does not warrant filter installation. Aqua is evaluating well #2 water quality and the possibility of putting it back in-service. Well 1 will be placed offline (not actively feeding distribution) by May 1, 2022. Aqua will evaluate alternative options (drilling new well, cleaning, etc.) to remediate the supply loss to the Bayleaf master system. Aqua respectfully asks for this well be removed from quarterly reporting with the understanding that any use of this well will require the quarterly reporting to continue.</p>		



**UPDATED QUARTERLY STATUS REPORT**

<b><u>Table 1 – Well Information, Completed Activities and Planned Activities</u></b>		
<b><u>Well Name and No.</u></b>	<b><u>Completed Activities</u></b>	<b><u>Planned Activities</u></b>
Barton Creek Bluffs Well #10 (P67)	<ul style="list-style-type: none"> <li>• March 2016 – Started using SeaQuest</li> <li>• February 2017 – Flushed system</li> <li>• September 2017 – Took soluble and insoluble well head and distribution samples</li> <li>• December 2017 – Added raw sample data distribution soluble and insoluble iron</li> <li>• Q2 – 2018 Flushed system</li> <li>• Q4- 2018 performed jar testing at this well and adjusted sequestration feeds.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to monitor the effectiveness of sequestration</li> </ul>
Approved GPM (15)		
Avg. Quarterly Runtime (10)		
<p><b><u>Comments:</u></b></p> <p>Aqua has received zero customer complaints in the last year of quarterly reporting for this well and respectfully requests that this system be removed from quarterly reporting.</p>		

Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,

*Robert Krueger*

Robert Krueger  
 Area Manager  
 Aqua North Carolina, Inc.

Cc: Joseph Pearce  
 Amanda Berger  
 Shannon Becker  
 State of North Carolina  
 Utilities-Public Staff

Mr. Shawn F. Guyer, P.E.  
January 26, 2023  
Bayleaf Quarterly Update

**OFFICIAL COPY**

**Jan 30 2023**

Well Name	Date	Avg. Sample Week Run Time	Raw-Fe Lab	Raw-Fe-Diss	Fe Lab	Fe-Diss	Distribution System-Fe Lab	Distribution System-Fe-Diss	Raw-Mn Lab	Raw-Mn Diss	Mn Lab	Mn-Diss	Distribution System-Mn Lab	Distribution System-Mn-Diss
Bayleaf # 1 & 2 P76	5/19/2016	10.7			1.01						0.53			
	9/20/2016	14.2												
	3/23/2017	10.3												
	6/8/2017	15.51												
	9/15/2017	16.9												
	9/28/2017	21.72			0.833	0.164	0.0585	<0.0220			0.531	0.184	0.0108	0.00122
	10/6/2017	23.6			0.882	0.309	<.0220	<.0220			0.417	0.343	0.00236	0.00161
	10/23/2017	18.38			0.892	0.0559	0.139	<0.0220			0.32	0.225	0.0308	0.00597
	11/7/2017	11.86			0.634	0.0331	0.0234	<0.0220			0.202	0.134	0.0029	0.00128
	11/16/2017	8.38			0.814	<0.0220	0.736	<0.0220			0.233	0.104	0.269	0.141
	12/14/2018	9.8	13.9	0.0298	2.38	0.171	<.0220	<.0220	0.391	0.362	0.423	0.181	0.00136	0.0011
	1/22/2018	10.1	6.96	<0.022	1.42	0.102	0.116	0.0572	0.54	0.5	0.478	0.102	0.0196	0.00319
	2/26/2018	12.2	1.24	0.15	1.07	0.0817	0.0482	<0.0220	0.693	0.489	0.693	0.276	0.144	0.304
	3/28/2018	6.7	1.08	0.0386	1.1	<0.0220	0.87	0.217	0.582	0.614	0.586	0.547	0.402	0.287
	4/5/2018	8.19	0.941	<0.022	0.775	0.0407	<.0220	<.0220	0.847	0.578	0.457	0.353	0.0852	0.507
	5/2/2018	7.56	0.828	<.00600	0.952	0.0163	0.206	<.00600	0.531	0.518	0.526	0.486	0.531	0.518
	6/21/2018	12.67	0.793	0.0871	0.477	<0.0220	0.354	<0.0220	0.504	0.492	0.266	0.184	0.00875	<0.0015
	7/12/2018	12.94	0.786	0.075	0.736	0.433	0.0445	<0.0220	0.476	0.48	0.445	0.433	0.00616	0.00237
	8/9/2018	5.21	0.707	0.0551	1.18	0.271	0.21	0.0286	0.234	0.312	0.239	0.162	0.0289	0.00614
	9/8/2018	8.97	1.53	<.0220	0.118	0.0246	0.0462	<.0220	0.372	0.343	0.0205	0.00665	0.0151	0.00675
	10/19/2018	8.92	1.10	<0.0220	0.667	<0.0220	0.0641	<0.0220	0.425	0.326	0.425	0.326	0.175	0.00599
	11/16/2018	10.33	6.73	<0.0220	0.433	<0.0220	0.0905	<0.0220	0.351	0.297	0.184	<0.00150	0.0121	<0.00150
	12/5/2018	7.18	1.27	<0.0220	0.594	0.0248	0.0477	<0.0220	0.485	0.496	0.294	0.206	0.00557	<0.00150
	1/24/2019	5.04	0.901	0.0608	0.595	<0.0220	0.104	<0.0220	0.501	0.501	0.315	0.188	0.0730	0.00325
	2/7/2019	3.21	0.915	<0.0220	0.504	<0.0220	0.272	0.102	0.494	0.499	0.238	0.108	0.0677	0.0549
	5/10/2019	6.47			0.584	0.0454					0.296	0.229		
	9/19/2019	9.46			5.25	<0.0220					0.635	0.616		
	1/31/2020	16.3			1.21	<0.0220					0.483	0.487		
	2/27/2020	0	1.38	0.336	7.49	0.25			0.485	0.486	0.613	0.479		
	4/20/2020	0		<0.0220	1.32	<0.0220			2.07	0.799	0.500	0.483		
	10/29/2020	23.67	0.884	<0.0220	0.719	<0.0220			0.524	0.525	0.503	0.420		
	2/22/2022	0	1.89	0.0606					0.458	0.46				

Well Name	Date	Avg. Sample Week Run Time	Raw-Fe Lab	Raw-Fe-Diss	Fe Lab	Fe-Diss	Distribution System-Fe Lab	Distribution System-Fe-Diss	Raw-Mn Lab	Raw-Mn Diss	Mn Lab	Mn-Diss	Distribution System-Mn Lab	Distribution System-Mn-Diss
Barton Creek Bluffs #10	6/1/2013	9.4									0.2			
P67	5/31/2016	9.8									0.232			
	4/26/2017	7.82												
	5/17/2017	10.8												
	6/8/2017	12.6												
	9/15/2017	9.56			0.039	<0.022	<0.022	<0.022			0.0981	0.0959	<0.00110	<0.001
	9/27/2017	10.38			0.0483	<0.0220	0.0274	<0.0220			0.0972	0.123	0.00439	0.00146
	10/5/2017	17.59			0.0643	<0.0220	0.105	0.0434			0.176	0.0357	0.0339	0.0105
	10/23/2017	1.33			0.146	0.0371	0.518	0.0284			0.0451	0.36	0.543	0.015
	12/12/2018		0.13	<0.0220	0.128	<0.0220	0.511	<0.0220	0.217	0.216	0.214	0.201	1.17	0.00311
	1/22/2018	9.7	0.0969	<0.0220	0.198	<0.0220	0.0553	<0.0220	0.23	0.224	0.263	0.234	0.0293	0.00255
	2/8/2018	7.3	0.107	<0.0220	0.152	<0.0220	0.134	<0.0220	0.163	0.156	0.184	0.164	0.0489	0.0228
	3/15/2018	7.4	0.322	<0.0220	0.368	<0.0220	0.068	0.333	0.141	0.137	0.171	0.139	0.00613	0.00636

	4/18/2018	12.68	0.102	<0.0220	0.107	<0.0220	0.202	<0.0220	0.255	0.251	0.252	0.199	0.0499	0.0575
	5/9/2018	9.57	0.409	<0.0220	0.784	<0.0220	0.0505	<0.0220	0.232	0.221	0.241	0.178	0.203	0.0934
	6/21/2018	13.39	0.0373	<0.0220	0.0354	0.0335	0.0516	<0.0220	0.223	0.218	0.221	0.218	0.0142	0.00973
	7/12/2018	13.01	0.0353	<0.0220	0.0428	0.0368	0.501	<0.0220	0.208	0.207	0.207	0.205	0.0595	0.00983
	9/8/2018	10.98	<0.0220	<0.0220	<0.0220	<0.0220	0.253	0.0681	0.148	0.153	0.151	0.079	0.0546	0.0352
	10/19/2018	20.74	<0.0220	0.0388	0.0227	<0.0220	0.287	<0.0220	0.14	0.00318	0.141	0.00316	0.0771	0.00245
	11/16/2018	11.48	0.0580	<0.0220	0.213	<0.0220	0.0452	<0.0220	0.138	0.142	0.760	0.626	0.0124	0.0112
	12/5/2018	9.29	0.311	<0.0220	0.125	<0.0220	0.0829	<0.0220	0.145	0.0151	0.106	0.0759	0.0134	0.00617
	1/24/2019	8.82	0.336	<0.0220	0.414	<0.0220	0.0904	<0.0220	0.213	0.112	0.303	0.120	0.0423	0.0357
	2/7/2019	6.8	0.668	<0.0220	0.338	<0.0220	0.271	<0.0220	0.489	0.0170	0.151	0.0368	0.0712	0.0513
	3/15/2019	7.97	0.605	<0.0220	0.262	<0.0220	0.0615	<0.0220	0.160	0.0505	0.150	0.115	0.0187	0.0176
	4/25/2019	10.67	0.0360	<0.0220	0.0300	0.0220	0.0455	<0.0220	0.149	0.0145	0.141	0.138	0.0304	0.0157
	5/10/2019	10.06	0.248	<0.0220	0.329	0.0234			0.127	0.0847	0.122	0.110		
	6/14/2019	15.17	0.161	<0.0220	0.185	<0.0220			0.162	0.125	0.140	0.121		
	7/12/2019	14.26	0.0403		0.0351				0.139		0.138	0.126		
	8/15/2019	12.8	0.0303	<0.0220	0.0316	<0.0220			0.128	0.124	0.131	0.128		
	12/31/2019	8.86	0.0582	<0.0220	0.0709	<0.0220			0.118	0.112	0.109	0.107		
	2/14/2020	7.02	0.0408	<0.0220	0.0375	<0.0220			0.0589	0.059	0.0651	0.054		
	4/22/2020	8.53	0.0521	<0.0220	0.0484	<0.0220			0.096	0.090	0.0974	0.106		
	5/28/2020	8.56	0.0308	<0.0220	0.0327	<0.0220			0.185	0.151	0.1530	0.124		
	6/9/2020	8.53	0.0657	<0.0220	0.201	<0.0220			0.0162	0.012	0.0384	0.004		
	8/31/2020	10.5	0.0252	<0.0220	0.0475	<0.0220			0.0251	0.022	0.0262	0.026		
	10/22/2020	9.6	0.0283	<0.0220	0.0323	<0.0220			0.0765	0.070	0.0767	0.075		
	11/19/2020	7.5	0.0292	<0.0220	0.0247	<0.0220			0.141	0.144	0.1410	0.135		

Water Quality Complaints From 10/1/2022 - 12/31/2022

SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise Address	City State Zip	Subdivision	Capture Drain/Inlet	Iron Pre	Iron Post	Manganese Pre	Manganese Post	pH Pre	pH Post	Chlorine Pre	Chlorine Post	PO4 Pre	PO4 Post	Water Clarity	FSR Notes	FSR Comments
----	---------	-----------	------------	-----------------	-----------------	----------------	-------------	------------------------	----------	-----------	---------------	-------------------	--------	---------	--------------	---------------	---------	----------	---------------	-----------	--------------



January 26, 2023

Mr. Shawn F. Guyer, P.E.  
Engineering Supervisor  
Public Water Supply Section  
Raleigh Regional Office, NCDEQ  
1628 Mail Service Center  
Raleigh, NC 27699-1628

Re: Notice of Deficiency – Quarterly Update  
Iron and Manganese Concentration  
High Grove Subdivision, Wake County  
WSF ID No.: Well #1, P01  
Water System No: NC4092096

Dear Mr. Guyer:

Aqua North Carolina, Inc. (Aqua) received the above-referenced letter dated July 12, 2016, regarding elevated concentrations of Iron (Fe) and Manganese (Mn) at High Grove Well #1, P01. The High Grove water system is comprised of three active wells and three points of entry (POE). The current number of customers served is 150 and the system is approved to serve 155 connections.

Aqua has compiled the requested information in a table format as follows:

- Table 1 provides a summary of well information, completed activities and planned activities.
- Table 2 (Attachment 2) provides a summary of raw, POE and distribution iron and manganese samples collected as part of the ongoing Inorganic Chemical Analyses (IOC).
- Table 3 (Attachment 3) provides a summary of customer complaint information.

**UPDATED QUARTERLY STATUS REPORT**

**Table 1 – Well Information, Completed Activities and Planned Activities**

<b><u>Well Name and No.</u></b>	<b><u>Completed Activities</u></b>	<b><u>Planned Activities</u></b>
High Grove, Well #1 (P01)	<ul style="list-style-type: none"> <li>• September 2015 – Started using SeaQuest</li> <li>• May 2017 – Flushed system</li> <li>• September 2017 – Started distribution and POE total and soluble sampling</li> <li>• November 2017 – Hydro pneumatic tank cleaned</li> <li>• December 2017 – added raw sample data</li> <li>• August 2018 - Installed cartridge filter</li> <li>• January 2019 – Instituted jar testing on the</li> <li>• Q4 2019 – Flushed System</li> <li>• Q1-2020 - Installed an auto blow off on the cartridge filter.</li> <li>• Q1-2020 Flushed system</li> <li>• Q1-2021 Flushed system</li> <li>• Q1-2022 Flushed system</li> <li>• Q3-2022 Flushed system</li> <li>• Fe/Mn removal system installed and activated 1/4/2023</li> </ul>	<ul style="list-style-type: none"> <li>• Annual flushing of the distribution system.</li> </ul>
Approved GPM (48)		
Avg. Quarterly Runtime (5 hours per day)		

**Comments:**

Manganese dioxide filtration has been installed and is on line as of 1/4/2023. Aqua respectfully requests that the NOD for High Grove Well #1 rescinded.

Aqua is committed to providing water to its customers that meets their expectations at a reasonable cost. If you have any questions or comments, please contact me at (919) 653-6982.

Sincerely,

*Robert Krueger*

Robert Krueger  
Area Manager  
Aqua North Carolina, Inc.

Cc: Joseph Pearce  
Amanda Berger  
Shannon Becker  
State of North Carolina  
Utilities-Public Staff



HIGH GROVE-NC4092096 - Well #1													
Date	Avg. Sample Week Run Time	Raw-Fe Lab	Raw-Fe-Diss	Fe Lab	Fe-Diss	Distribution System-Fe Lab	Distribution System-Fe-Diss	Raw-Mn Lab	Raw-Mn-Diss	Mn Lab	Mn-Diss	Distribution System-Mn Lab	Distribution System-Mn-Diss
10/2/2017				0.168	0.0758	0.266	0.123			0.106	0.0931	0.127	0.0425
10/19/2017	0.267			0.131	0.0378	1.73	0.0357			0.0515	0.0357	0.326	0.0352
11/9/2017	0.54			0.138	0.0418	0.132	0.0973			0.0376	0.018	0.0383	0.0324
11/17/2017	0.45			0.18	0.0892	0.179	0.0916			0.0261	0.0192	0.0259	0.0196
12/12/2017	0.5	0.168	0.135	0.183	0.173	0.18	0.172	0.128	0.136	0.144	0.144	0.138	0.134
1/8/2018	0.035	0.264	0.225	0.171	0.157	0.176	0.168	0.166	0.168	0.126	0.123	0.131	0.131
3/5/2018	0.512	0.171	0.12	1.22	0.137	0.182	0.162	0.117	0.123	0.22	0.126	0.141	0.137
4/2/2018	3.5	0.305	0.167	0.373	0.0416	1.28	<0.022	0.127	0.132	0.136	0.0931	0.214	0.0368
5/10/2018	5.27	0.403	0.0843	0.266	<0.0220	2.1	<0.0220	0.108	0.0843	0.12	0.108	0.165	0.035
6/11/2018	4.35	0.248	0.169	0.27	0.221	0.221	<0.0220	0.104	0.105	0.119	0.112	0.0933	0.0802
7/30/2018	3.97	2.82	0.0431	1.4	<0.0220	0.304	0.0565	0.207	0.195	0.198	0.195	0.198	0.171
8/7/2018	8.8	1.01	0.0373	0.434	0.103	0.265	<0.0220	0.206	0.198	0.2	0.197	0.172	0.142
10/3/2018	12.1	0.577	0.124	0.0959	0.0324	0.127	0.0446	0.0775	0.0661	0.0752	0.0715	0.0726	0.0691
11/1/2018	8	2.33	0.183	0.0798	0.0235	0.202	<0.220	0.266	0.0804	0.122	0.118	0.0988	0.0788
12/6/2018	7.43	3.70	0.284	1.08	0.130	0.0687	0.0328	0.116	0.0843	0.110	0.102	0.110	0.106
1/14/2019	5.23	0.471	0.0780	<0.0220	<0.0220	0.0529	0.0334	0.130	0.108	0.0816	0.0838	0.0796	0.0755
2/11/2019	7.53	0.518	0.191	0.242	0.0982	0.282	0.113	0.119	0.106	0.133	0.133	0.116	0.111
4/8/2019	1.5	0.438	0.346	0.287	0.0484	0.262	<0.0220	0.188	0.192	0.174	0.137	0.159	0.115
5/16/2019	4	0.640	0.109	0.712	0.358			0.136	0.132	0.0979	0.0902		
6/4/2019	8	0.628	0.0650	0.470	0.201			0.137	0.128	0.0931	0.0873		
7/16/2019	6	9.73	0.1370	1.040	0.0585			0.472	0.0592	0.115	0.0893		
8/12/2019	8	12.4	0.355	0.27	0.199			0.339	0.0934	0.0874	0.0802		
9/19/2019	9	0.202	0.1000	0.095	0.0615			0.115	0.135	0.103	0.0986		
10/21/2019	8.5	0.791	0.1060	0.610	0.0854			0.107	0.0922	0.0784	0.0613		
12/9/2019	0.5	0.21	0.1290	0.077	0.0411			0.133	0.134	0.0659	0.0437		
1/13/2020	0.67	0.414	0.2460	0.303	0.239			0.159	0.16	0.123	0.123		
2/26/2020	2.25	0.394	0.1970	0.319	0.0485			0.168	0.175	0.141	0.0897		
3/3/2020	11.5	0.23	0.1950	0.146	0.118			0.134	0.136	0.104	0.0975		
5/13/2020	2	0.146	0.0353	0.170	<0.0220			0.102	0.0932	0.109	0.0765		
8/10/2020	2.5	1.22	0.0814	0.395	0.0496			0.139	0.132	0.118	0.106		
10/12/2020	3.25	0.282	0.1420	0.131	0.0872			0.169	0.164	0.133	0.126		
1/29/2021	5.33			0.444	0.0245					0.157	0.149		
3/4/2021	1.0	0.452	0.0592	0.476	0.0277	0.334	0.0248	0.129	0.131	0.131	0.102	0.0473	0.022
4/26/2021	4.25			1.100	0.0242					0.172	0.116		
8/16/2021	11.8			0.559	<0.0220					0.133	0.0908		
11/8/2021	3.0	0.661	0.1350	0.239		1.57		0.182	0.303	0.155	0.127	0.263	0.0925
2/28/2022	14.0	0.621	0.0924	0.408	0.236			0.21	0.214	0.215	0.21		
5/9/2022	0			1.340						0.147			
5/9/2022	0	0.676	<0.0220	0.927	0.0268			0.206	<0.00150	0.158	0.0857		
8/25/2022	10.33	0.388	<0.0220	0.244	0.0365			0.123	0.0118	0.12	0.101		
11/17/2022	6.6	0.34	0.1000	0.320	0.24			0.12	0.048	0.12	0.12		

\* All units are in mg/L  
\* Lab is Total Metals

### Water Quality Complaints From 10/1/2022 - 12/31/2022

SO	SO Type	CSR Notes	Date of SO	Completion Date	Premise	Address	City State Zip	Subdivision	FSR Notes	FSR Comments
14320831	LABD-S	ORANGE WATER	12/26/2022	12/27/2022	1421413	3101 LEBRUN PATH DR	FUQUAY-VARINA, NC 27526	High Grove		
14313174	LABD-S	IRON IN WATER CAUSING SKIN PROBLEMS PER MARK WATER ORANGE	12/21/2022	12/21/2022	1421413	3101 LEBRUN PATH DR	FUQUAY-VARINA, NC 27526	High Grove	customer is close to H.G. 3 RAW Fe 1.11 Mn 0.280the other Teo wells in the system are adage filters this one is not. needs flushed customer house and blow off in front of house . recommend cust flus	
14235853	LABD-S	SHERRY / ORANGE WATER / CAUSING DRY SKIN / PLEASE CALL 919-880-2891	10/28/2022	10/28/2022	1421413	3101 LEBRUN PATH DR	FUQUAY-VARINA, NC 27526	High Grove	no orange or brown water FSR:taberj, EVT:Lab	
14210535	LABD-S	BROWN WATER W/ SEDIMENT	10/15/2022	10/16/2022	1362547	3100 LEBRUN PATH	FUQUAY VARINA, NC 27526-7684	High Grove	Water was dirty on arrival Tim Thomas put jumper in and flushed it off at meter for 20mins before it came clear.took residuals at home and everything looks good	
14191828	LABD-S	REALLY ORANGE WATER IN LAST TWO DAYS PER SHERRY/ PLEASE CONTACT	10/3/2022	10/3/2022	1421413	3101 LEBRUN PATH DR	FUQUAY-VARINA, NC 27526	High Grove	discolored due to storm event Ian Hurricane FSR:meierk, EVT:Lab	