

Appendix I2B

Master Continuous Recorder Extended Database Initial Analysis Deliverable Format Technical Memorandum

TECHNICAL MEMORANDUM:

Contract Number: TWA-22TW0003992

August 10, 2024

Lower Hillsborough River Recovery Strategy, 3rd 5- Year Evaluation

To: Danielle Rogers, Southwest Florida Water Management District

From: Mike Wessel, Environmental Science Associates

Through: B.J. Bukata, Jones Edmunds and Associates.

Subject: Task 10 Master Continuous Recorder Extended Database Initial Analysis Deliverable Format

The purpose of this memorandum is to document the Task 10 deliverable for TWA-22TW0003992: Initial Data Analysis - Extended. The deliverable for this task is defined as:

A technical memorandum (TM) including tables and figures (formatted as appendices) summarizing the raw data distributions and graphics (updated through December 31st, 2023) will be provided by the CONSULTANT to the DISTRICT as a task deliverable.

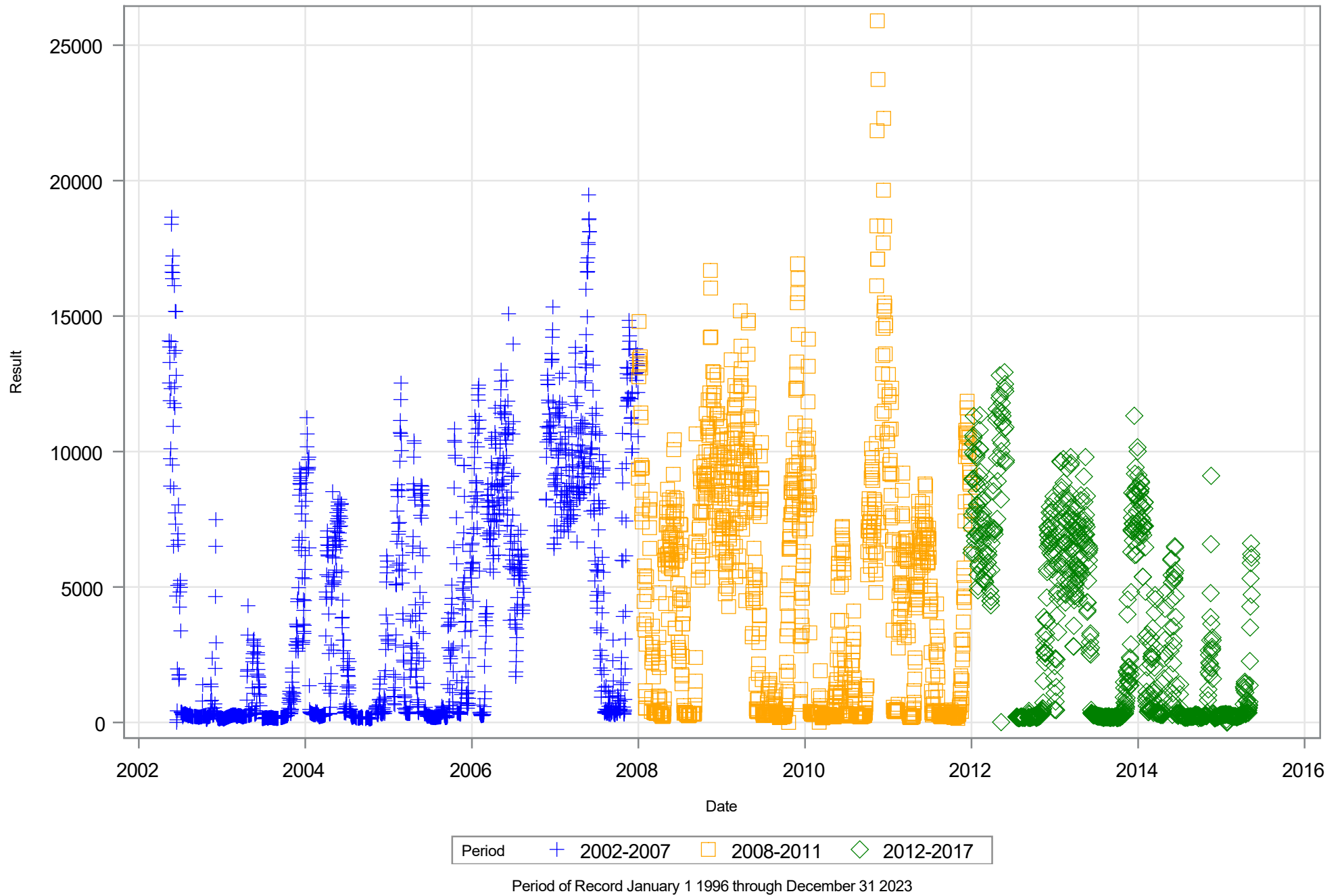
The District approved continuous recorder dataset Master_CR_Data_2024-08.02.RDS. That data was exported as individual .csv files with a source suffix (e.g. LHR_CR_Master_EPC.csv). These files were used to prepare the graphics presented on the following pages which are organized first by parameter, then by source and station. For each parameter of interest, the descriptive plots and statistics include a:

- Timeseries plot of the data with color coded reference to defined minimum flows implementation “periods”.
- Histogram of data distribution with normal density curve overlay and test for normality.
- Table of distributional statistics by minimum flows implementation period.
- Boxplot of distribution by minimum flows implementation period.

Note: No Morris Bridge Sink data are presented within this deliverable

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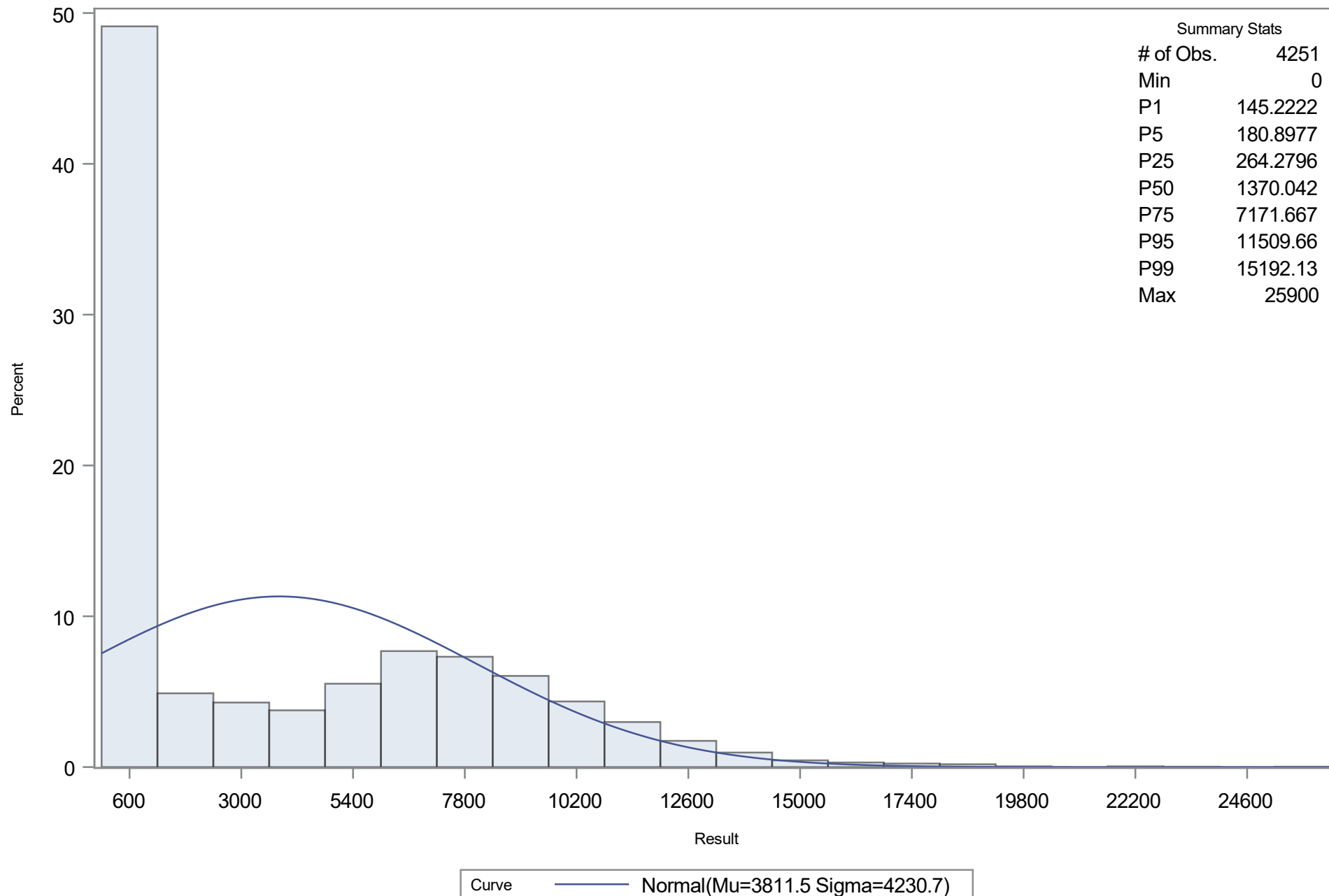
Timeseries of Surface Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7



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Univariate Histogram of Surface Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3811.543
Std Dev	Sigma	4230.694

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.226913	Pr > D	<0.010
Cramer-von Mises	W-Sq	53.239847	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	303.069404	Pr > A-Sq	<0.005

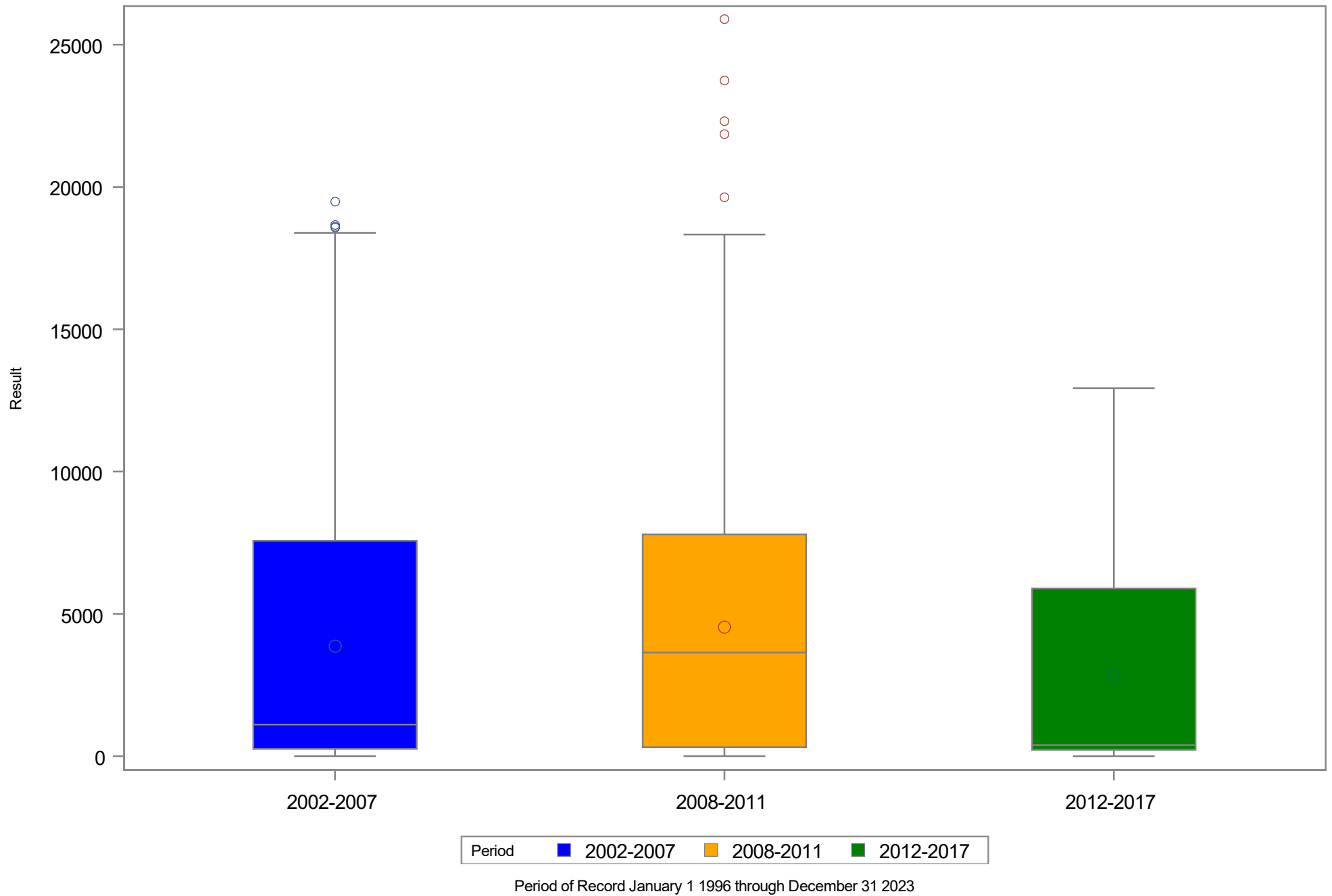
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	145.222	-6030.523
5.0	180.898	-3147.329
10.0	199.304	-1610.309
25.0	264.280	957.984
50.0	1370.042	3811.543
75.0	7171.667	6665.103
90.0	9914.667	9233.396
95.0	11509.661	10770.416
99.0	15192.128	13653.609

DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1836	2.00	254.22	3875.35	1110.31	7567.95	19473.24
2008-2011	1339	1.00	315.88	4518.13	3639.63	7790.83	25900.00
2012-2017	1076	0.00	224.40	2823.38	389.85	5890.17	12926.75

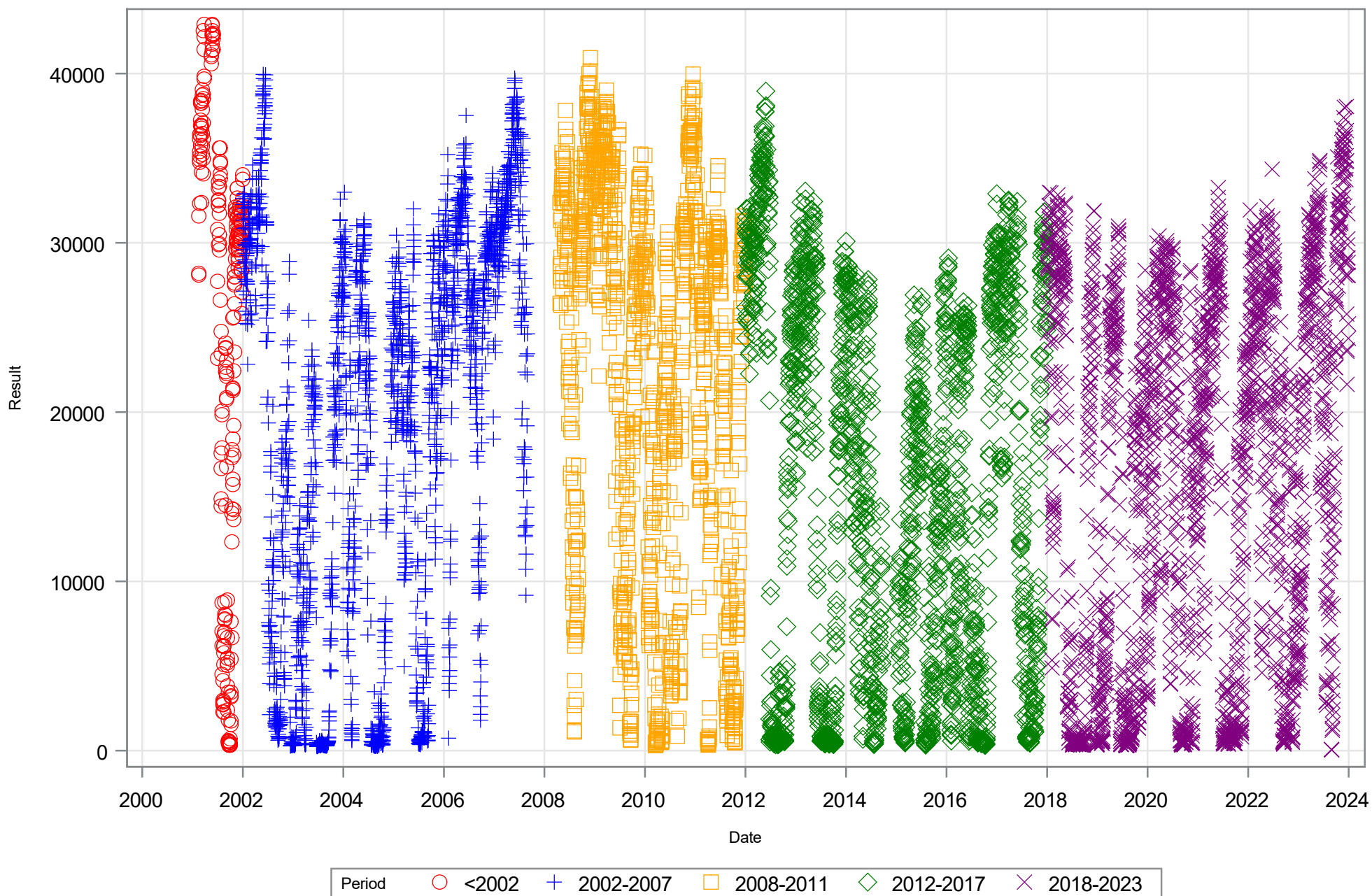
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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7



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Timeseries of Surface Specific Conductance (us/cm) at Station TBW Columbus

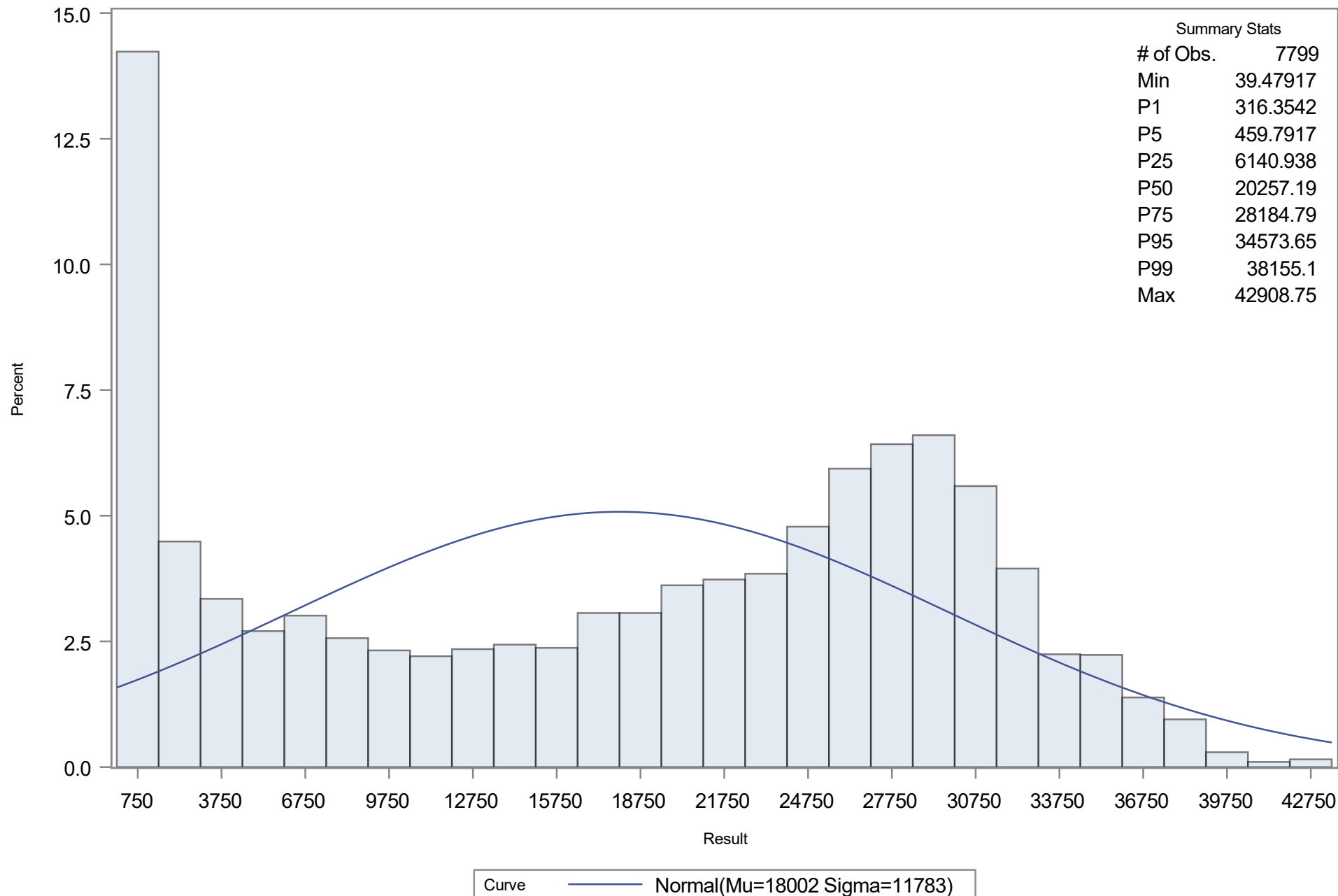


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Specific Conductance (us/cm) at Station TBW Columbus

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	18002.17
Std Dev	Sigma	11783.21

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.102657	Pr > D	<0.010
Cramer-von Mises	W-Sq	31.861139	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	209.653332	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	316.354	-9409.68
5.0	459.792	-1379.49
10.0	751.875	2901.38
25.0	6140.938	10054.51
50.0	20257.188	18002.17
75.0	28184.792	25949.82
90.0	31961.667	33102.96
95.0	34573.646	37383.82
99.0	38155.104	45414.01

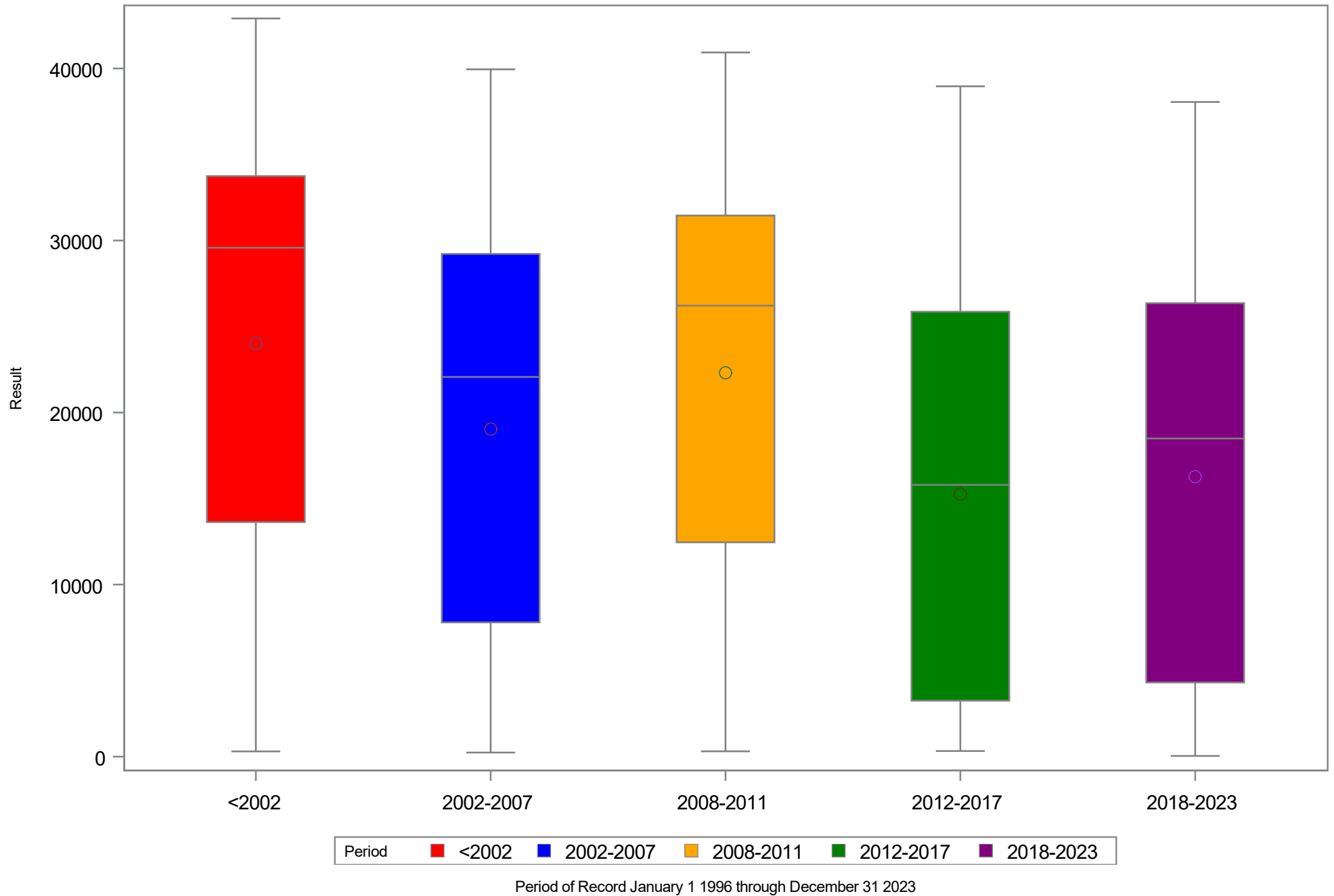
DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station TBW Columbus

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	239	304.06	13632.92	24026.76	29577.29	33741.04	42908.75
2002-2007	2026	238.02	7801.35	19062.59	22068.85	29220.96	39950.00
2008-2011	1328	307.81	12456.98	22307.98	26212.86	31451.41	40930.42
2012-2017	2025	324.38	3252.50	15258.16	15796.04	25858.54	38962.19
2018-2023	2181	39.48	4310.73	16282.86	18490.73	26357.08	38051.04

Period of Record January 1 1996 through December 31 2023

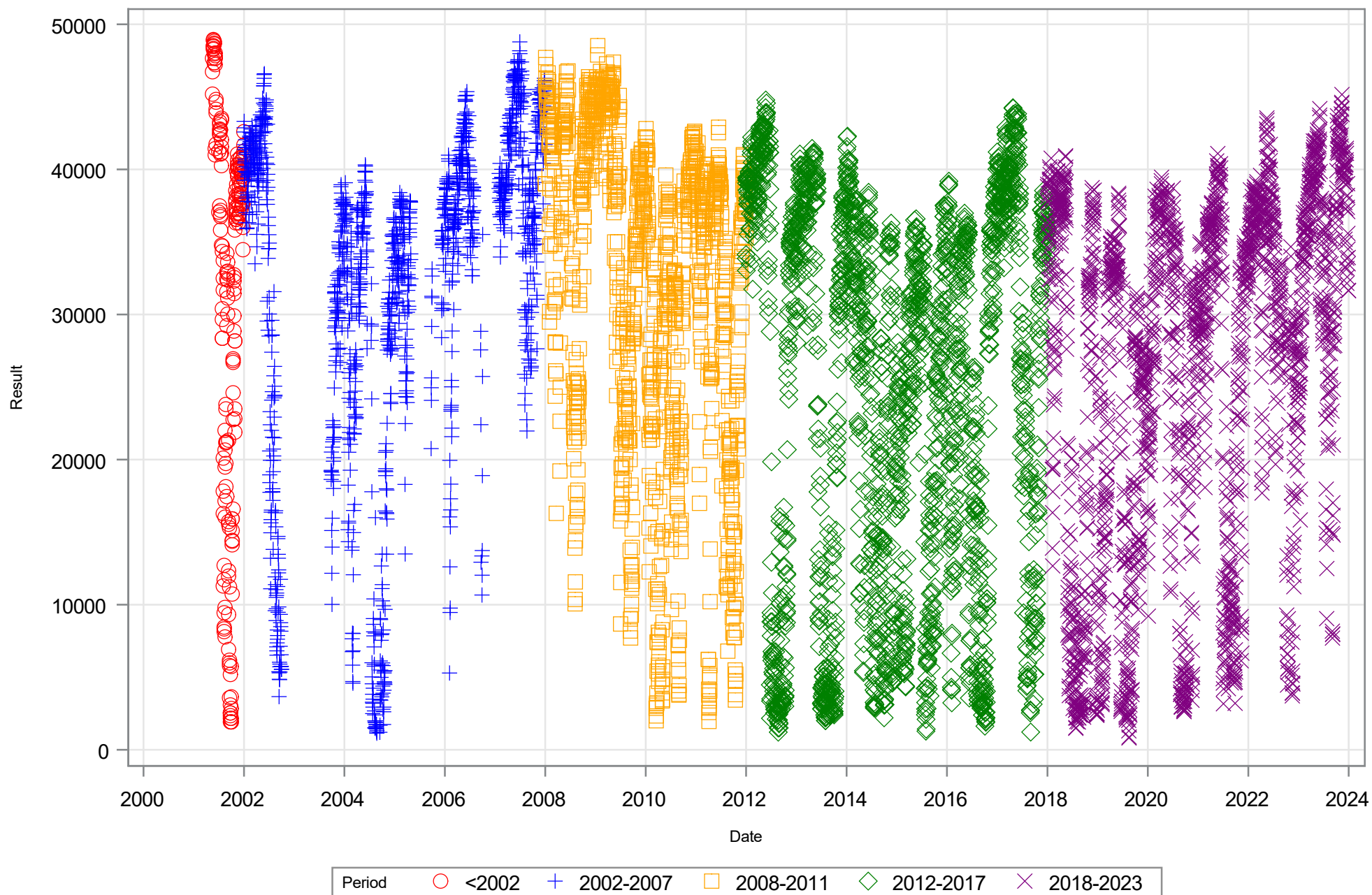
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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station TBW Columbus



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Timeseries of Surface Specific Conductance (us/cm) at Station TBW Crosstown

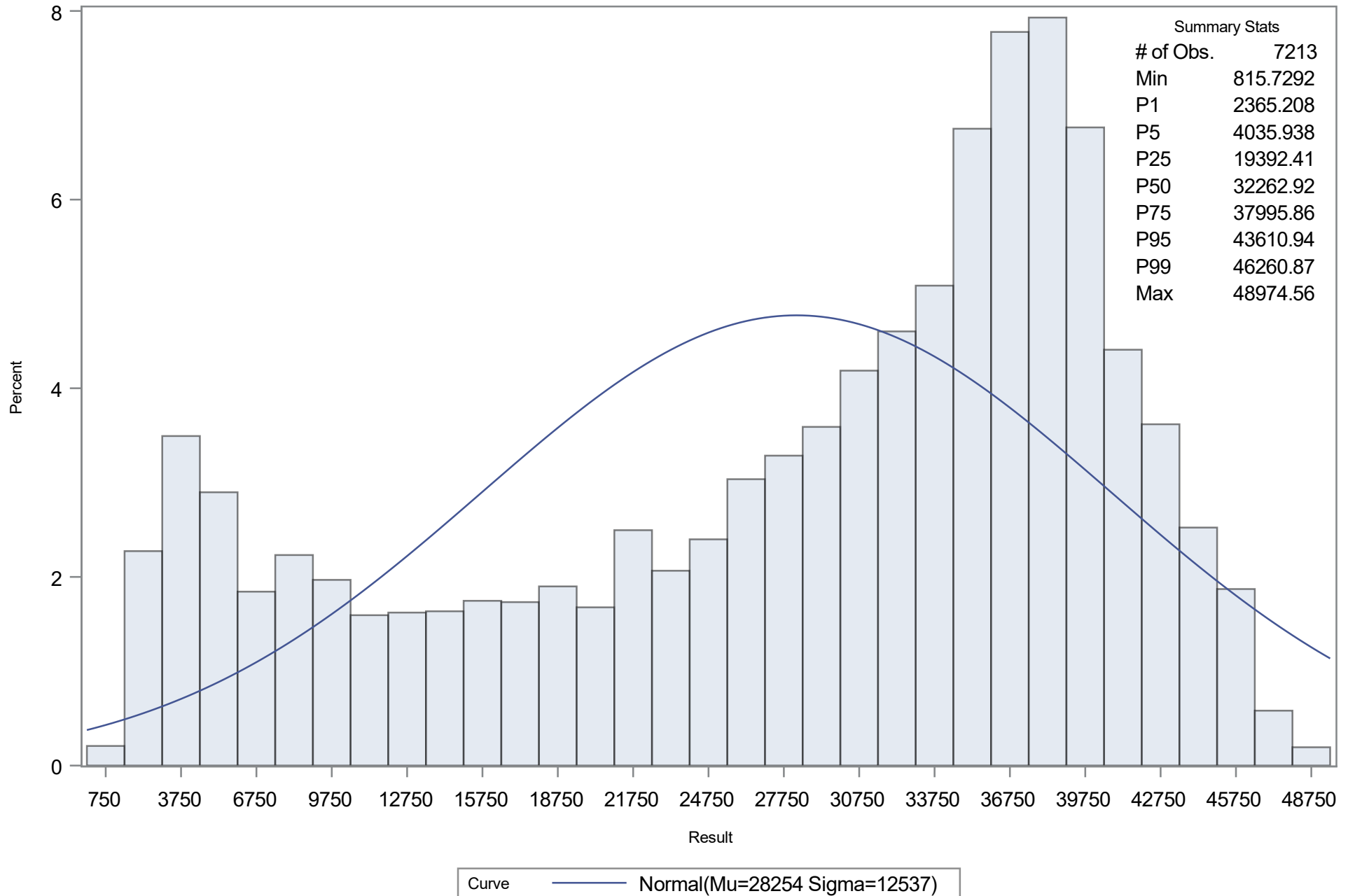


Period of Record January 1 1996 through December 31 2023

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Univariate Histogram of Surface Specific Conductance (us/cm) at Station TBW Crosstown

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	28254.38
Std Dev	Sigma	12536.92

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.126222	Pr > D	<0.010
Cramer-von Mises	W-Sq	38.291470	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	229.750303	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2365.21	-910.845
5.0	4035.94	7632.991
10.0	6838.44	12187.678
25.0	19392.41	19798.361
50.0	32262.92	28254.382
75.0	37995.86	36710.404
90.0	41547.60	44321.087
95.0	43610.94	48875.774
99.0	46260.87	57419.610

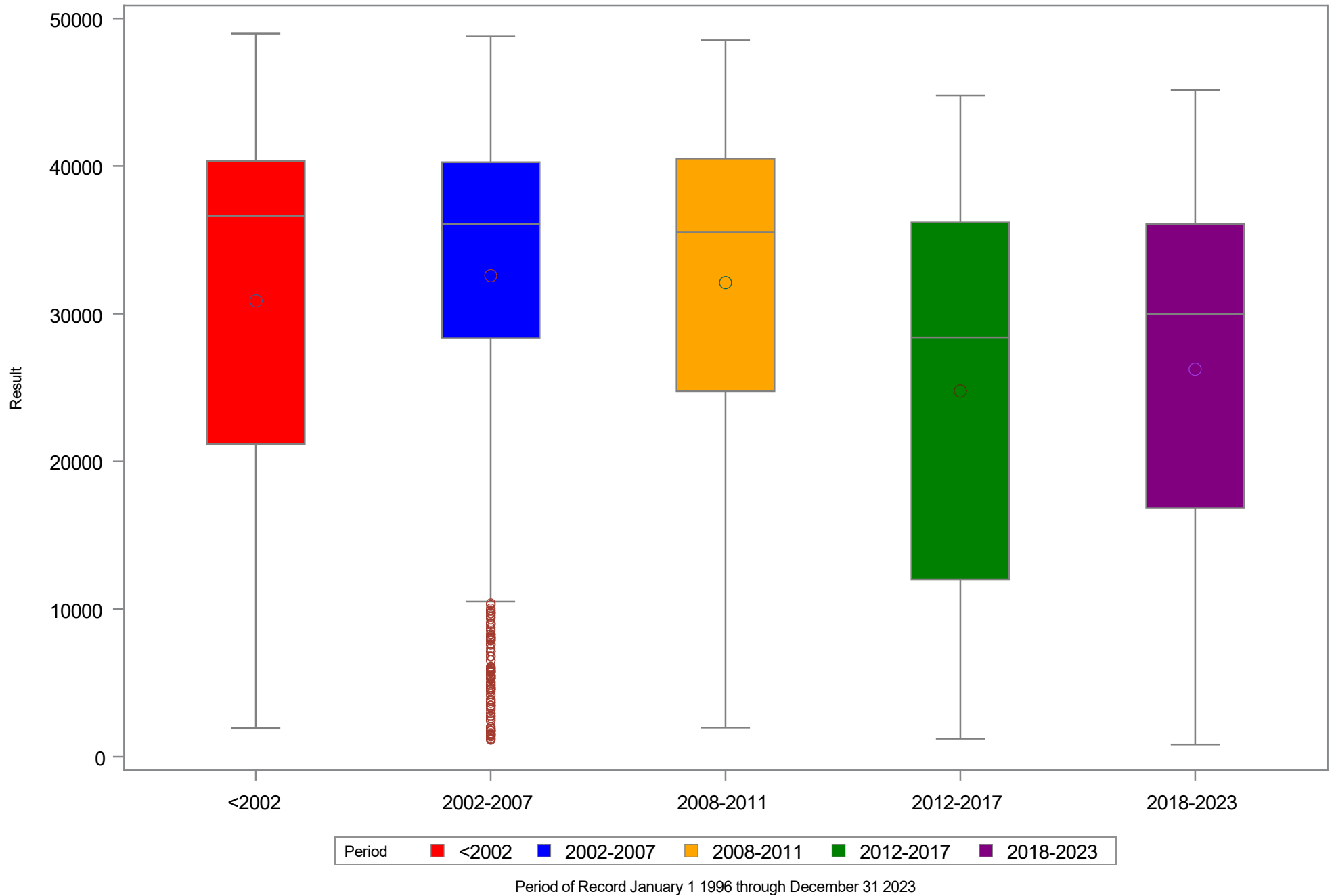
DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station TBW Crosstown

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	210	1938.75	21169.79	30886.53	36640.65	40328.33	48974.56
2002-2007	1398	1143.74	28348.33	32543.45	36069.08	40255.85	48787.47
2008-2011	1354	1956.79	24756.32	32098.91	35504.42	40505.62	48525.93
2012-2017	2151	1213.44	12009.58	24771.18	28367.71	36183.13	44782.81
2018-2023	2100	815.73	16845.21	26224.86	29984.84	36079.55	45160.44

Period of Record January 1 1996 through December 31 2023

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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station TBW Crosstown



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Timeseries of Surface Specific Conductance (us/cm) at Station TBW Sligh



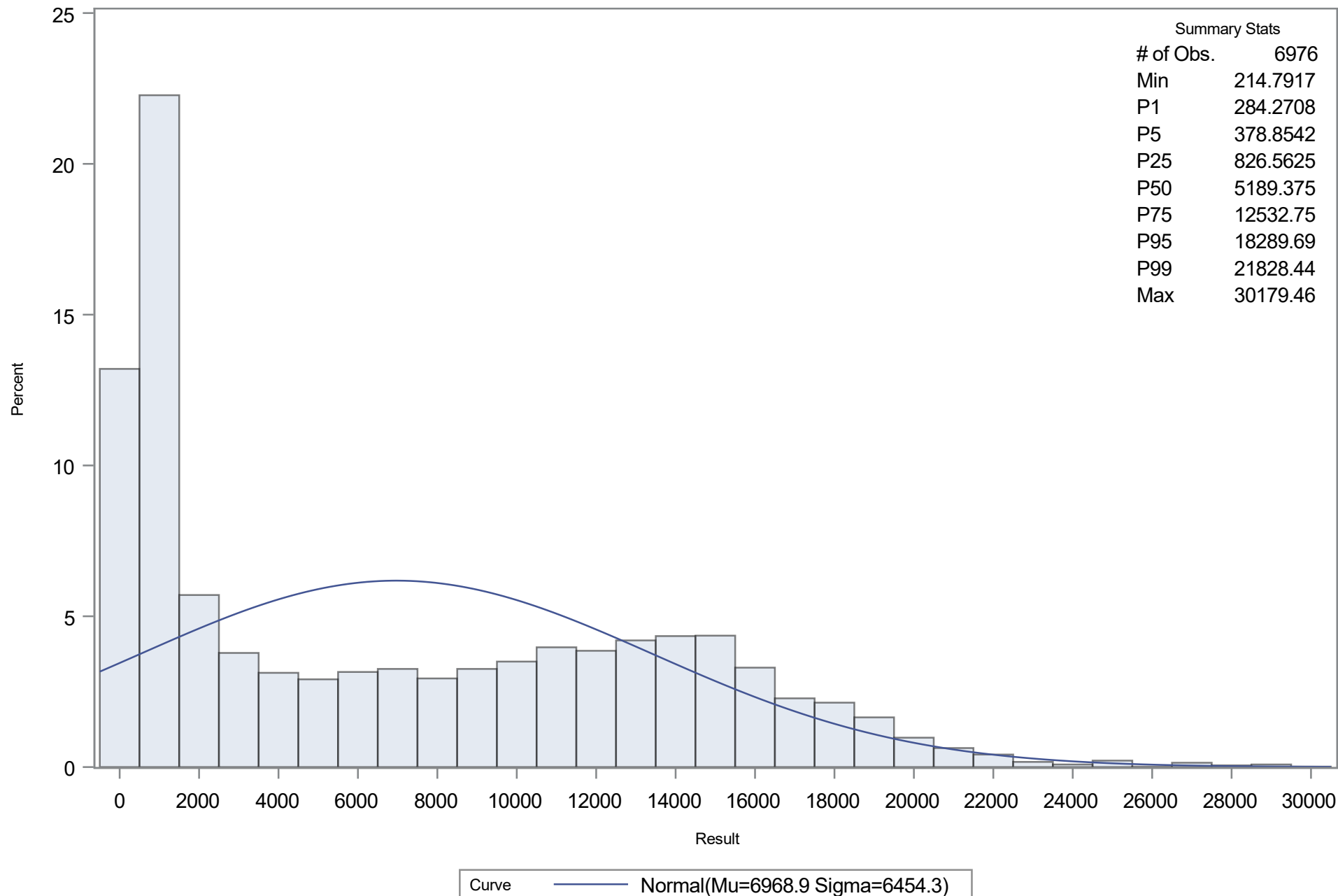
Period + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

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Univariate Histogram of Surface Specific Conductance (us/cm) at Station TBW Sligh

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Specific Conductance (us/cm) at Station TBW Sligh**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	6968.874
Std Dev	Sigma	6454.308

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.168890	Pr > D	<0.010
Cramer-von Mises	W-Sq	51.890576	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	318.109954	Pr > A-Sq	<0.005

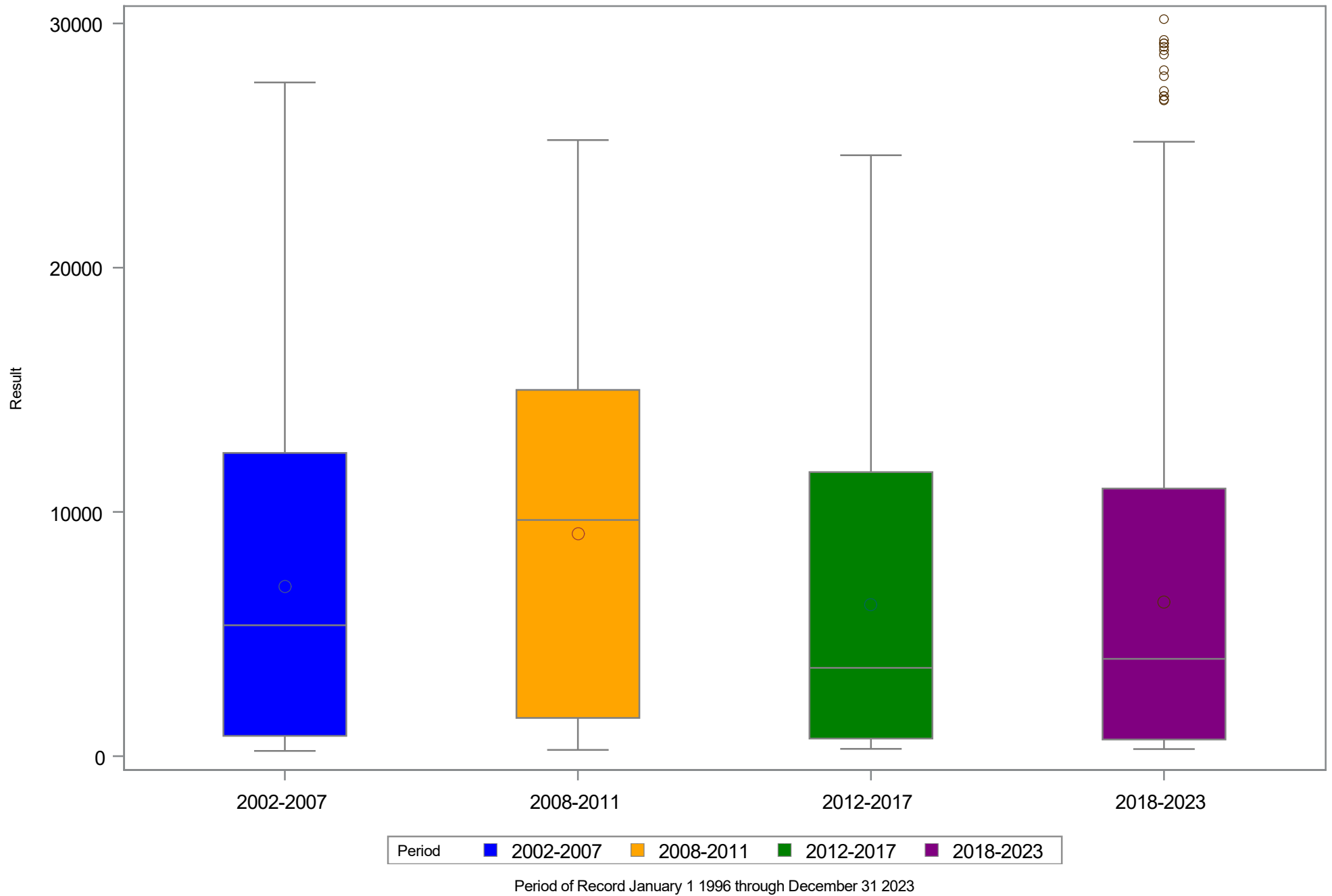
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	284.271	-8046.09
5.0	378.854	-3647.52
10.0	448.542	-1302.65
25.0	826.563	2615.51
50.0	5189.375	6968.87
75.0	12532.750	11322.24
90.0	16130.833	15240.40
95.0	18289.688	17585.27
99.0	21828.438	21983.84

DRAFT **Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station TBW Sligh**

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1645	214.79	829.48	6962.83	5359.48	12414.44	27584.17
2008-2011	1348	255.42	1564.71	9120.24	9669.82	14995.63	25224.78
2012-2017	2170	298.85	720.31	6196.33	3614.95	11629.79	24604.17
2018-2023	1813	290.52	682.40	6299.44	3983.50	10957.29	30179.46

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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station TBW Sligh



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Timeseries of Surface Specific Conductance (us/cm) at Station USGS 02304000 Fowler



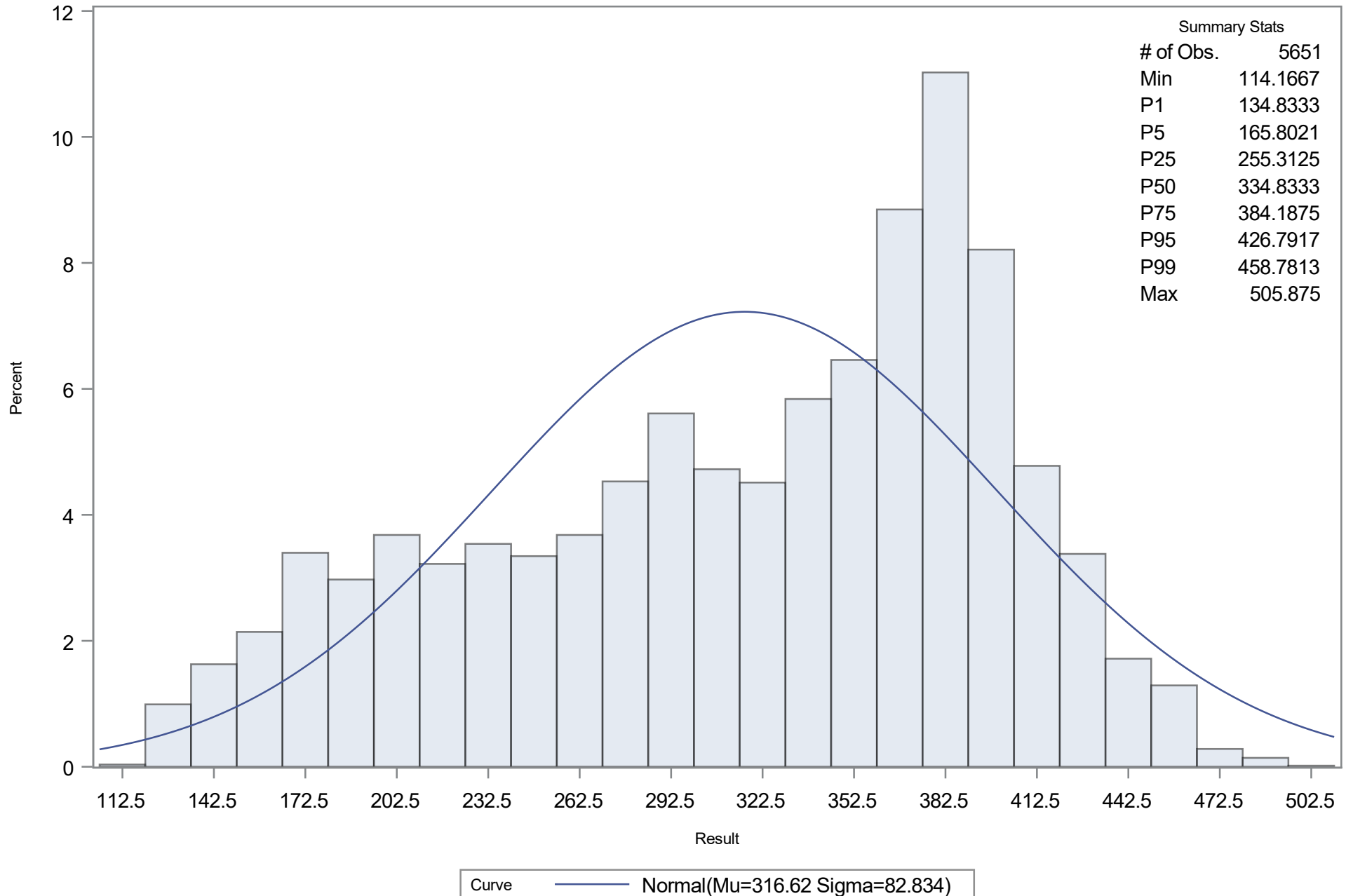
Period	2008-2011	2012-2017	2018-2023
Symbol	Orange Square	Green Diamond	Purple Cross

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Specific Conductance (us/cm) at Station USGS 02304000 Fowler

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	316.6217
Std Dev	Sigma	82.83401

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.1013671	Pr > D	<0.010
Cramer-von Mises	W-Sq	15.6249623	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	92.1182778	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	134.833	123.921
5.0	165.802	180.372
10.0	189.083	210.466
25.0	255.313	260.751
50.0	334.833	316.622
75.0	384.188	372.492
90.0	409.792	422.778
95.0	426.792	452.872
99.0	458.781	509.322

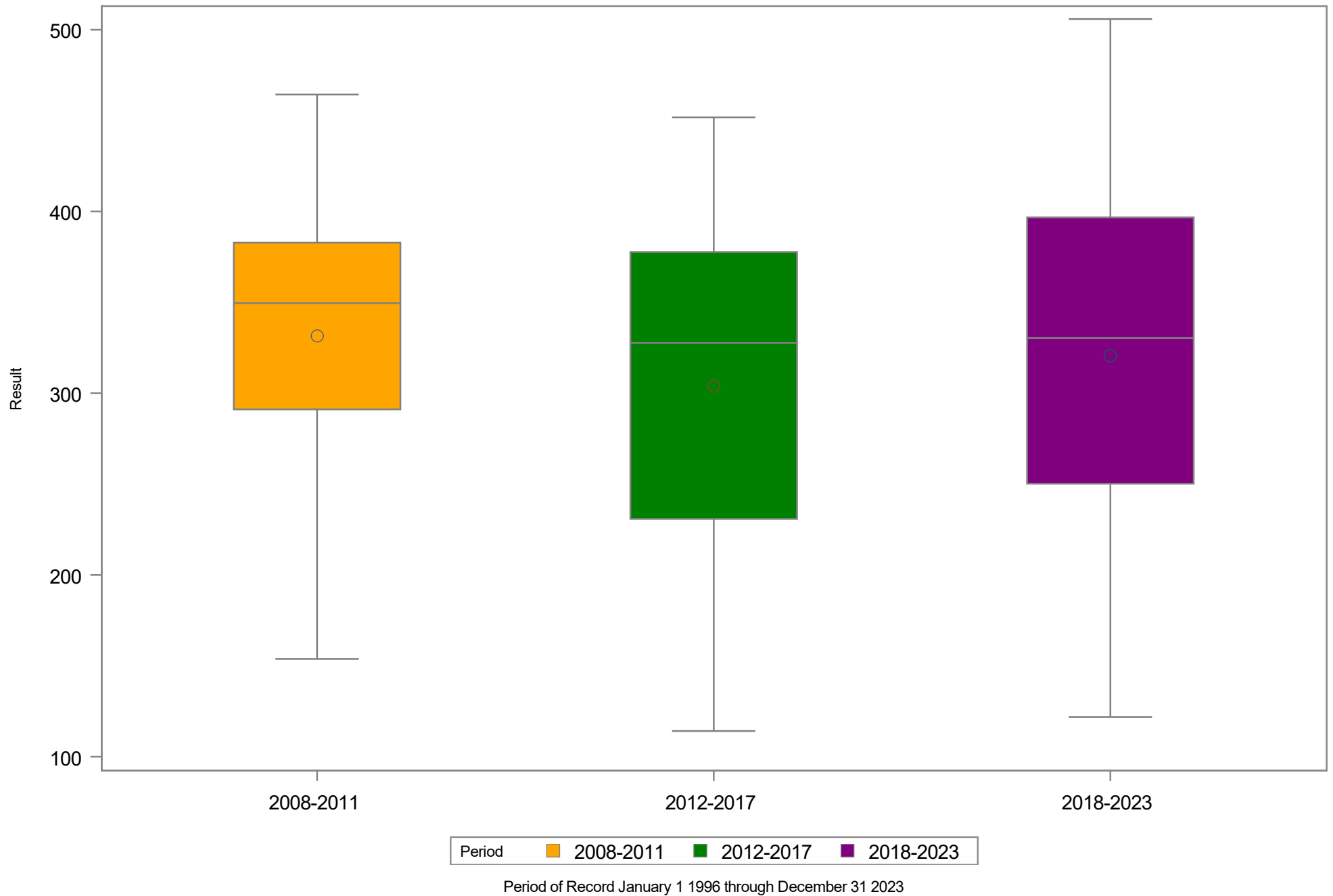
DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 02304000 Fowler

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1282	153.80	291.11	331.53	349.55	382.82	464.35
2012-2017	2181	114.17	230.86	303.90	327.63	377.74	451.76
2018-2023	2188	121.79	250.25	320.57	330.44	396.73	505.88

Period of Record January 1 1996 through December 31 2023

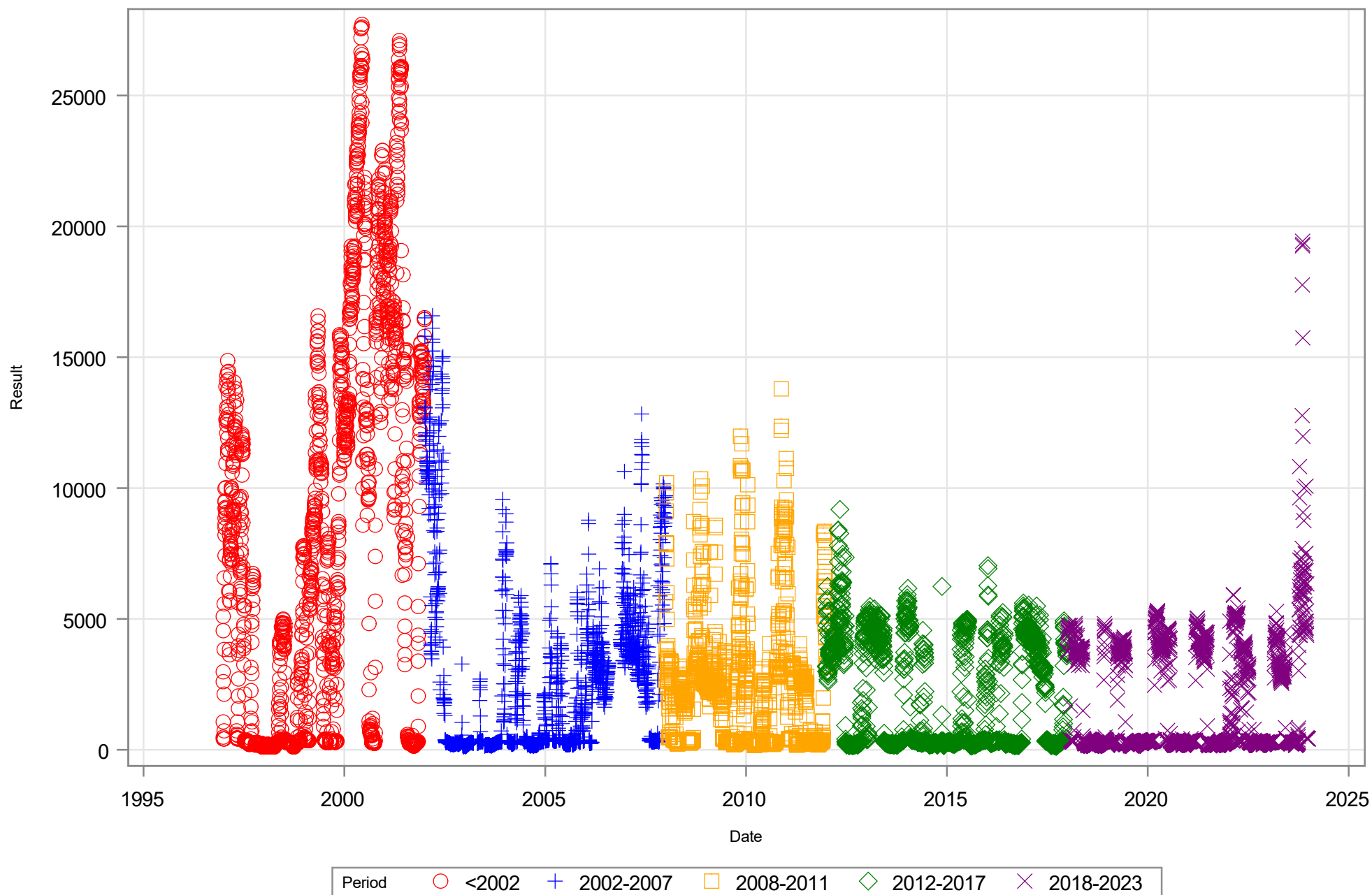
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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 02304000 Fowler



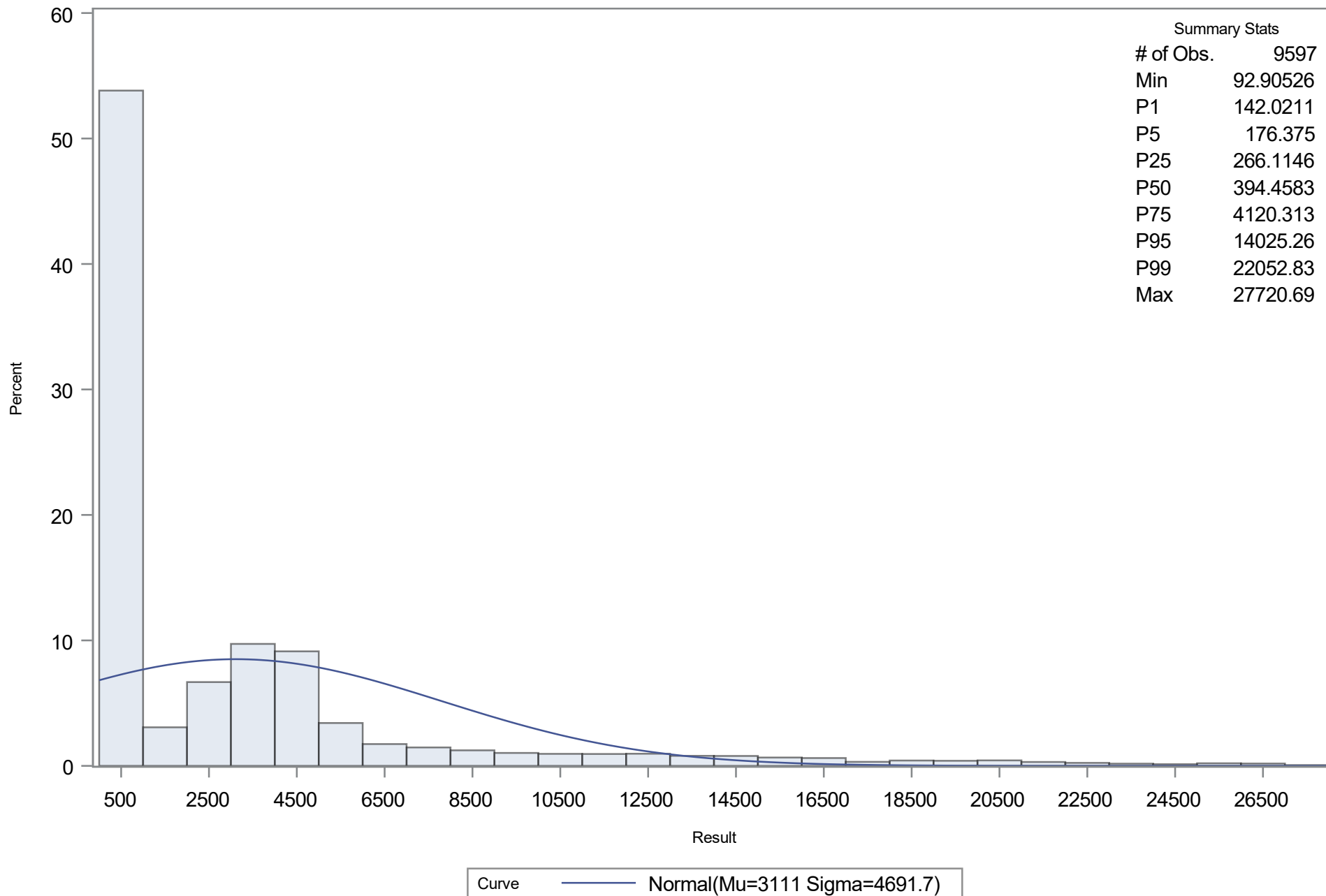
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Timeseries of Surface Specific Conductance (us/cm) at Station USGS 02304510 Rowlett



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3110.973
Std Dev	Sigma	4691.687

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.26004	Pr > D	<0.010
Cramer-von Mises	W-Sq	195.68413	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1079.76103	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	142.021	-7803.5217
5.0	176.375	-4606.1643
10.0	200.490	-2901.6649
25.0	266.115	-53.5212
50.0	394.458	3110.9733
75.0	4120.313	6275.4677
90.0	8784.688	9123.6115
95.0	14025.263	10828.1109
99.0	22052.832	14025.4682

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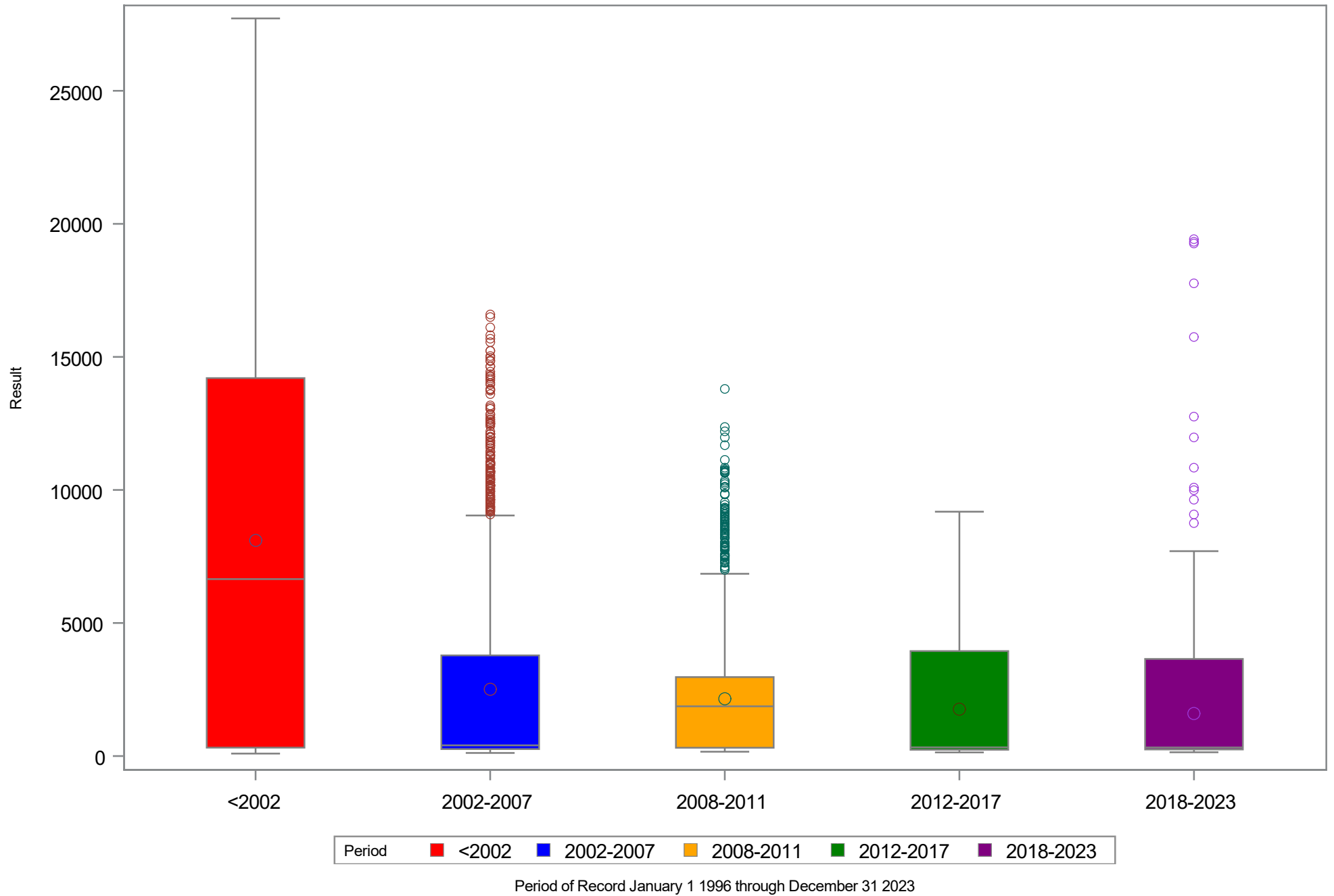
Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 02304510 Rowlett

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1777	92.91	315.98	8105.23	6649.86	14203.36	27720.69
2002-2007	2012	116.56	261.31	2499.81	402.73	3782.56	16582.11
2008-2011	1445	162.82	311.20	2159.11	1868.68	2967.50	13789.58
2012-2017	2178	136.80	236.35	1757.84	327.77	3944.17	9182.81
2018-2023	2185	142.39	247.74	1590.34	322.89	3648.23	19430.21

Period of Record January 1 1996 through December 31 2023

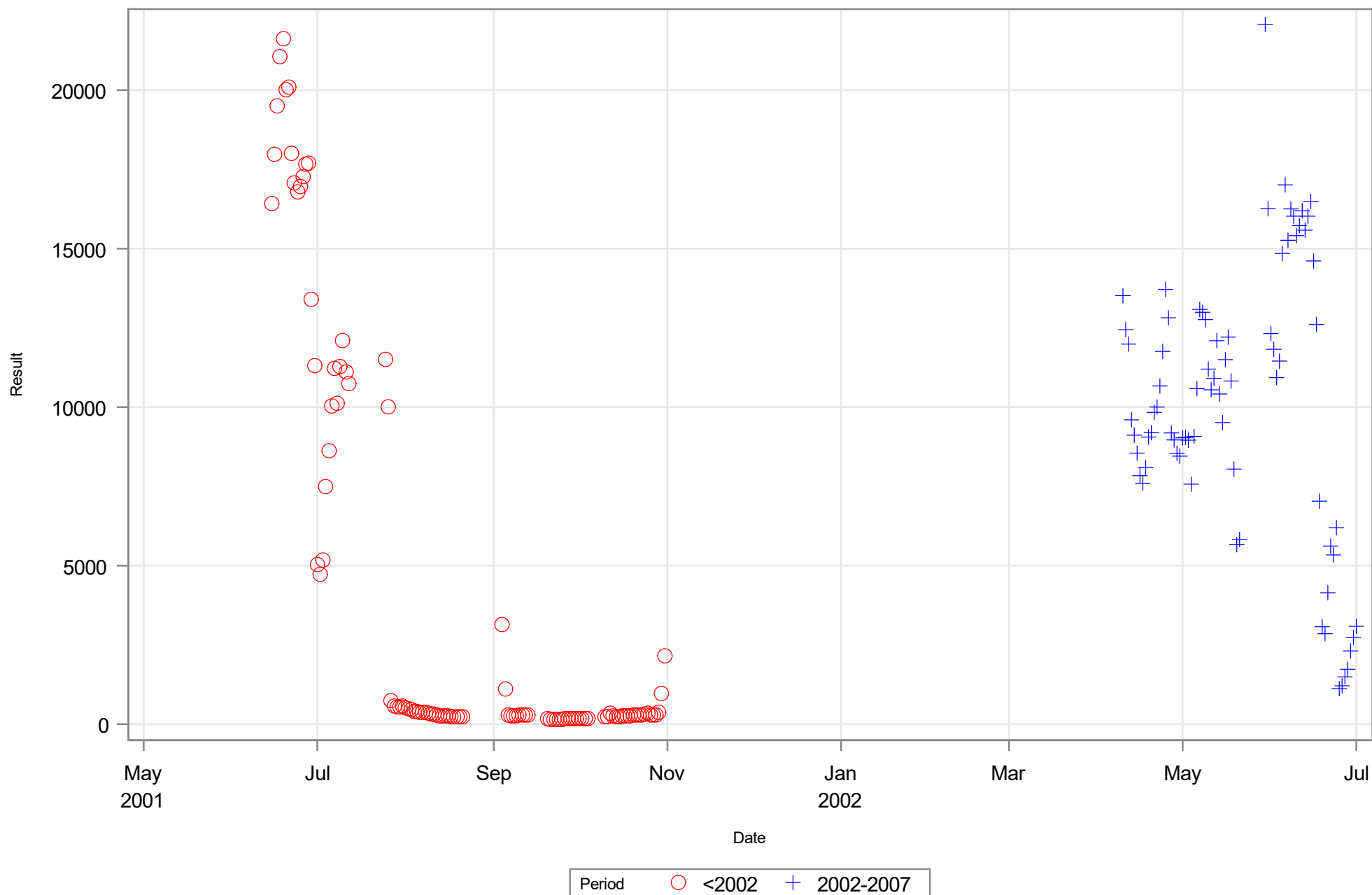
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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 02304510 Rowlett



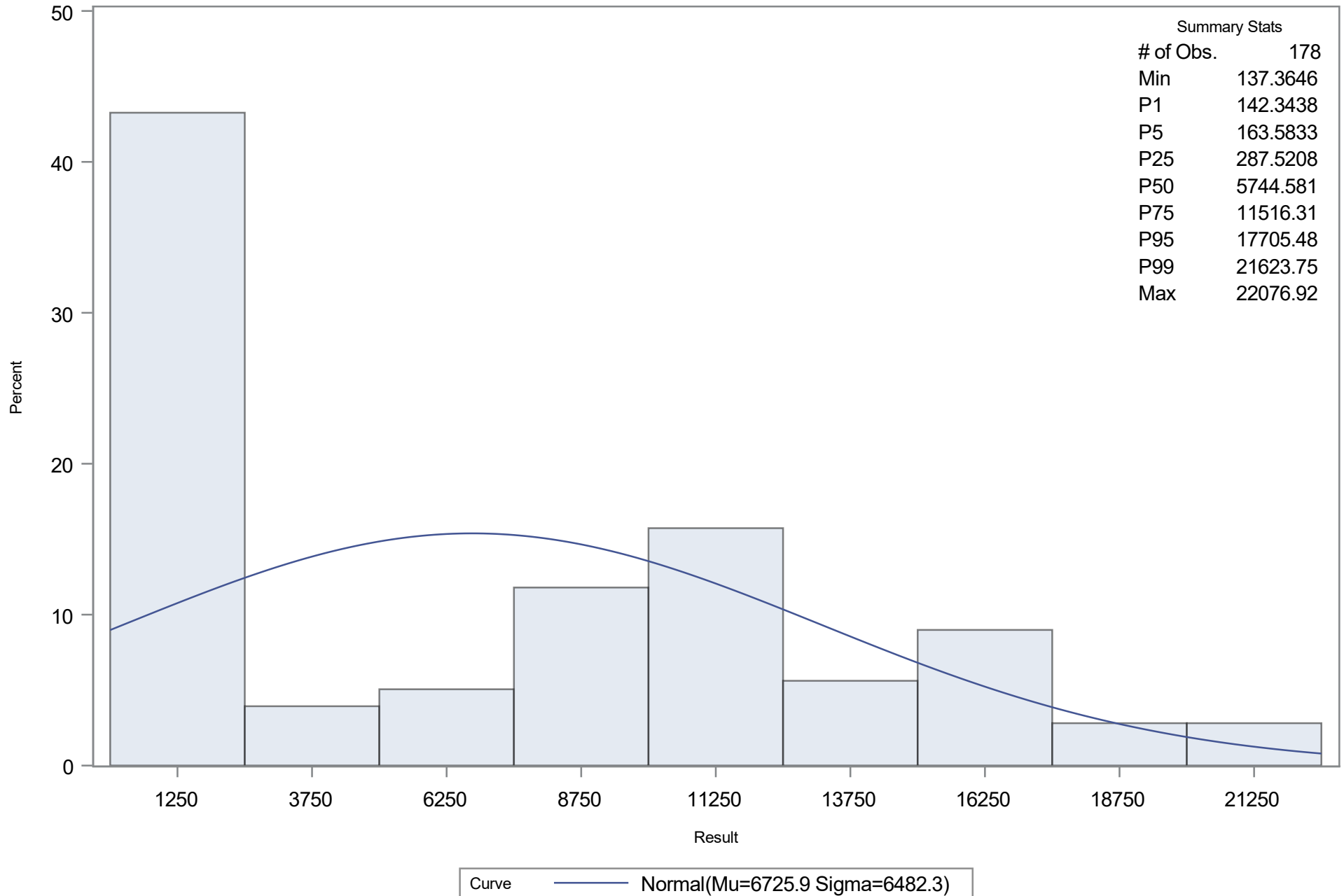
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Timeseries of Surface Specific Conductance (us/cm) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	6725.925
Std Dev	Sigma	6482.275

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.21272451	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.48257583	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	9.41877372	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	142.344	-8354.10
5.0	163.583	-3936.47
10.0	237.219	-1581.44
25.0	287.521	2353.70
50.0	5744.581	6725.92
75.0	11516.308	11098.15
90.0	16259.583	15033.29
95.0	17705.479	17388.32
99.0	21623.750	21805.95

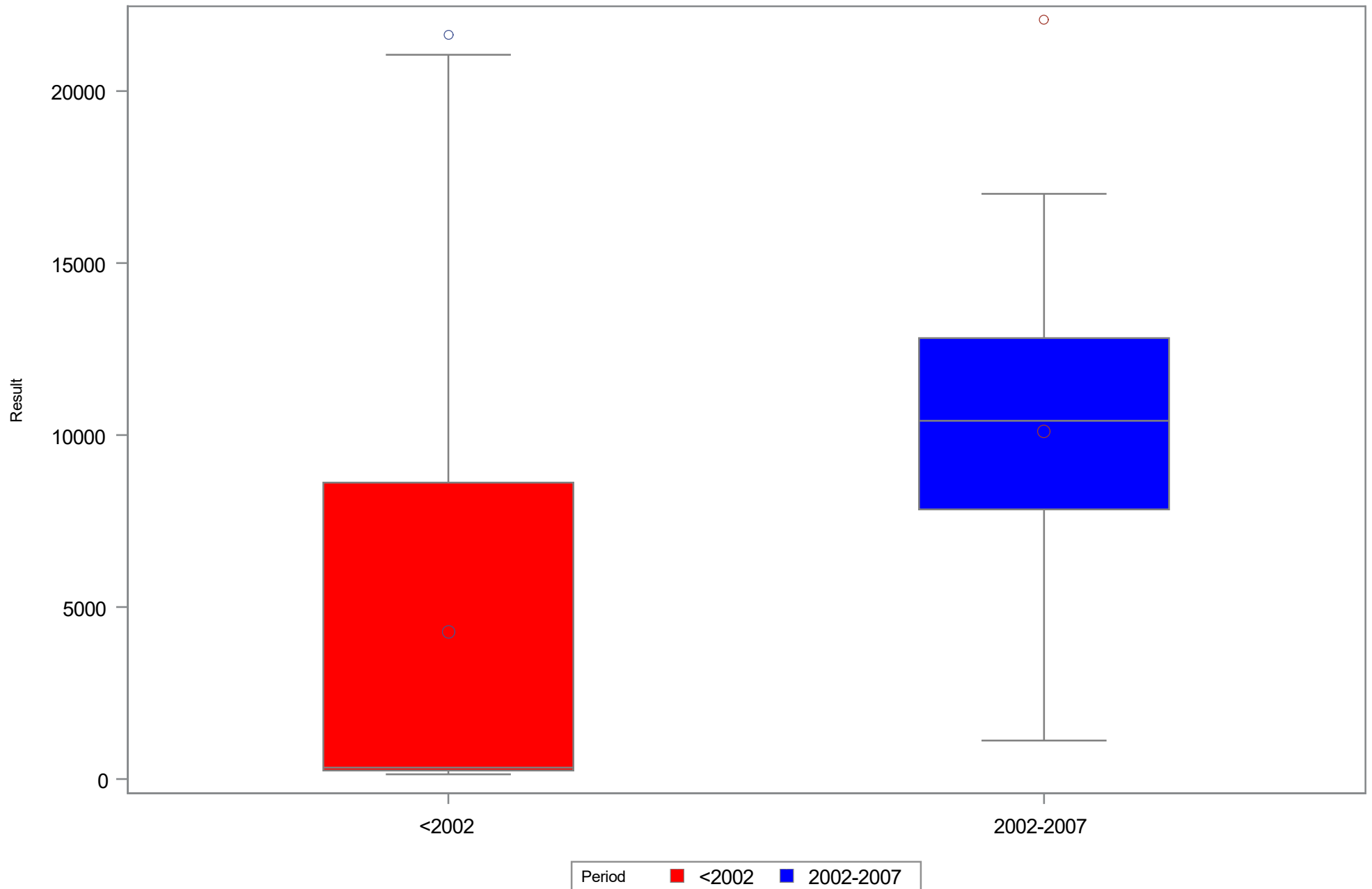
DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	103	137.36	247.84	4267.58	330.94	8617.94	21623.75
2002-2007	75	1118.75	7838.30	10102.05	10415.00	12818.75	22076.92

Period of Record January 1 1996 through December 31 2023

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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

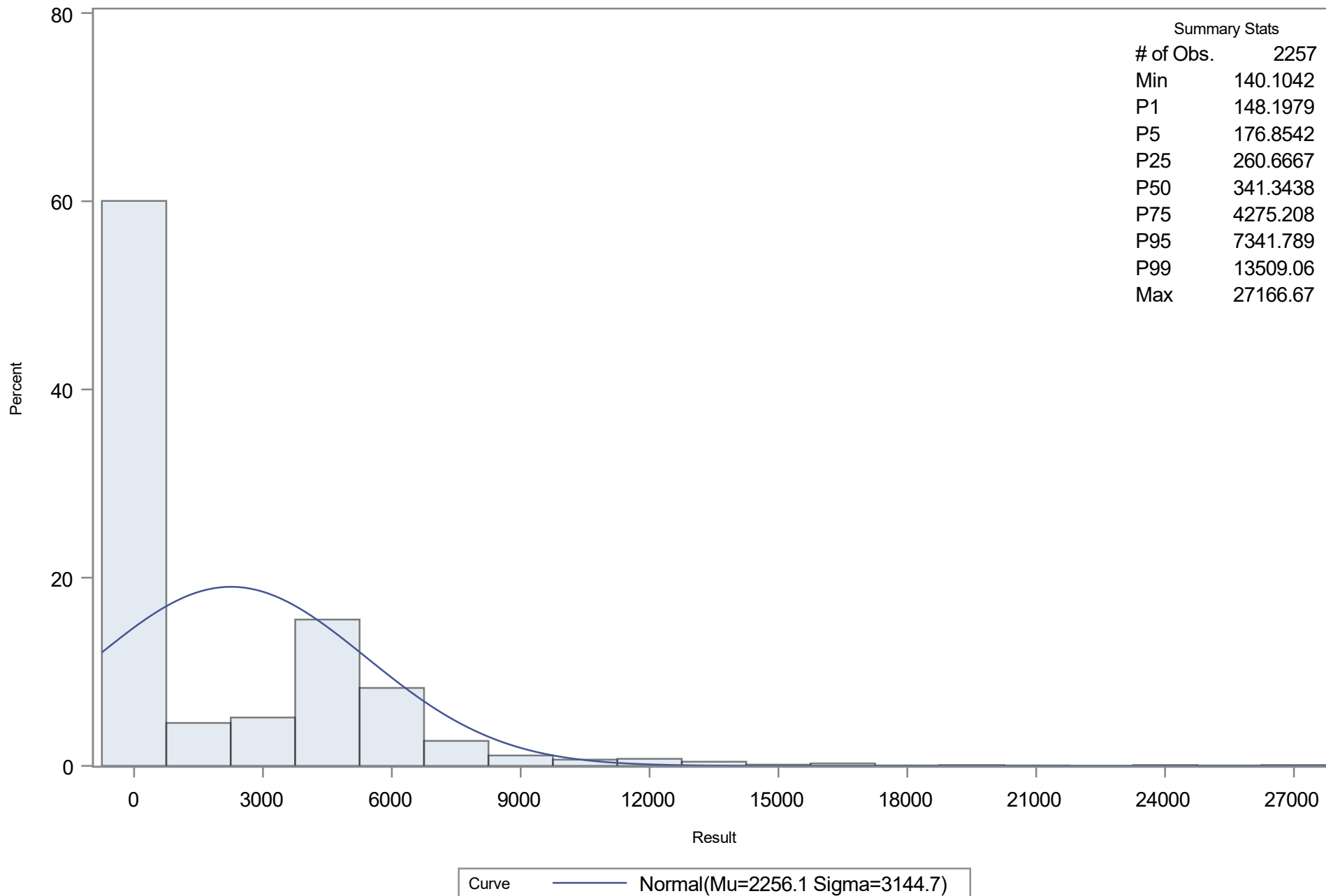
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Timeseries of Surface Specific Conductance (us/cm) at Station USGS 02304517 BLHannah



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	2256.097
Std Dev	Sigma	3144.708

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.298488	Pr > D	<0.010
Cramer-von Mises	W-Sq	45.285775	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	237.457954	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	148.198	-5059.588
5.0	176.854	-2916.488
10.0	198.844	-1774.009
25.0	260.667	135.023
50.0	341.344	2256.097
75.0	4275.208	4377.170
90.0	6005.313	6286.203
95.0	7341.789	7428.682
99.0	13509.063	9571.782

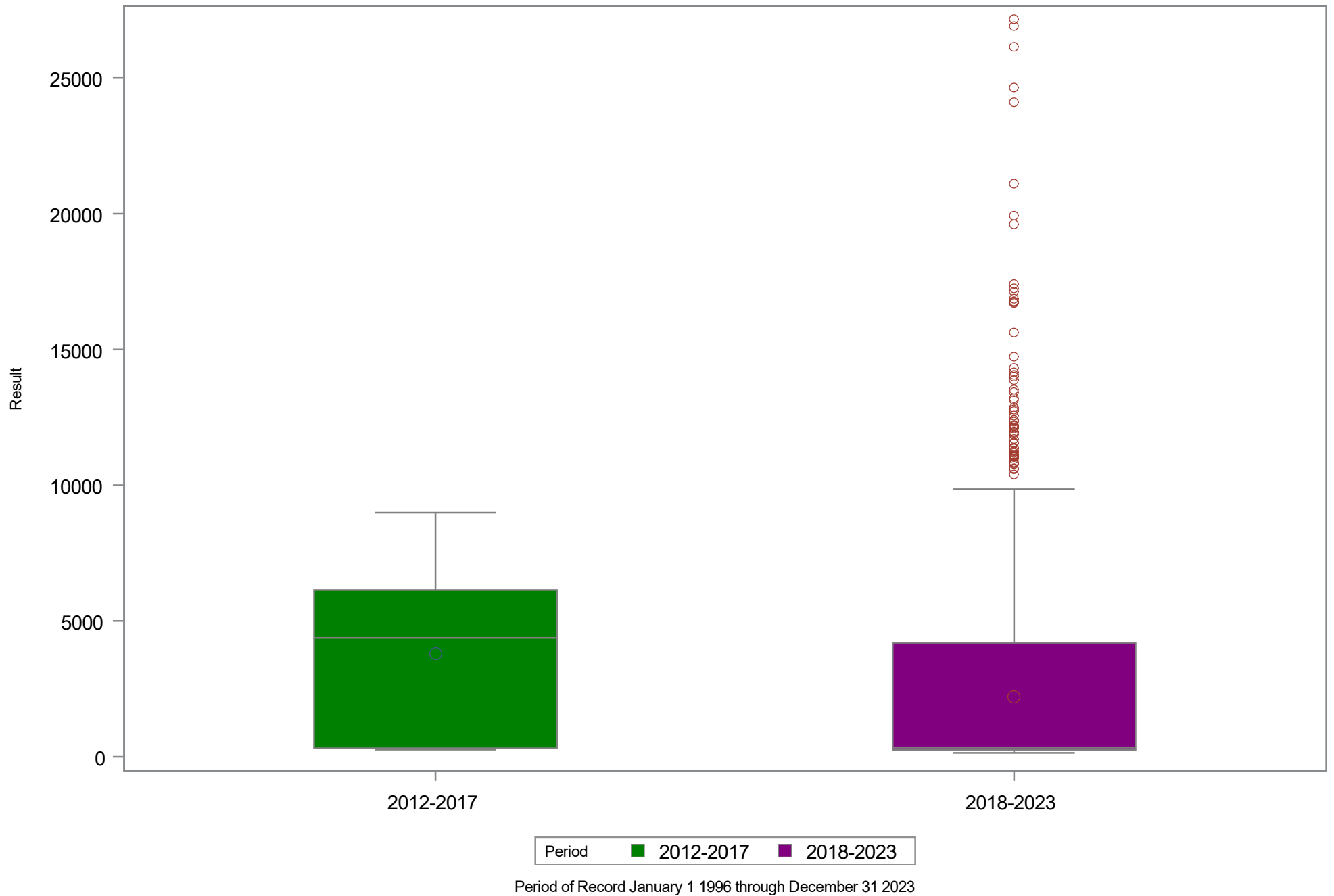
Period of Record January 1 1996 through December 31 2023

DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	261.48	312.22	3809.45	4378.44	6140.89	8990.83
2018-2023	2189	140.10	256.67	2207.84	338.24	4196.15	27166.67

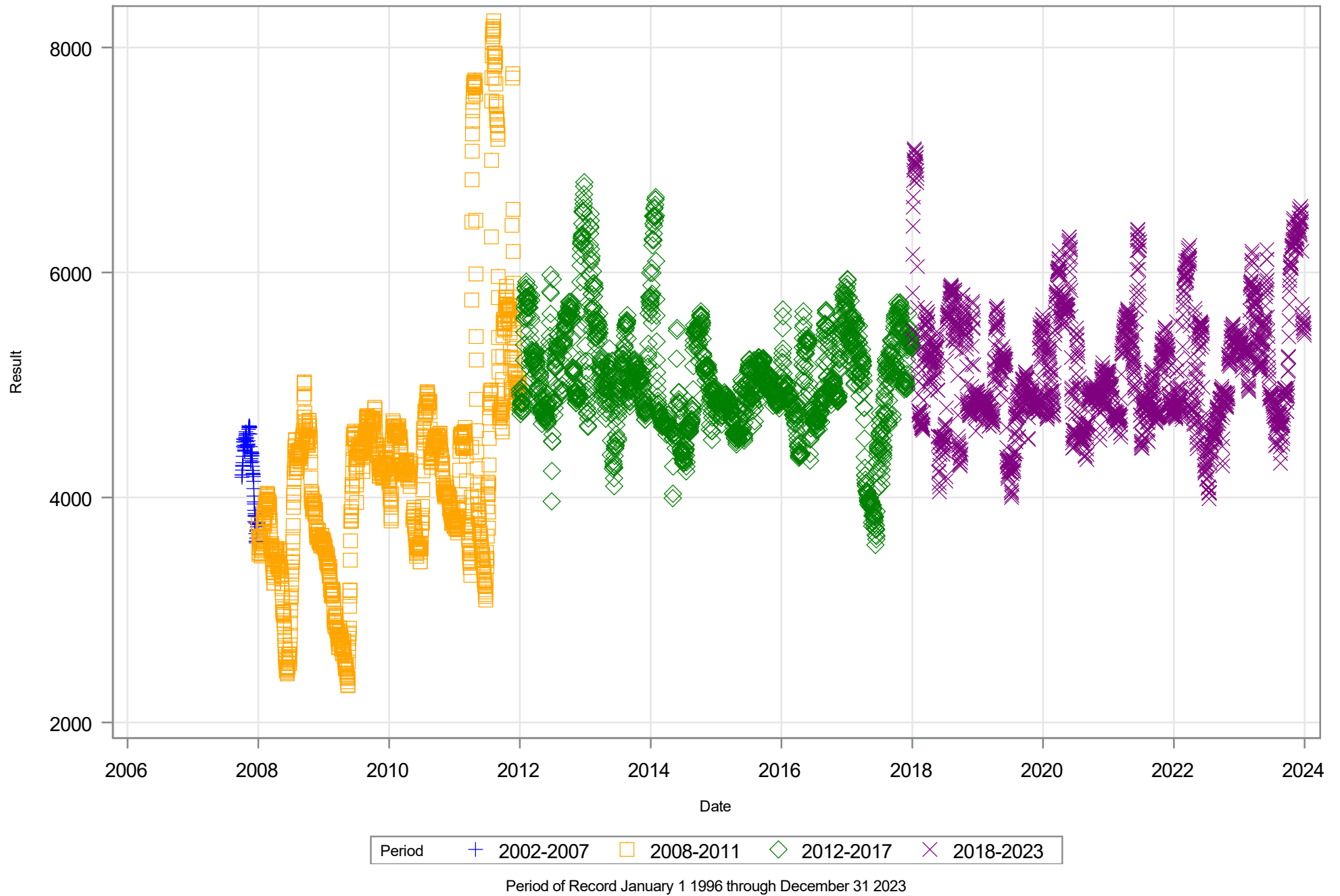
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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 02304517 BLHannah

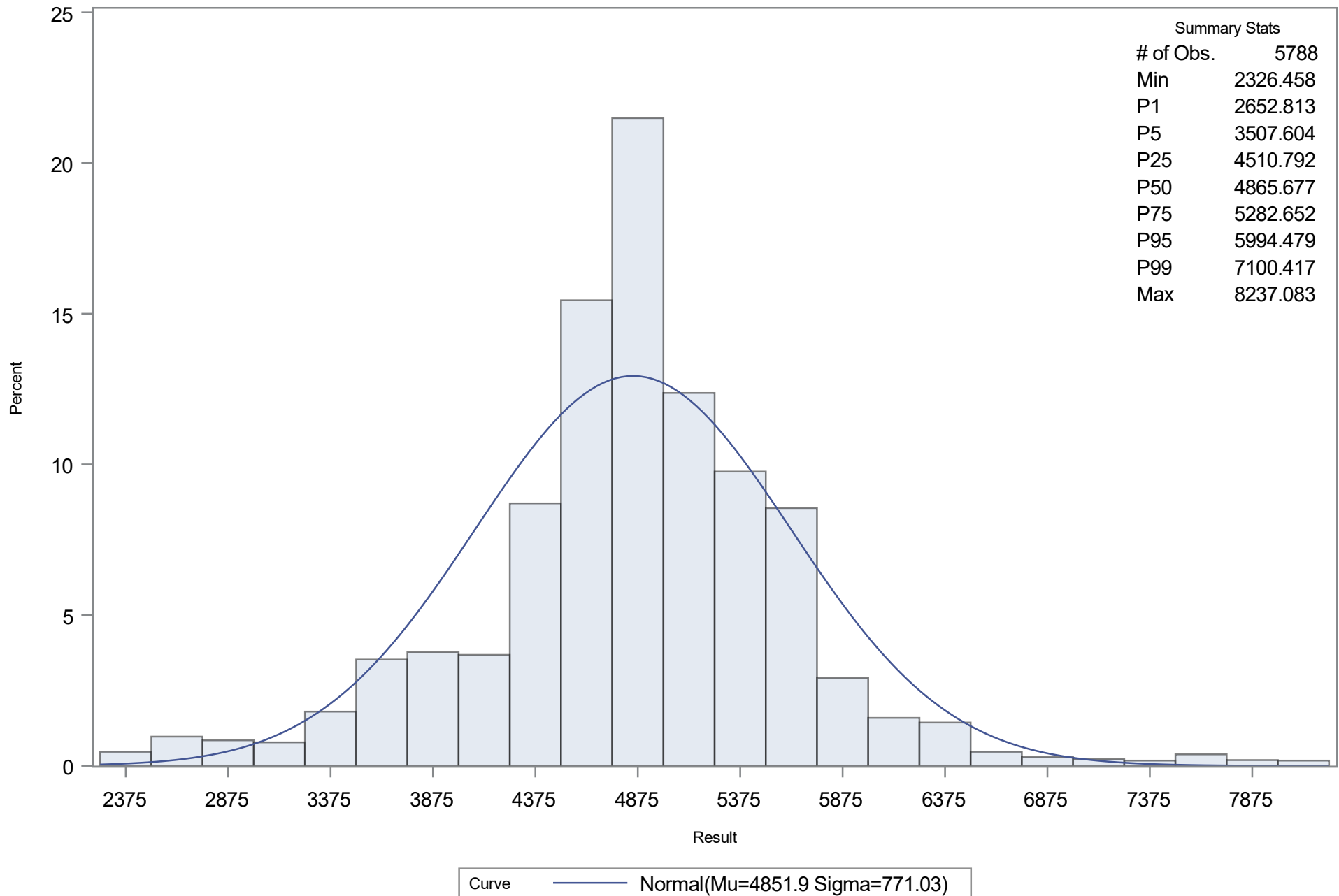


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Timeseries of Surface Specific Conductance (us/cm) at Station USGS 02306000 SS Pool



Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4851.9
Std Dev	Sigma	771.026

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0794292	Pr > D	<0.010
Cramer-von Mises	W-Sq	11.0415207	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	62.6888380	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2652.81	3058.23
5.0	3507.60	3583.68
10.0	3843.75	3863.79
25.0	4510.79	4331.85
50.0	4865.68	4851.90
75.0	5282.65	5371.95
90.0	5663.13	5840.01
95.0	5994.48	6120.13
99.0	7100.42	6645.57

Period of Record January 1 1996 through December 31 2023

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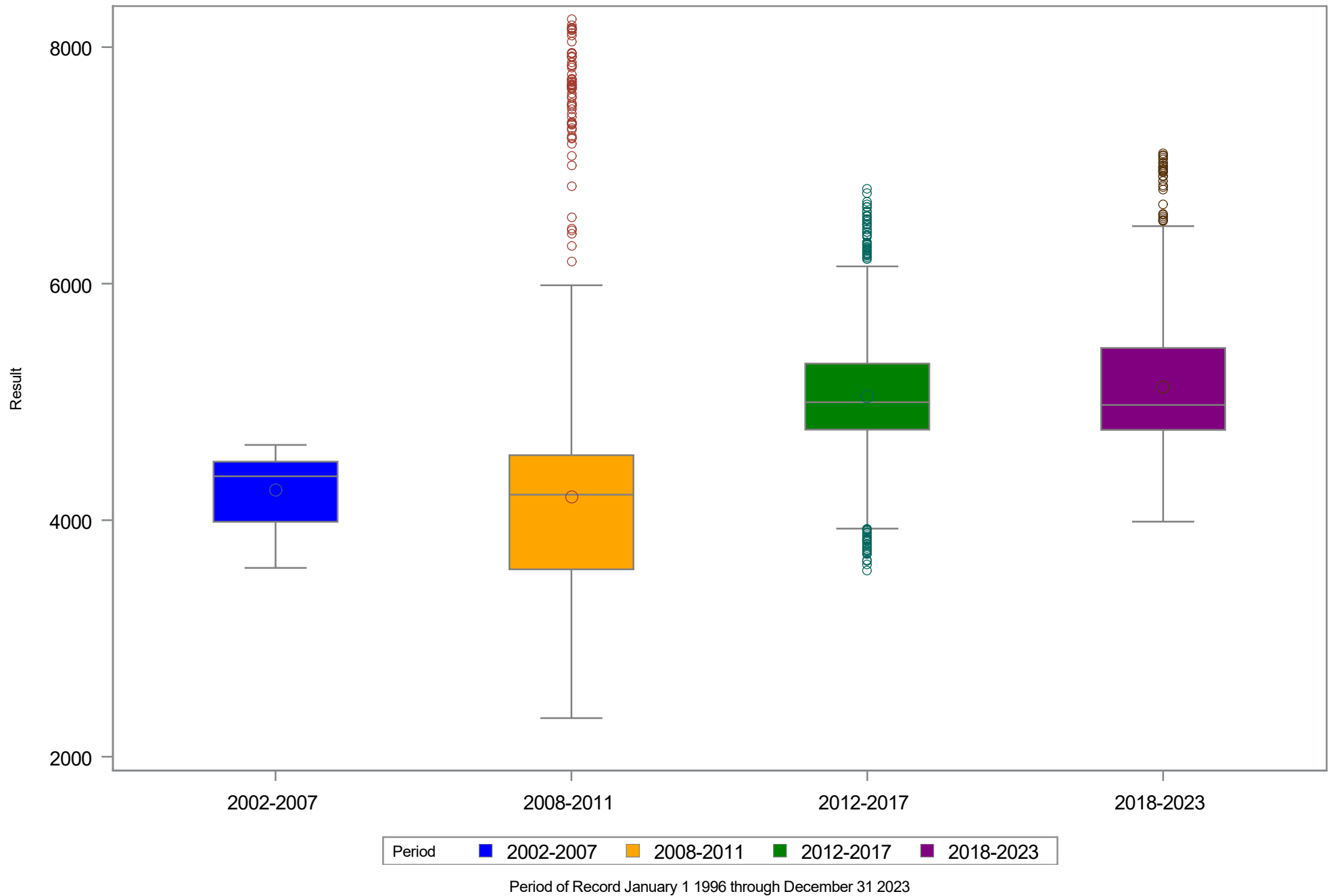
Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 02306000 SS Pool

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	3596.46	3986.46	4253.65	4371.25	4495.05	4636.35
2008-2011	1448	2326.46	3584.53	4199.82	4215.94	4549.58	8237.08
2012-2017	2061	3577.81	4765.83	5043.69	4997.29	5324.38	6801.88
2018-2023	2187	3987.81	4763.75	5128.07	4974.27	5456.15	7100.42

Period of Record January 1 1996 through December 31 2023

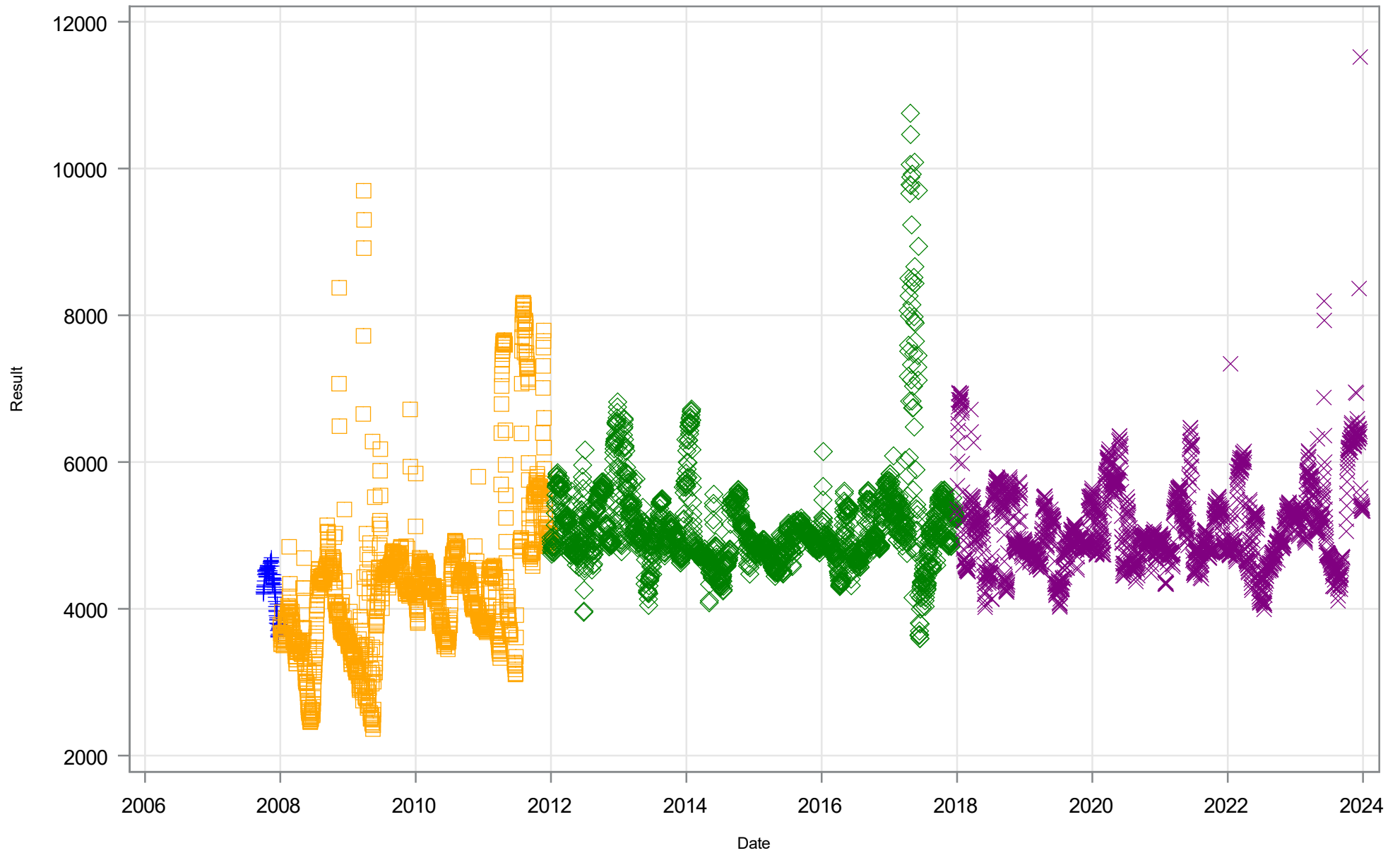
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Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 02306000 SS Pool



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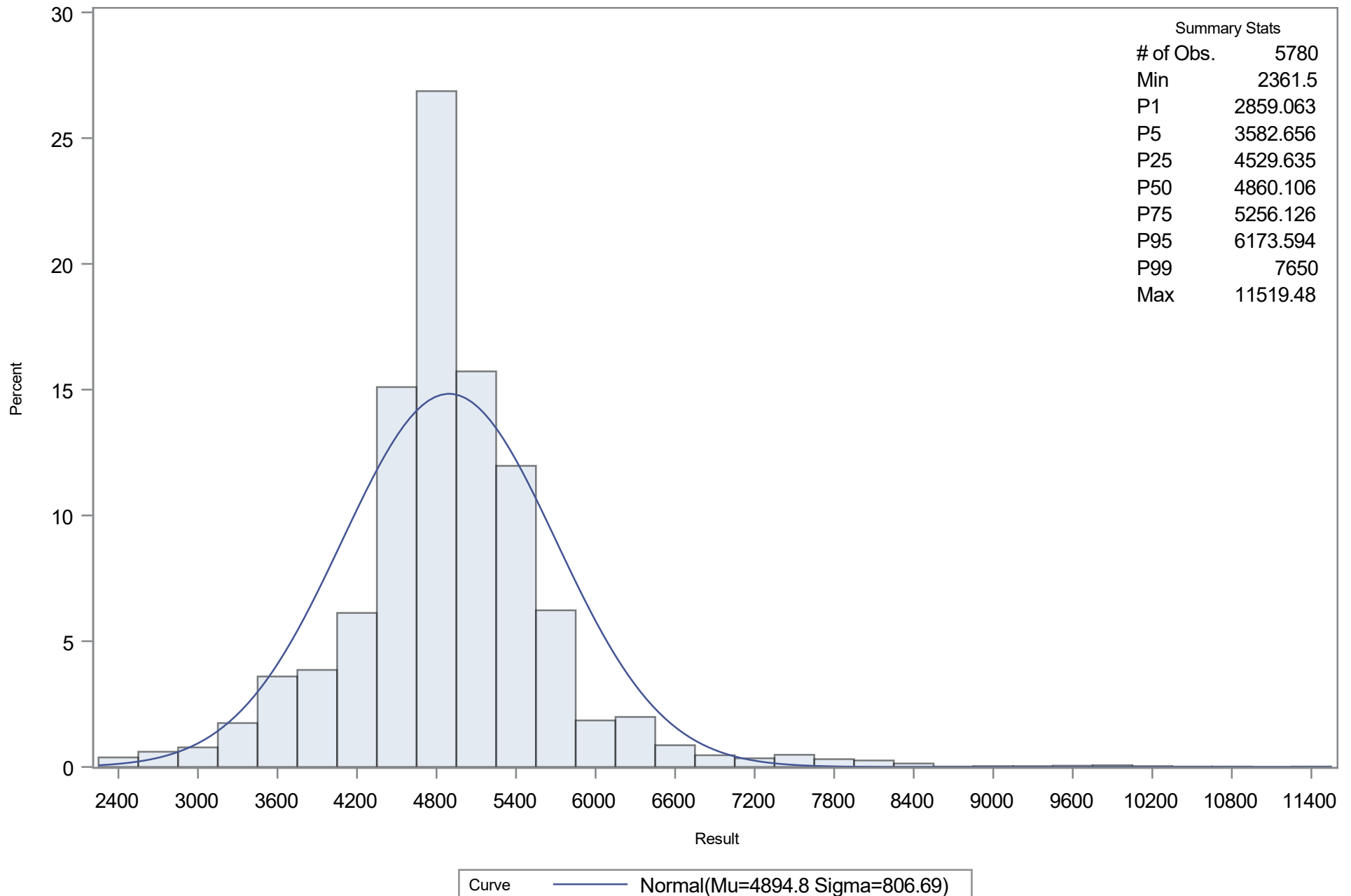
Timeseries of Surface Specific Conductance (us/cm) at Station USGS 023060003 SS Run



Period	2002-2007	2008-2011	2012-2017	2018-2023
Marker	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4894.766
Std Dev	Sigma	806.6878

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.084718	Pr > D	<0.010
Cramer-von Mises	W-Sq	19.774823	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	110.058459	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2859.06	3018.13
5.0	3582.66	3567.88
10.0	3982.45	3860.95
25.0	4529.64	4350.66
50.0	4860.11	4894.77
75.0	5256.13	5438.87
90.0	5679.63	5928.58
95.0	6173.59	6221.65
99.0	7650.00	6771.40

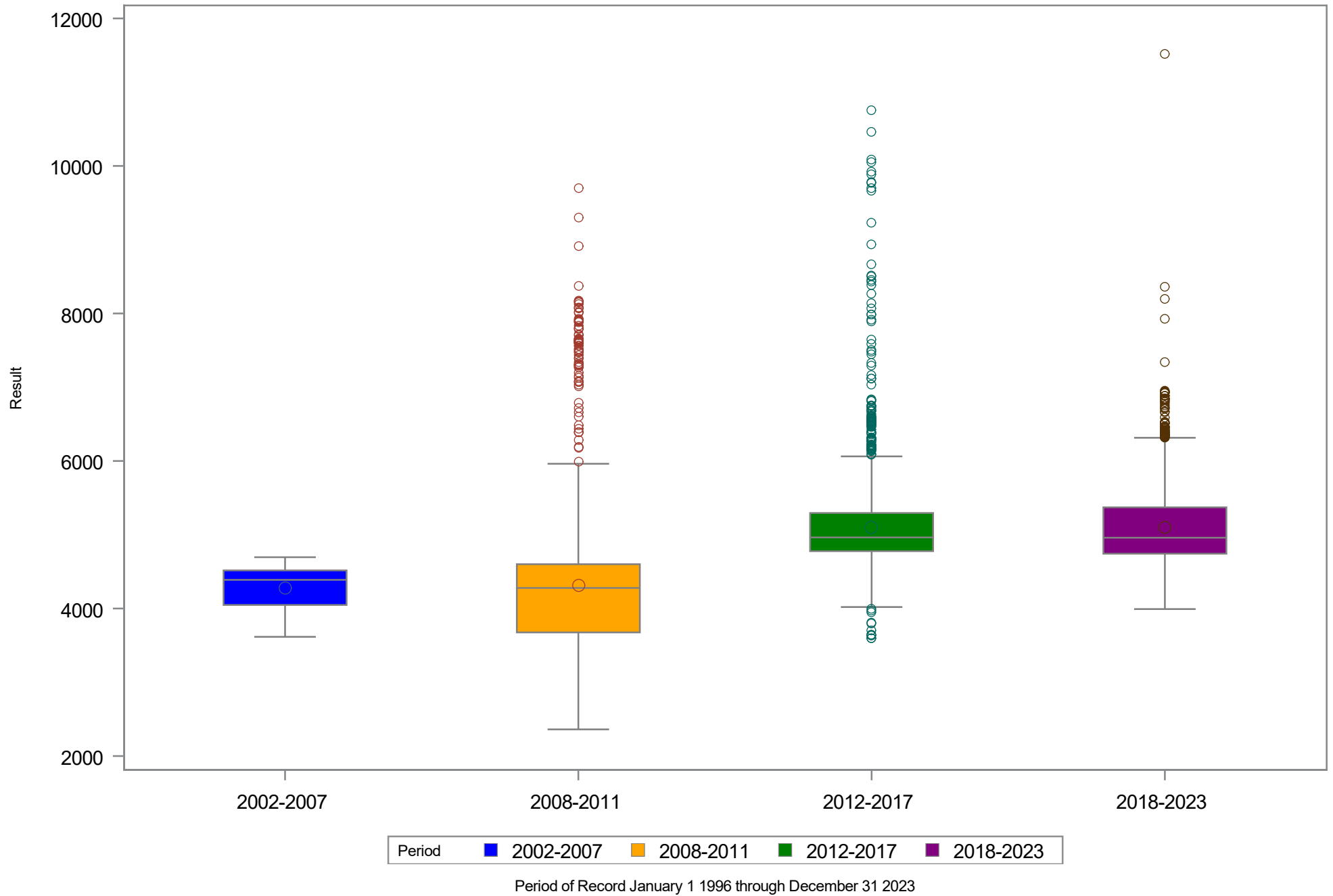
Period of Record January 1 1996 through December 31 2023

DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 023060003 SS Run

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	3616.04	4048.18	4275.57	4388.49	4516.30	4695.73
2008-2011	1404	2361.50	3676.15	4312.97	4278.54	4600.47	9697.81
2012-2017	2121	3593.33	4777.50	5098.84	4963.96	5294.69	10752.81
2018-2023	2163	3992.50	4743.02	5098.63	4959.90	5371.88	11519.48

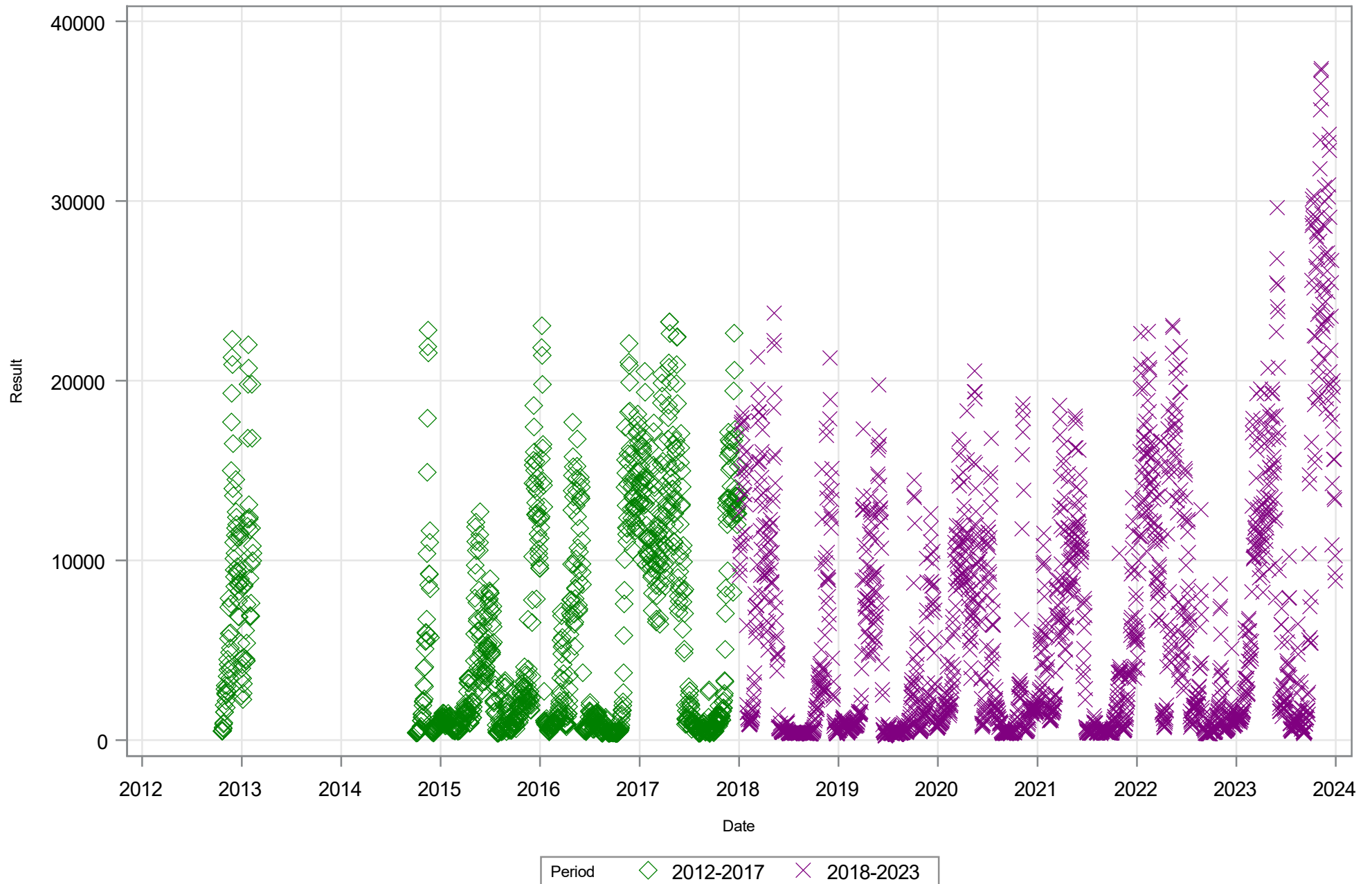
DRAFT

Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 023060003 SS Run



DRAFT

Timeseries of Surface Specific Conductance (us/cm) at Station USGS 023060013 I-275

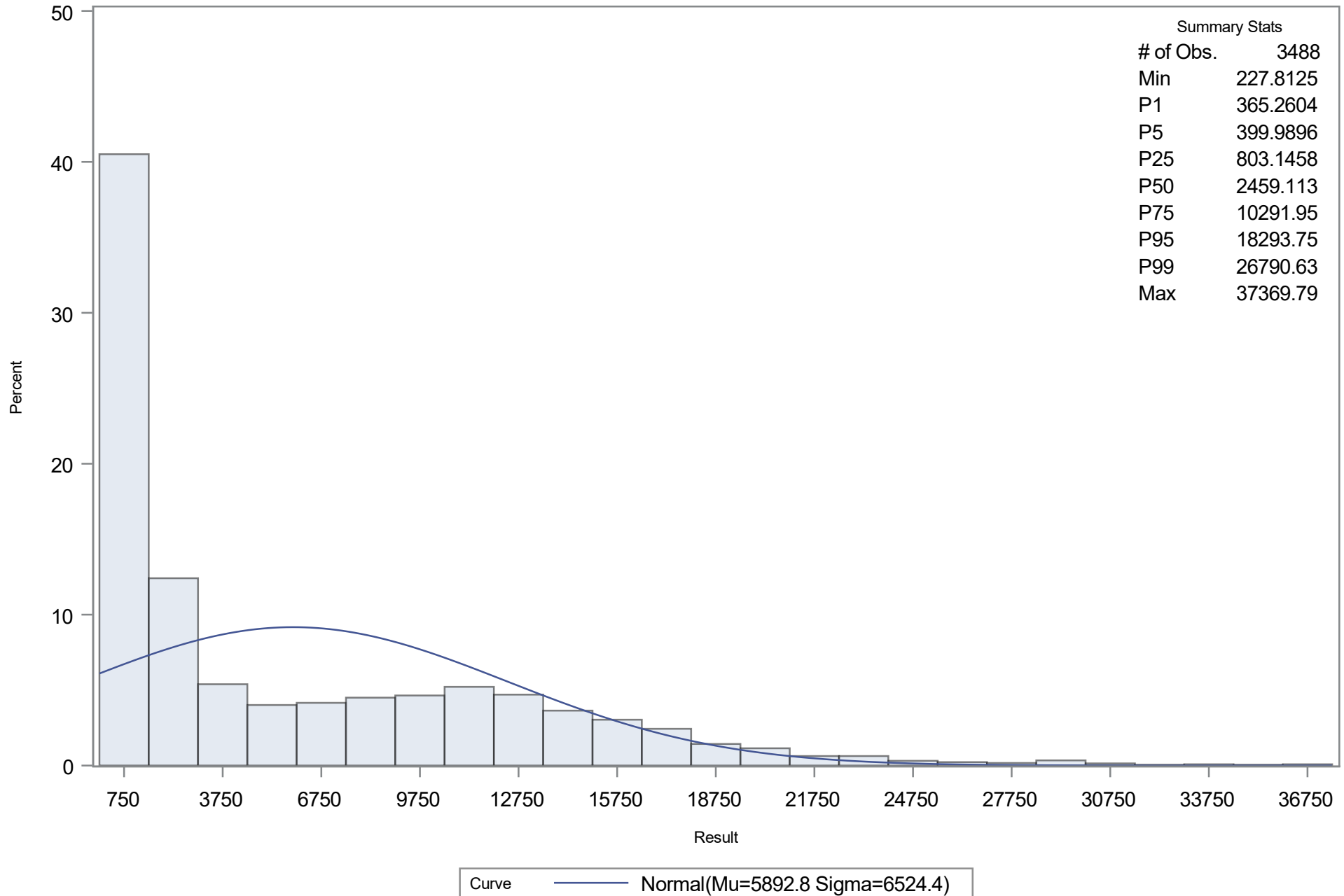


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Specific Conductance (us/cm) at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5892.822
Std Dev	Sigma	6524.375

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.204150	Pr > D	<0.010
Cramer-von Mises	W-Sq	42.066213	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	233.361471	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	365.260	-9285.14
5.0	399.990	-4838.82
10.0	450.079	-2468.50
25.0	803.146	1492.20
50.0	2459.113	5892.82
75.0	10291.952	10293.45
90.0	15351.146	14254.15
95.0	18293.750	16624.46
99.0	26790.625	21070.79

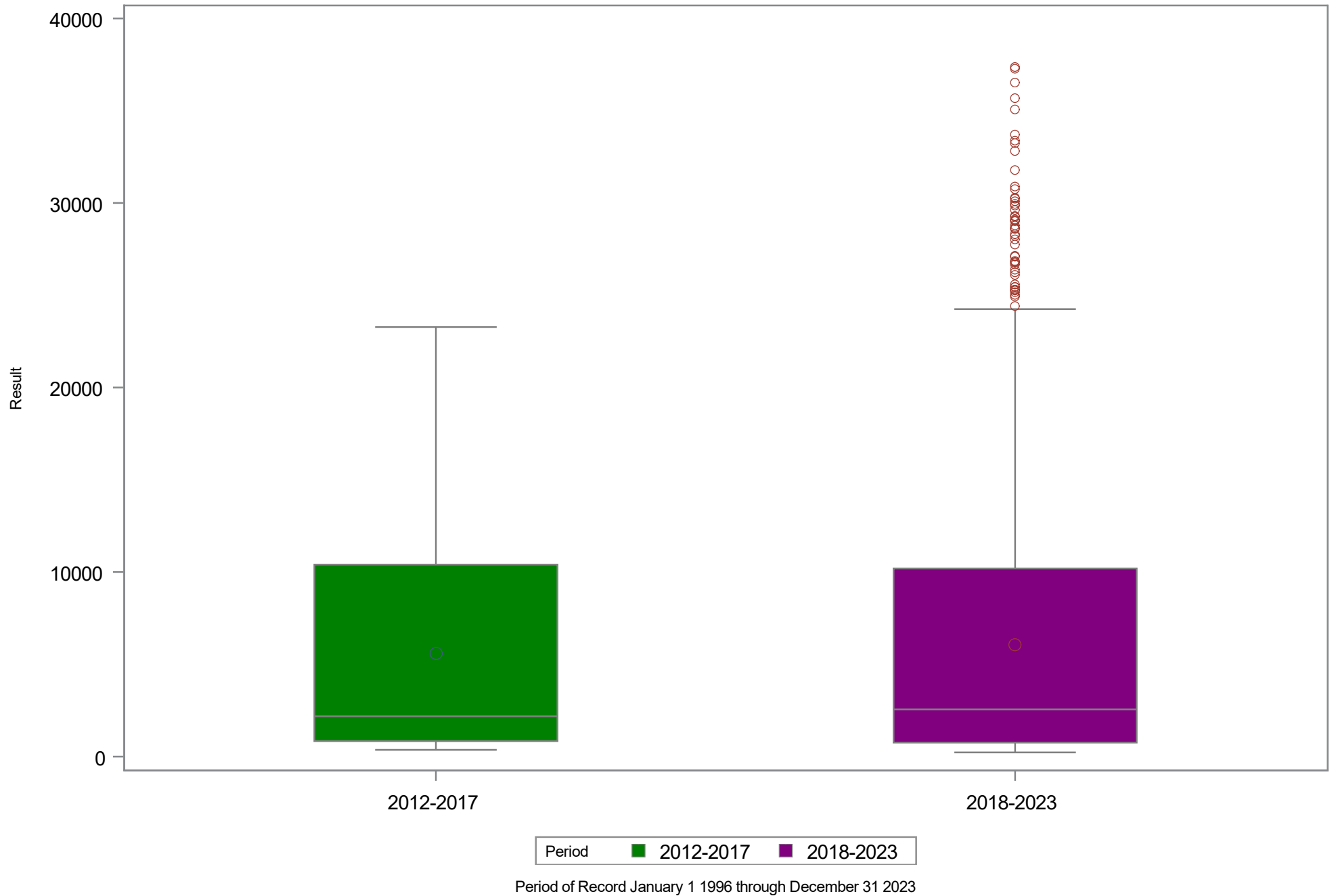
DRAFT

Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	1298	366.55	843.39	5611.59	2184.43	10403.75	23273.96
2018-2023	2190	227.81	760.89	6059.51	2561.93	10194.58	37369.79

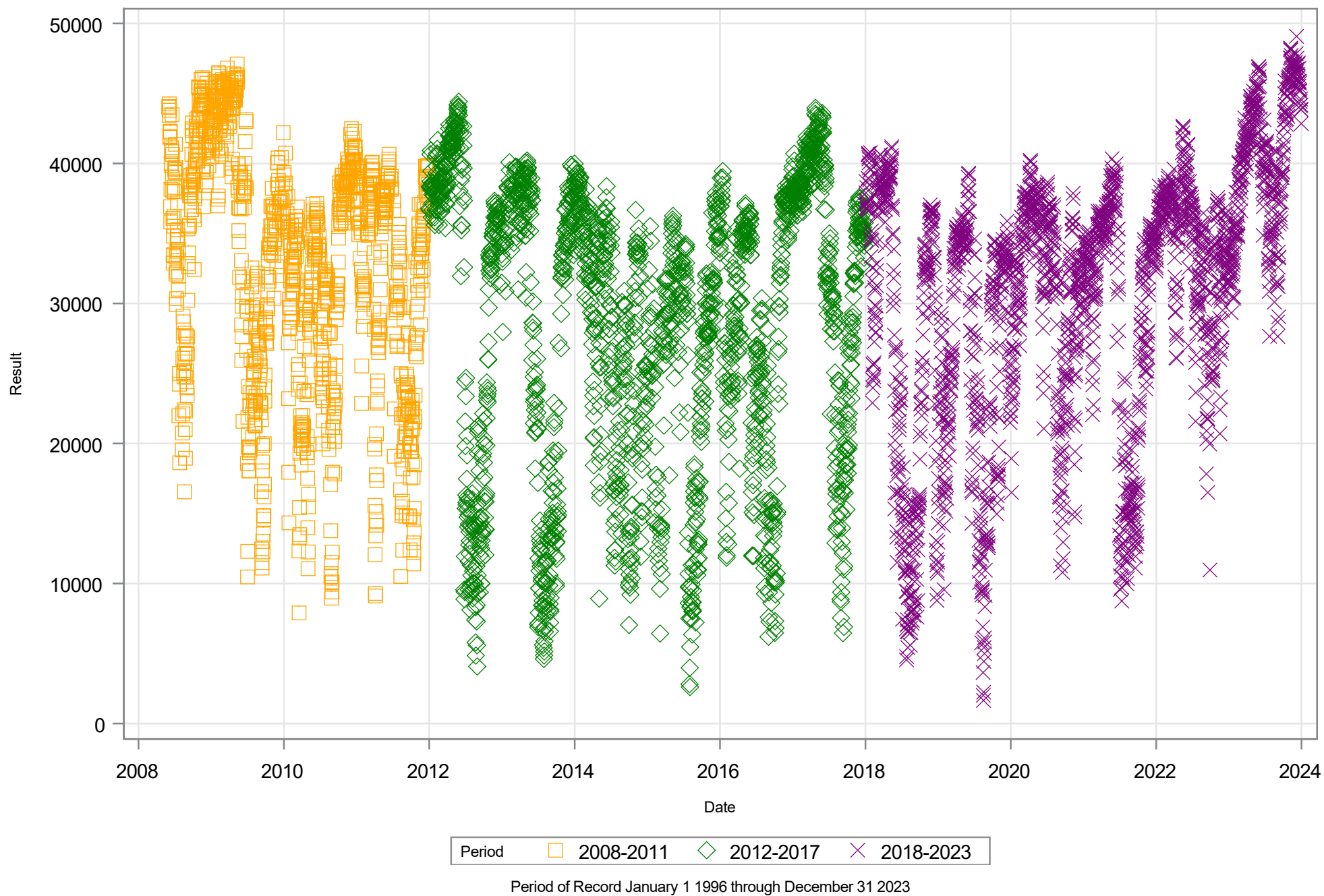
DRAFT

Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 023060013 I-275



DRAFT

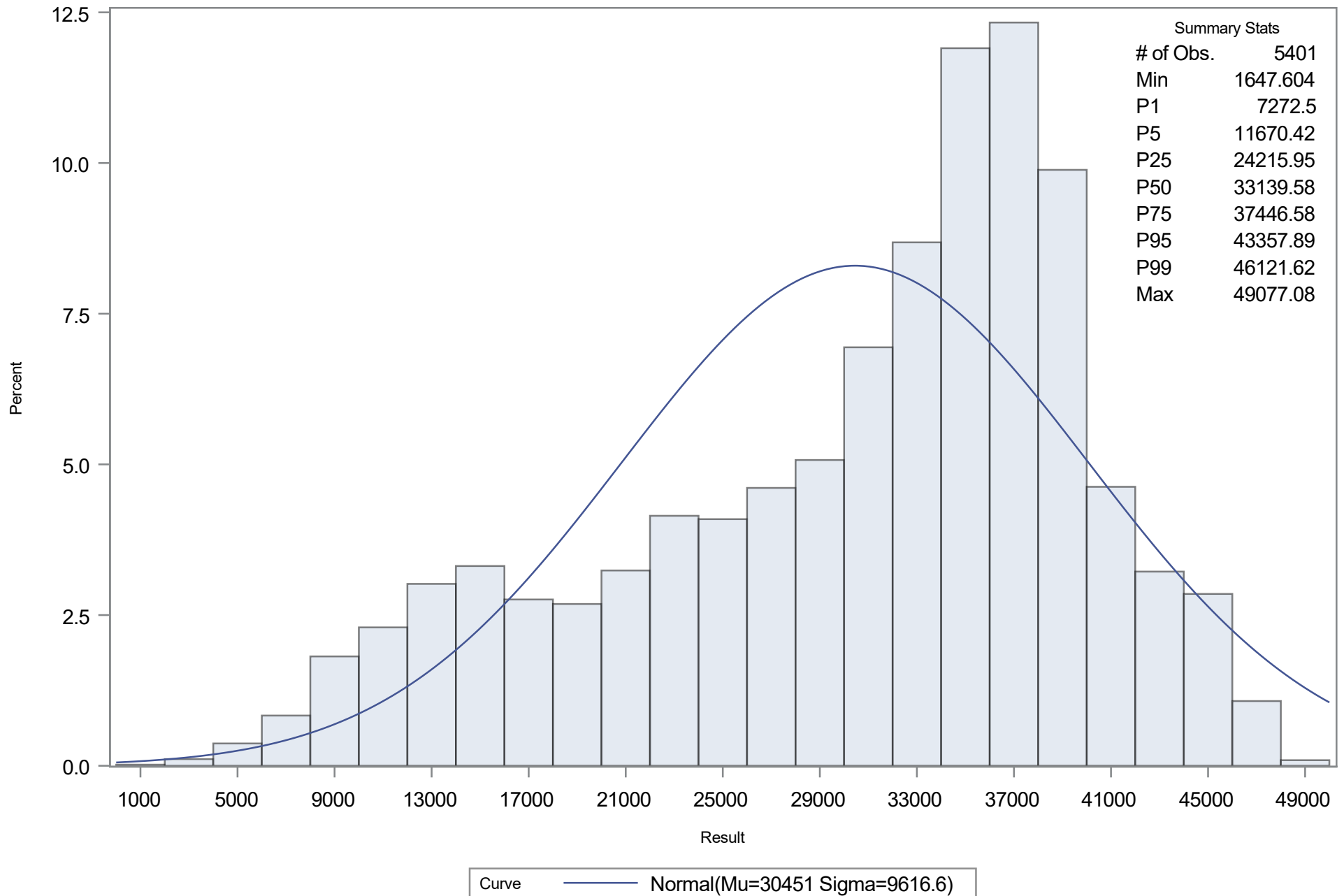
Timeseries of Surface Specific Conductance (us/cm) at Station USGS 02306028 Platt



DRAFT

Univariate Histogram of Surface Specific Conductance (us/cm) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	30451.13
Std Dev	Sigma	9616.614

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.112707	Pr > D	<0.010
Cramer-von Mises	W-Sq	20.572201	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	115.234841	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	7272.50	8079.54
5.0	11670.42	14633.21
10.0	14890.94	18126.94
25.0	24215.95	23964.82
50.0	33139.58	30451.13
75.0	37446.58	36937.44
90.0	40737.50	42775.32
95.0	43357.89	46269.05
99.0	46121.62	52822.72

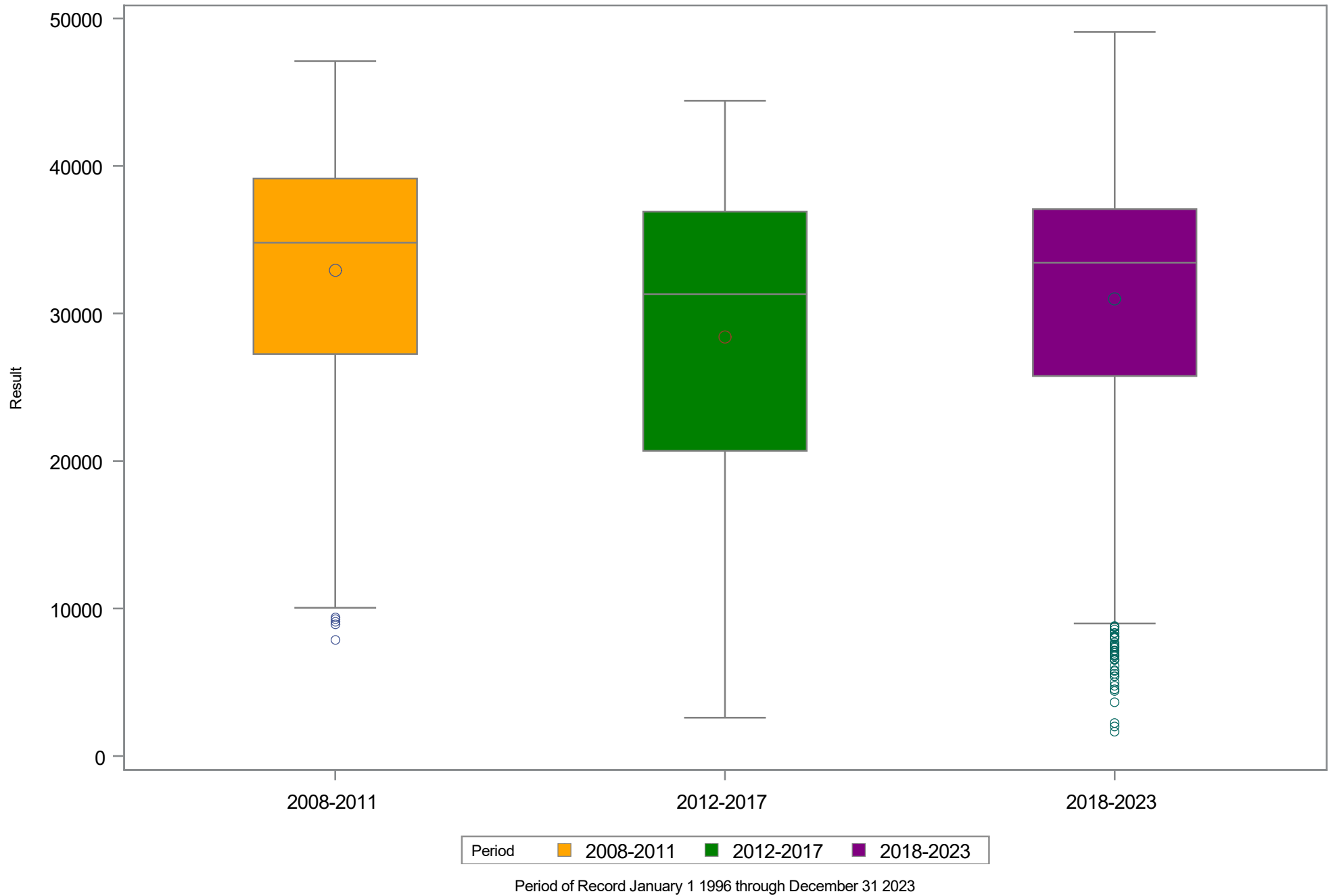
DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1198	7896.15	27247.92	32940.66	34793.09	39144.79	47100.00
2012-2017	2016	2601.90	20692.45	28397.78	31311.46	36900.52	44412.50
2018-2023	2187	1647.60	25759.38	30980.20	33443.53	37068.75	49077.08

Period of Record January 1 1996 through December 31 2023

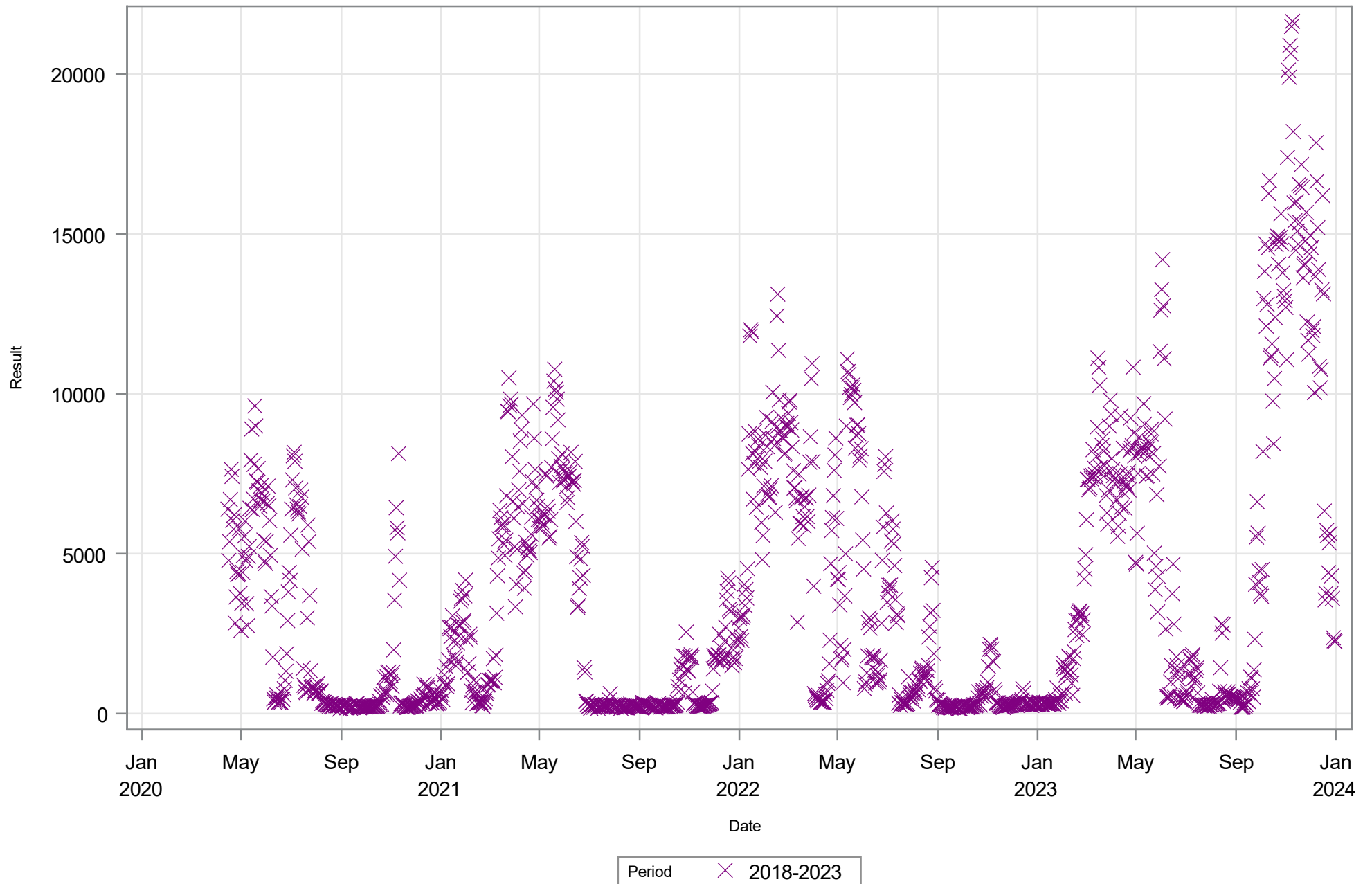
DRAFT

Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station USGS 02306028 Platt



DRAFT

Timeseries of Surface Specific Conductance (us/cm) at Station WMD 19206

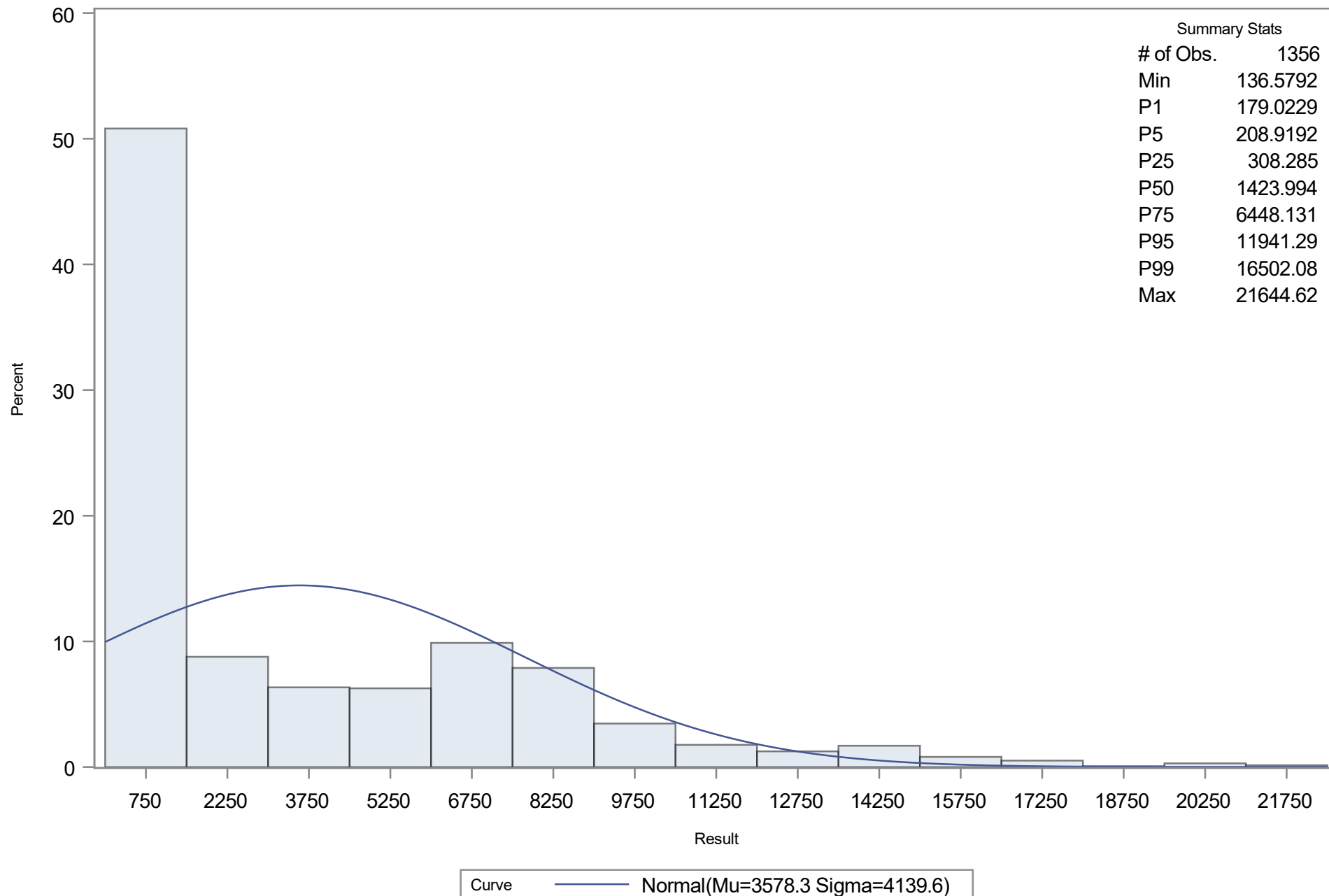


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Specific Conductance (us/cm) at Station WMD 19206

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3578.347
Std Dev	Sigma	4139.574

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.2088801	Pr > D	<0.010
Cramer-von Mises	W-Sq	16.8167483	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	94.3389302	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	179.023	-6051.742
5.0	208.919	-3230.646
10.0	230.555	-1726.730
25.0	308.285	786.247
50.0	1423.994	3578.347
75.0	6448.131	6370.447
90.0	9014.614	8883.424
95.0	11941.289	10387.340
99.0	16502.081	13208.436

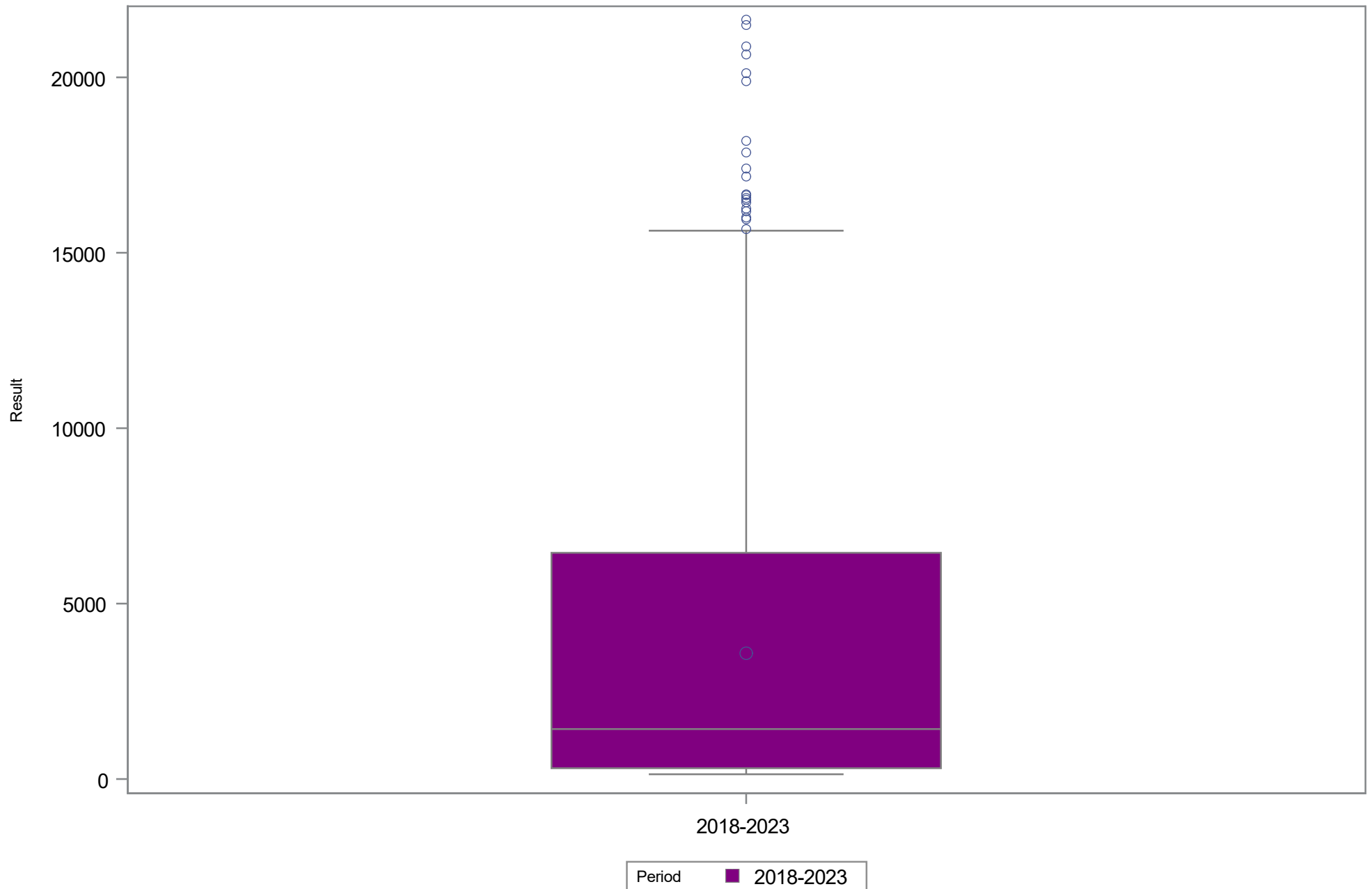
DRAFT Distributional Statistics by Period for Surface Specific Conductance (us/cm) at Station WMD 19206

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1356	136.58	308.29	3578.35	1423.99	6448.13	21644.62

Period of Record January 1 1996 through December 31 2023

DRAFT

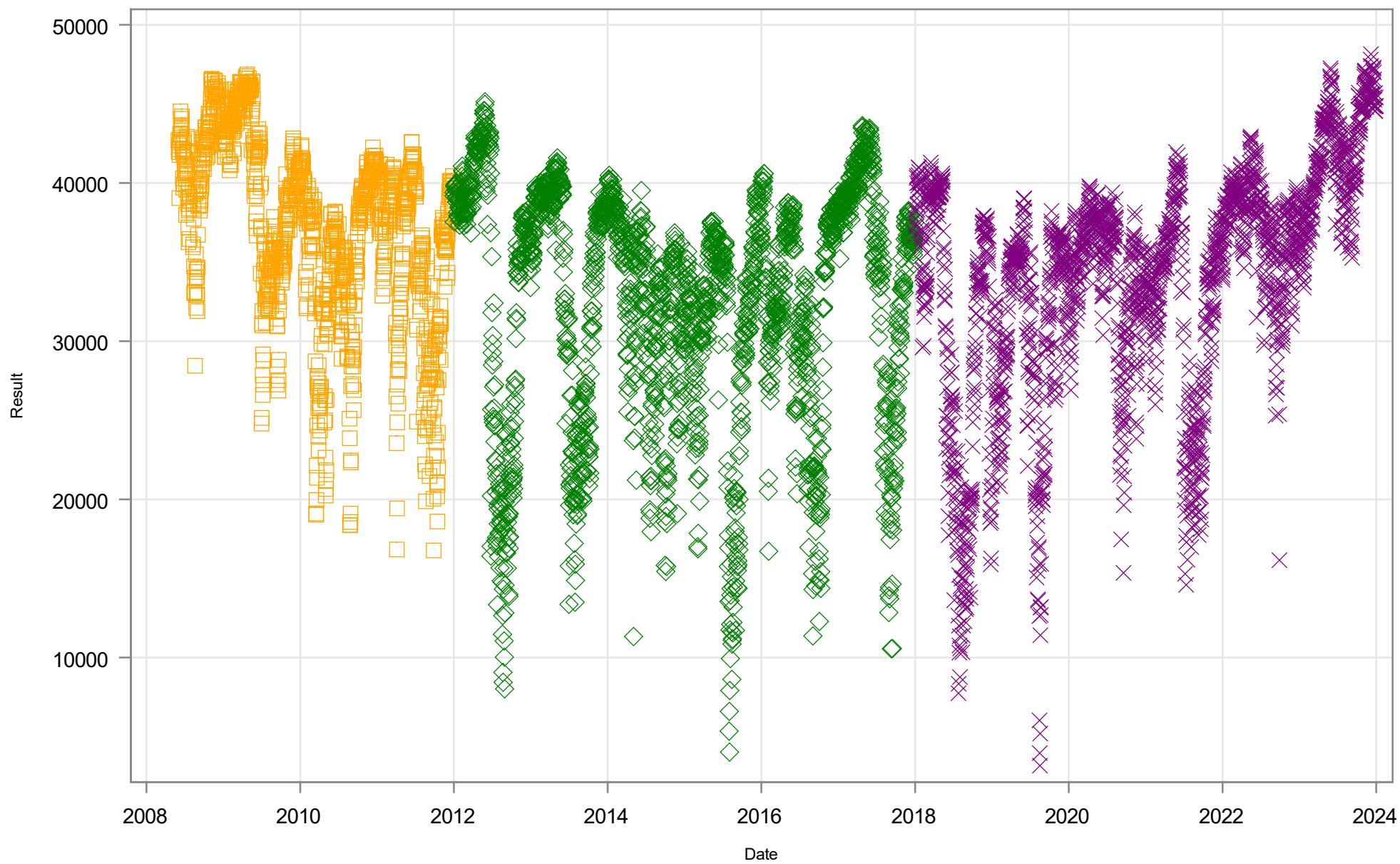
Boxplot by MFL Period for Surface Specific Conductance (us/cm) at Station WMD 19206



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Midwater Specific Conductance (us/cm) at Station USGS 02306028 Platt



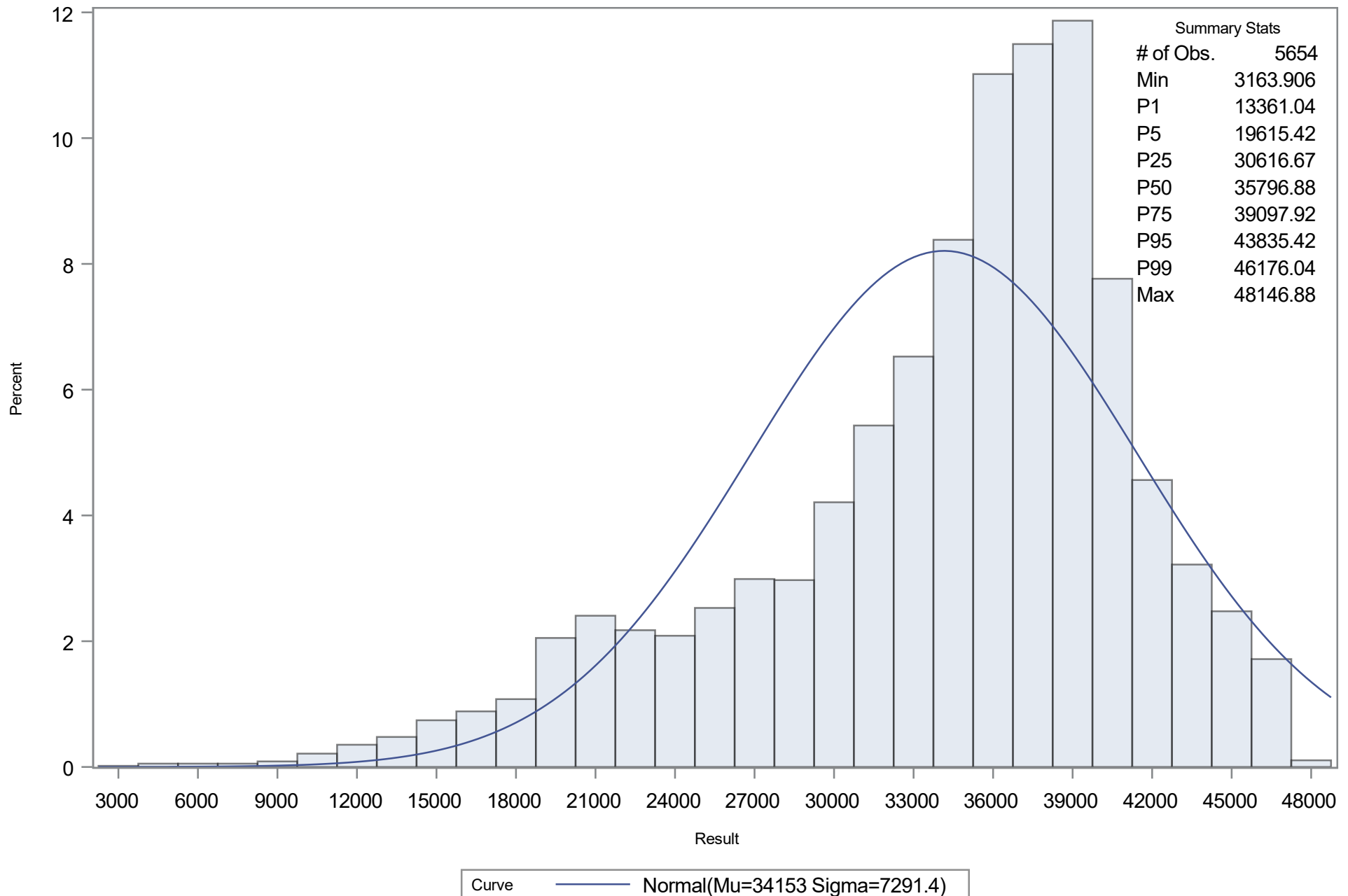
Period □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Midwater Specific Conductance (us/cm) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	34153.33
Std Dev	Sigma	7291.399

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.109083	Pr > D	<0.010
Cramer-von Mises	W-Sq	21.276200	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	118.081251	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	13361.0	17191.0
5.0	19615.4	22160.0
10.0	22818.2	24809.0
25.0	30616.7	29235.4
50.0	35796.9	34153.3
75.0	39097.9	39071.3
90.0	41867.7	43497.6
95.0	43835.4	46146.6
99.0	46176.0	51115.7

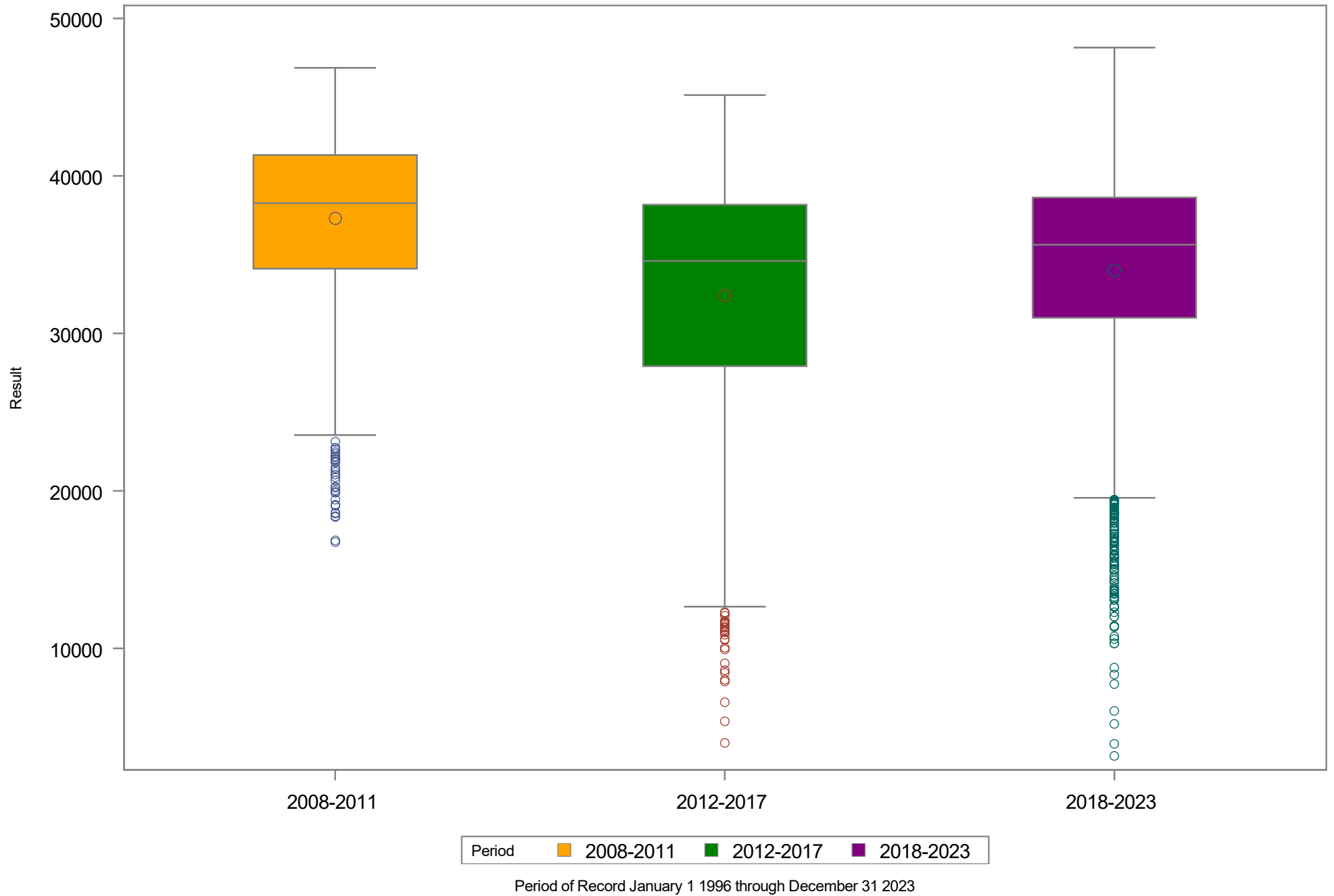
DRAFT

Distributional Statistics by Period for Midwater Specific Conductance (us/cm) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1286	16769.17	34110.42	37286.51	38270.31	41326.04	46861.46
2012-2017	2180	4022.88	27917.71	32433.78	34600.52	38173.44	45131.25
2018-2023	2188	3163.91	30991.15	34025.07	35628.13	38627.60	48146.88

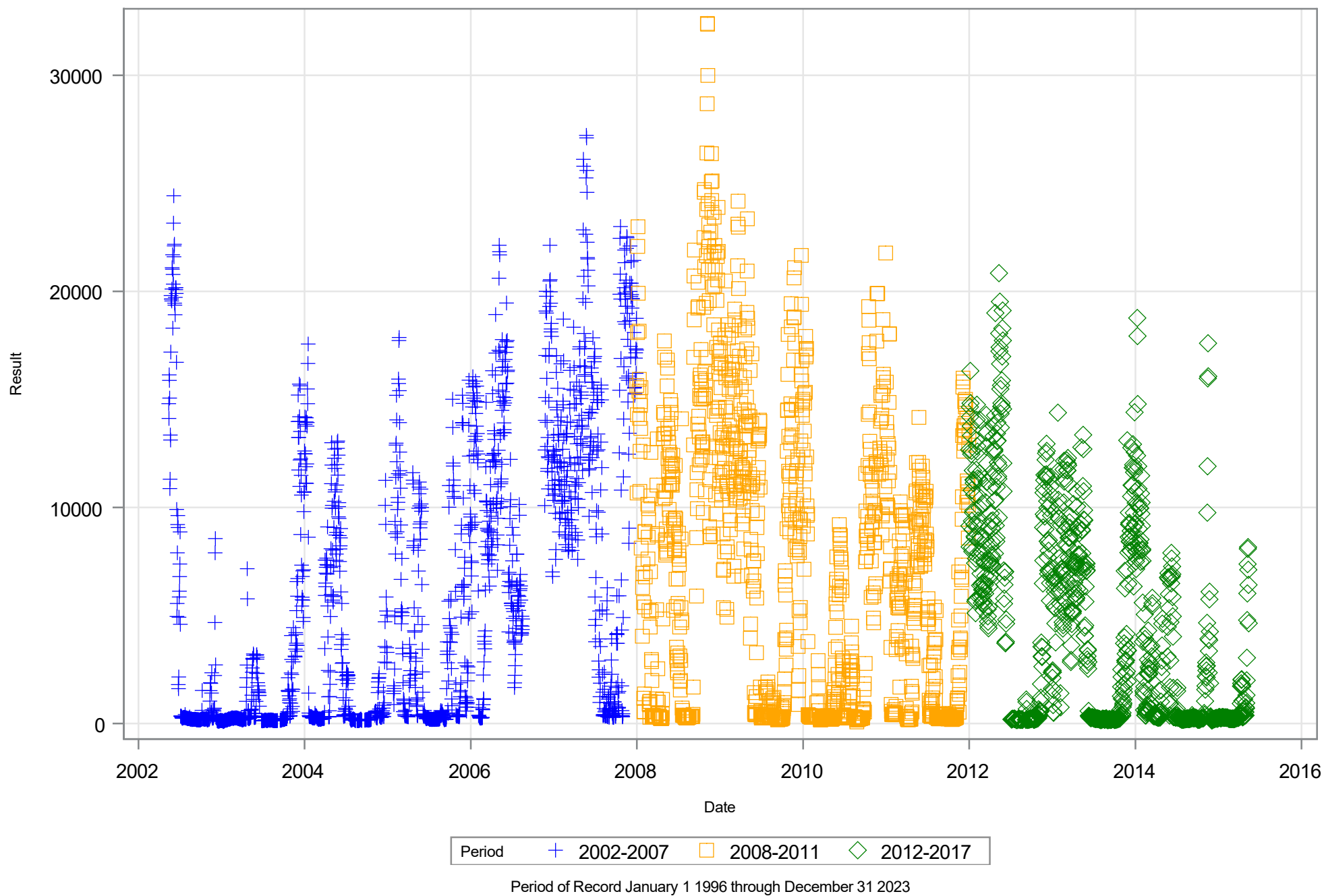
DRAFT

Boxplot by MFL Period for Midwater Specific Conductance (us/cm) at Station USGS 02306028 Platt



DRAFT

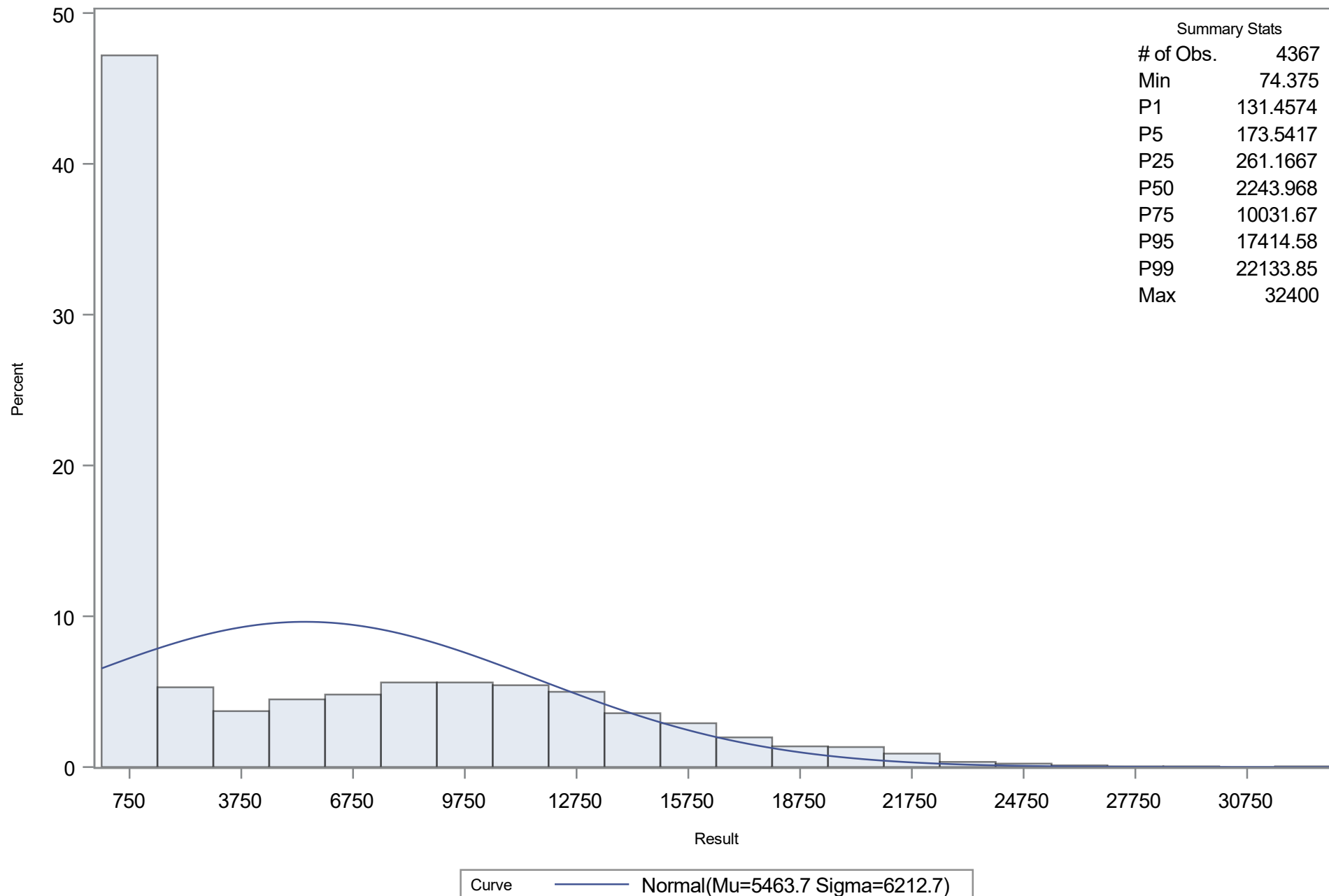
Timeseries of Bottom Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7



DRAFT

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5463.682
Std Dev	Sigma	6212.68

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.214046	Pr > D	<0.010
Cramer-von Mises	W-Sq	51.687562	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	299.096461	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	131.457	-8989.17
5.0	173.542	-4755.27
10.0	196.406	-2498.19
25.0	261.167	1273.29
50.0	2243.968	5463.68
75.0	10031.667	9654.07
90.0	14756.563	13425.55
95.0	17414.583	15682.63
99.0	22133.854	19916.54

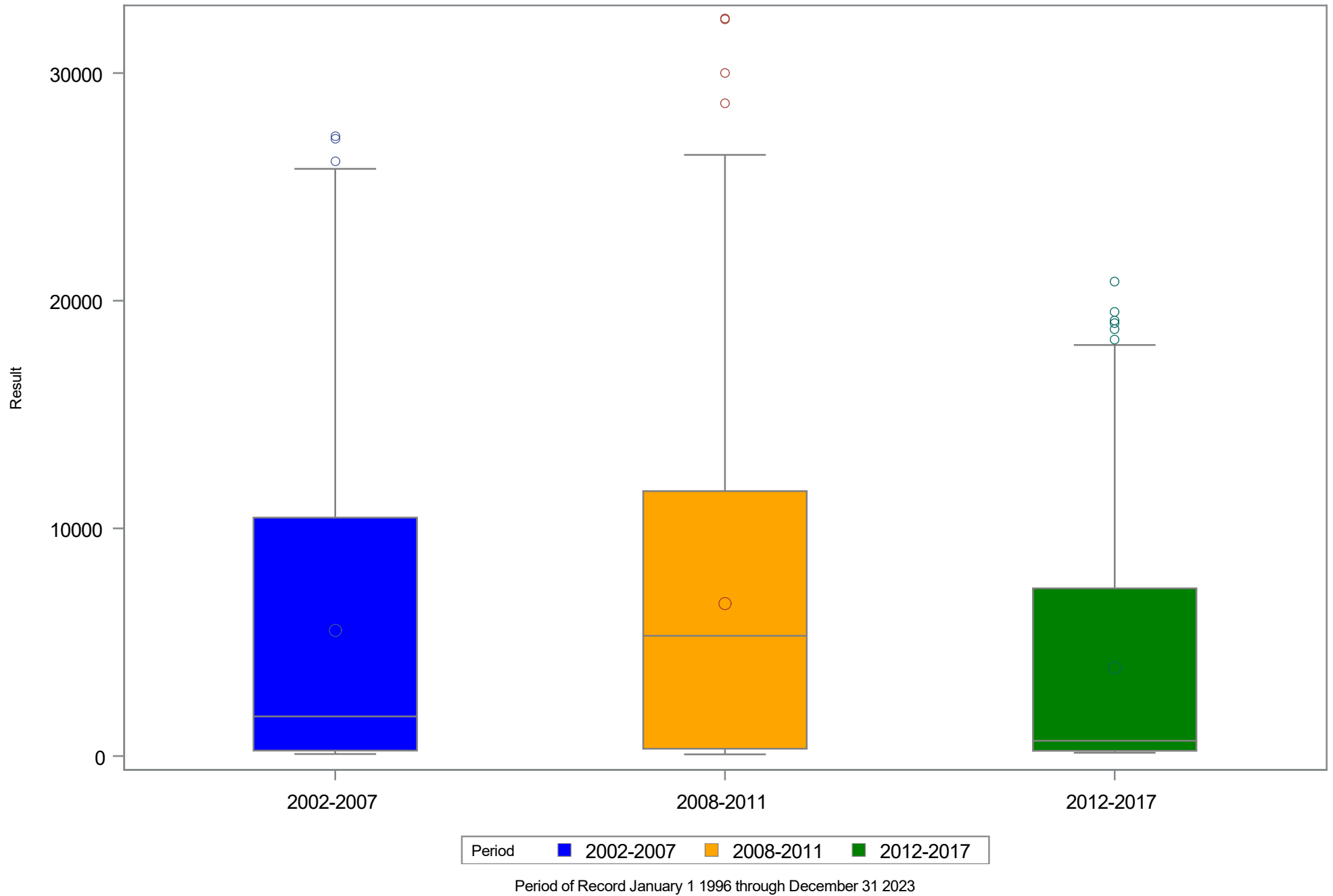
DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1852	89.68	239.38	5512.01	1740.80	10473.49	27220.83
2008-2011	1386	74.38	323.11	6697.22	5283.33	11636.88	32400.00
2012-2017	1129	143.83	229.88	3870.07	671.57	7367.50	20843.00

Period of Record January 1 1996 through December 31 2023

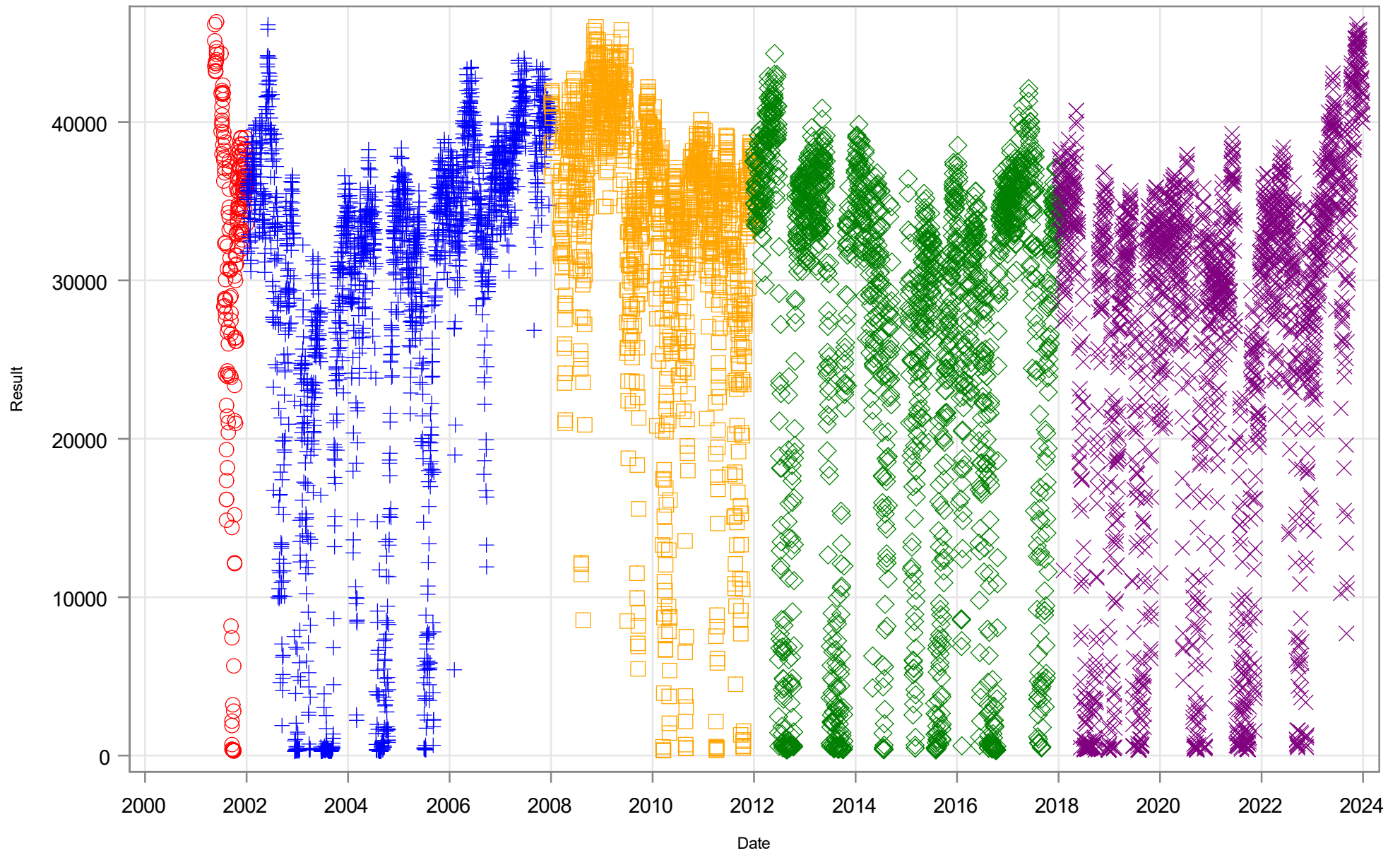
DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station EPC 2 Rkm 13.7



DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station TBW Columbus



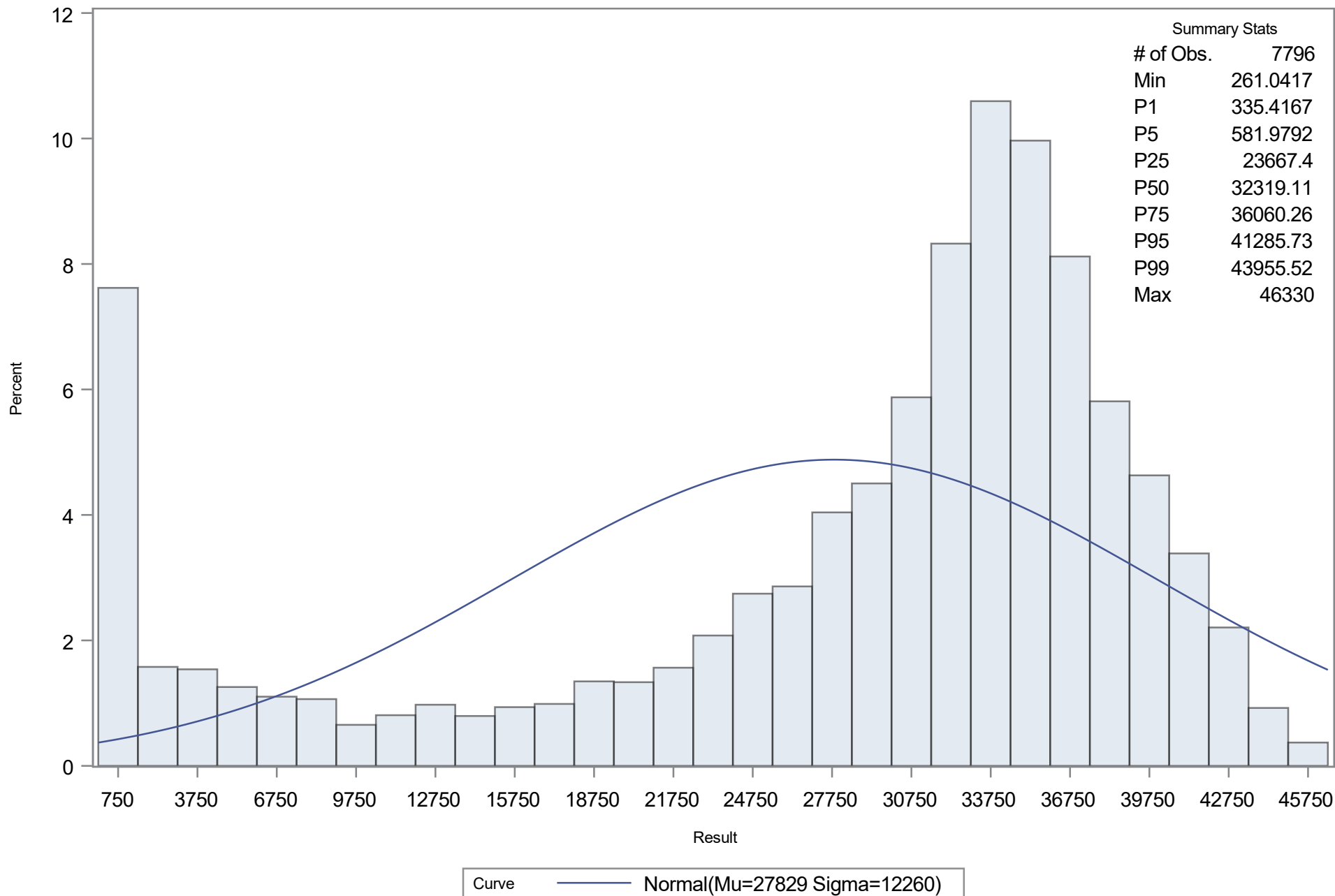
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station TBW Columbus

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	27829.31
Std Dev	Sigma	12259.85

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.172996	Pr > D	<0.010
Cramer-von Mises	W-Sq	77.584449	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	454.140987	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	335.417	-691.362
5.0	581.979	7663.653
10.0	3757.813	12117.680
25.0	23667.396	19560.165
50.0	32319.115	27829.305
75.0	36060.260	36098.446
90.0	39444.271	43540.931
95.0	41285.729	47994.958
99.0	43955.521	56349.973

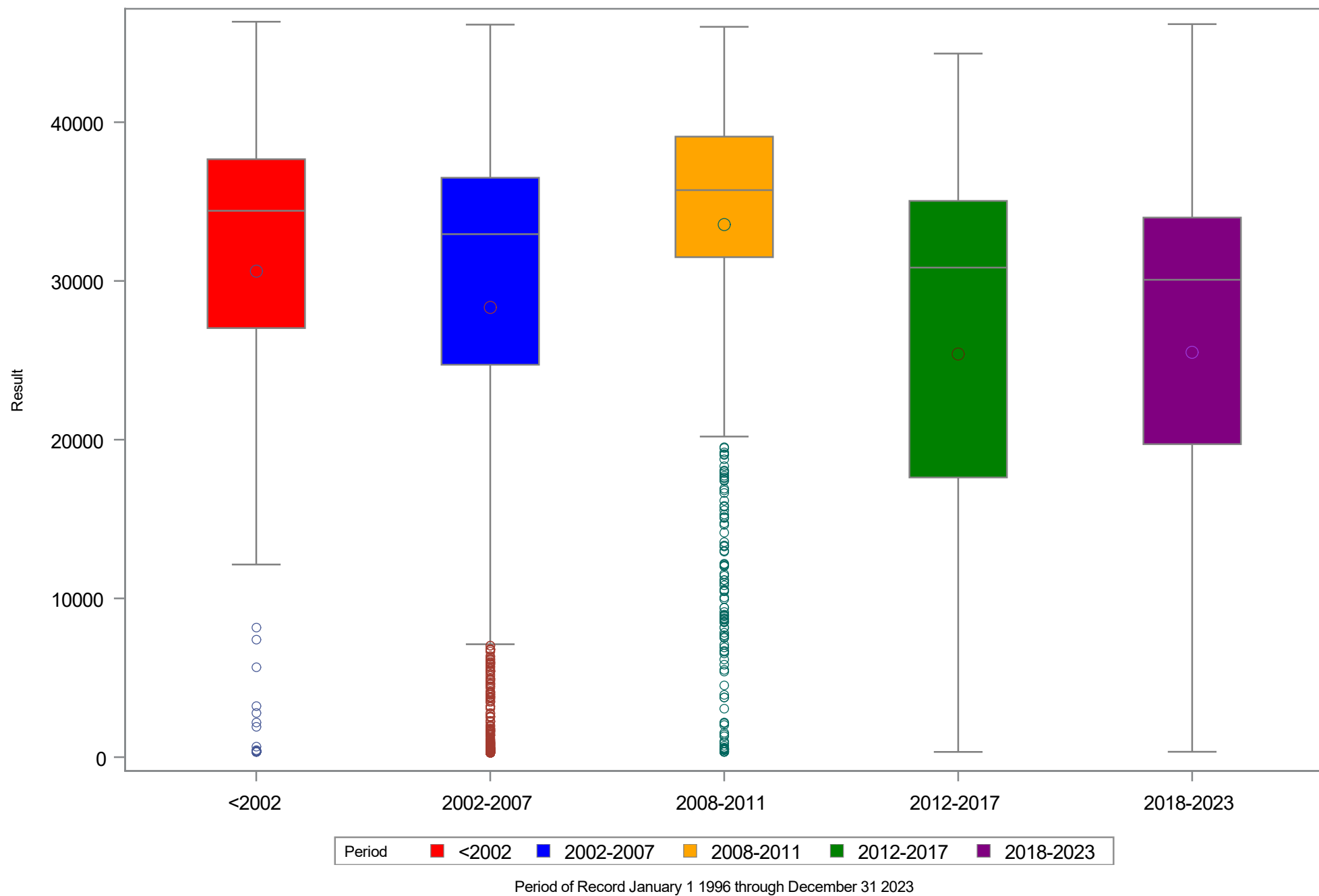
DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station TBW Columbus

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	198	309.38	27030.52	30598.42	34420.05	37668.13	46330.00
2002-2007	2120	261.04	24720.94	28332.31	32946.93	36501.35	46146.77
2008-2011	1401	313.33	31497.29	33539.68	35720.52	39090.83	46009.58
2012-2017	1928	329.17	17620.31	25406.22	30840.31	35041.61	44323.85
2018-2023	2149	338.75	19717.19	25529.09	30071.81	33991.56	46177.24

Period of Record January 1 1996 through December 31 2023

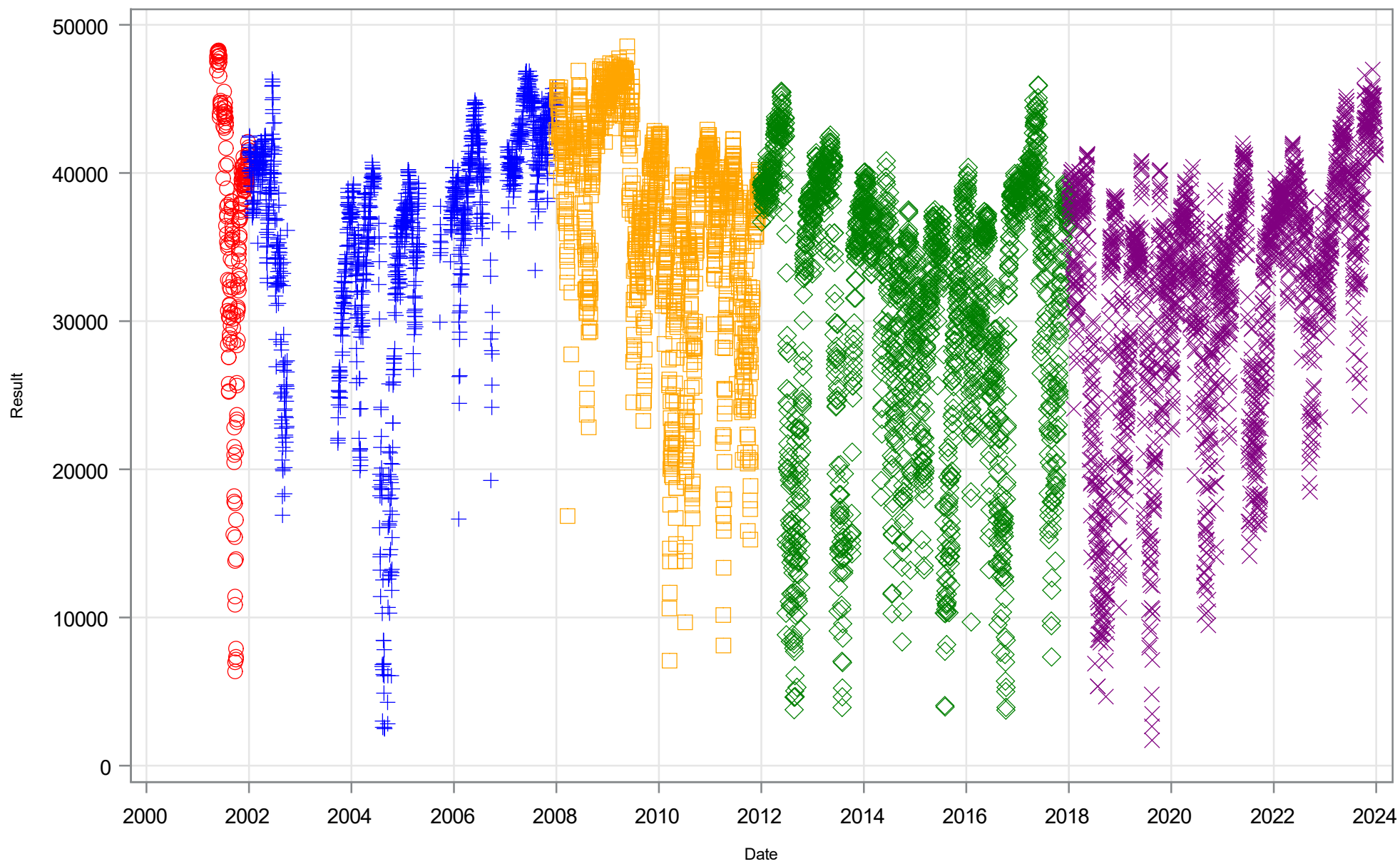
DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station TBW Columbus



DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station TBW Crosstown



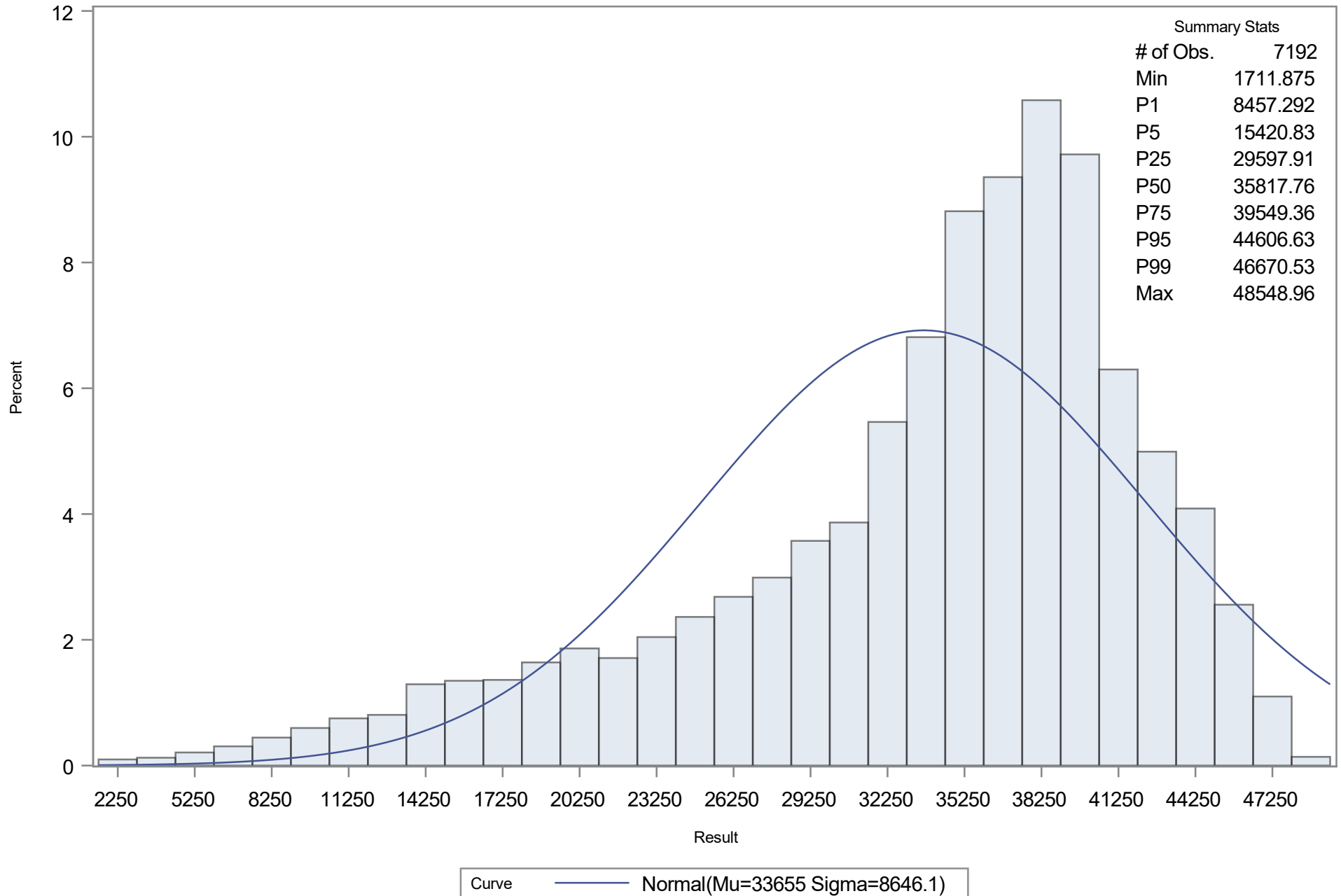
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station TBW Crosstown

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	33654.73
Std Dev	Sigma	8646.072

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.118258	Pr > D	<0.010
Cramer-von Mises	W-Sq	32.413276	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	183.809608	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	8457.29	13541.0
5.0	15420.83	19433.2
10.0	20394.90	22574.3
25.0	29597.91	27823.0
50.0	35817.76	33654.7
75.0	39549.36	39486.4
90.0	42795.45	44735.1
95.0	44606.63	47876.2
99.0	46670.53	53768.5

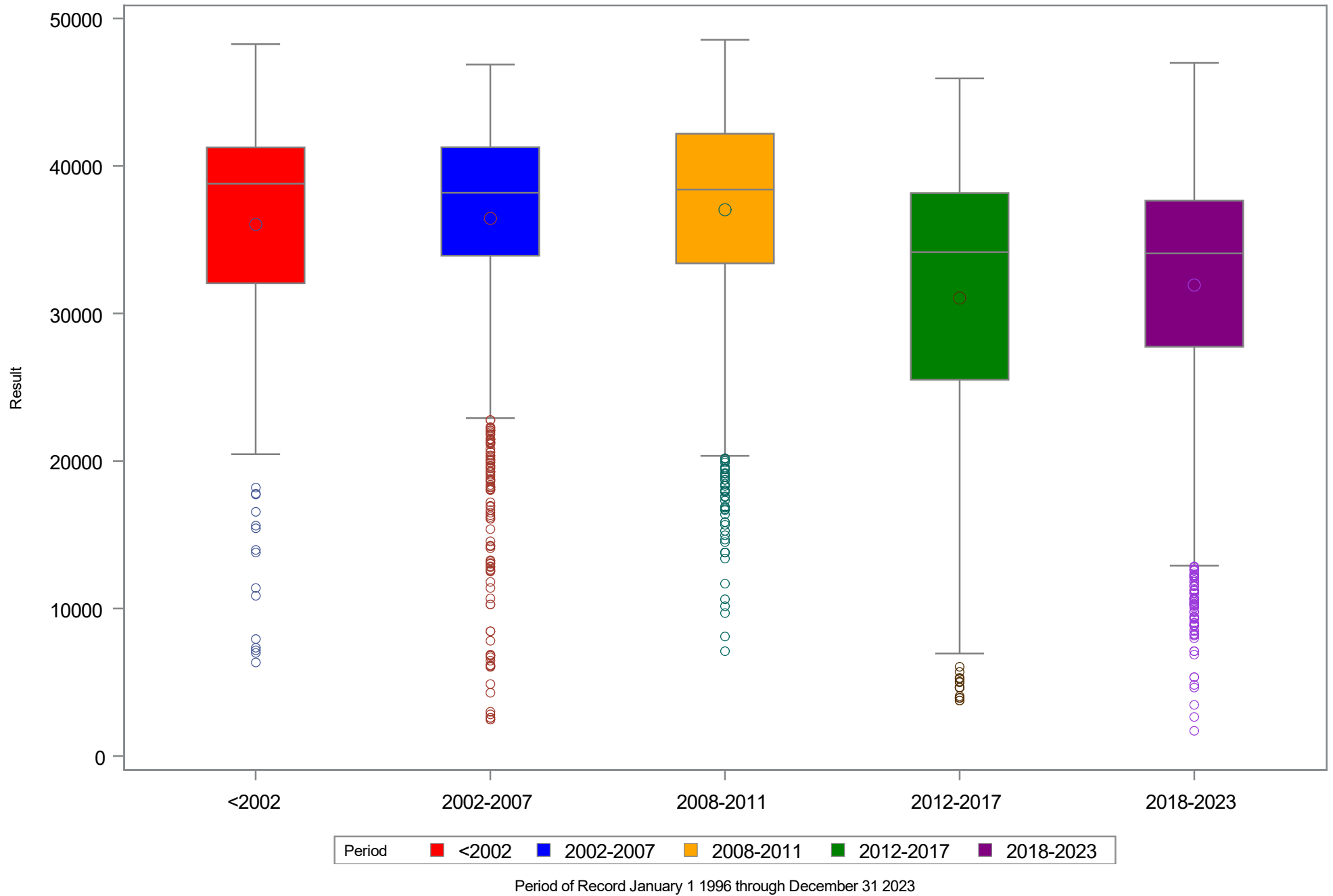
DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station TBW Crosstown

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	210	6356.67	32048.33	36008.49	38798.80	41255.94	48254.17
2002-2007	1414	2493.02	33914.06	36420.46	38179.69	41264.79	46875.10
2008-2011	1367	7086.42	33392.63	37010.30	38402.74	42184.32	48548.96
2012-2017	2066	3749.27	25513.02	31074.51	34160.89	38159.90	45934.87
2018-2023	2135	1711.88	27746.46	31939.79	34070.52	37644.06	46982.53

Period of Record January 1 1996 through December 31 2023

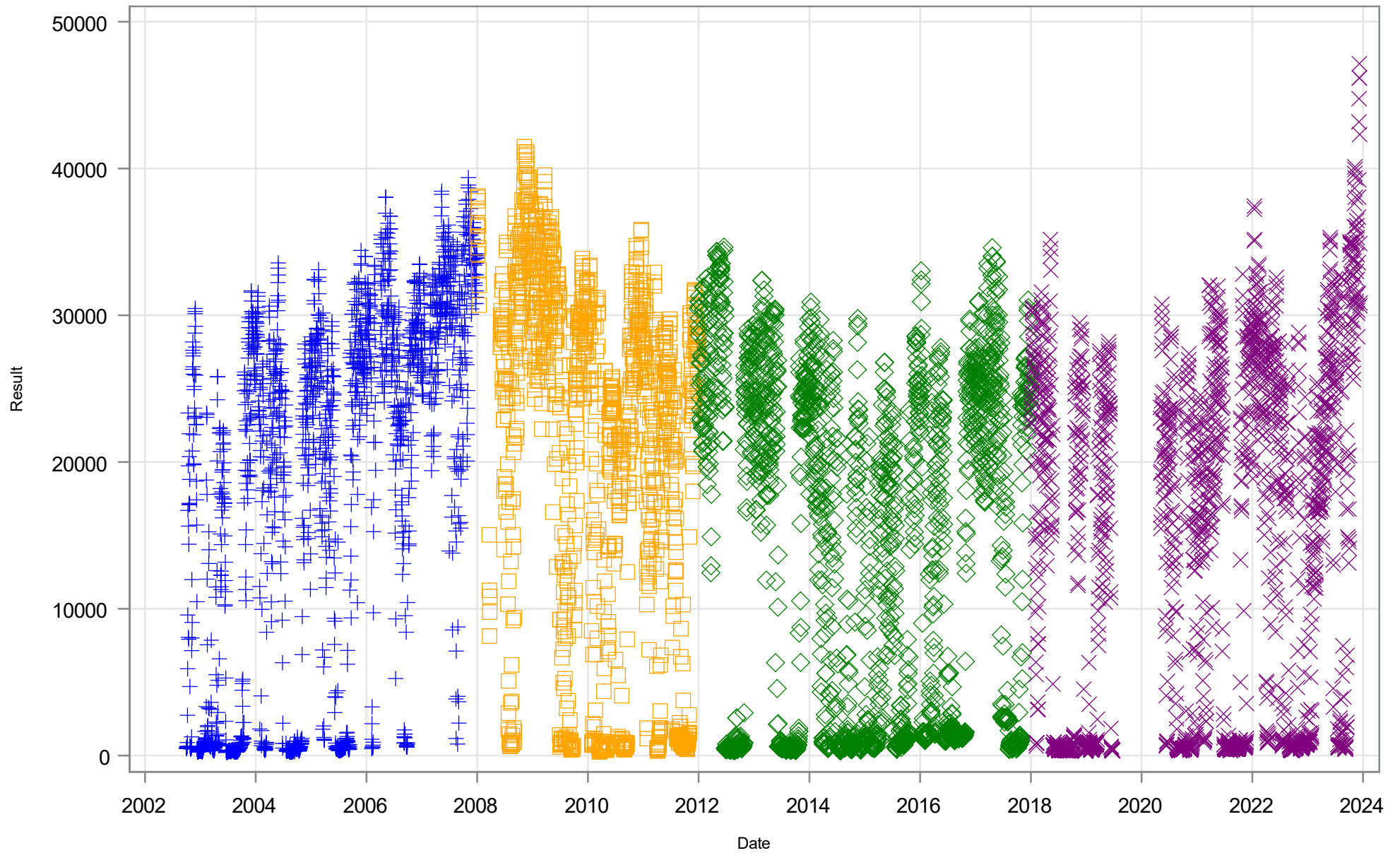
DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station TBW Crosstown



DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station TBW Sligh



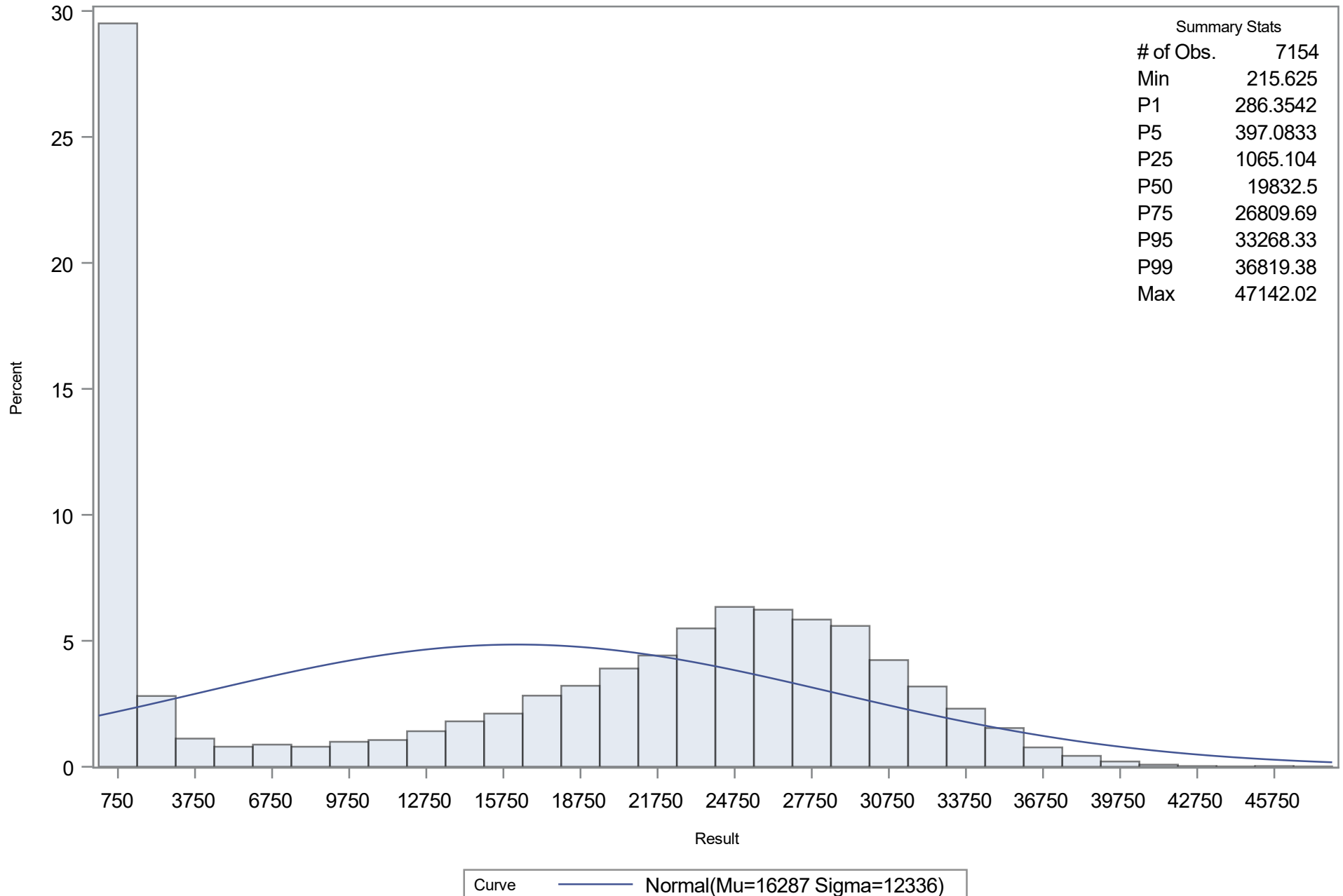
Period	2002-2007	2008-2011	2012-2017	2018-2023
Marker	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station TBW Sligh

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station TBW Sligh**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	16287.01
Std Dev	Sigma	12335.74

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.186526	Pr > D	<0.010
Cramer-von Mises	W-Sq	54.995863	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	365.591862	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	286.354	-12410.216
5.0	397.083	-4003.479
10.0	487.083	478.122
25.0	1065.104	7966.679
50.0	19832.500	16287.011
75.0	26809.688	24607.342
90.0	30881.458	32095.900
95.0	33268.333	36577.500
99.0	36819.375	44984.237

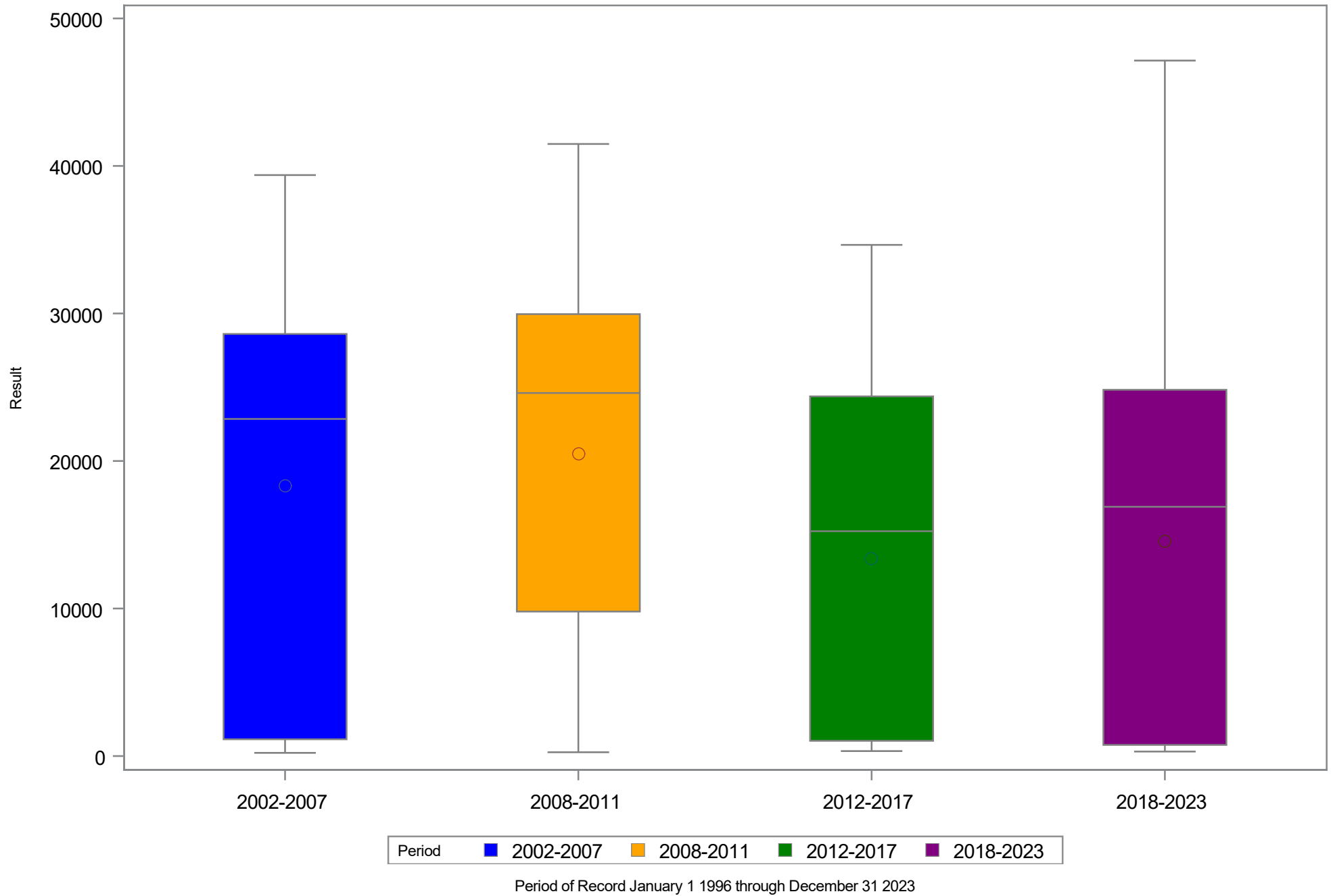
DRAFT**Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station TBW Sligh**

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1850	215.63	1137.60	18336.44	22849.79	28610.63	39379.58
2008-2011	1327	257.92	9795.52	20475.03	24608.72	29955.10	41488.65
2012-2017	2133	336.56	1033.85	13391.68	15240.83	24380.10	34648.75
2018-2023	1844	305.73	755.36	14566.19	16895.37	24824.78	47142.02

Period of Record January 1 1996 through December 31 2023

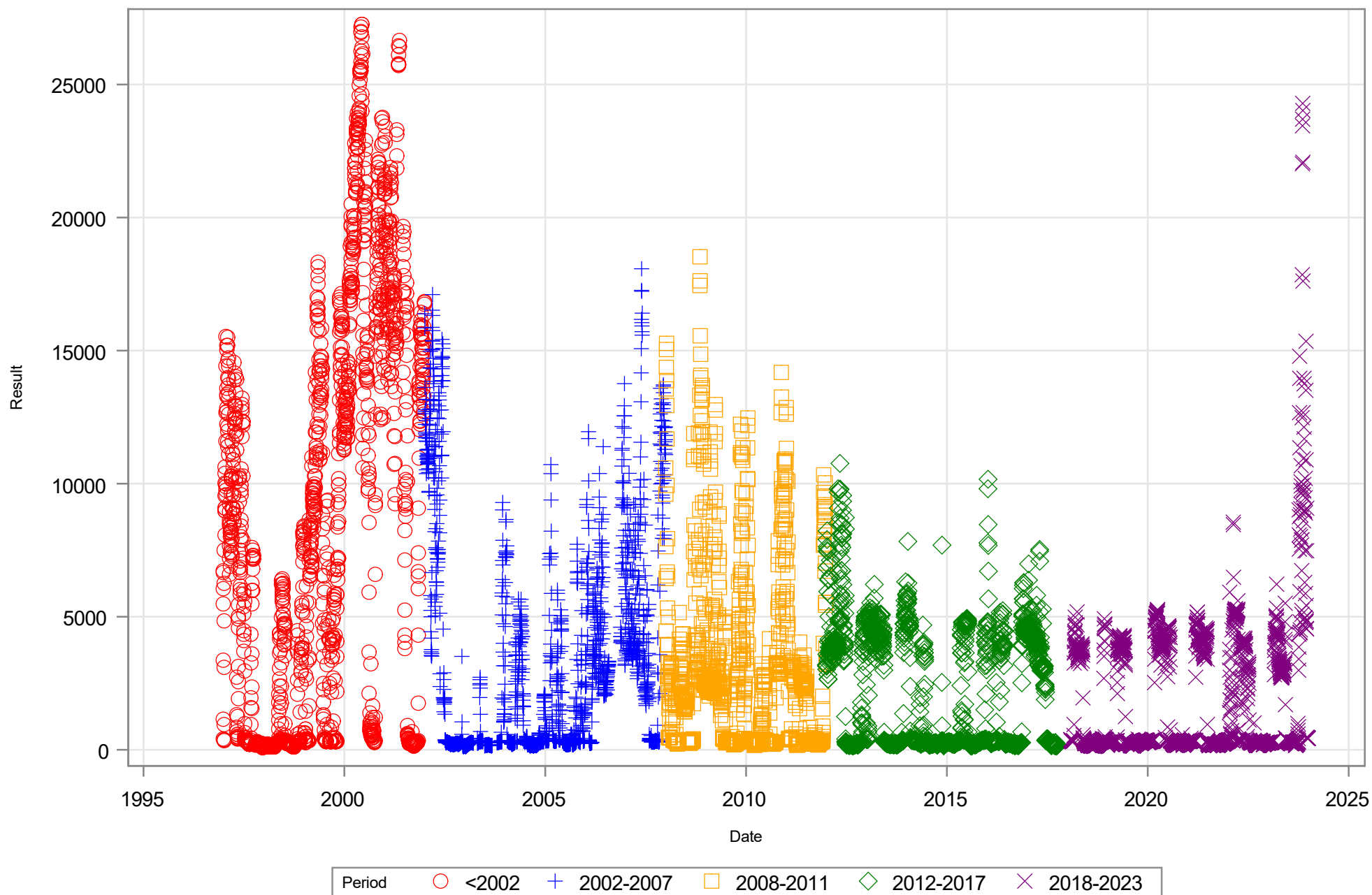
DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station TBW Sligh



DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station USGS 02304510 Rowlett

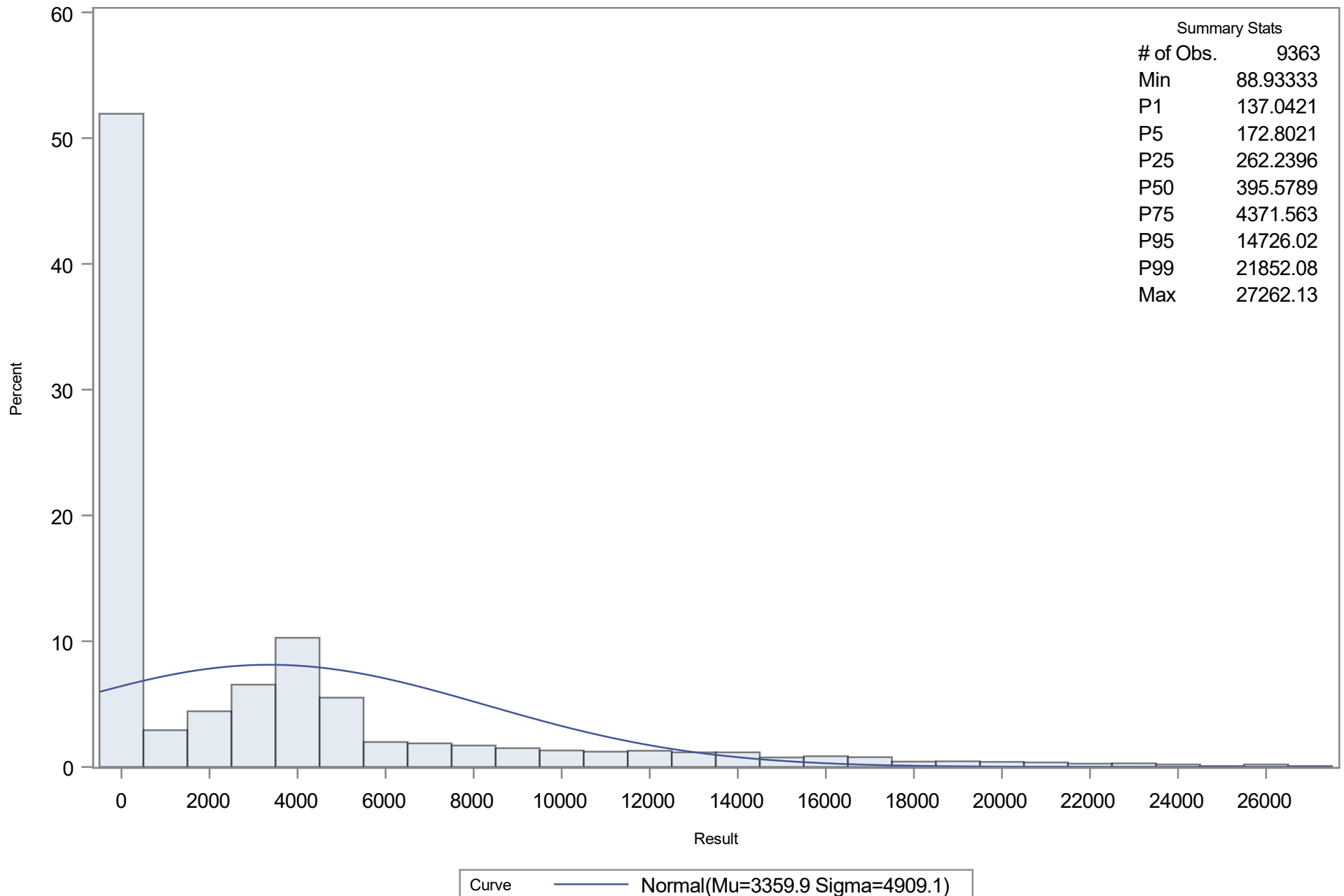


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station USGS 02304510 Rowlett

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3359.947
Std Dev	Sigma	4909.05

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.25275	Pr > D	<0.010
Cramer-von Mises	W-Sq	186.90425	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1023.46068	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	137.042	-8060.2114
5.0	172.802	-4714.7219
10.0	199.747	-2931.2538
25.0	262.240	48.8431
50.0	395.579	3359.9471
75.0	4371.563	6671.0511
90.0	10435.211	9651.1481
95.0	14726.021	11434.6161
99.0	21852.084	14780.1056

DRAFT

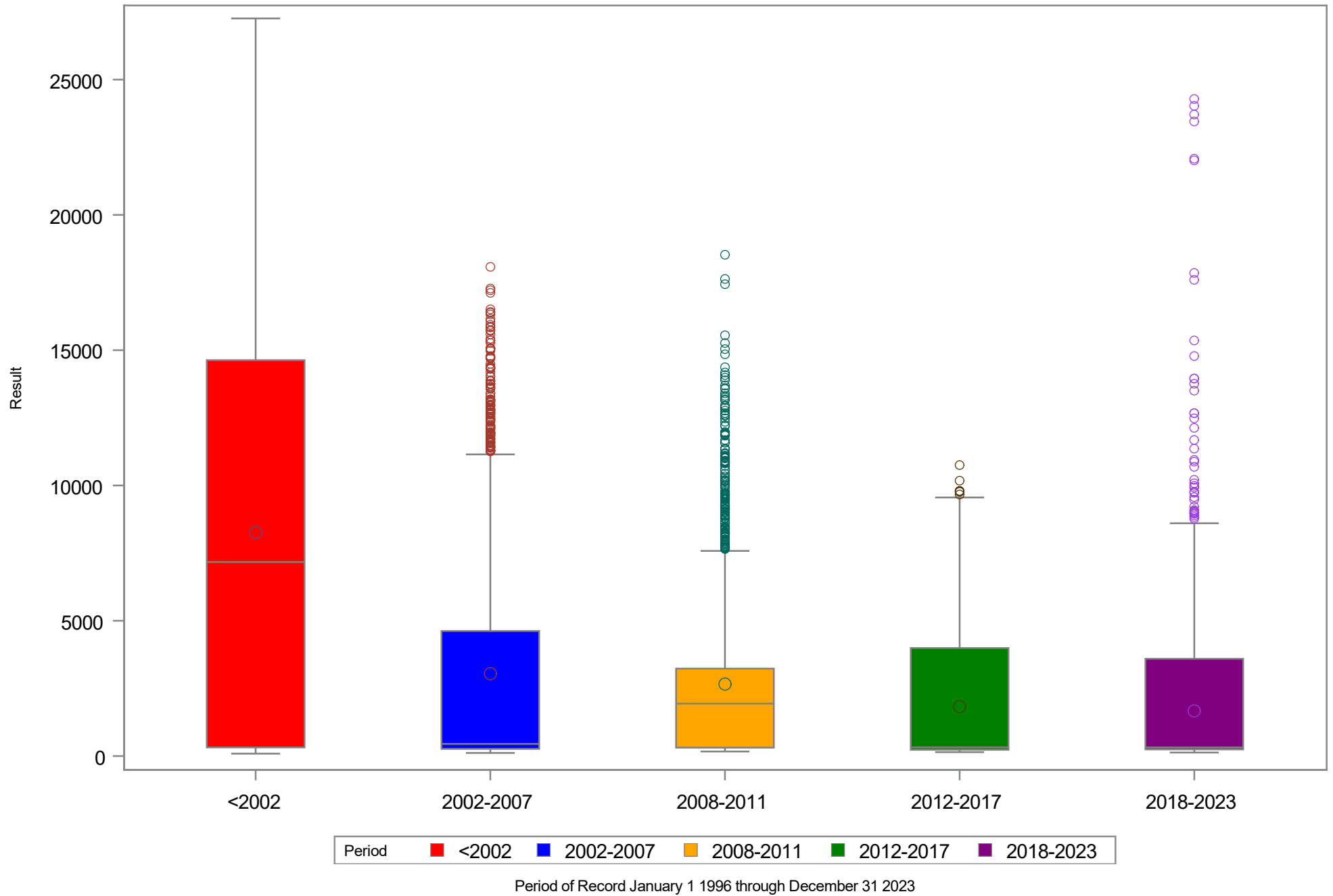
Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station USGS 02304510 Rowlett

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1720	88.93	318.73	8252.48	7171.06	14630.27	27262.13
2002-2007	1952	114.63	264.42	3048.55	449.03	4620.76	18075.79
2008-2011	1457	169.26	311.00	2672.18	1938.54	3231.56	18527.08
2012-2017	2080	144.71	231.74	1834.27	321.74	3991.67	10760.63
2018-2023	2154	129.54	245.91	1673.85	320.56	3594.48	24289.58

Period of Record January 1 1996 through December 31 2023

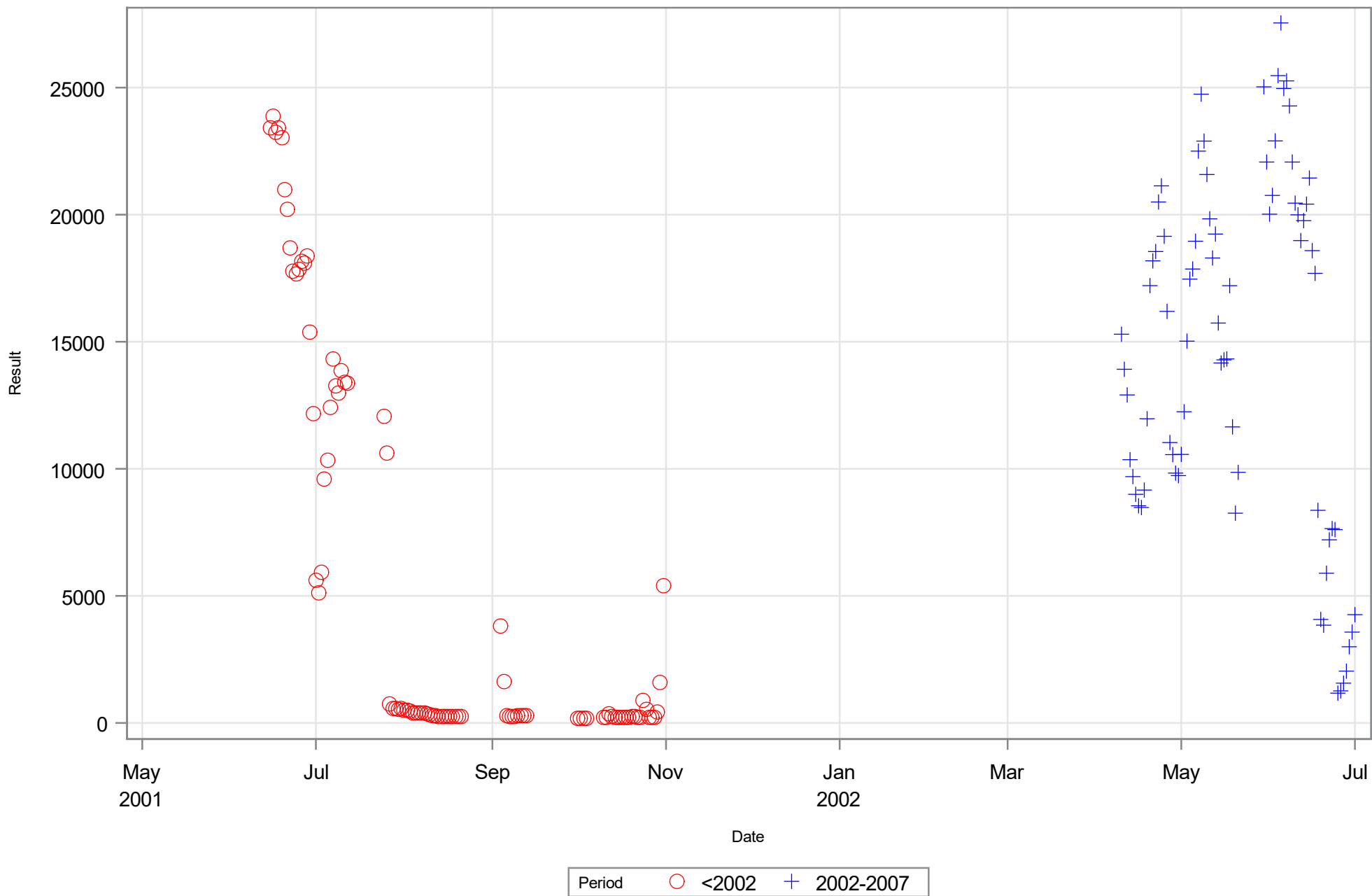
DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station USGS 02304510 Rowlett



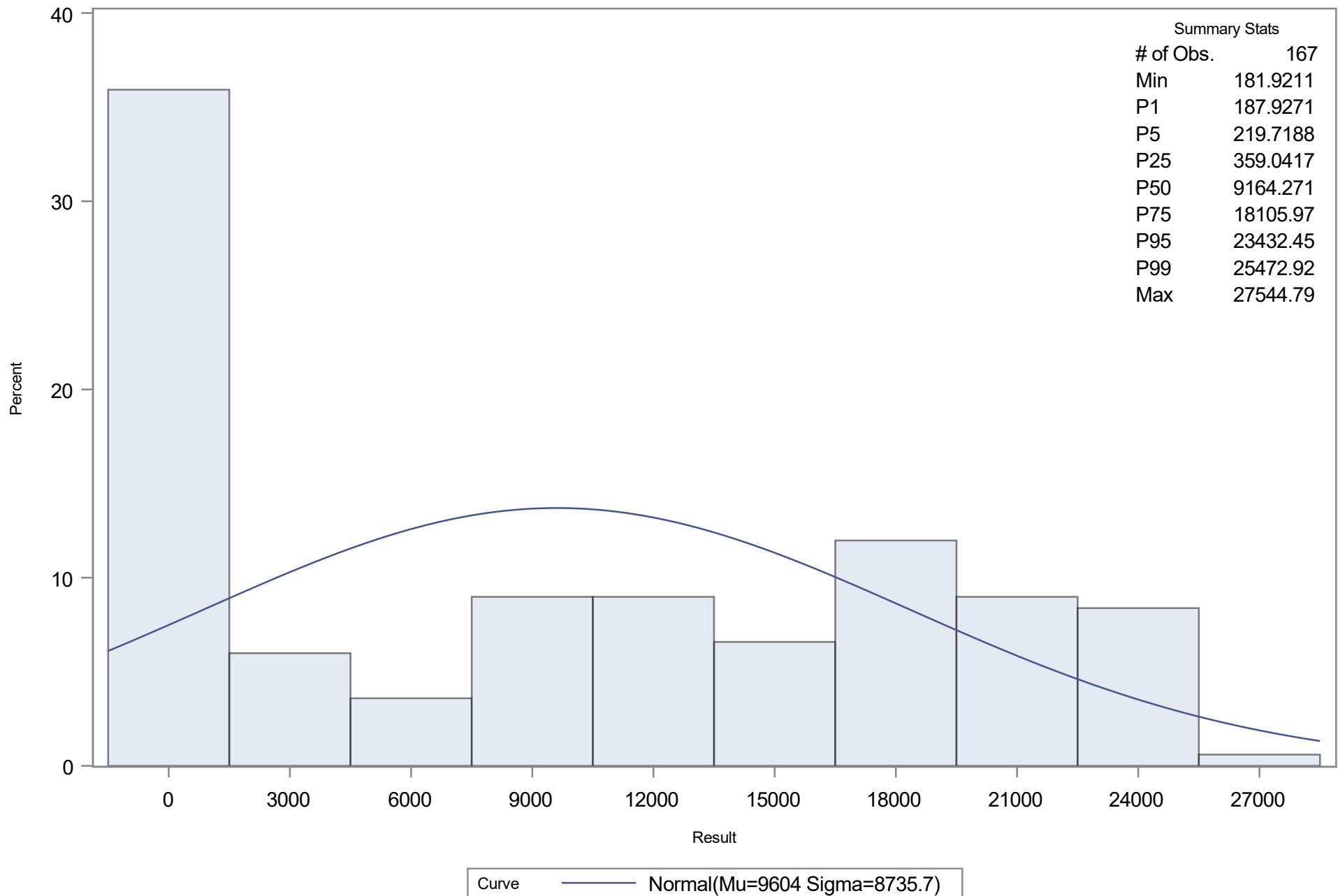
DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	9604.05
Std Dev	Sigma	8735.68

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.19695984	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.20860502	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	8.13461915	Pr > A-Sq	<0.005

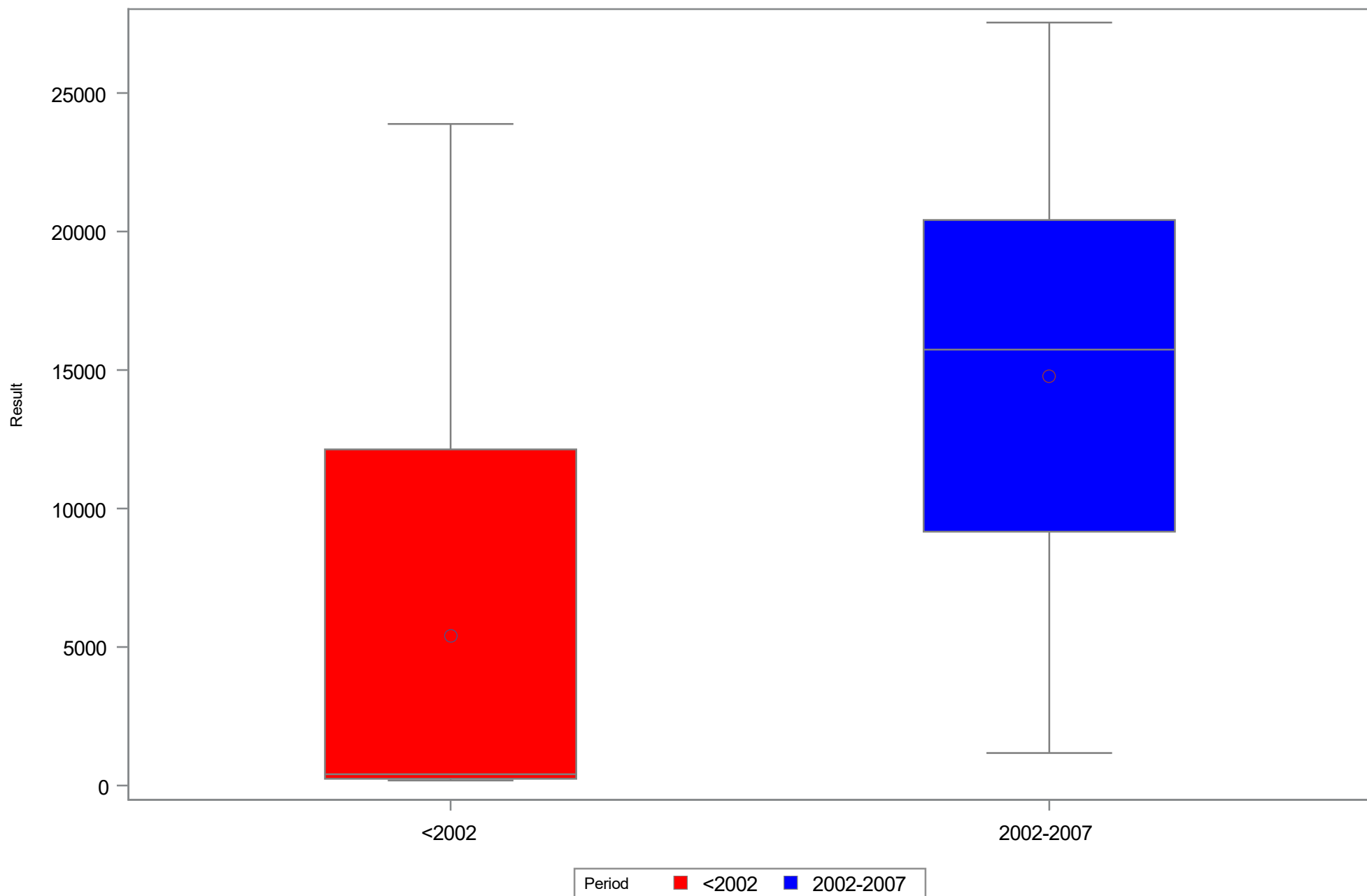
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	187.927	-10718.18
5.0	219.719	-4764.87
10.0	236.604	-1591.17
25.0	359.042	3711.92
50.0	9164.271	9604.05
75.0	18105.969	15496.18
90.0	22071.875	20799.27
95.0	23432.448	23972.96
99.0	25472.917	29926.28

DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	92	181.92	243.28	5397.16	407.36	12133.81	23882.94
2002-2007	75	1173.72	9164.27	14764.50	15736.25	20415.63	27544.79

DRAFT

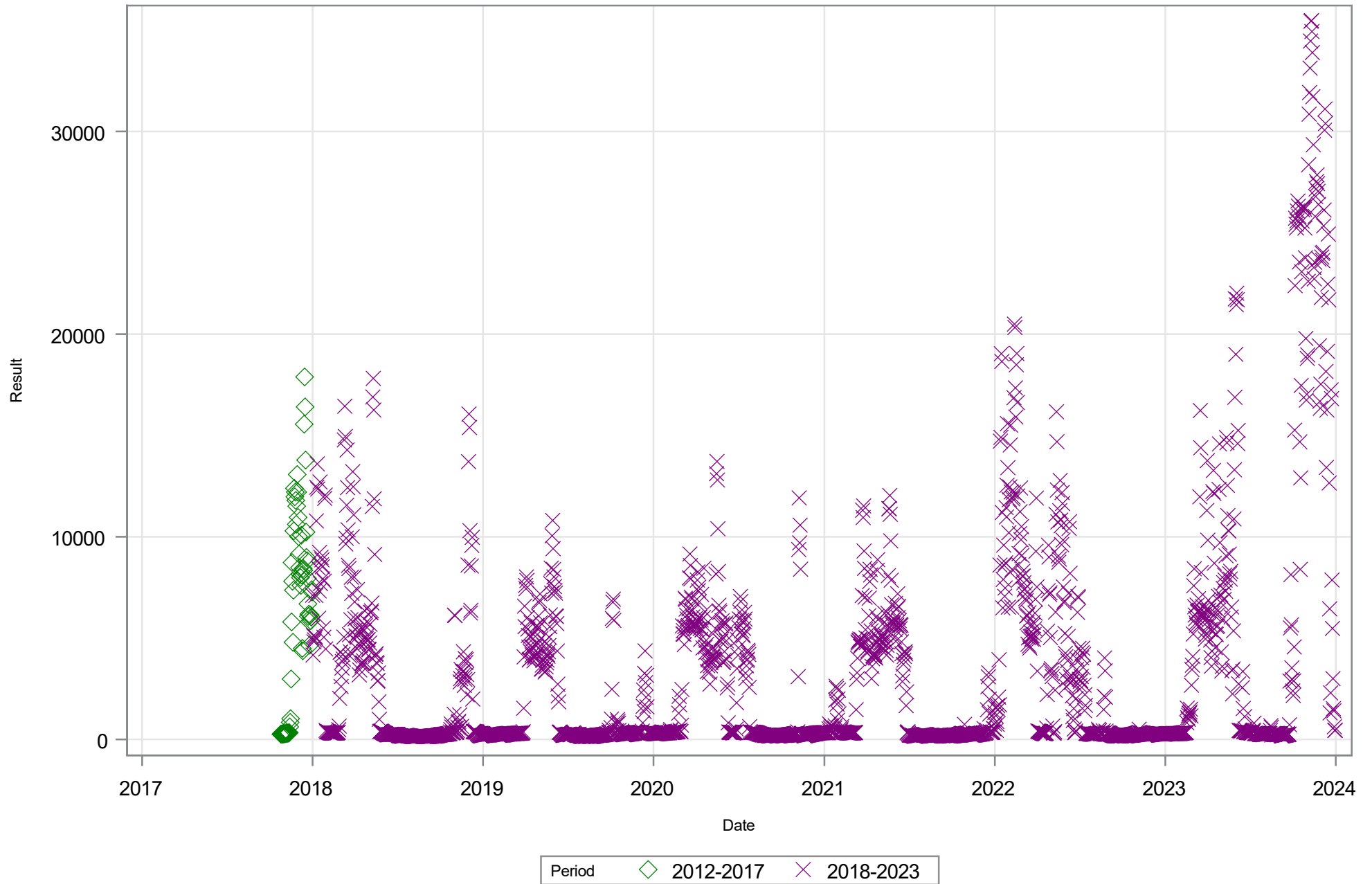
Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

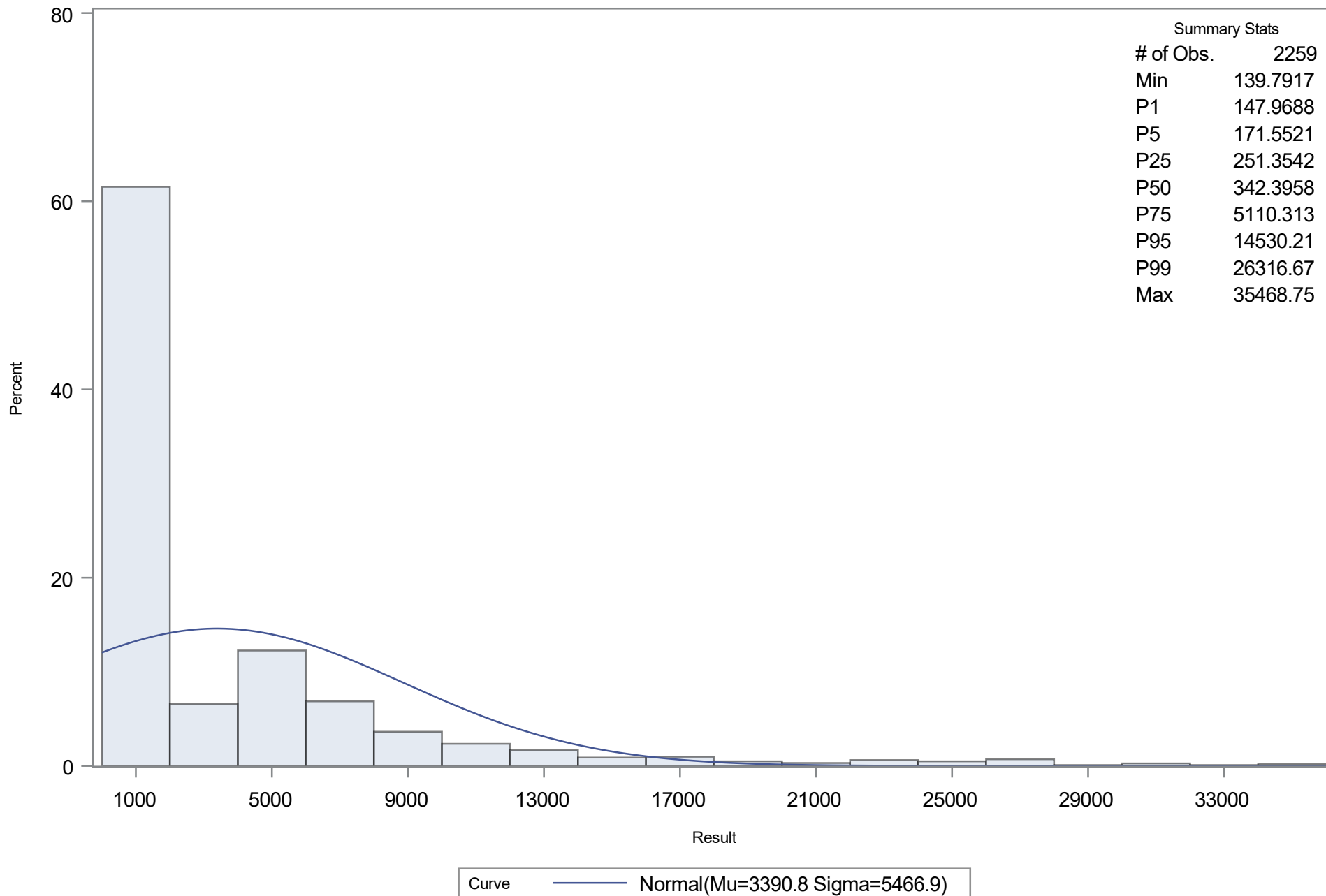
DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station USGS 02304517 BLHannah



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3390.845
Std Dev	Sigma	5466.876

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.276028	Pr > D	<0.010
Cramer-von Mises	W-Sq	50.616048	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	271.287924	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	147.969	-9327.010
5.0	171.552	-5601.366
10.0	192.875	-3615.239
25.0	251.354	-296.507
50.0	342.396	3390.845
75.0	5110.313	7078.197
90.0	9170.430	10396.928
95.0	14530.208	12383.056
99.0	26316.667	16108.700

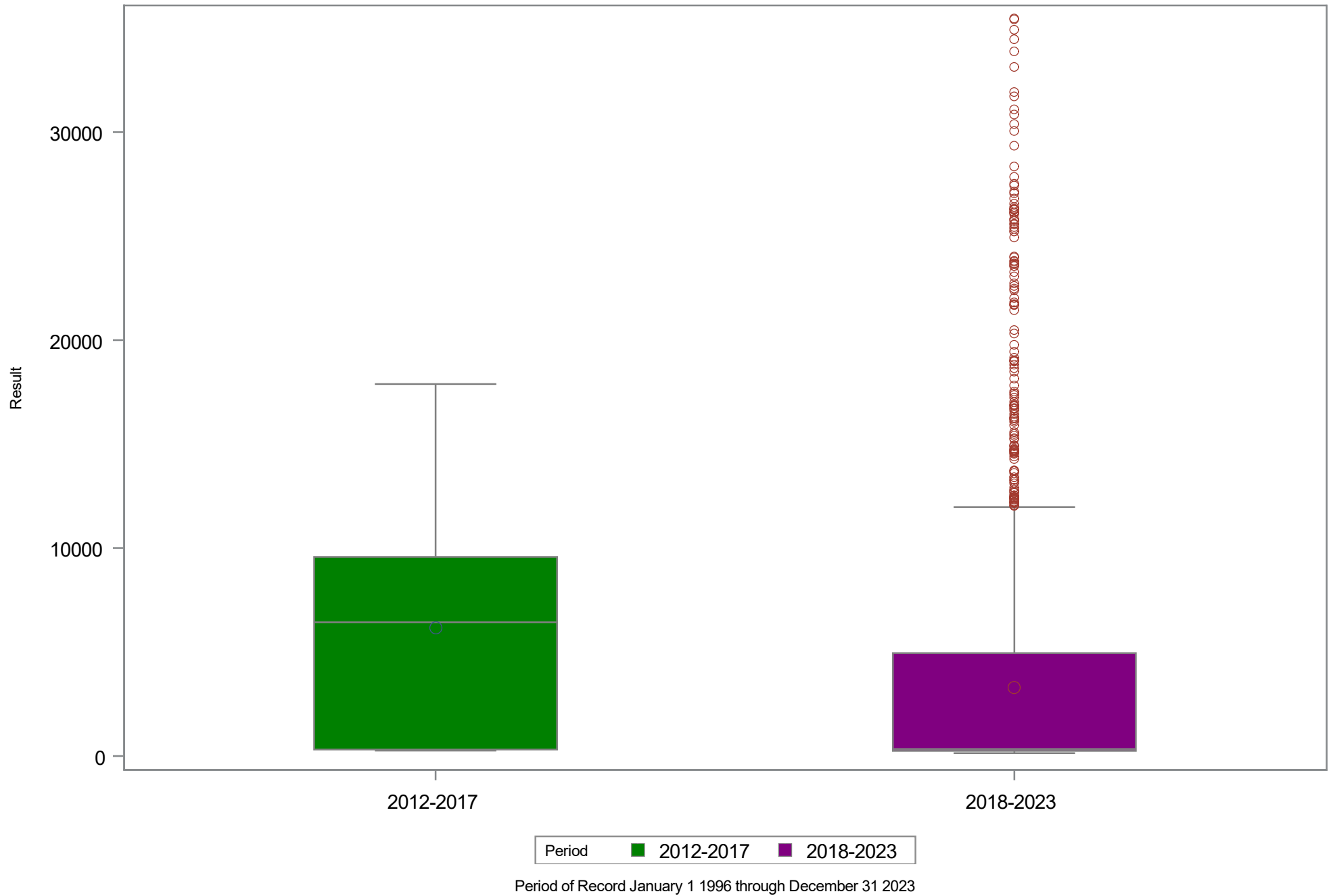
Period of Record January 1 1996 through December 31 2023

DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	261.52	315.29	6167.60	6436.04	9576.88	17887.50
2018-2023	2191	139.79	248.65	3304.67	338.26	4951.15	35468.75

DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station USGS 02304517 BLHannah



DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station USGS 023060013 I-275

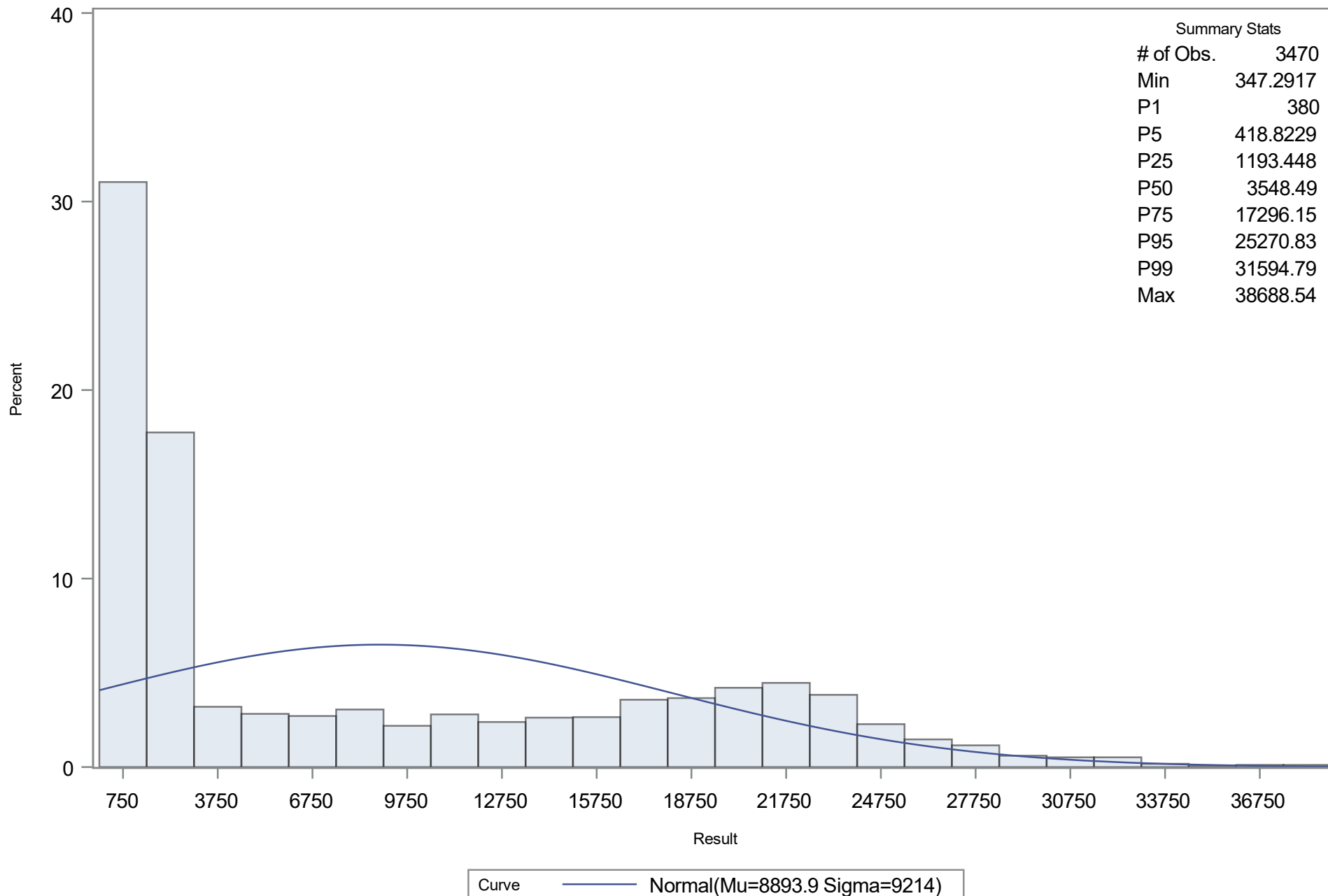


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Specific Conductance (us/cm) at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	8893.855
Std Dev	Sigma	9213.952

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.227850	Pr > D	<0.010
Cramer-von Mises	W-Sq	42.470573	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	240.221981	Pr > A-Sq	<0.005

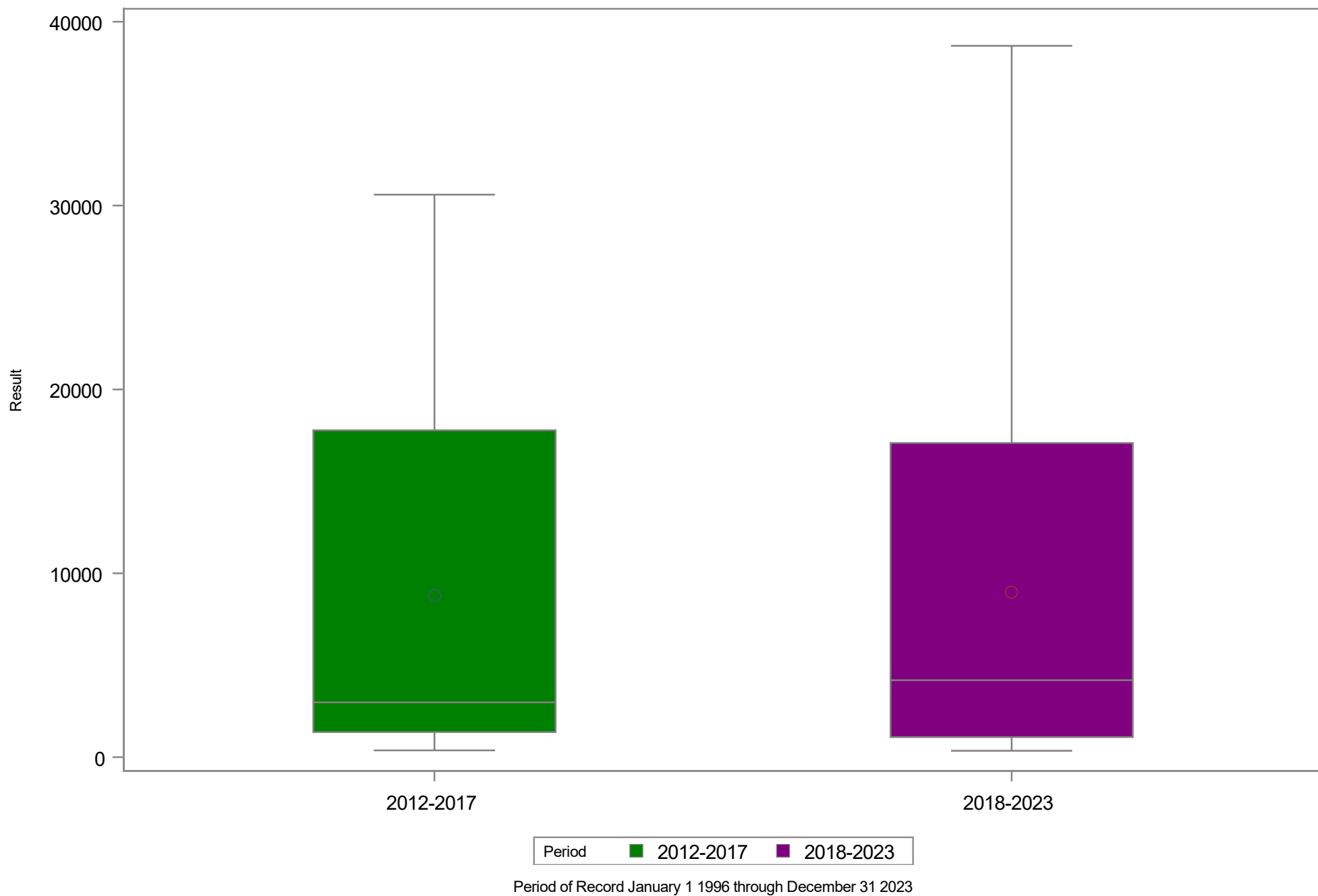
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	380.000	-12541.00
5.0	418.823	-6261.75
10.0	495.349	-2914.30
25.0	1193.448	2679.14
50.0	3548.490	8893.86
75.0	17296.146	15108.57
90.0	22821.354	20702.01
95.0	25270.833	24049.46
99.0	31594.792	30328.71

DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	1291	368.42	1364.90	8770.91	2977.78	17777.08	30592.71
2018-2023	2179	347.29	1090.43	8966.70	4184.58	17086.46	38688.54

DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station USGS 023060013 I-275



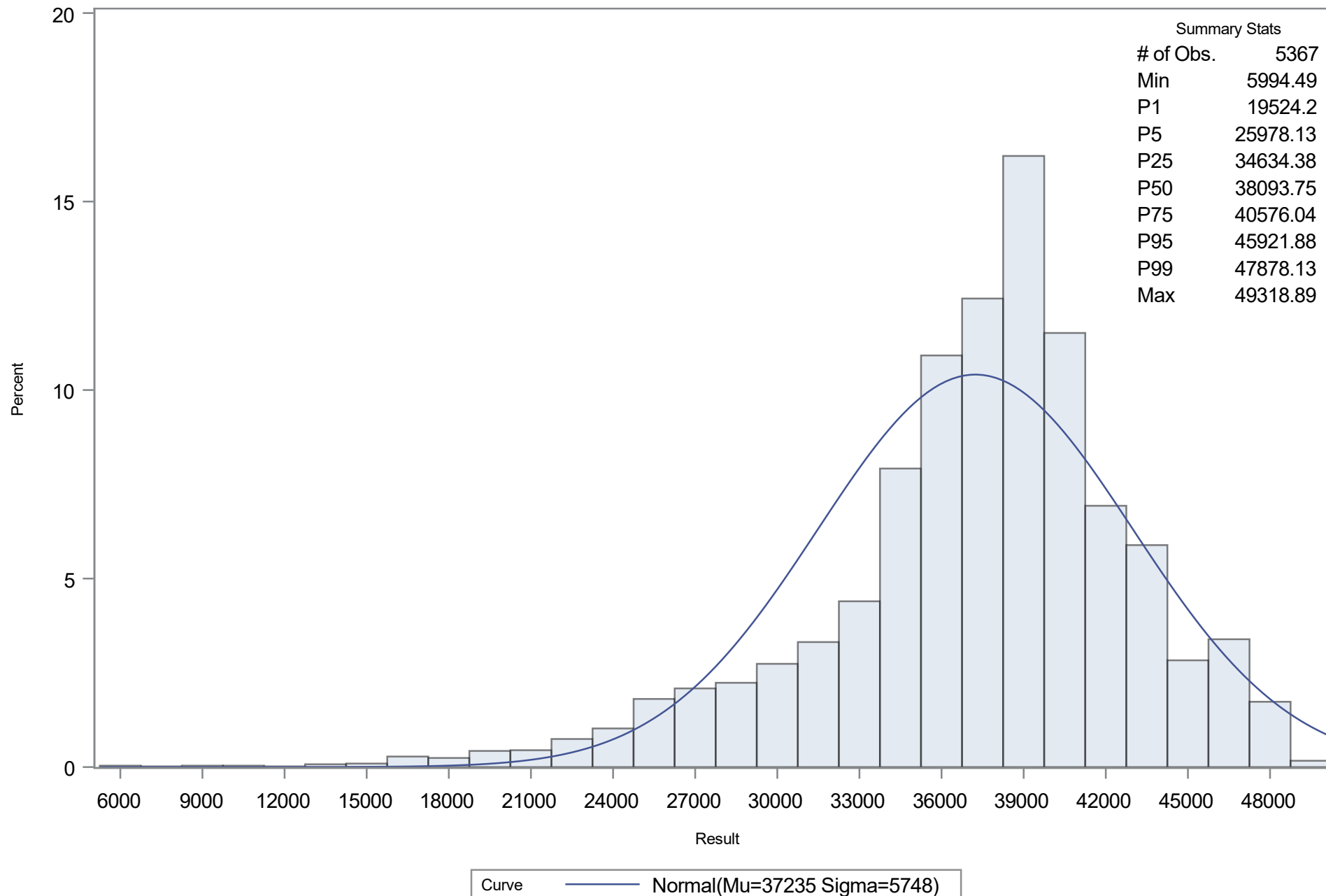
DRAFT

Timeseries of Bottom Specific Conductance (us/cm) at Station USGS 02306028 Platt



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	37235.36
Std Dev	Sigma	5748.006

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0872612	Pr > D	<0.010
Cramer-von Mises	W-Sq	12.9805817	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	71.8226481	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	19524.2	23863.5
5.0	25978.1	27780.7
10.0	29495.8	29869.0
25.0	34634.4	33358.4
50.0	38093.8	37235.4
75.0	40576.0	41112.3
90.0	43690.6	44601.7
95.0	45921.9	46690.0
99.0	47878.1	50607.2

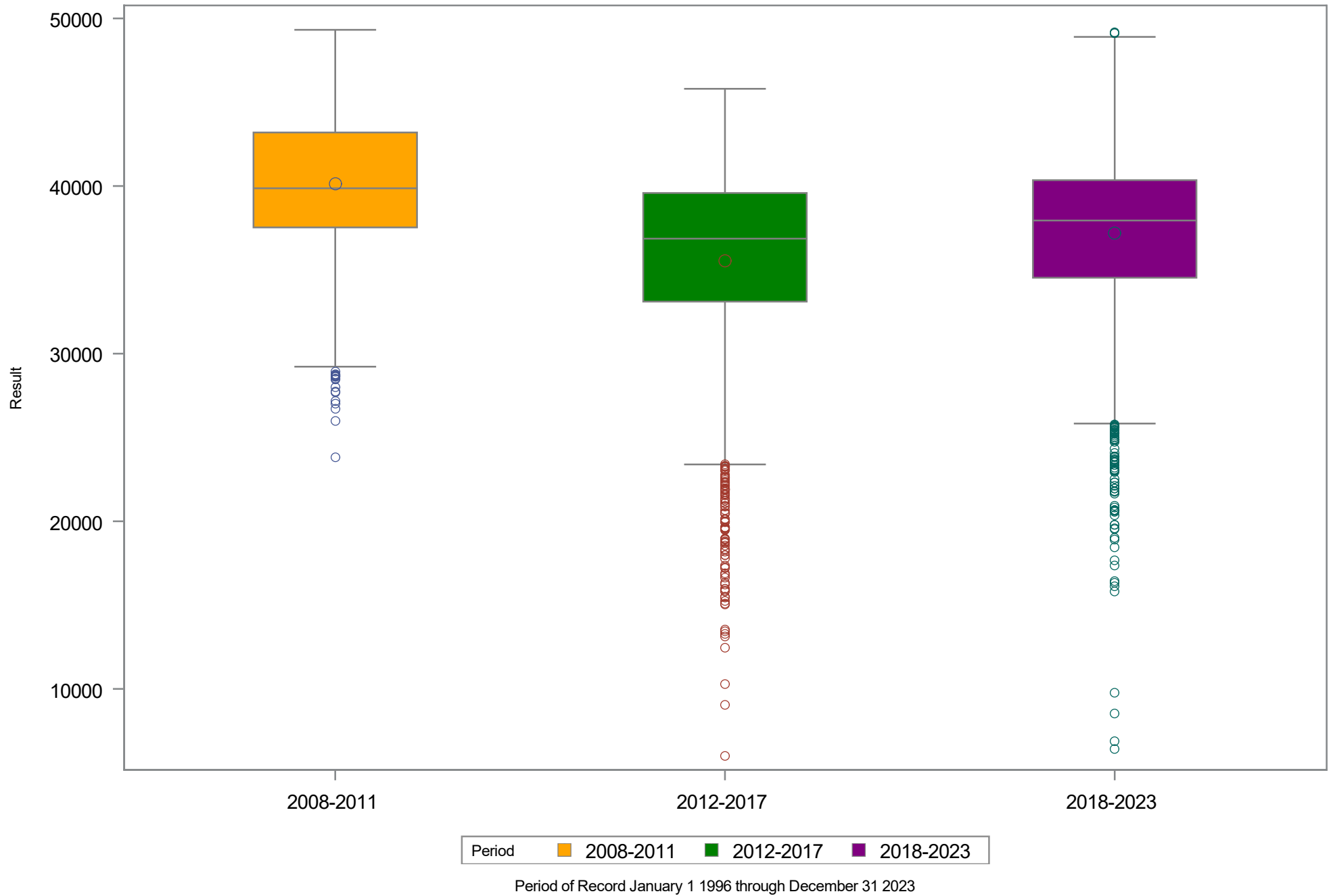
DRAFT Distributional Statistics by Period for Bottom Specific Conductance (us/cm) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1205	23797.08	37530.21	40136.21	39864.58	43193.75	49318.89
2012-2017	1984	5994.49	33105.73	35524.40	36860.42	39583.85	45801.04
2018-2023	2178	6421.65	34530.21	37189.01	37943.23	40348.96	49195.83

Period of Record January 1 1996 through December 31 2023

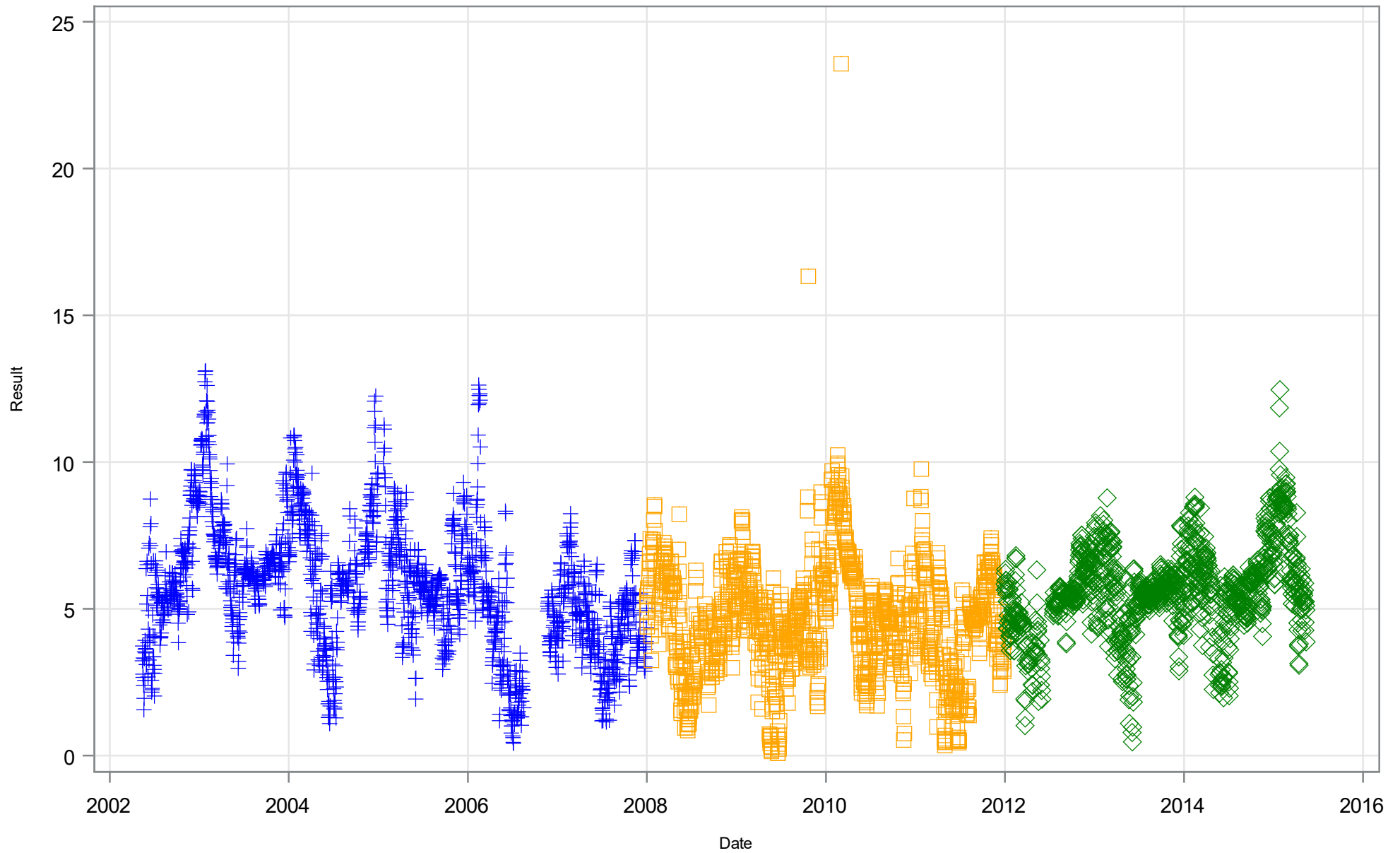
DRAFT

Boxplot by MFL Period for Bottom Specific Conductance (us/cm) at Station USGS 02306028 Platt



DRAFT

Timeseries of Surface Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7



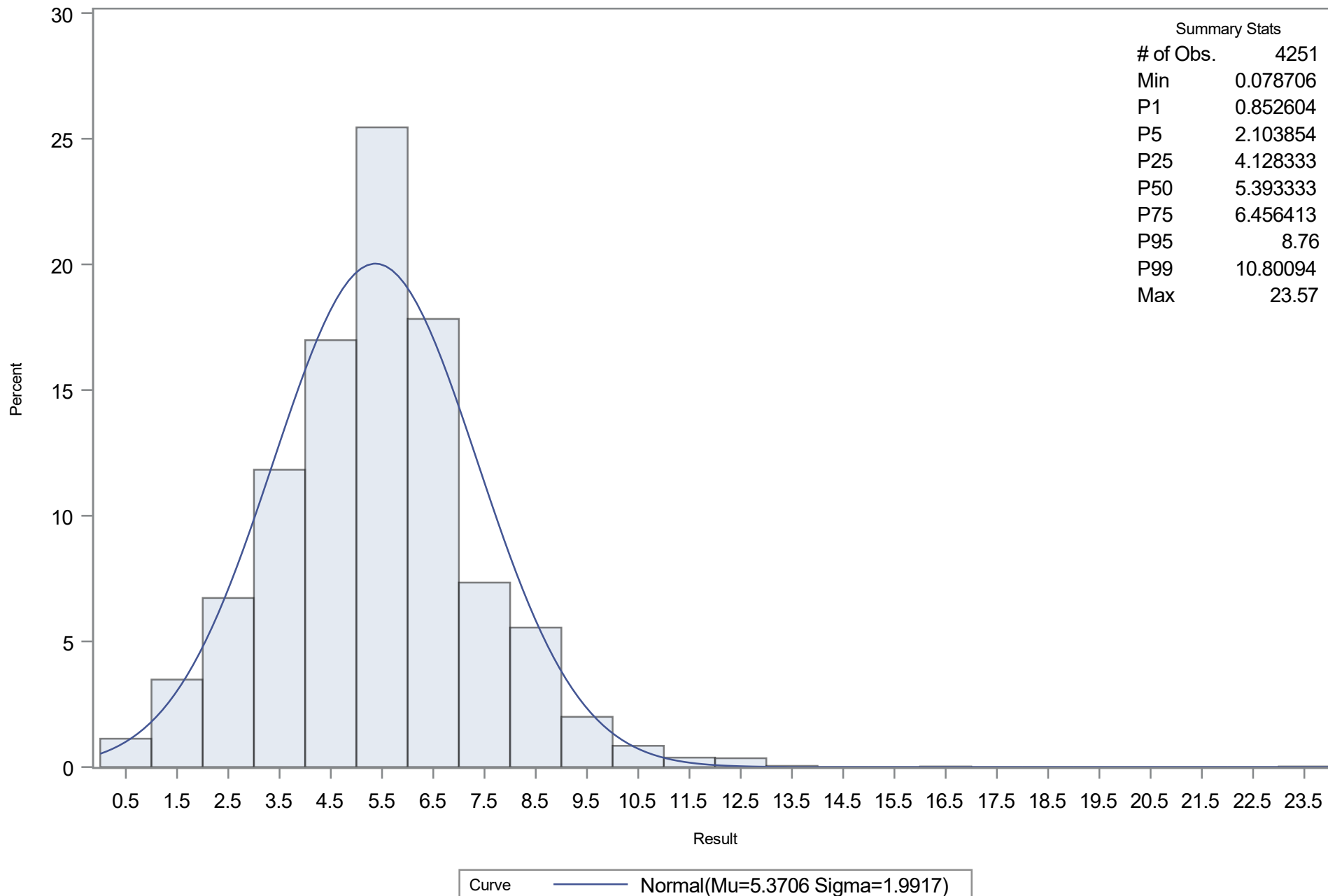
Period	Symbol	Color
2002-2007	+	Blue
2008-2011	□	Orange
2012-2017	◇	Green

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5.370568
Std Dev	Sigma	1.991663

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0456278	Pr > D	<0.010
Cramer-von Mises	W-Sq	2.2993448	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	12.6395227	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.85260	0.73727
5.0	2.10385	2.09457
10.0	2.81857	2.81815
25.0	4.12833	4.02721
50.0	5.39333	5.37057
75.0	6.45641	6.71392
90.0	7.84128	7.92299
95.0	8.76000	8.64656
99.0	10.80094	10.00387

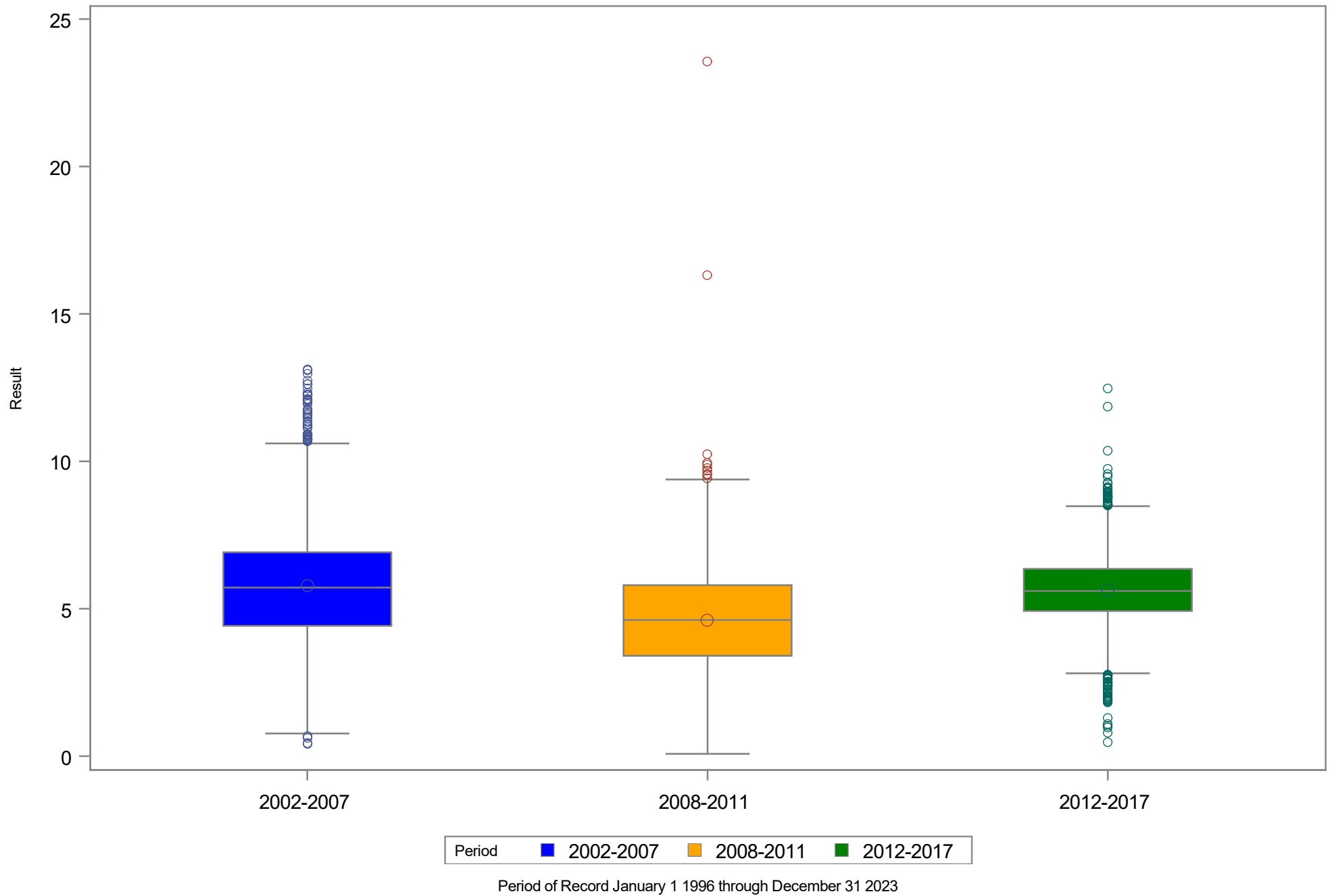
DRAFT

Distributional Statistics by Period for Surface Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1836	0.42	4.42	5.78	5.72	6.91	13.11
2008-2011	1339	0.08	3.40	4.60	4.62	5.80	23.57
2012-2017	1076	0.47	4.92	5.63	5.60	6.35	12.46

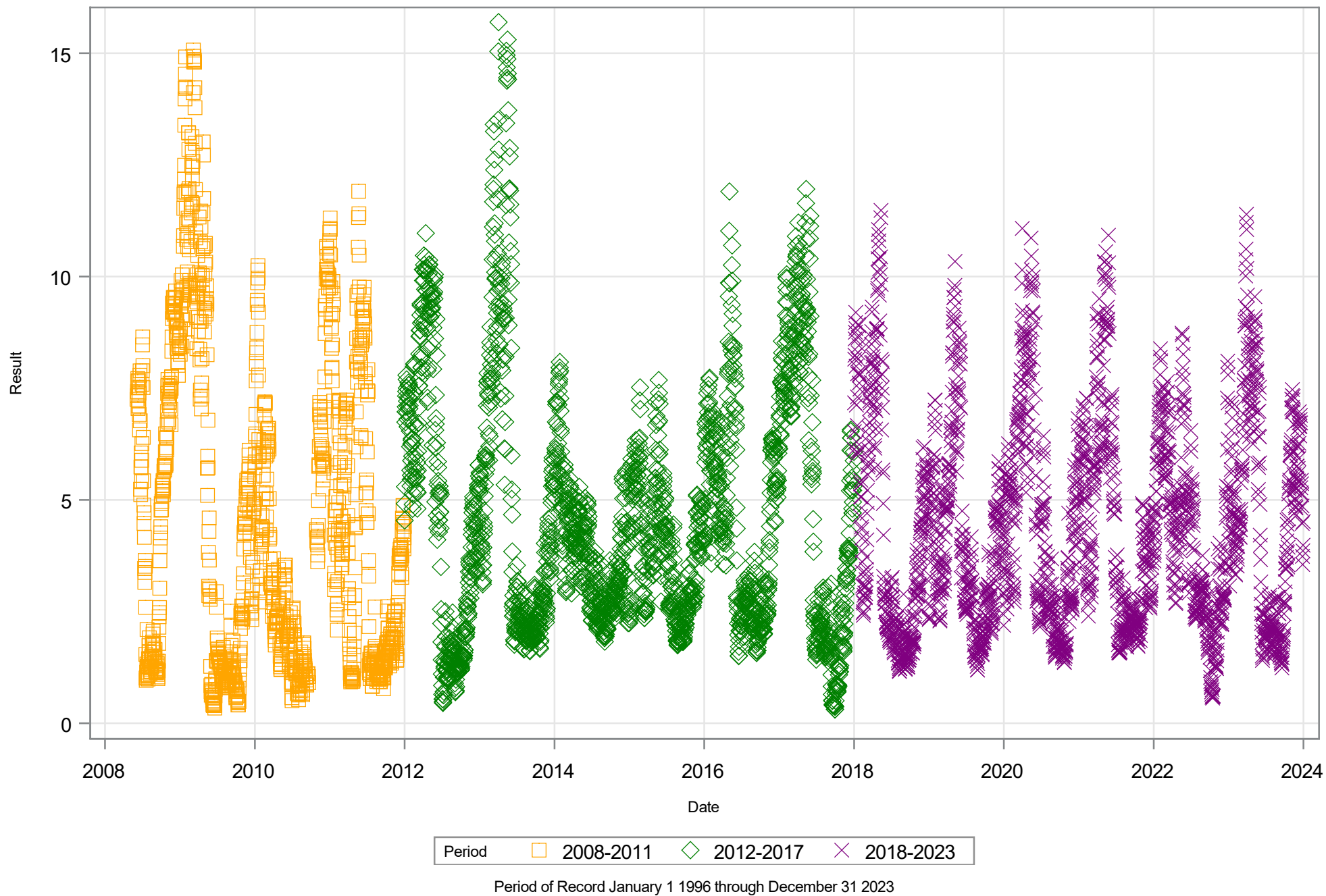
DRAFT

Boxplot by MFL Period for Surface Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7



DRAFT

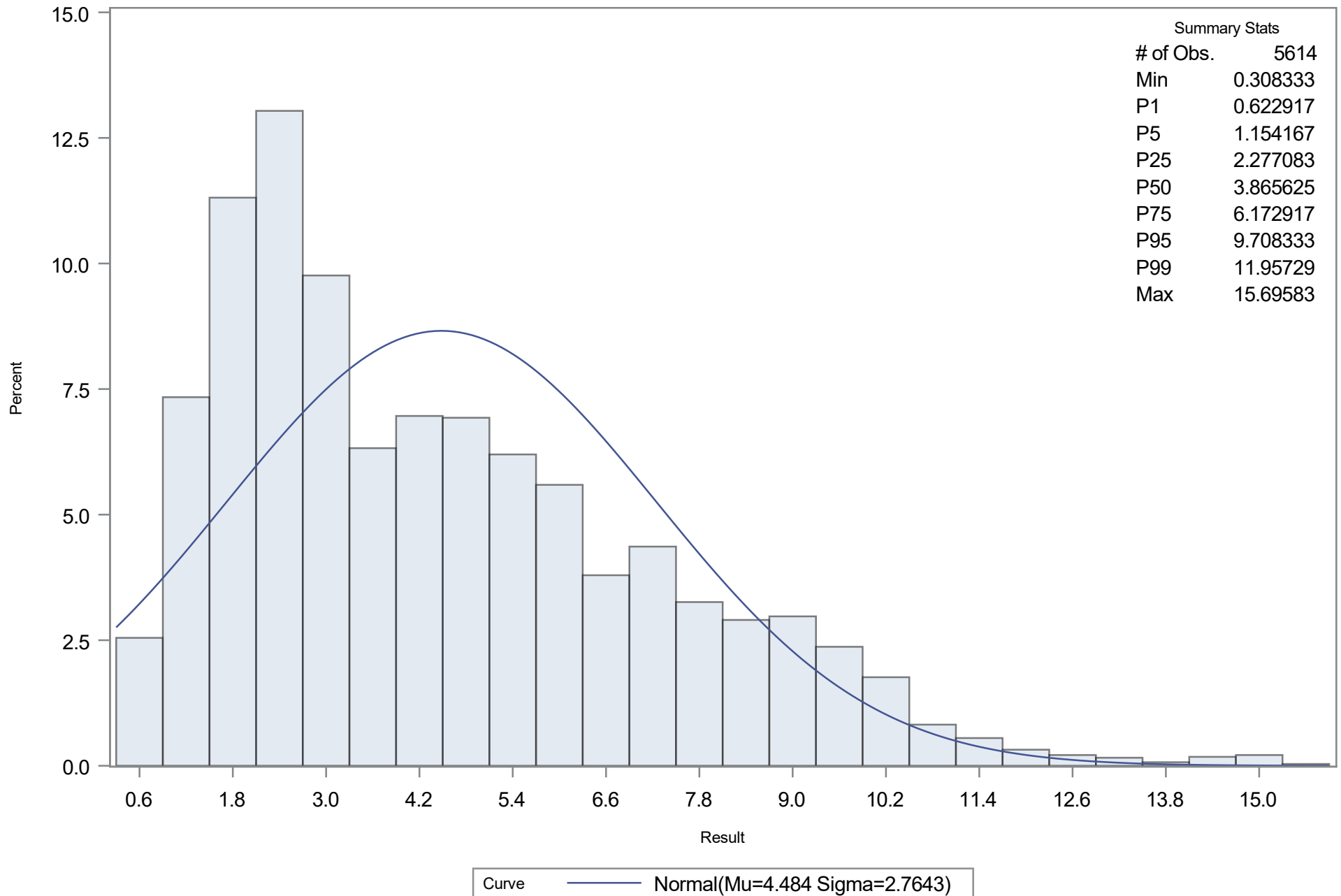
Timeseries of Surface Dissolved Oxygen (mg/L) at Station USGS 02304000 Fowler



DRAFT

Univariate Histogram of Surface Dissolved Oxygen (mg/L) at Station USGS 02304000 Fowler

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.483971
Std Dev	Sigma	2.764266

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.108569	Pr > D	<0.010
Cramer-von Mises	W-Sq	18.782670	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	114.582040	Pr > A-Sq	<0.005

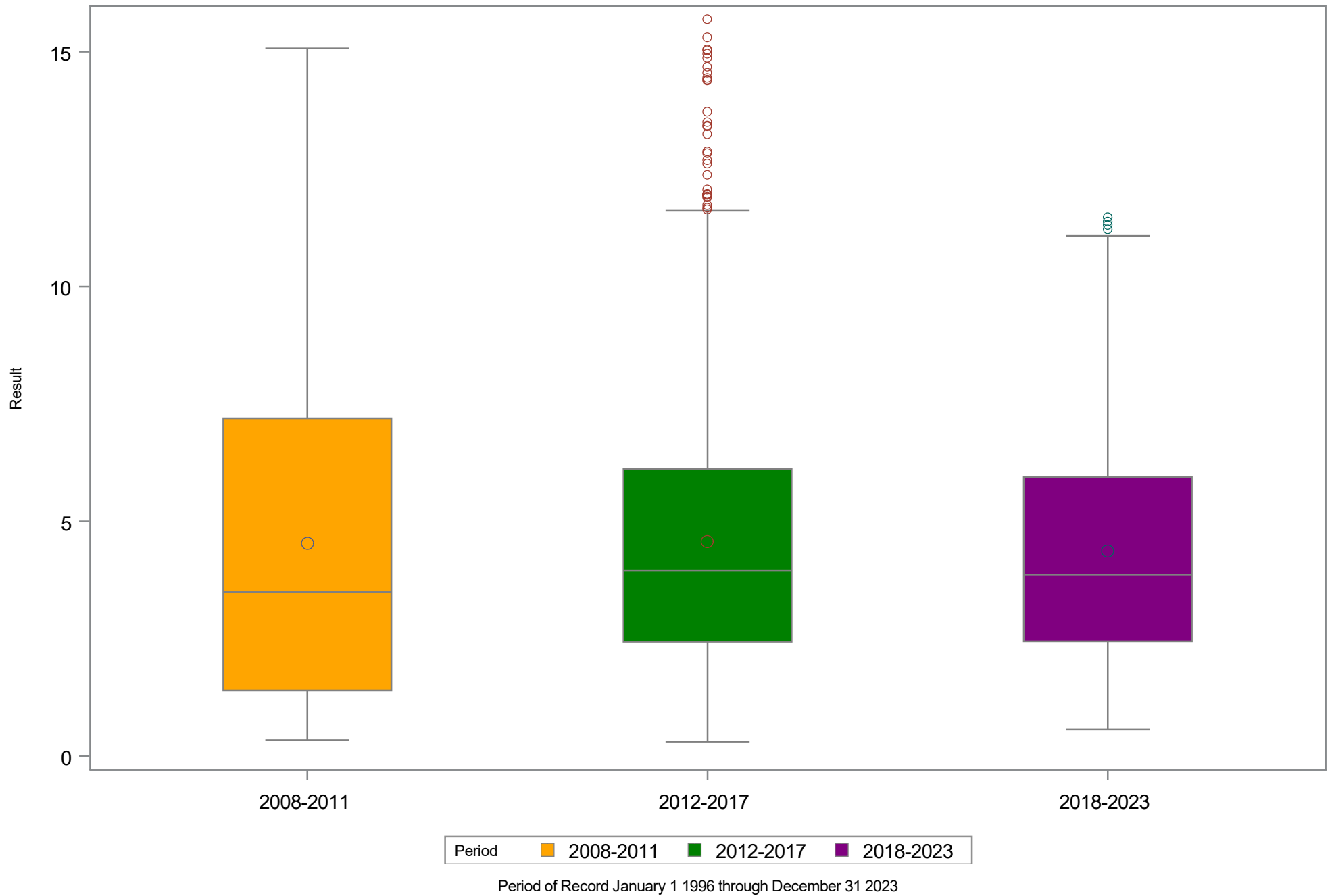
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.62292	-1.94667
5.0	1.15417	-0.06284
10.0	1.50312	0.94142
25.0	2.27708	2.61950
50.0	3.86563	4.48397
75.0	6.17292	6.34844
90.0	8.63333	8.02652
95.0	9.70833	9.03078
99.0	11.95729	10.91462

DRAFT Distributional Statistics by Period for Surface Dissolved Oxygen (mg/L) at Station USGS 02304000 Fowler

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1254	0.34	1.40	4.53	3.50	7.19	15.07
2012-2017	2176	0.31	2.44	4.57	3.96	6.12	15.70
2018-2023	2184	0.56	2.45	4.37	3.87	5.94	11.48

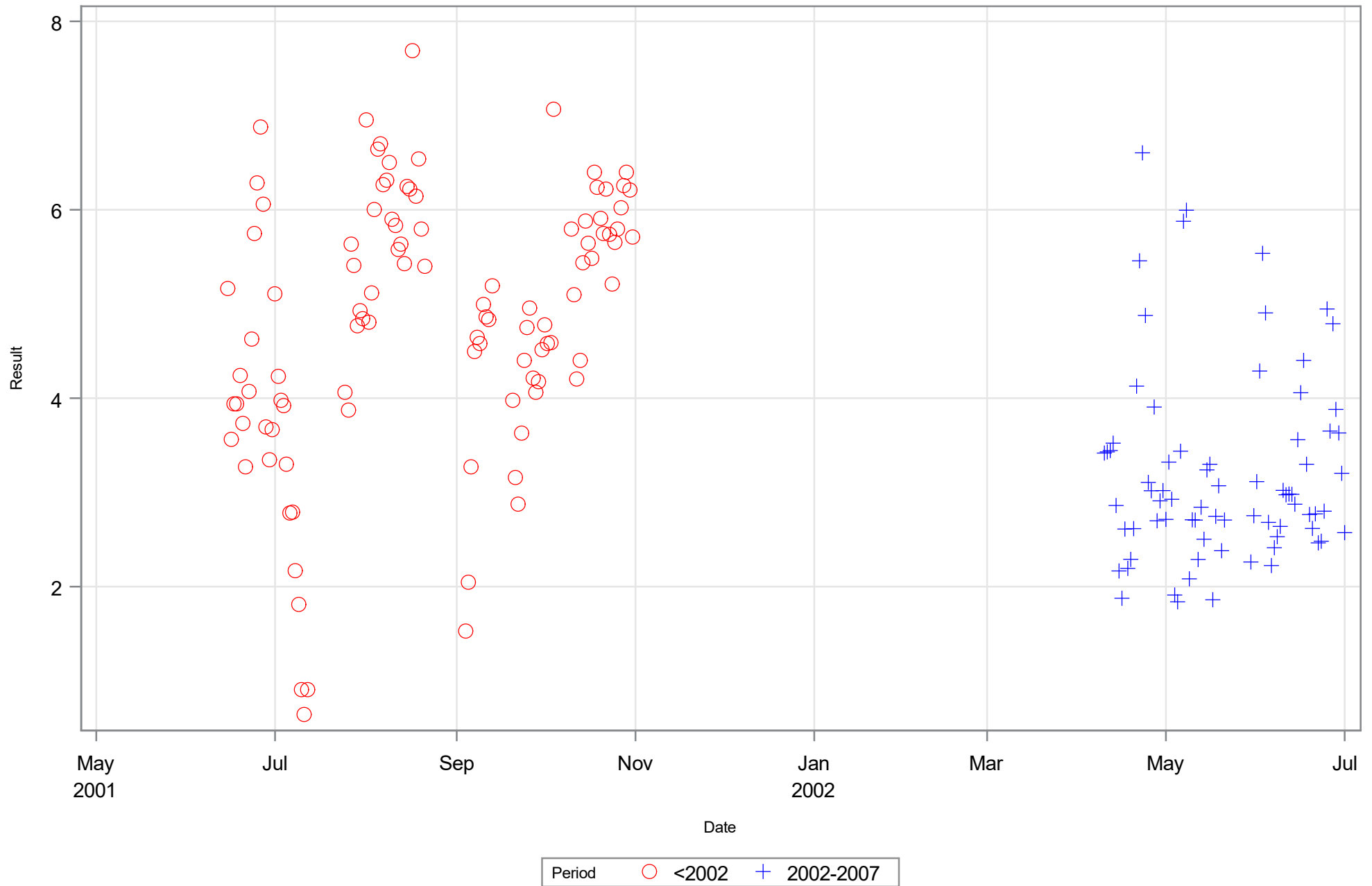
DRAFT

Boxplot by MFL Period for Surface Dissolved Oxygen (mg/L) at Station USGS 02304000 Fowler



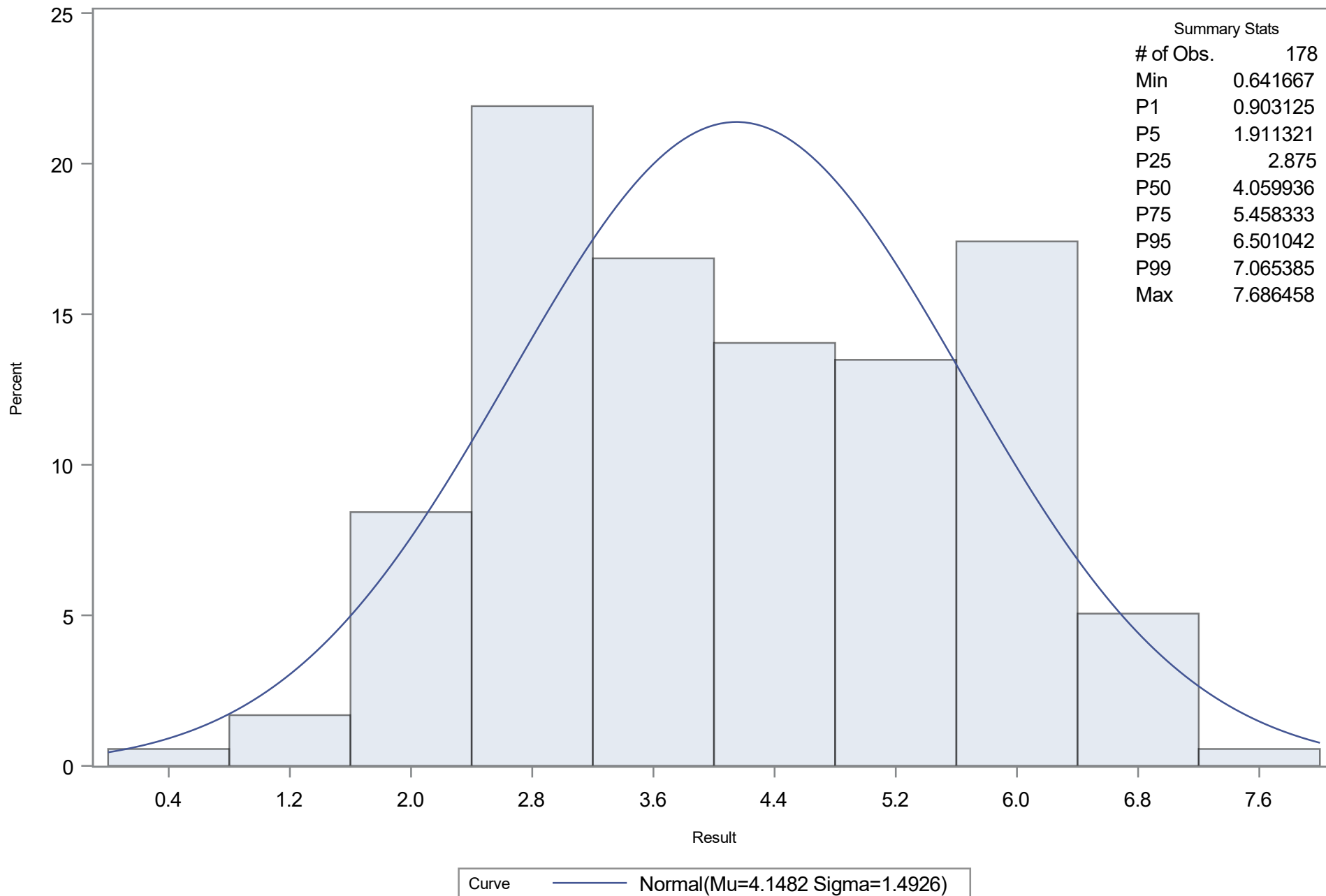
DRAFT

Timeseries of Surface Dissolved Oxygen (mg/L) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.148239
Std Dev	Sigma	1.492583

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.08145809	Pr > D	<0.010
Cramer-von Mises	W-Sq	0.30100966	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1.80933232	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.90312	0.67597
5.0	1.91132	1.69316
10.0	2.28958	2.23542
25.0	2.87500	3.14151
50.0	4.05994	4.14824
75.0	5.45833	5.15497
90.0	6.22292	6.06106
95.0	6.50104	6.60332
99.0	7.06538	7.62051

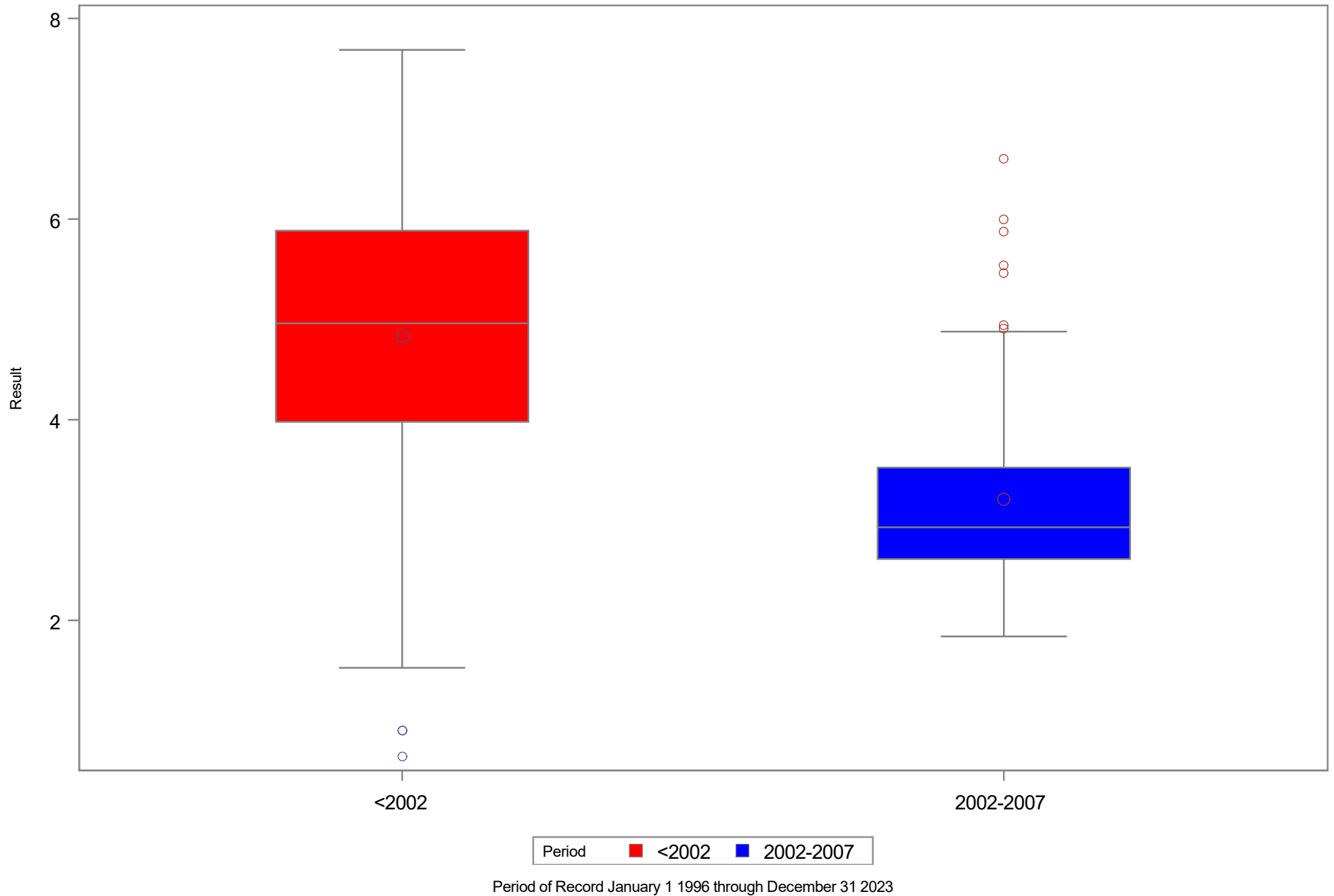
DRAFT

Distributional Statistics by Period for Surface Dissolved Oxygen (mg/L) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	103	0.64	3.98	4.83	4.96	5.88	7.69
2002-2007	75	1.84	2.61	3.21	2.93	3.52	6.60

DRAFT

Boxplot by MFL Period for Surface Dissolved Oxygen (mg/L) at Station USGS 02304515 Hannahs Whirl



DRAFT

Timeseries of Surface Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah

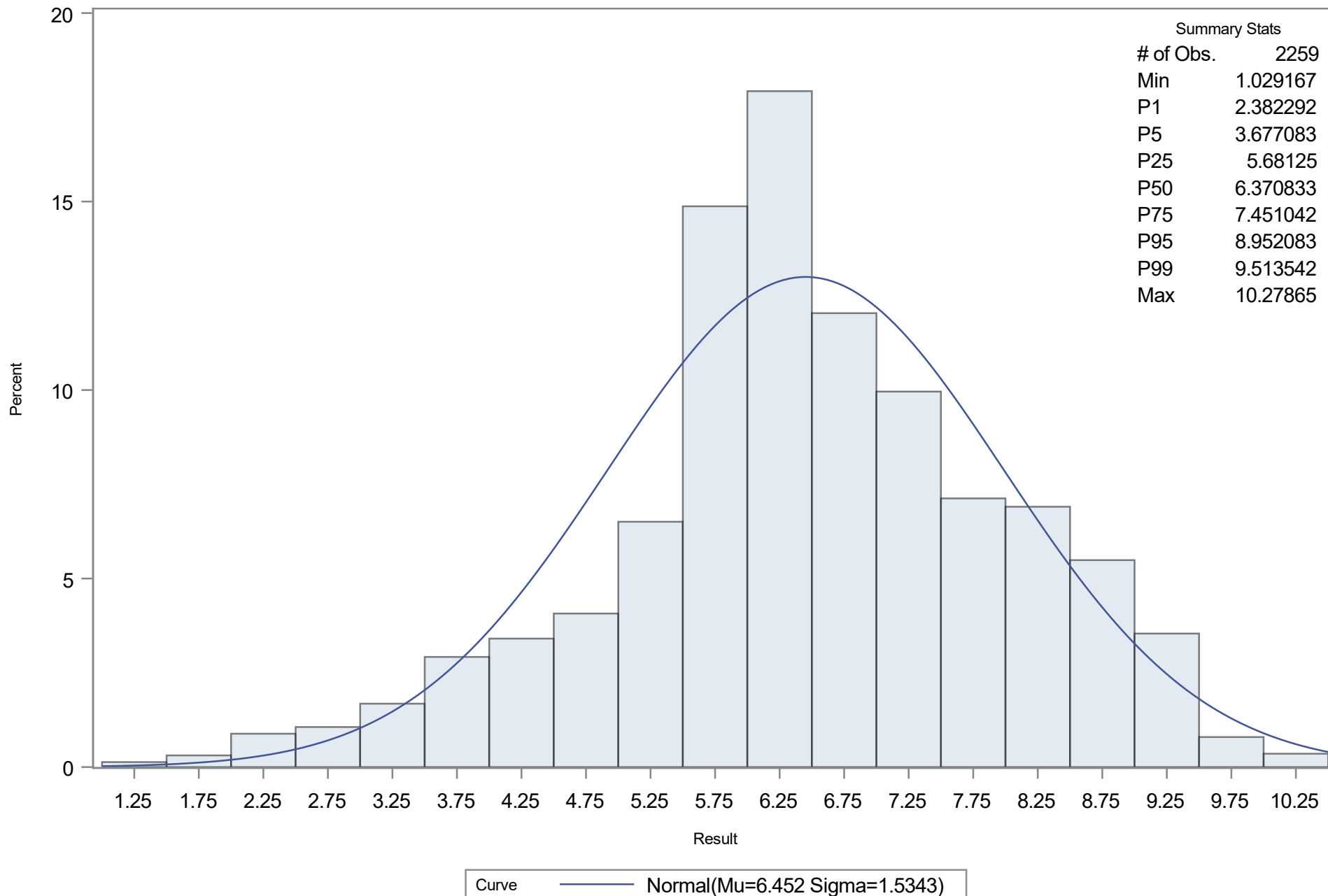


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	6.452044
Std Dev	Sigma	1.534309

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.06014312	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.42541072	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	8.76100103	Pr > A-Sq	<0.005

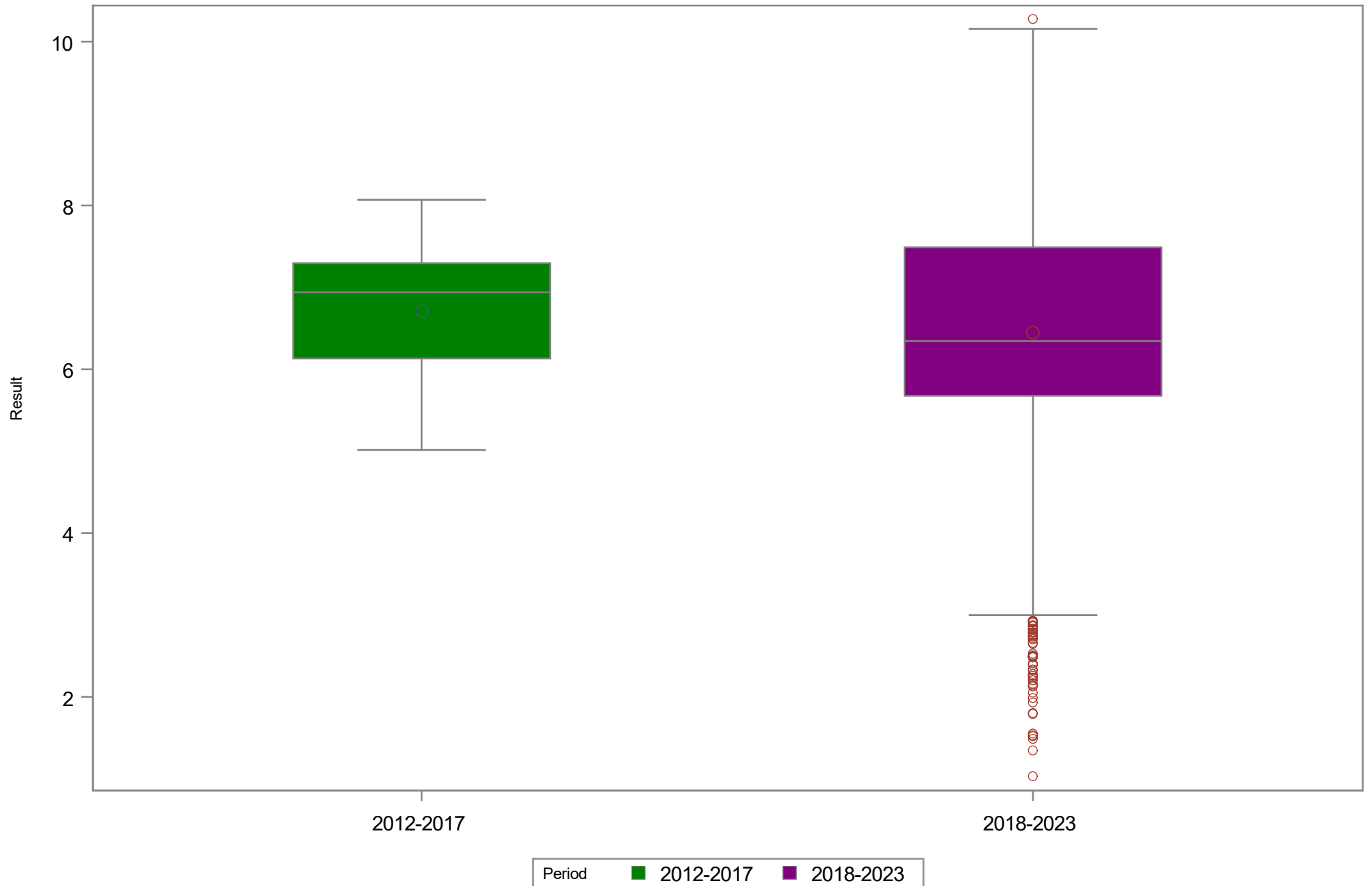
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.38229	2.88271
5.0	3.67708	3.92833
10.0	4.40938	4.48575
25.0	5.68125	5.41717
50.0	6.37083	6.45204
75.0	7.45104	7.48692
90.0	8.52083	8.41834
95.0	8.95208	8.97576
99.0	9.51354	10.02138

DRAFT Distributional Statistics by Period for Surface Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	5.01	6.13	6.70	6.94	7.30	8.07
2018-2023	2191	1.03	5.68	6.44	6.34	7.49	10.28

DRAFT

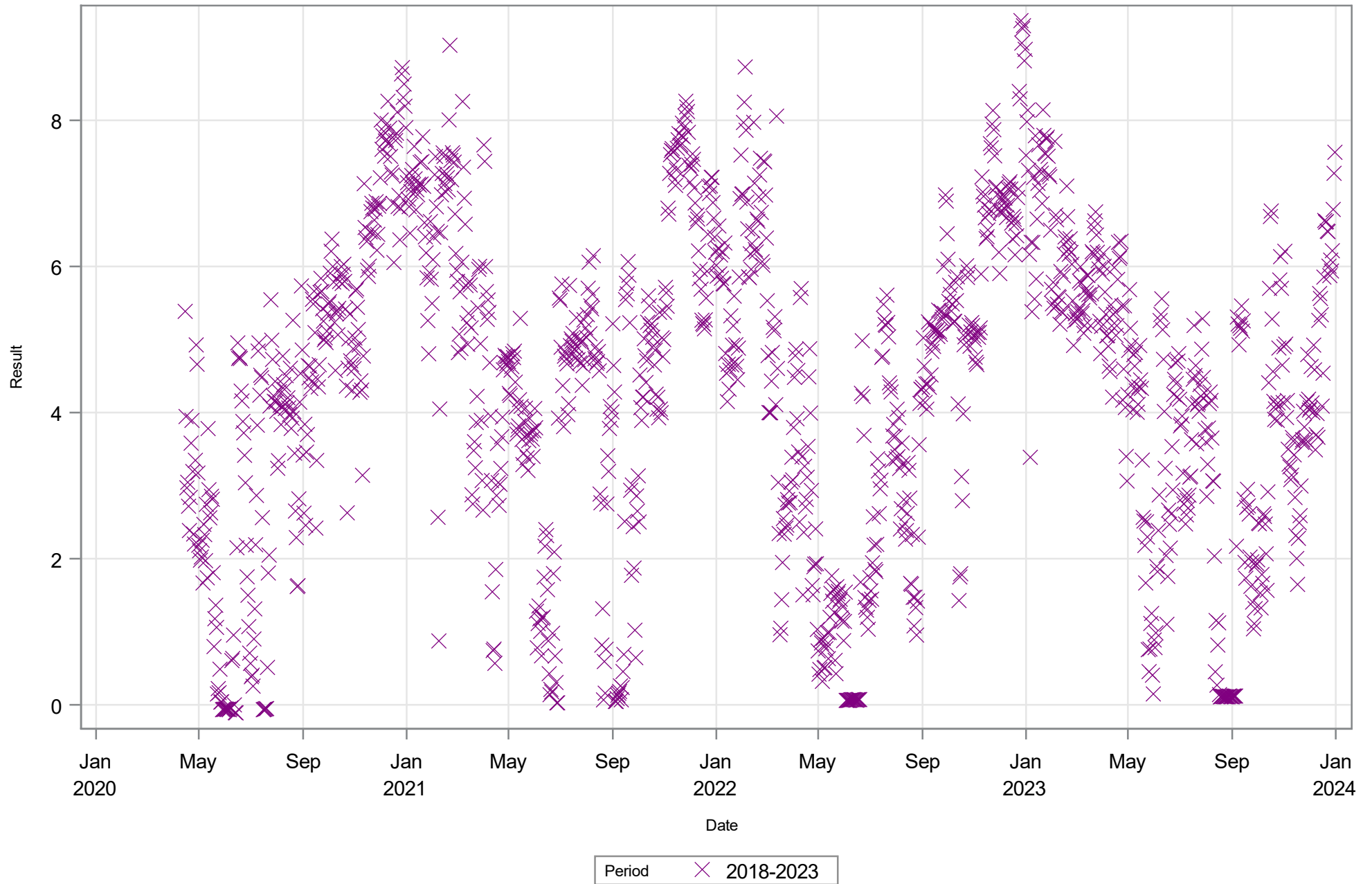
Boxplot by MFL Period for Surface Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Surface Dissolved Oxygen (mg/L) at Station WMD 19206

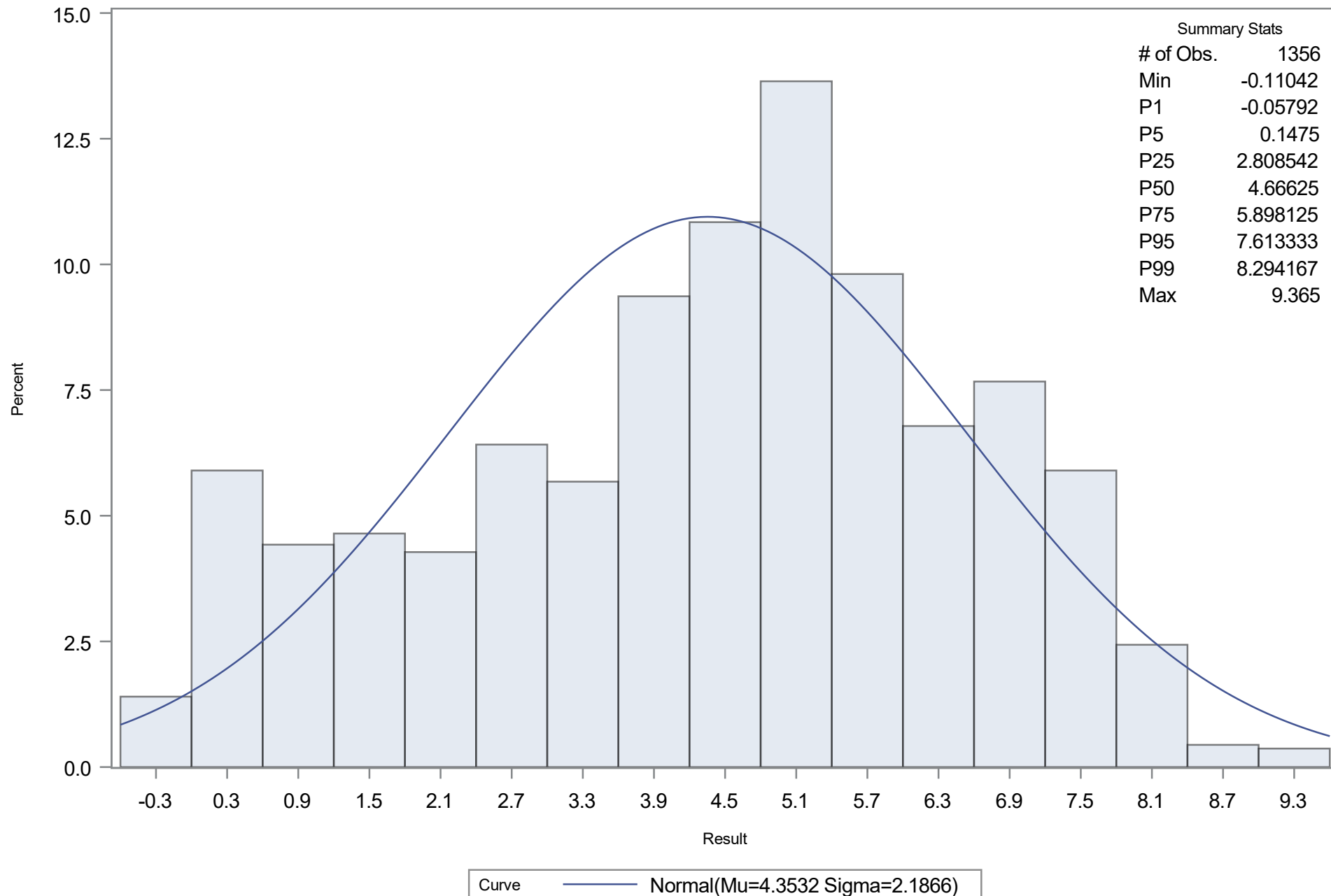


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Dissolved Oxygen (mg/L) at Station WMD 19206

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.353161
Std Dev	Sigma	2.186634

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0650474	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.4938726	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	10.0079921	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	-0.05792	-0.73371
5.0	0.14750	0.75647
10.0	0.98958	1.55088
25.0	2.80854	2.87830
50.0	4.66625	4.35316
75.0	5.89813	5.82802
90.0	7.12792	7.15544
95.0	7.61333	7.94985
99.0	8.29417	9.44003

Distributional Statistics by Period for Surface Dissolved Oxygen (mg/L) at Station WMD 19206

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1356	-0.11	2.81	4.35	4.67	5.90	9.37

DRAFT

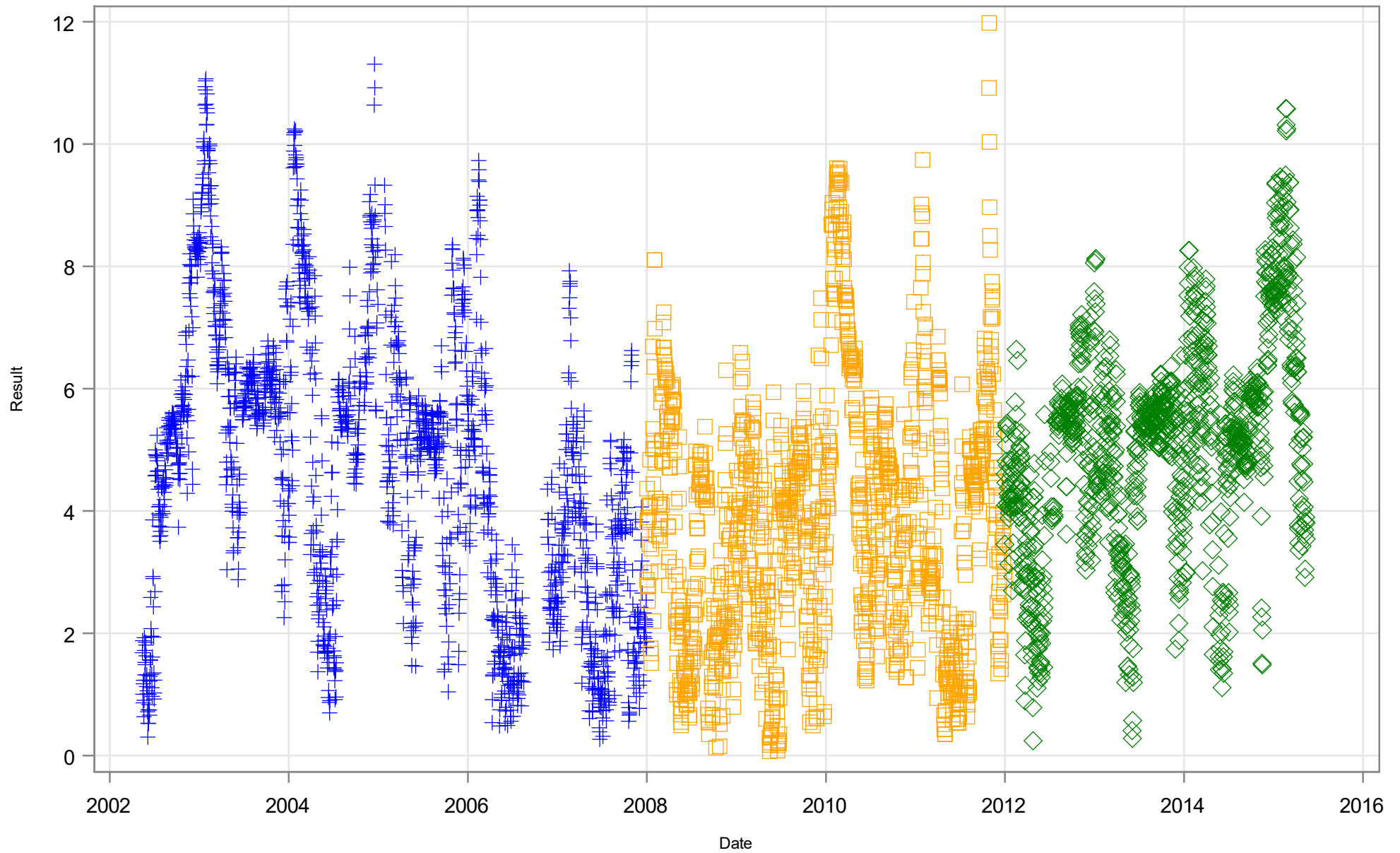
Boxplot by MFL Period for Surface Dissolved Oxygen (mg/L) at Station WMD 19206



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Bottom Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7



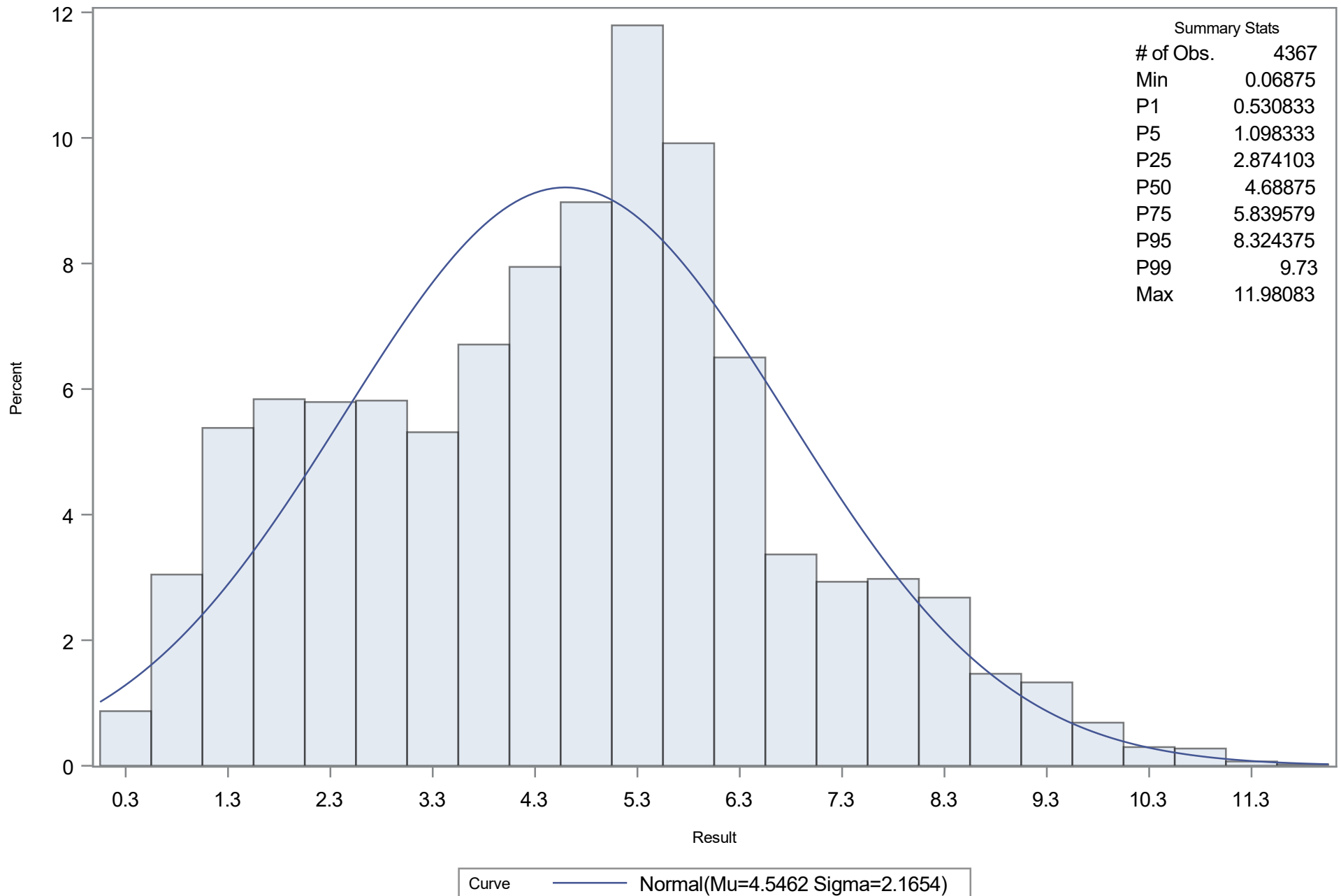
Period + 2002-2007 □ 2008-2011 ◇ 2012-2017

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	4.546233
Std Dev	Sigma	2.165425

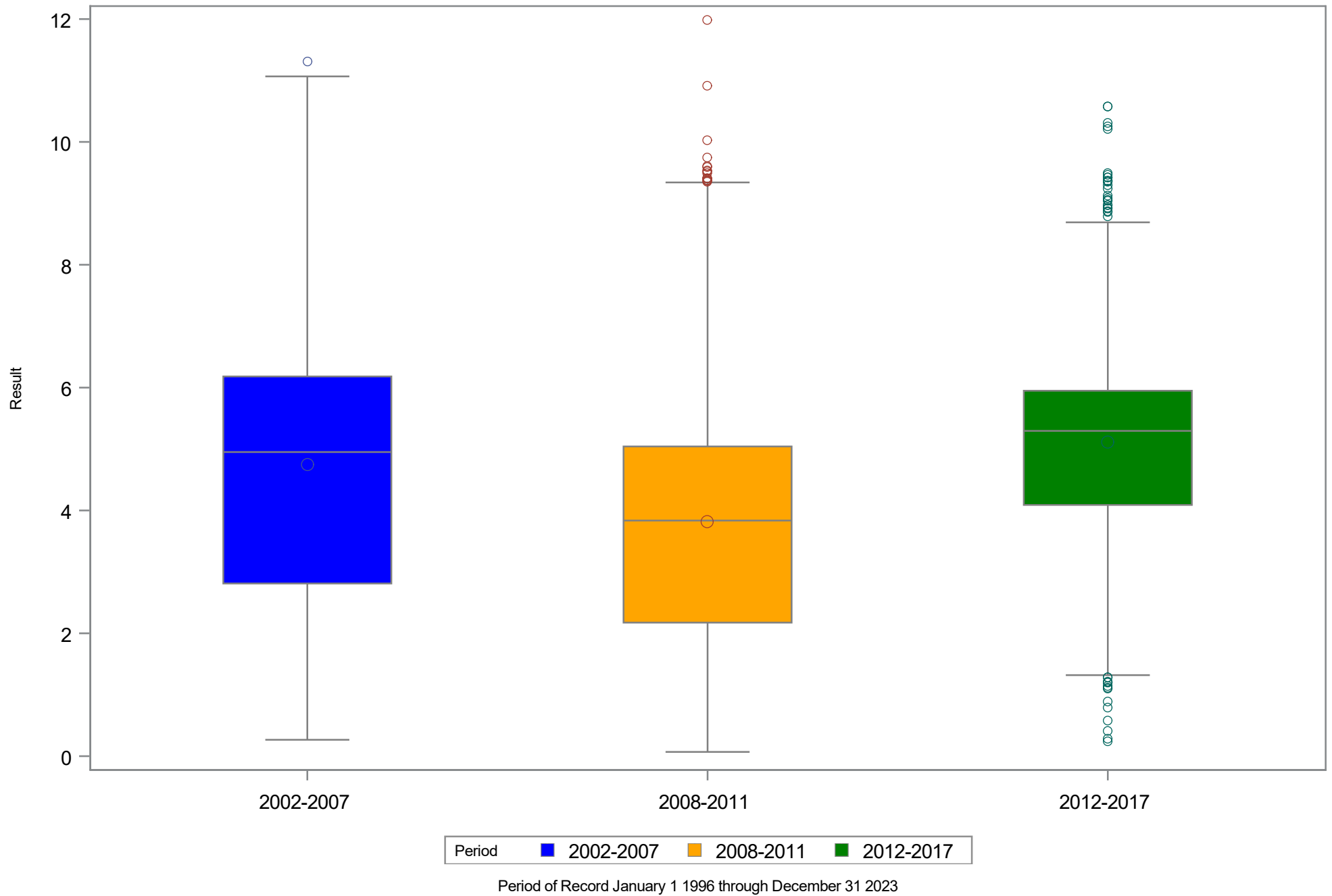
Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0381238	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.8295034	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	13.7698250	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.53083	-0.49130
5.0	1.09833	0.98443
10.0	1.55625	1.77113
25.0	2.87410	3.08568
50.0	4.68875	4.54623
75.0	5.83958	6.00679
90.0	7.47937	7.32134
95.0	8.32438	8.10804
99.0	9.73000	9.58376

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1852	0.27	2.81	4.74	4.95	6.18	11.31
2008-2011	1386	0.07	2.17	3.82	3.84	5.04	11.98
2012-2017	1129	0.24	4.09	5.11	5.30	5.95	10.58

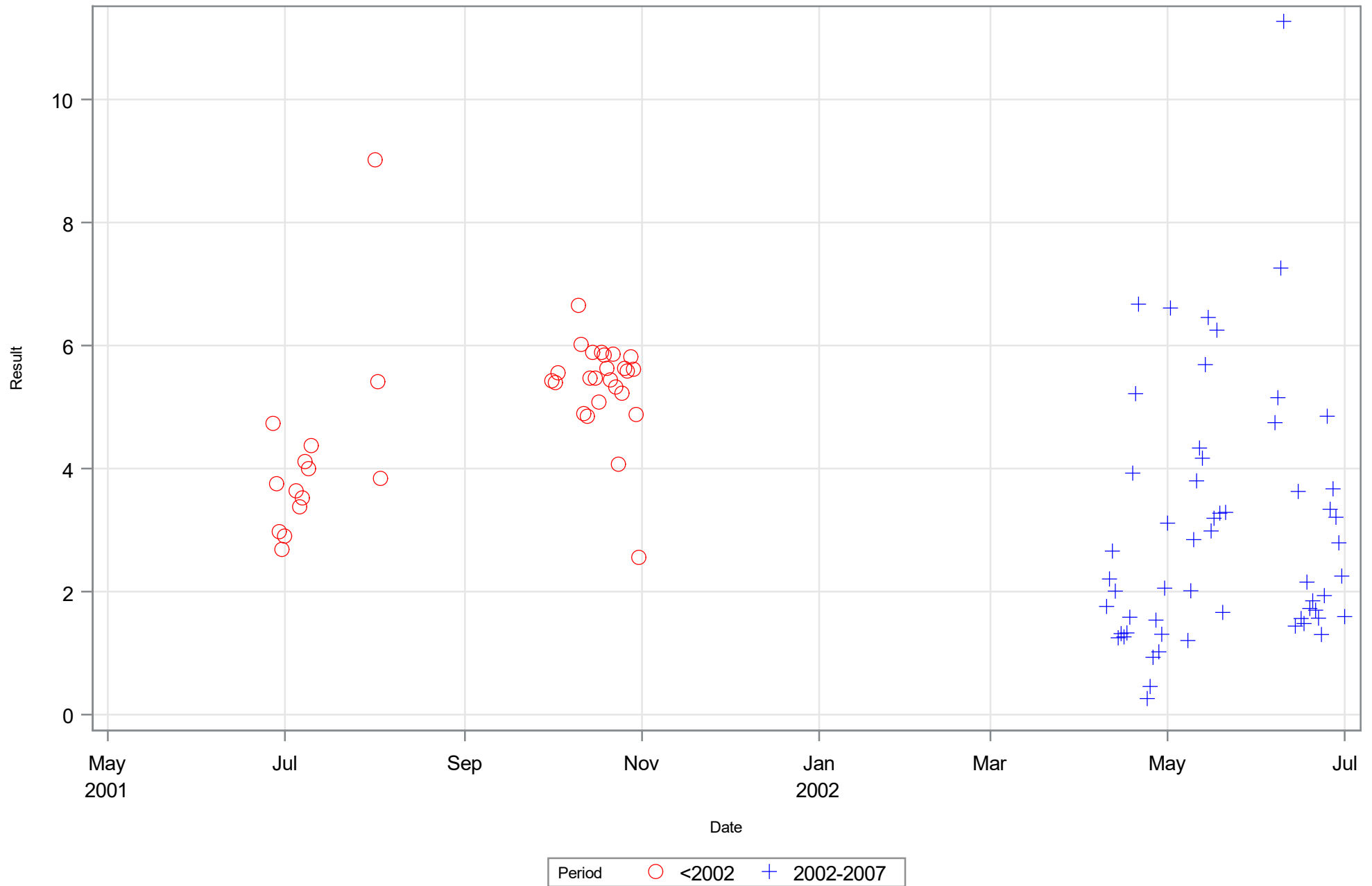
DRAFT

Boxplot by MFL Period for Bottom Dissolved Oxygen (mg/L) at Station EPC 2 Rkm 13.7



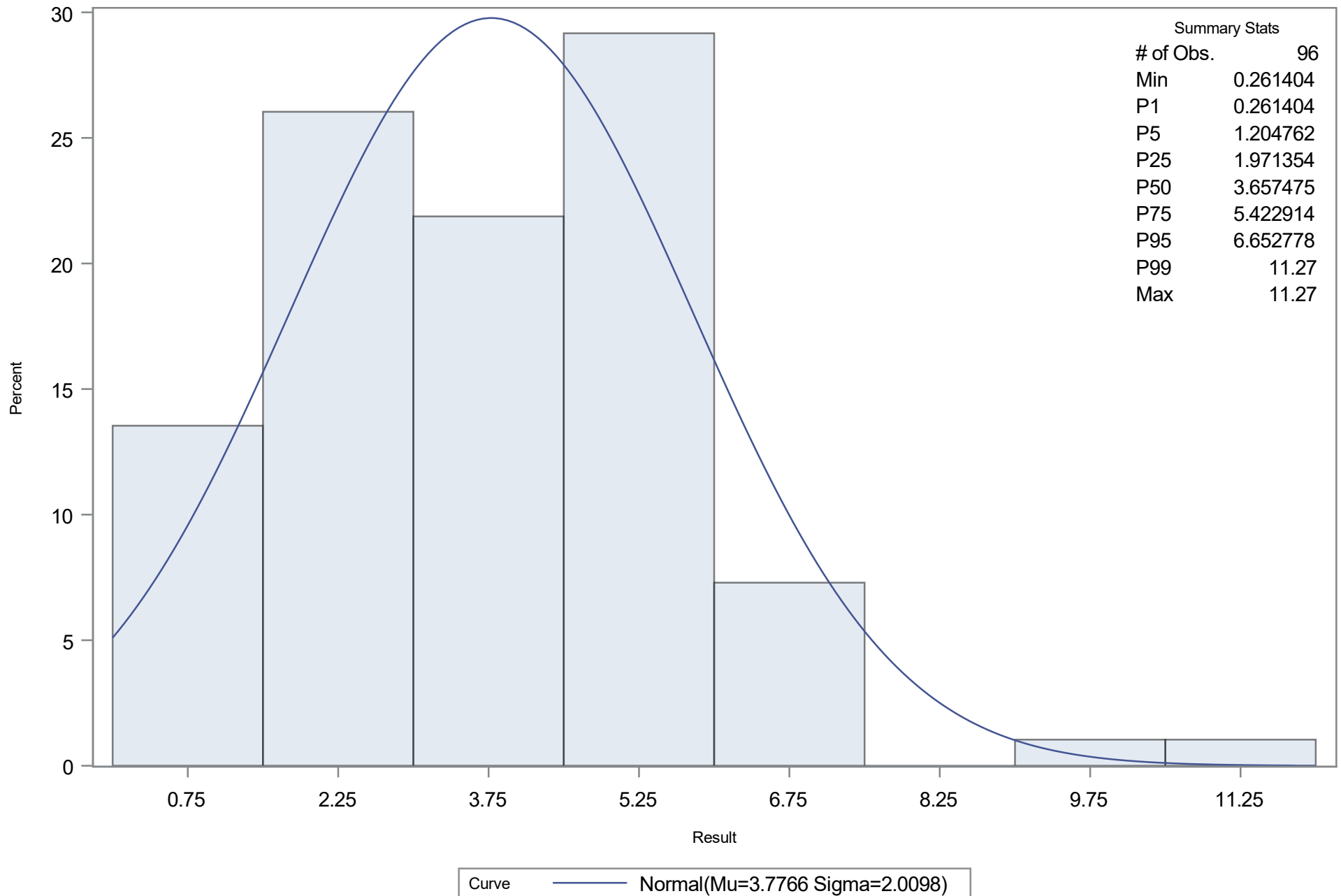
DRAFT

Timeseries of Bottom Dissolved Oxygen (mg/L) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.776647
Std Dev	Sigma	2.009819

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.08844137	Pr > D	0.064
Cramer-von Mises	W-Sq	0.15907602	Pr > W-Sq	0.019
Anderson-Darling	A-Sq	1.18334855	Pr > A-Sq	<0.005

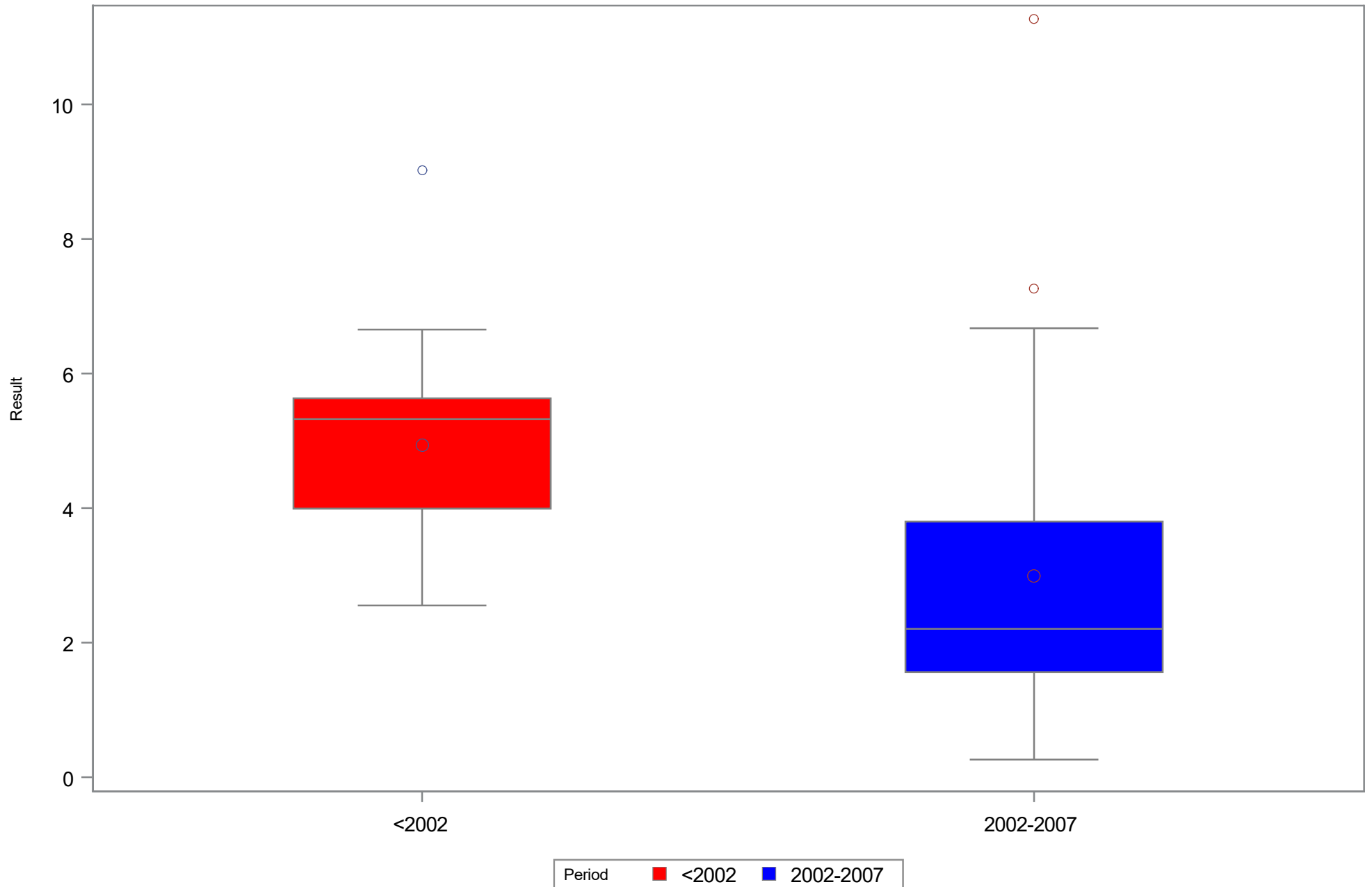
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.26140	-0.89889
5.0	1.20476	0.47079
10.0	1.31667	1.20096
25.0	1.97135	2.42104
50.0	3.65748	3.77665
75.0	5.42291	5.13225
90.0	5.88542	6.35233
95.0	6.65278	7.08250
99.0	11.27000	8.45218

DRAFT Distributional Statistics by Period for Bottom Dissolved Oxygen (mg/L) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	39	2.55	3.99	4.93	5.32	5.63	9.02
2002-2007	57	0.26	1.56	2.98	2.21	3.80	11.27

DRAFT

Boxplot by MFL Period for Bottom Dissolved Oxygen (mg/L) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Bottom Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah

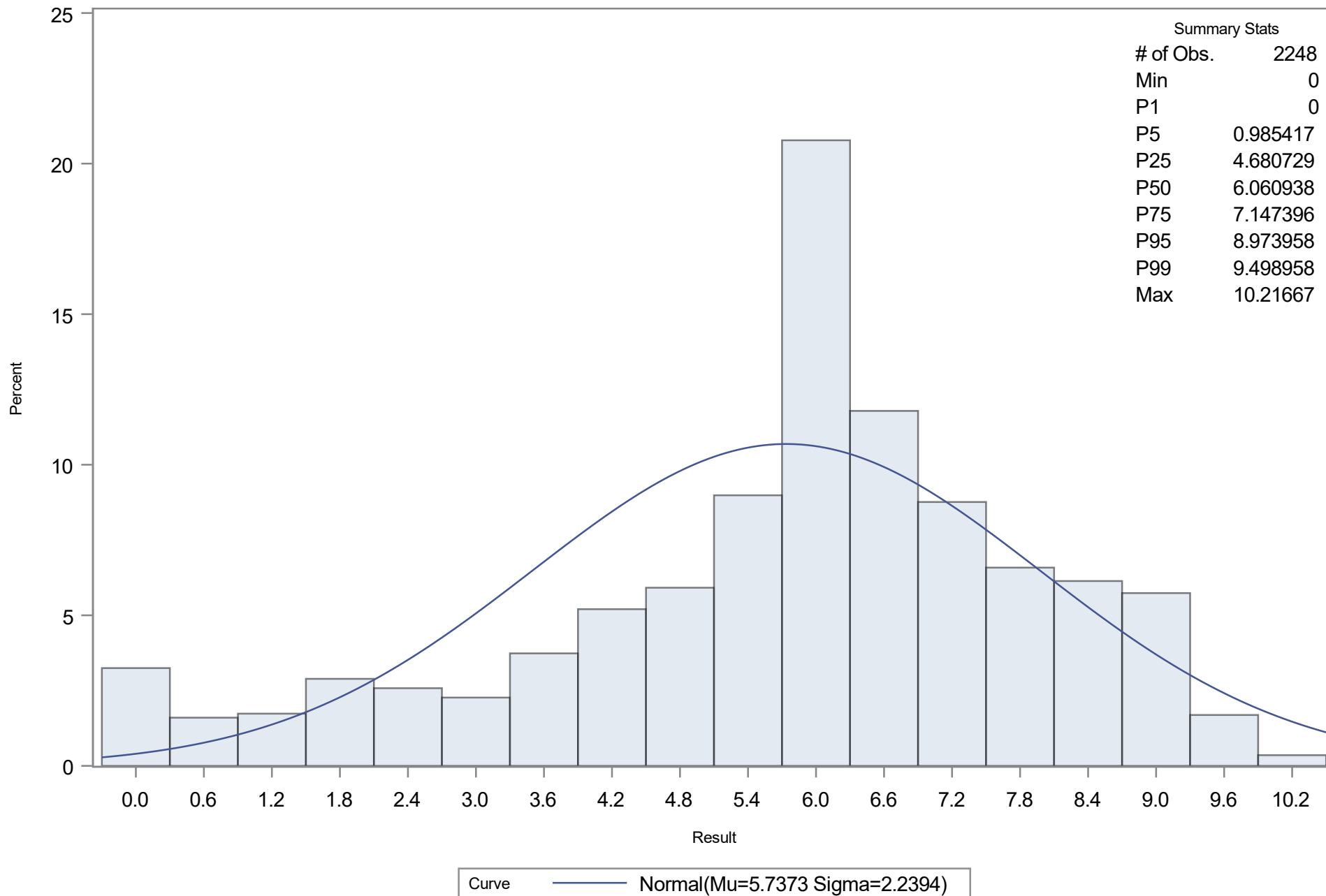


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5.737268
Std Dev	Sigma	2.239367

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.1161323	Pr > D	<0.010
Cramer-von Mises	W-Sq	6.3051976	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	36.6074925	Pr > A-Sq	<0.005

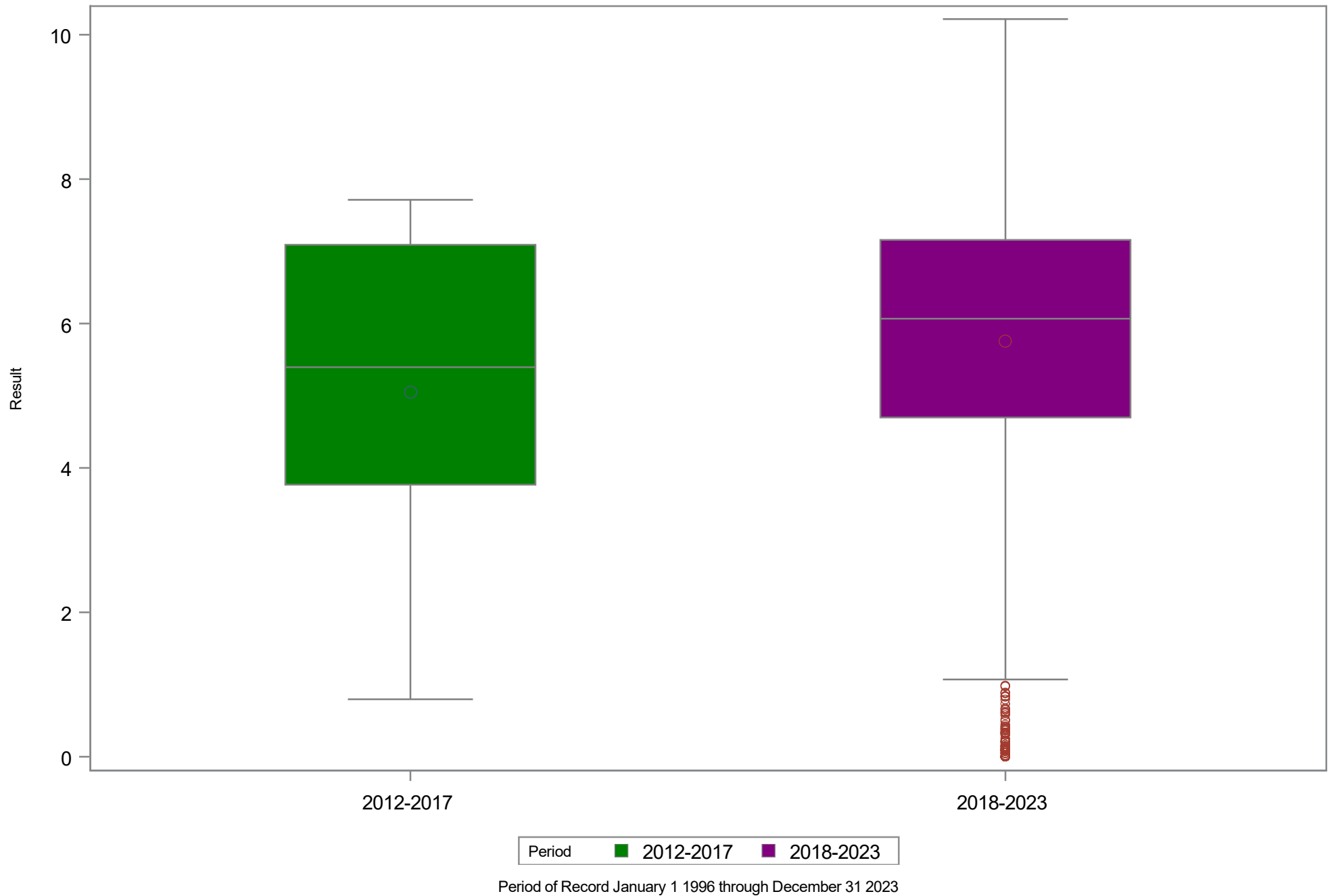
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.00000	0.52772
5.0	0.98542	2.05384
10.0	2.18021	2.86740
25.0	4.68073	4.22684
50.0	6.06094	5.73727
75.0	7.14740	7.24770
90.0	8.50104	8.60713
95.0	8.97396	9.42070
99.0	9.49896	10.94681

DRAFT Distributional Statistics by Period for Bottom Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	0.80	3.77	5.05	5.40	7.09	7.71
2018-2023	2180	0.00	4.70	5.76	6.07	7.16	10.22

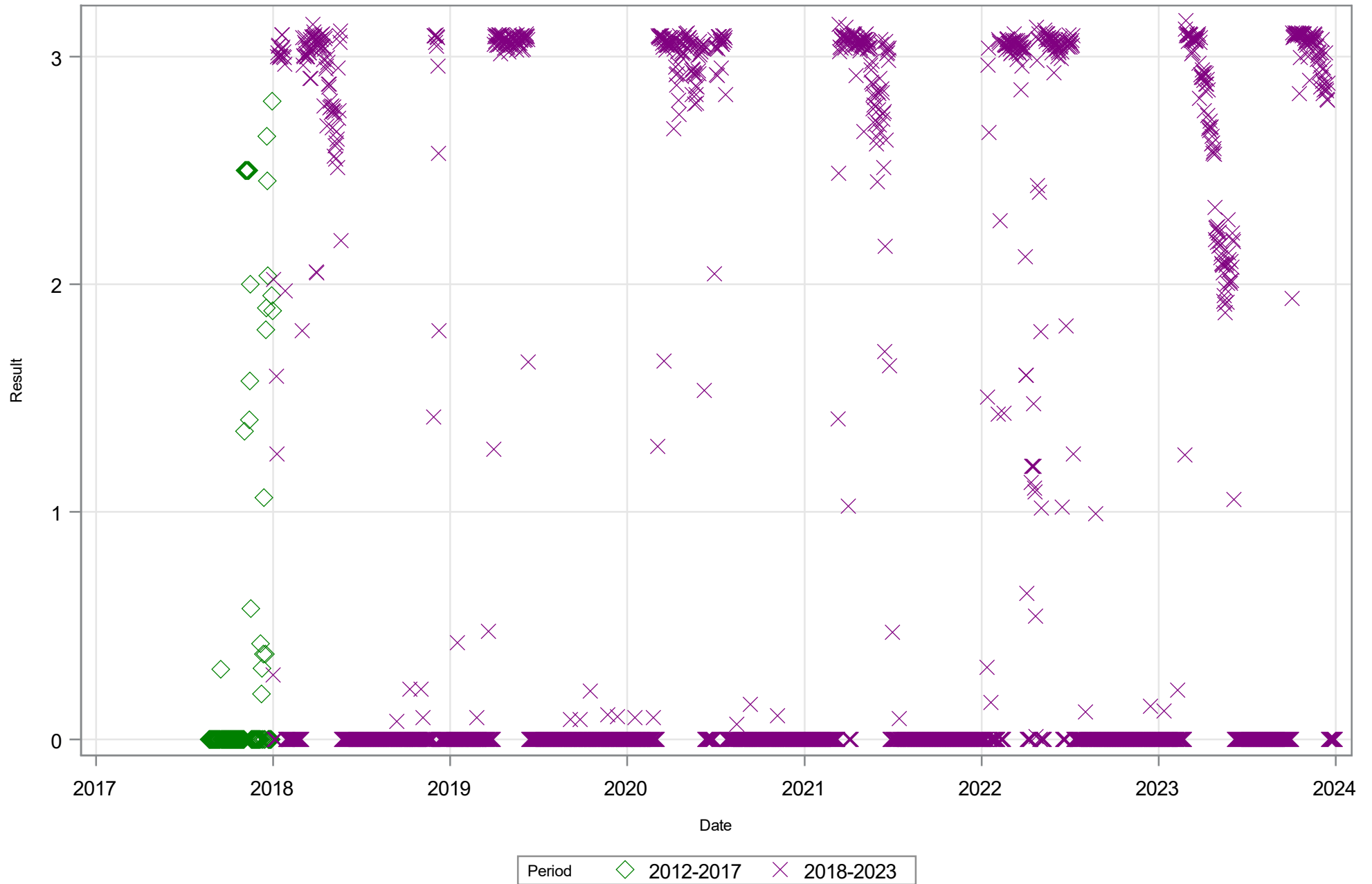
DRAFT

Boxplot by MFL Period for Bottom Dissolved Oxygen (mg/L) at Station USGS 02304517 BLHannah



DRAFT

Timeseries of Daily Average Flow from CR at Station COT Blue Sink to Base of Dam

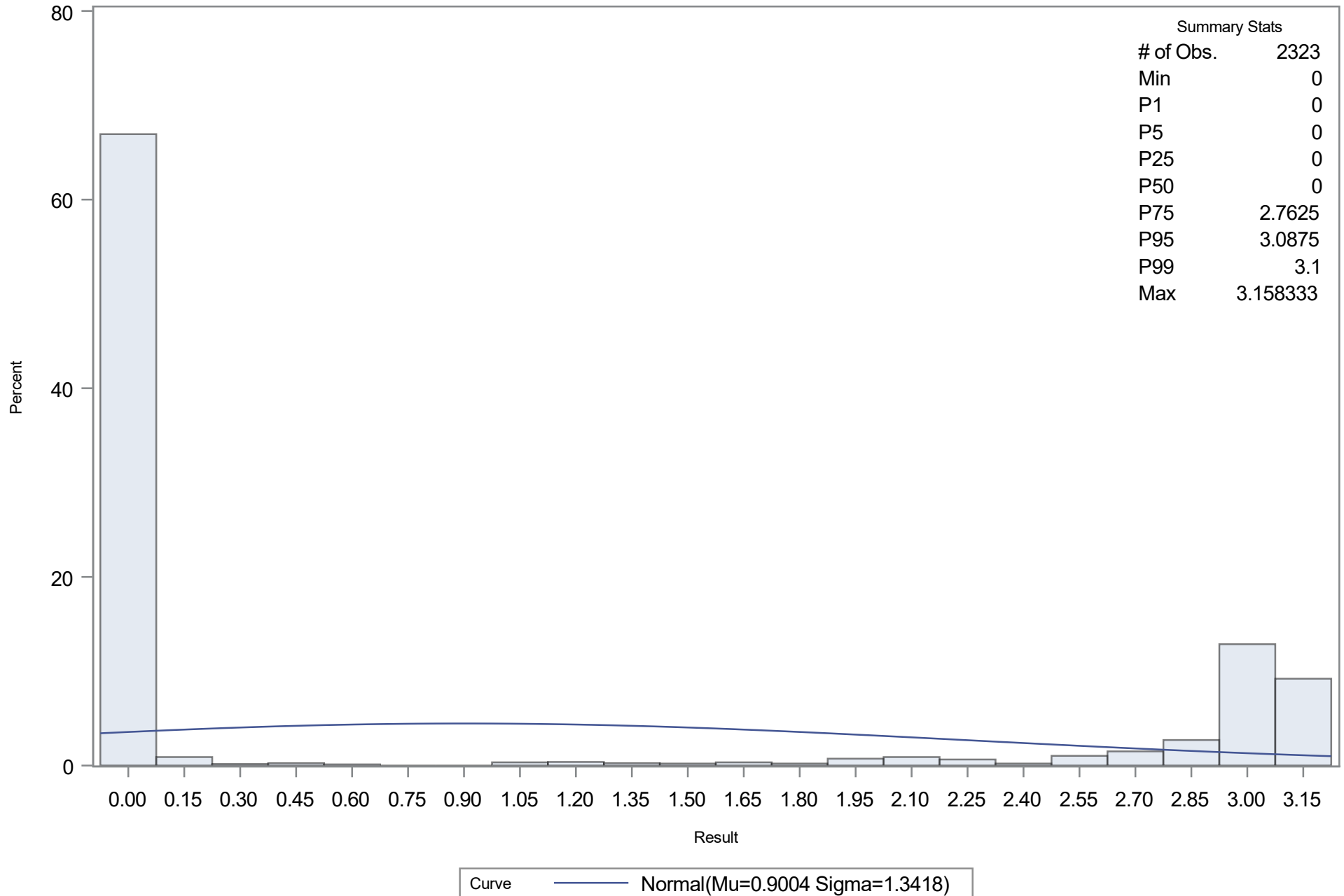


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Daily Average Flow from CR at Station COT Blue Sink to Base of Dam

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	0.900394
Std Dev	Sigma	1.34182

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.417429	Pr > D	<0.010
Cramer-von Mises	W-Sq	81.096180	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	443.585847	Pr > A-Sq	<0.005

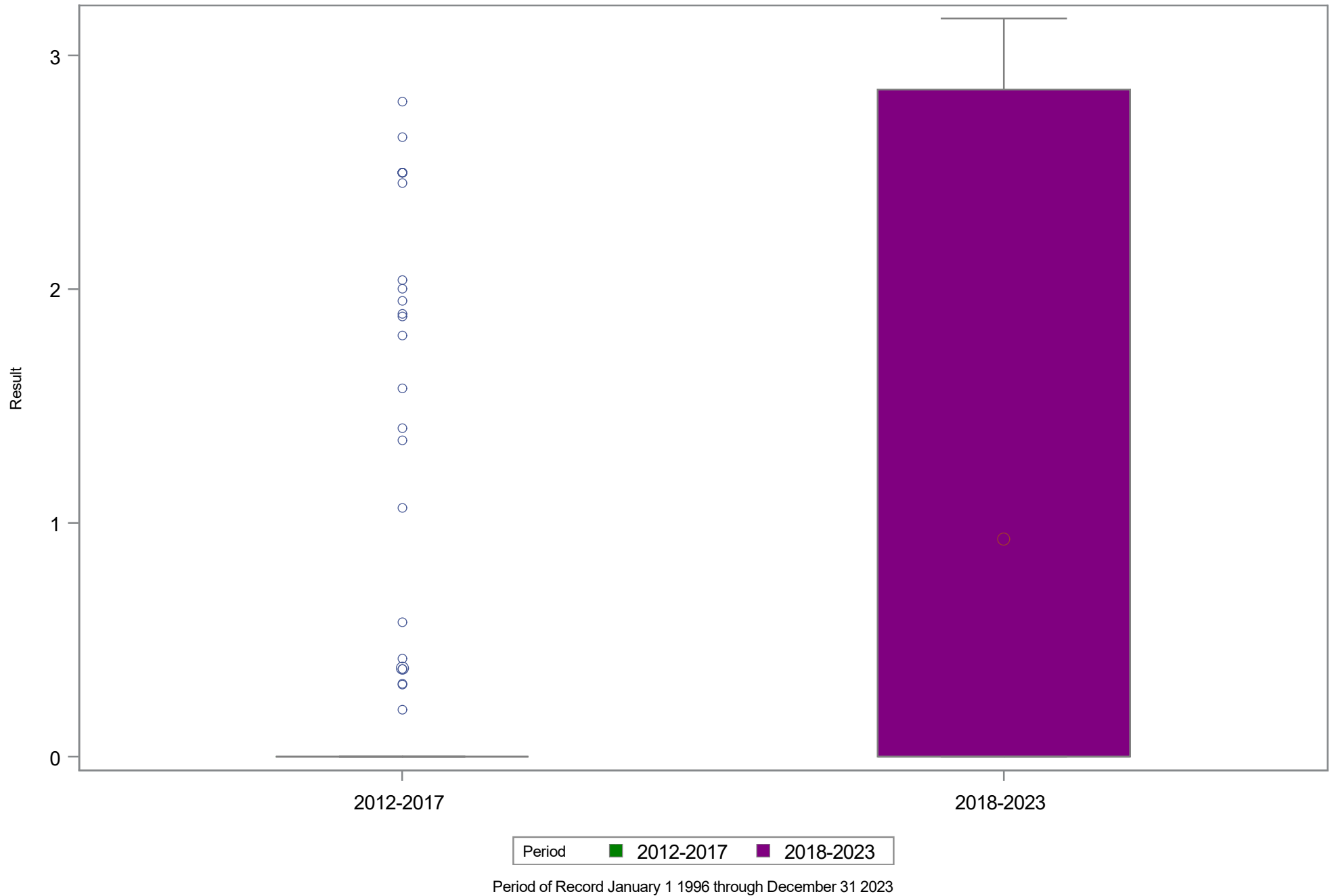
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.00000	-2.22115
5.0	0.00000	-1.30670
10.0	0.00000	-0.81922
25.0	0.00000	-0.00465
50.0	0.00000	0.90039
75.0	2.76250	1.80544
90.0	3.07083	2.62001
95.0	3.08750	3.10749
99.0	3.10000	4.02193

DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station COT Blue Sink to Base of Dam

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	132	0.00	0.00	0.38	0.00	0.00	2.80
2018-2023	2191	0.00	0.00	0.93	0.00	2.85	3.16

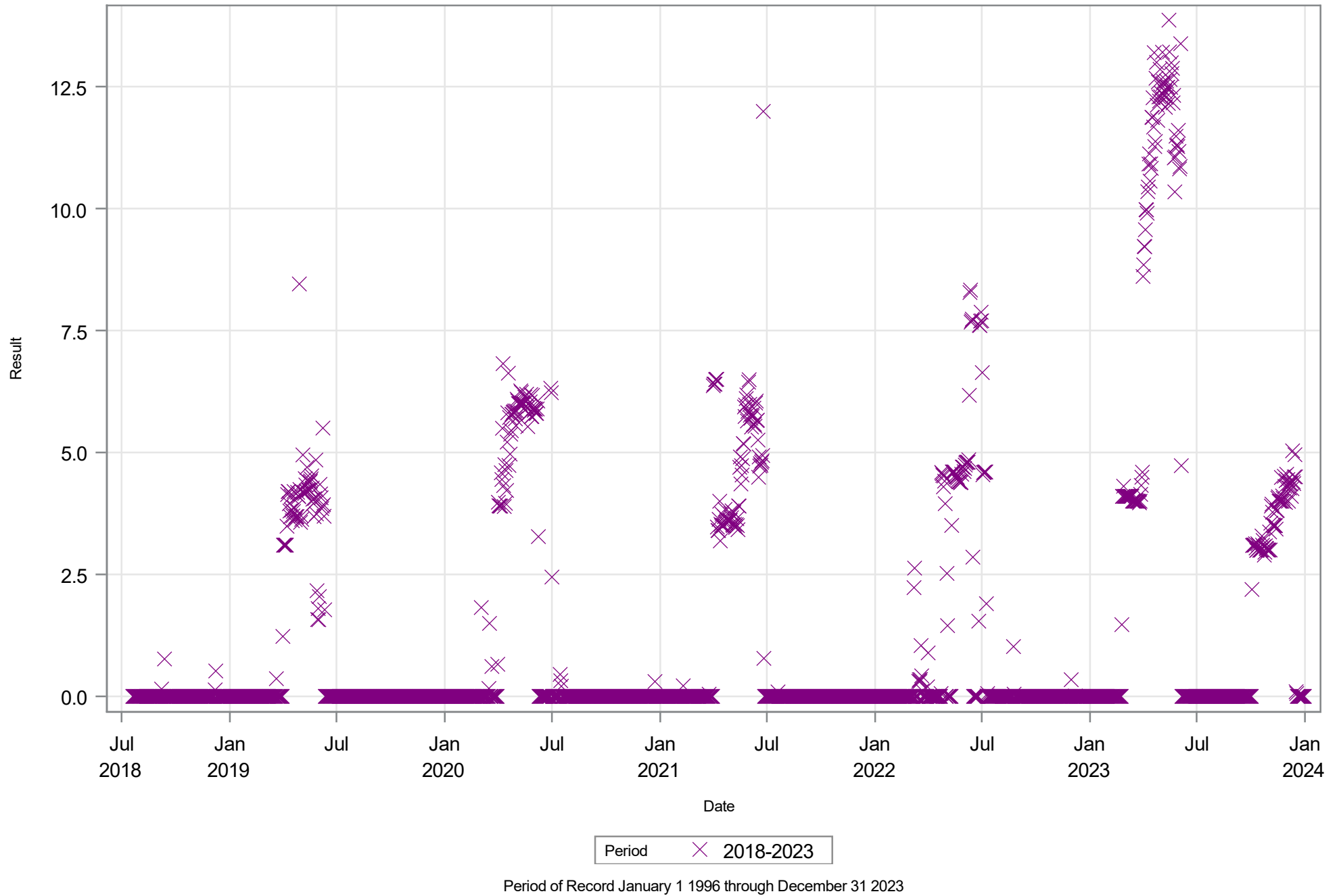
DRAFT

Boxplot by MFL Period for Daily Average Flow from CR at Station COT Blue Sink to Base of Dam



DRAFT

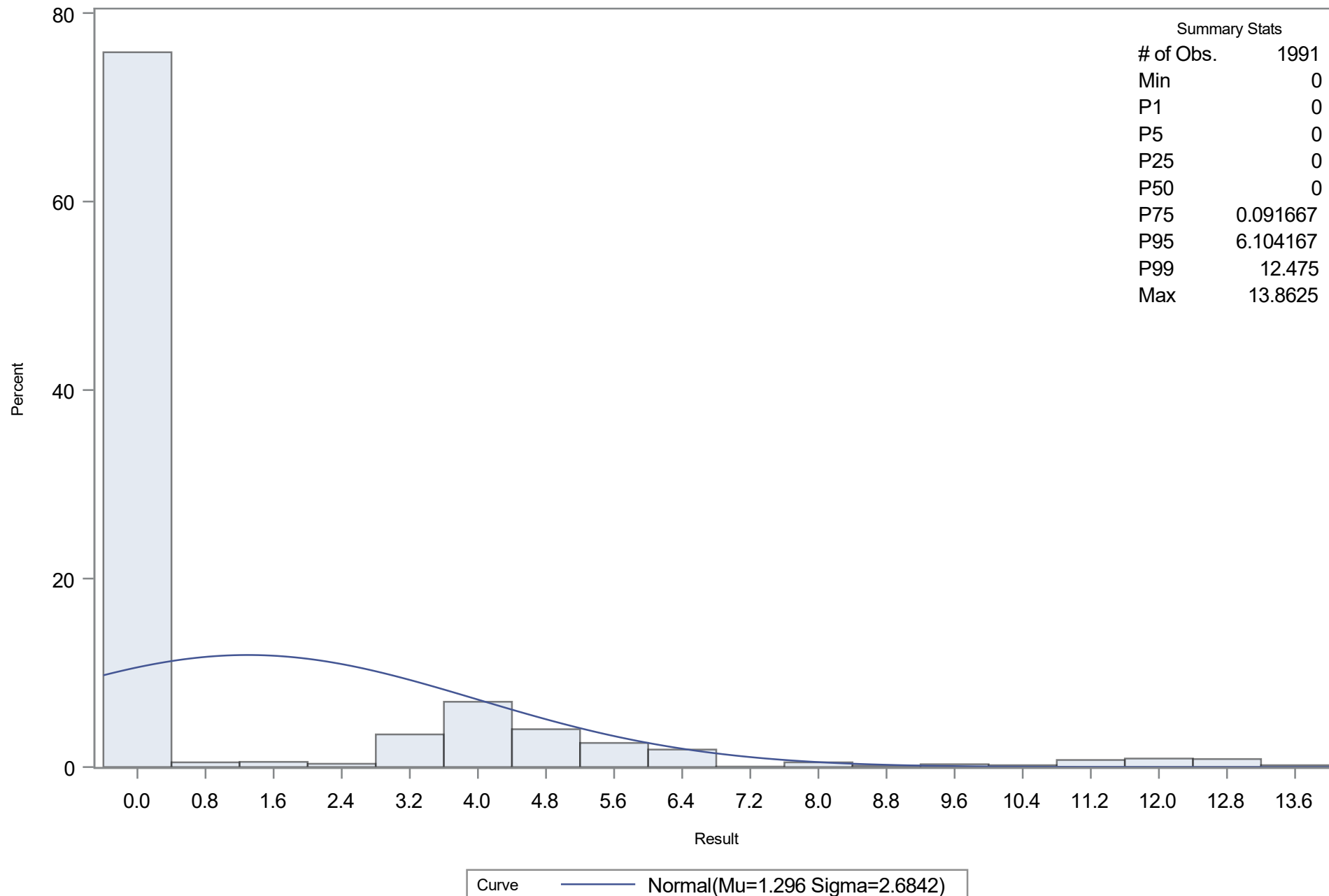
Timeseries of Daily Average Flow from CR at Station COT HRR_to Base of Dam



DRAFT

Univariate Histogram of Daily Average Flow from CR at Station COT HRR_to Base of Dam

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.296009
Std Dev	Sigma	2.684211

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.431749	Pr > D	<0.010
Cramer-von Mises	W-Sq	80.175865	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	387.150713	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.0000	-4.94840
5.0	0.0000	-3.11913
10.0	0.0000	-2.14395
25.0	0.0000	-0.51446
50.0	0.0000	1.29601
75.0	0.0917	3.10648
90.0	4.6292	4.73596
95.0	6.1042	5.71114
99.0	12.4750	7.54042

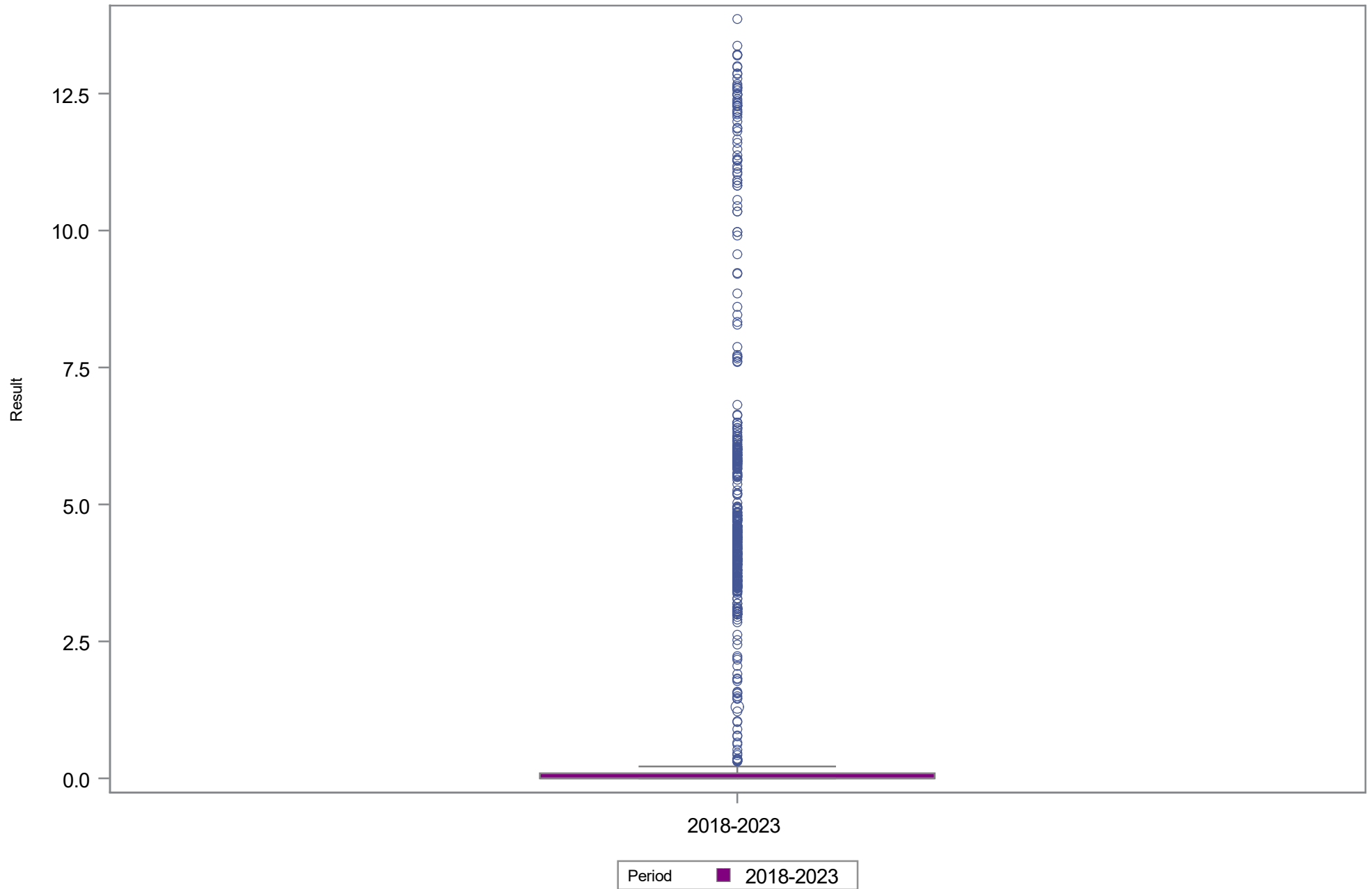
DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station COT HRR_to Base of Dam

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1991	0.00	0.00	1.30	0.00	0.09	13.86

Period of Record January 1 1996 through December 31 2023

DRAFT

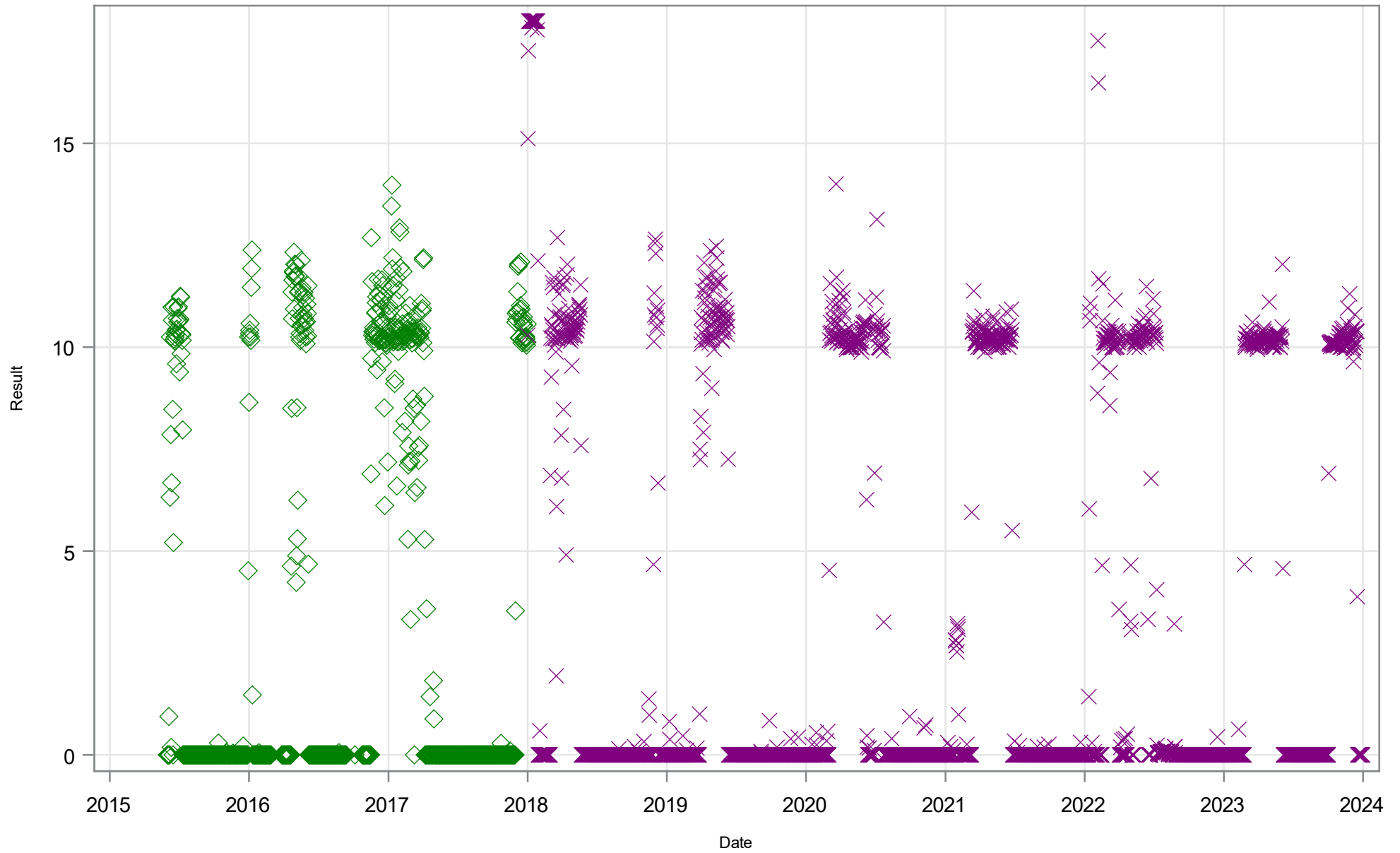
Boxplot by MFL Period for Daily Average Flow from CR at Station COT HRR_to Base of Dam



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Daily Average Flow from CR at Station Sulphur Springs Pumped to Run



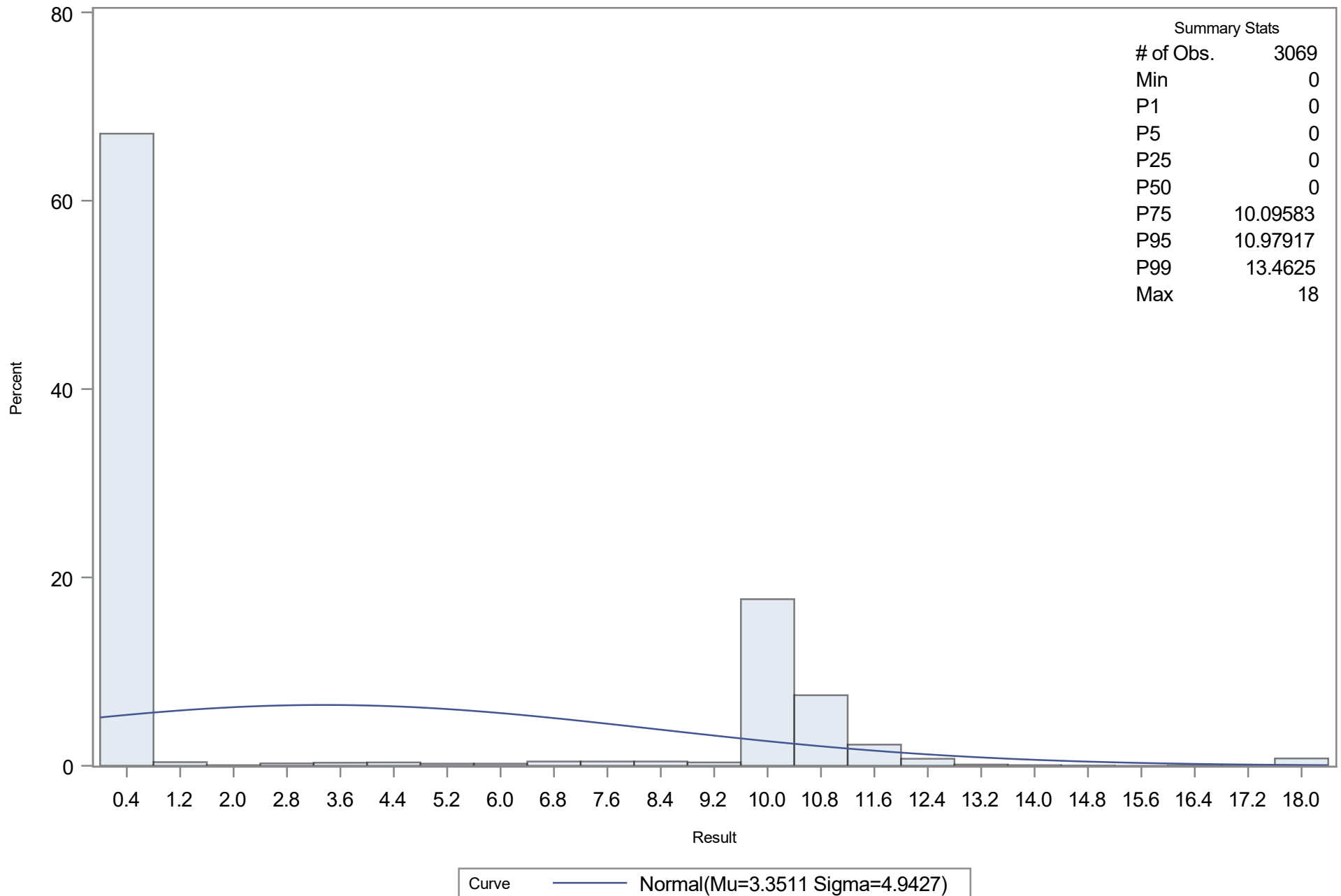
Period ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Daily Average Flow from CR at Station Sulphur Springs Pumped to Run

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.351136
Std Dev	Sigma	4.942739

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.398886	Pr > D	<0.010
Cramer-von Mises	W-Sq	104.449715	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	560.134606	Pr > A-Sq	<0.005

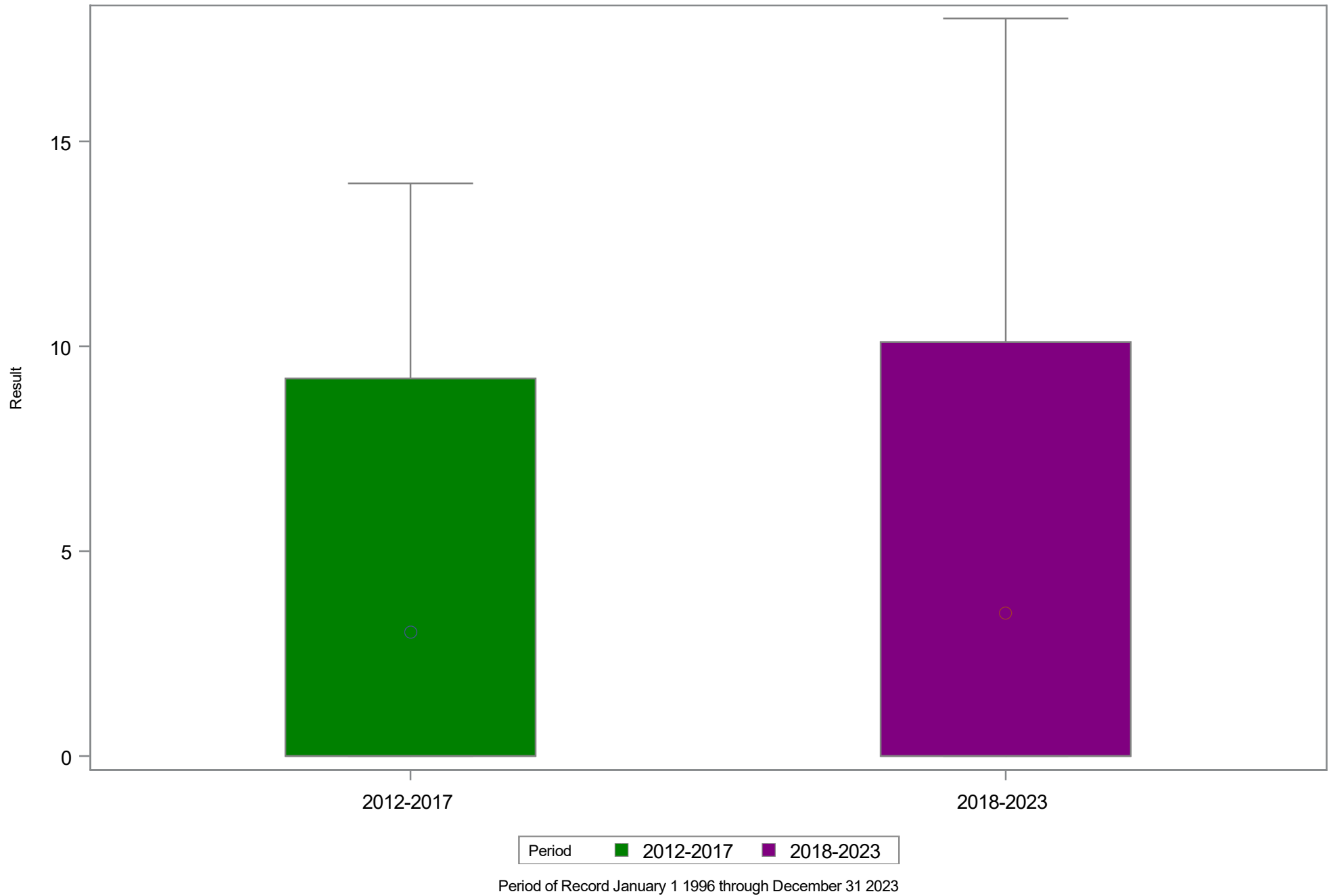
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.0000	-8.14739
5.0	0.0000	-4.77895
10.0	0.0000	-2.98324
25.0	0.0000	0.01731
50.0	0.0000	3.35114
75.0	10.0958	6.68496
90.0	10.4917	9.68551
95.0	10.9792	11.48122
99.0	13.4625	14.84967

DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station Sulphur Springs Pumped to Run

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	878	0.00	0.00	3.03	0.00	9.21	13.98
2018-2023	2191	0.00	0.00	3.48	0.00	10.10	18.00

DRAFT

Boxplot by MFL Period for Daily Average Flow from CR at Station Sulphur Springs Pumped to Run



DRAFT

Timeseries of Daily Average Flow from CR at Station Sulphur Springs toBase of Dam



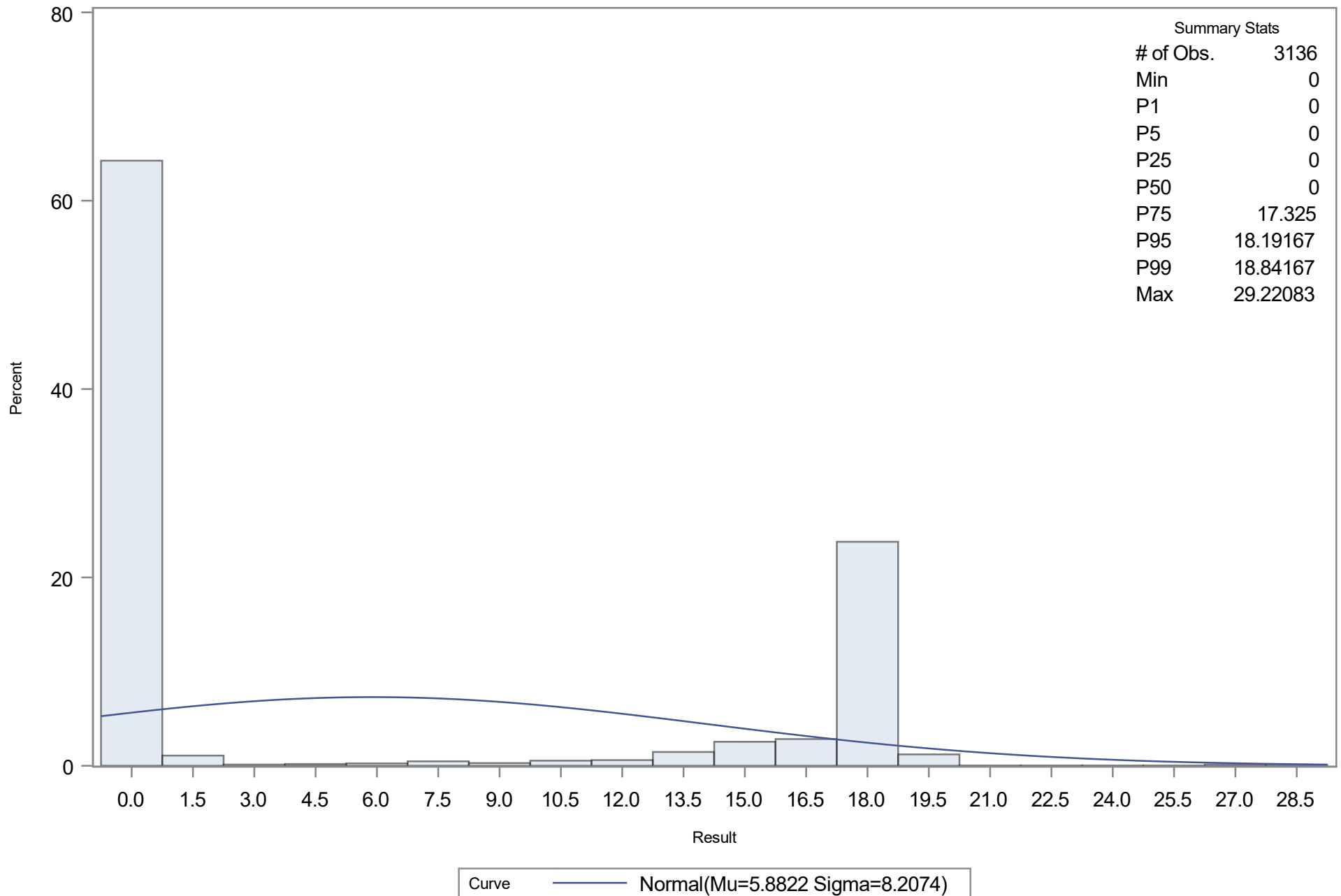
Period ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Daily Average Flow from CR at Station Sulphur Springs to Base of Dam

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5.882217
Std Dev	Sigma	8.207355

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.392371	Pr > D	<0.010
Cramer-von Mises	W-Sq	100.925243	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	560.810888	Pr > A-Sq	<0.005

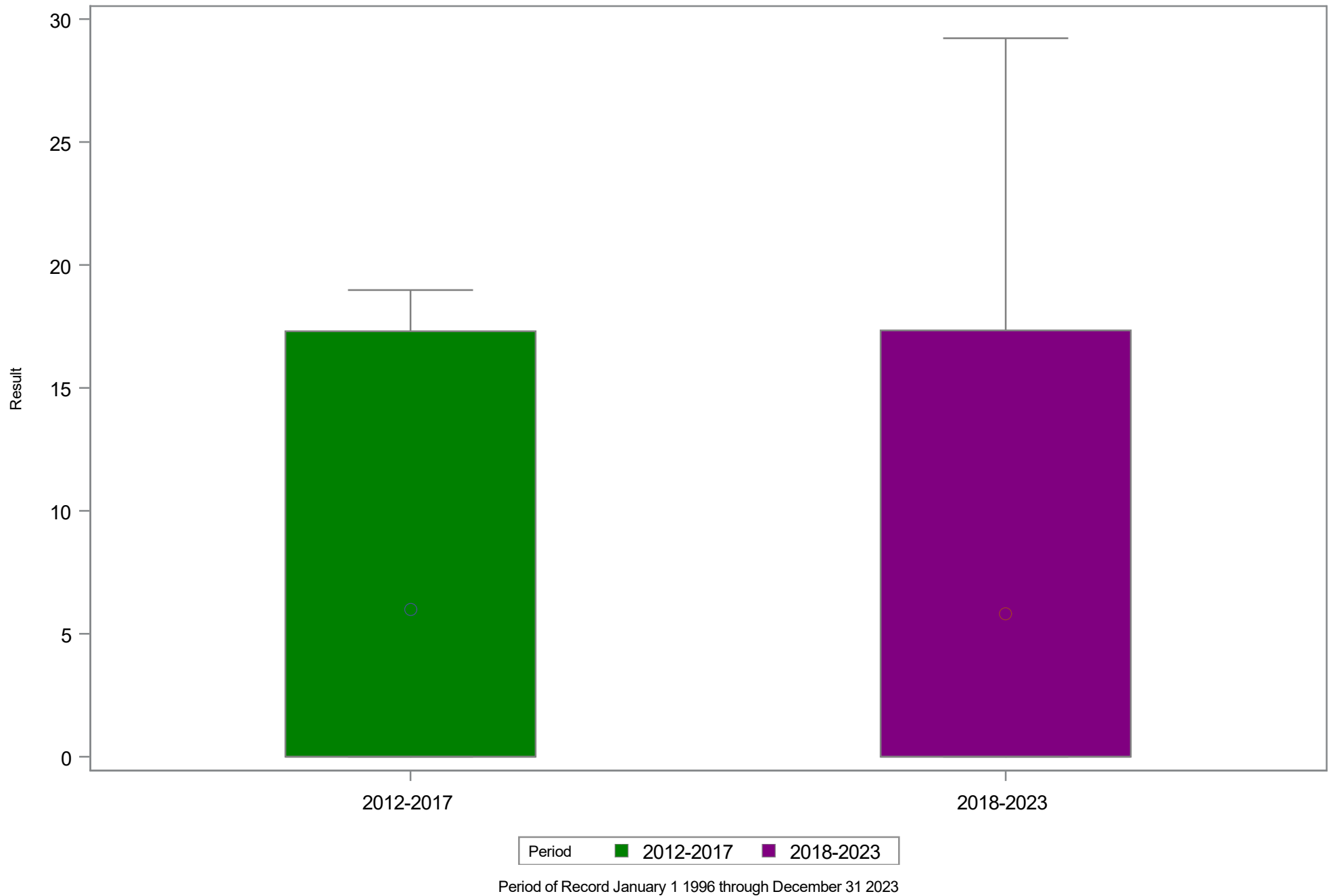
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.0000	-13.21095
5.0	0.0000	-7.61768
10.0	0.0000	-4.63593
25.0	0.0000	0.34644
50.0	0.0000	5.88222
75.0	17.3250	11.41799
90.0	18.0000	16.40037
95.0	18.1917	19.38211
99.0	18.8417	24.97538

DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station Sulphur Springs to Base of Dam

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	945	0.00	0.00	6.00	0.00	17.30	18.98
2018-2023	2191	0.00	0.00	5.83	0.00	17.34	29.22

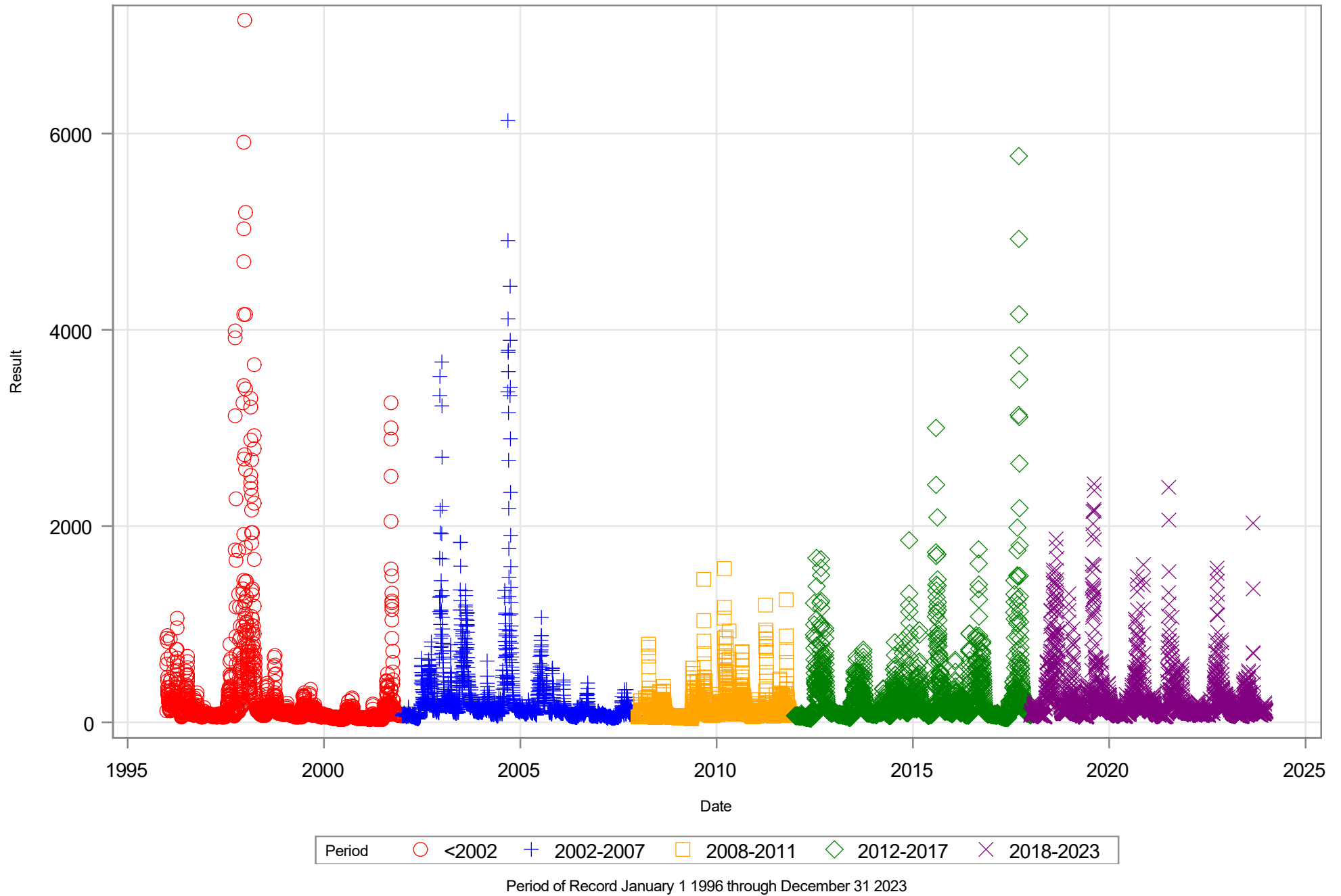
DRAFT

Boxplot by MFL Period for Daily Average Flow from CR at Station Sulphur Springs to Base of Dam



DRAFT

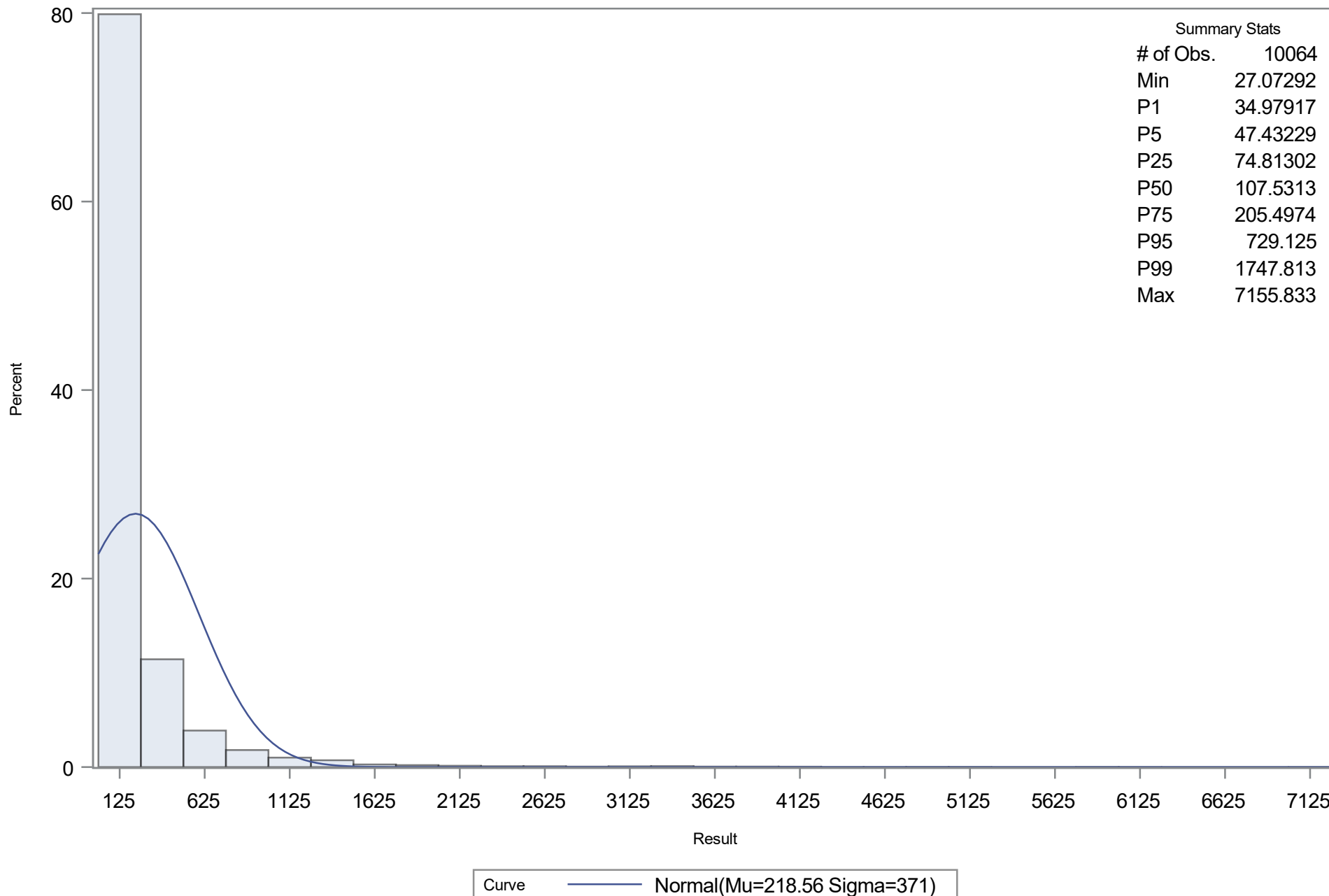
Timeseries of Daily Average Flow from CR at Station USGS 02303000 Zephyrhills



DRAFT

Univariate Histogram of Daily Average Flow from CR at Station USGS 02303000 Zephyrhills

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	218.5614
Std Dev	Sigma	370.9952

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.30288	Pr > D	<0.010
Cramer-von Mises	W-Sq	333.24532	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1670.87928	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	34.9792	-644.5025
5.0	47.4323	-391.6714
10.0	57.4063	-256.8881
25.0	74.8130	-31.6711
50.0	107.5313	218.5614
75.0	205.4974	468.7938
90.0	451.7188	694.0109
95.0	729.1250	828.7942
99.0	1747.8125	1081.6253

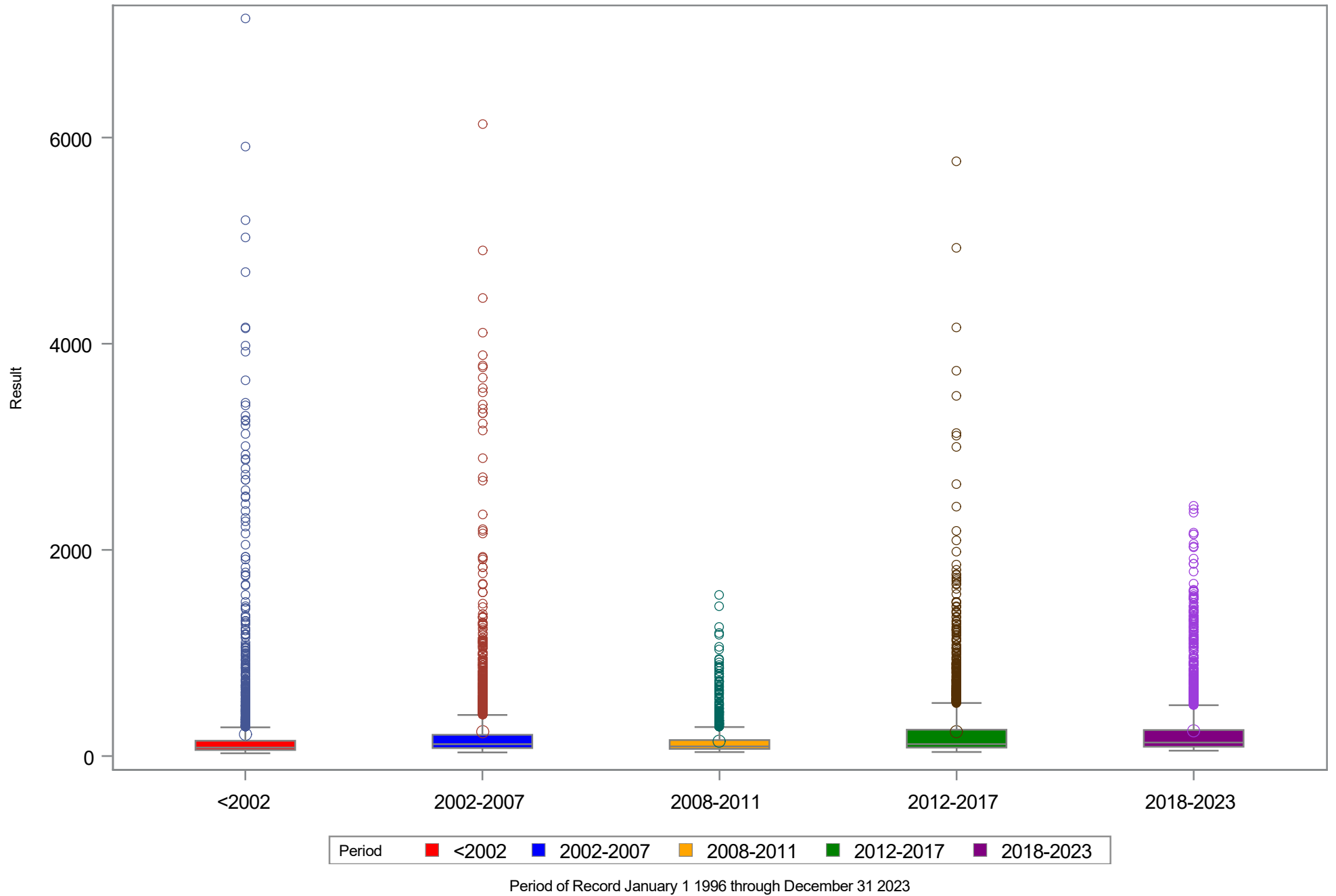
DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station USGS 02303000 Zephyrhills

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	2082	27.07	58.92	211.99	81.99	148.53	7155.83
2002-2007	2140	35.13	77.41	235.48	115.33	205.94	6132.29
2008-2011	1459	38.59	69.43	141.18	93.47	155.16	1566.35
2012-2017	2192	39.27	82.29	236.43	115.59	255.46	5770.52
2018-2023	2191	52.13	90.48	241.93	131.22	252.21	2430.42

Period of Record January 1 1996 through December 31 2023

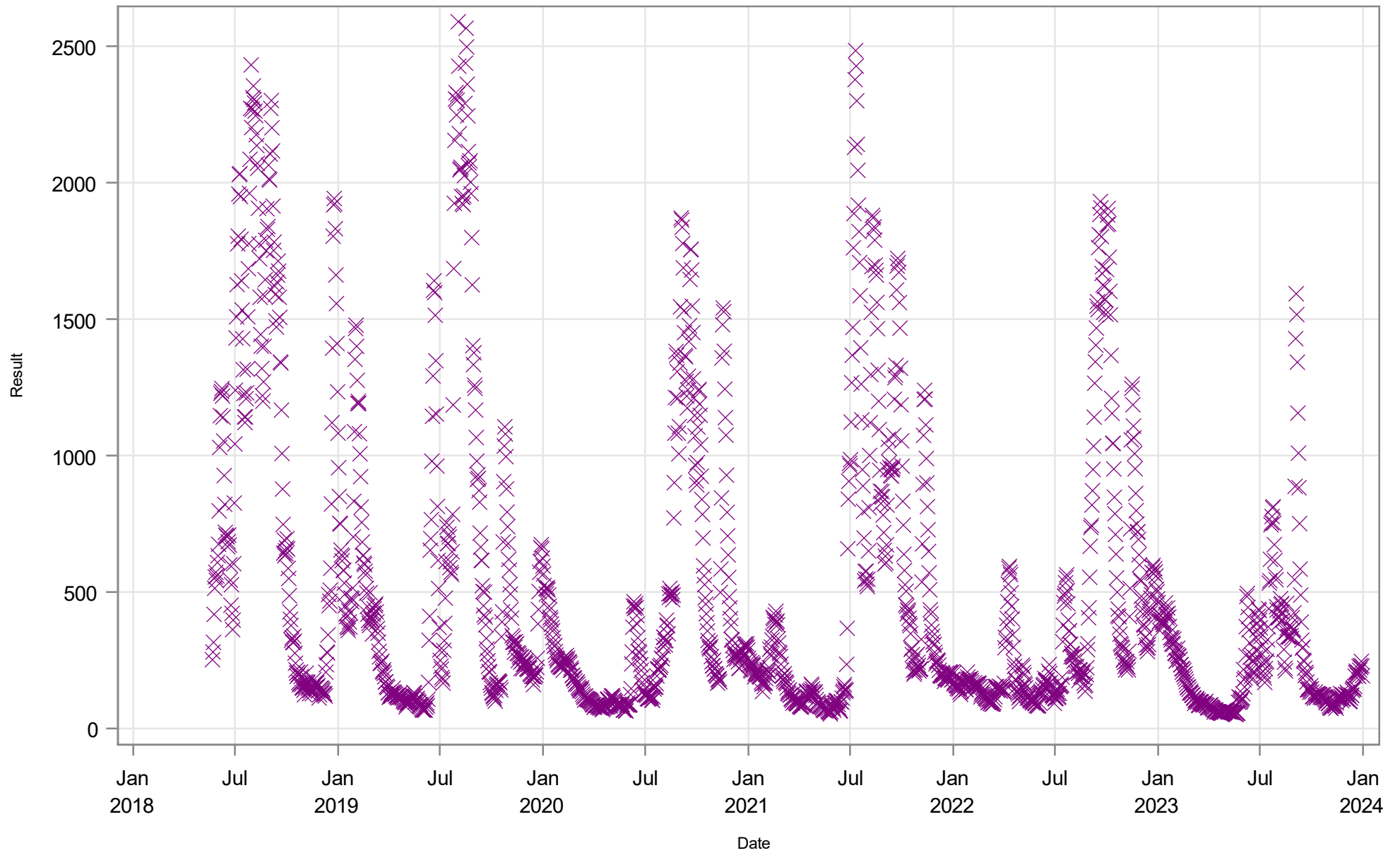
DRAFT

Boxplot by MFL Period for Daily Average Flow from CR at Station USGS 02303000 Zephyrhills



DRAFT

Timeseries of Daily Average Flow from CR at Station USGS 02304000 Fowler



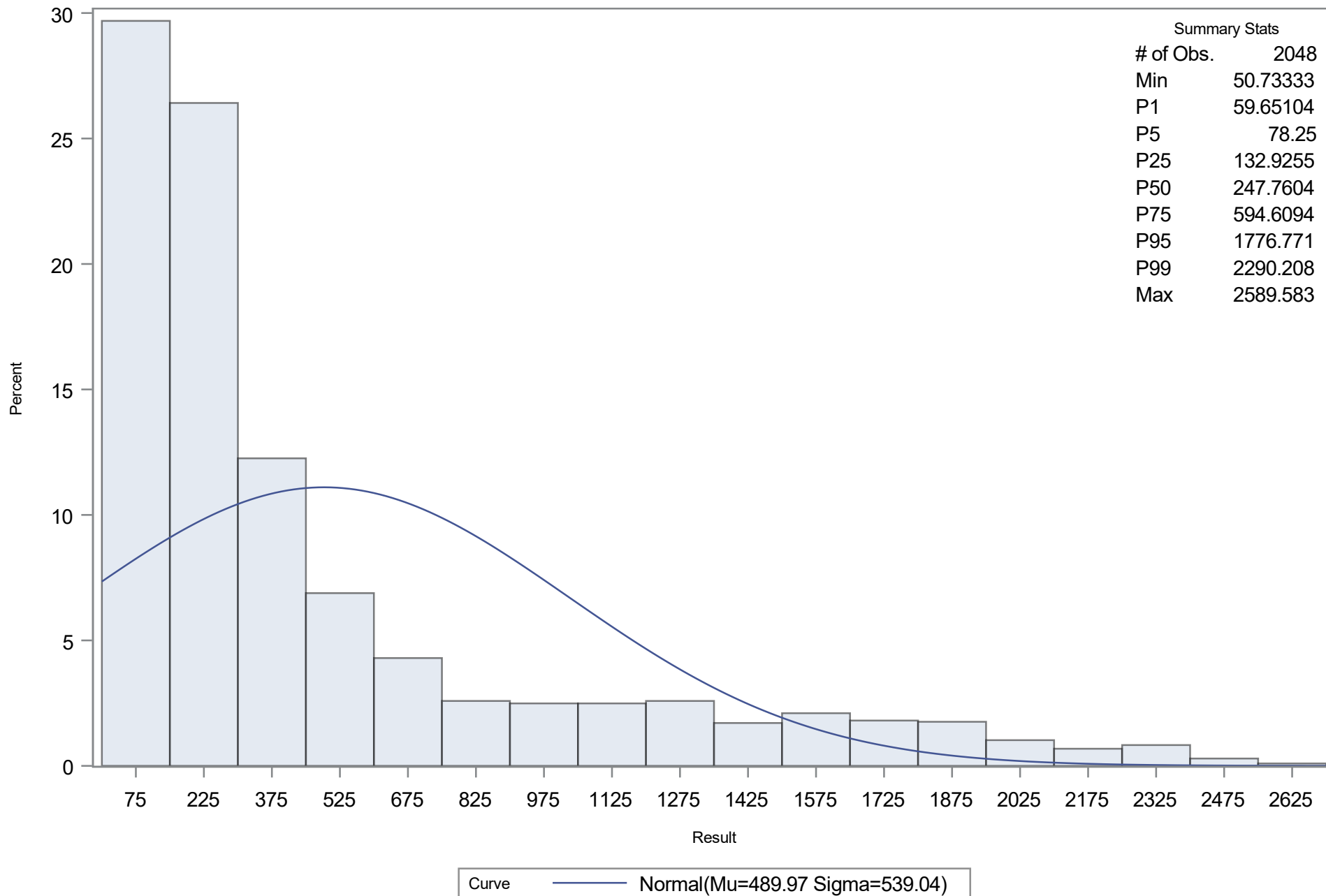
Period × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Daily Average Flow from CR at Station USGS 02304000 Fowler

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	489.9693
Std Dev	Sigma	539.04

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.213967	Pr > D	<0.010
Cramer-von Mises	W-Sq	36.498476	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	197.060884	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	59.6510	-764.025
5.0	78.2500	-396.673
10.0	92.0885	-200.838
25.0	132.9255	126.392
50.0	247.7604	489.969
75.0	594.6094	853.546
90.0	1367.5000	1180.777
95.0	1776.7708	1376.611
99.0	2290.2083	1743.964

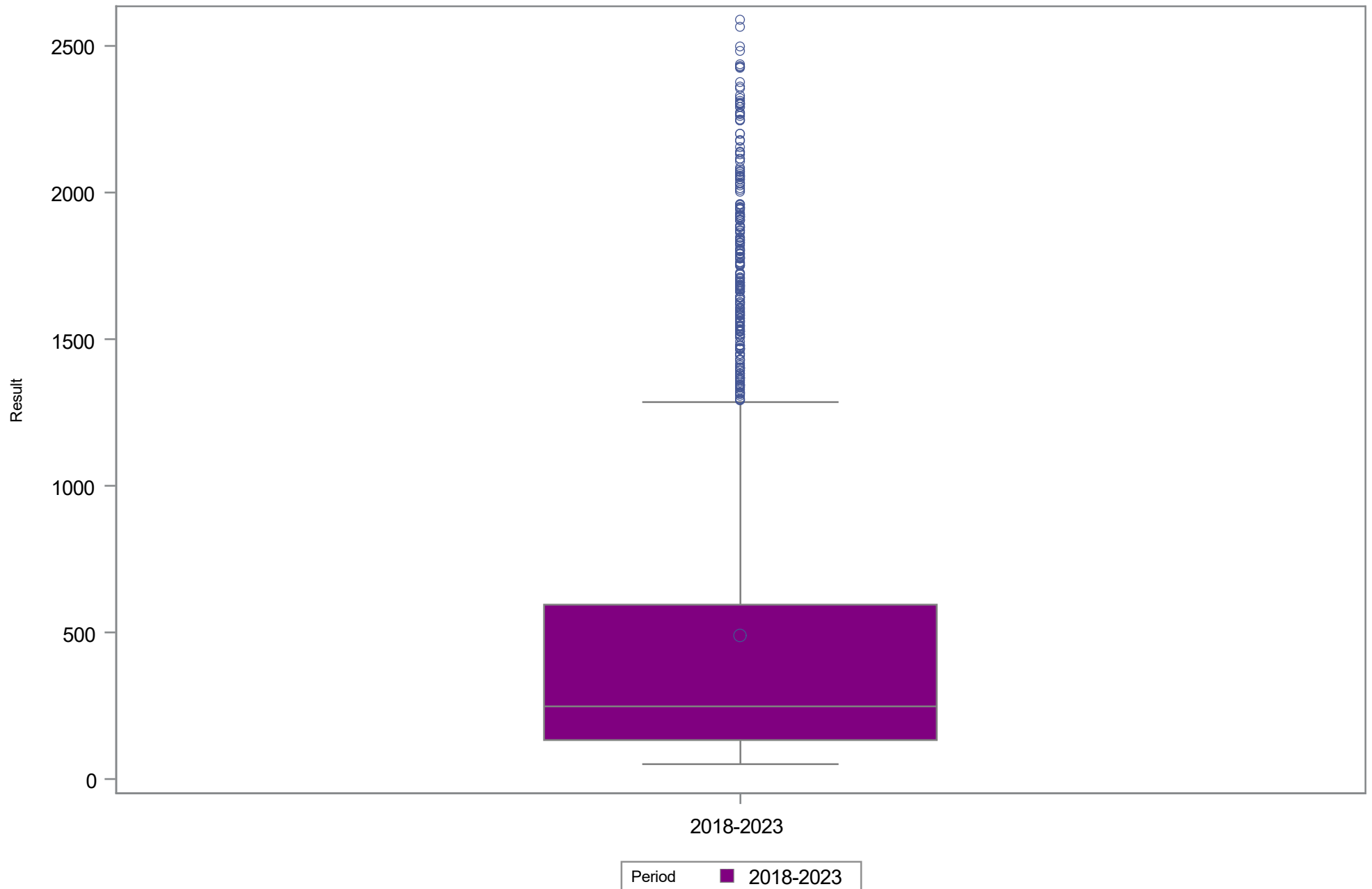
DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station USGS 02304000 Fowler

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	2048	50.73	132.93	489.97	247.76	594.61	2589.58

Period of Record January 1 1996 through December 31 2023

DRAFT

Boxplot by MFL Period for Daily Average Flow from CR at Station USGS 02304000 Fowler



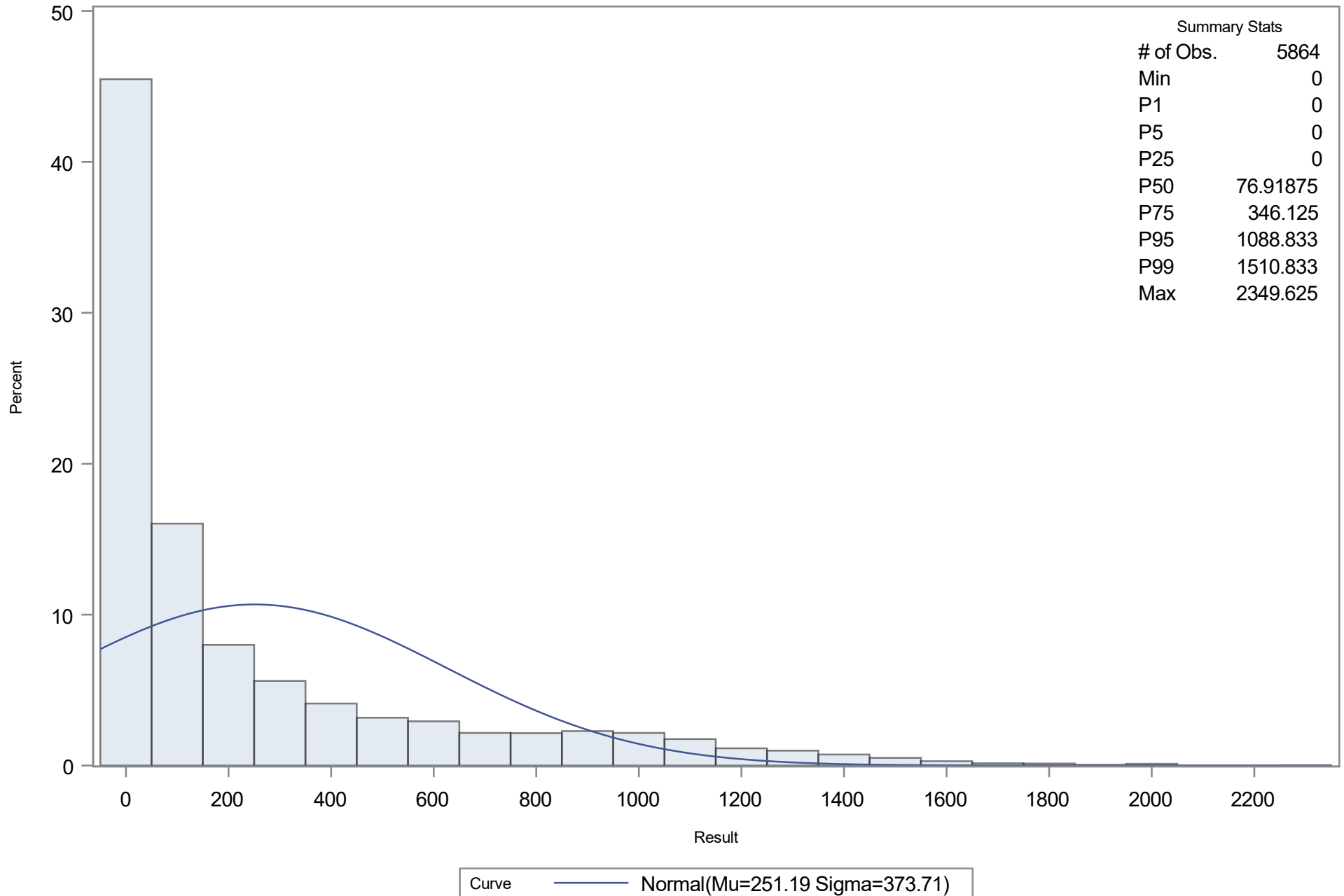
Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Daily Average Flow from CR at Station USGS 02304500 Hillsborough River Dam



Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	251.1863
Std Dev	Sigma	373.7117

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.250748	Pr > D	<0.010
Cramer-von Mises	W-Sq	117.057108	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	624.839246	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.00	-618.19722
5.0	0.00	-363.51482
10.0	0.00	-227.74457
25.0	0.00	-0.87844
50.0	76.92	251.18630
75.0	346.13	503.25104
90.0	868.13	730.11717
95.0	1088.83	865.88742
99.0	1510.83	1120.56982

Period of Record January 1 1996 through December 31 2023

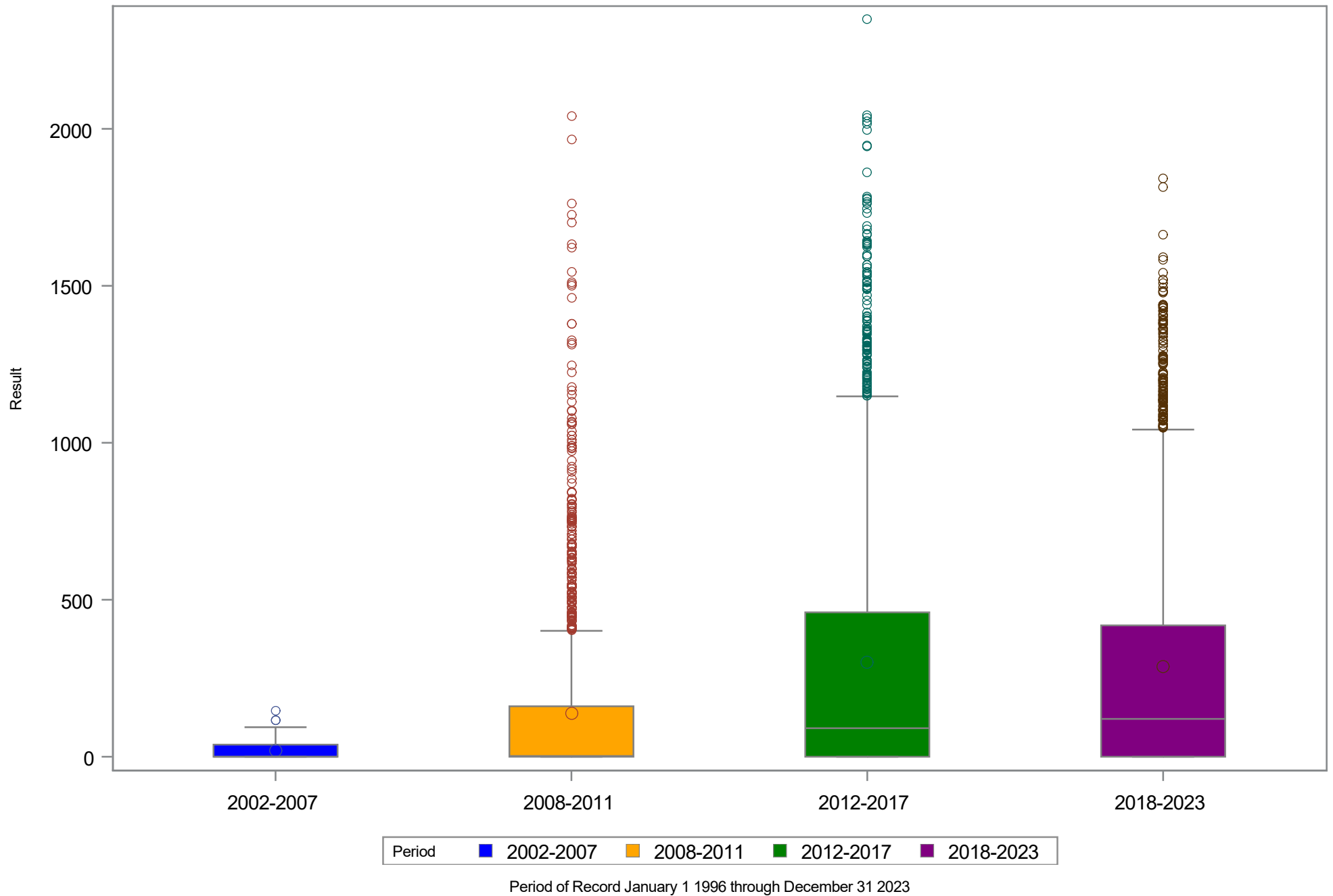
DRAFT Distributional Statistics by Period for Daily Average Flow from CR at Station USGS 02304500 Hillsborough River Dam

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	88	0.00	0.00	20.93	0.00	38.50	147.00
2008-2011	1457	0.00	0.00	139.30	2.30	160.63	2040.00
2012-2017	2131	0.00	0.00	299.64	90.83	459.83	2349.63
2018-2023	2188	0.00	0.00	287.76	120.48	418.30	1842.00

Period of Record January 1 1996 through December 31 2023

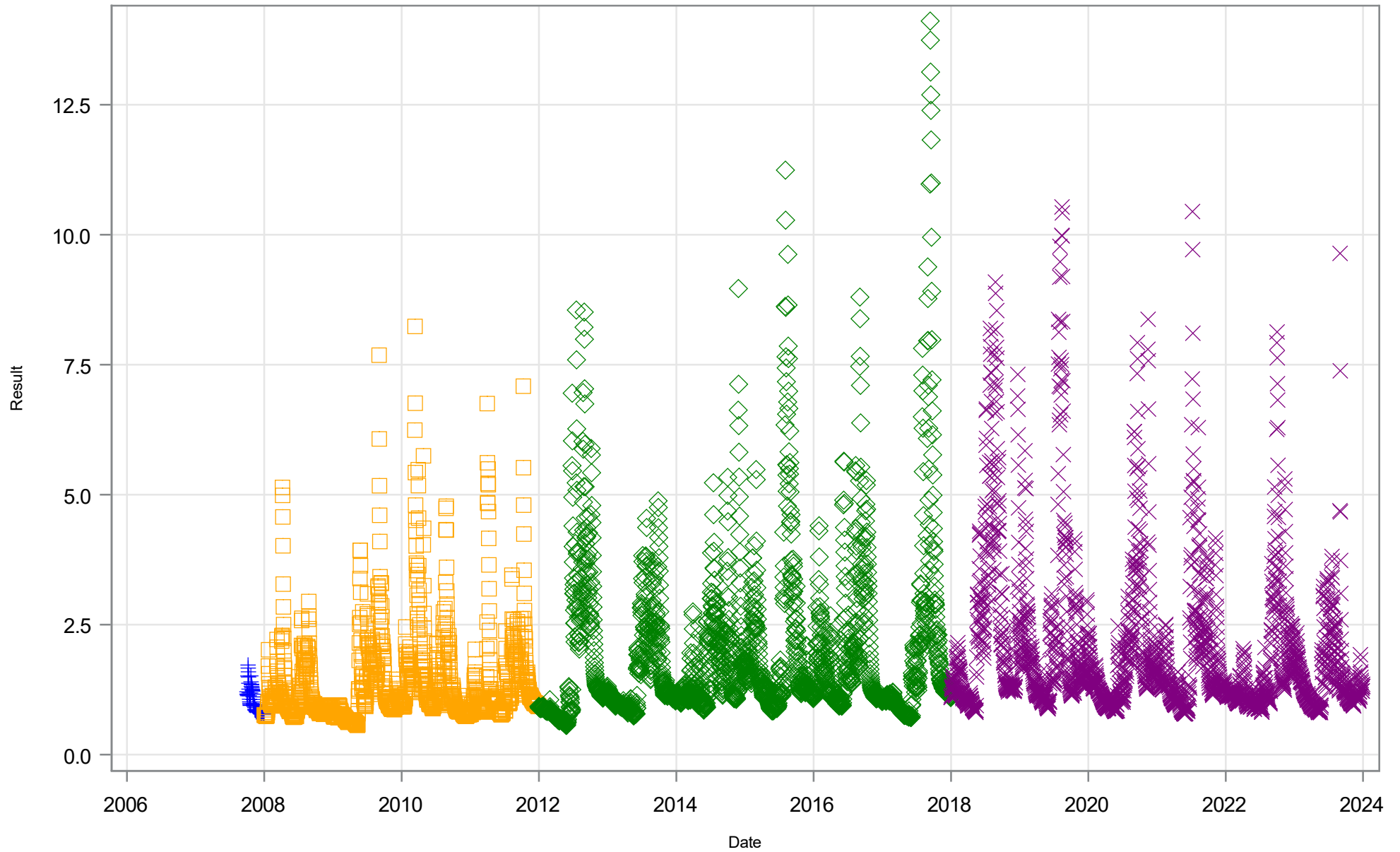
DRAFT

Boxplot by MFL Period for Daily Average Flow from CR at Station USGS 02304500 Hillsborough River Dam



DRAFT

Timeseries of Gage Height at Station USGS 02303000 Zephyrhills



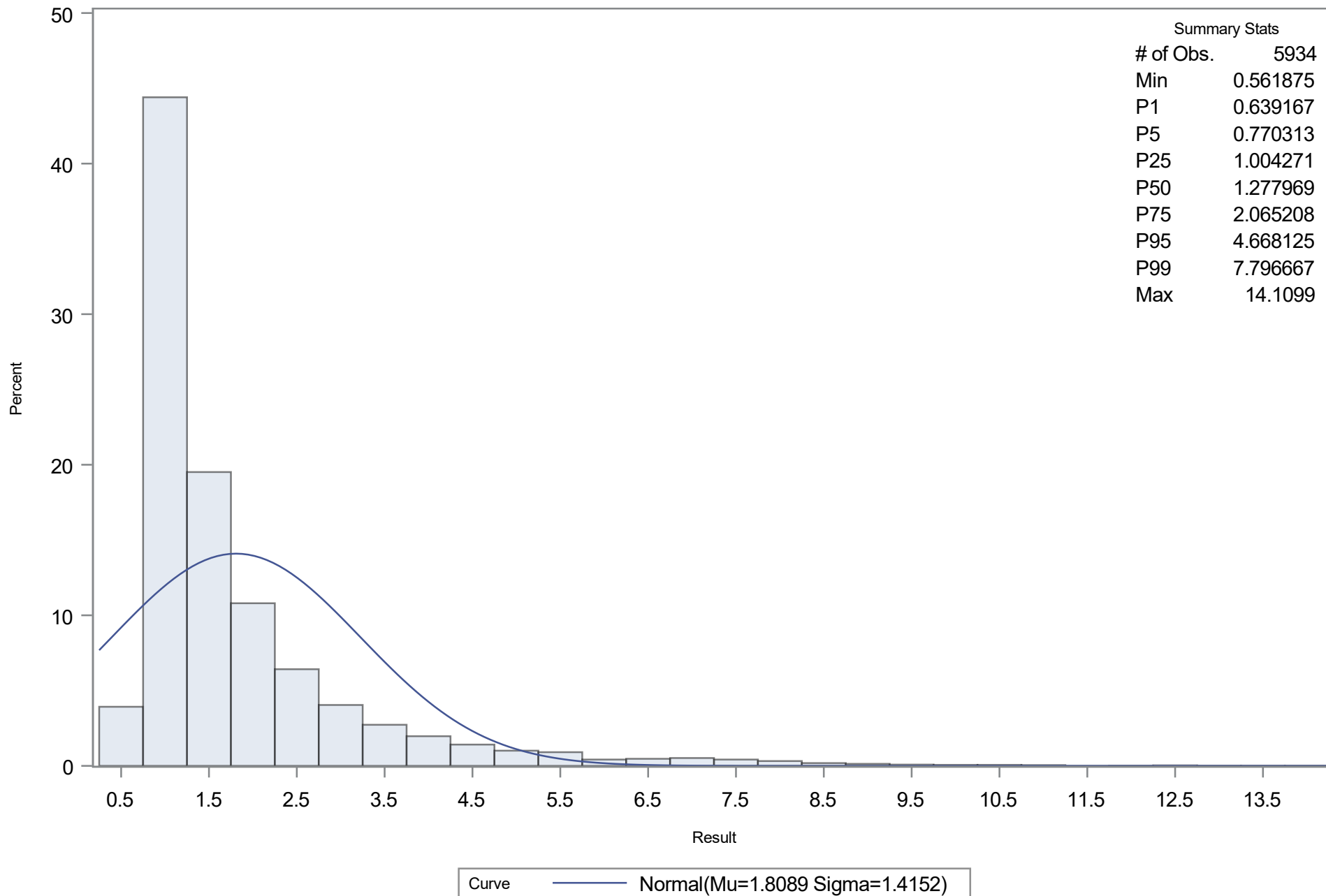
Period	2002-2007	2008-2011	2012-2017	2018-2023
+	+	+	+	+

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Gage Height at Station USGS 02303000 Zephyrhills

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.808944
Std Dev	Sigma	1.4152

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.197354	Pr > D	<0.010
Cramer-von Mises	W-Sq	103.129491	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	554.871467	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.63917	-1.48330
5.0	0.77031	-0.51885
10.0	0.84219	-0.00471
25.0	1.00427	0.85441
50.0	1.27797	1.80894
75.0	2.06521	2.76348
90.0	3.38750	3.62260
95.0	4.66813	4.13674
99.0	7.79667	5.10119

DRAFT

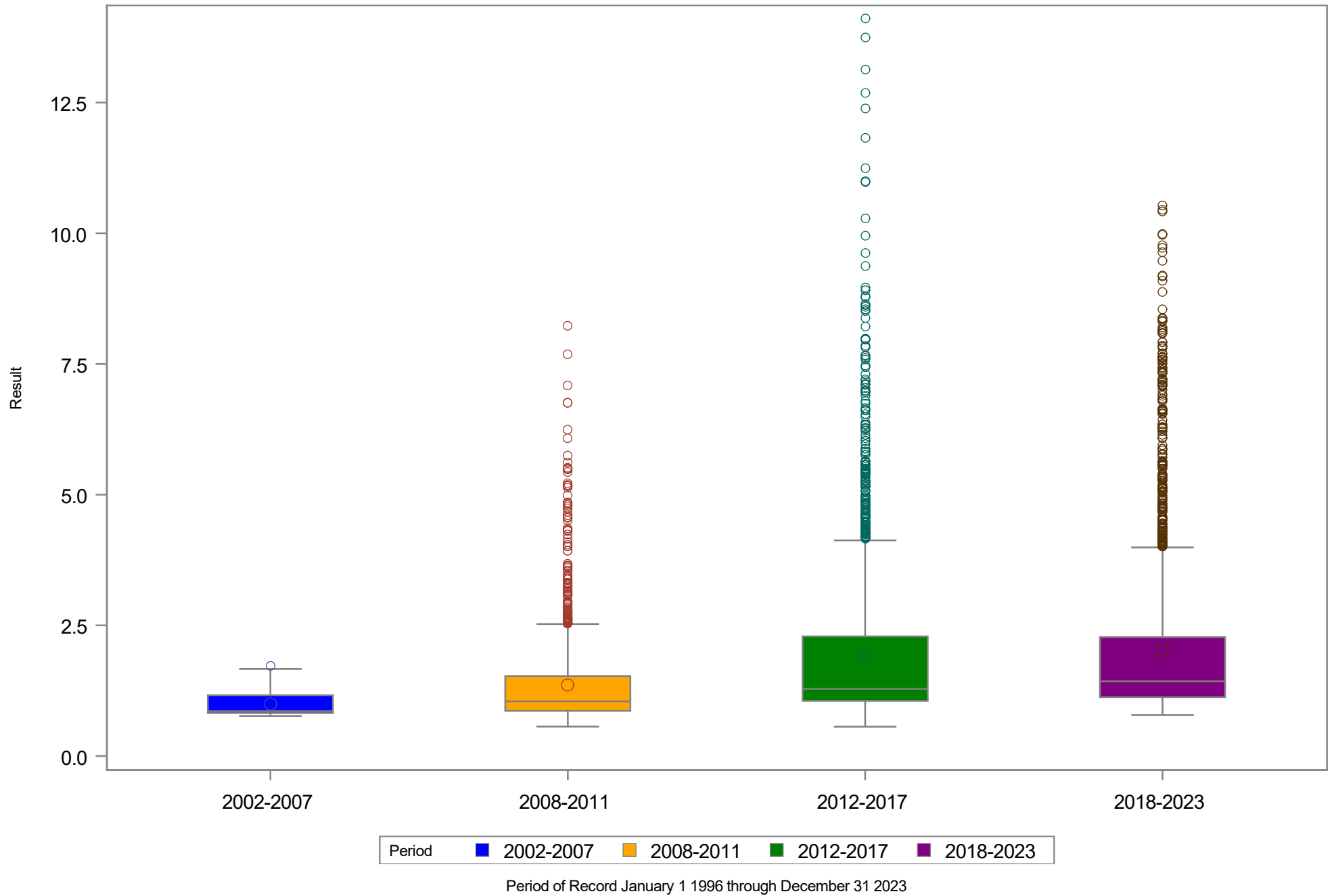
Distributional Statistics by Period for Gage Height at Station USGS 02303000 Zephyrhills

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	0.77	0.82	0.99	0.86	1.16	1.72
2008-2011	1459	0.56	0.86	1.36	1.05	1.53	8.24
2012-2017	2192	0.56	1.06	1.93	1.29	2.29	14.11
2018-2023	2191	0.78	1.13	2.02	1.43	2.27	10.53

Period of Record January 1 1996 through December 31 2023

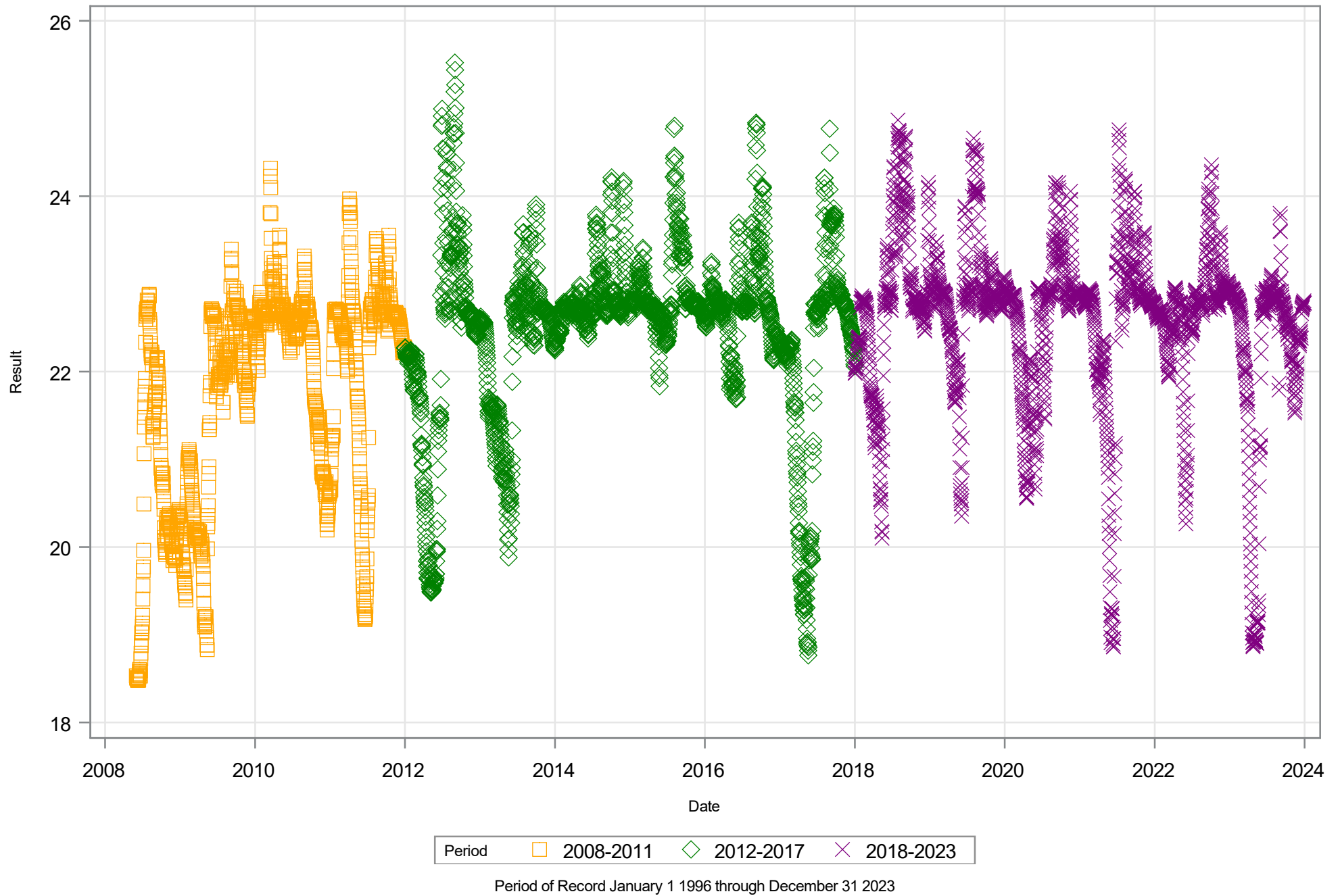
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 02303000 Zephyrhills



DRAFT

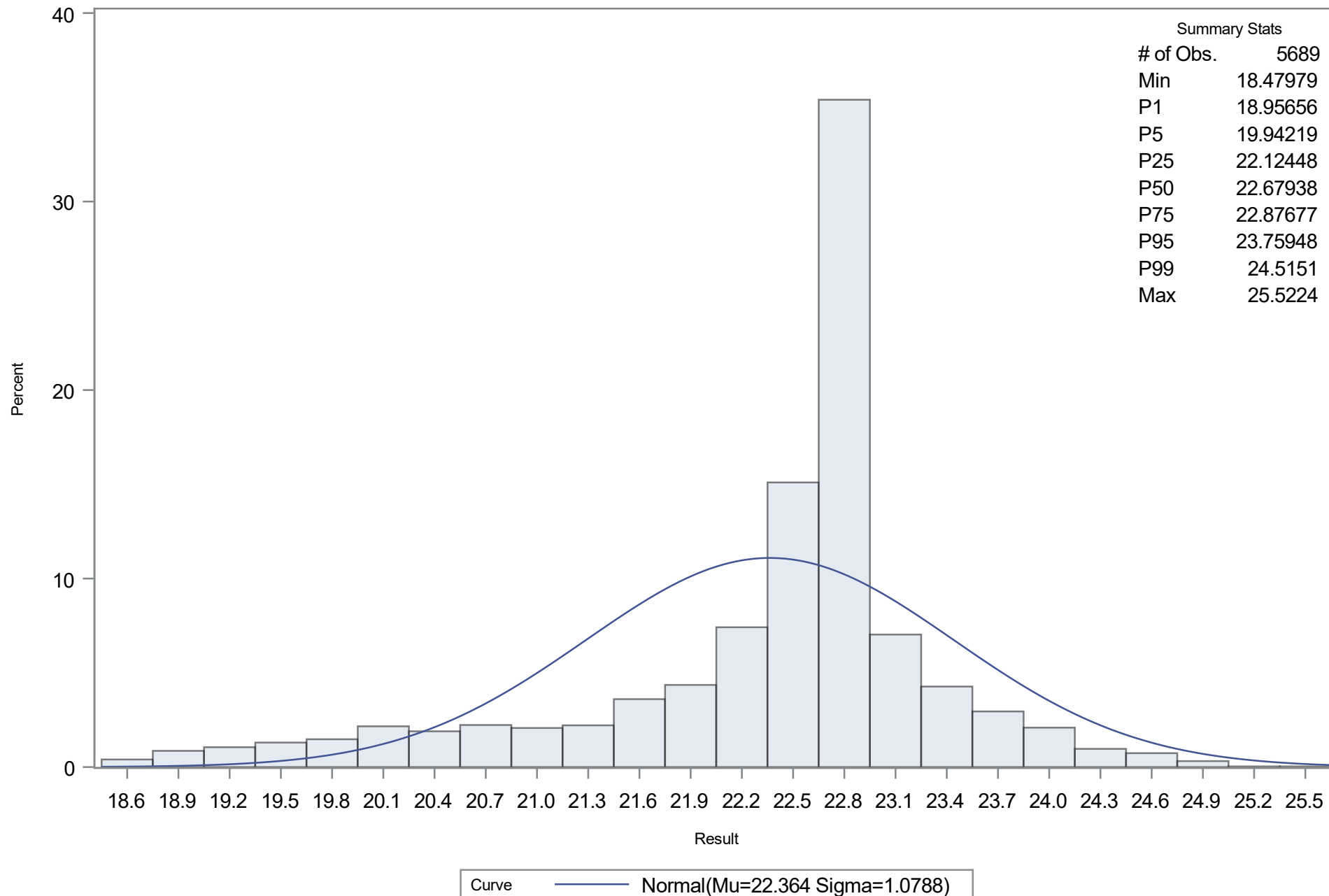
Timeseries of Gage Height at Station USGS 02304000 Fowler



DRAFT

Univariate Histogram of Gage Height at Station USGS 02304000 Fowler

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Gage Height at Station USGS 02304000 Fowler**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	22.36391
Std Dev	Sigma	1.078755

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.186761	Pr > D	<0.010
Cramer-von Mises	W-Sq	62.206629	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	313.779528	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	18.9566	19.8544
5.0	19.9422	20.5895
10.0	20.6682	20.9814
25.0	22.1245	21.6363
50.0	22.6794	22.3639
75.0	22.8768	23.0915
90.0	23.3292	23.7464
95.0	23.7595	24.1383
99.0	24.5151	24.8735

Period of Record January 1 1996 through December 31 2023

DRAFT

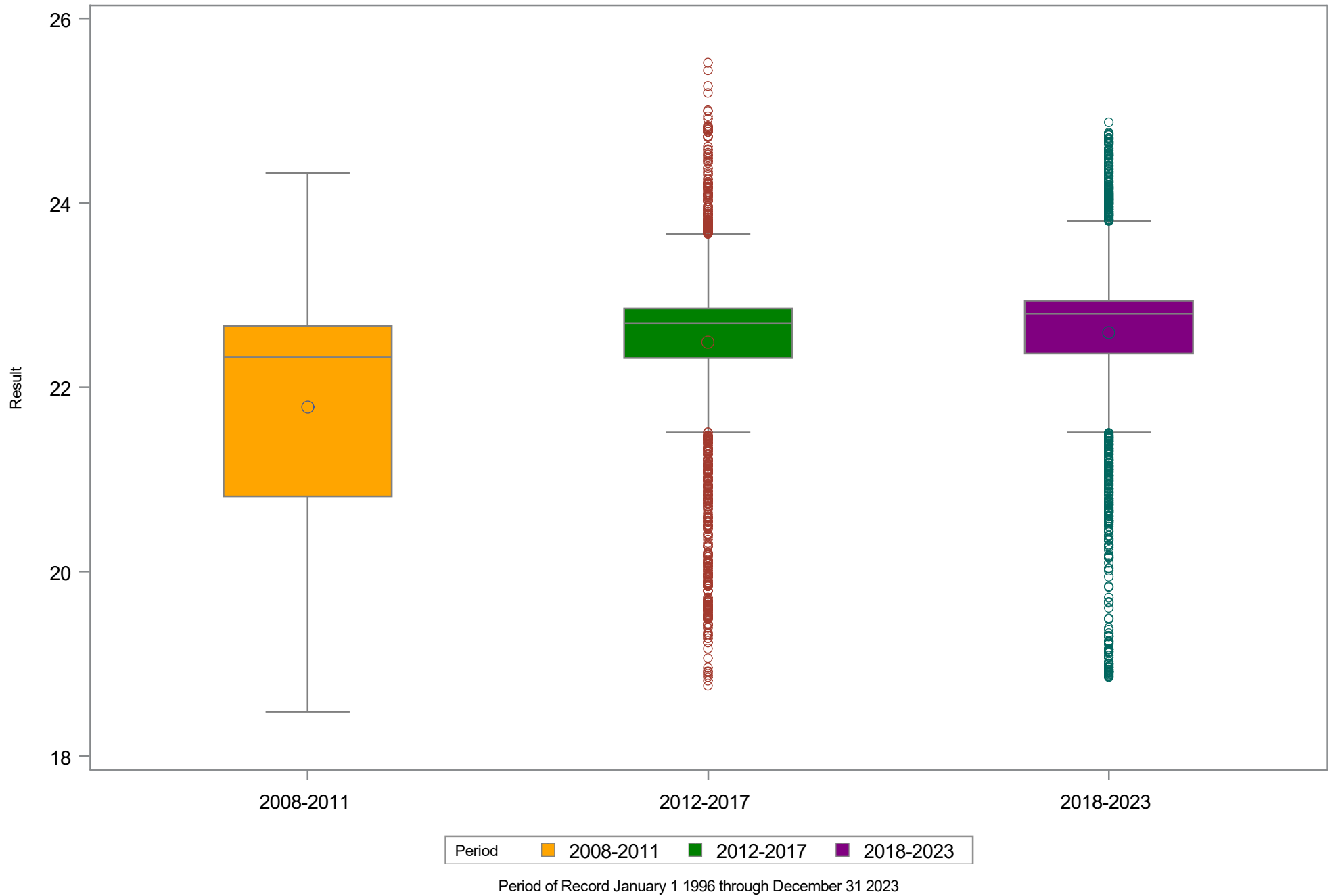
Distributional Statistics by Period for Gage Height at Station USGS 02304000 Fowler

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1308	18.48	20.82	21.78	22.32	22.66	24.32
2012-2017	2191	18.76	22.32	22.49	22.70	22.86	25.52
2018-2023	2190	18.86	22.36	22.59	22.79	22.94	24.87

Period of Record January 1 1996 through December 31 2023

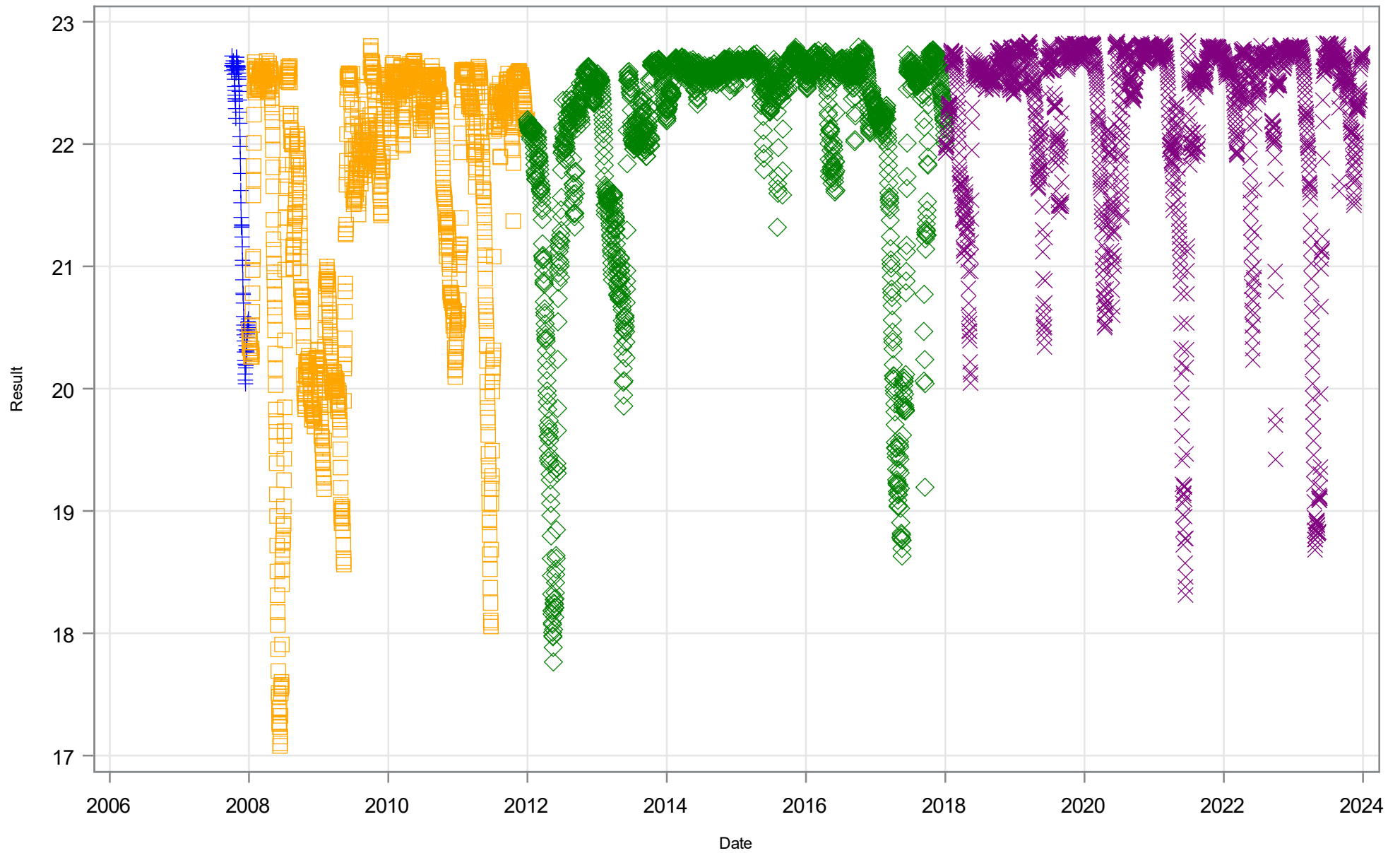
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 02304000 Fowler



DRAFT

Timeseries of Gage Height at Station USGS 02304500 Hillsborough River Dam



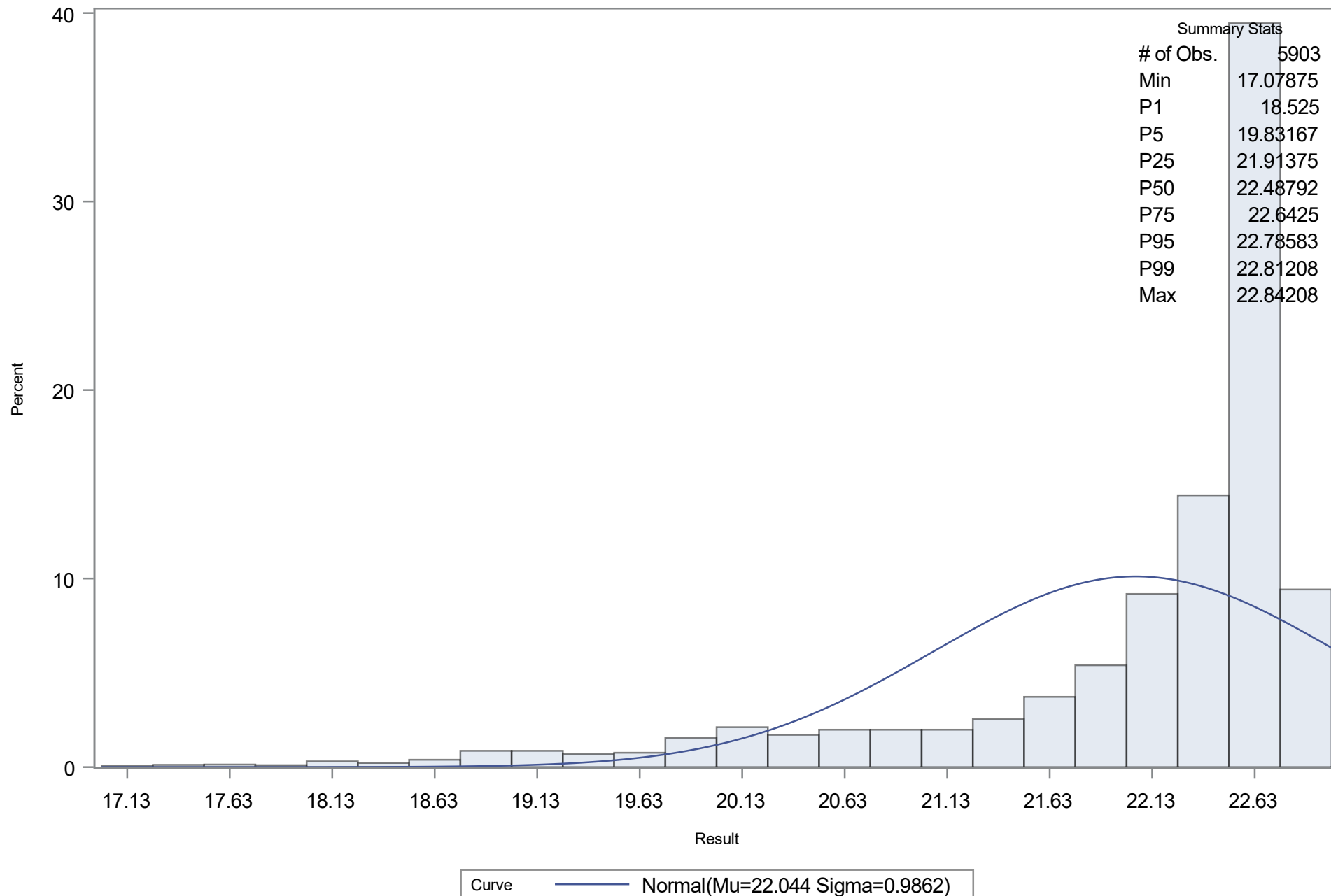
Period + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Gage Height at Station USGS 02304500 Hillsborough River Dam

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	22.04441
Std Dev	Sigma	0.986159

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.216421	Pr > D	<0.010
Cramer-von Mises	W-Sq	113.128572	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	599.713699	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	18.5250	19.7503
5.0	19.8317	20.4223
10.0	20.5121	20.7806
25.0	21.9138	21.3793
50.0	22.4879	22.0444
75.0	22.6425	22.7096
90.0	22.7454	23.3082
95.0	22.7858	23.6665
99.0	22.8121	24.3386

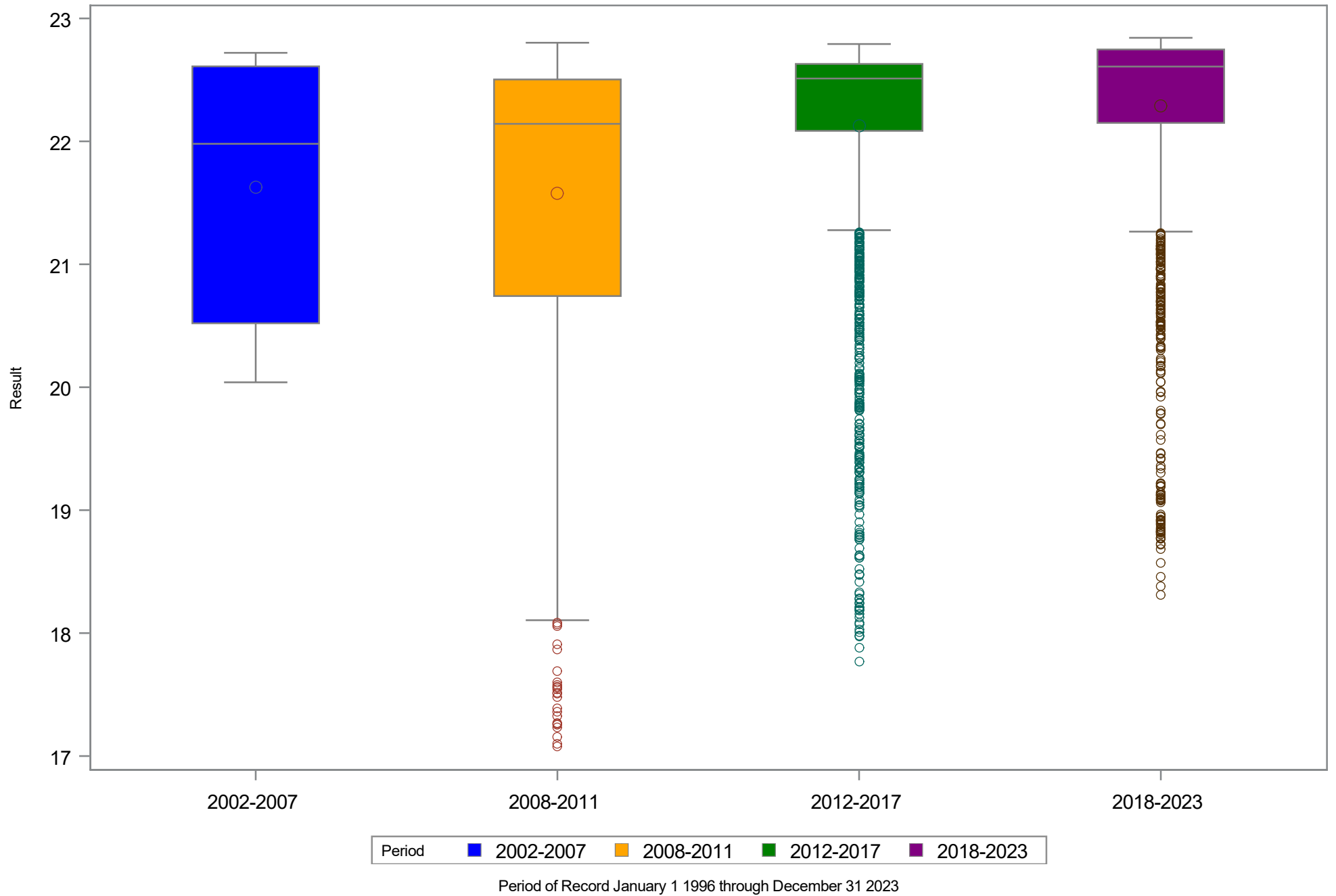
DRAFT Distributional Statistics by Period for Gage Height at Station USGS 02304500 Hillsborough River Dam

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	91	20.04	20.52	21.63	21.98	22.61	22.72
2008-2011	1458	17.08	20.74	21.58	22.14	22.50	22.80
2012-2017	2168	17.77	22.09	22.13	22.51	22.63	22.79
2018-2023	2186	18.31	22.15	22.29	22.61	22.75	22.84

Period of Record January 1 1996 through December 31 2023

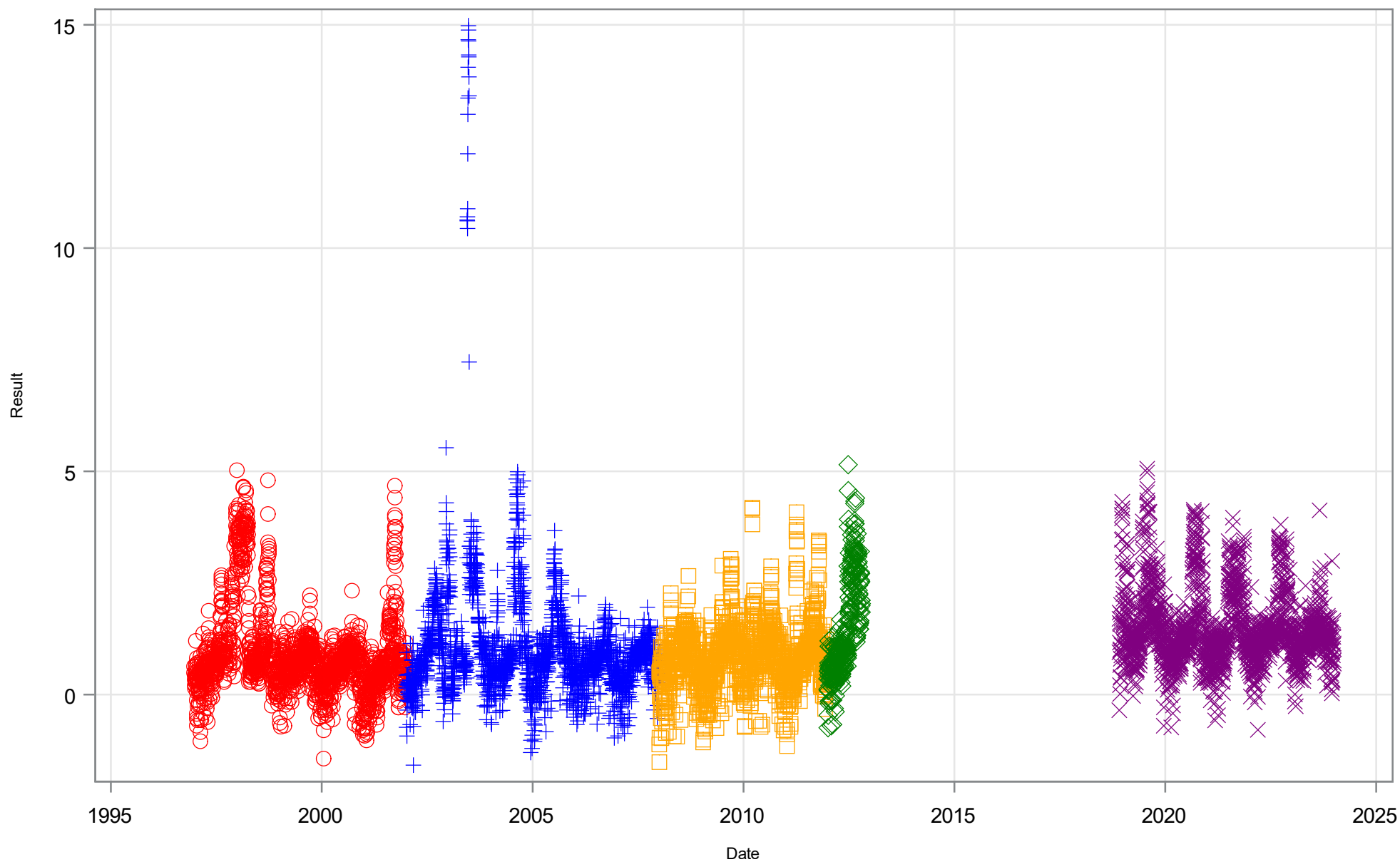
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 02304500 Hillsborough River Dam



DRAFT

Timeseries of Gage Height at Station USGS 02304510 Rowlett



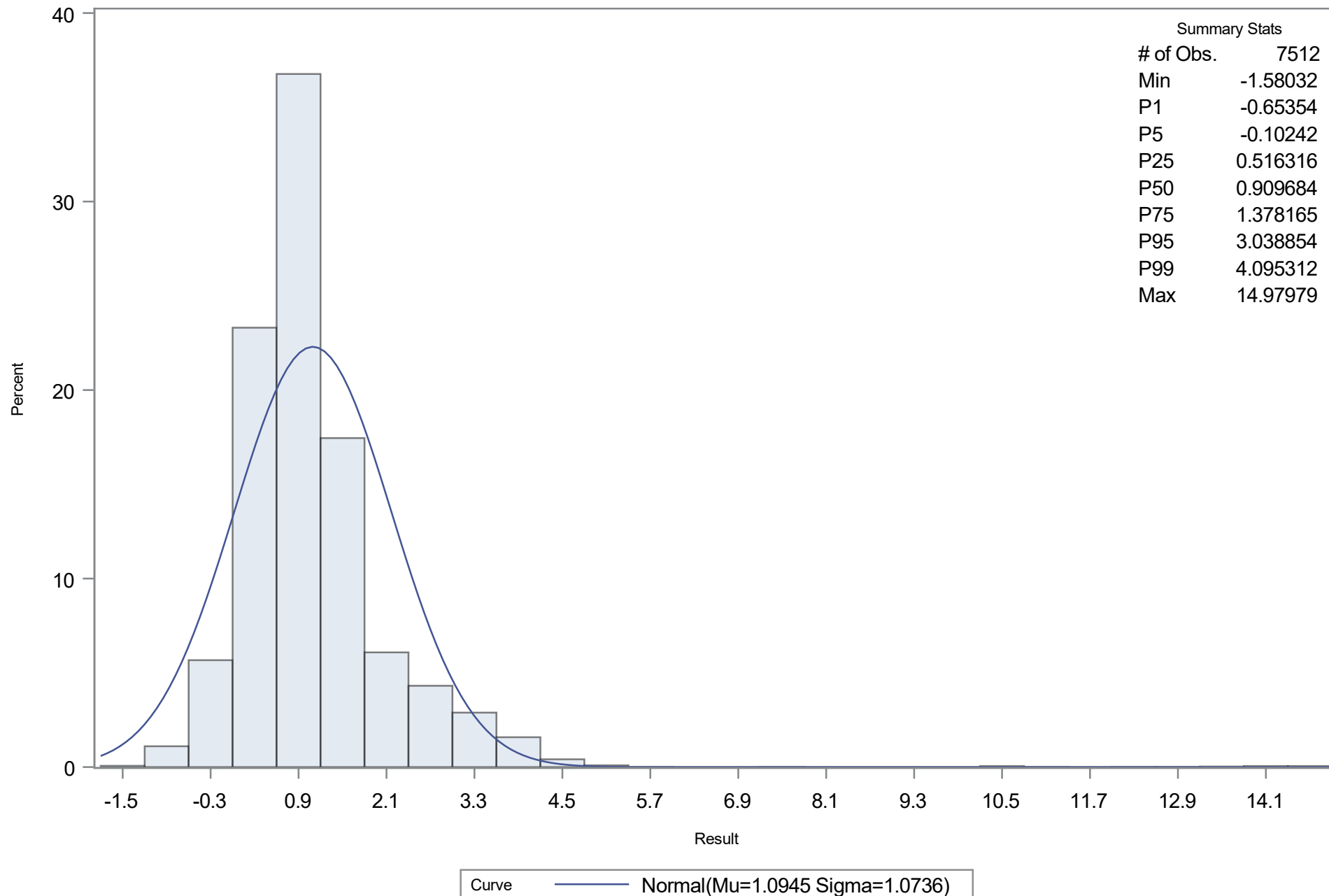
Period	Symbol	Period	Symbol	Period	Symbol
<2002	○	2002-2007	+	2008-2011	□
				2012-2017	◇
				2018-2023	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Gage Height at Station USGS 02304510 Rowlett

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Gage Height at Station USGS 02304510 Rowlett**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.094541
Std Dev	Sigma	1.073609

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.146487	Pr > D	<0.010
Cramer-von Mises	W-Sq	52.021217	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	280.390674	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	-0.65354	-1.40305
5.0	-0.10242	-0.67139
10.0	0.15947	-0.28134
25.0	0.51632	0.37040
50.0	0.90968	1.09454
75.0	1.37817	1.81868
90.0	2.34031	2.47043
95.0	3.03885	2.86047
99.0	4.09531	3.59213

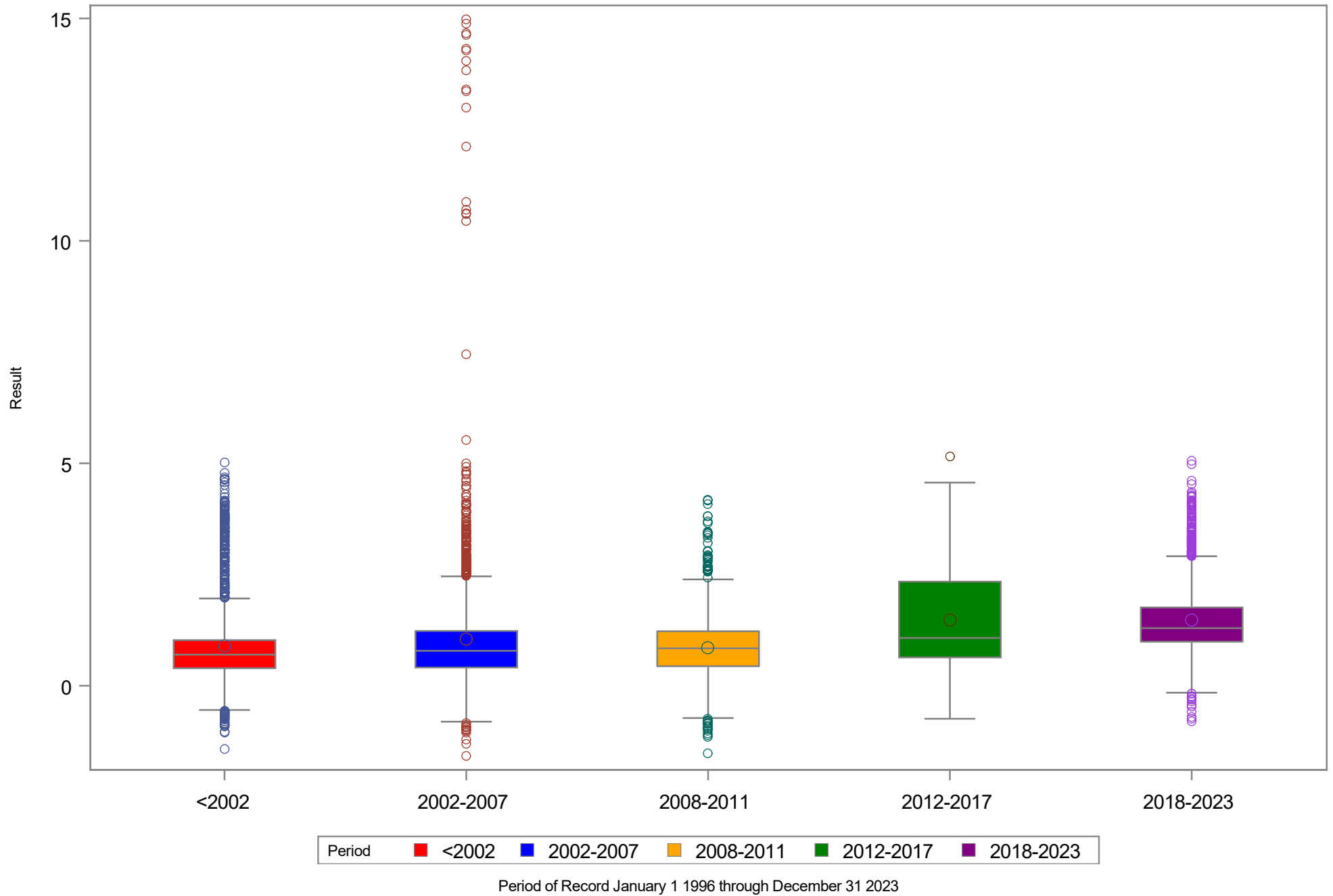
Period of Record January 1 1996 through December 31 2023

Distributional Statistics by Period for Gage Height at Station USGS 02304510 Rowlett

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1779	-1.43	0.39	0.89	0.70	1.03	5.02
2002-2007	2143	-1.58	0.41	1.04	0.79	1.23	14.98
2008-2011	1440	-1.51	0.44	0.86	0.84	1.22	4.19
2012-2017	291	-0.74	0.64	1.47	1.07	2.34	5.15
2018-2023	1859	-0.79	0.99	1.48	1.29	1.76	5.06

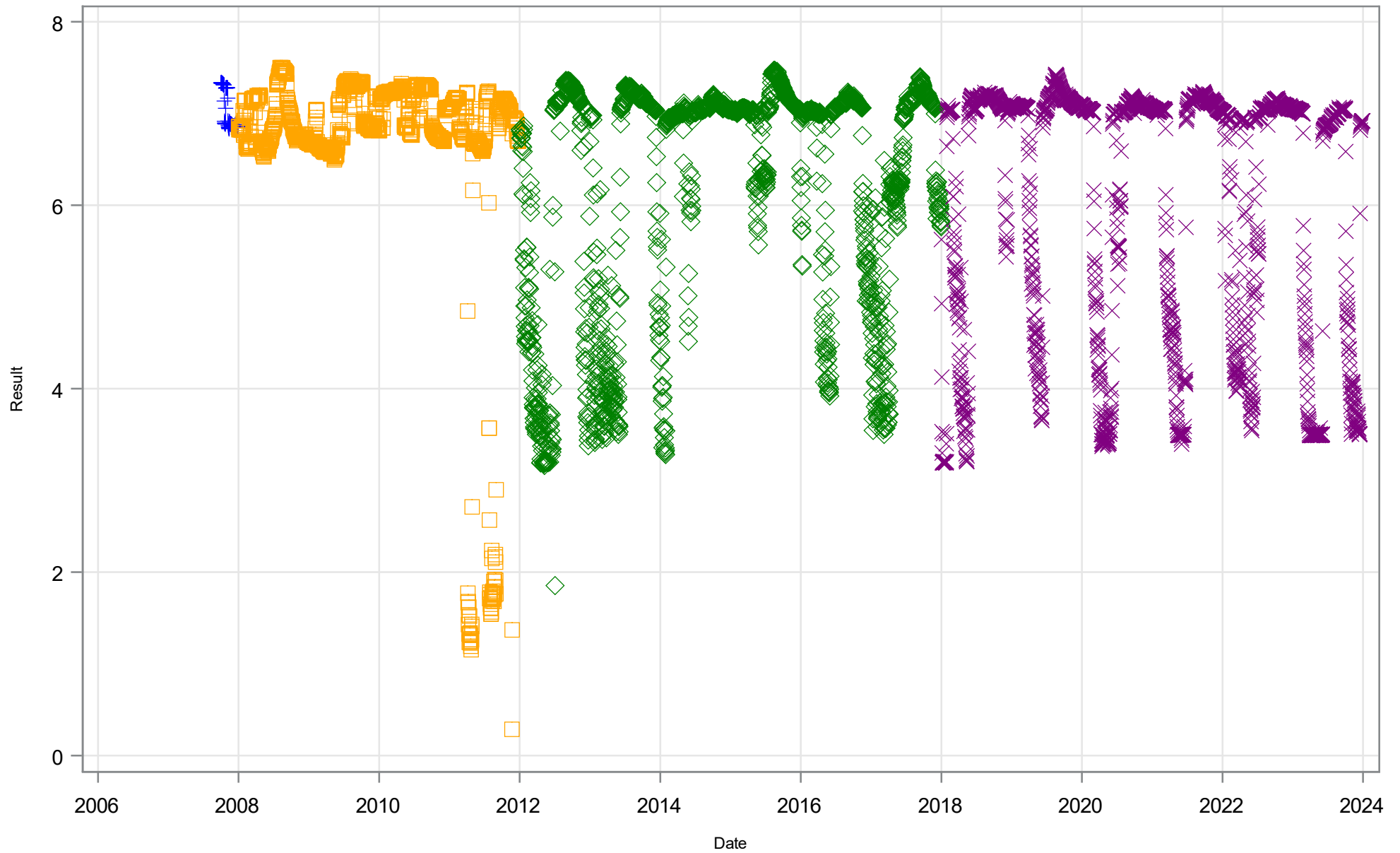
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 02304510 Rowlett



DRAFT

Timeseries of Gage Height at Station USGS 02306000 SS Pool



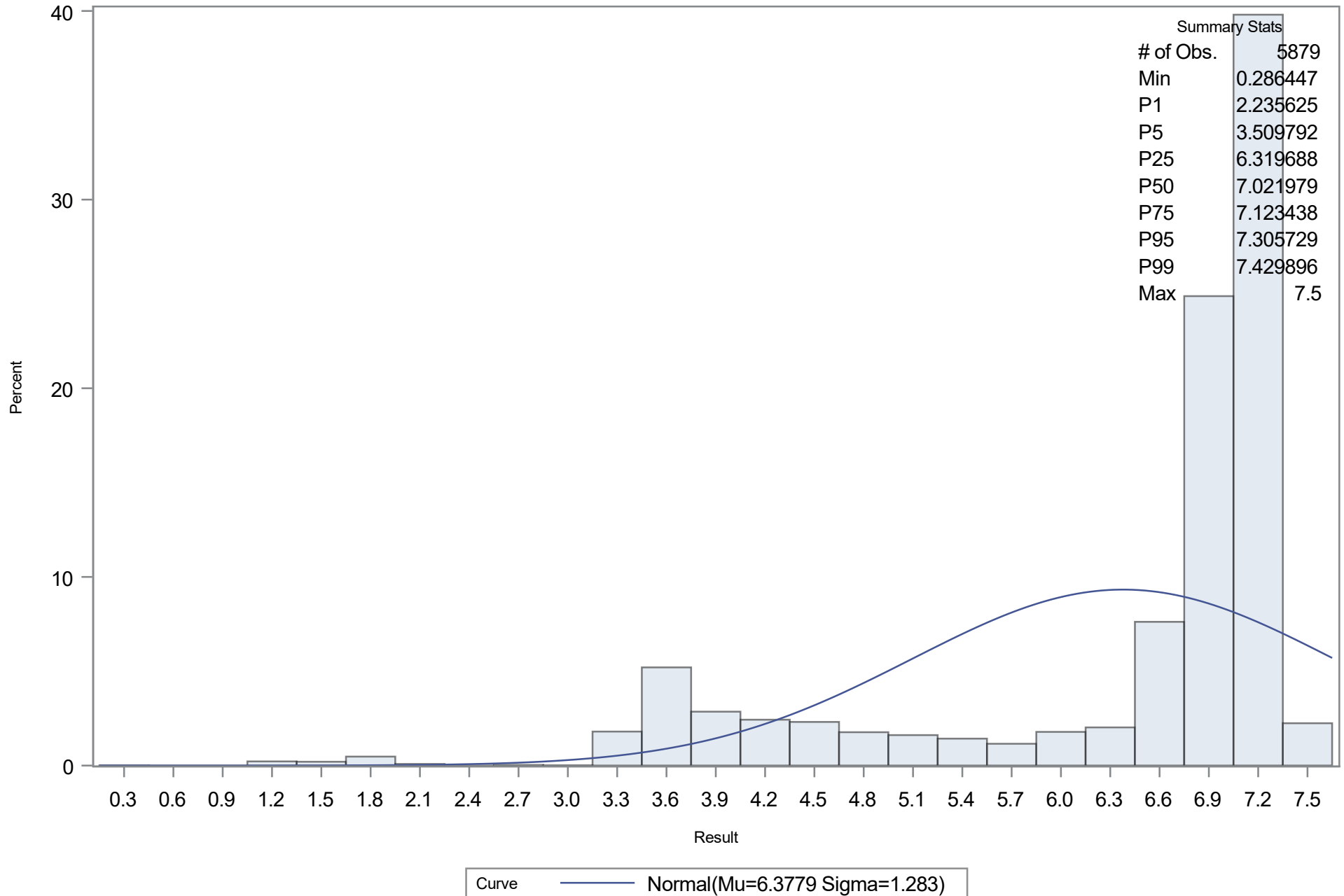
Period	2002-2007	2008-2011	2012-2017	2018-2023
Symbol	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Gage Height at Station USGS 02306000 SS Pool

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Gage Height at Station USGS 02306000 SS Pool**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	6.377895
Std Dev	Sigma	1.283024

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.301445	Pr > D	<0.010
Cramer-von Mises	W-Sq	157.370658	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	804.006676	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	2.23562	3.39314
5.0	3.50979	4.26751
10.0	3.93906	4.73363
25.0	6.31969	5.51251
50.0	7.02198	6.37790
75.0	7.12344	7.24328
90.0	7.23000	8.02216
95.0	7.30573	8.48828
99.0	7.42990	9.36265

Period of Record January 1 1996 through December 31 2023

DRAFT

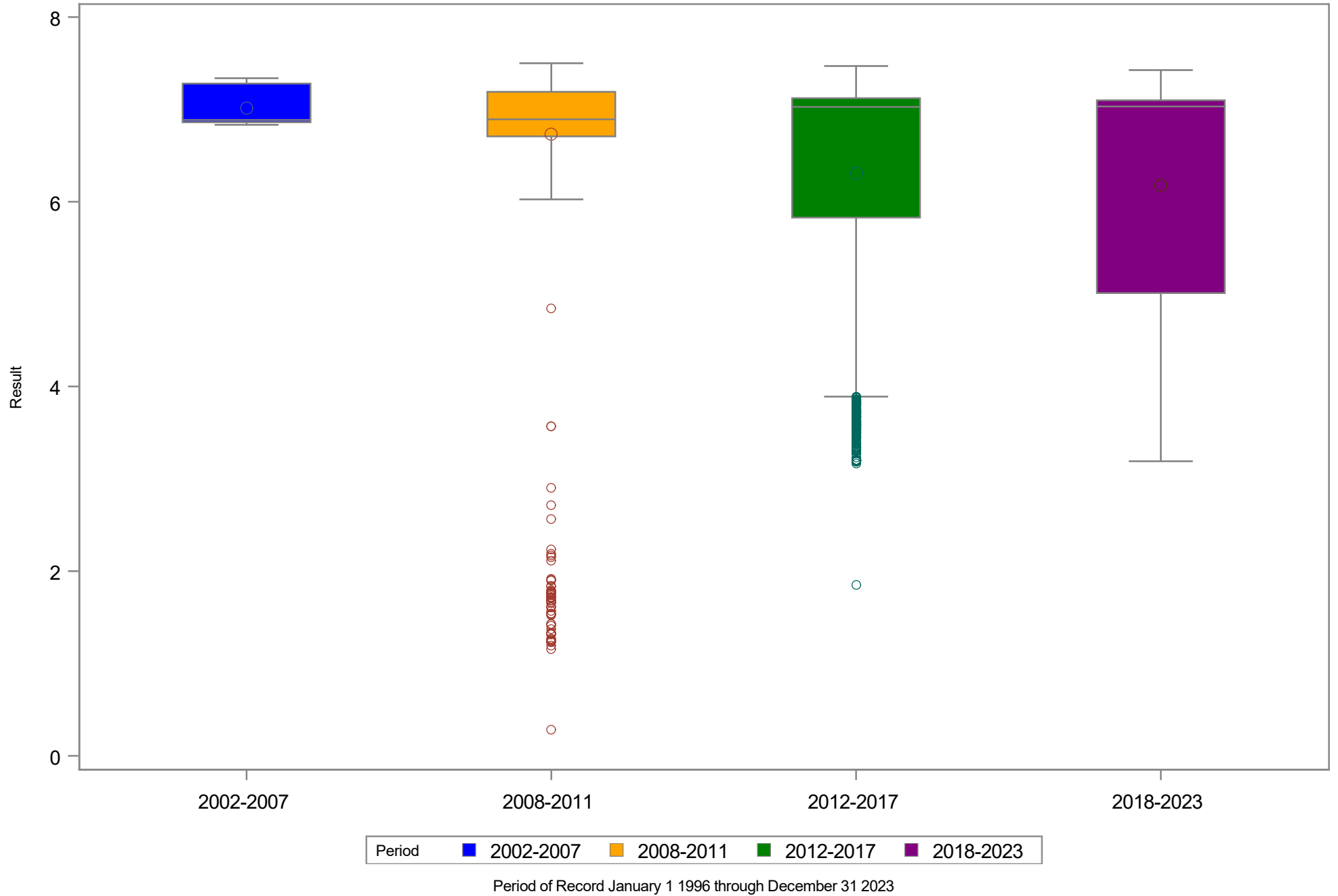
Distributional Statistics by Period for Gage Height at Station USGS 02306000 SS Pool

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	6.83	6.86	7.01	6.89	7.28	7.34
2008-2011	1451	0.29	6.71	6.73	6.89	7.19	7.50
2012-2017	2145	1.85	5.83	6.31	7.03	7.12	7.47
2018-2023	2191	3.19	5.01	6.18	7.03	7.10	7.43

Period of Record January 1 1996 through December 31 2023

DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 02306000 SS Pool



DRAFT

Timeseries of Gage Height at Station USGS 023060003 SS Run



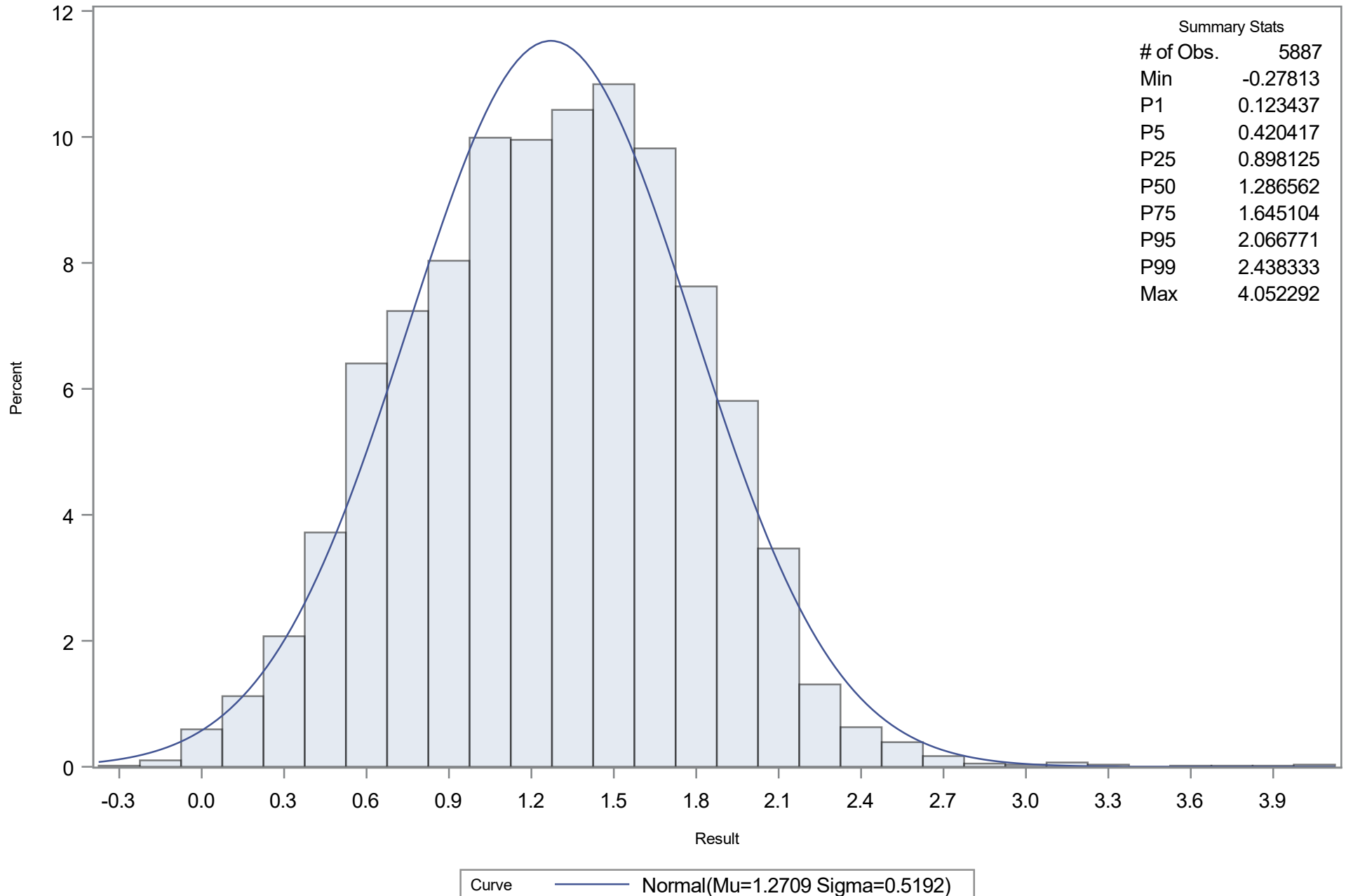
Period	2002-2007	2008-2011	2012-2017	2018-2023
	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Gage Height at Station USGS 023060003 SS Run

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Gage Height at Station USGS 023060003 SS Run**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.270872
Std Dev	Sigma	0.519153

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.02269629	Pr > D	<0.010
Cramer-von Mises	W-Sq	0.87935142	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	5.84454703	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.12344	0.06314
5.0	0.42042	0.41694
10.0	0.58510	0.60555
25.0	0.89813	0.92071
50.0	1.28656	1.27087
75.0	1.64510	1.62104
90.0	1.92208	1.93619
95.0	2.06677	2.12480
99.0	2.43833	2.47860

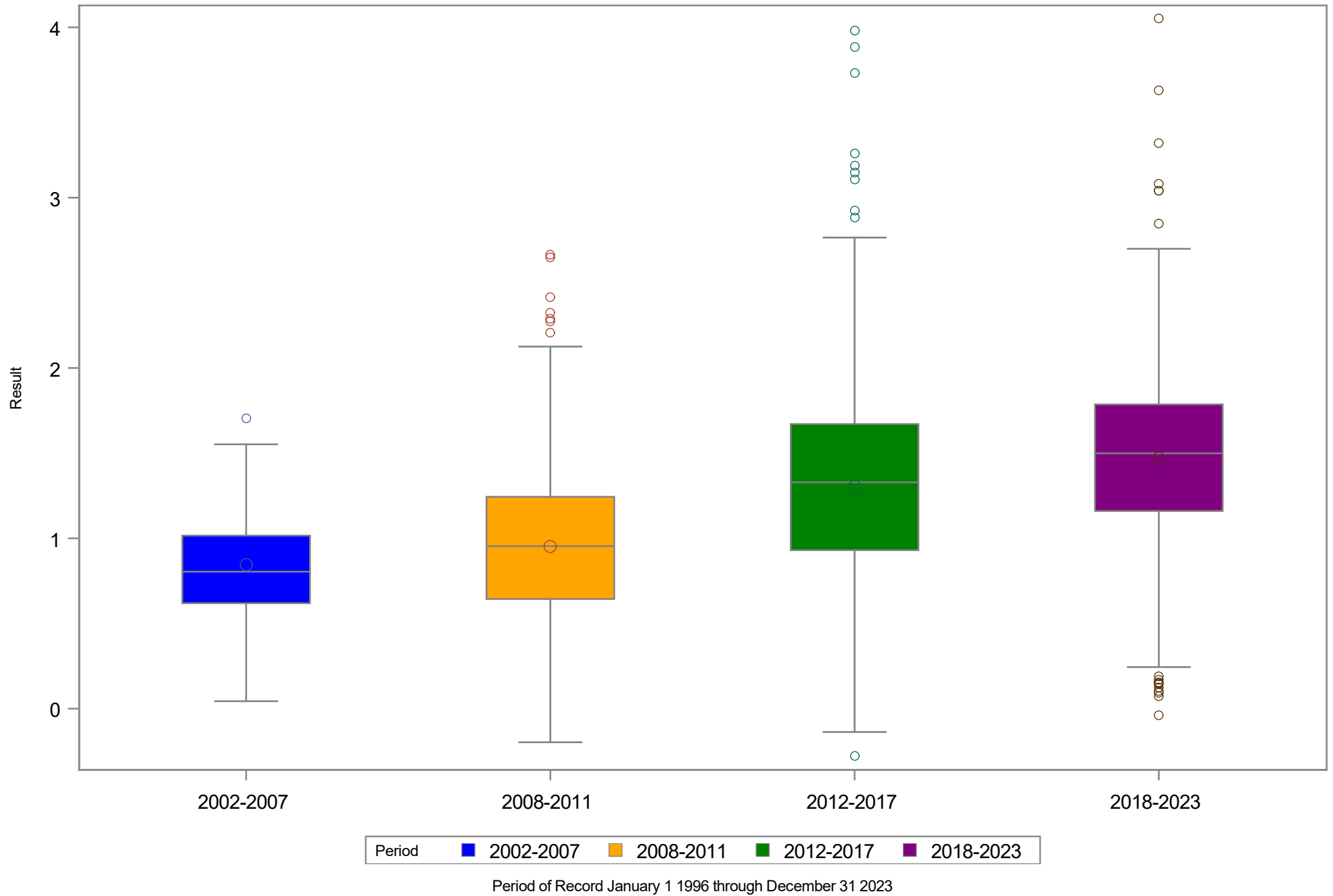
Period of Record January 1 1996 through December 31 2023

Distributional Statistics by Period for Gage Height at Station USGS 023060003 SS Run

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	0.04	0.62	0.85	0.80	1.02	1.70
2008-2011	1454	-0.20	0.64	0.95	0.95	1.24	2.66
2012-2017	2150	-0.28	0.93	1.30	1.33	1.67	3.98
2018-2023	2191	-0.04	1.16	1.47	1.50	1.79	4.05

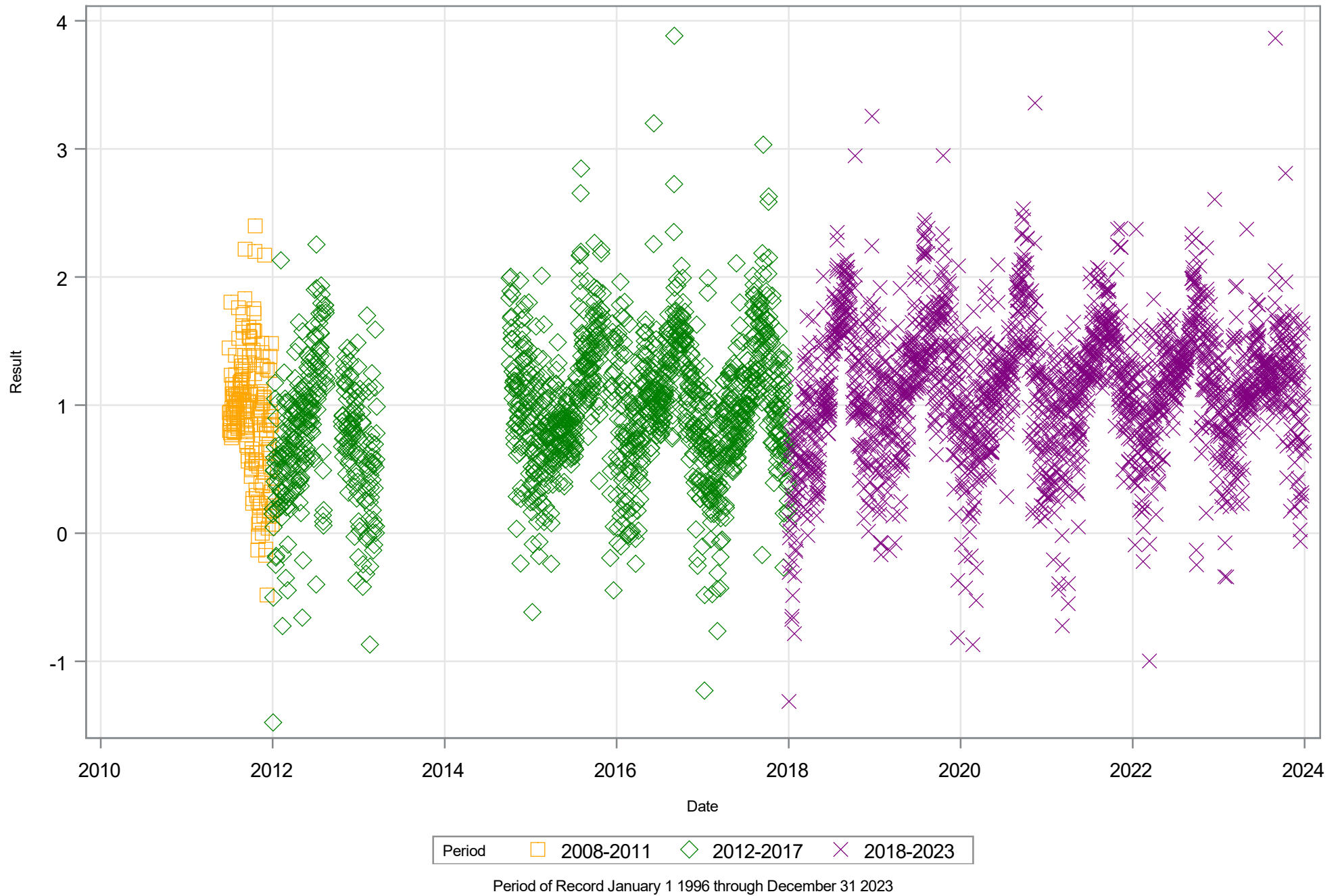
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 023060003 SS Run



DRAFT

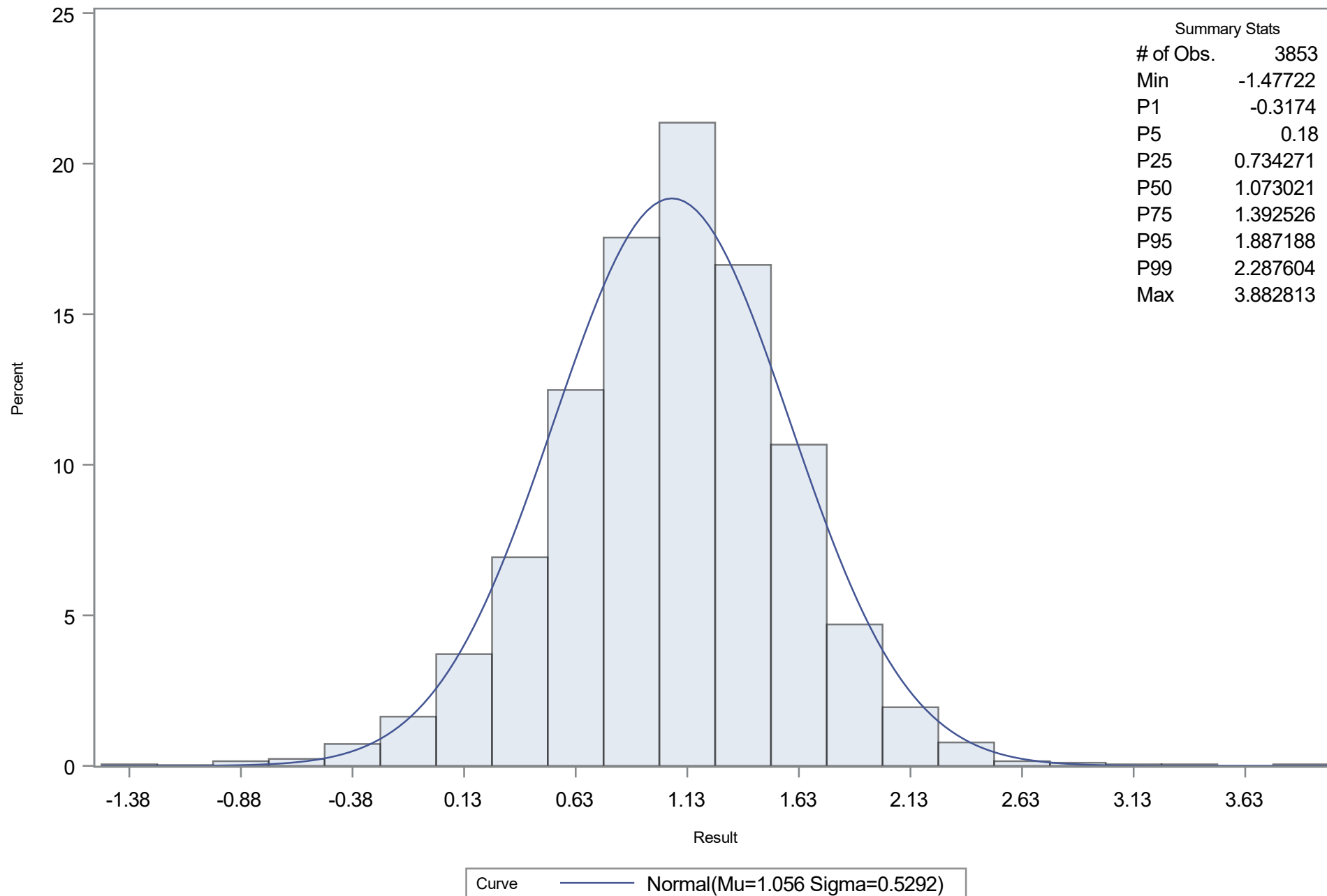
Timeseries of Gage Height at Station USGS 023060013 I-275



DRAFT

Univariate Histogram of Gage Height at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.055986
Std Dev	Sigma	0.529244

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.02653514	Pr > D	<0.010
Cramer-von Mises	W-Sq	0.88664179	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	5.45136443	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	-0.31740	-0.17522
5.0	0.18000	0.18546
10.0	0.39240	0.37773
25.0	0.73427	0.69902
50.0	1.07302	1.05599
75.0	1.39253	1.41296
90.0	1.68094	1.73424
95.0	1.88719	1.92652
99.0	2.28760	2.28719

DRAFT

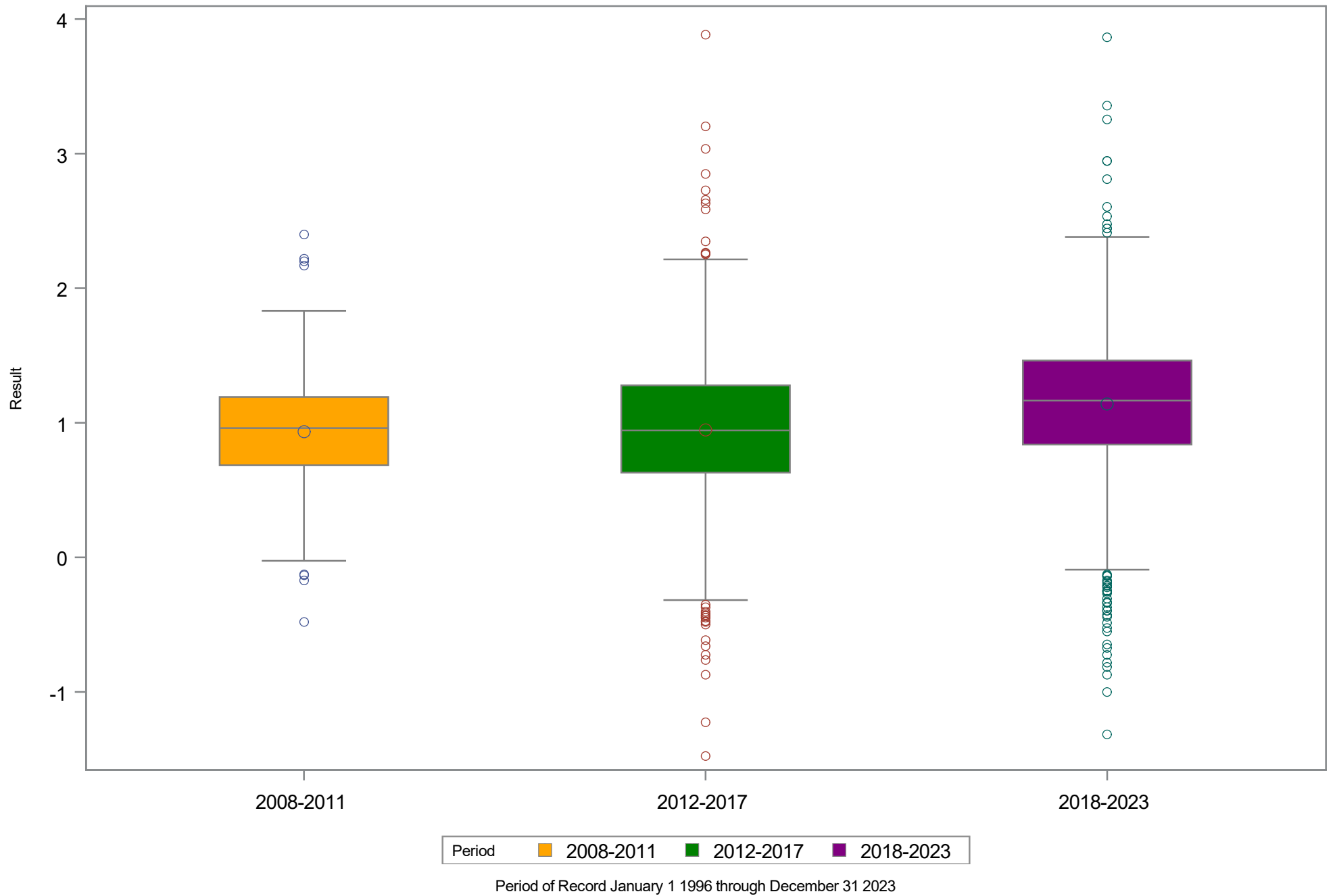
Distributional Statistics by Period for Gage Height at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	179	-0.48	0.68	0.94	0.96	1.19	2.40
2012-2017	1494	-1.48	0.63	0.95	0.94	1.28	3.88
2018-2023	2180	-1.31	0.84	1.14	1.16	1.46	3.86

Period of Record January 1 1996 through December 31 2023

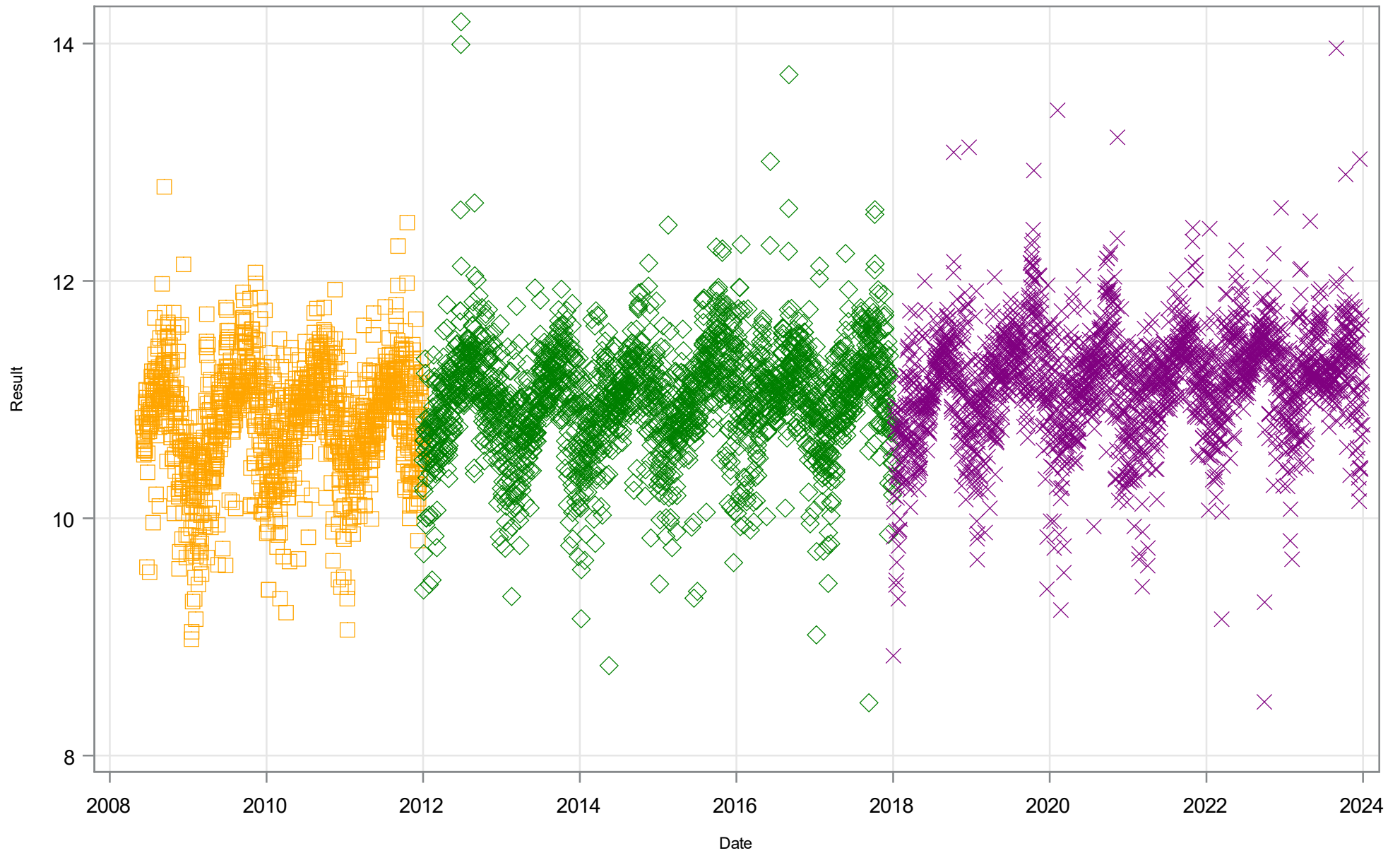
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 023060013 I-275



DRAFT

Timeseries of Gage Height at Station USGS 02306028 Platt



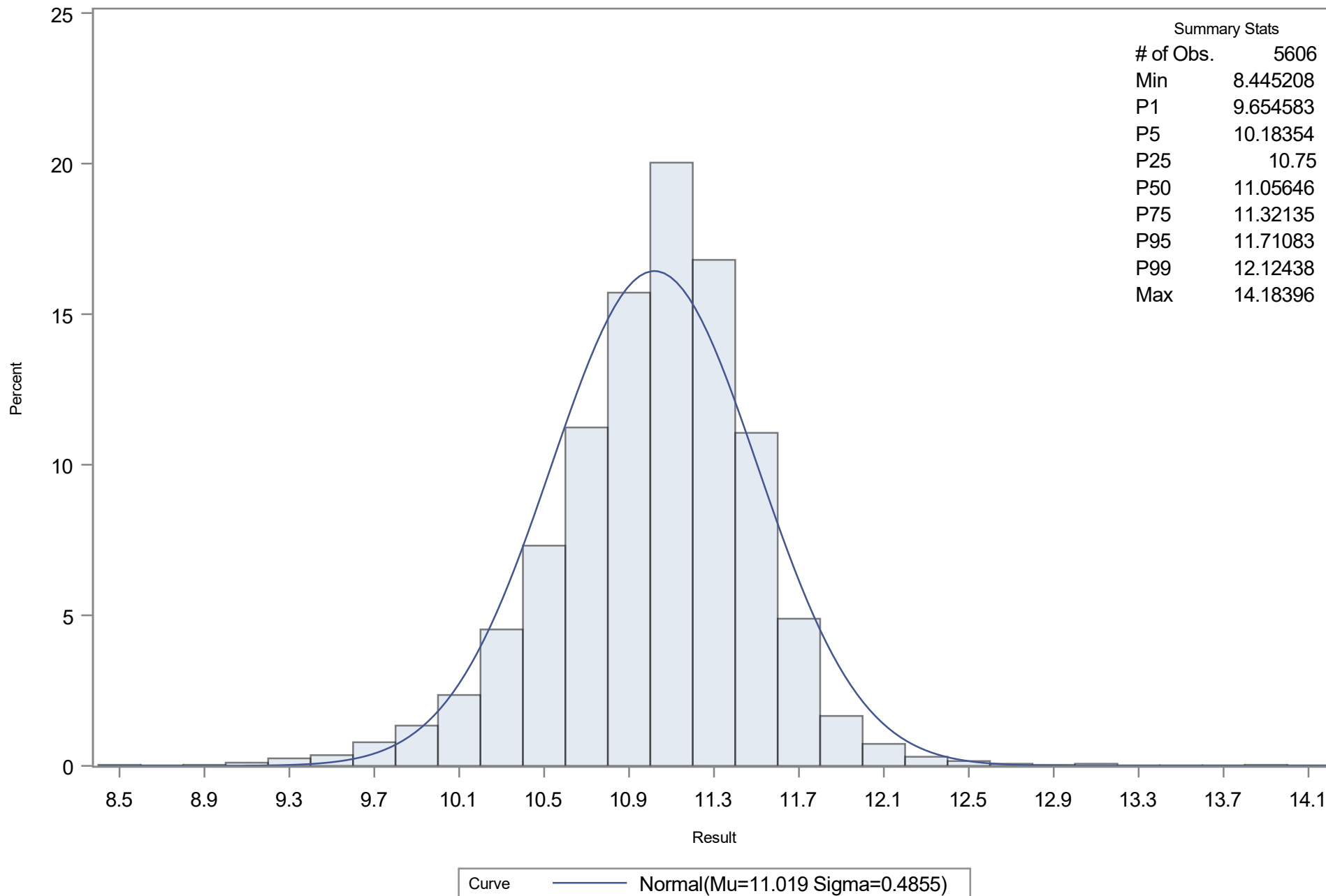
Period □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Gage Height at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Gage Height at Station USGS 02306028 Platt**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	11.01929
Std Dev	Sigma	0.485548

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0518813	Pr > D	<0.010
Cramer-von Mises	W-Sq	4.8664311	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	29.4572950	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	9.65458	9.88974
5.0	10.18354	10.22064
10.0	10.40677	10.39704
25.0	10.75000	10.69180
50.0	11.05646	11.01929
75.0	11.32135	11.34679
90.0	11.55719	11.64155
95.0	11.71083	11.81795
99.0	12.12438	12.14885

Period of Record January 1 1996 through December 31 2023

DRAFT

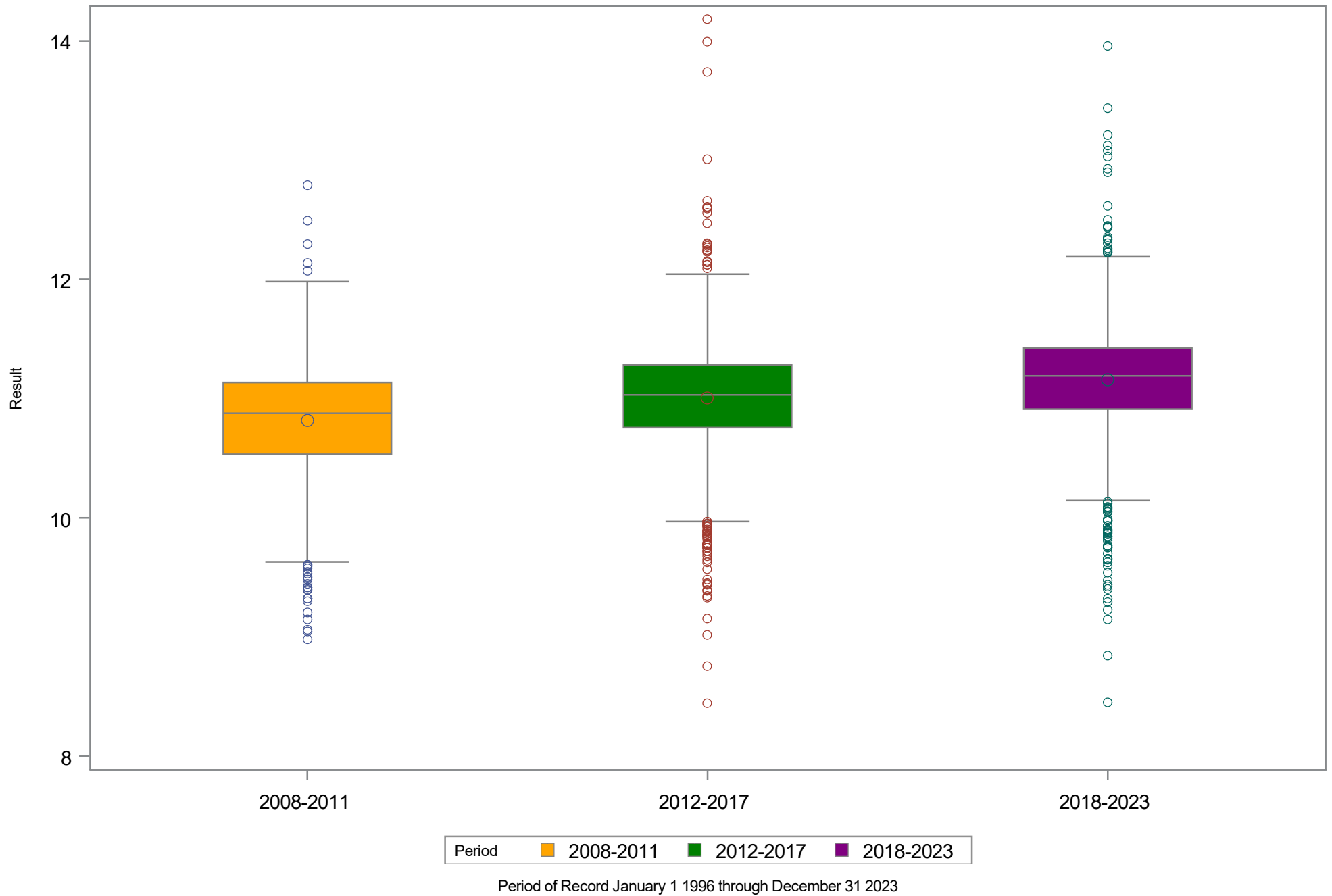
Distributional Statistics by Period for Gage Height at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1282	8.98	10.53	10.82	10.88	11.13	12.79
2012-2017	2138	8.45	10.76	11.00	11.03	11.28	14.18
2018-2023	2186	8.45	10.91	11.15	11.19	11.43	13.96

Period of Record January 1 1996 through December 31 2023

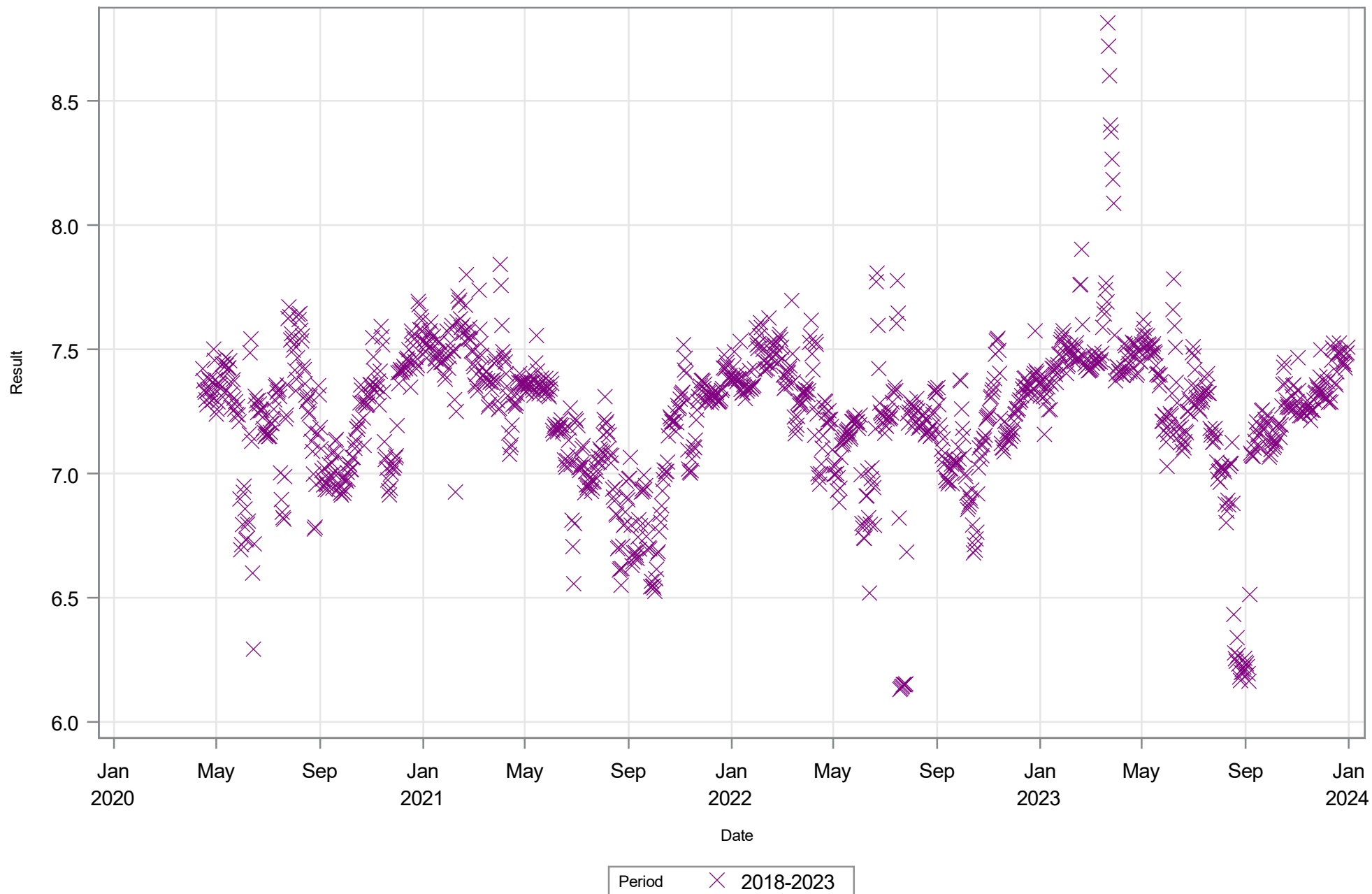
DRAFT

Boxplot by MFL Period for Gage Height at Station USGS 02306028 Platt



DRAFT

Timeseries of Surface pH (SU) at Station WMD 19206

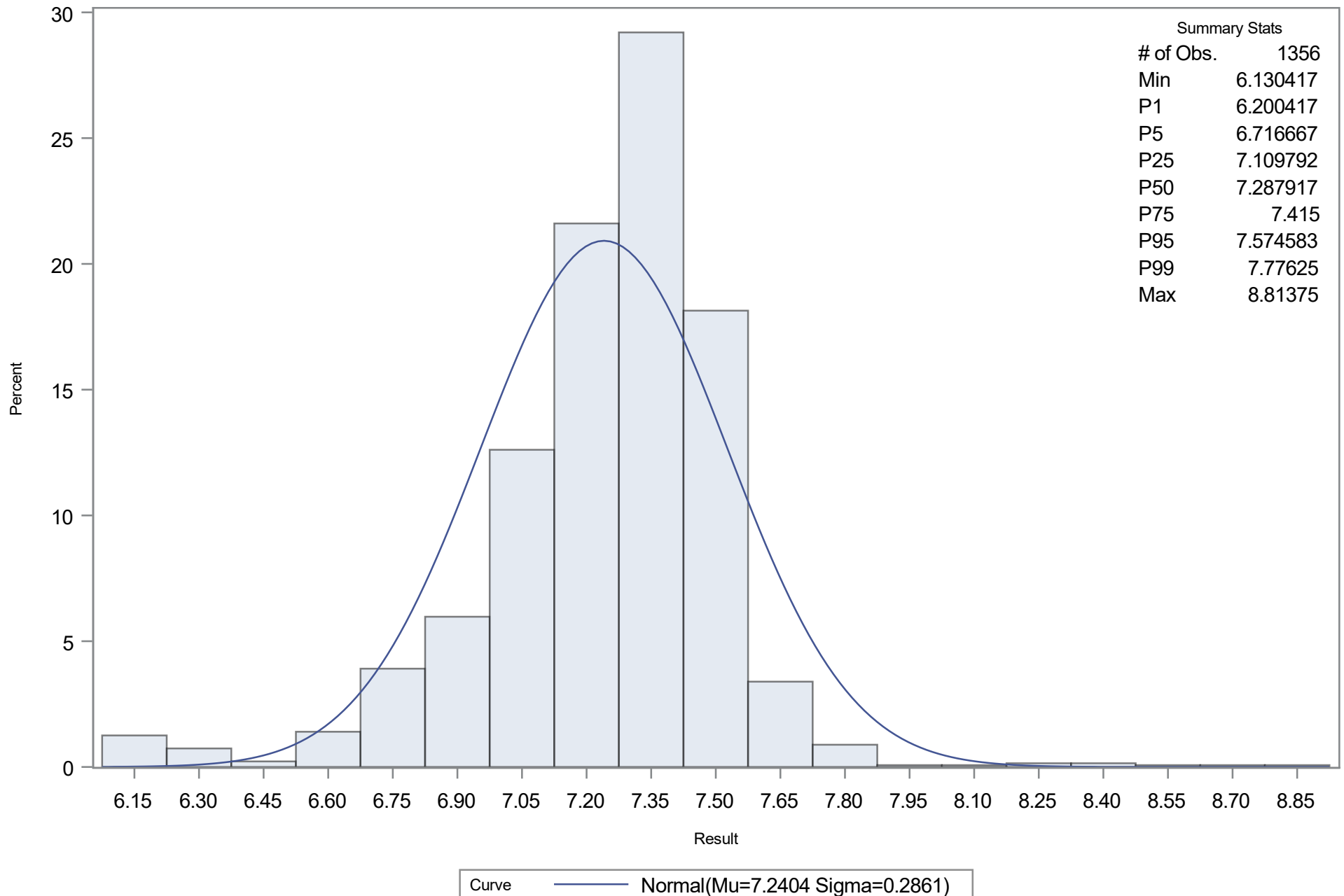


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface pH (SU) at Station WMD 19206

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface pH (SU) at Station WMD 19206**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	7.240351
Std Dev	Sigma	0.286055

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0910316	Pr > D	<0.010
Cramer-von Mises	W-Sq	3.9634016	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	24.9595949	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	6.20042	6.57489
5.0	6.71667	6.76983
10.0	6.92458	6.87376
25.0	7.10979	7.04741
50.0	7.28792	7.24035
75.0	7.41500	7.43329
90.0	7.51958	7.60695
95.0	7.57458	7.71087
99.0	7.77625	7.90581

DRAFT

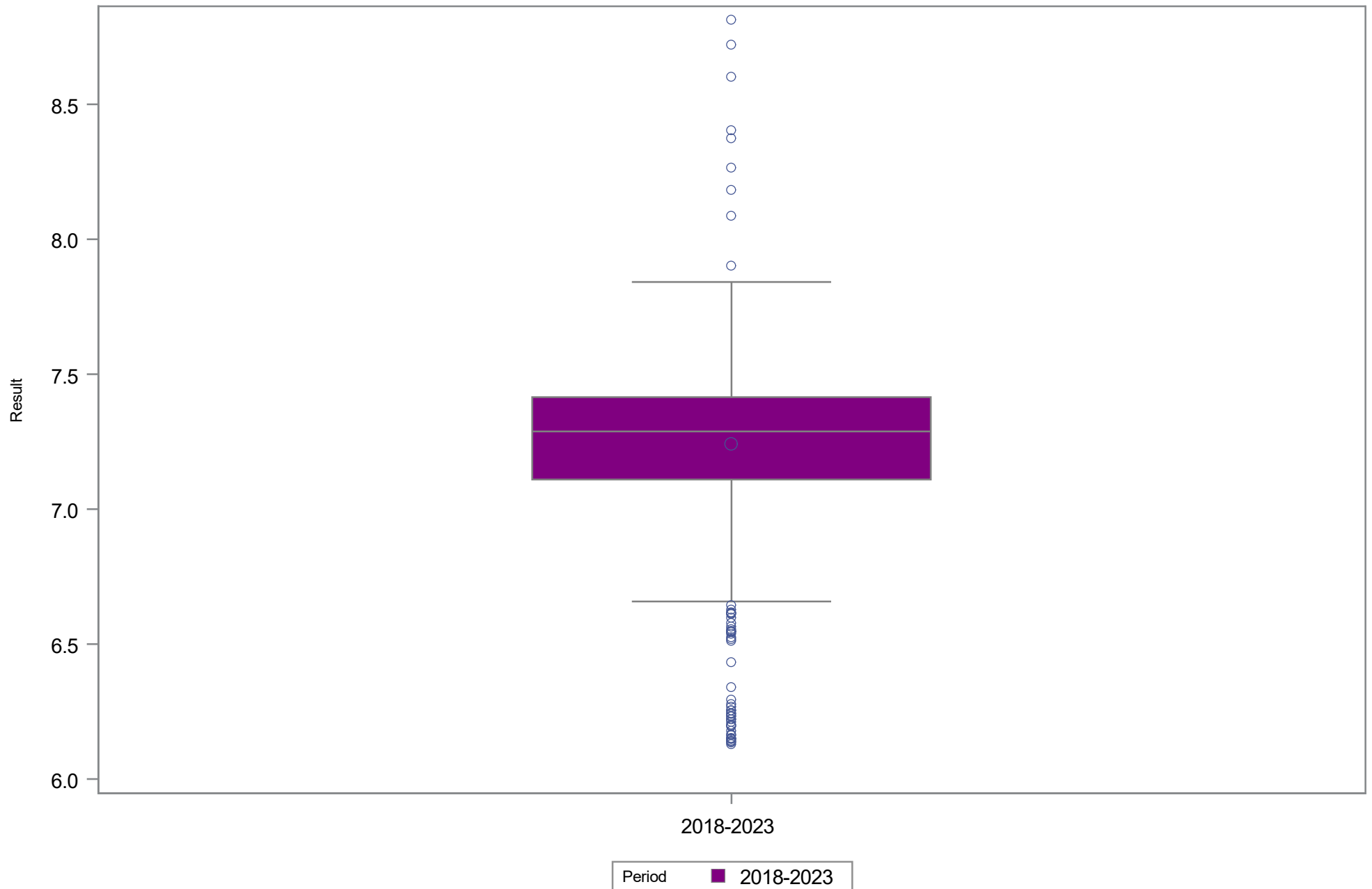
Distributional Statistics by Period for Surface pH (SU) at Station WMD 19206

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1356	6.13	7.11	7.24	7.29	7.42	8.81

Period of Record January 1 1996 through December 31 2023

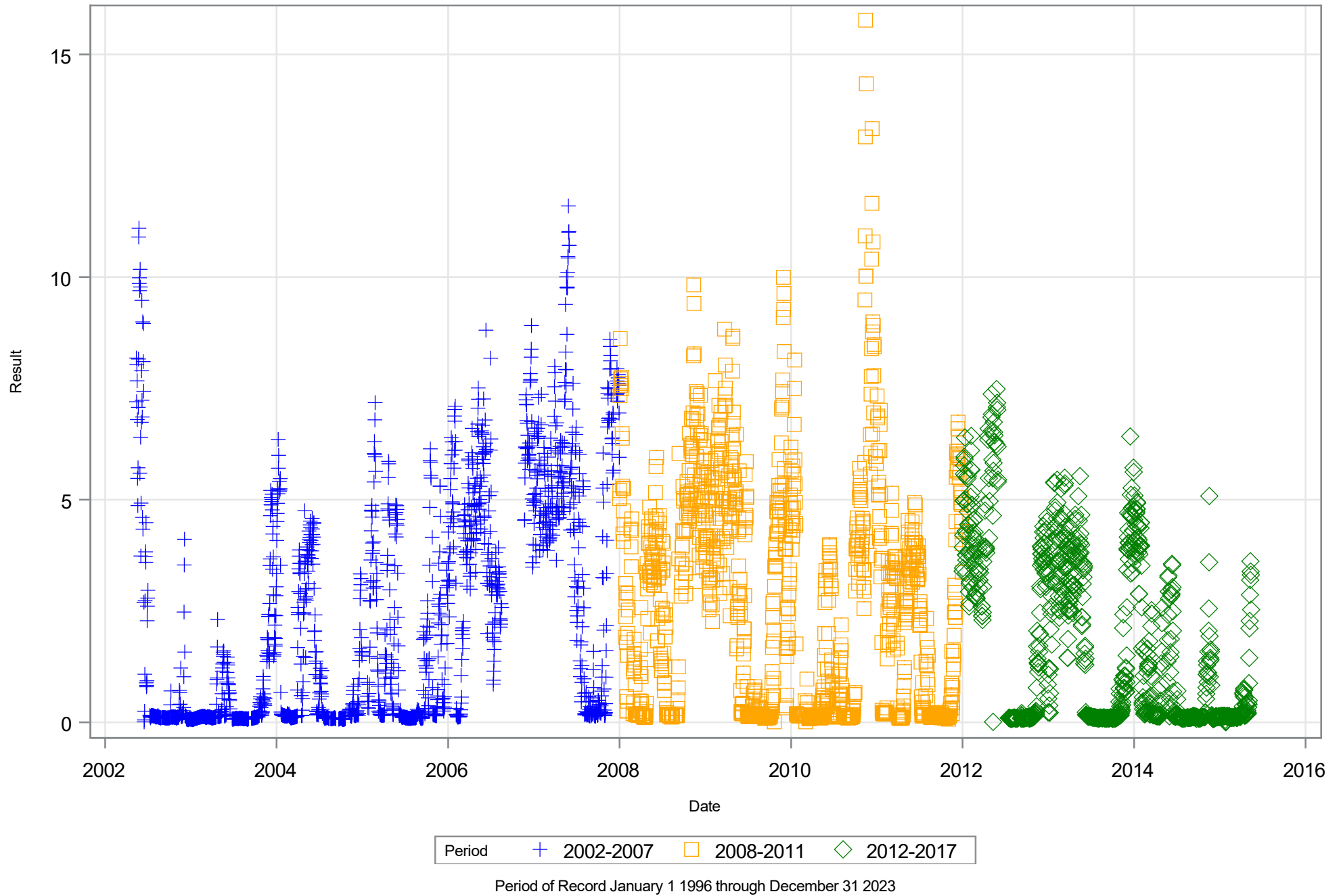
DRAFT

Boxplot by MFL Period for Surface pH (SU) at Station WMD 19206



DRAFT

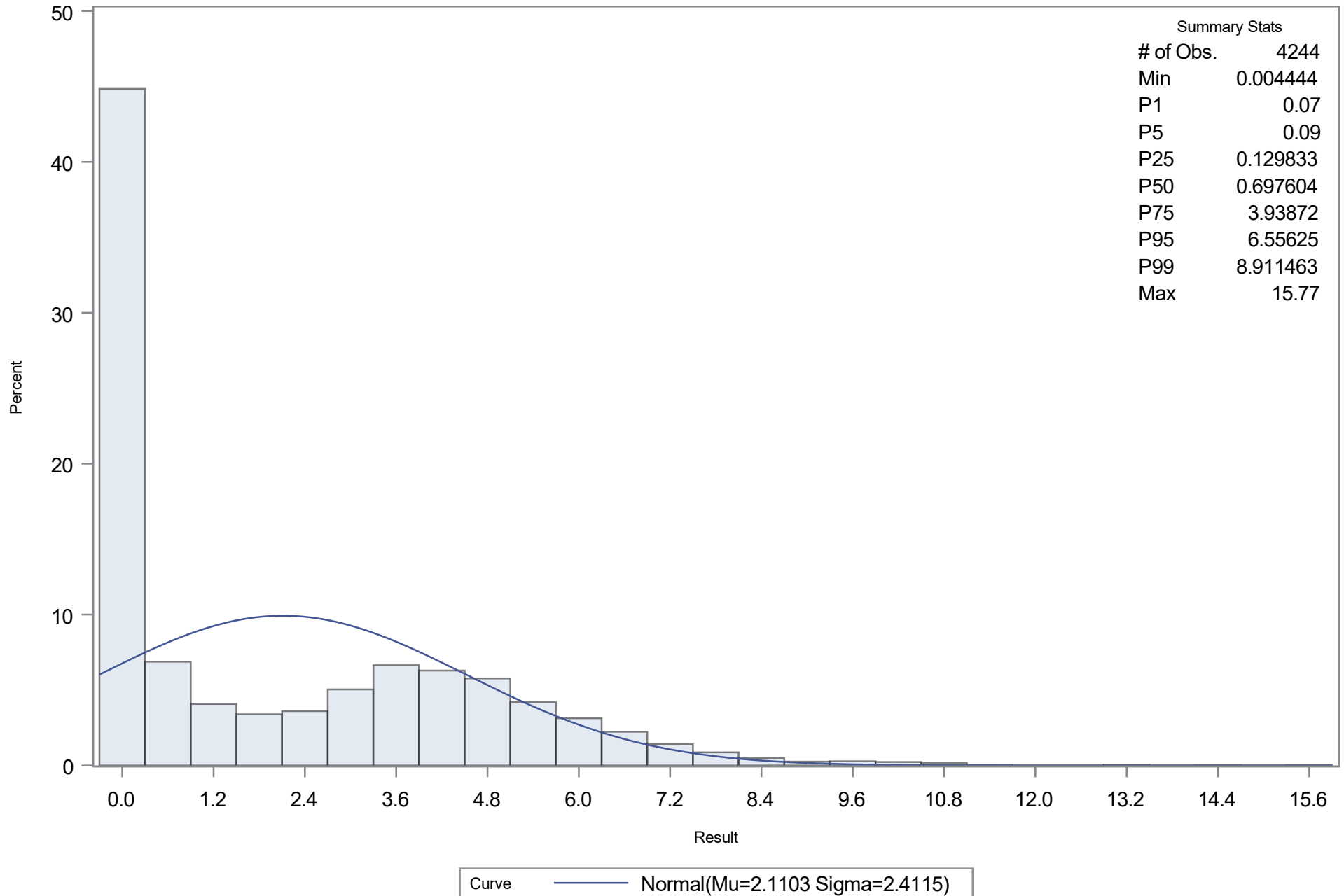
Timeseries of Surface Salinity (PSU) at Station EPC 2 Rkm 13.7



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Salinity (PSU) at Station EPC 2 Rkm 13.7**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	2.110289
Std Dev	Sigma	2.411512

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.227537	Pr > D	<0.010
Cramer-von Mises	W-Sq	54.223990	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	307.245098	Pr > A-Sq	<0.005

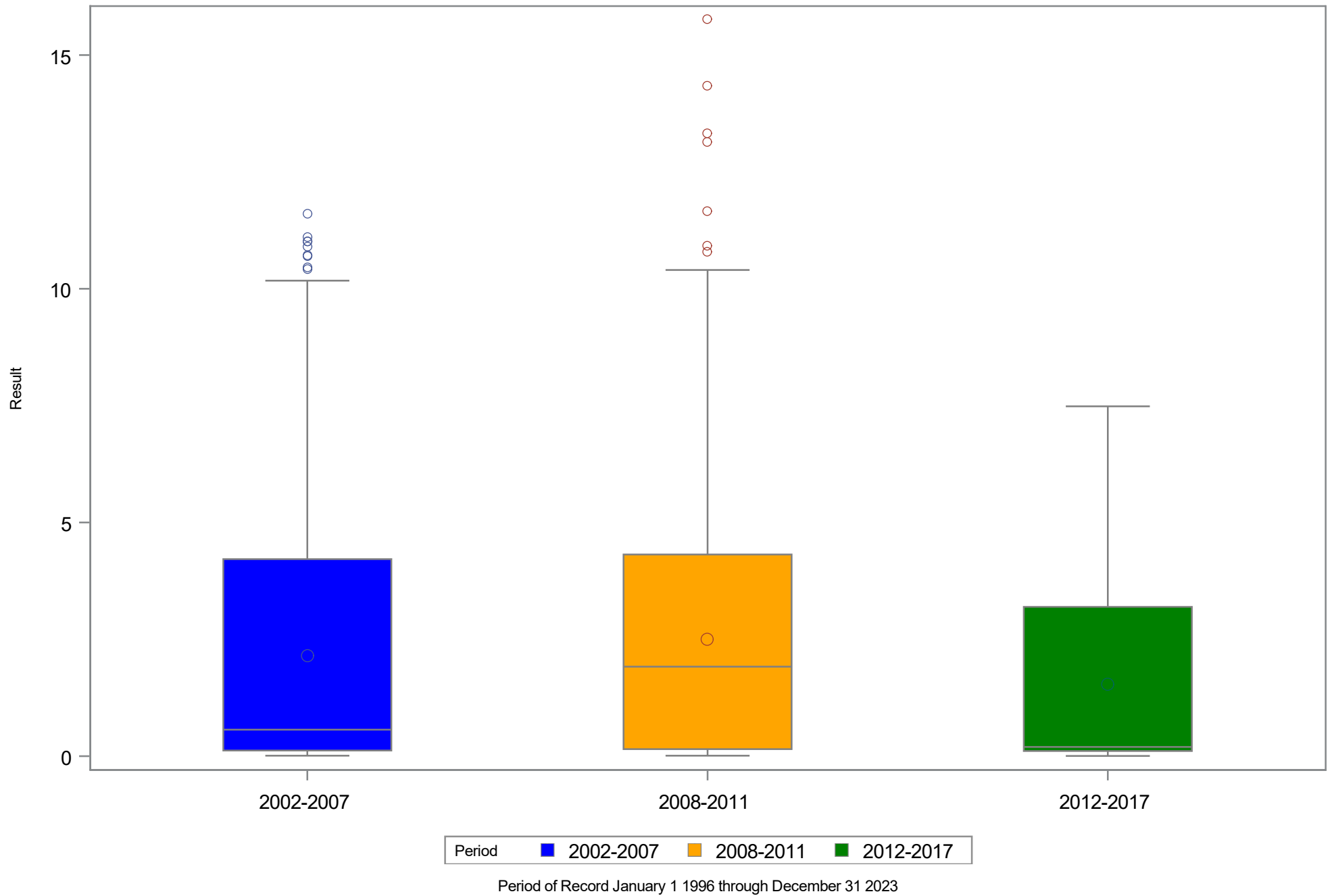
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.07000	-3.49973
5.0	0.09000	-1.85629
10.0	0.10000	-0.98019
25.0	0.12983	0.48375
50.0	0.69760	2.11029
75.0	3.93872	3.73683
90.0	5.57973	5.20077
95.0	6.55625	6.07687
99.0	8.91146	7.72030

Distributional Statistics by Period for Surface Salinity (PSU) at Station EPC 2 Rkm 13.7

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1829	0.01	0.12	2.16	0.57	4.22	11.60
2008-2011	1339	0.01	0.15	2.50	1.91	4.31	15.77
2012-2017	1076	0.00	0.11	1.54	0.20	3.19	7.48

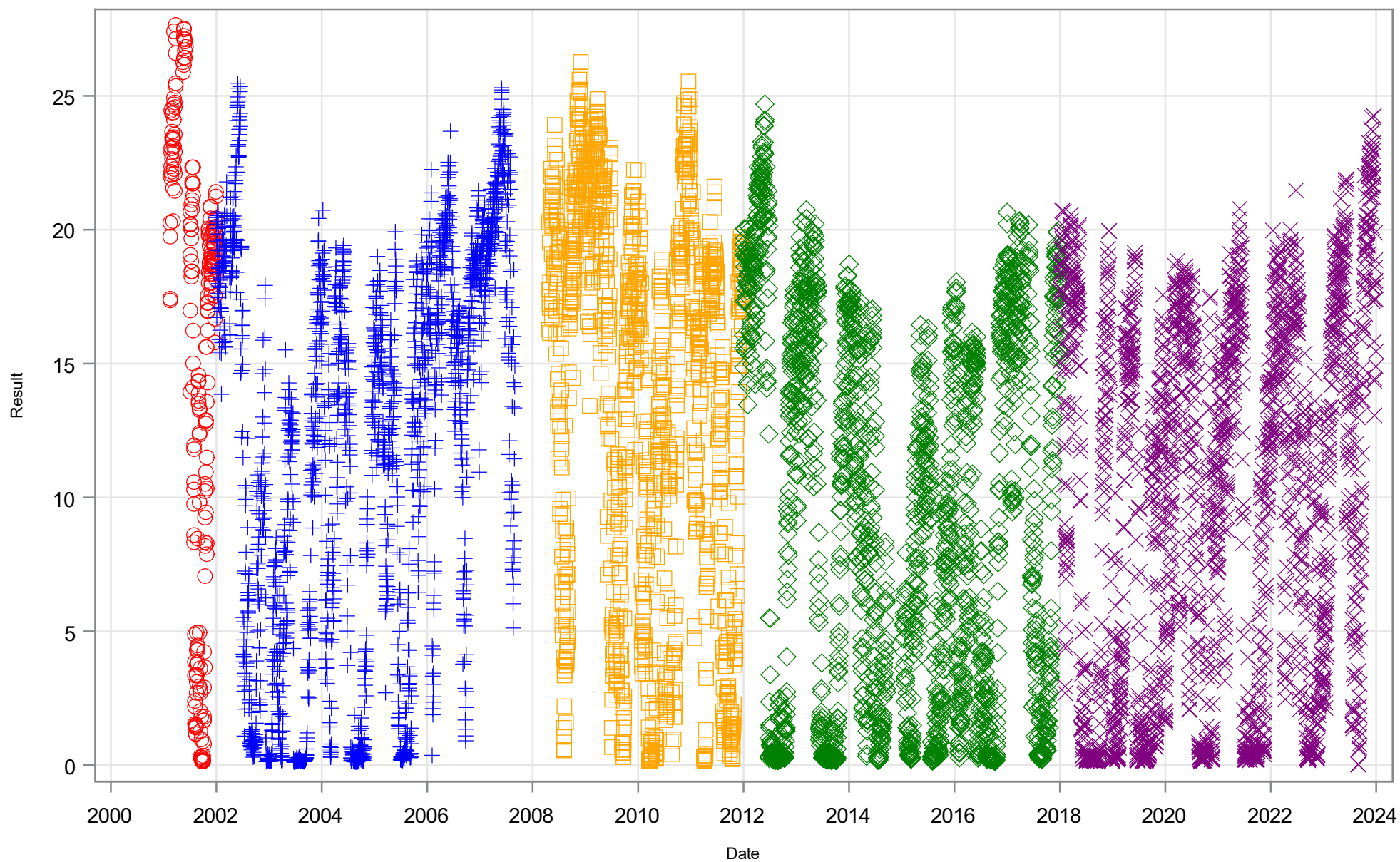
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station EPC 2 Rkm 13.7



DRAFT

Timeseries of Surface Salinity (PSU) at Station TBW Columbus



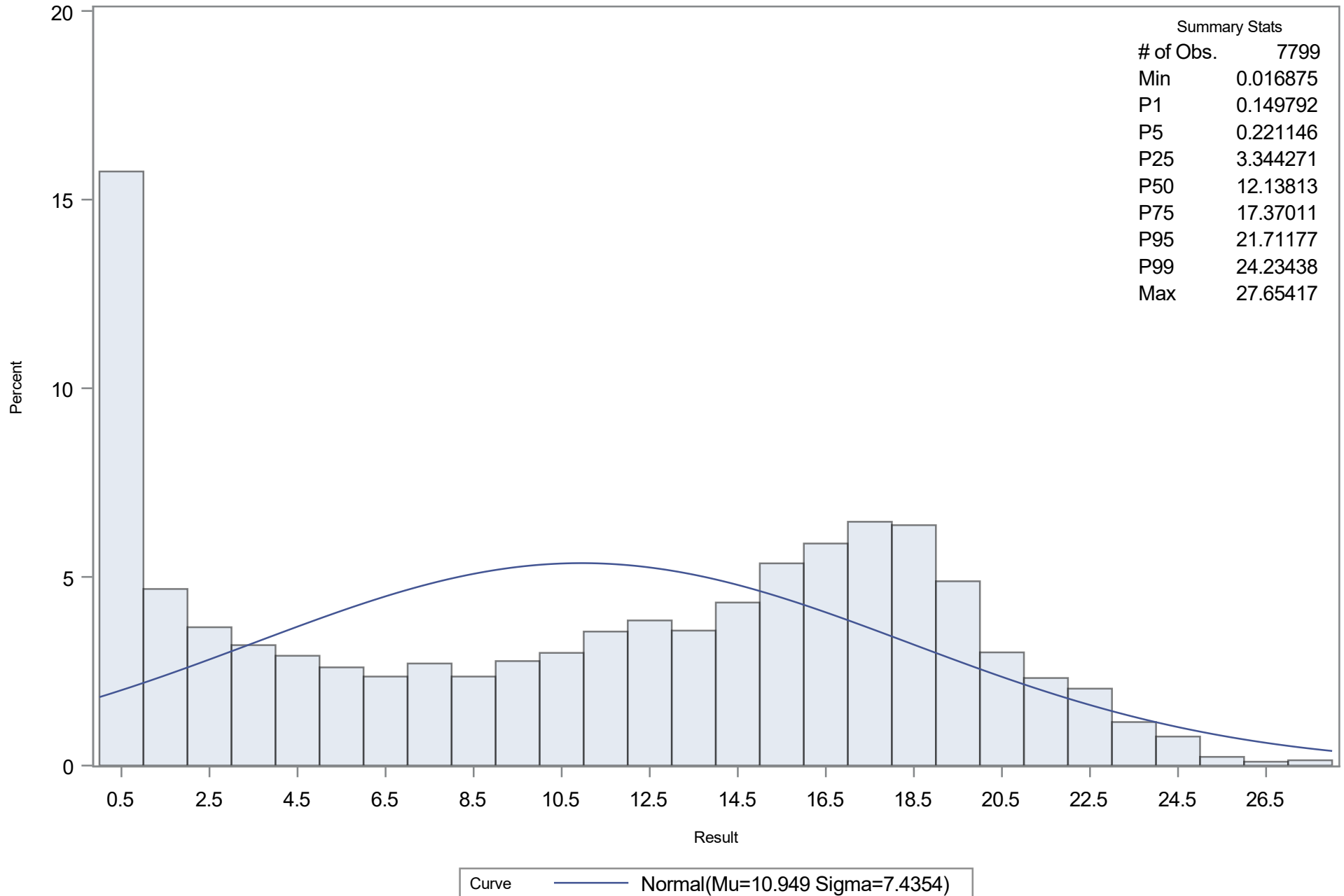
Period	<2002	2002-2007	2008-2011	2012-2017	2018-2023
Symbol	○	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station TBW Columbus

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Salinity (PSU) at Station TBW Columbus**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	10.94944
Std Dev	Sigma	7.435369

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.098894	Pr > D	<0.010
Cramer-von Mises	W-Sq	29.756967	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	198.538068	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.14979	-6.34781
5.0	0.22115	-1.28065
10.0	0.36635	1.42063
25.0	3.34427	5.93436
50.0	12.13813	10.94944
75.0	17.37011	15.96452
90.0	19.93813	20.47825
95.0	21.71177	23.17953
99.0	24.23438	28.24669

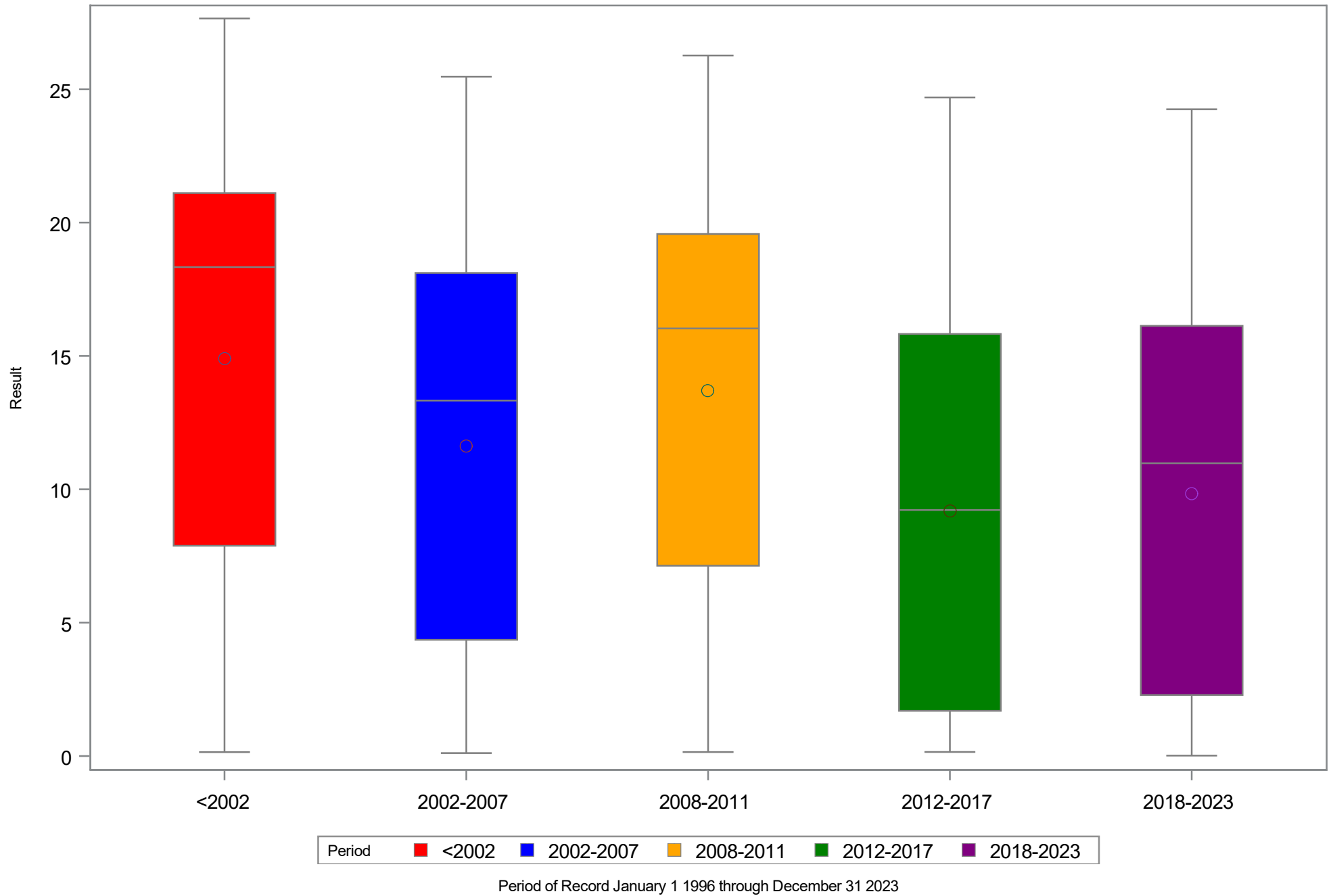
Period of Record January 1 1996 through December 31 2023

Distributional Statistics by Period for Surface Salinity (PSU) at Station TBW Columbus

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	239	0.15	7.88	14.90	18.33	21.10	27.65
2002-2007	2026	0.11	4.36	11.64	13.33	18.11	25.47
2008-2011	1328	0.15	7.14	13.70	16.03	19.57	26.26
2012-2017	2025	0.15	1.69	9.20	9.22	15.82	24.69
2018-2023	2181	0.02	2.29	9.83	10.98	16.13	24.25

DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station TBW Columbus



DRAFT

Timeseries of Surface Salinity (PSU) at Station TBW Crosstown

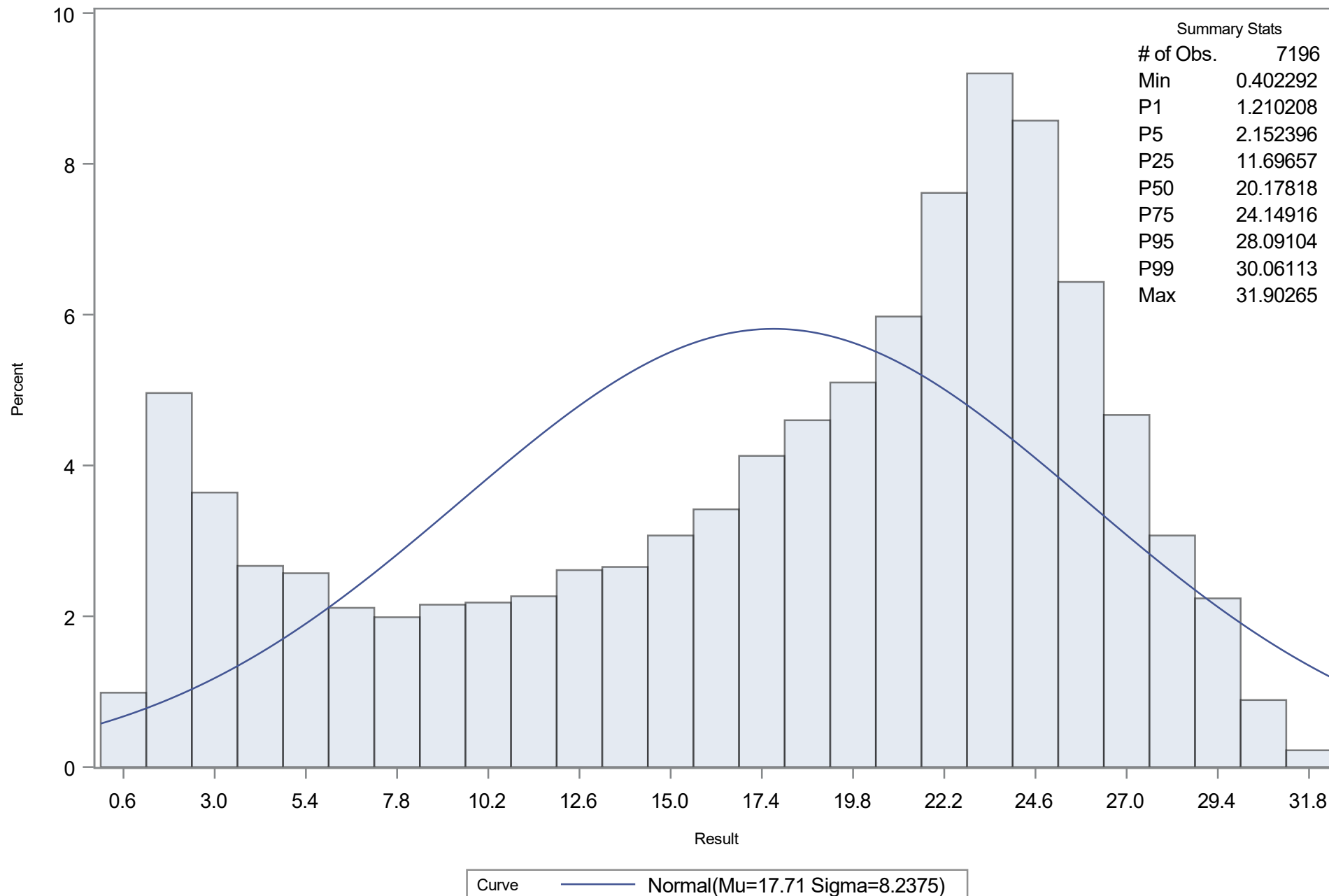


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station TBW Crosstown

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Salinity (PSU) at Station TBW Crosstown**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	17.71008
Std Dev	Sigma	8.237465

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.118981	Pr > D	<0.010
Cramer-von Mises	W-Sq	33.704762	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	204.435906	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.21021	-1.45313
5.0	2.15240	4.16066
10.0	3.79663	7.15334
25.0	11.69657	12.15400
50.0	20.17818	17.71008
75.0	24.14916	23.26617
90.0	26.63563	28.26682
95.0	28.09104	31.25950
99.0	30.06113	36.87329

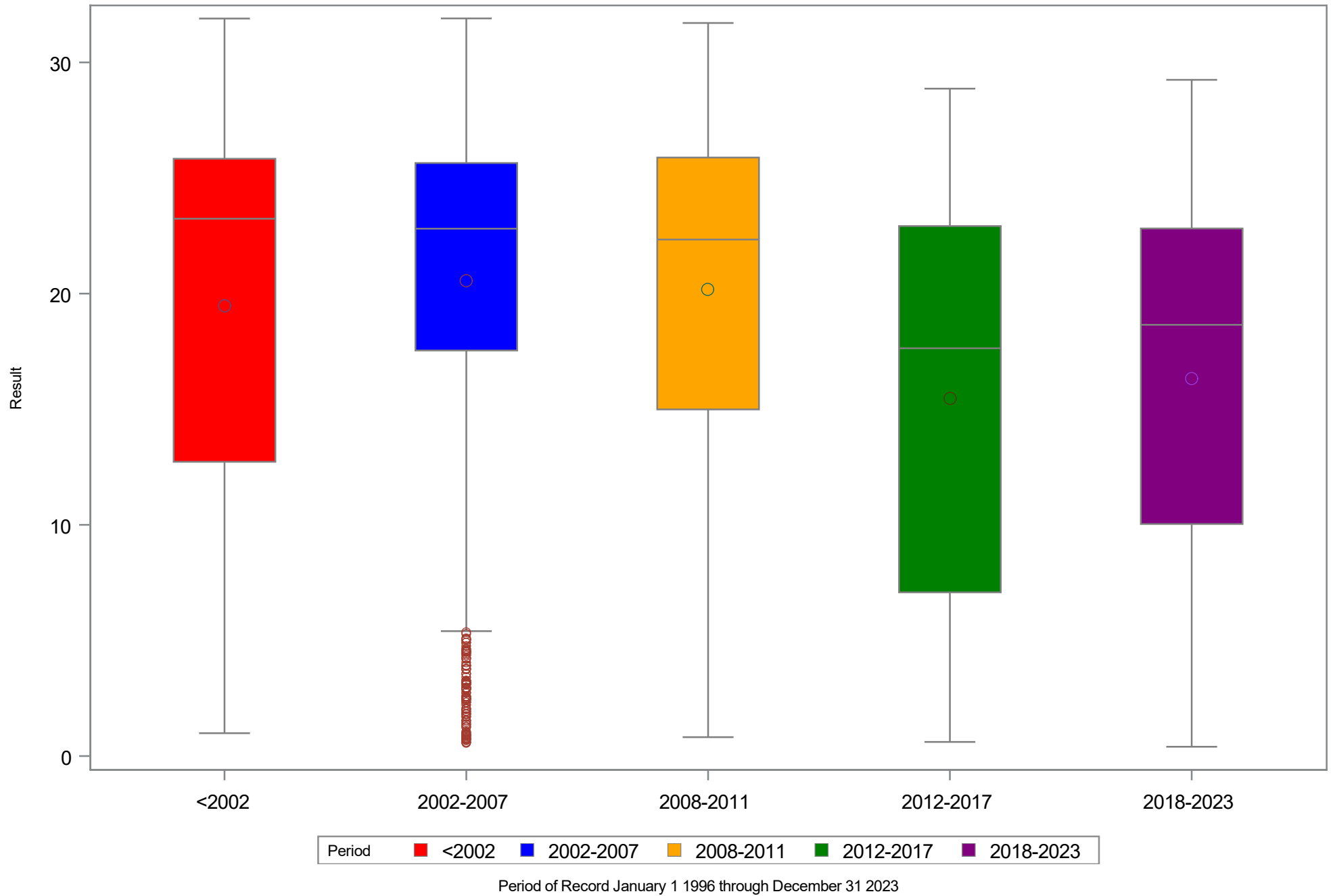
Period of Record January 1 1996 through December 31 2023

Distributional Statistics by Period for Surface Salinity (PSU) at Station TBW Crosstown

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	210	0.99	12.73	19.48	23.24	25.83	31.90
2002-2007	1400	0.58	17.54	20.55	22.81	25.65	31.90
2008-2011	1354	0.82	14.99	20.18	22.34	25.89	31.70
2012-2017	2133	0.61	7.08	15.47	17.64	22.92	28.86
2018-2023	2099	0.40	10.03	16.32	18.65	22.82	29.25

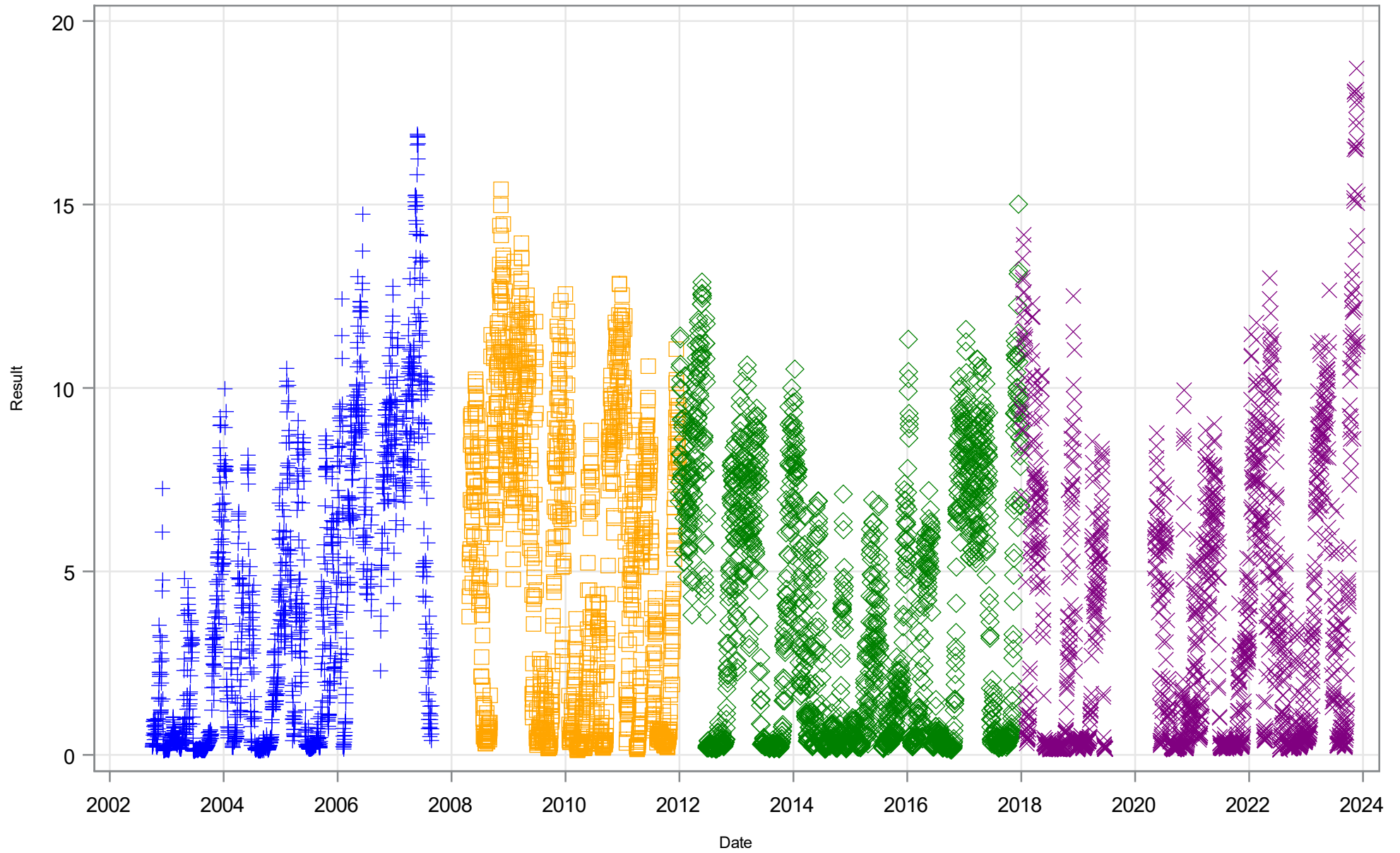
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station TBW Crosstown



DRAFT

Timeseries of Surface Salinity (PSU) at Station TBW Sligh



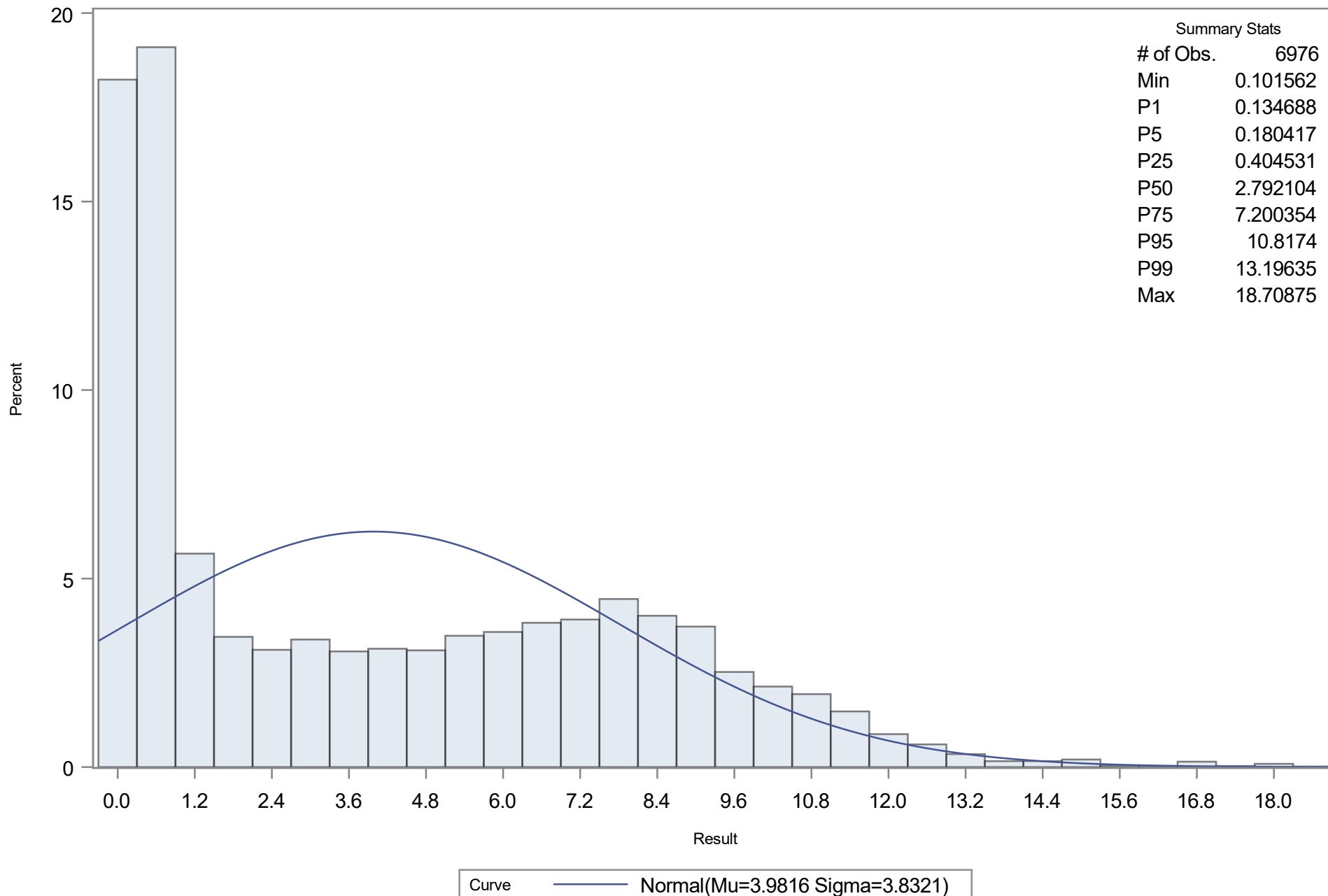
Period + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station TBW Sligh

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Salinity (PSU) at Station TBW Sligh**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.981567
Std Dev	Sigma	3.832119

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.172424	Pr > D	<0.010
Cramer-von Mises	W-Sq	54.577875	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	331.473661	Pr > A-Sq	<0.005

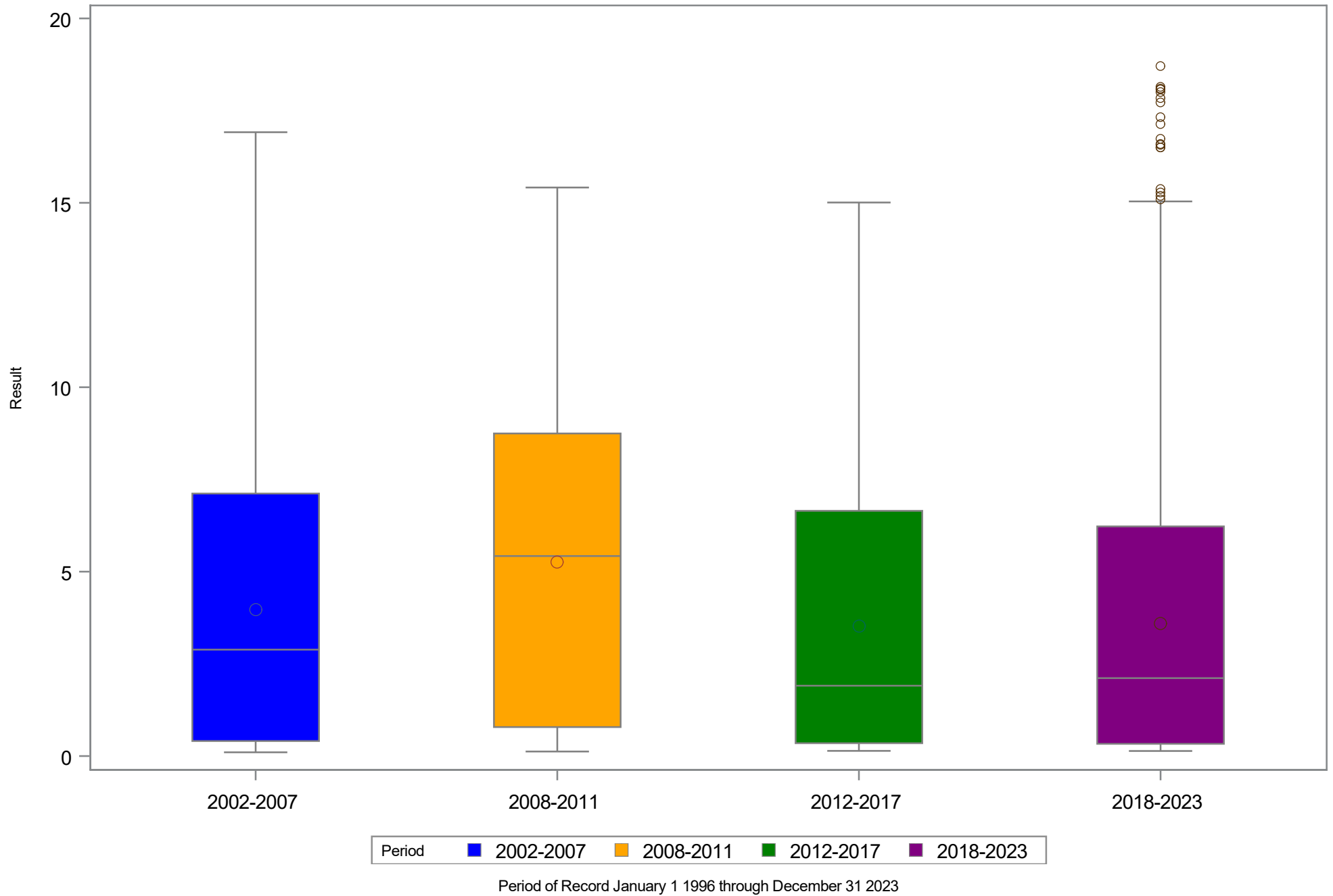
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.13469	-4.93327
5.0	0.18042	-2.32171
10.0	0.21531	-0.92949
25.0	0.40453	1.39684
50.0	2.79210	3.98157
75.0	7.20035	6.56629
90.0	9.46802	8.89263
95.0	10.81740	10.28484
99.0	13.19635	12.89641

Distributional Statistics by Period for Surface Salinity (PSU) at Station TBW Sligh

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1645	0.10	0.41	3.98	2.88	7.12	16.91
2008-2011	1348	0.12	0.79	5.26	5.42	8.75	15.42
2012-2017	2170	0.14	0.35	3.52	1.91	6.65	15.01
2018-2023	1813	0.14	0.33	3.59	2.11	6.23	18.71

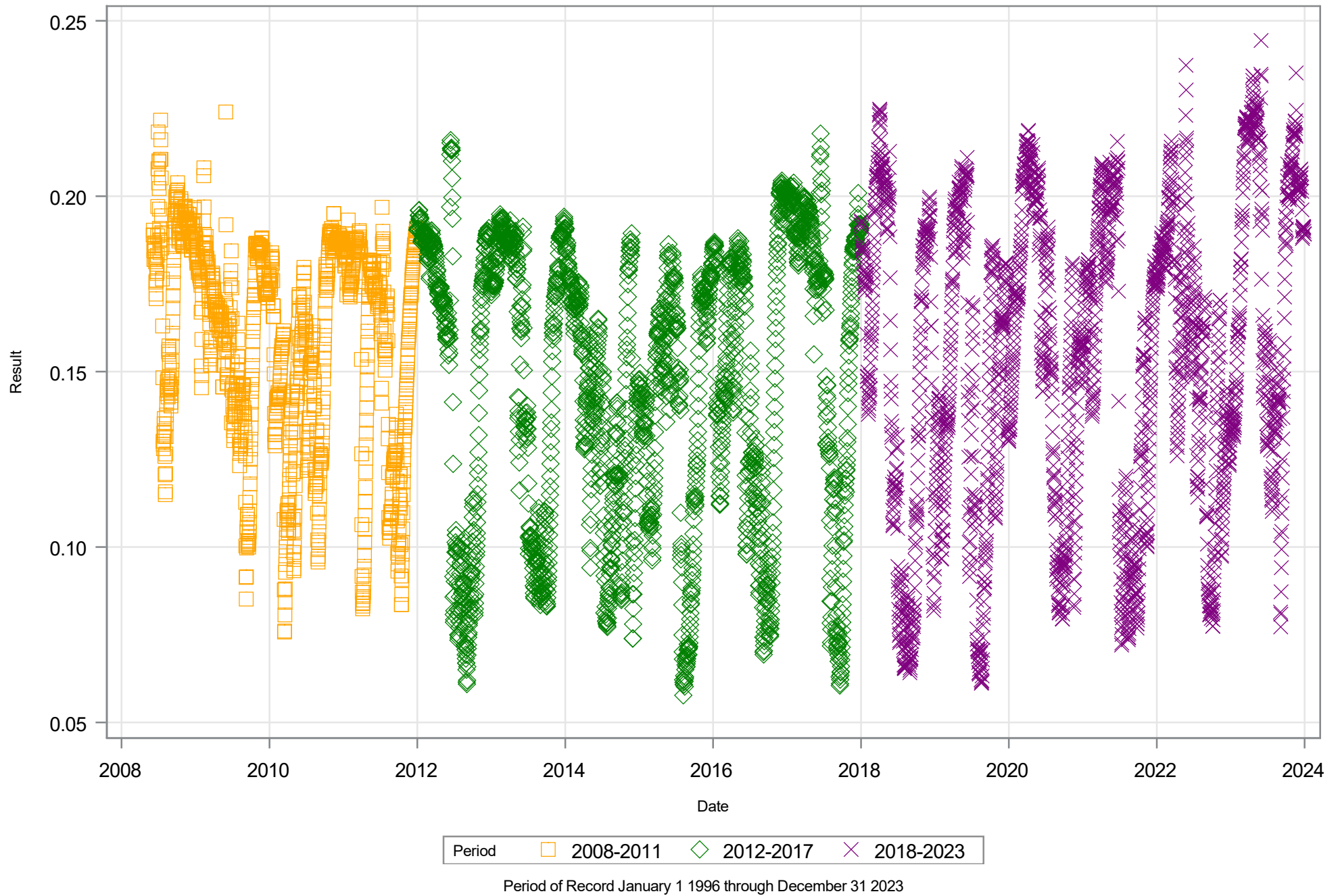
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station TBW Sligh



DRAFT

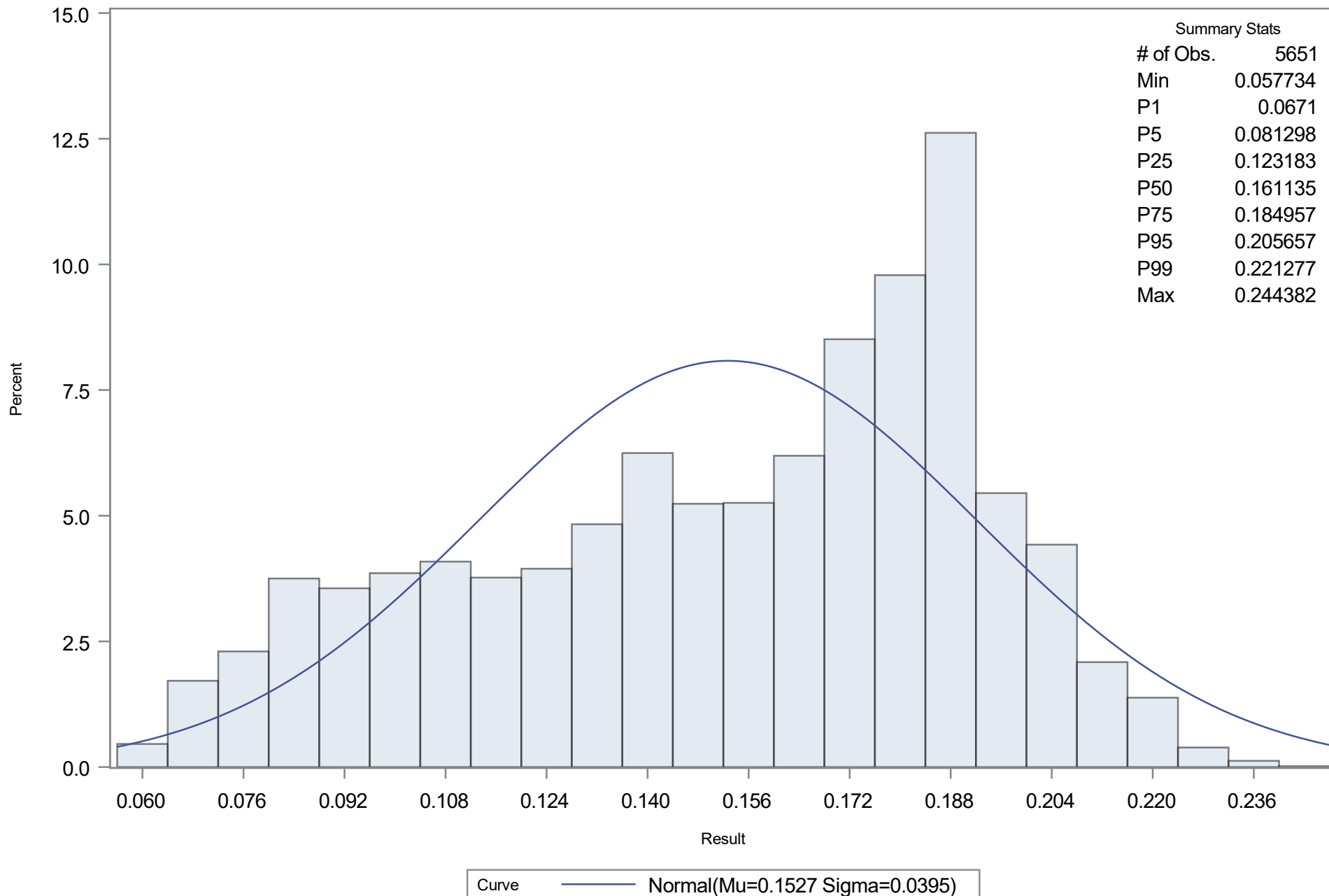
Timeseries of Surface Salinity (PSU) at Station USGS 02304000 Fowler



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02304000 Fowler

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	0.152709
Std Dev	Sigma	0.039489

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0997888	Pr > D	<0.010
Cramer-von Mises	W-Sq	15.0332097	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	88.6965014	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.06710	0.06084
5.0	0.08130	0.08776
10.0	0.09209	0.10210
25.0	0.12318	0.12607
50.0	0.16114	0.15271
75.0	0.18496	0.17934
90.0	0.19738	0.20332
95.0	0.20566	0.21766
99.0	0.22128	0.24457

DRAFT

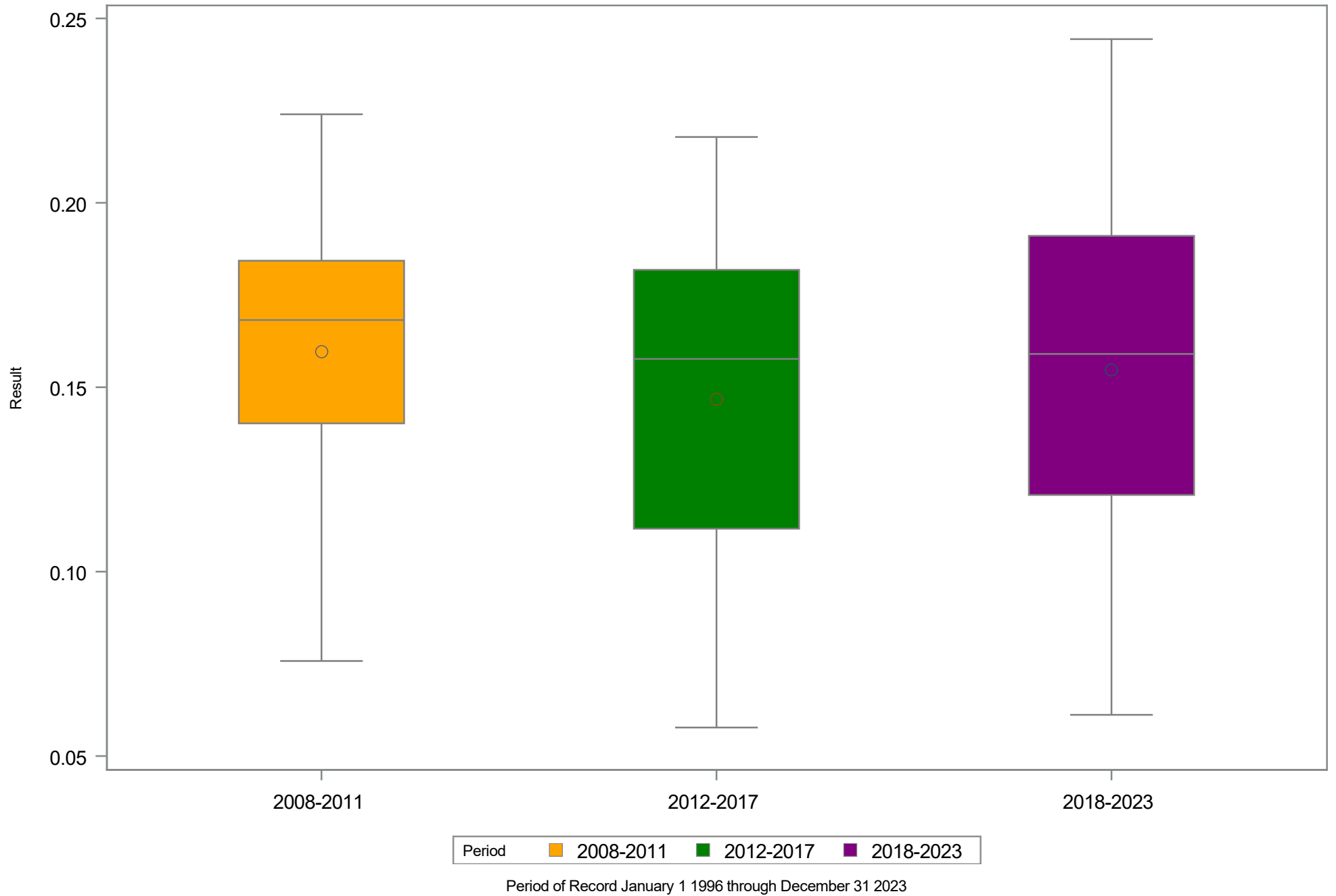
Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 02304000 Fowler

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1282	0.08	0.14	0.16	0.17	0.18	0.22
2012-2017	2181	0.06	0.11	0.15	0.16	0.18	0.22
2018-2023	2188	0.06	0.12	0.15	0.16	0.19	0.24

Period of Record January 1 1996 through December 31 2023

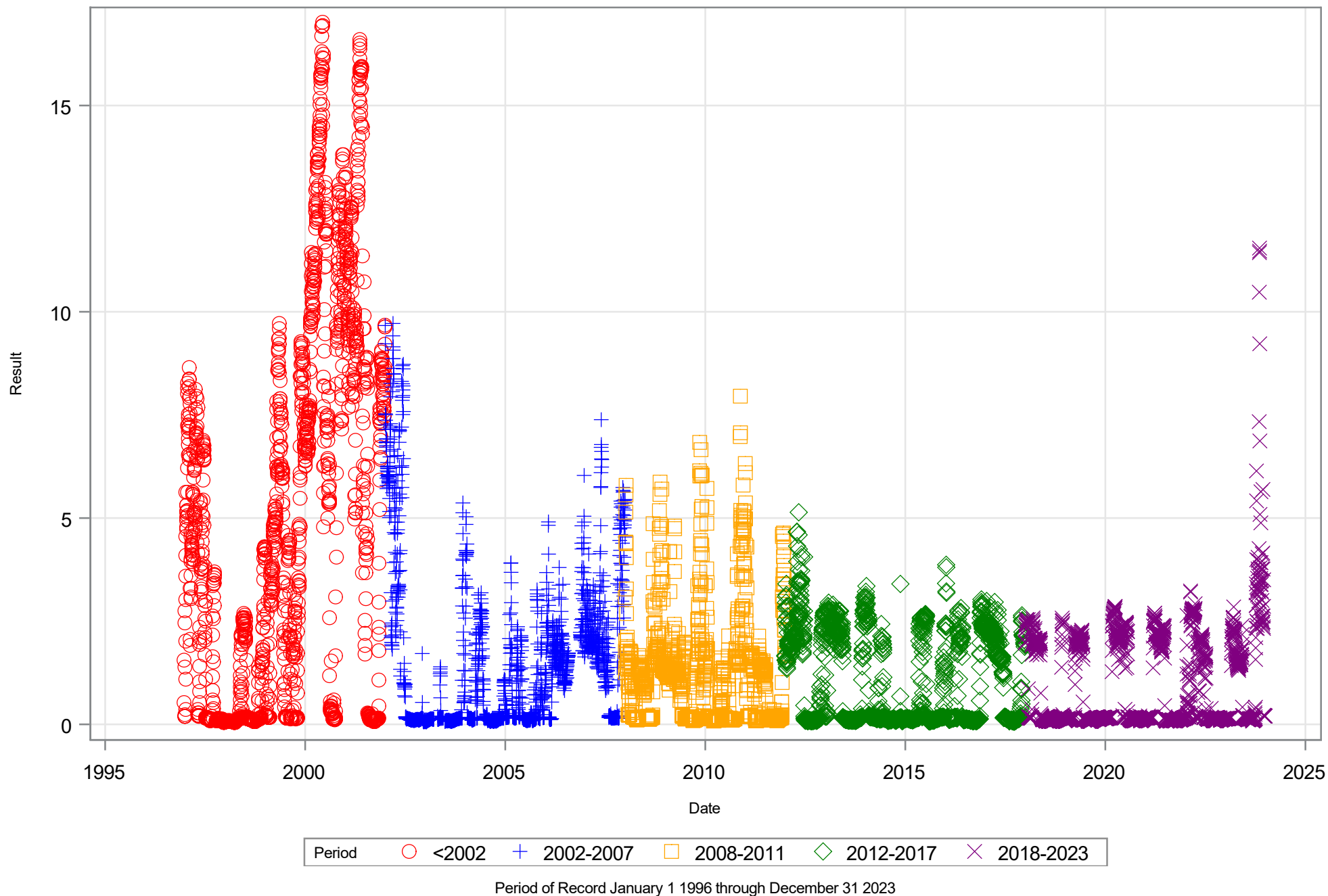
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 02304000 Fowler



DRAFT

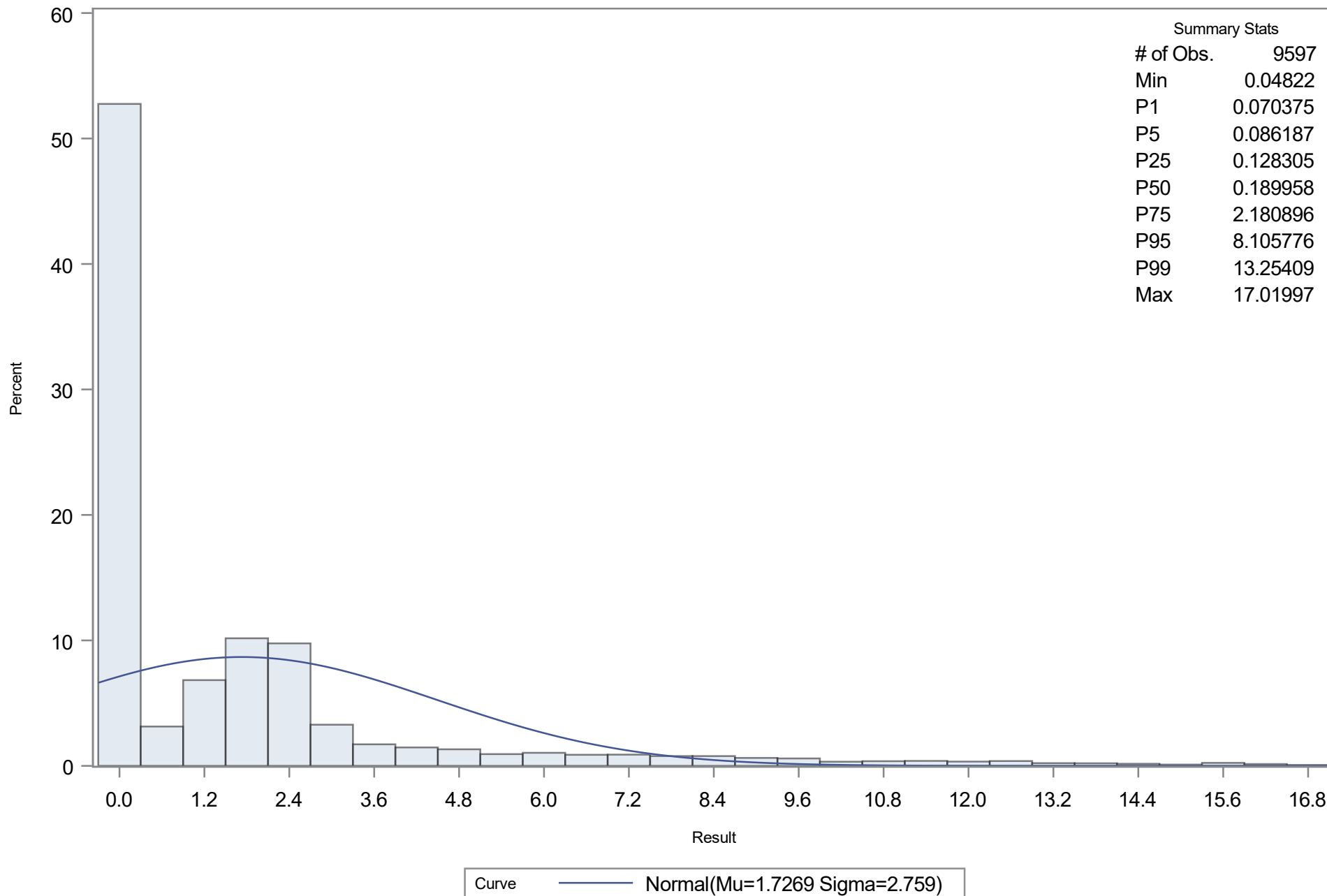
Timeseries of Surface Salinity (PSU) at Station USGS 02304510 Rowlett



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02304510 Rowlett

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.726914
Std Dev	Sigma	2.759022

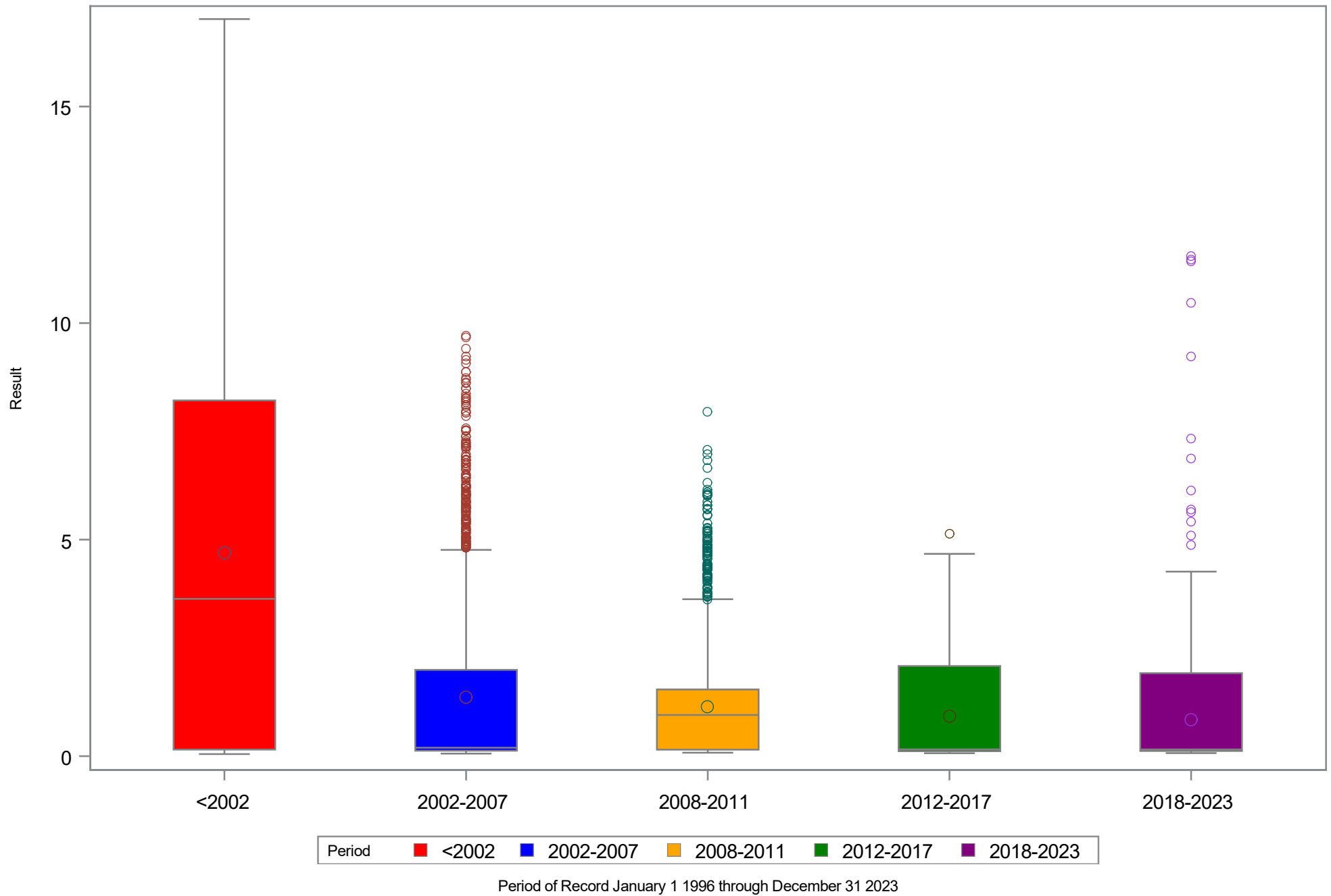
Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.27145	Pr > D	<0.010
Cramer-von Mises	W-Sq	215.69425	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1169.30933	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.07038	-4.69153
5.0	0.08619	-2.81127
10.0	0.09740	-1.80892
25.0	0.12831	-0.13402
50.0	0.18996	1.72691
75.0	2.18090	3.58785
90.0	4.89873	5.26274
95.0	8.10578	6.26510
99.0	13.25409	8.14536

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1777	0.05	0.15	4.70	3.63	8.21	17.02
2002-2007	2012	0.06	0.13	1.35	0.19	1.99	9.72
2008-2011	1445	0.08	0.15	1.14	0.95	1.54	7.96
2012-2017	2178	0.07	0.11	0.93	0.16	2.08	5.14
2018-2023	2185	0.07	0.12	0.84	0.16	1.92	11.54

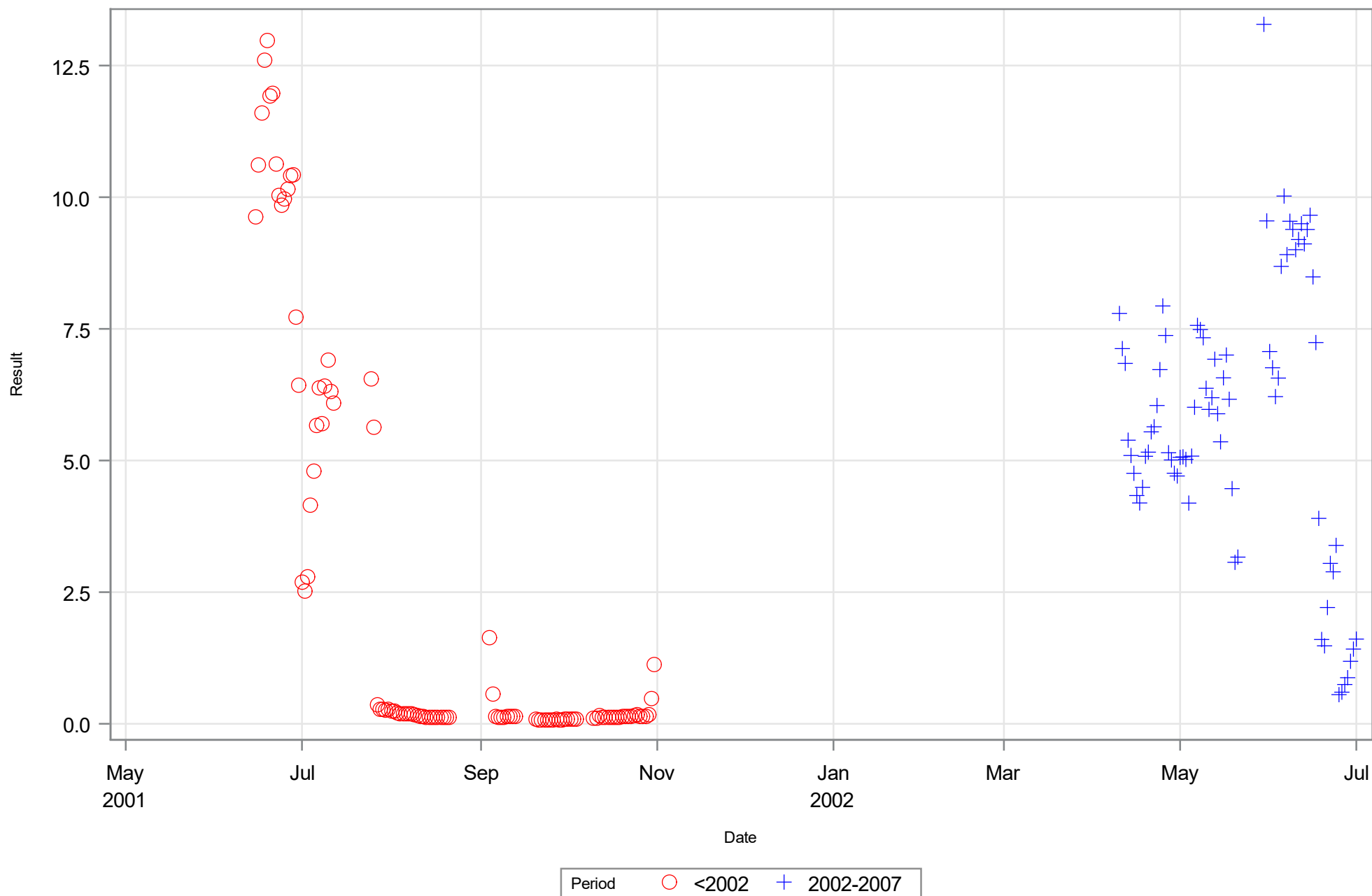
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 02304510 Rowlett



DRAFT

Timeseries of Surface Salinity (PSU) at Station USGS 02304515 Hannahs Whirl

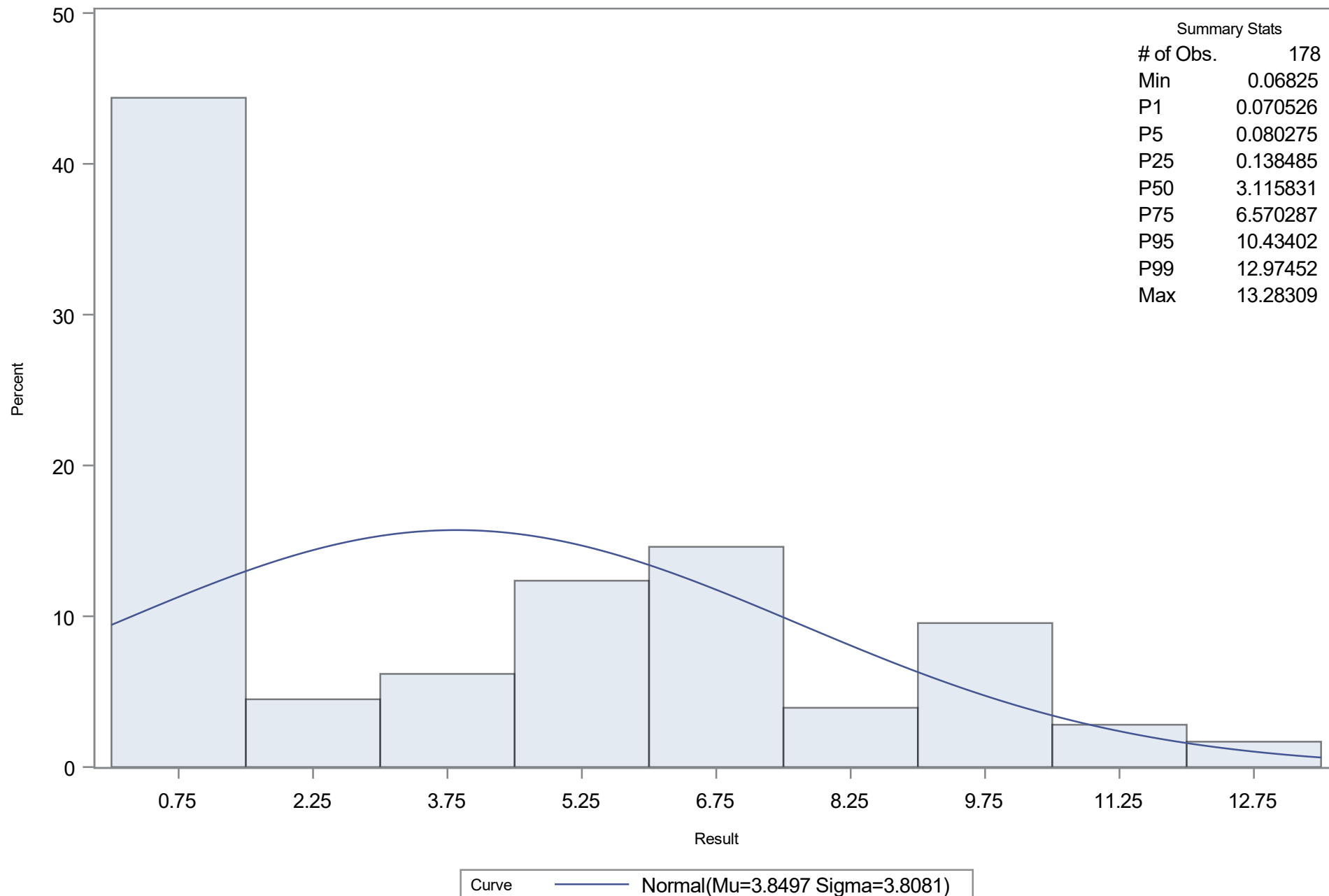


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02304515 Hannahs Whirl

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.849694
Std Dev	Sigma	3.808071

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.21334391	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.47917102	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	9.41781409	Pr > A-Sq	<0.005

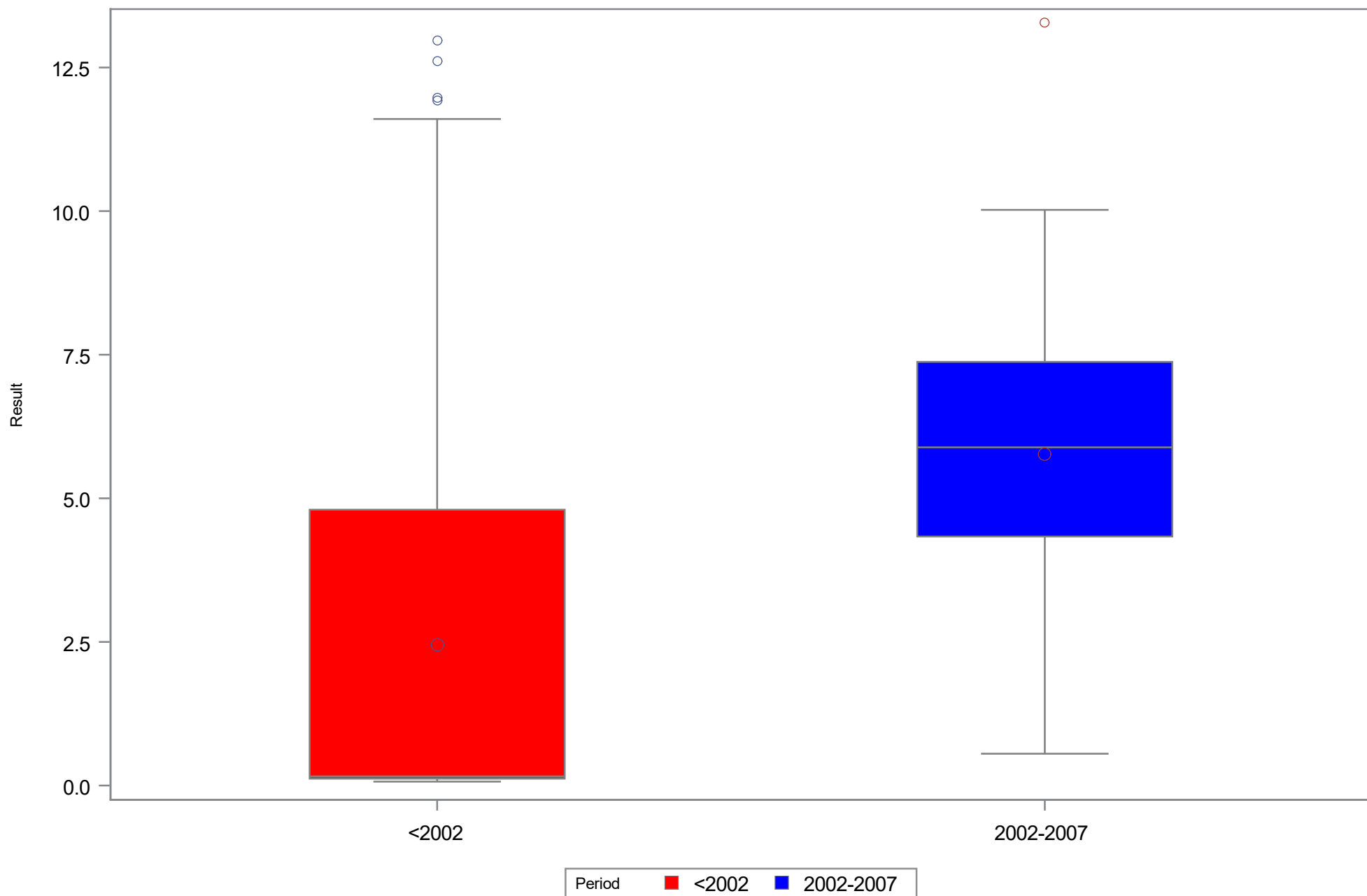
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.07053	-5.00920
5.0	0.08027	-2.41403
10.0	0.11464	-1.03055
25.0	0.13849	1.28119
50.0	3.11583	3.84969
75.0	6.57029	6.41820
90.0	9.55011	8.72993
95.0	10.43402	10.11341
99.0	12.97452	12.70859

DRAFT Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	103	0.07	0.12	2.46	0.16	4.80	12.97
2002-2007	75	0.55	4.33	5.76	5.89	7.37	13.28

DRAFT

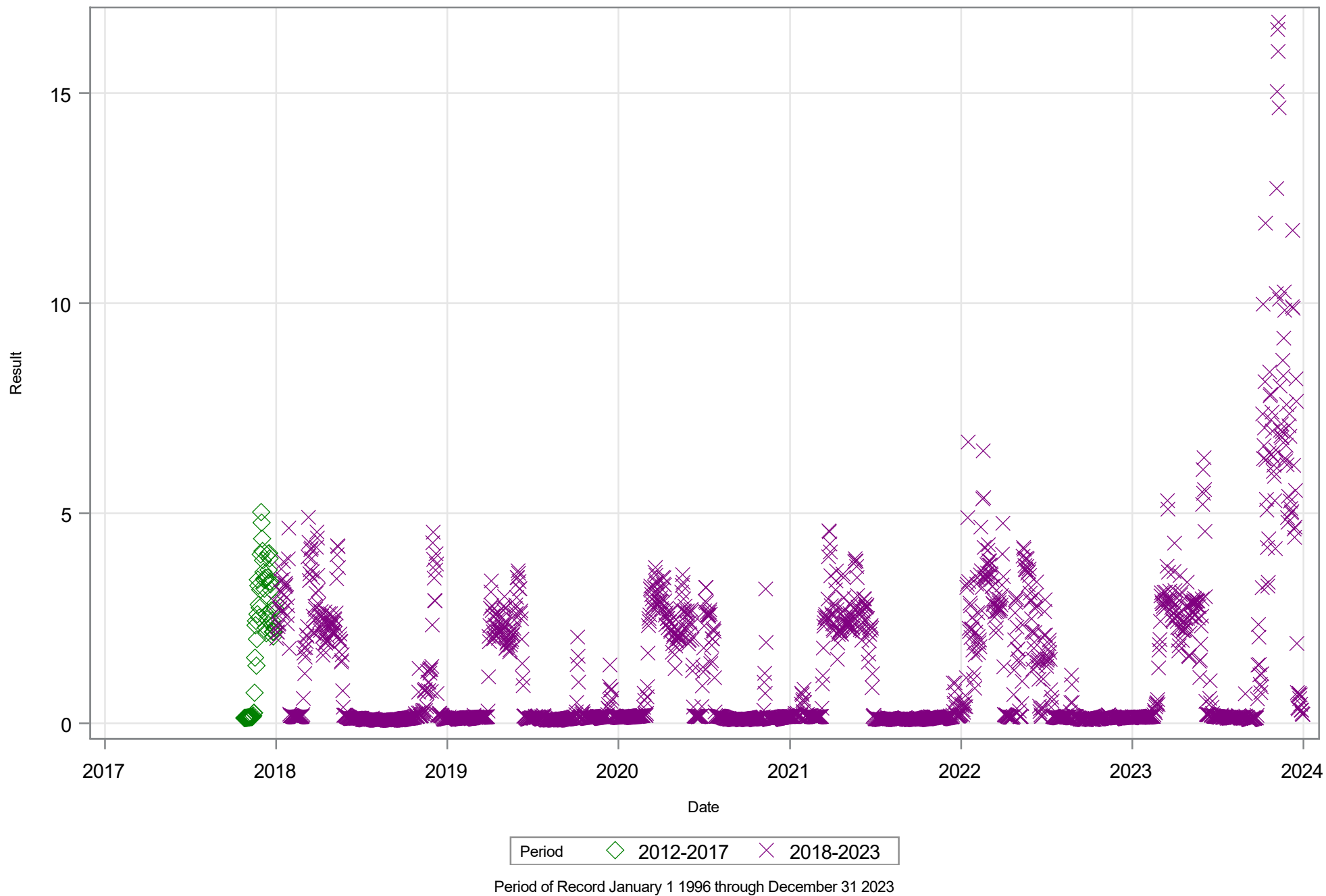
Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

DRAFT

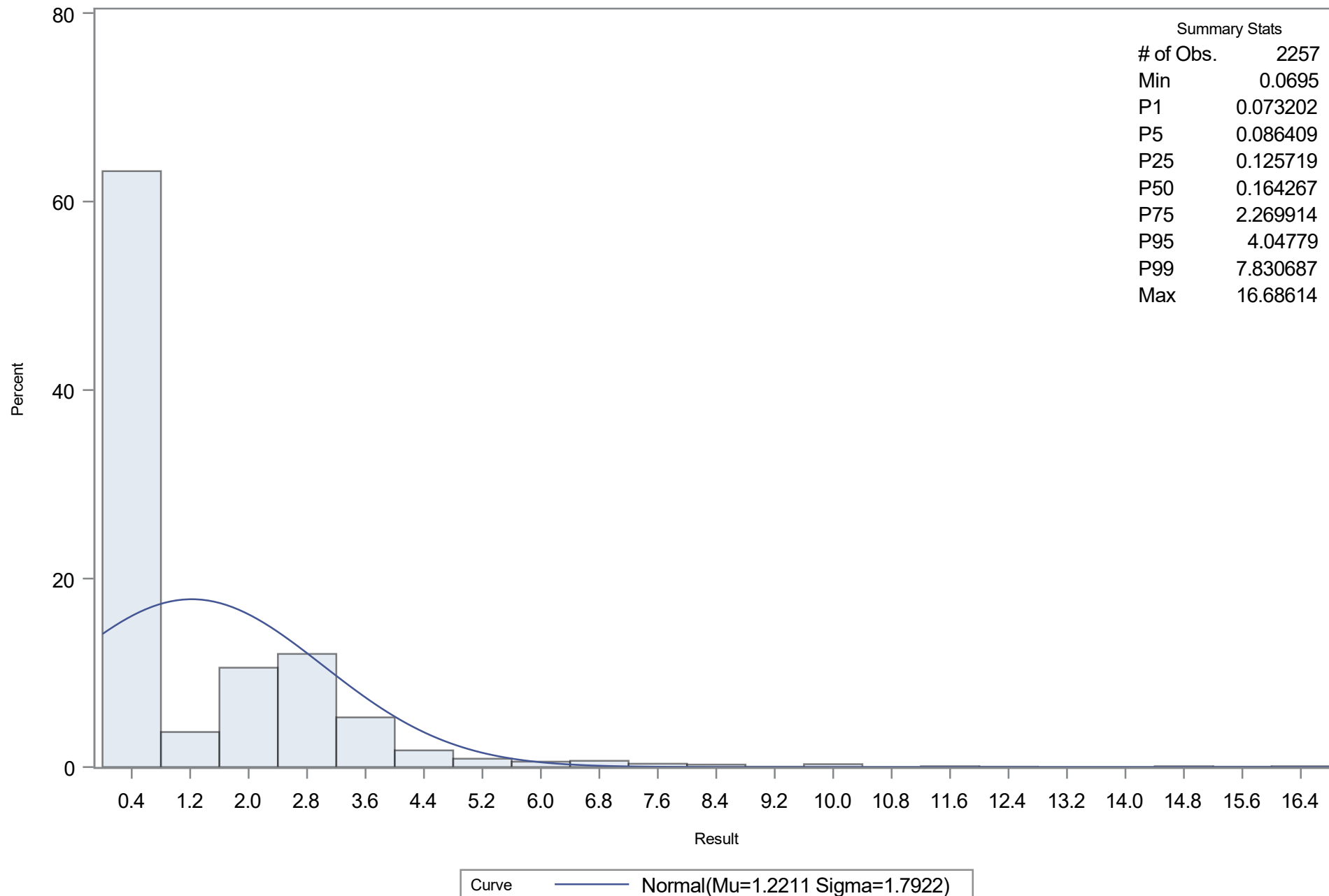
Timeseries of Surface Salinity (PSU) at Station USGS 02304517 BLHannah



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02304517 BLHannah

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.221095
Std Dev	Sigma	1.792152

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.294458	Pr > D	<0.010
Cramer-von Mises	W-Sq	46.102672	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	242.319877	Pr > A-Sq	<0.005

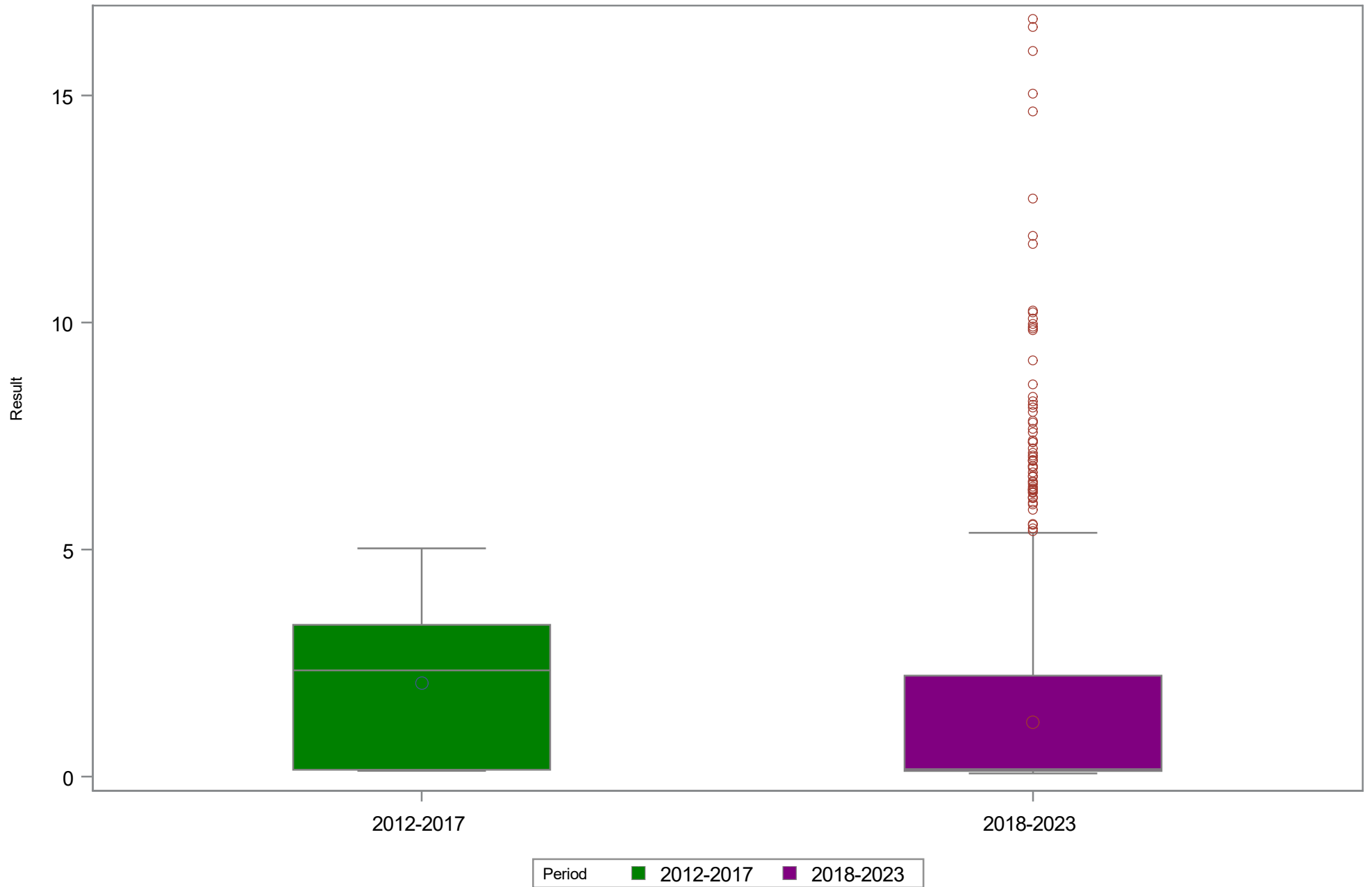
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.07320	-2.94807
5.0	0.08641	-1.72673
10.0	0.09663	-1.07564
25.0	0.12572	0.01231
50.0	0.16427	1.22110
75.0	2.26991	2.42988
90.0	3.26530	3.51783
95.0	4.04779	4.16892
99.0	7.83069	5.39026

DRAFT Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	0.13	0.15	2.06	2.34	3.34	5.03
2018-2023	2189	0.07	0.12	1.20	0.16	2.22	16.69

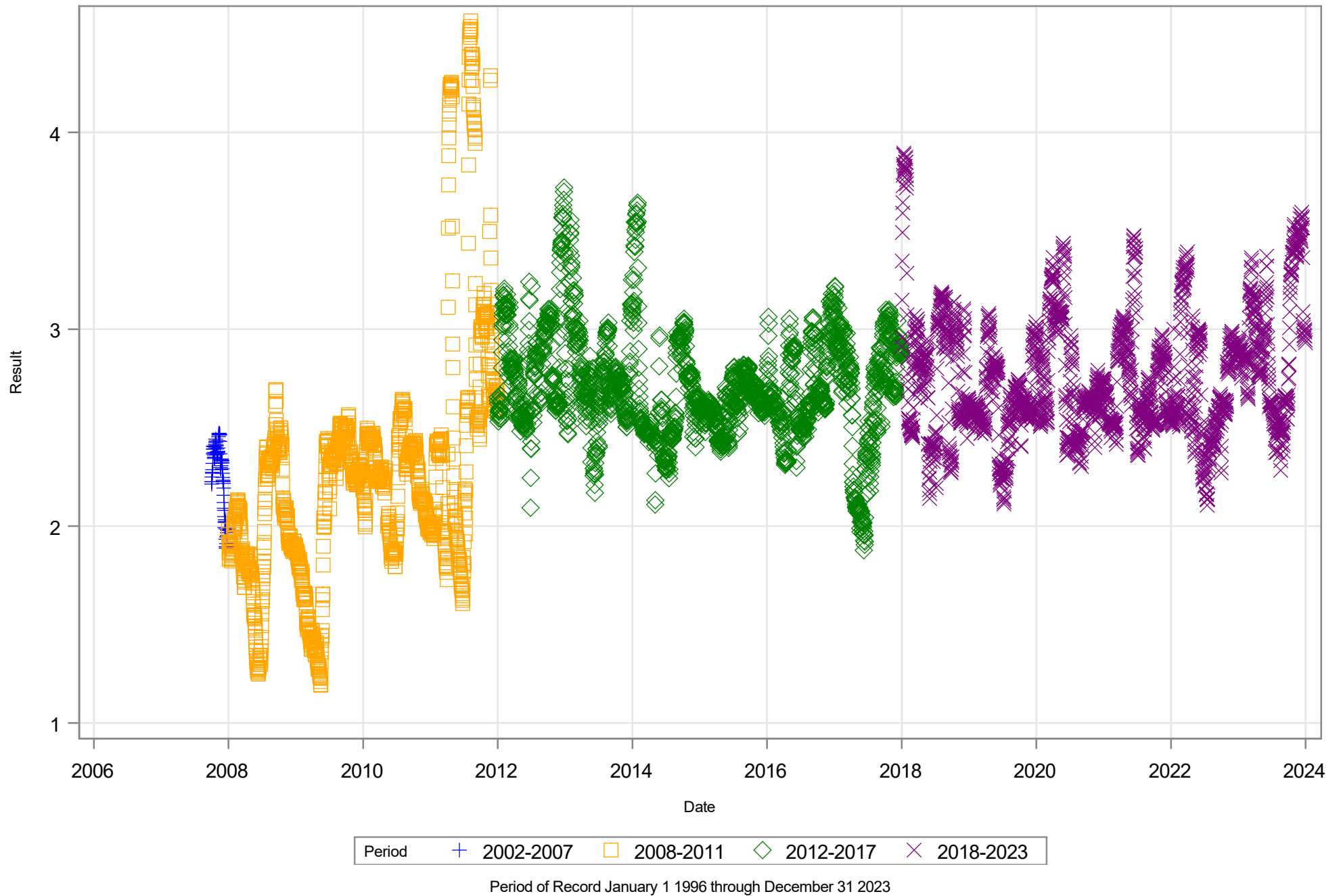
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 02304517 BLHannah



DRAFT

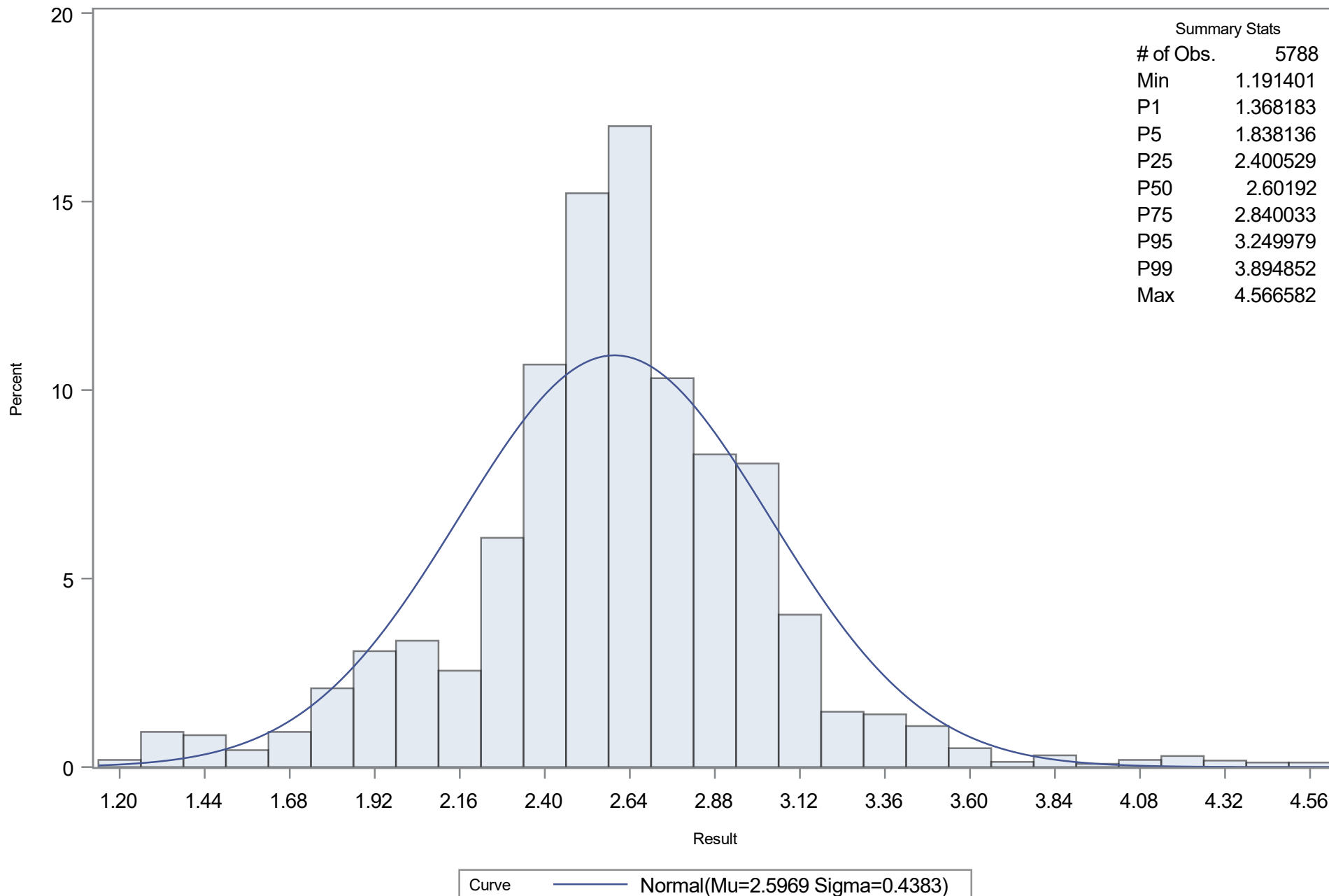
Timeseries of Surface Salinity (PSU) at Station USGS 02306000 SS Pool



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02306000 SS Pool

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02306000 SS Pool**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	2.596873
Std Dev	Sigma	0.438301

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0774540	Pr > D	<0.010
Cramer-von Mises	W-Sq	10.7683579	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	61.1054144	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.36818	1.57723
5.0	1.83814	1.87593
10.0	2.02538	2.03517
25.0	2.40053	2.30124
50.0	2.60192	2.59687
75.0	2.84003	2.89250
90.0	3.05863	3.15858
95.0	3.24998	3.31781
99.0	3.89485	3.61651

Period of Record January 1 1996 through December 31 2023

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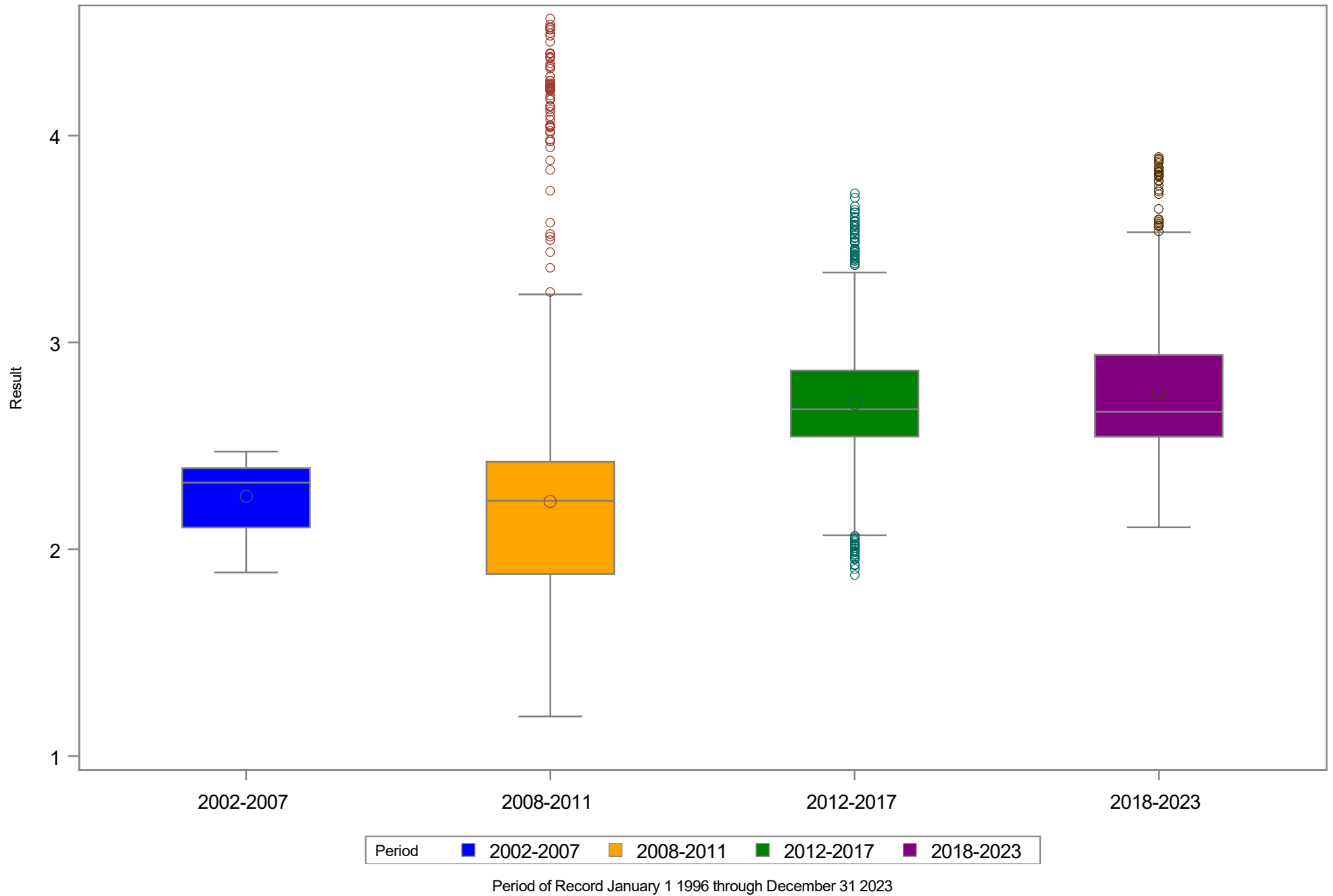
Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 02306000 SS Pool

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	1.89	2.11	2.26	2.32	2.39	2.47
2008-2011	1448	1.19	1.88	2.23	2.23	2.42	4.57
2012-2017	2061	1.88	2.55	2.70	2.68	2.86	3.72
2018-2023	2187	2.11	2.54	2.75	2.66	2.94	3.89

Period of Record January 1 1996 through December 31 2023

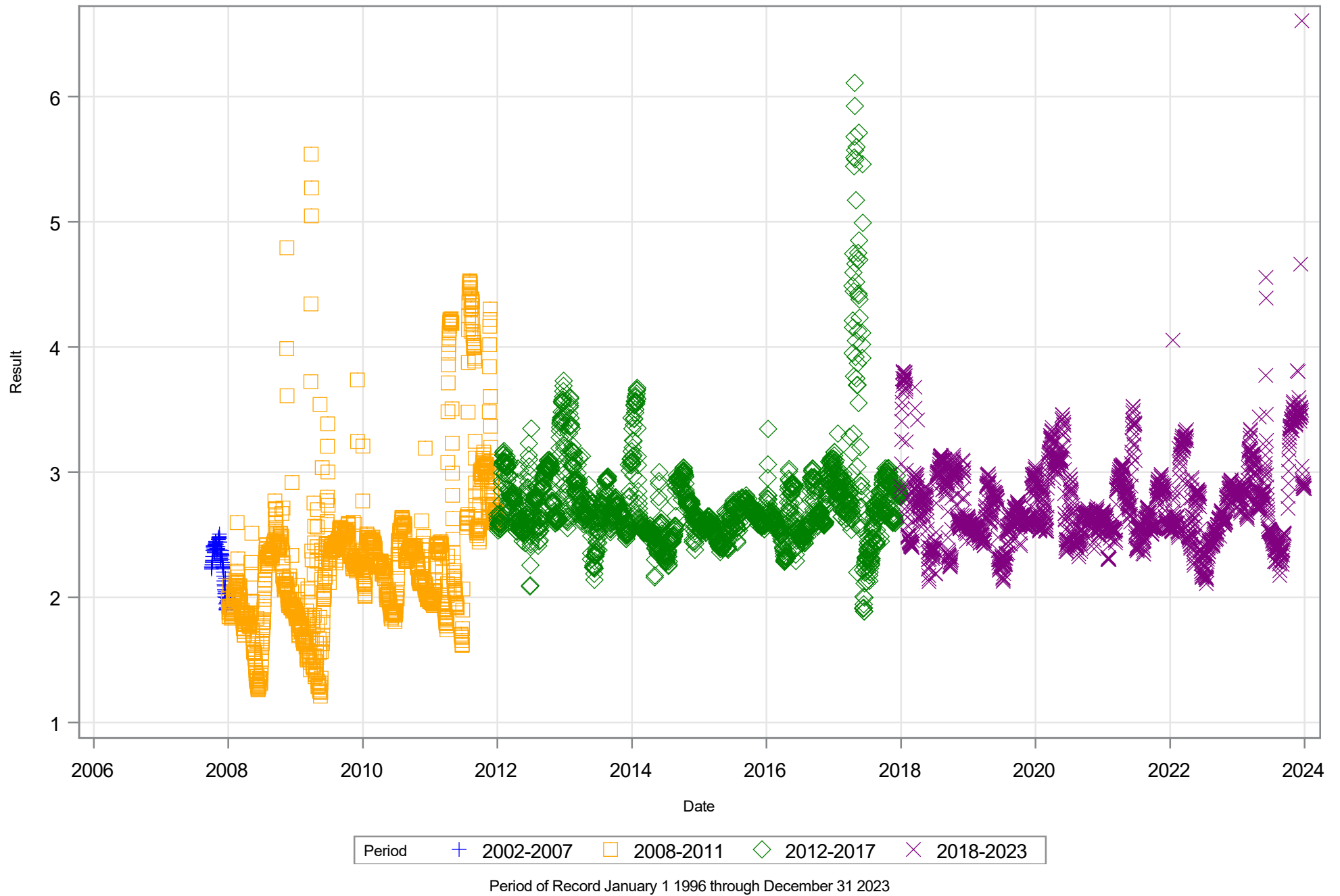
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 02306000 SS Pool



DRAFT

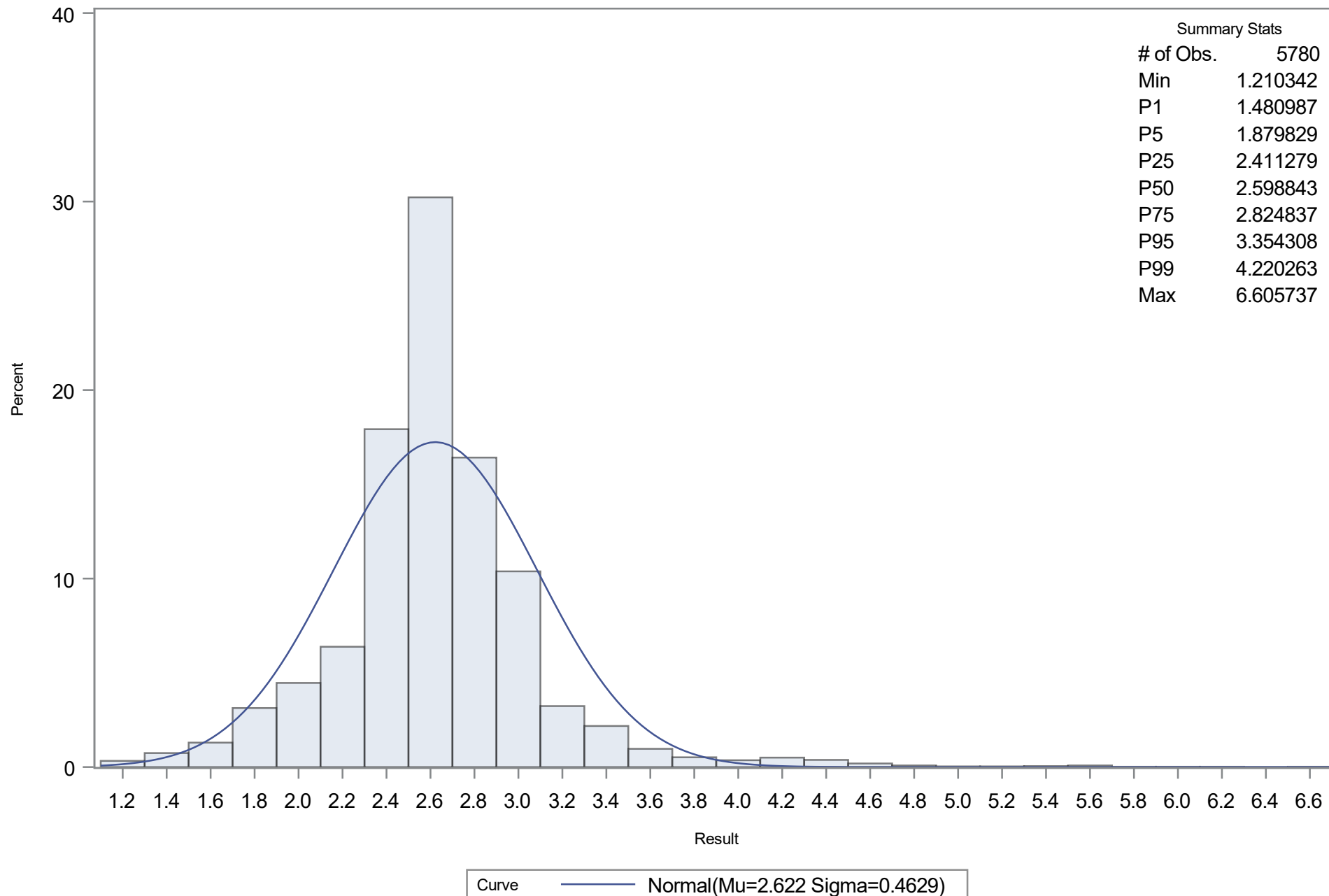
Timeseries of Surface Salinity (PSU) at Station USGS 023060003 SS Run



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 023060003 SS Run

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	2.622021
Std Dev	Sigma	0.462873

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.085192	Pr > D	<0.010
Cramer-von Mises	W-Sq	20.694210	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	115.147289	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	1.48099	1.54522
5.0	1.87983	1.86066
10.0	2.10300	2.02883
25.0	2.41128	2.30982
50.0	2.59884	2.62202
75.0	2.82484	2.93422
90.0	3.06813	3.21522
95.0	3.35431	3.38338
99.0	4.22026	3.69882

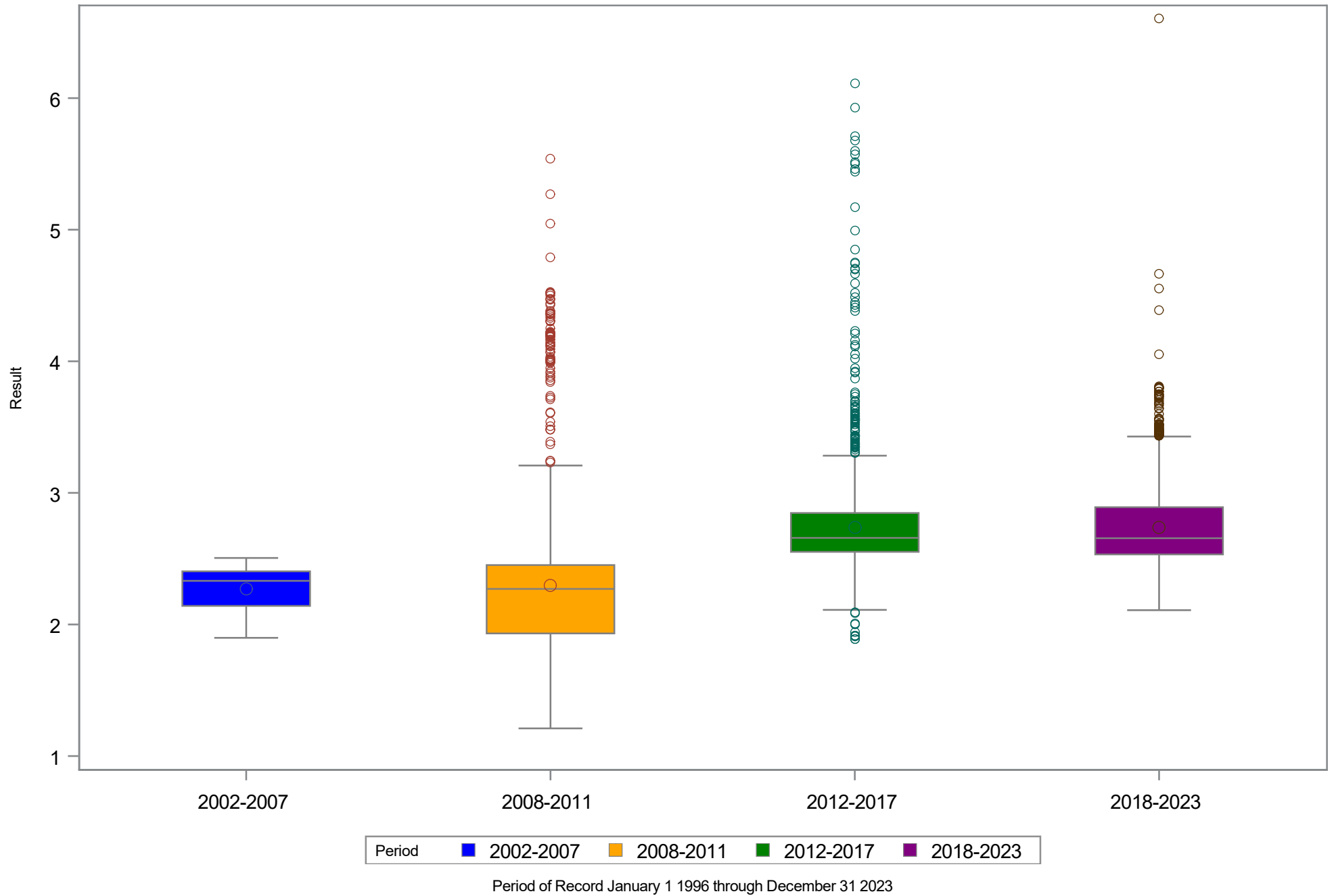
DRAFT**Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 023060003 SS Run**

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	1.90	2.14	2.27	2.33	2.40	2.51
2008-2011	1404	1.21	1.93	2.30	2.27	2.45	5.54
2012-2017	2121	1.89	2.55	2.74	2.66	2.85	6.11
2018-2023	2163	2.11	2.53	2.74	2.66	2.89	6.61

Period of Record January 1 1996 through December 31 2023

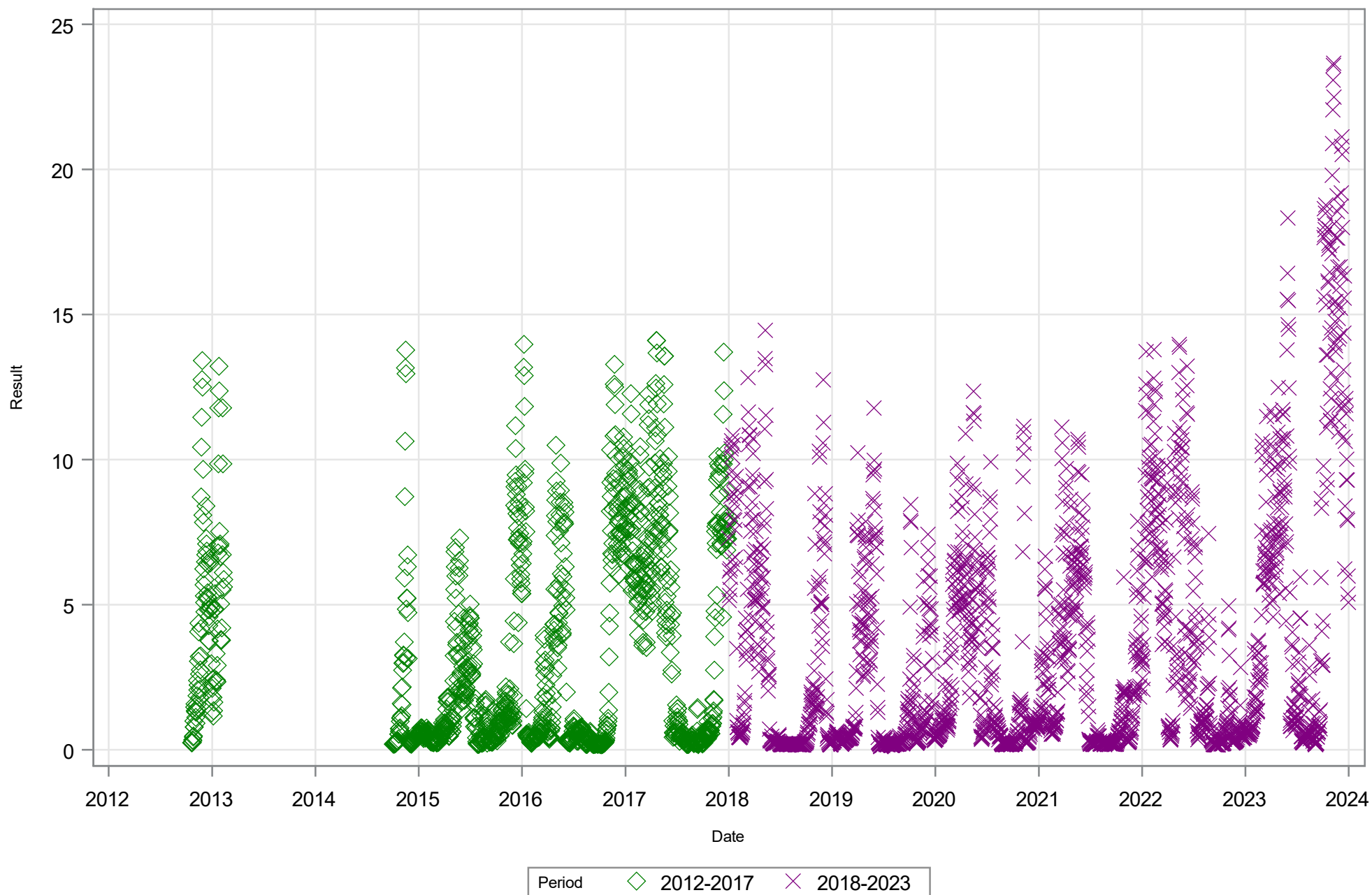
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 023060003 SS Run



DRAFT

Timeseries of Surface Salinity (PSU) at Station USGS 023060013 I-275

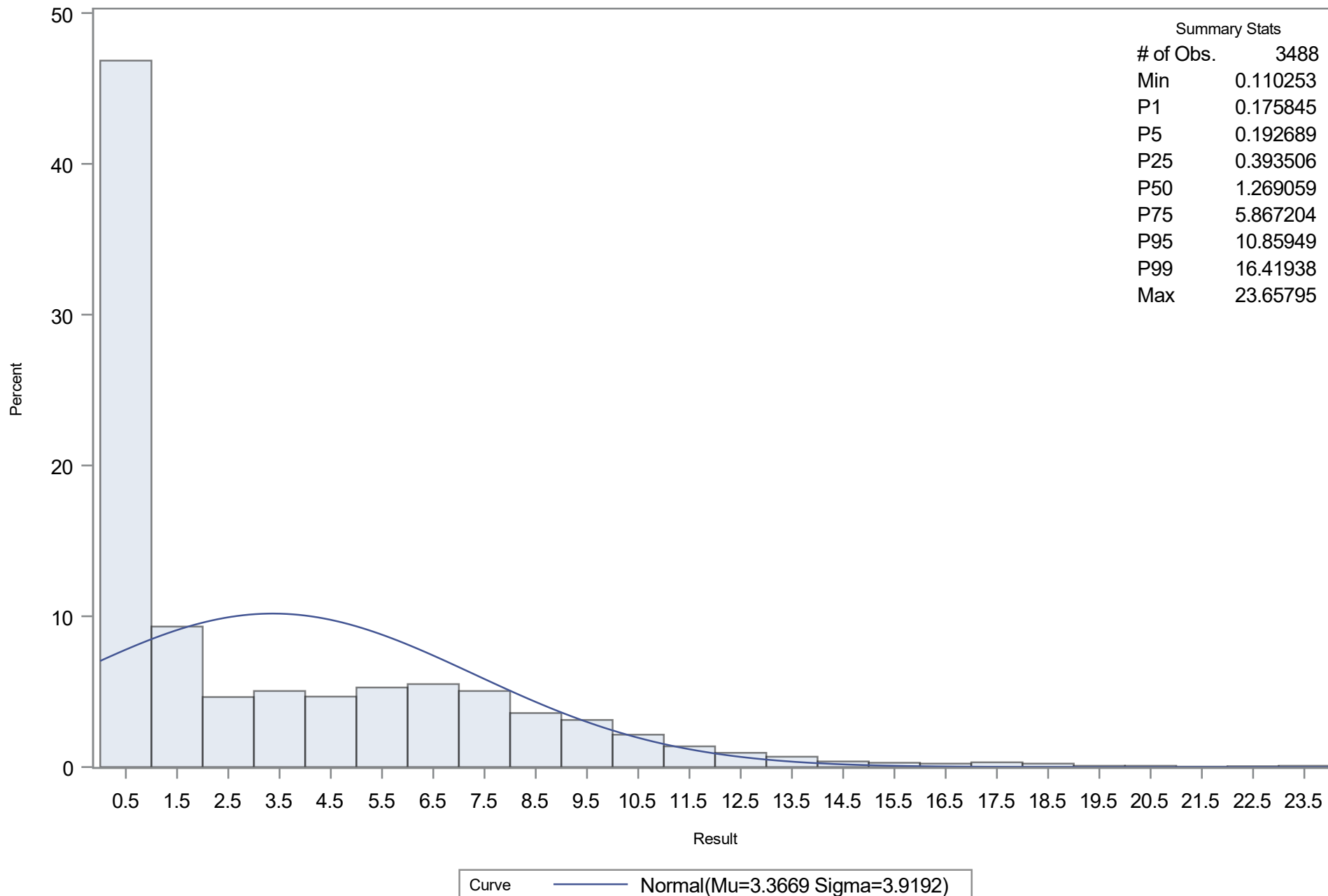


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.36689
Std Dev	Sigma	3.919244

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.208415	Pr > D	<0.010
Cramer-von Mises	W-Sq	45.154215	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	248.778814	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.17584	-5.75064
5.0	0.19269	-3.07969
10.0	0.21712	-1.65582
25.0	0.39351	0.72340
50.0	1.26906	3.36689
75.0	5.86720	6.01038
90.0	9.01260	8.38960
95.0	10.85949	9.81347
99.0	16.41938	12.48442

DRAFT

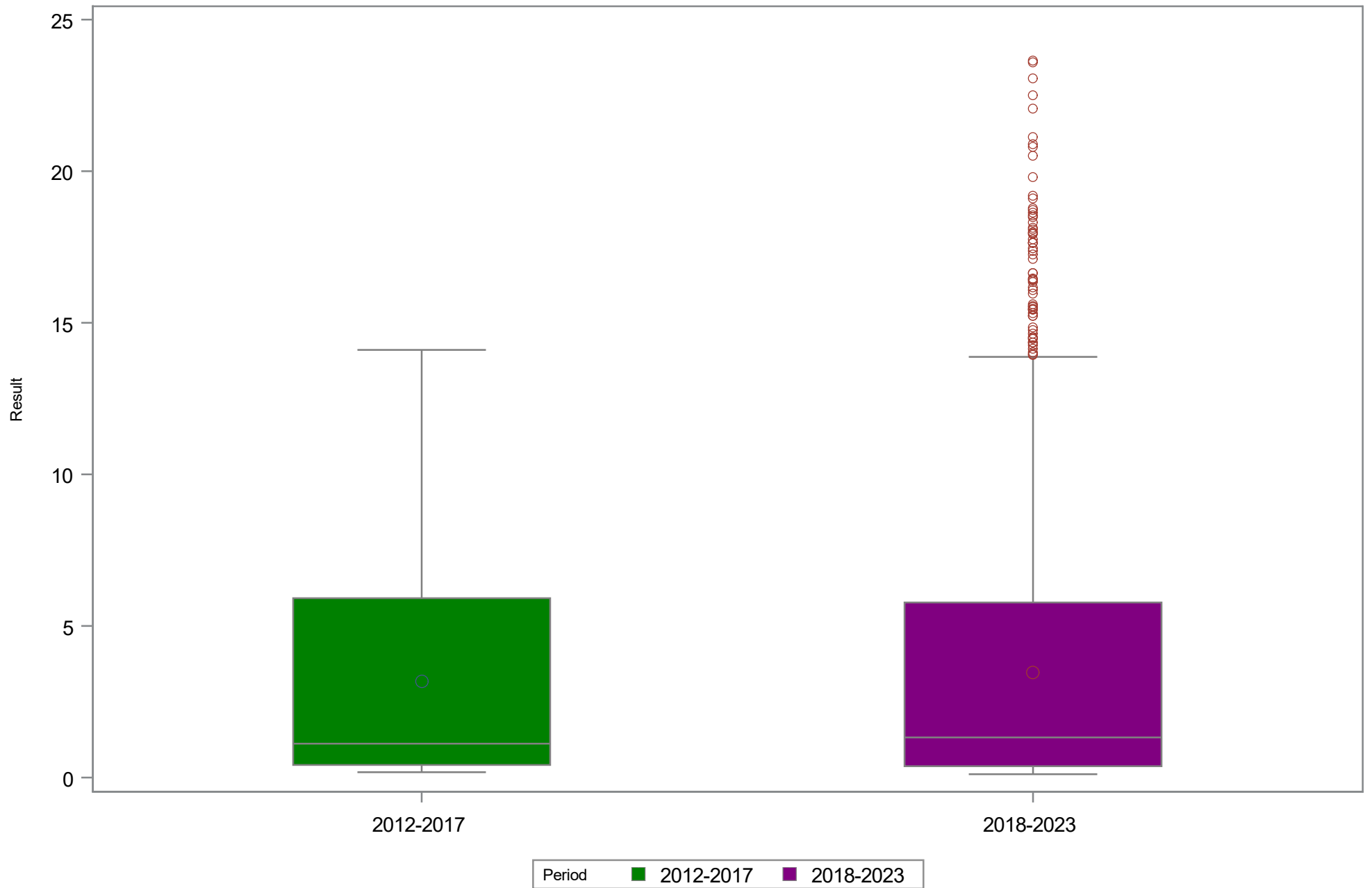
Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	1298	0.18	0.42	3.18	1.12	5.92	14.11
2018-2023	2190	0.11	0.37	3.48	1.32	5.77	23.66

Period of Record January 1 1996 through December 31 2023

DRAFT

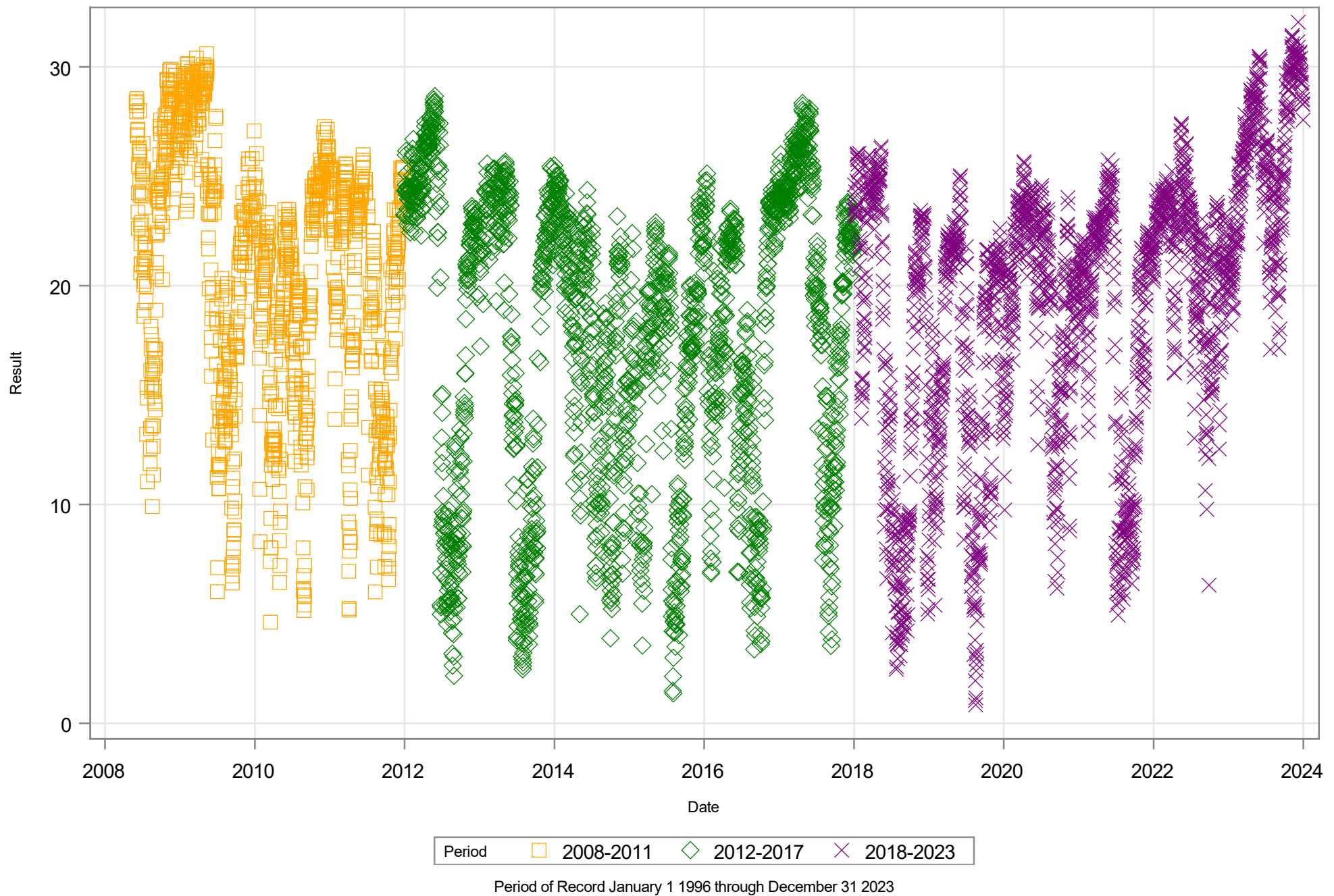
Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 023060013 I-275



Period of Record January 1 1996 through December 31 2023

DRAFT

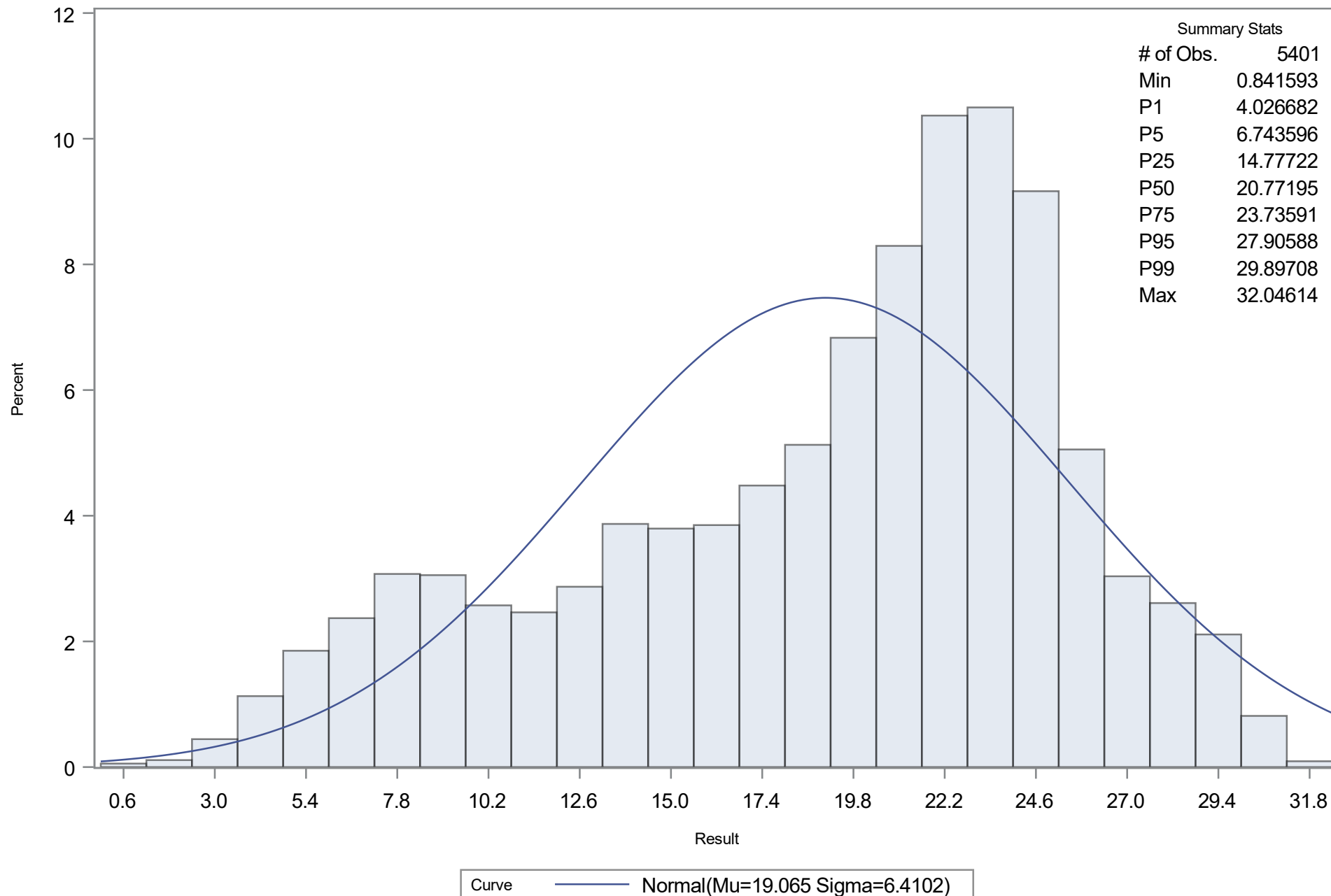
Timeseries of Surface Salinity (PSU) at Station USGS 02306028 Platt



DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	19.06453
Std Dev	Sigma	6.41019

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.106197	Pr > D	<0.010
Cramer-von Mises	W-Sq	17.933681	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	100.412512	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	4.02668	4.15220
5.0	6.74360	8.52071
10.0	8.76611	10.84954
25.0	14.77722	14.74092
50.0	20.77195	19.06453
75.0	23.73591	23.38814
90.0	26.03918	27.27952
95.0	27.90588	29.60836
99.0	29.89708	33.97686

DRAFT

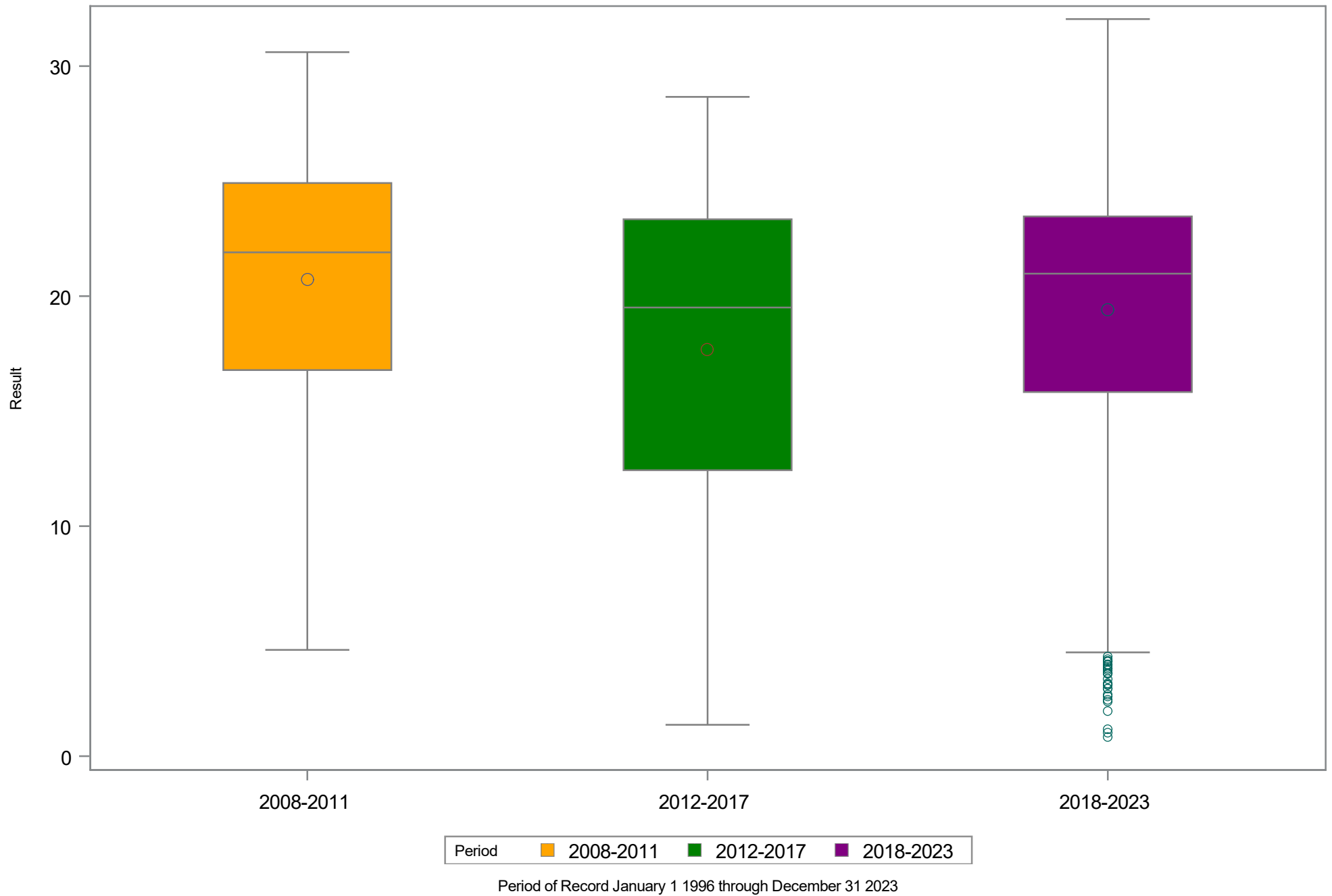
Distributional Statistics by Period for Surface Salinity (PSU) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1198	4.62	16.79	20.74	21.90	24.92	30.61
2012-2017	2016	1.36	12.43	17.69	19.51	23.34	28.66
2018-2023	2187	0.84	15.83	19.42	20.98	23.47	32.05

Period of Record January 1 1996 through December 31 2023

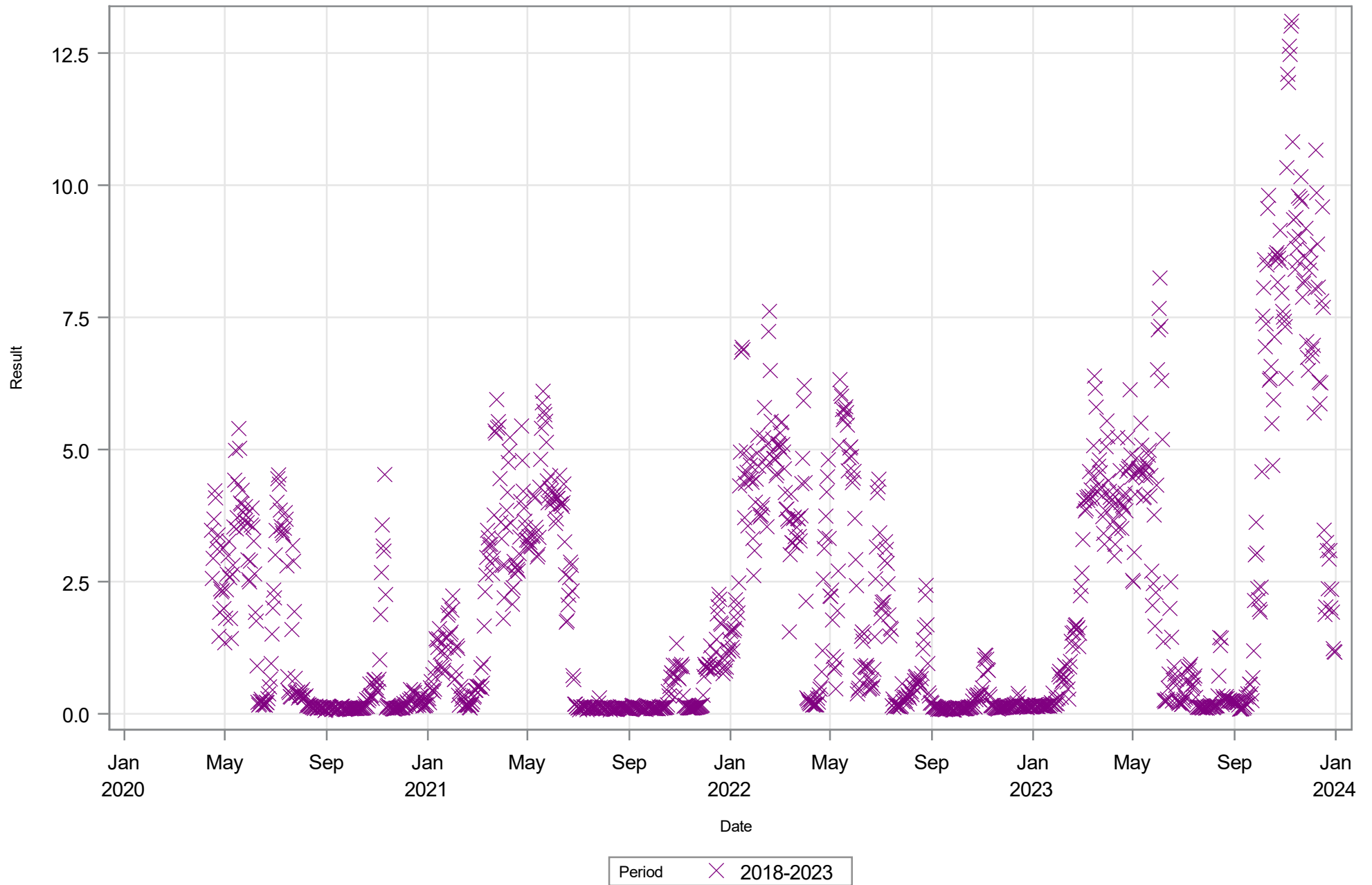
DRAFT

Boxplot by MFL Period for Surface Salinity (PSU) at Station USGS 02306028 Platt



DRAFT

Timeseries of Surface Salinity (PSU) at Station WMD 19206

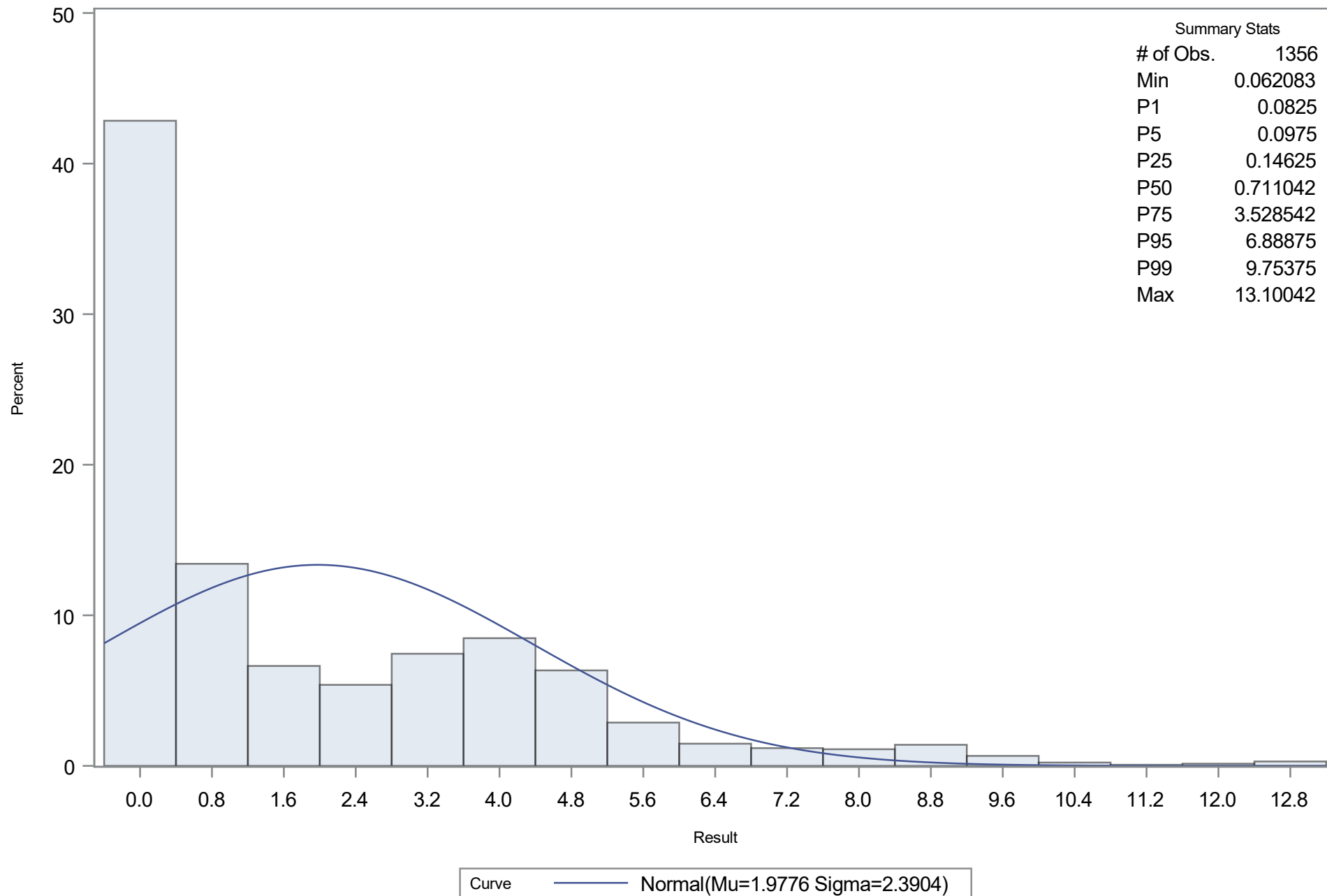


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Salinity (PSU) at Station WMD 19206

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Salinity (PSU) at Station WMD 19206**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.977613
Std Dev	Sigma	2.390412

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.2140435	Pr > D	<0.010
Cramer-von Mises	W-Sq	17.7644833	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	99.2616055	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.08250	-3.58332
5.0	0.09750	-1.95426
10.0	0.10833	-1.08582
25.0	0.14625	0.36530
50.0	0.71104	1.97761
75.0	3.52854	3.58992
90.0	5.07667	5.04105
95.0	6.88875	5.90949
99.0	9.75375	7.53854

DRAFT

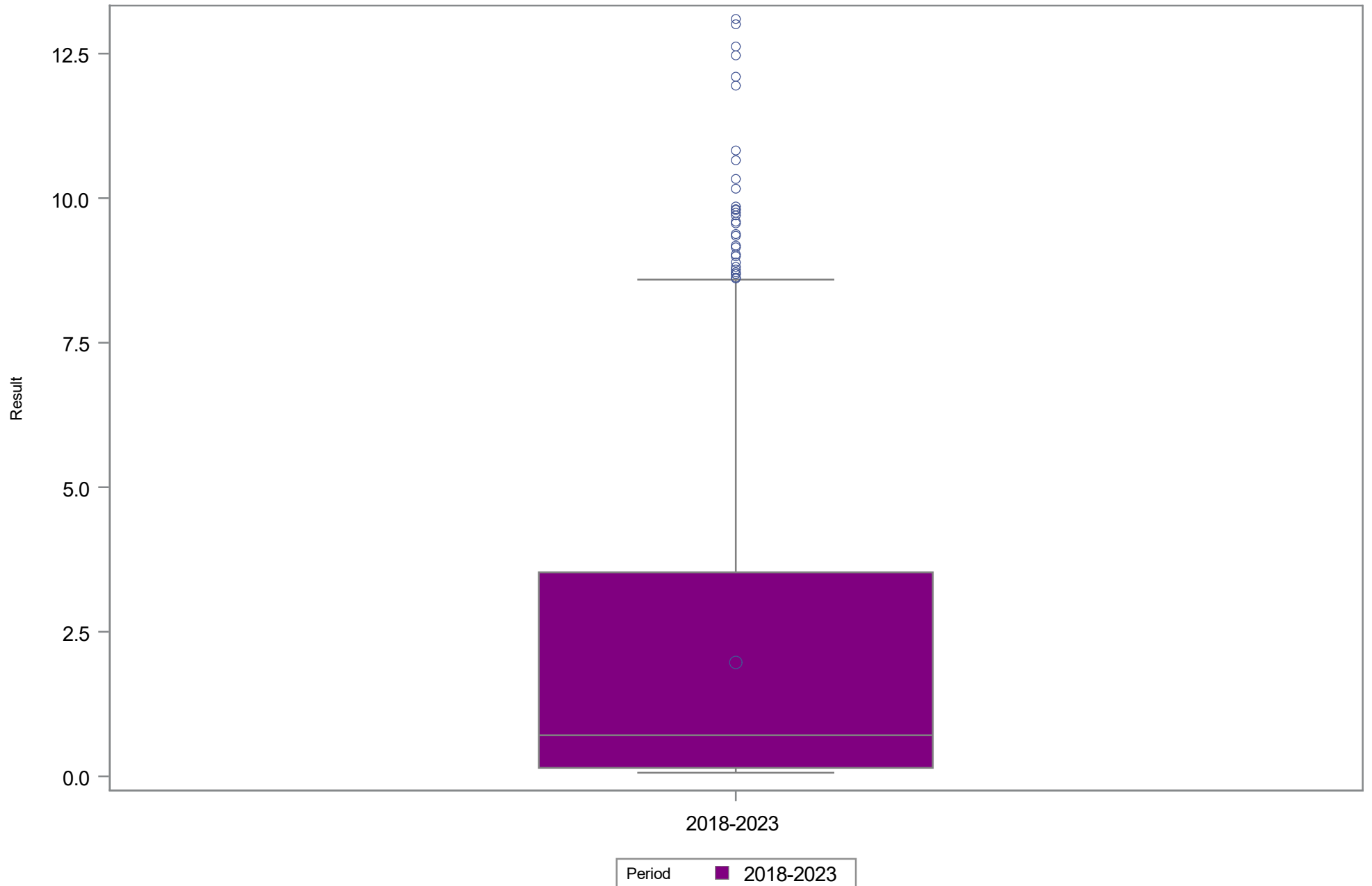
Distributional Statistics by Period for Surface Salinity (PSU) at Station WMD 19206

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1356	0.06	0.15	1.98	0.71	3.53	13.10

Period of Record January 1 1996 through December 31 2023

DRAFT

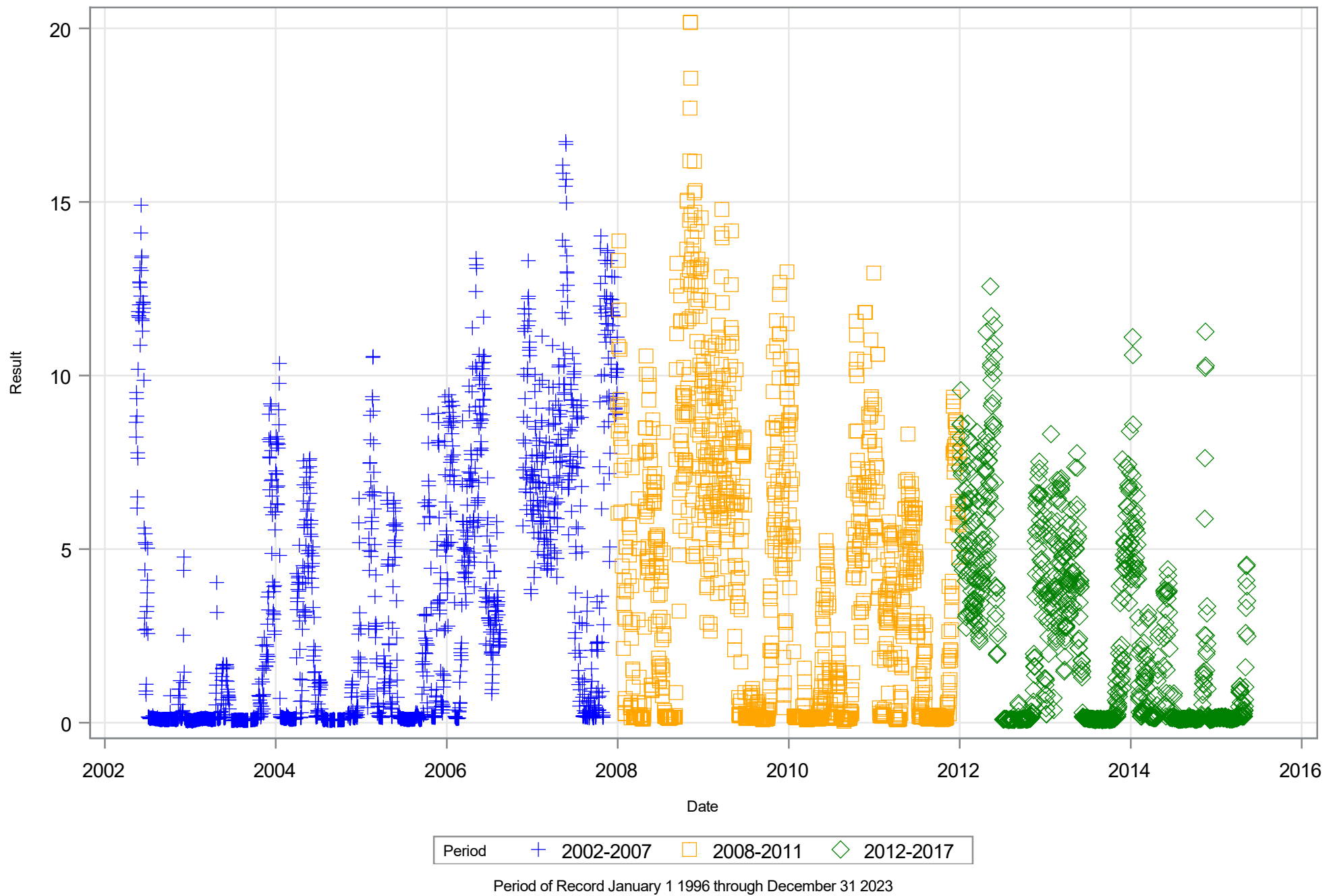
Boxplot by MFL Period for Surface Salinity (PSU) at Station WMD 19206



Period of Record January 1 1996 through December 31 2023

DRAFT

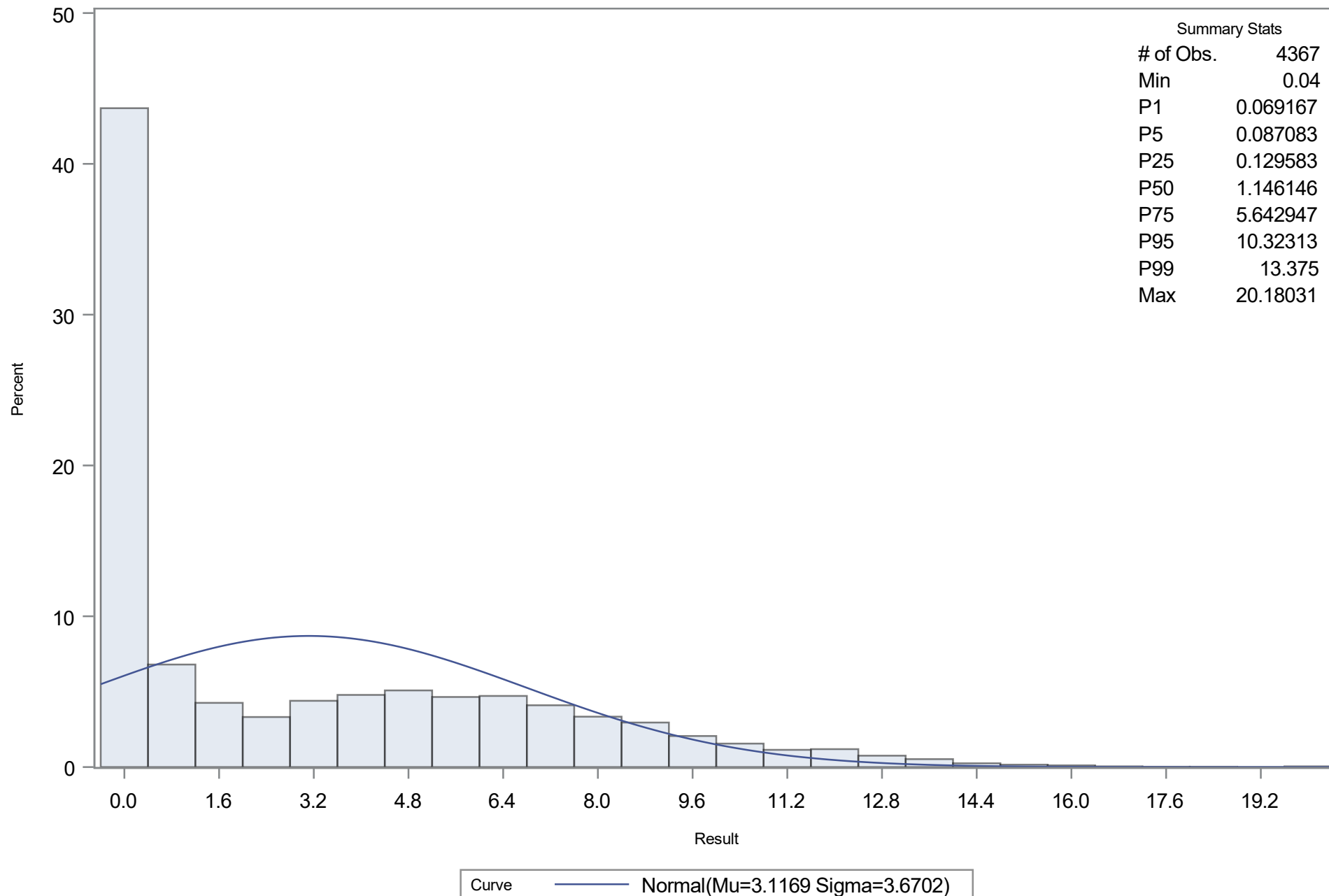
Timeseries of Bottom Salinity (PSU) at Station EPC 2 Rkm 13.7



DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Salinity (PSU) at Station EPC 2 Rkm 13.7**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	3.116889
Std Dev	Sigma	3.670152

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.213016	Pr > D	<0.010
Cramer-von Mises	W-Sq	54.203113	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	311.034346	Pr > A-Sq	<0.005

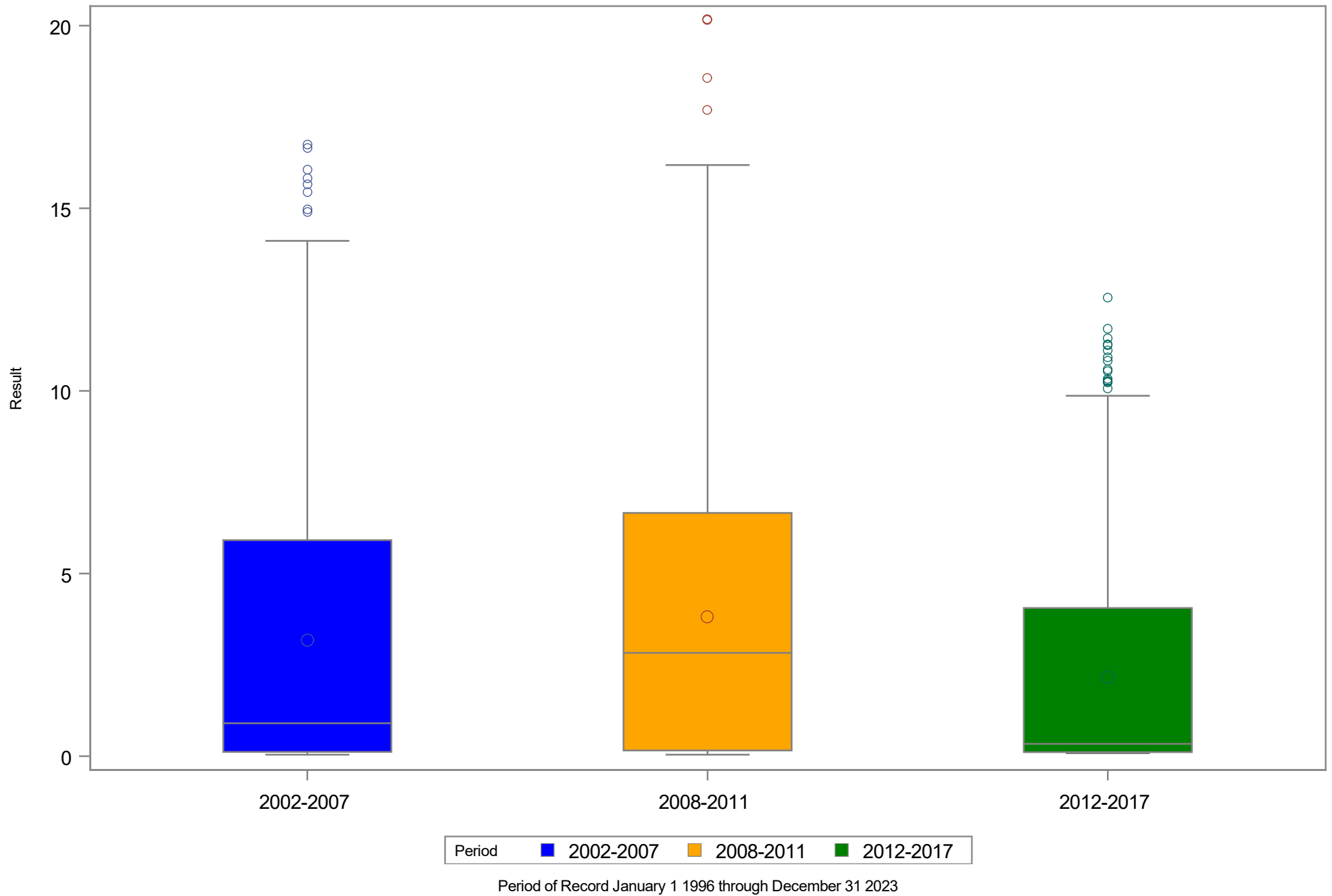
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.06917	-5.42116
5.0	0.08708	-2.91997
10.0	0.09779	-1.58660
25.0	0.12958	0.64141
50.0	1.14615	3.11689
75.0	5.64295	5.59237
90.0	8.58958	7.82038
95.0	10.32313	9.15375
99.0	13.37500	11.65494

Distributional Statistics by Period for Bottom Salinity (PSU) at Station EPC 2 Rkm 13.7

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1852	0.04	0.12	3.16	0.90	5.91	16.74
2008-2011	1386	0.04	0.16	3.83	2.83	6.66	20.18
2012-2017	1129	0.08	0.11	2.17	0.34	4.06	12.56

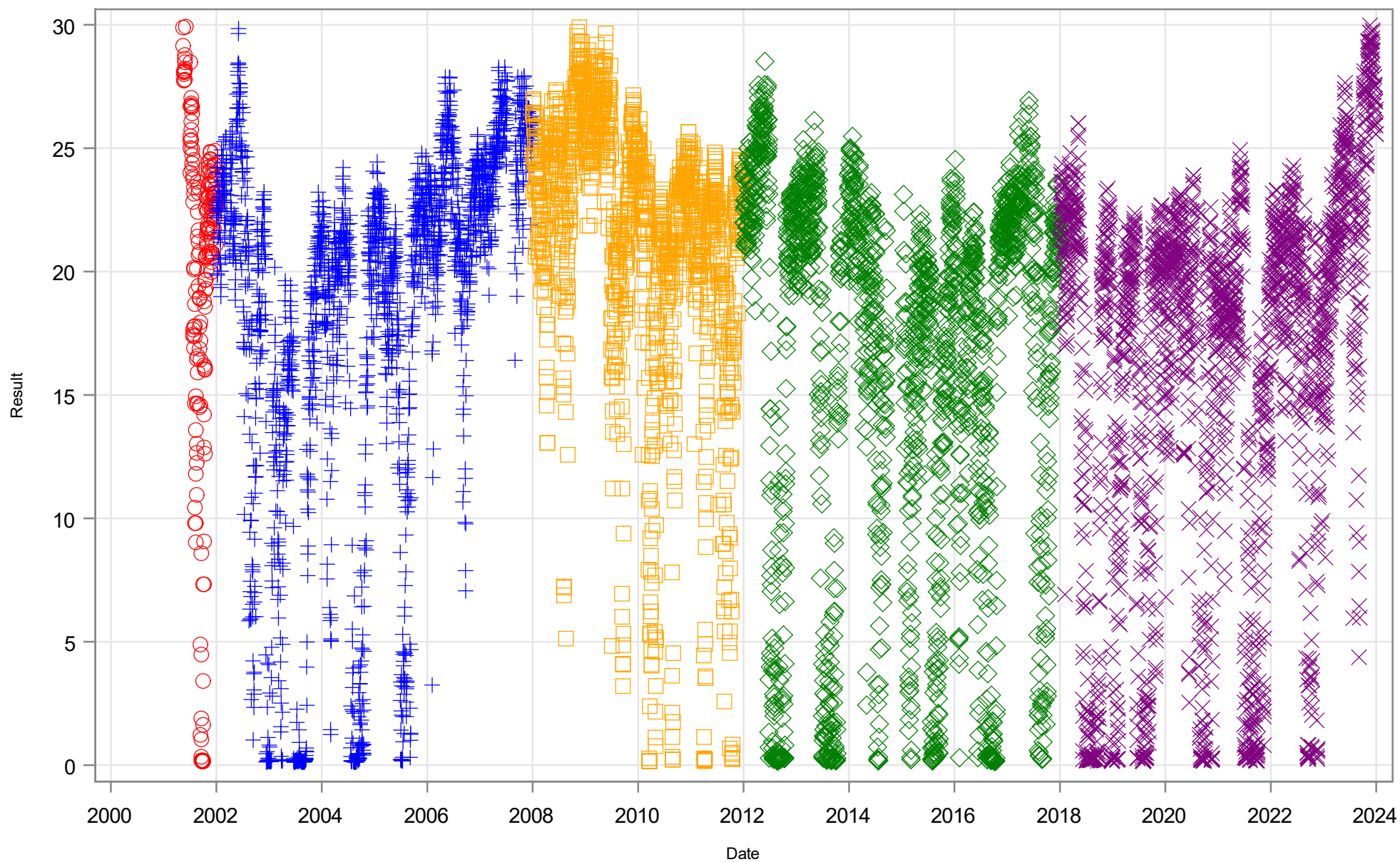
DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station EPC 2 Rkm 13.7



DRAFT

Timeseries of Bottom Salinity (PSU) at Station TBW Columbus



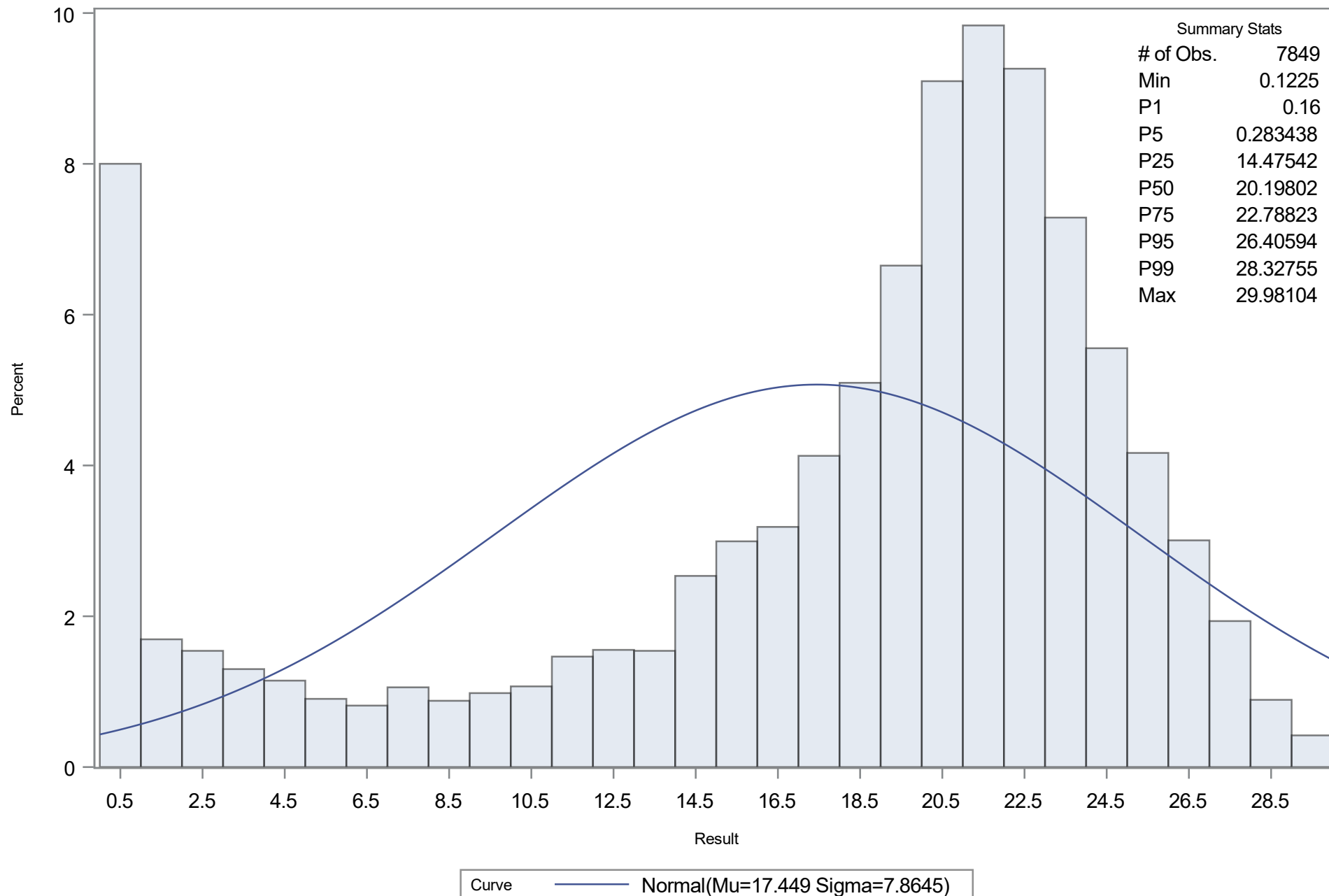
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station TBW Columbus

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Salinity (PSU) at Station TBW Columbus**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	17.44949
Std Dev	Sigma	7.864525

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.161738	Pr > D	<0.010
Cramer-von Mises	W-Sq	67.869339	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	402.024329	Pr > A-Sq	<0.005

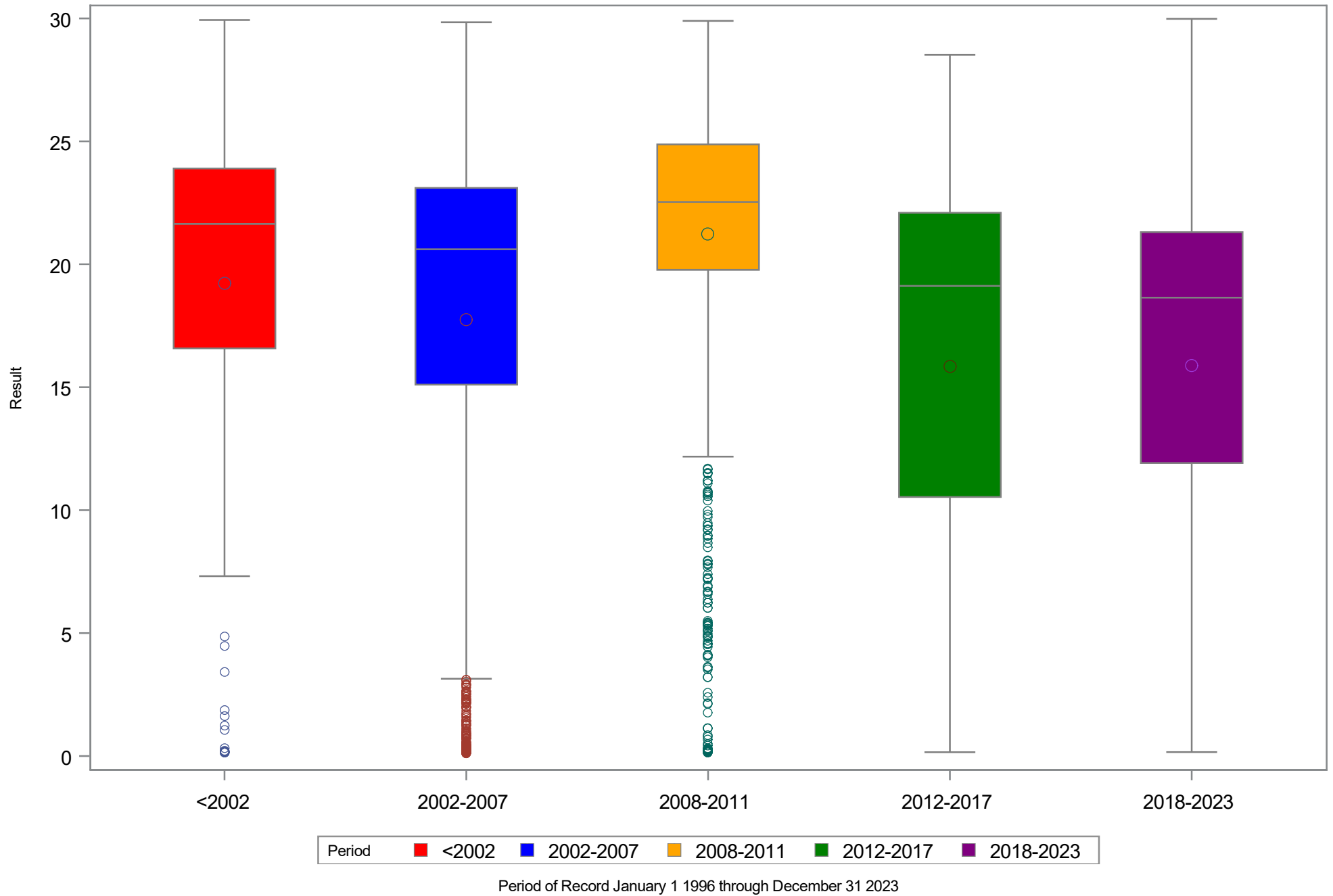
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.16000	-0.84613
5.0	0.28344	4.51350
10.0	2.18458	7.37070
25.0	14.47542	12.14495
50.0	20.19802	17.44949
75.0	22.78823	22.75403
90.0	25.12490	27.52829
95.0	26.40594	30.38548
99.0	28.32755	35.74511

Distributional Statistics by Period for Bottom Salinity (PSU) at Station TBW Columbus

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	198	0.15	16.58	19.24	21.64	23.90	29.94
2002-2007	2120	0.12	15.11	17.76	20.61	23.10	29.85
2008-2011	1449	0.15	19.77	21.22	22.54	24.87	29.90
2012-2017	1928	0.16	10.54	15.84	19.12	22.10	28.52
2018-2023	2154	0.16	11.92	15.88	18.64	21.31	29.98

DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station TBW Columbus



DRAFT

Timeseries of Bottom Salinity (PSU) at Station TBW Crosstown



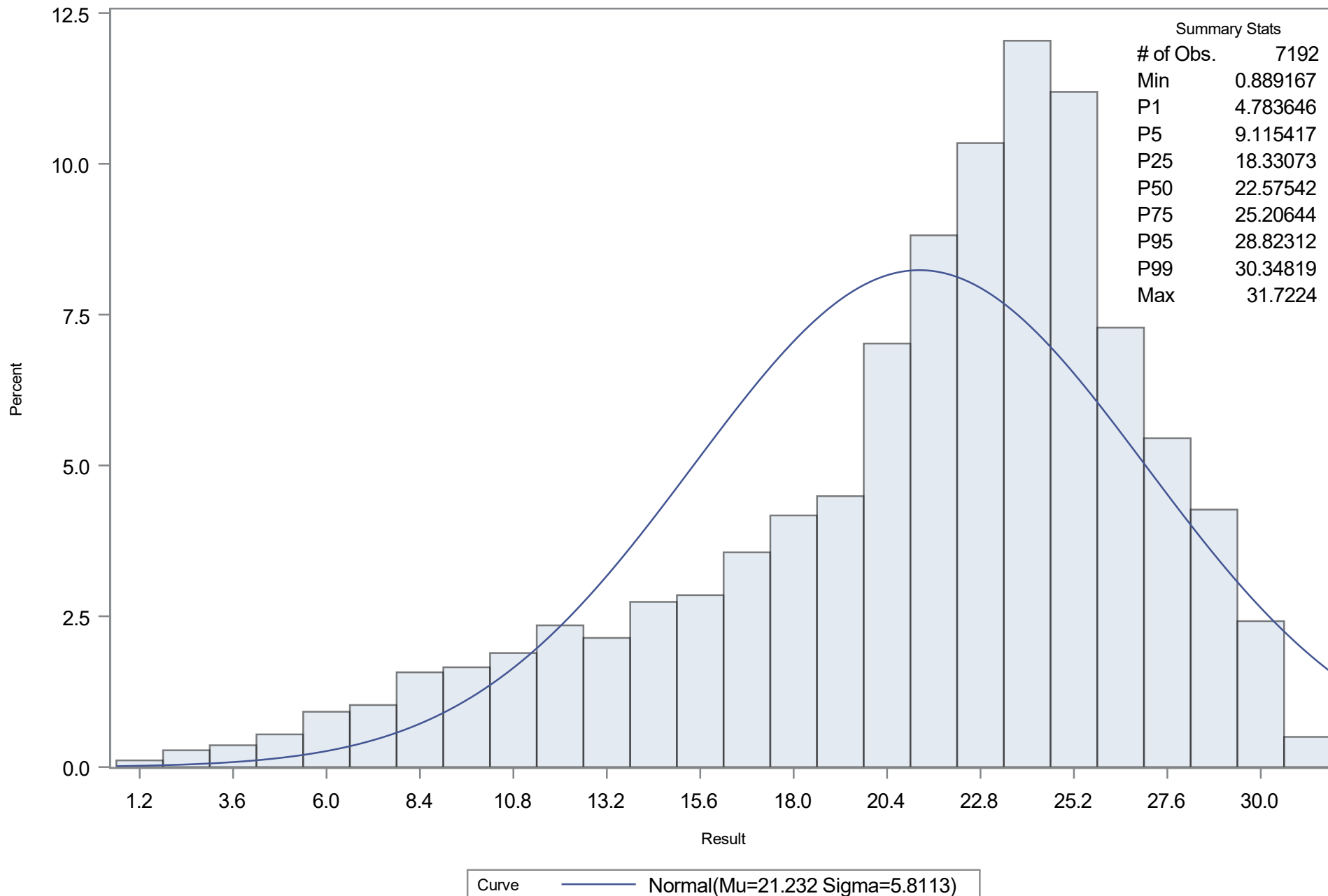
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station TBW Crosstown

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Salinity (PSU) at Station TBW Crosstown**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	21.23201
Std Dev	Sigma	5.811265

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.110390	Pr > D	<0.010
Cramer-von Mises	W-Sq	27.704213	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	157.356072	Pr > A-Sq	<0.005

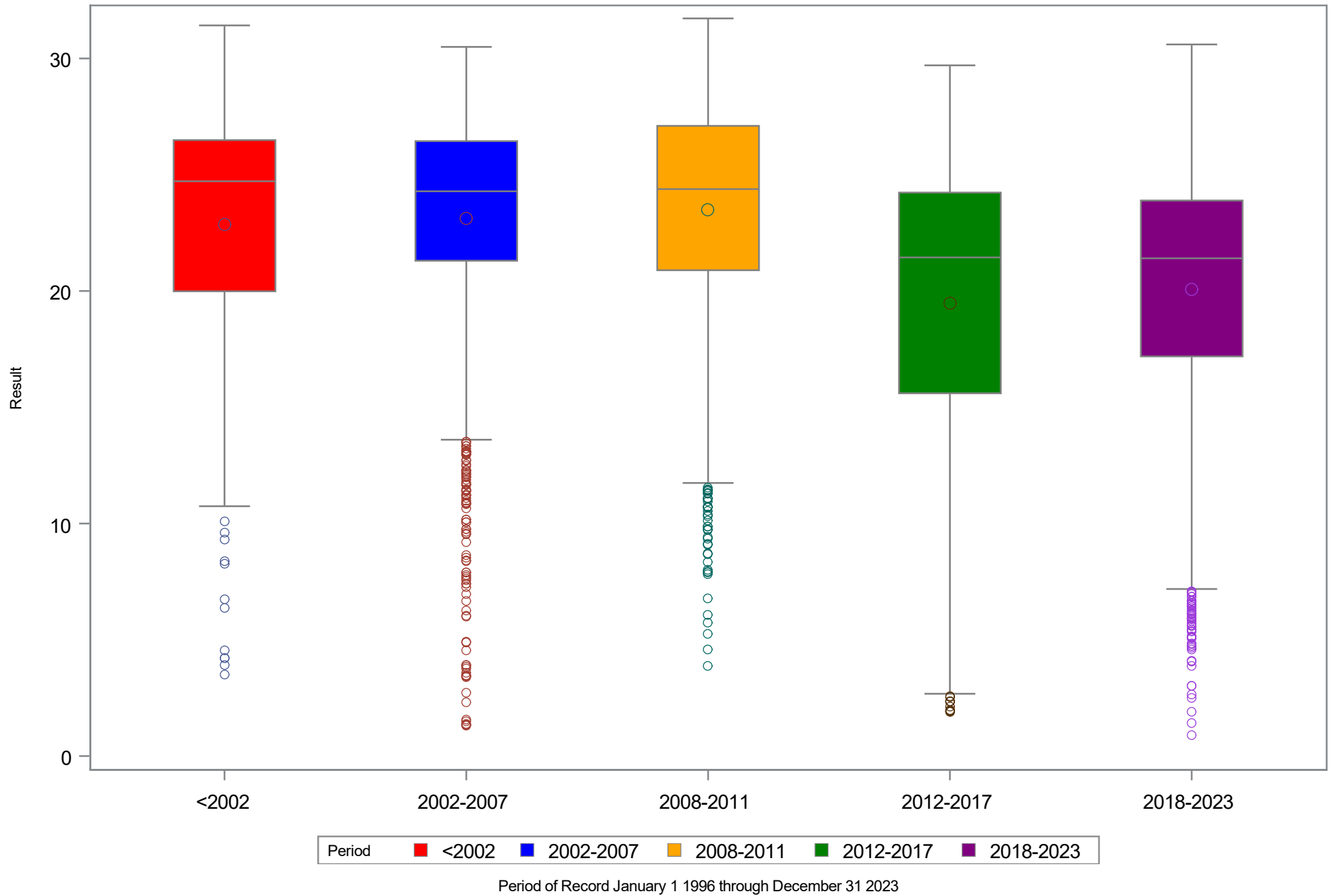
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	4.78365	7.71299
5.0	9.11542	11.67333
10.0	12.33260	13.78458
25.0	18.33073	17.31238
50.0	22.57542	21.23201
75.0	25.20644	25.15165
90.0	27.50792	28.67945
95.0	28.82312	30.79070
99.0	30.34819	34.75104

Distributional Statistics by Period for Bottom Salinity (PSU) at Station TBW Crosstown

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	210	3.52	19.99	22.87	24.72	26.49	31.42
2002-2007	1414	1.30	21.30	23.14	24.29	26.44	30.50
2008-2011	1367	3.86	20.89	23.51	24.38	27.10	31.72
2012-2017	2066	1.89	15.60	19.46	21.44	24.23	29.70
2018-2023	2135	0.89	17.19	20.06	21.41	23.89	30.60

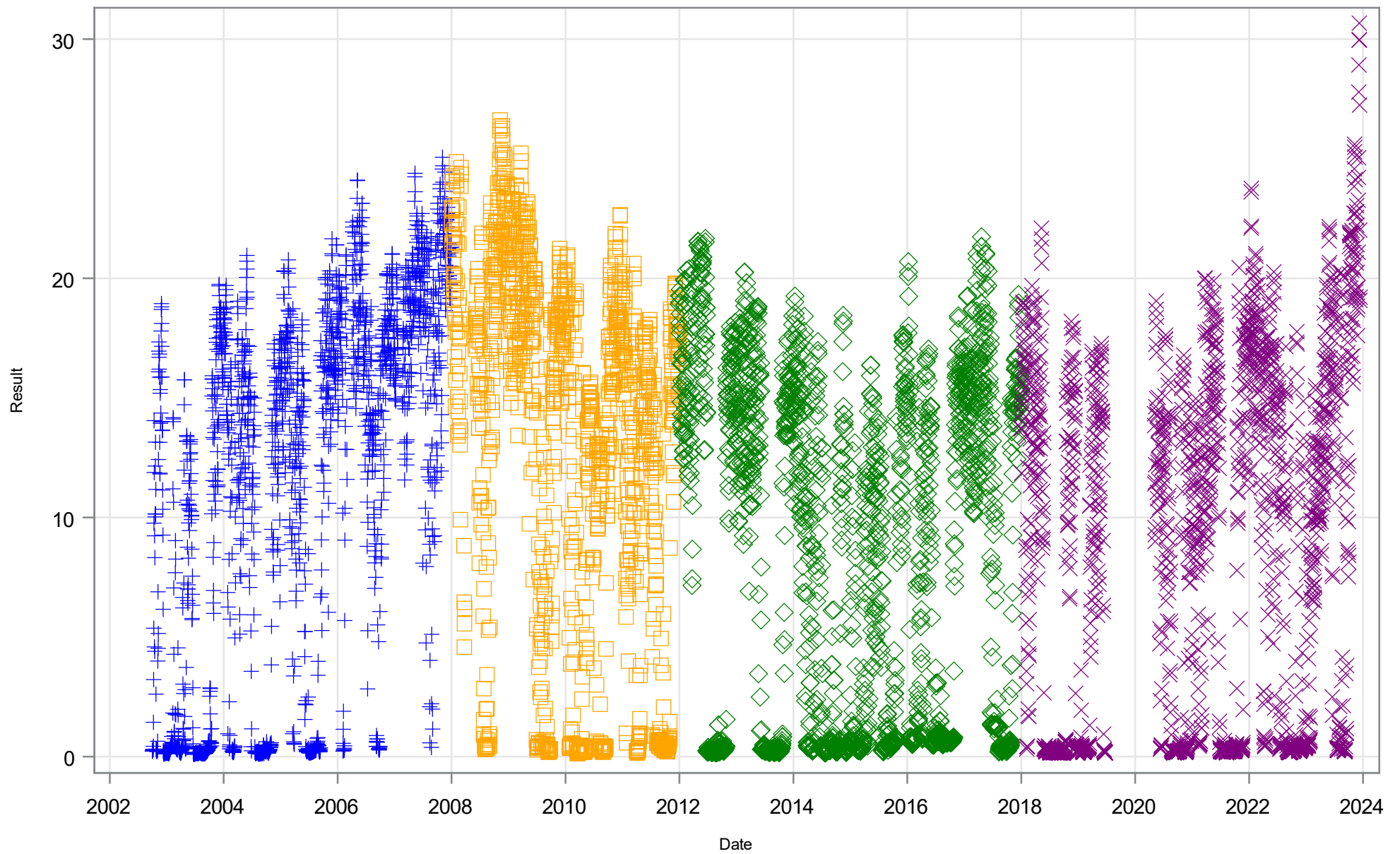
DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station TBW Crosstown



DRAFT

Timeseries of Bottom Salinity (PSU) at Station TBW Sligh



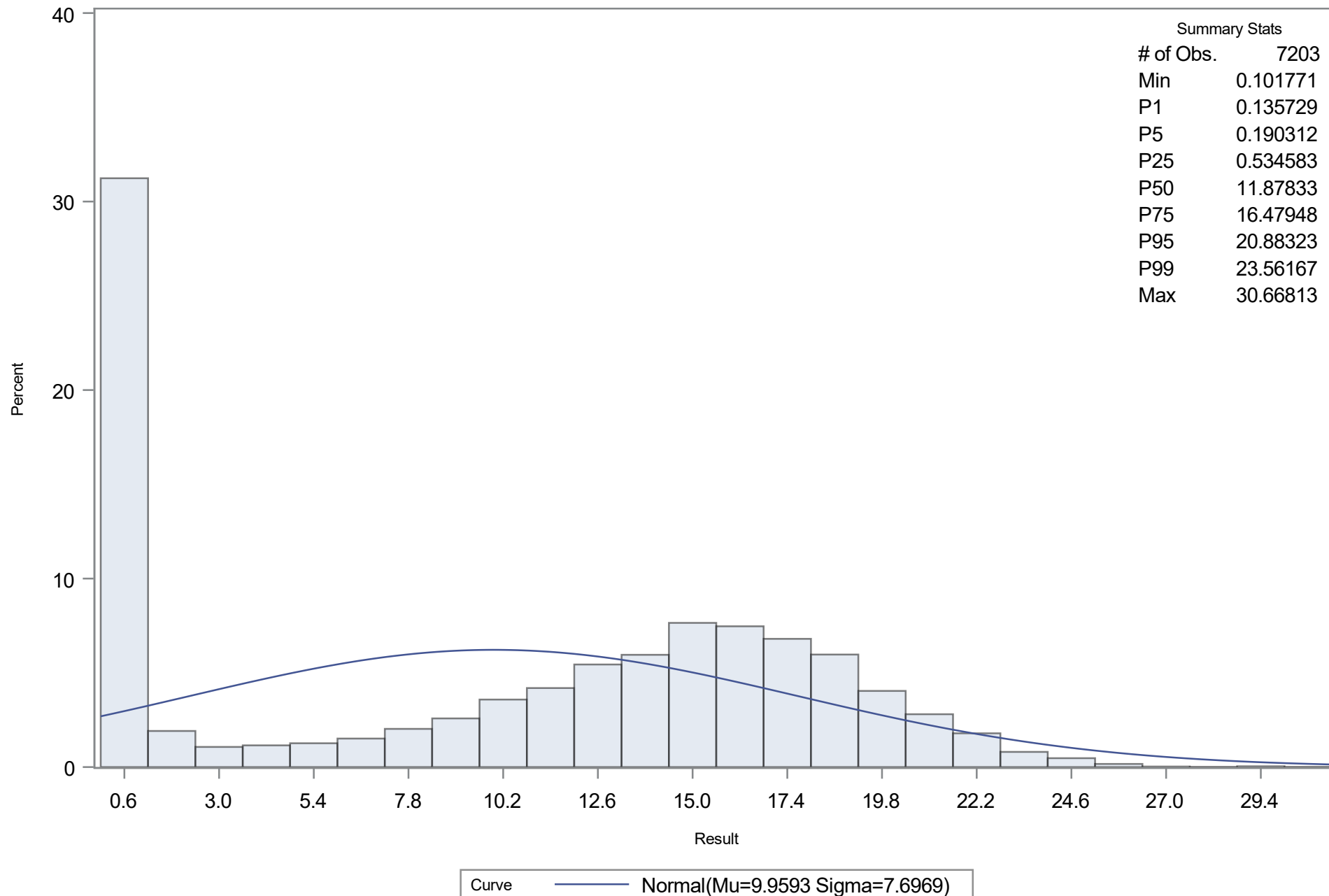
Period + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station TBW Sligh

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Salinity (PSU) at Station TBW Sligh**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	9.959277
Std Dev	Sigma	7.69695

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.185916	Pr > D	<0.010
Cramer-von Mises	W-Sq	50.218727	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	339.603153	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.13573	-7.94651
5.0	0.19031	-2.70108
10.0	0.23479	0.09524
25.0	0.53458	4.76776
50.0	11.87833	9.95928
75.0	16.47948	15.15079
90.0	19.23344	19.82331
95.0	20.88323	22.61963
99.0	23.56167	27.86506

DRAFT

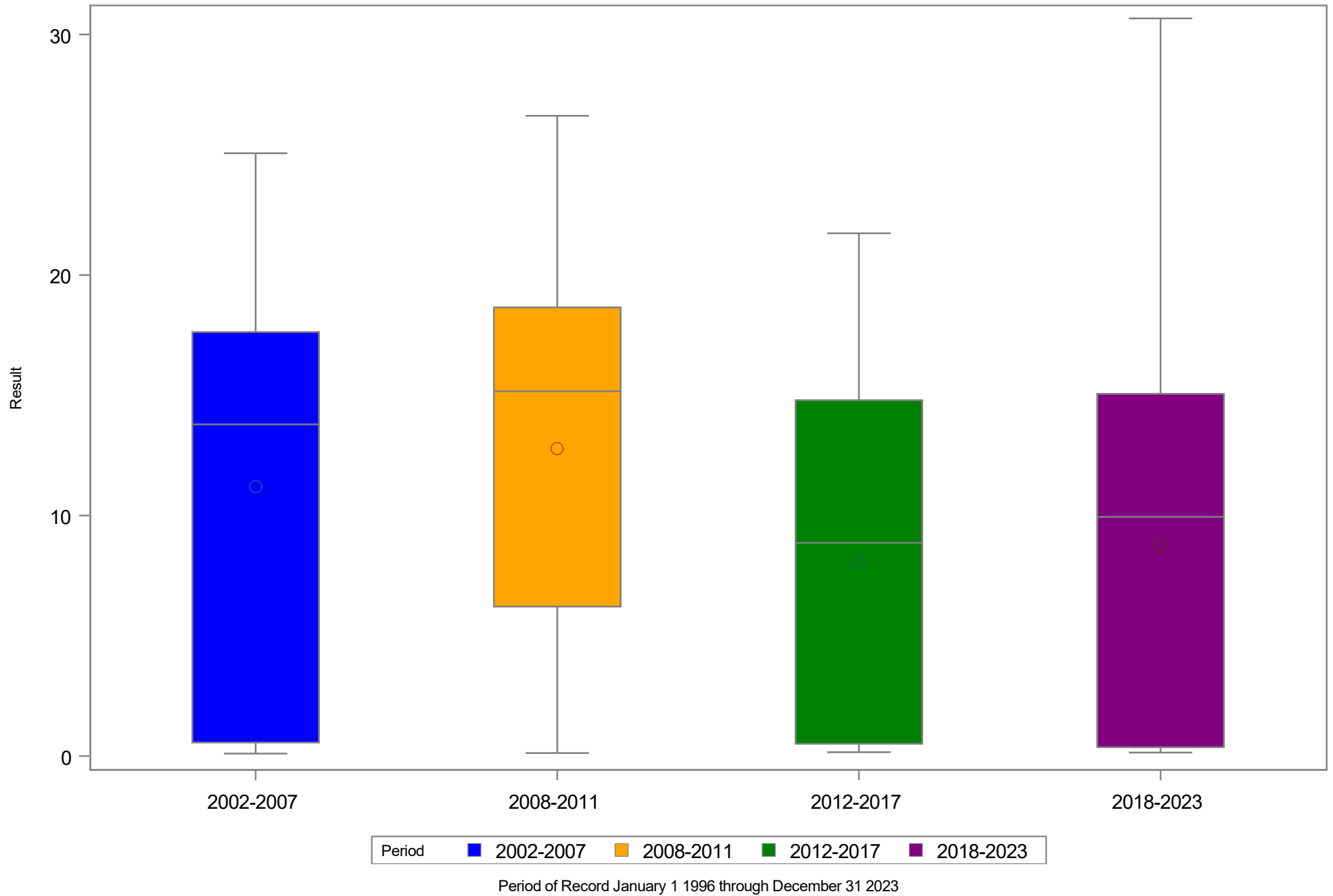
Distributional Statistics by Period for Bottom Salinity (PSU) at Station TBW Sligh

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1850	0.10	0.56	11.20	13.79	17.63	25.06
2008-2011	1376	0.13	6.21	12.78	15.16	18.65	26.62
2012-2017	2133	0.16	0.51	8.07	8.86	14.80	21.73
2018-2023	1844	0.15	0.37	8.80	9.94	15.06	30.67

Period of Record January 1 1996 through December 31 2023

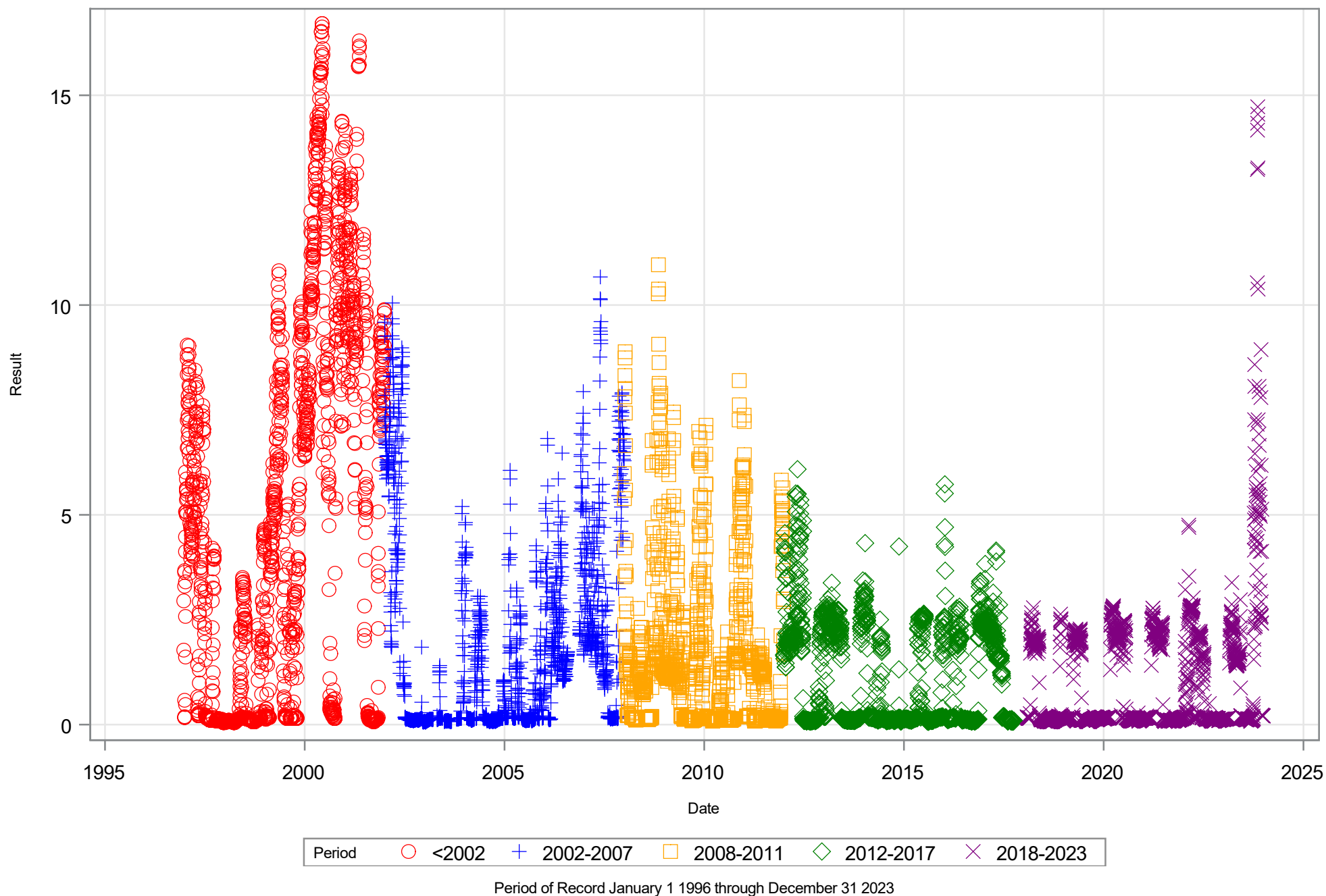
DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station TBW Sligh



DRAFT

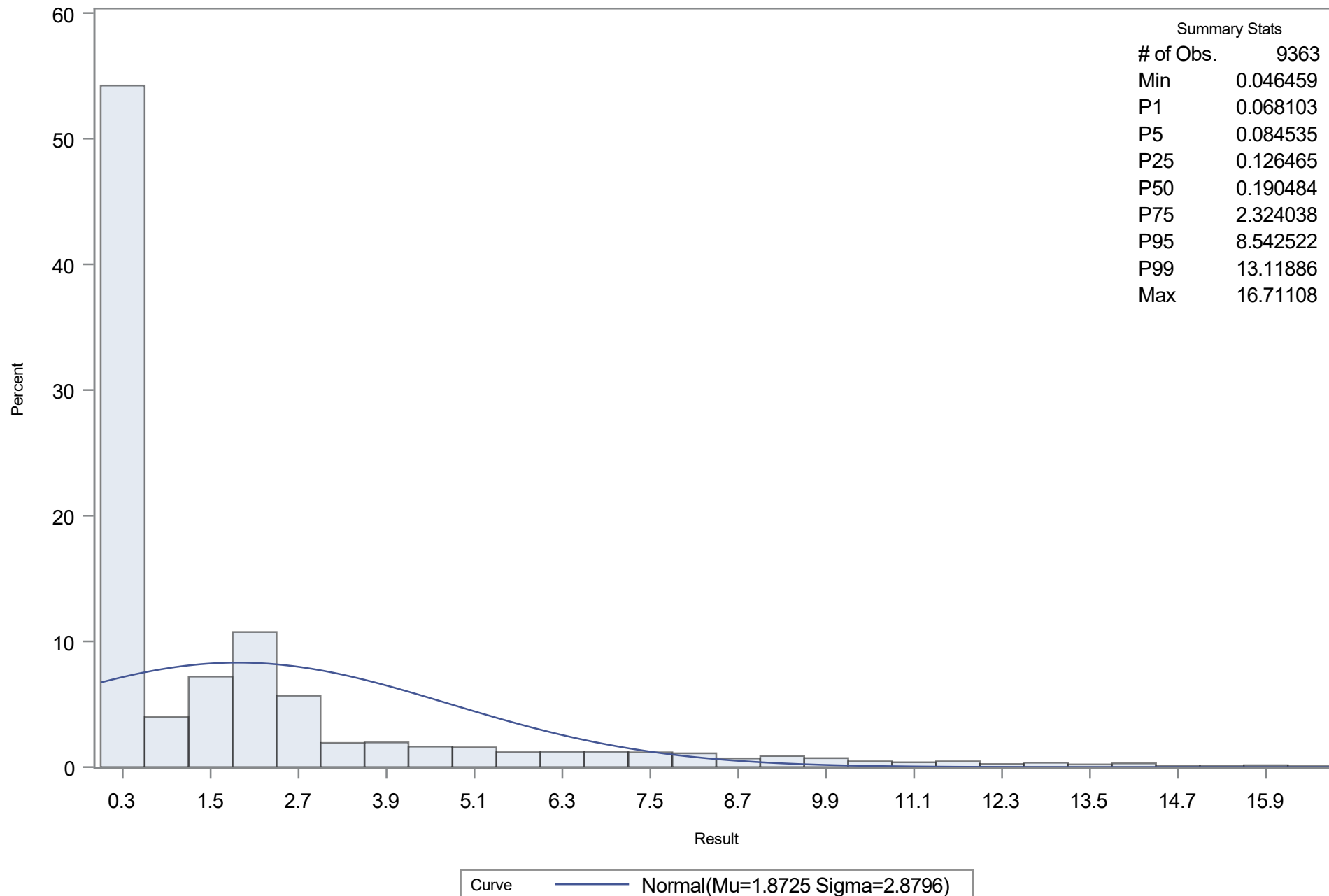
Timeseries of Bottom Salinity (PSU) at Station USGS 02304510 Rowlett



DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station USGS 02304510 Rowlett

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.872495
Std Dev	Sigma	2.879601

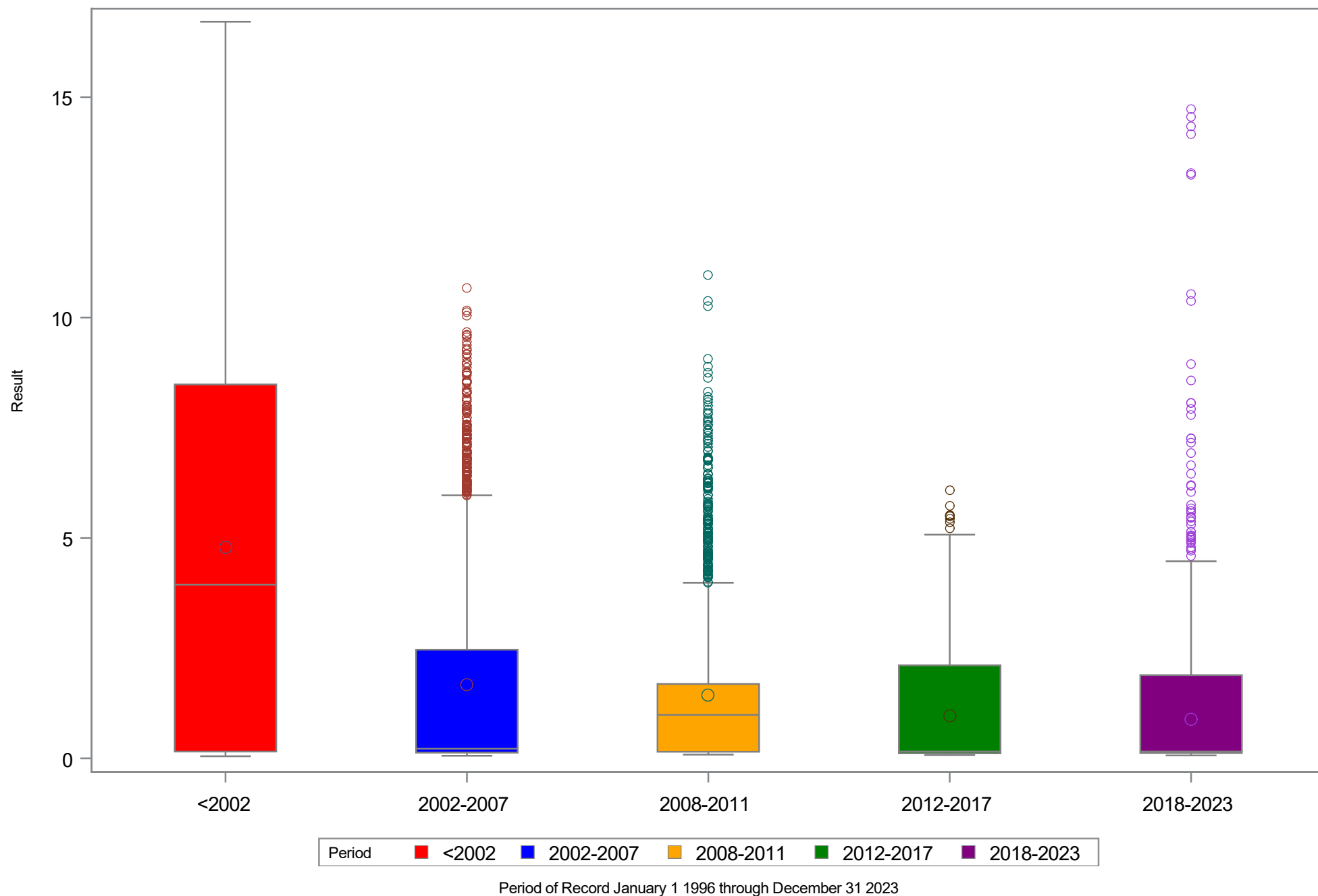
Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.26302	Pr > D	<0.010
Cramer-von Mises	W-Sq	203.73985	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	1098.11937	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.06810	-4.82646
5.0	0.08453	-2.86403
10.0	0.09706	-1.81786
25.0	0.12647	-0.06977
50.0	0.19048	1.87249
75.0	2.32404	3.81476
90.0	5.88890	5.56285
95.0	8.54252	6.60902
99.0	13.11886	8.57145

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1720	0.05	0.15	4.78	3.94	8.48	16.71
2002-2007	1952	0.06	0.13	1.67	0.22	2.46	10.67
2008-2011	1457	0.08	0.15	1.44	0.99	1.69	10.96
2012-2017	2080	0.07	0.11	0.97	0.15	2.11	6.09
2018-2023	2154	0.06	0.12	0.89	0.15	1.89	14.73

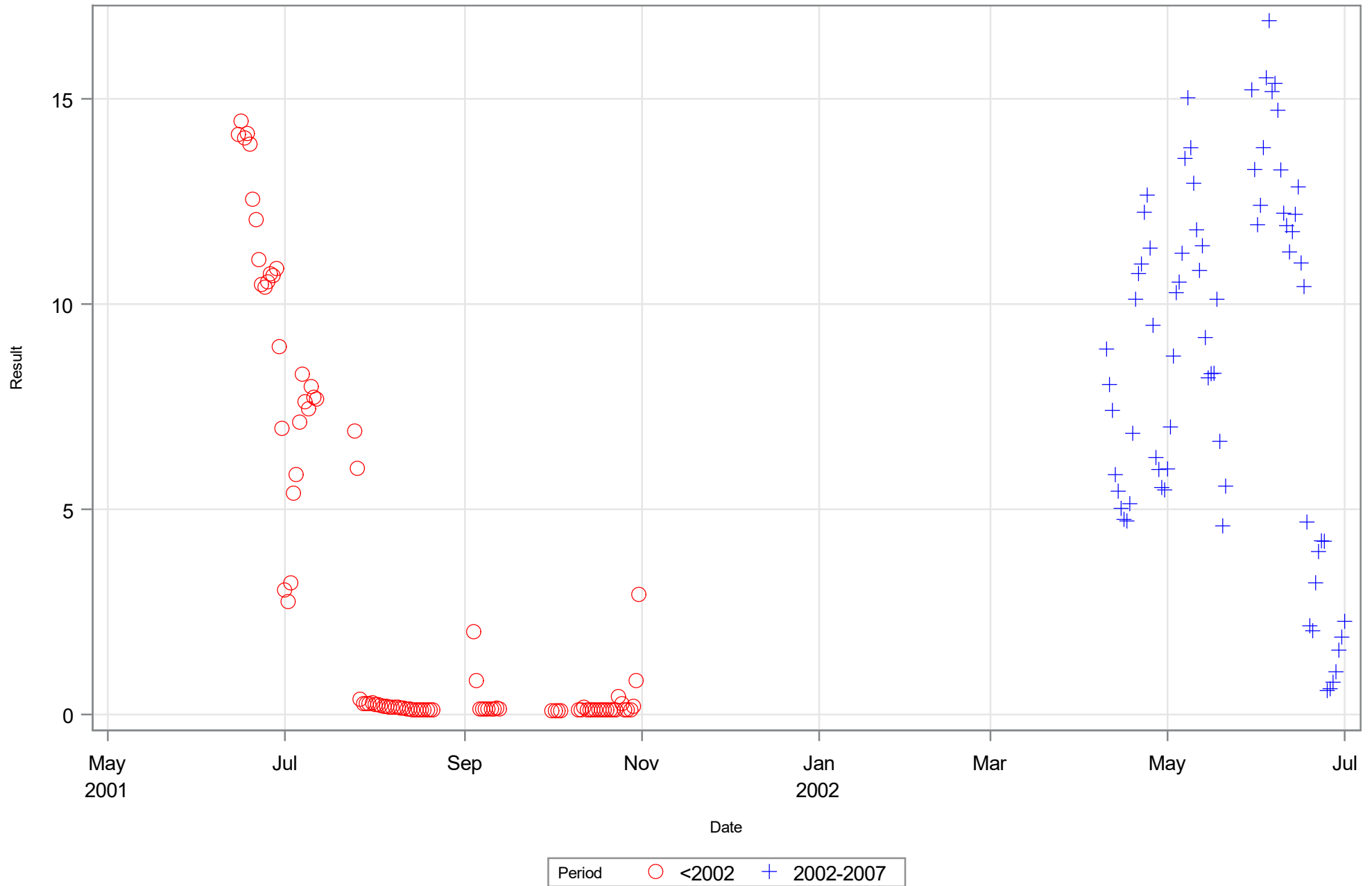
DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station USGS 02304510 Rowlett



DRAFT

Timeseries of Bottom Salinity (PSU) at Station USGS 02304515 Hannahs Whirl

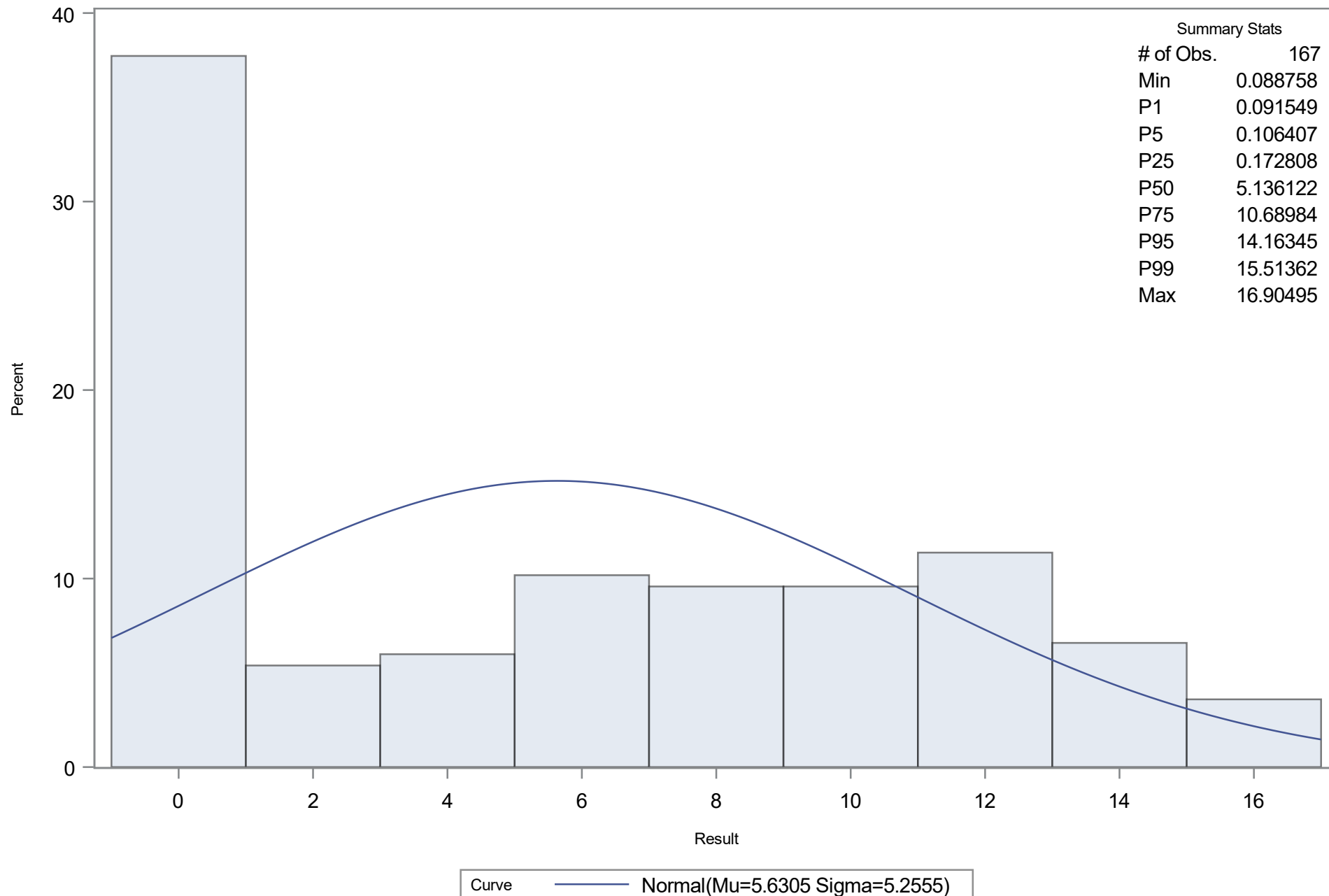


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station USGS 02304515 Hannahs Whirl

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5.630465
Std Dev	Sigma	5.255453

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.19685965	Pr > D	<0.010
Cramer-von Mises	W-Sq	1.22435557	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	8.15610160	Pr > A-Sq	<0.005

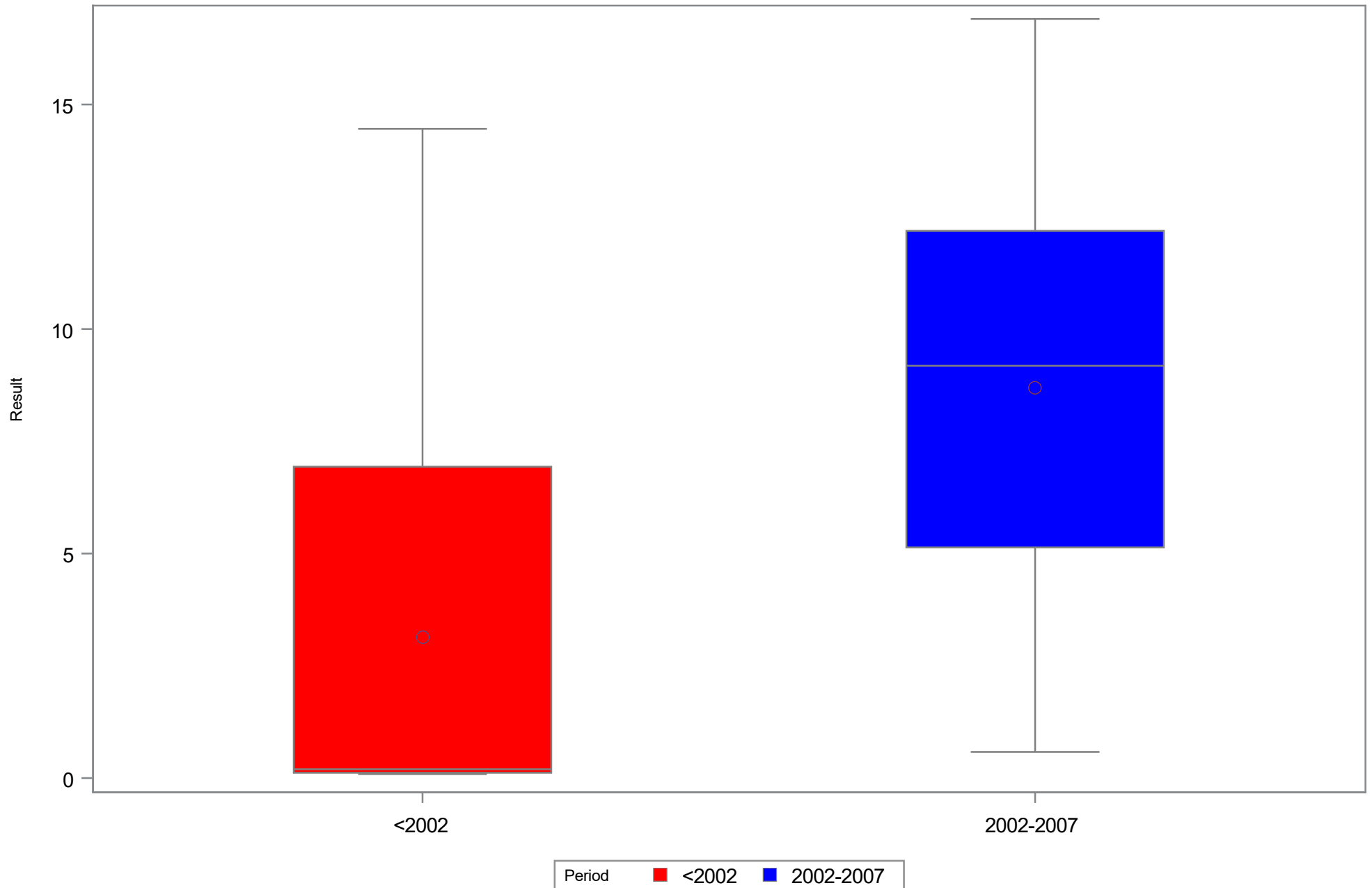
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.09155	-6.59555
5.0	0.10641	-3.01399
10.0	0.11435	-1.10467
25.0	0.17281	2.08572
50.0	5.13612	5.63047
75.0	10.68984	9.17521
90.0	13.26818	12.36560
95.0	14.16345	14.27492
99.0	15.51362	17.85648

DRAFT Distributional Statistics by Period for Bottom Salinity (PSU) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	92	0.09	0.12	3.14	0.20	6.93	14.46
2002-2007	75	0.58	5.14	8.69	9.18	12.19	16.90

DRAFT

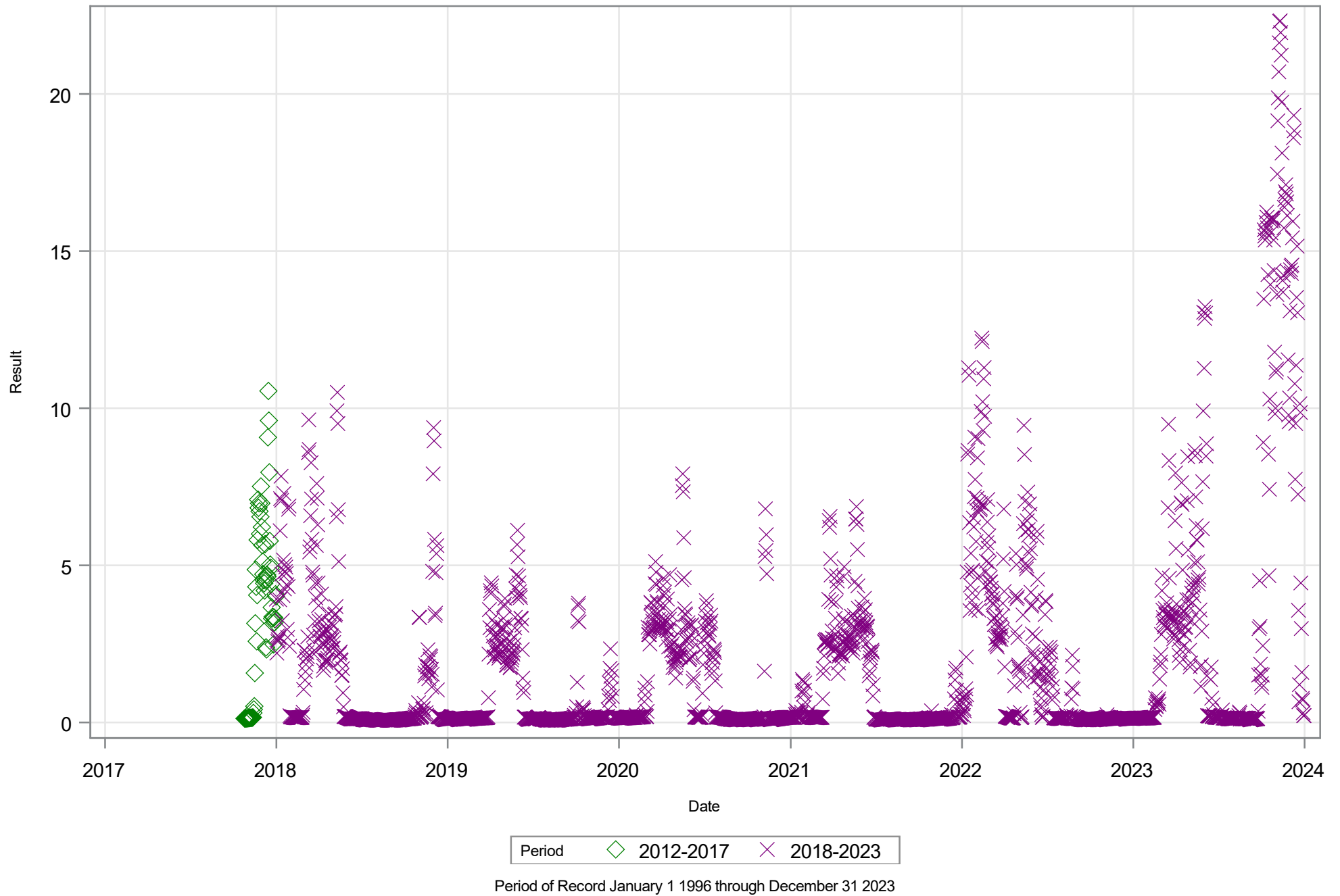
Boxplot by MFL Period for Bottom Salinity (PSU) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

DRAFT

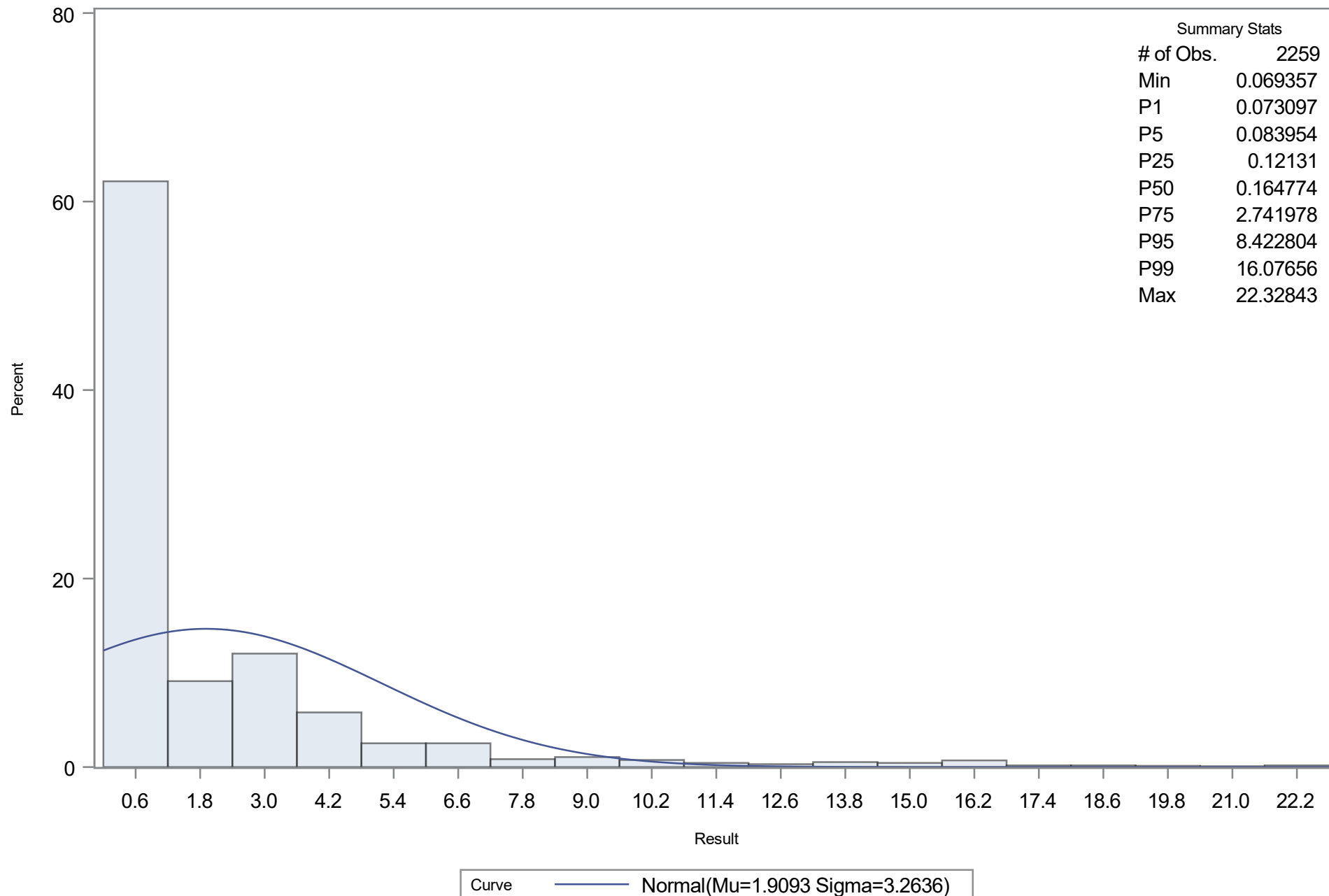
Timeseries of Bottom Salinity (PSU) at Station USGS 02304517 BLHannah



DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station USGS 02304517 BLHannah

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	1.909318
Std Dev	Sigma	3.263573

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.286449	Pr > D	<0.010
Cramer-von Mises	W-Sq	54.267597	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	288.601139	Pr > A-Sq	<0.005

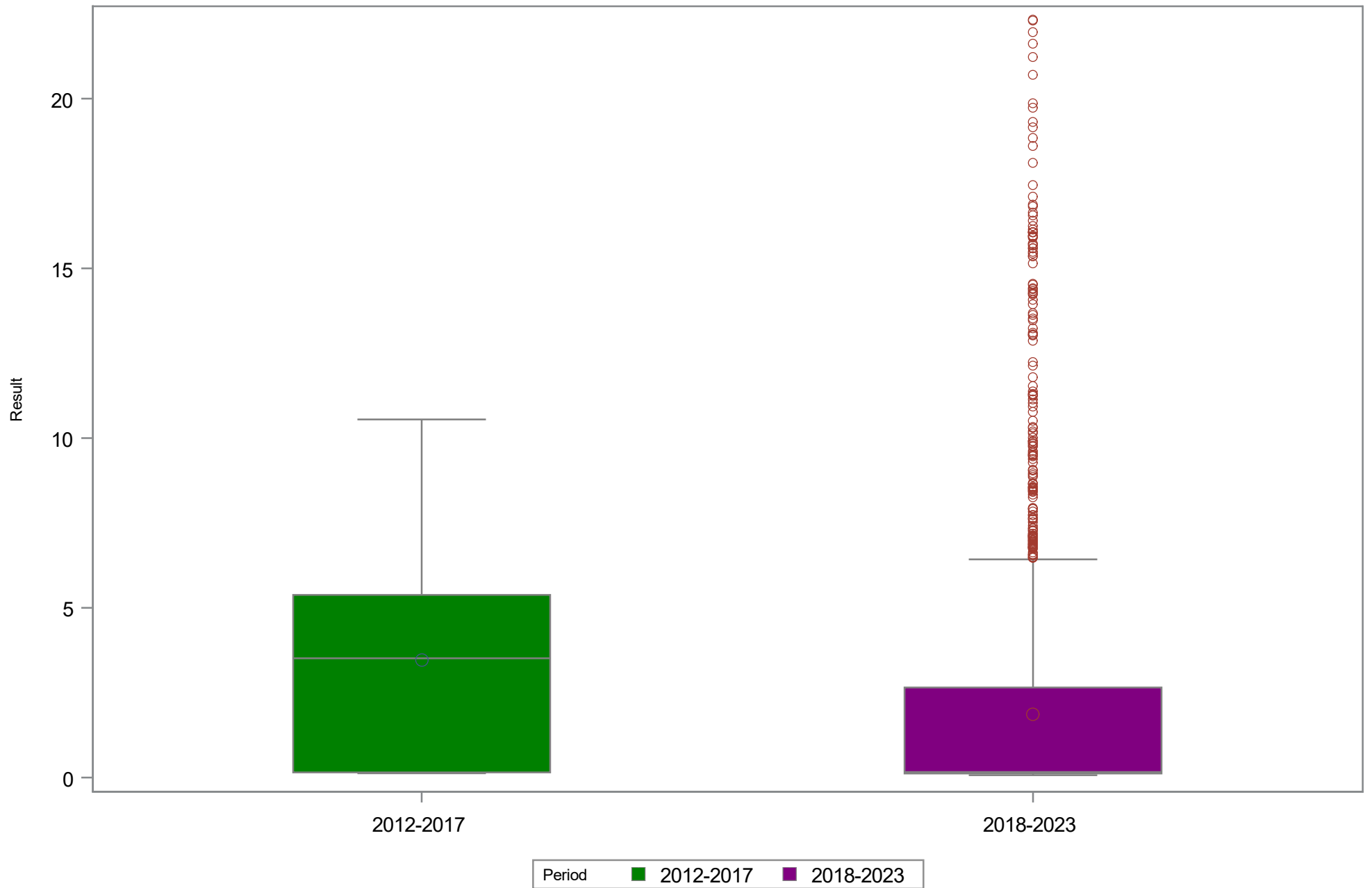
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.07310	-5.68289
5.0	0.08395	-3.45878
10.0	0.09385	-2.27312
25.0	0.12131	-0.29193
50.0	0.16477	1.90932
75.0	2.74198	4.11056
90.0	5.12739	6.09175
95.0	8.42280	7.27742
99.0	16.07656	9.50152

DRAFT **Distributional Statistics by Period for Bottom Salinity (PSU) at Station USGS 02304517 BLHannah**

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	0.13	0.15	3.46	3.51	5.38	10.55
2018-2023	2191	0.07	0.12	1.86	0.16	2.65	22.33

DRAFT

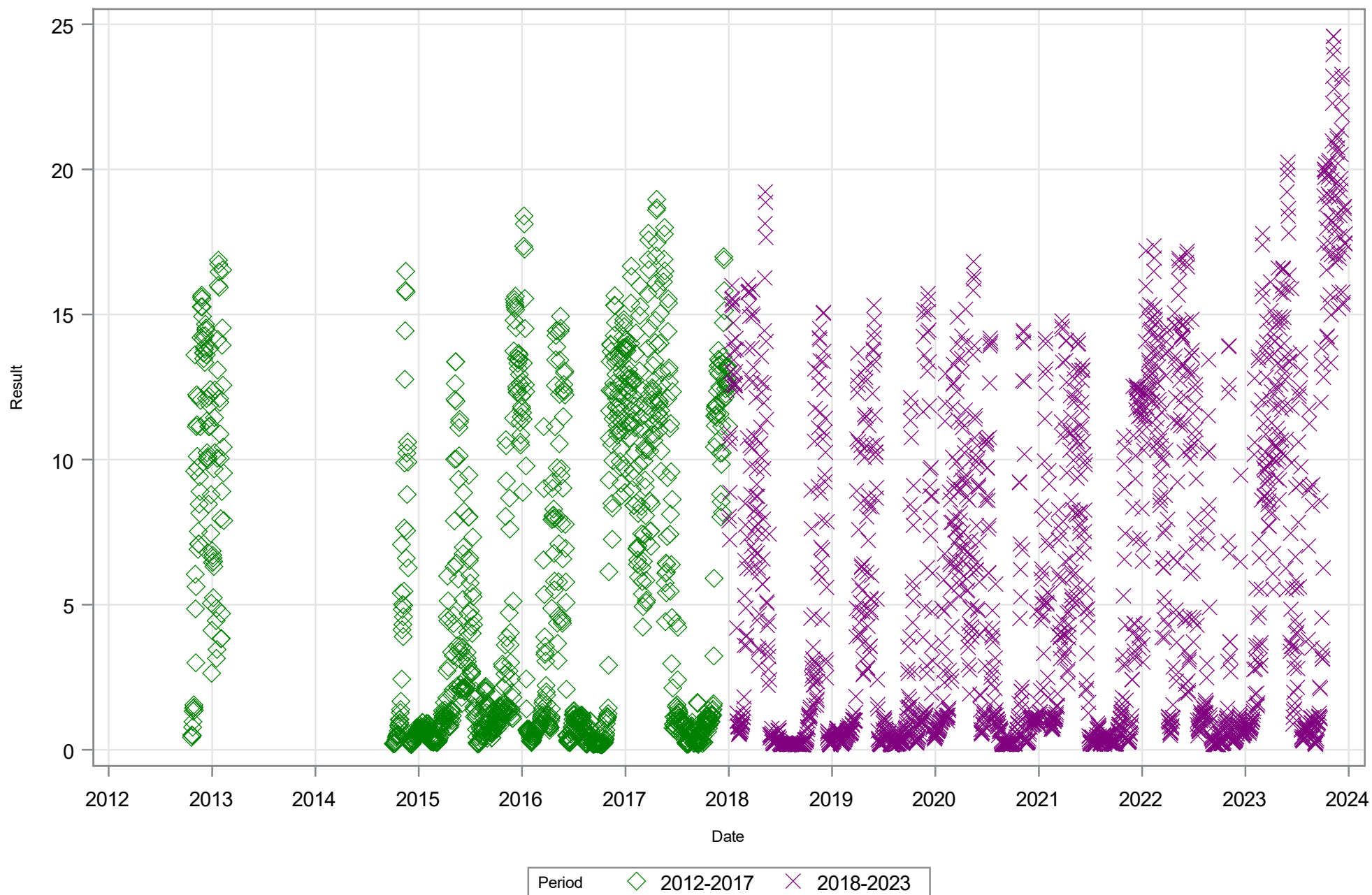
Boxplot by MFL Period for Bottom Salinity (PSU) at Station USGS 02304517 BLHannah



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Bottom Salinity (PSU) at Station USGS 023060013 I-275

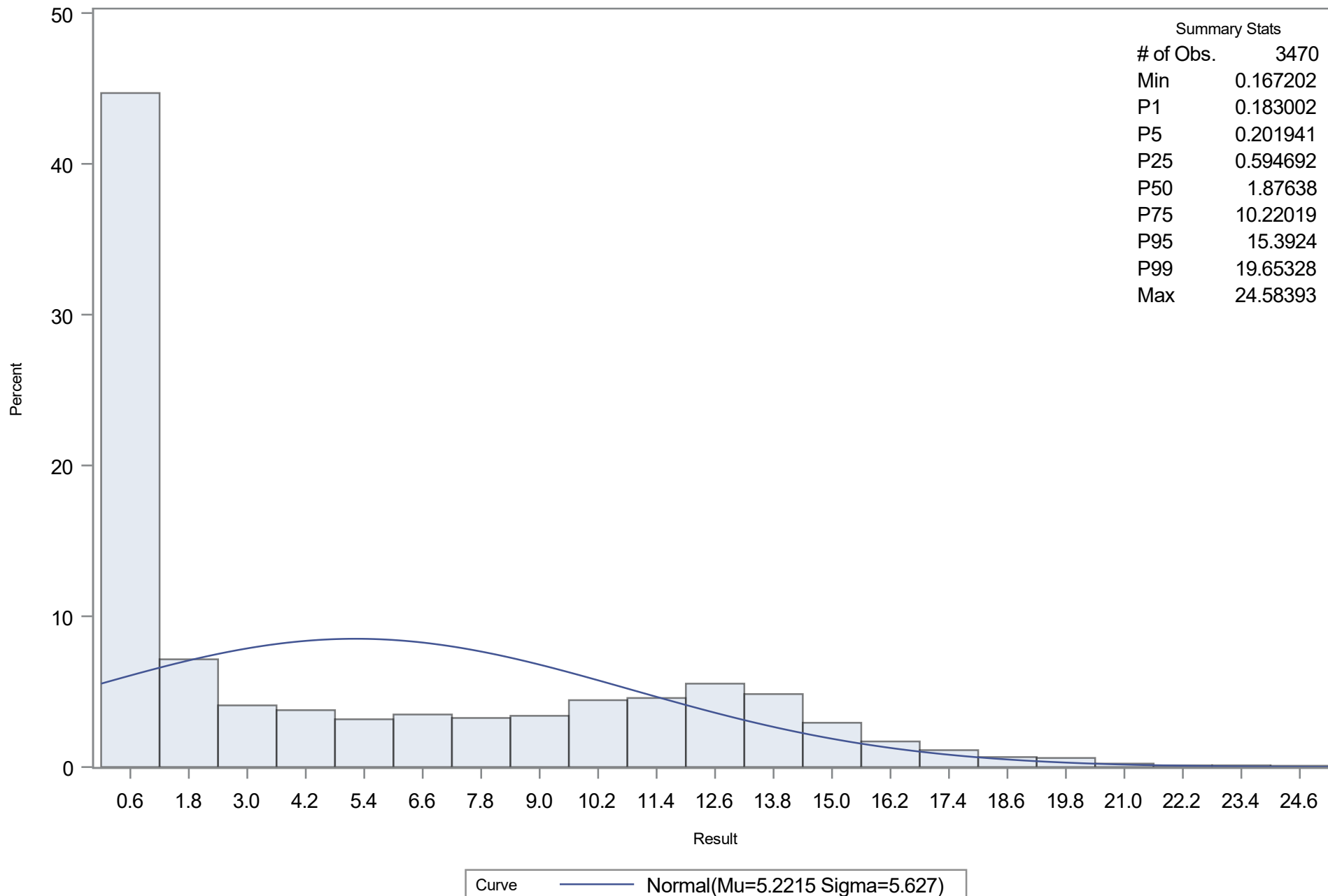


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	5.221497
Std Dev	Sigma	5.62699

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.231198	Pr > D	<0.010
Cramer-von Mises	W-Sq	44.644856	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	250.662721	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	0.18300	-7.86884
5.0	0.20194	-4.03408
10.0	0.23957	-1.98978
25.0	0.59469	1.42615
50.0	1.87638	5.22150
75.0	10.22019	9.01684
90.0	13.75692	12.43278
95.0	15.39240	14.47707
99.0	19.65328	18.31183

DRAFT

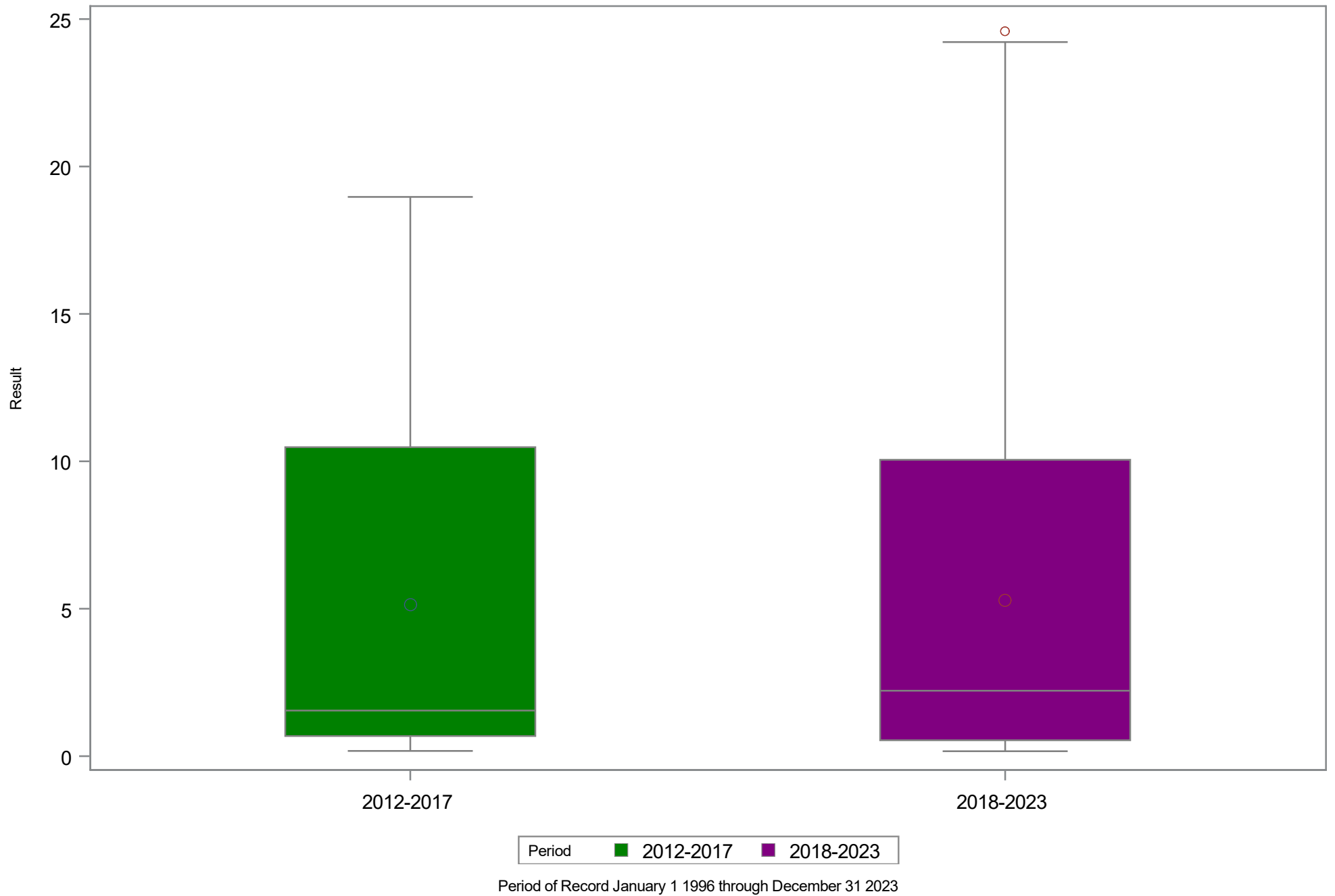
Distributional Statistics by Period for Bottom Salinity (PSU) at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	1291	0.18	0.68	5.13	1.55	10.48	18.97
2018-2023	2179	0.17	0.54	5.27	2.22	10.05	24.58

Period of Record January 1 1996 through December 31 2023

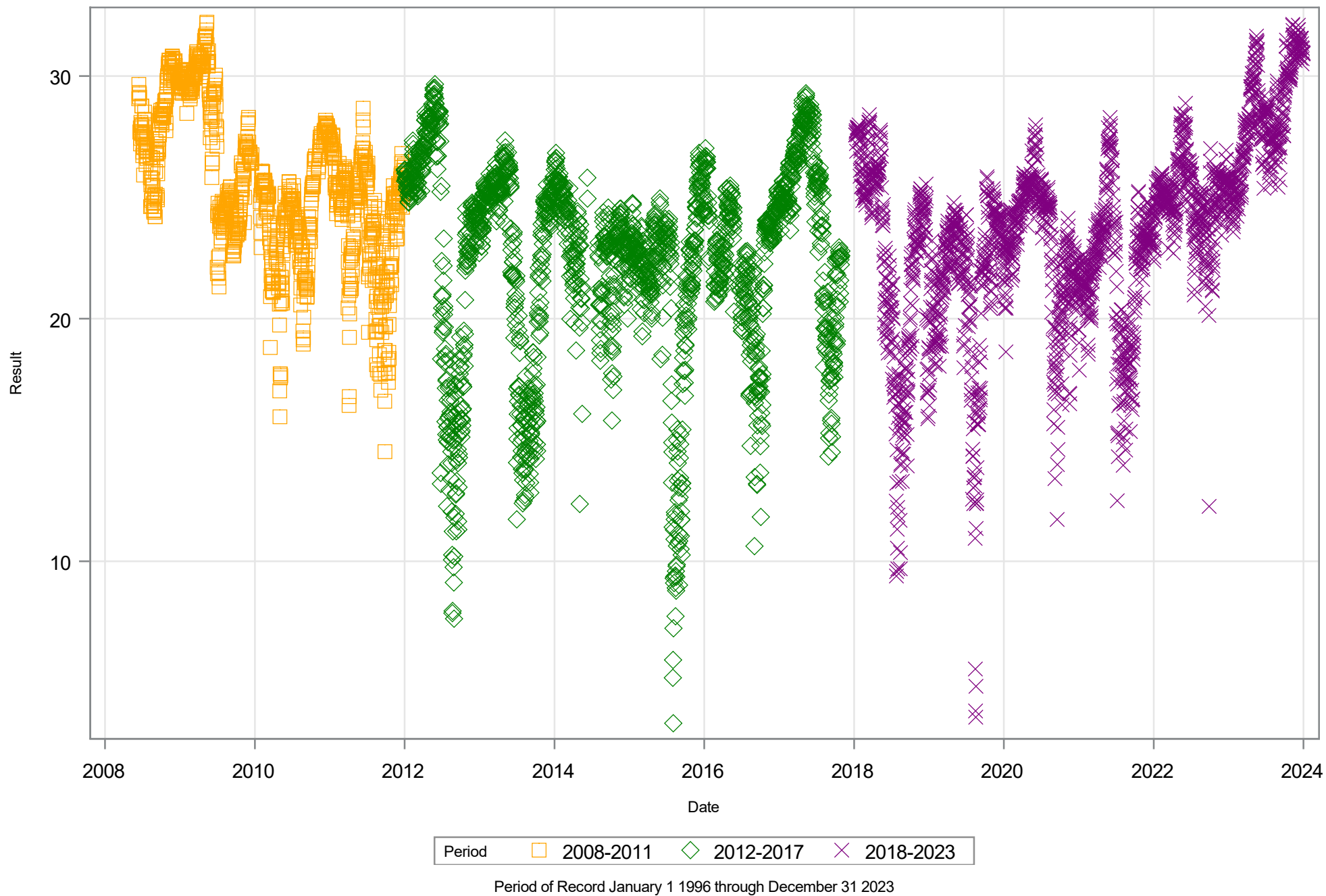
DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station USGS 023060013 I-275



DRAFT

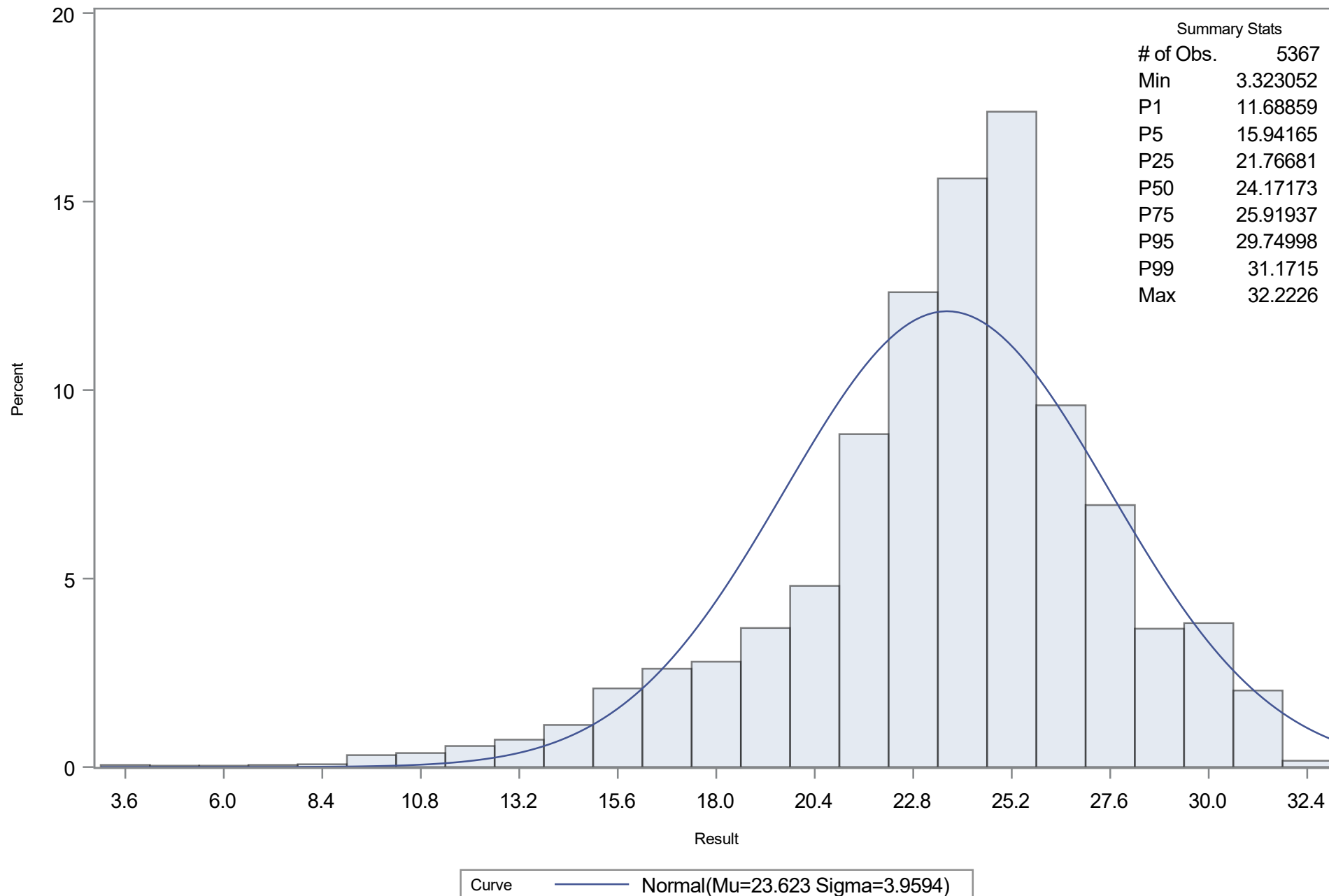
Timeseries of Bottom Salinity (PSU) at Station USGS 02306028 Platt



DRAFT

Univariate Histogram of Bottom Salinity (PSU) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Salinity (PSU) at Station USGS 02306028 Platt**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	23.62294
Std Dev	Sigma	3.95943

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0805900	Pr > D	<0.010
Cramer-von Mises	W-Sq	11.0354768	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	60.9306097	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	11.6886	14.4119
5.0	15.9417	17.1103
10.0	18.2812	18.5487
25.0	21.7668	20.9523
50.0	24.1717	23.6229
75.0	25.9194	26.2935
90.0	28.1440	28.6972
95.0	29.7500	30.1356
99.0	31.1715	32.8340

Period of Record January 1 1996 through December 31 2023

DRAFT

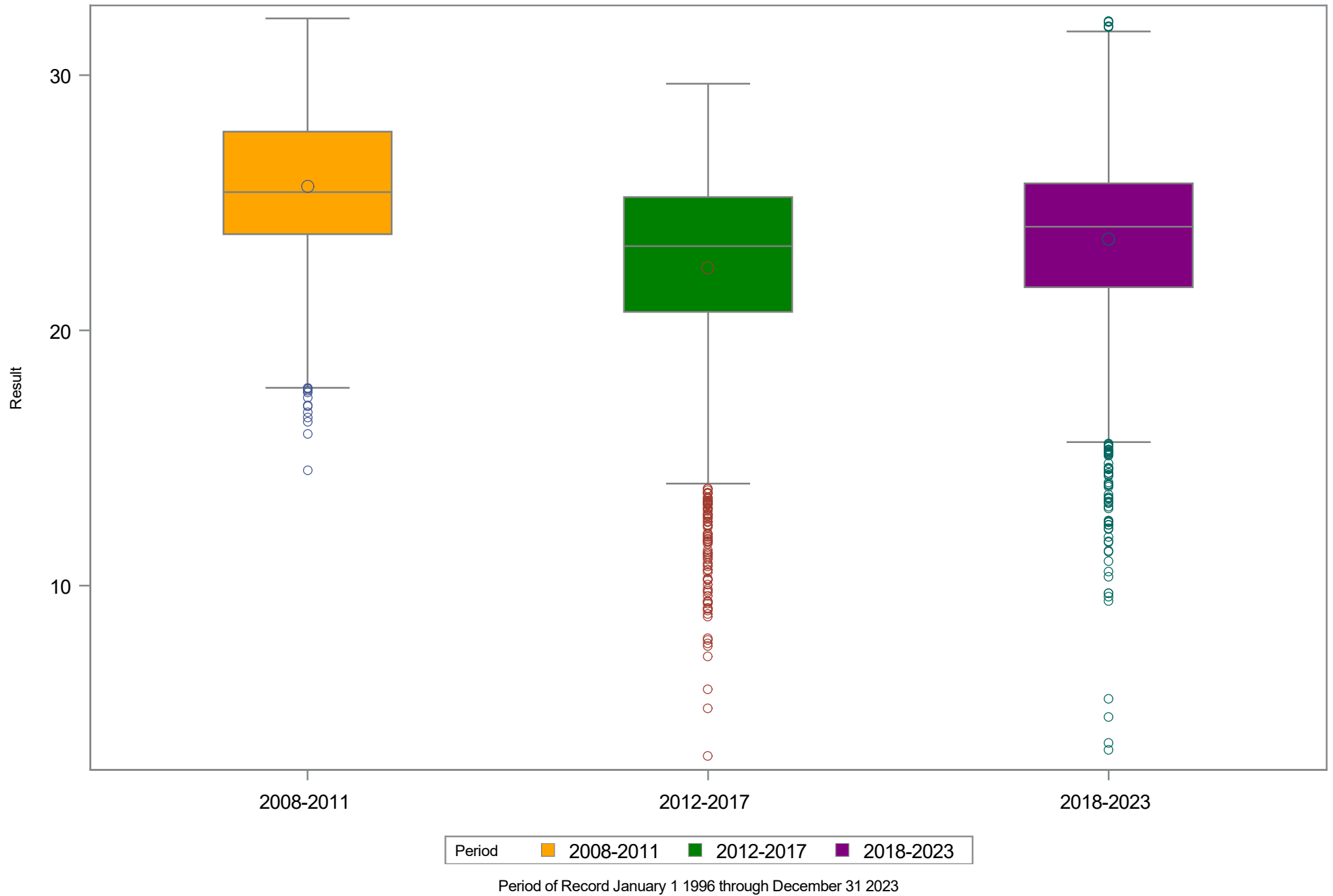
Distributional Statistics by Period for Bottom Salinity (PSU) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1205	14.52	23.77	25.64	25.42	27.79	32.22
2012-2017	1984	3.32	20.73	22.44	23.30	25.22	29.66
2018-2023	2178	3.57	21.69	23.59	24.06	25.76	32.13

Period of Record January 1 1996 through December 31 2023

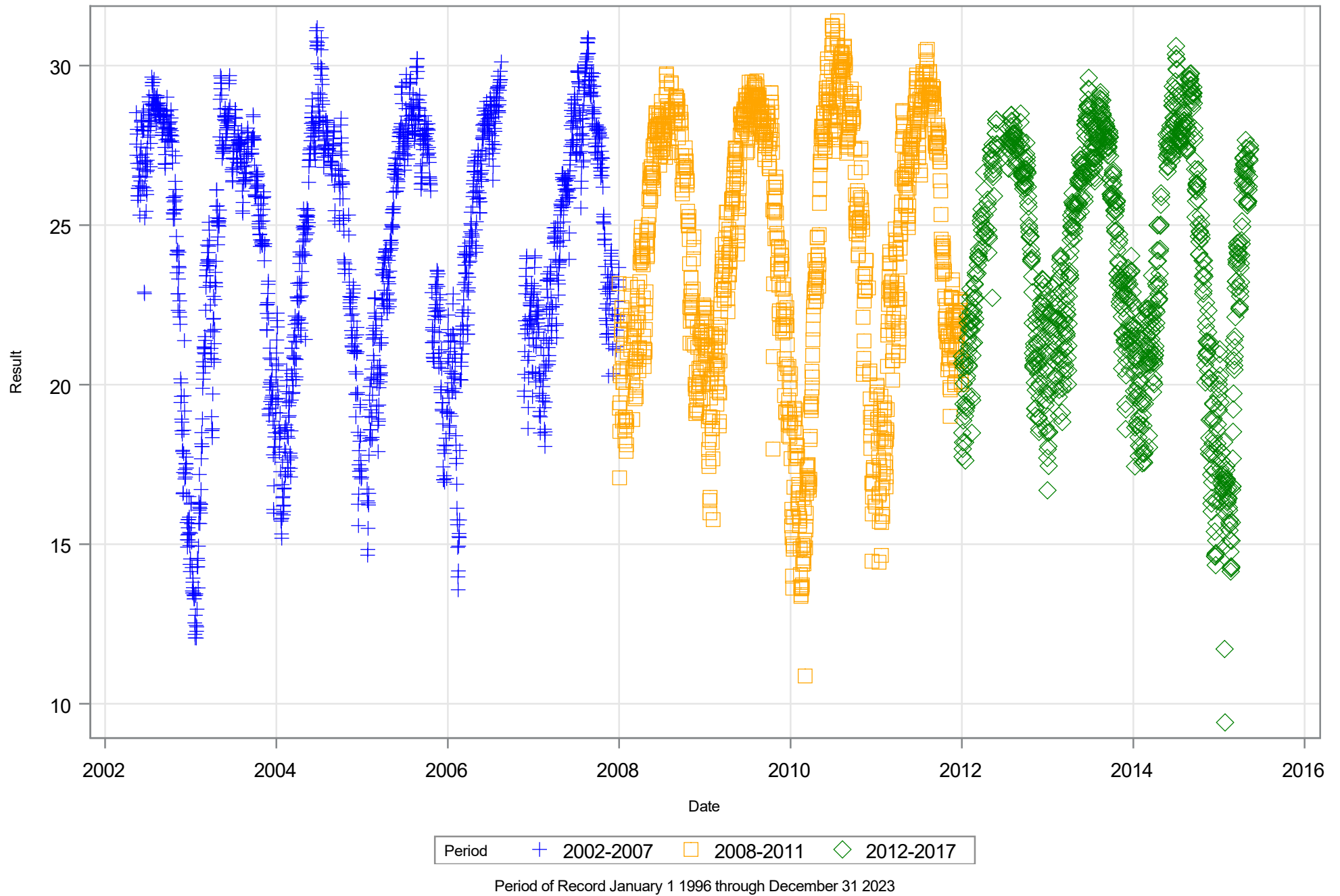
DRAFT

Boxplot by MFL Period for Bottom Salinity (PSU) at Station USGS 02306028 Platt



DRAFT

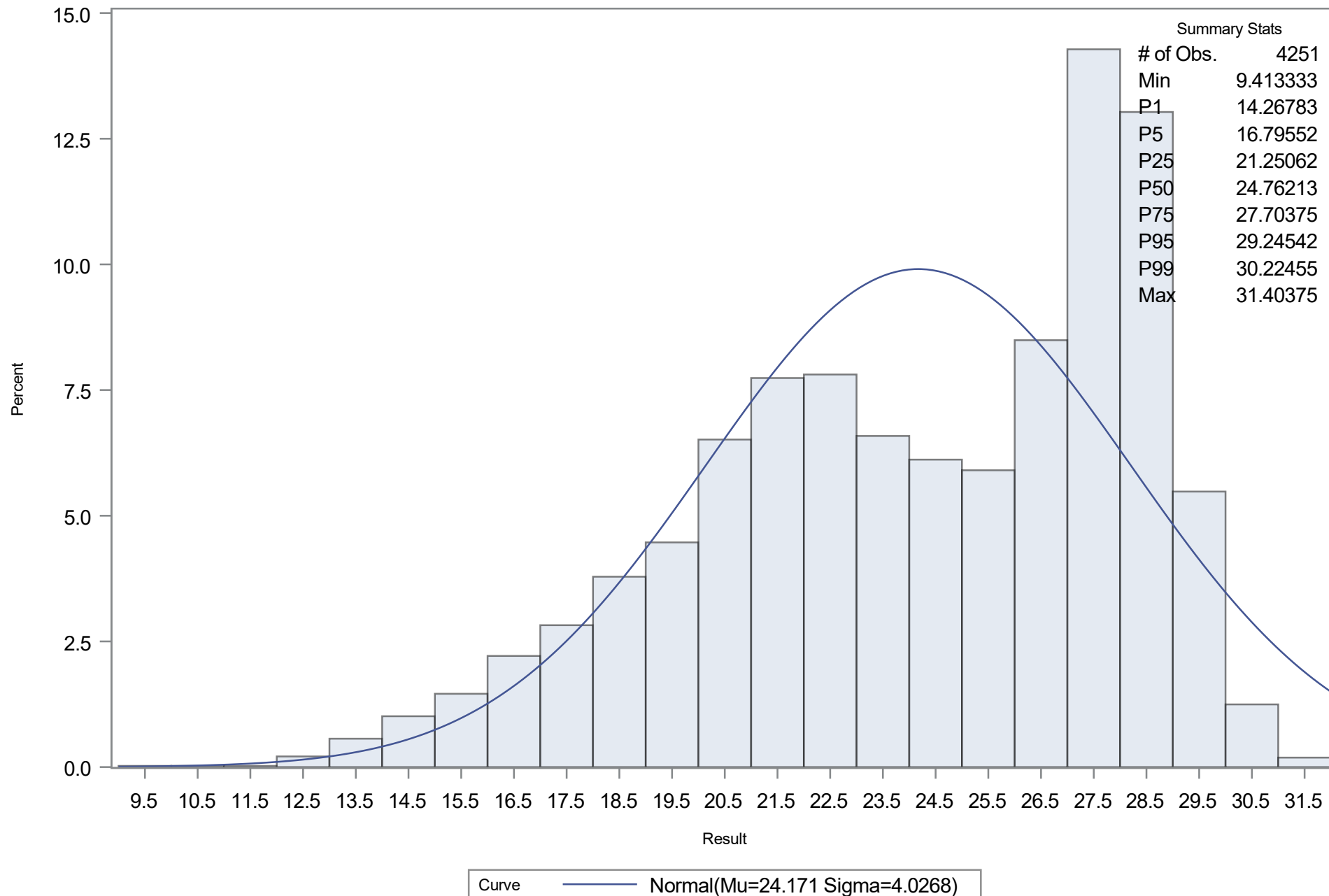
Timeseries of Surface Water Temperature (C) at Station EPC 2 Rkm 13.7



DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Water Temperature (C) at Station EPC 2 Rkm 13.7**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.17116
Std Dev	Sigma	4.026768

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.1103849	Pr > D	<0.010
Cramer-von Mises	W-Sq	11.4855591	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	70.9213602	Pr > A-Sq	<0.005

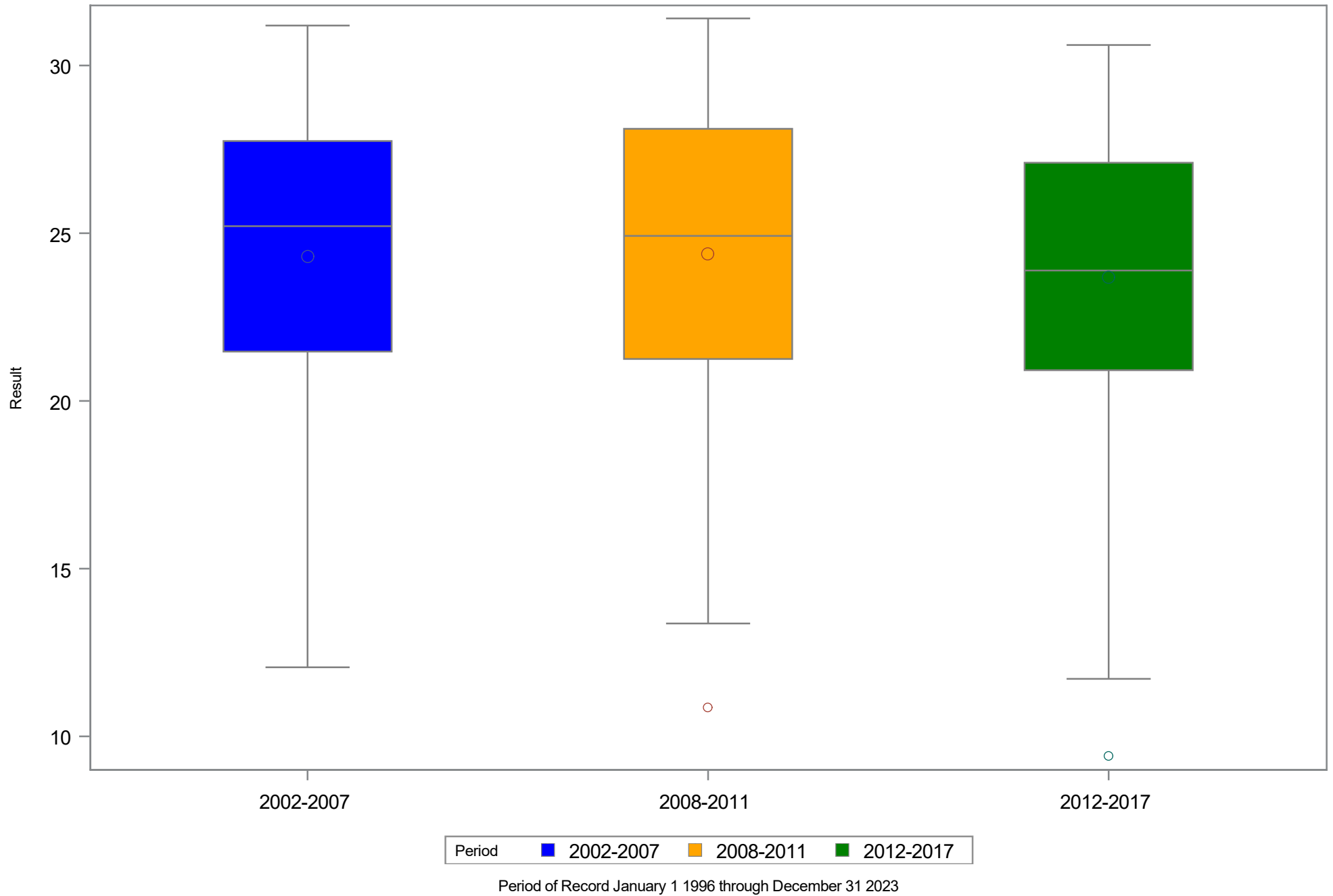
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	14.2678	14.8035
5.0	16.7955	17.5477
10.0	18.5175	19.0106
25.0	21.2506	21.4551
50.0	24.7621	24.1712
75.0	27.7038	26.8872
90.0	28.7002	29.3317
95.0	29.2454	30.7946
99.0	30.2245	33.5388

Period of Record January 1 1996 through December 31 2023

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1836	12.06	21.47	24.30	25.21	27.75	31.19
2008-2011	1339	10.87	21.25	24.38	24.92	28.11	31.40
2012-2017	1076	9.41	20.92	23.70	23.89	27.10	30.61

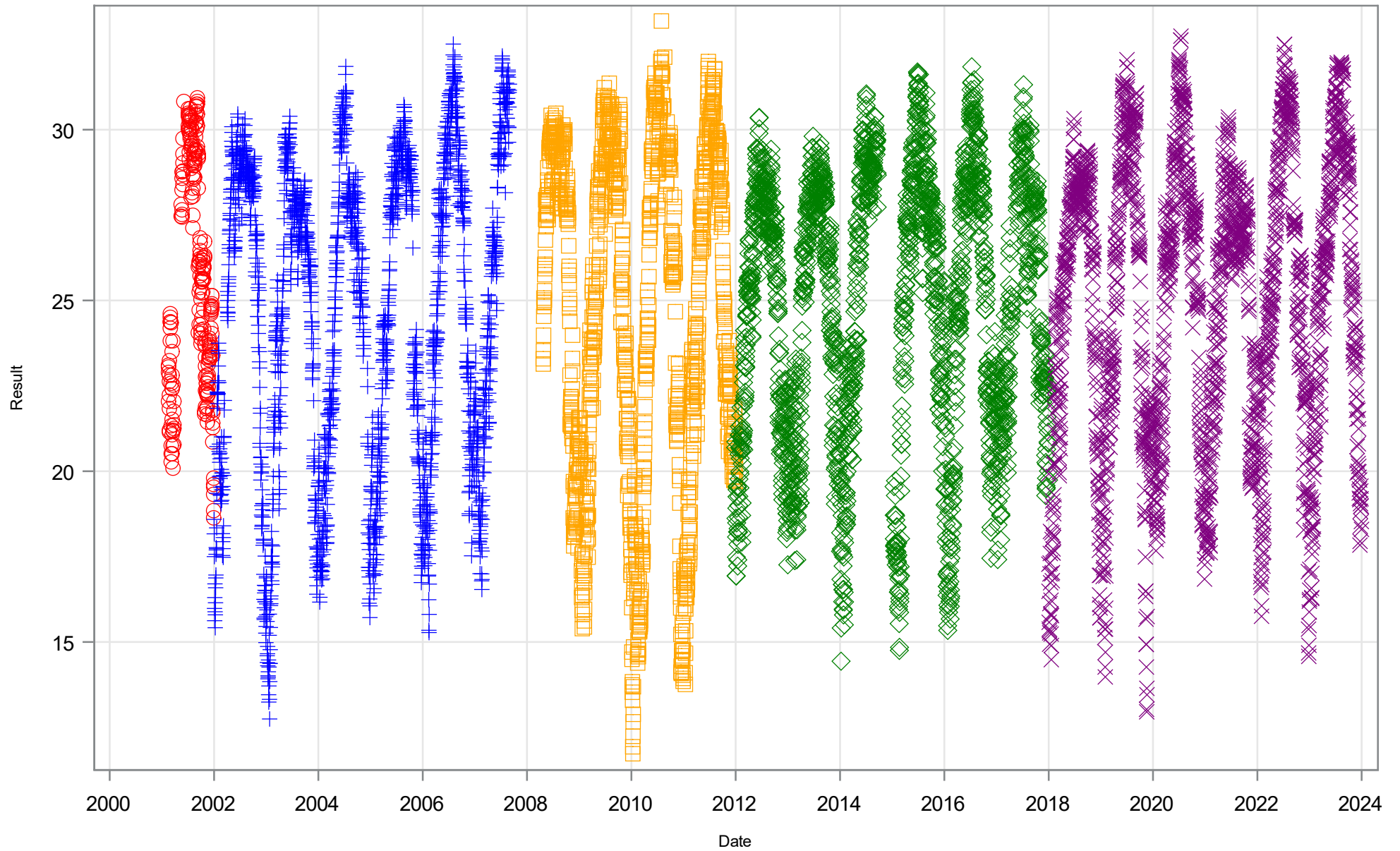
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station EPC 2 Rkm 13.7



DRAFT

Timeseries of Surface Water Temperature (C) at Station TBW Columbus



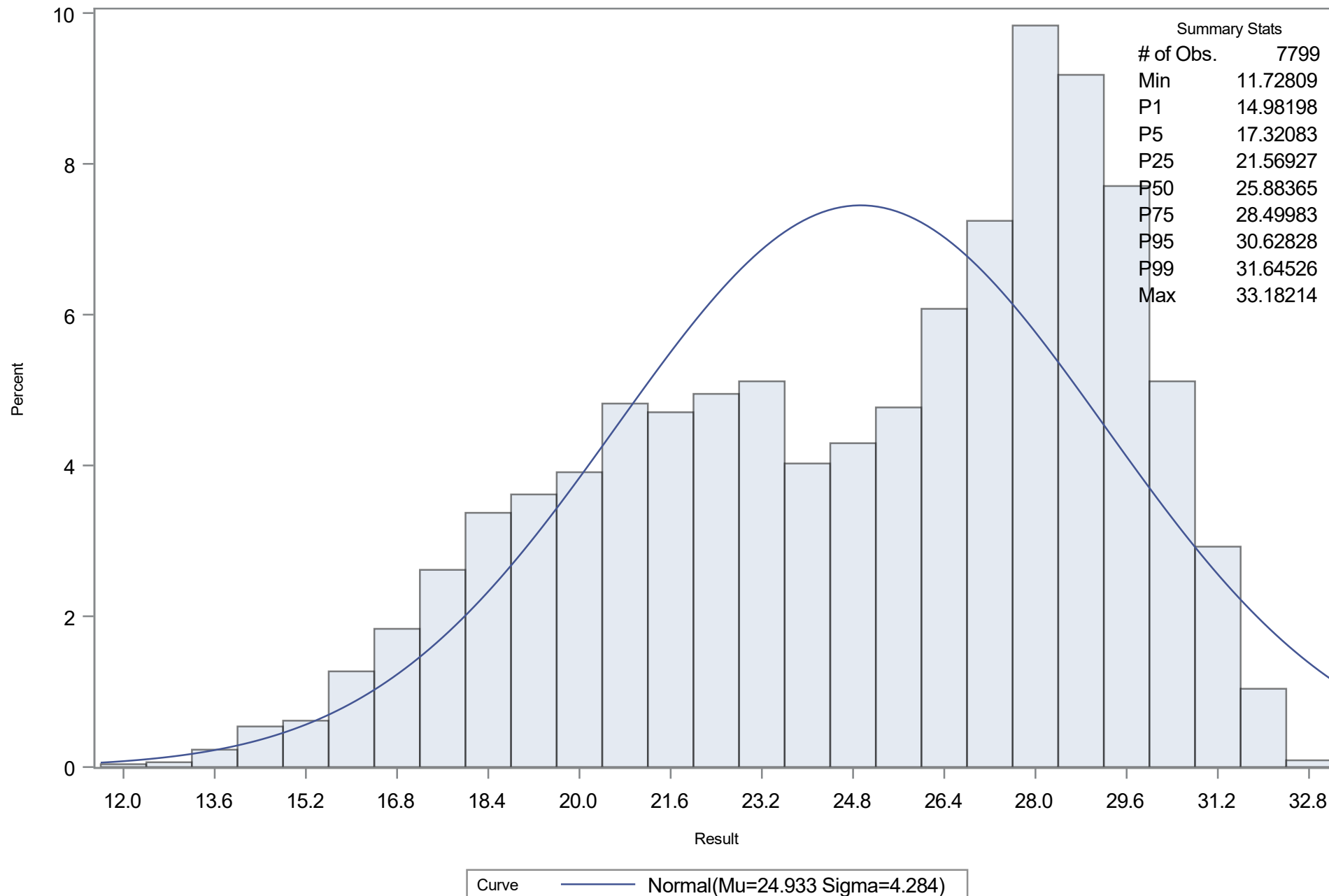
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station TBW Columbus

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Water Temperature (C) at Station TBW Columbus**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.93335
Std Dev	Sigma	4.284026

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.100505	Pr > D	<0.010
Cramer-von Mises	W-Sq	21.515243	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	124.722596	Pr > A-Sq	<0.005

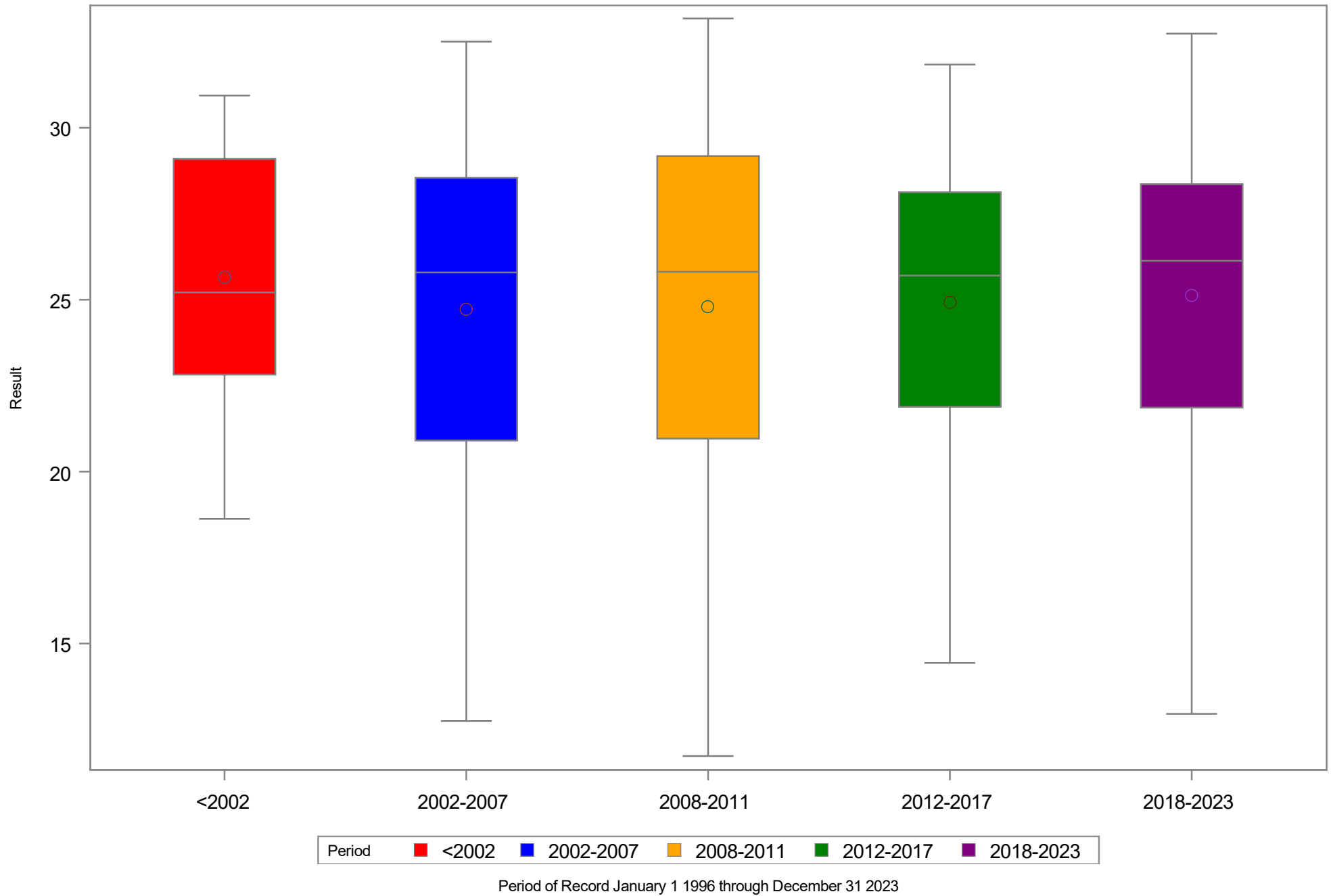
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	14.9820	14.9672
5.0	17.3208	17.8868
10.0	18.6727	19.4432
25.0	21.5693	22.0438
50.0	25.8836	24.9334
75.0	28.4998	27.8229
90.0	29.8972	30.4236
95.0	30.6283	31.9799
99.0	31.6453	34.8995

Period of Record January 1 1996 through December 31 2023

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	239	18.63	22.82	25.65	25.21	29.09	30.94
2002-2007	2026	12.75	20.91	24.73	25.79	28.54	32.51
2008-2011	1328	11.73	20.96	24.81	25.81	29.18	33.18
2012-2017	2025	14.44	21.89	24.92	25.70	28.13	31.84
2018-2023	2181	12.96	21.86	25.13	26.13	28.36	32.74

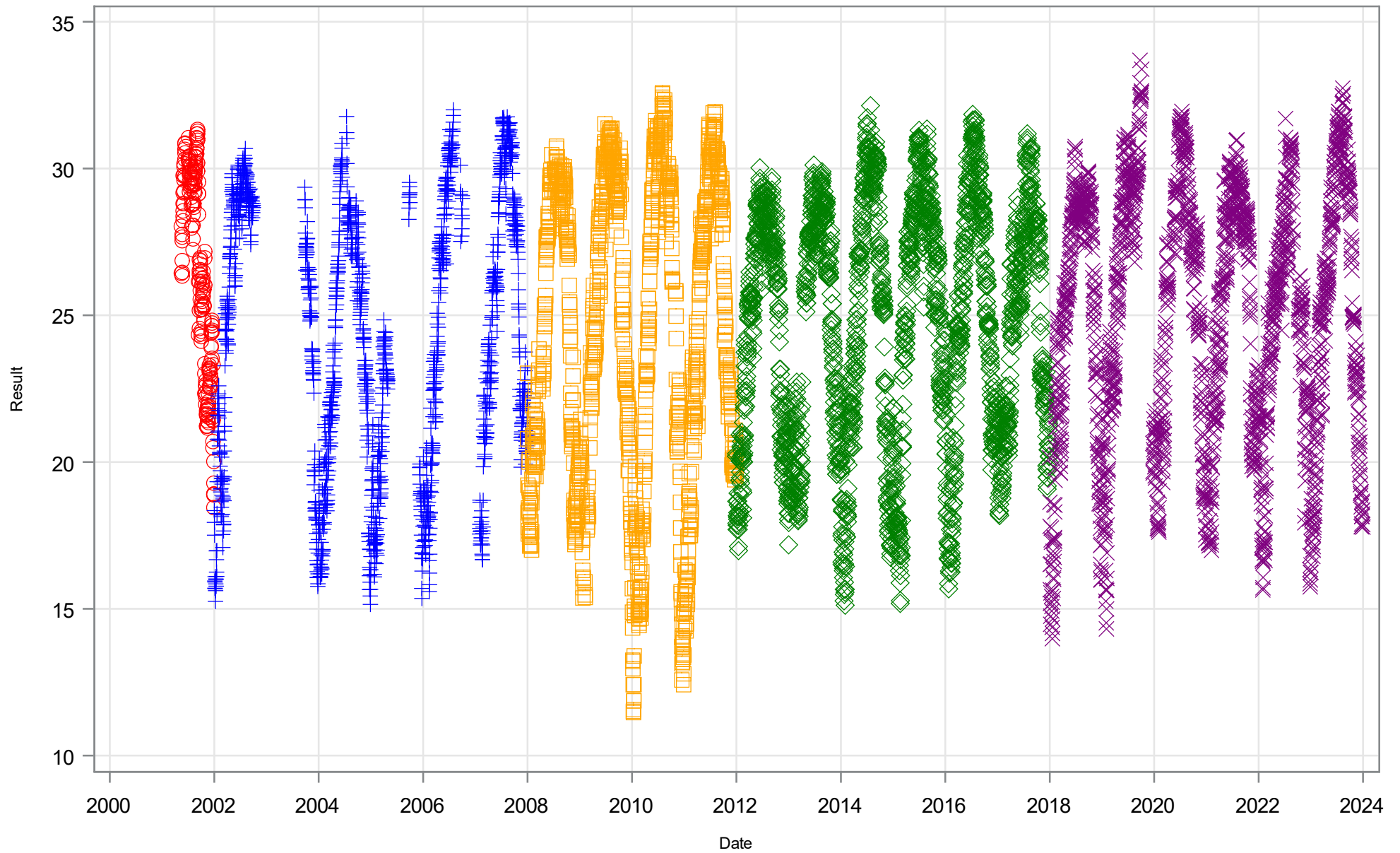
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station TBW Columbus



DRAFT

Timeseries of Surface Water Temperature (C) at Station TBW Crosstown



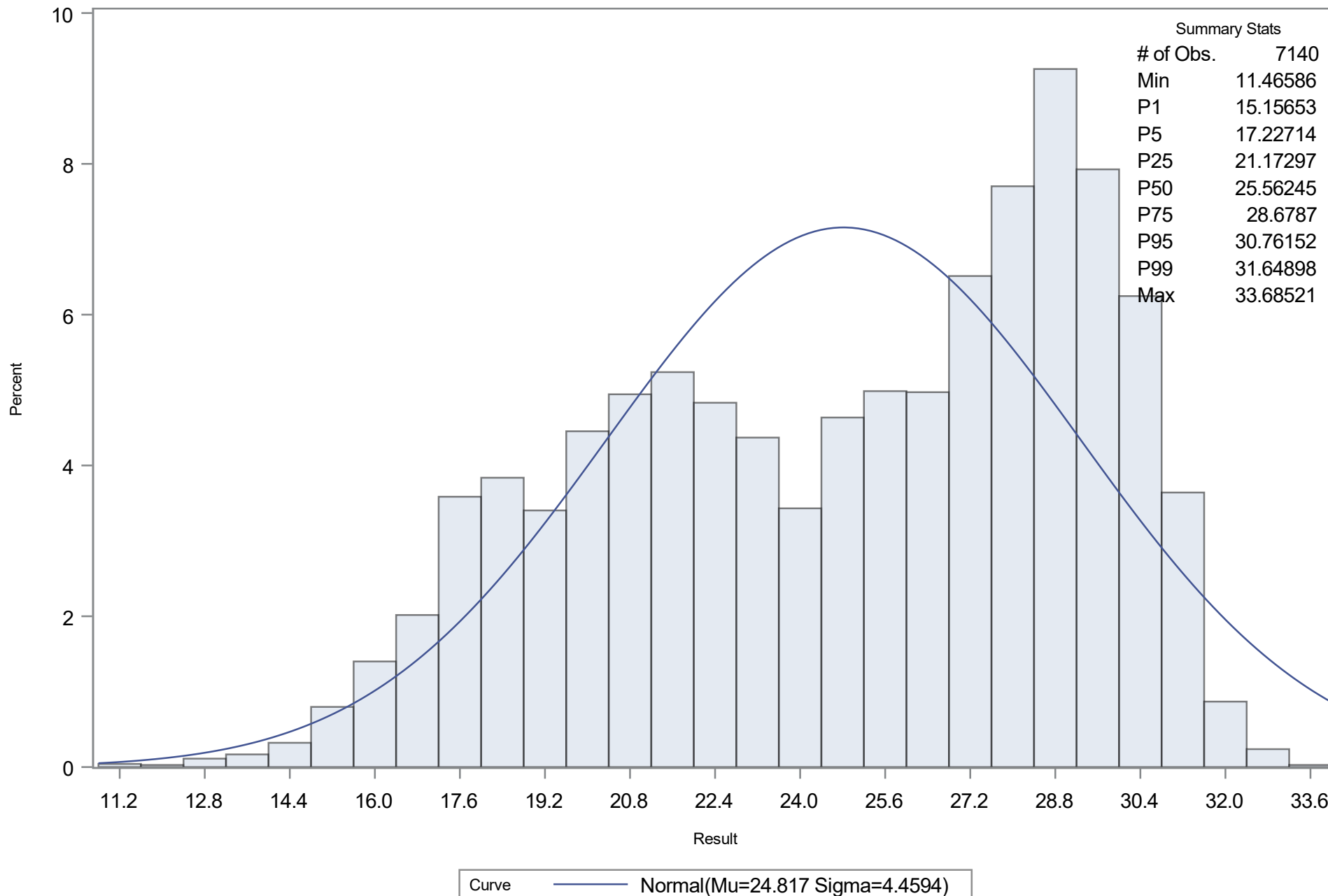
Period	<2002	2002-2007	2008-2011	2012-2017	2018-2023
Marker	○	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station TBW Crosstown

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Water Temperature (C) at Station TBW Crosstown**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.81671
Std Dev	Sigma	4.459448

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.098581	Pr > D	<0.010
Cramer-von Mises	W-Sq	19.235390	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	114.838306	Pr > A-Sq	<0.005

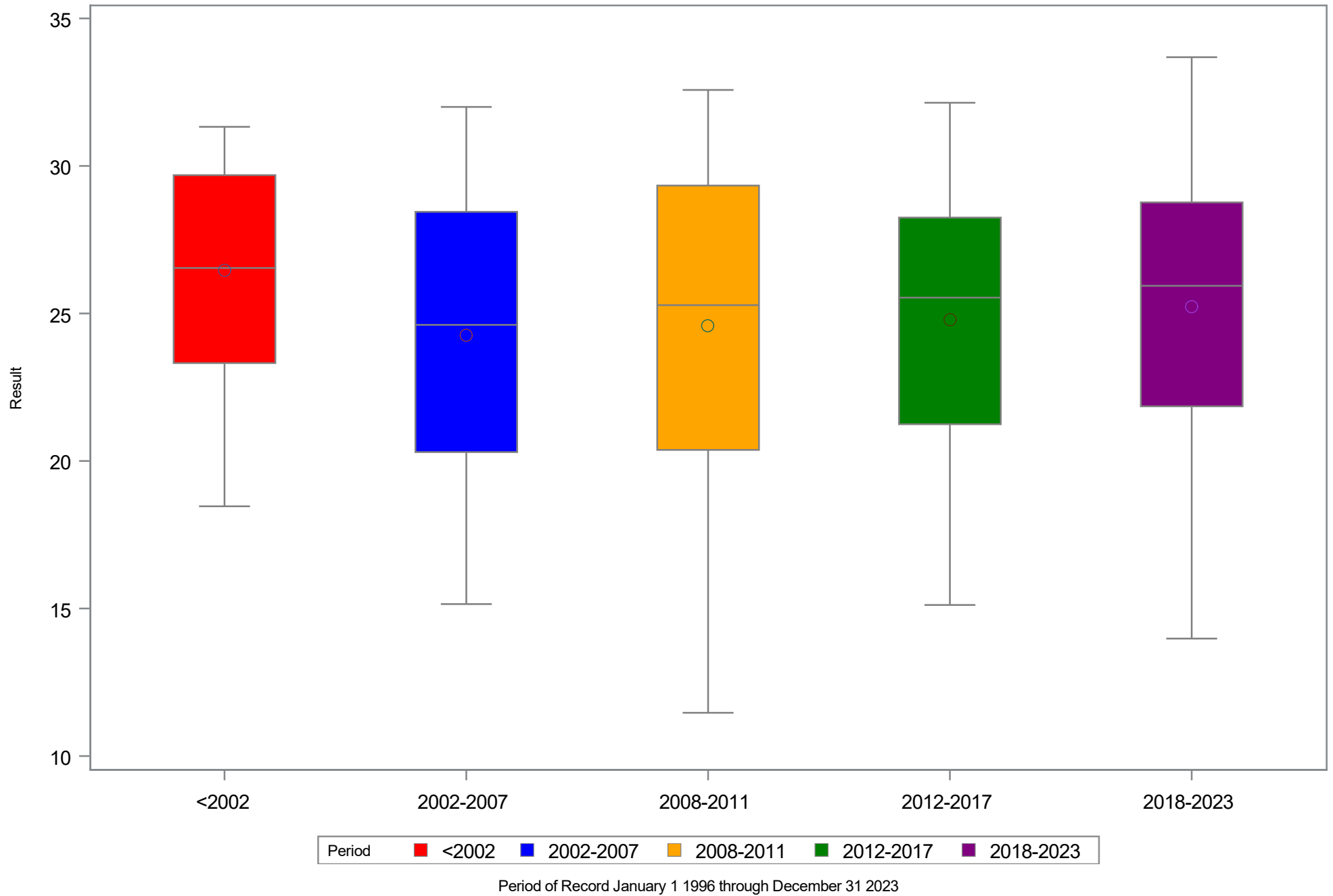
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.1565	14.4425
5.0	17.2271	17.4816
10.0	18.3116	19.1017
25.0	21.1730	21.8089
50.0	25.5624	24.8167
75.0	28.6787	27.8246
90.0	30.1109	30.5317
95.0	30.7615	32.1518
99.0	31.6490	35.1909

Period of Record January 1 1996 through December 31 2023

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	210	18.46	23.32	26.47	26.54	29.69	31.33
2002-2007	1400	15.15	20.30	24.25	24.61	28.45	32.00
2008-2011	1354	11.47	20.38	24.58	25.28	29.33	32.58
2012-2017	2153	15.12	21.25	24.79	25.54	28.25	32.14
2018-2023	2023	13.98	21.85	25.23	25.94	28.76	33.69

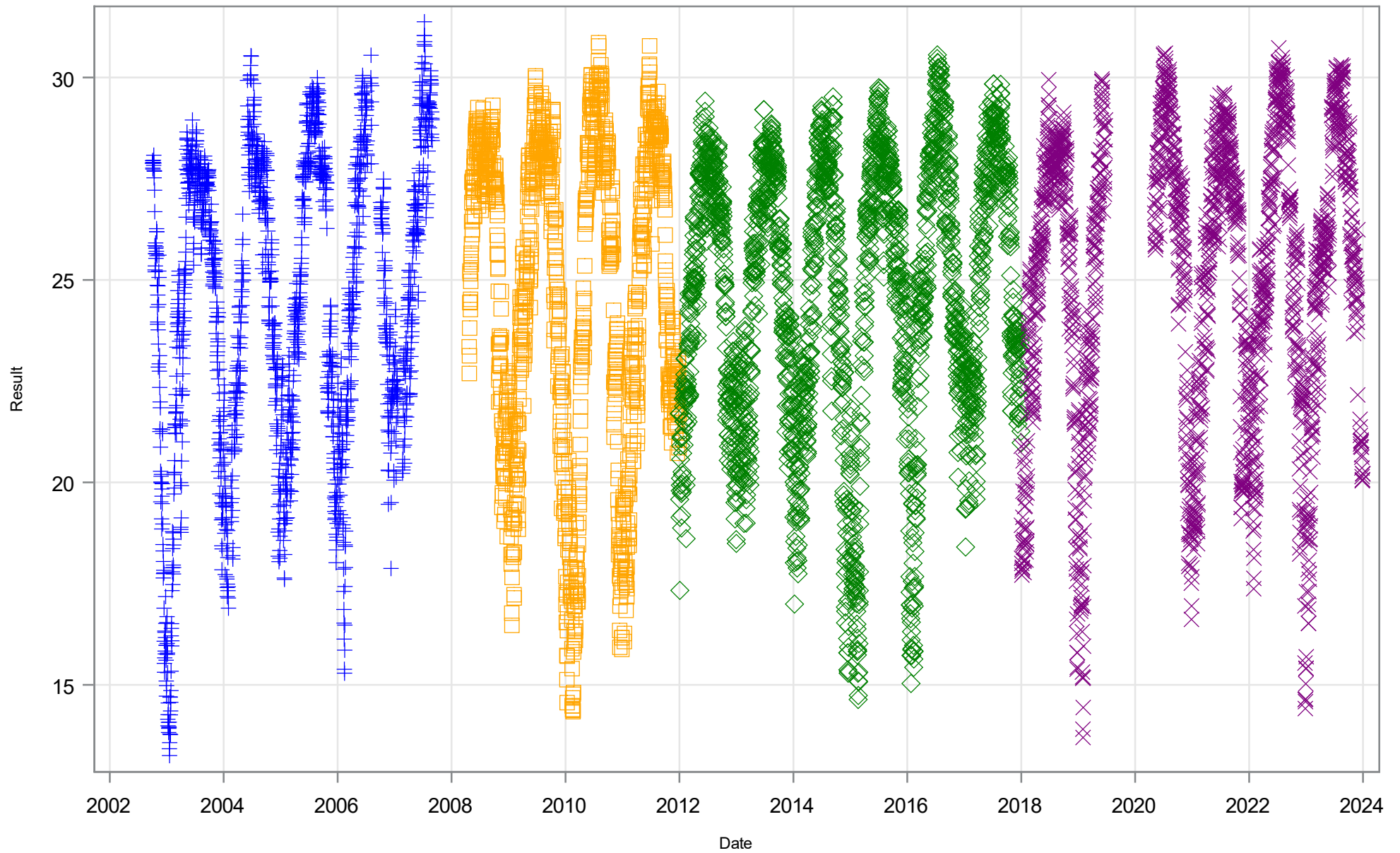
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station TBW Crosstown



DRAFT

Timeseries of Surface Water Temperature (C) at Station TBW Sligh

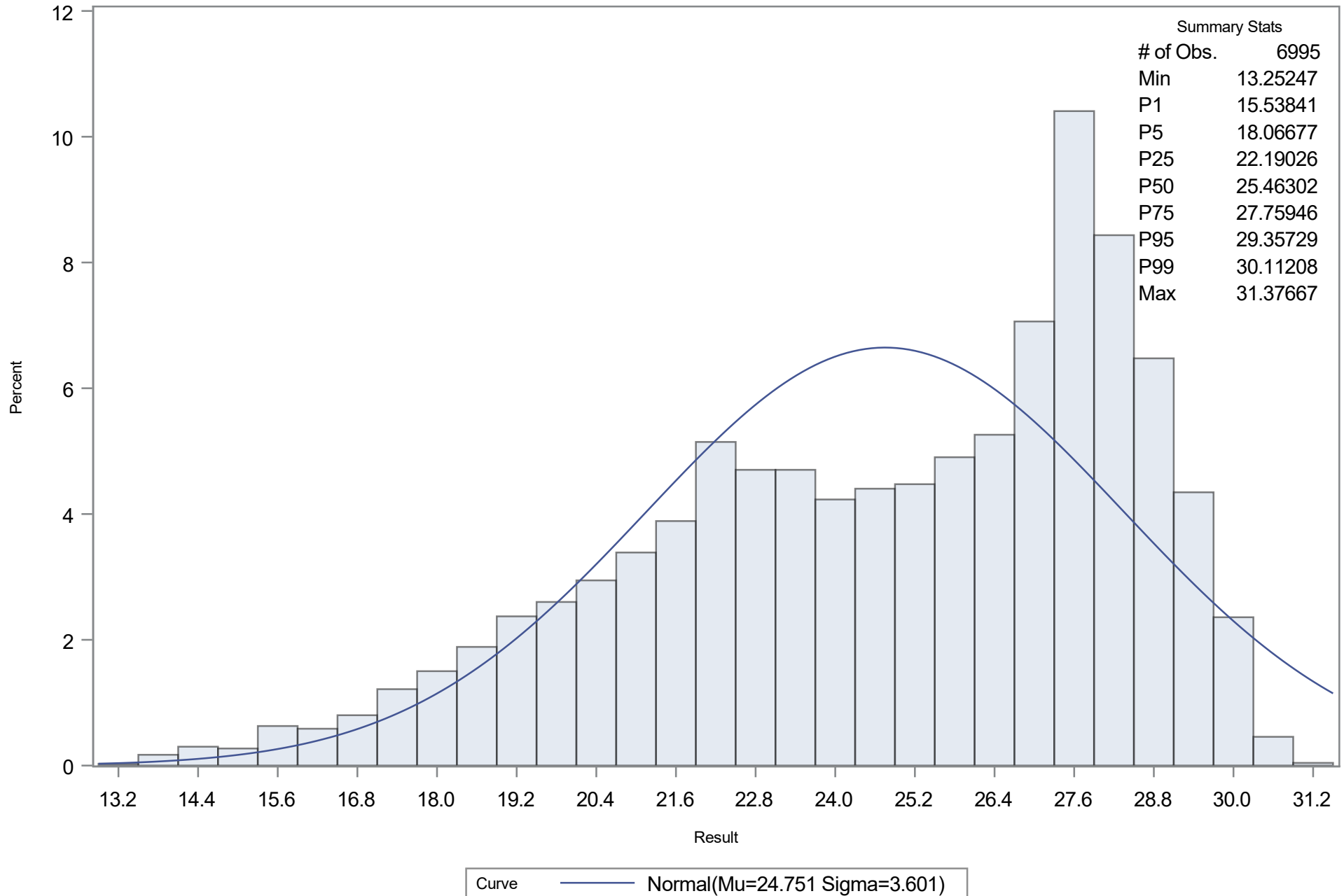


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station TBW Sligh

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Water Temperature (C) at Station TBW Sligh**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.75136
Std Dev	Sigma	3.601003

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.102077	Pr > D	<0.010
Cramer-von Mises	W-Sq	18.392264	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	111.648441	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.5384	16.3742
5.0	18.0668	18.8282
10.0	19.5499	20.1365
25.0	22.1903	22.3225
50.0	25.4630	24.7514
75.0	27.7595	27.1802
90.0	28.8053	29.3662
95.0	29.3573	30.6745
99.0	30.1121	33.1285

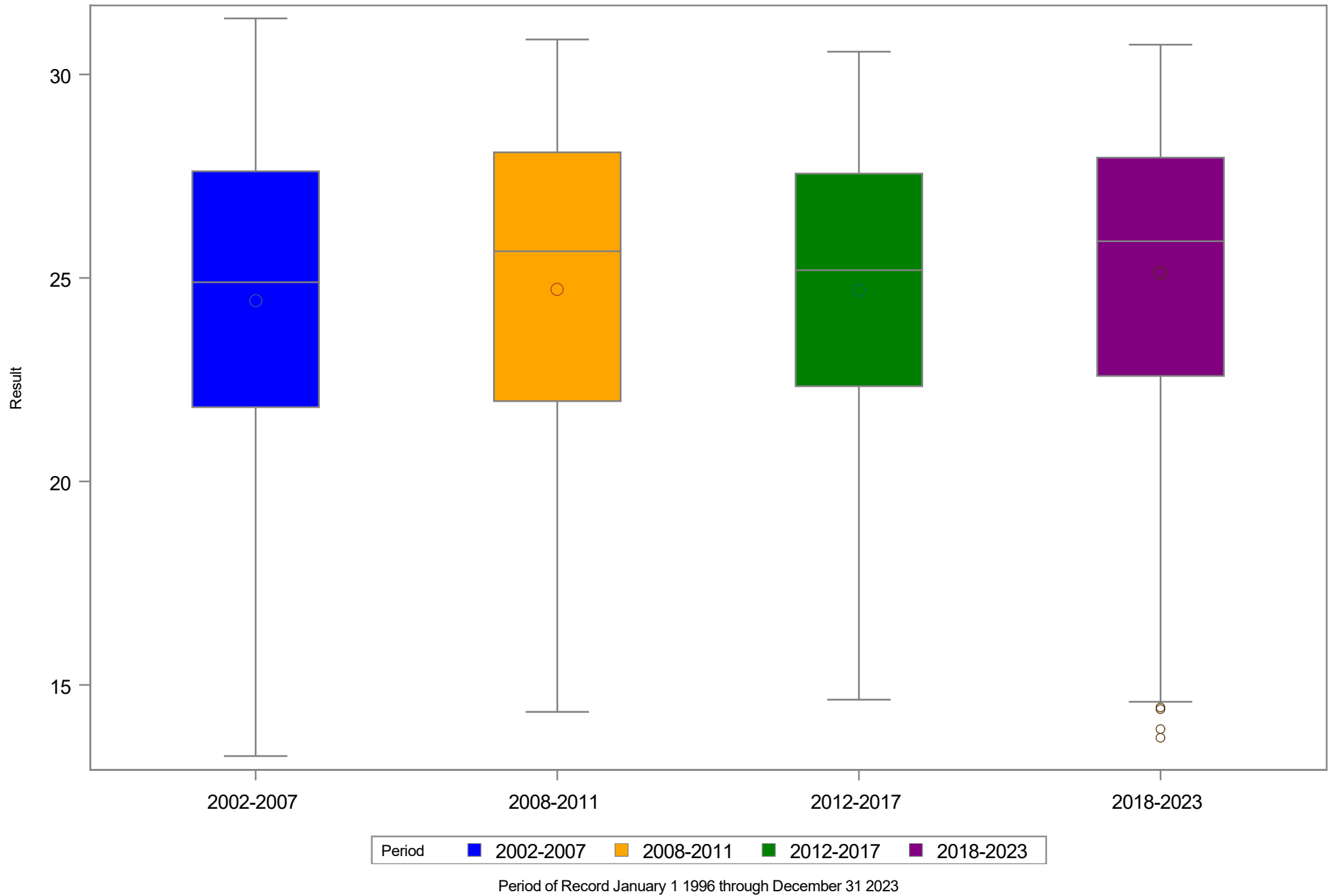
Period of Record January 1 1996 through December 31 2023

Distributional Statistics by Period for Surface Water Temperature (C) at Station TBW Sligh

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1645	13.25	21.82	24.44	24.89	27.62	31.38
2008-2011	1348	14.34	21.97	24.73	25.66	28.09	30.86
2012-2017	2170	14.64	22.34	24.69	25.19	27.56	30.56
2018-2023	1832	13.70	22.59	25.12	25.90	27.96	30.73

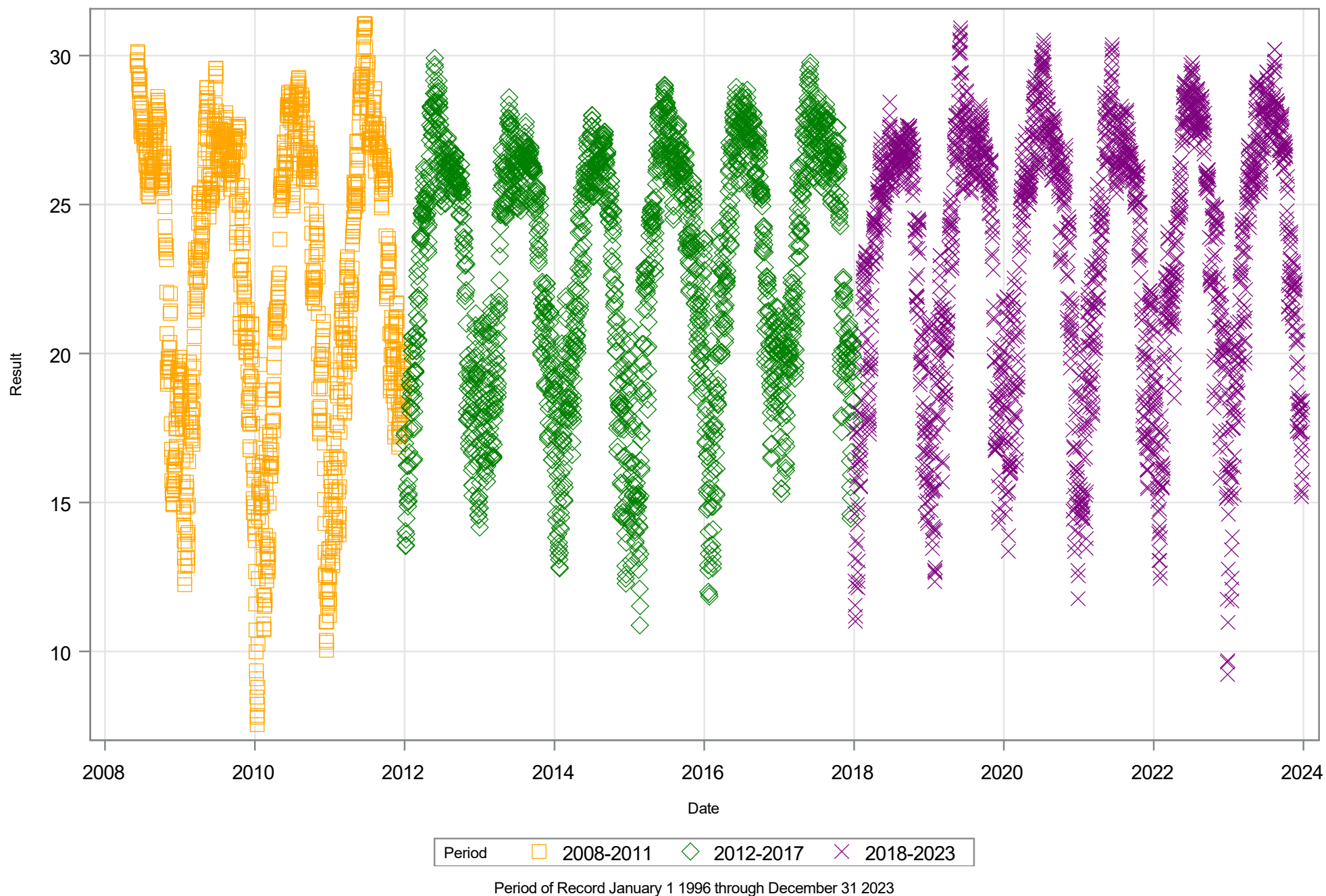
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station TBW Sligh



DRAFT

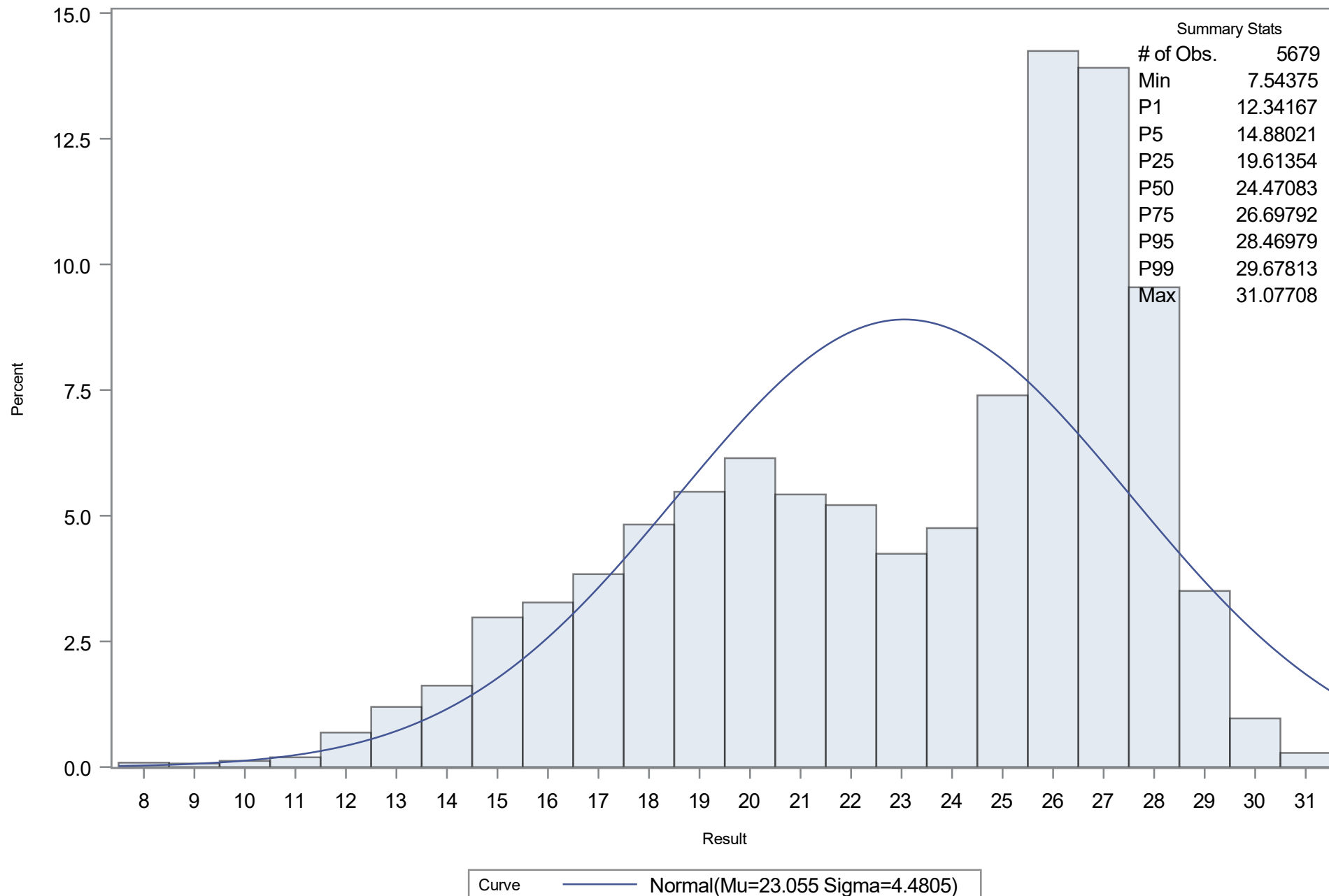
Timeseries of Surface Water Temperature (C) at Station USGS 02304000 Fowler



DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station USGS 02304000 Fowler

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	23.05484
Std Dev	Sigma	4.480545

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.139890	Pr > D	<0.010
Cramer-von Mises	W-Sq	24.627343	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	138.808939	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	12.3417	12.6315
5.0	14.8802	15.6850
10.0	16.4271	17.3128
25.0	19.6135	20.0328
50.0	24.4708	23.0548
75.0	26.6979	26.0769
90.0	27.8865	28.7969
95.0	28.4698	30.4247
99.0	29.6781	33.4781

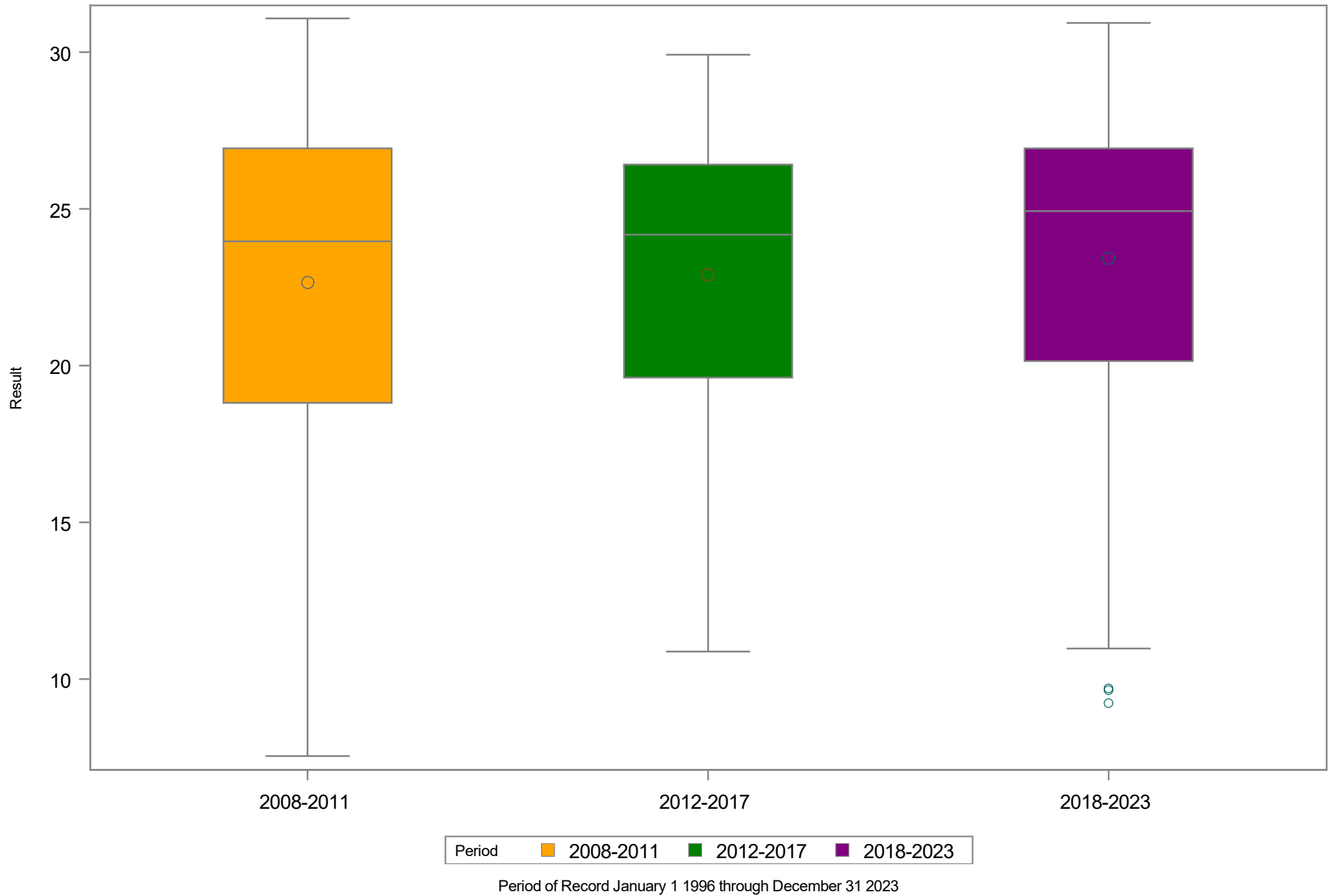
DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 02304000 Fowler

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1304	7.54	18.81	22.67	23.97	26.93	31.08
2012-2017	2187	10.88	19.62	22.91	24.18	26.41	29.92
2018-2023	2188	9.23	20.15	23.43	24.93	26.93	30.93

Period of Record January 1 1996 through December 31 2023

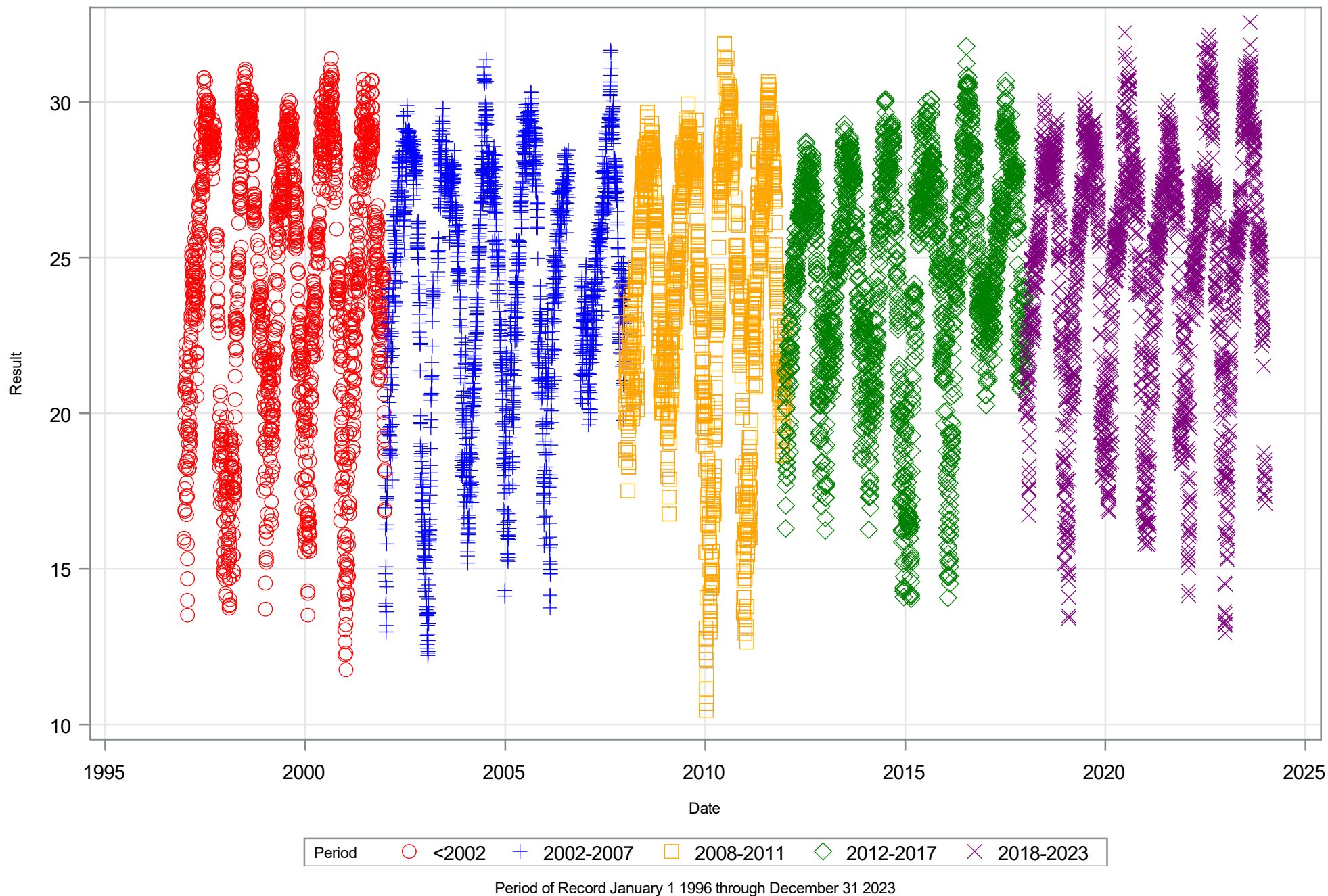
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 02304000 Fowler



DRAFT

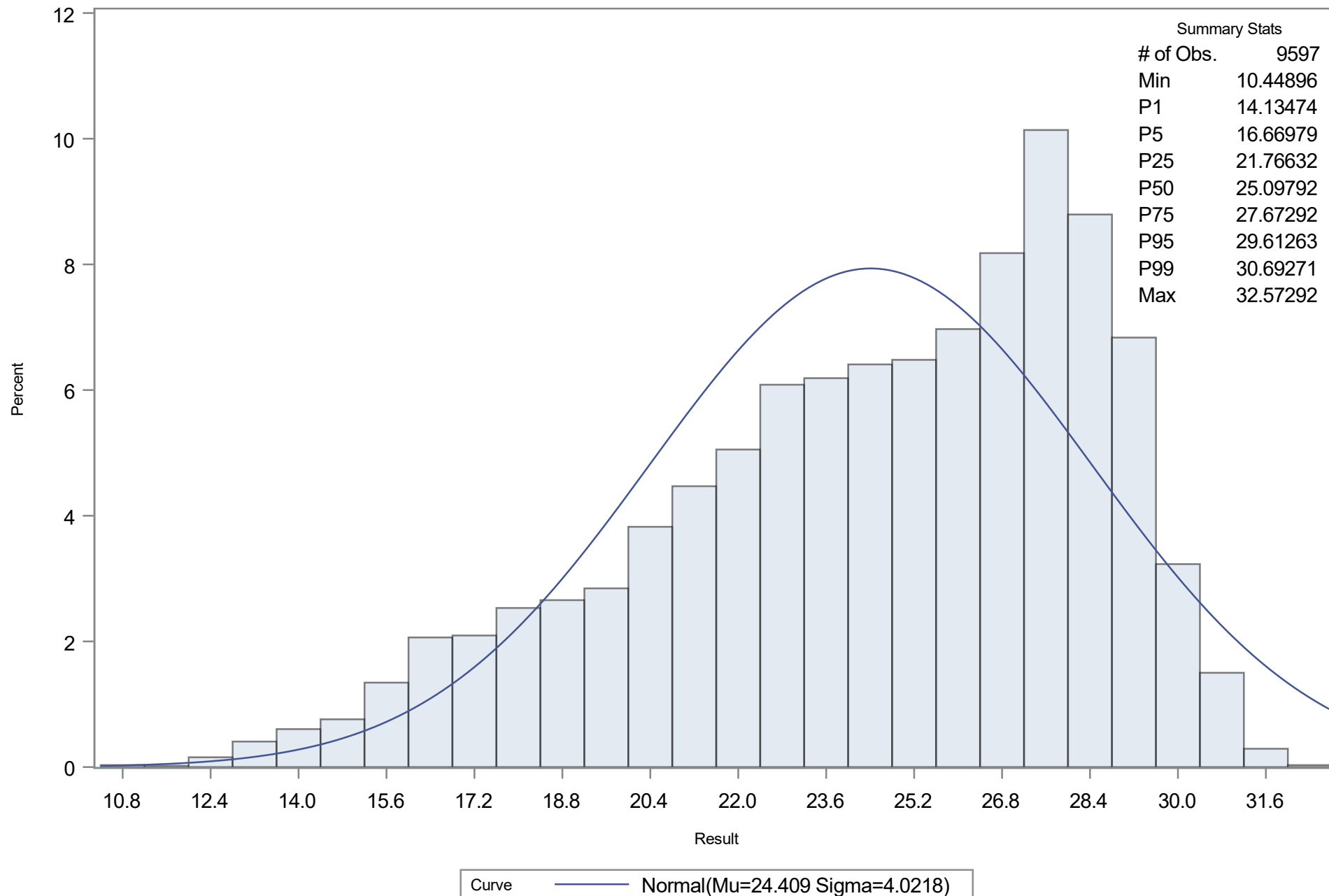
Timeseries of Surface Water Temperature (C) at Station USGS 02304510 Rowlett



DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station USGS 02304510 Rowlett

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.40909
Std Dev	Sigma	4.021831

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.083203	Pr > D	<0.010
Cramer-von Mises	W-Sq	20.219644	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	128.395457	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	14.1347	15.0529
5.0	16.6698	17.7938
10.0	18.3906	19.2549
25.0	21.7663	21.6964
50.0	25.0979	24.4091
75.0	27.6729	27.1218
90.0	28.9719	29.5633
95.0	29.6126	31.0244
99.0	30.6927	33.7653

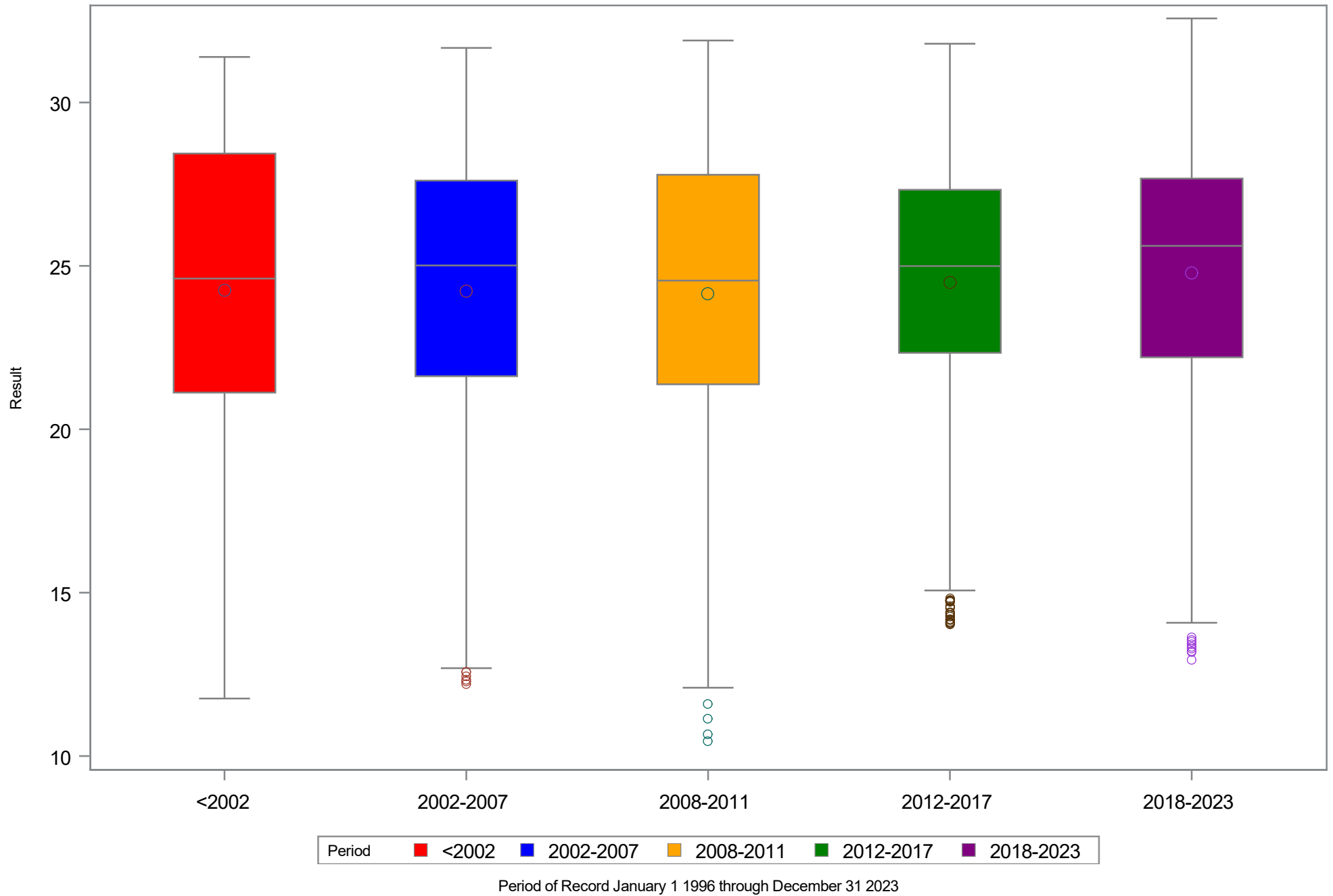
DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 02304510 Rowlett

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1767	11.76	21.12	24.26	24.61	28.44	31.39
2002-2007	2011	12.21	21.62	24.23	25.01	27.61	31.67
2008-2011	1453	10.45	21.38	24.14	24.55	27.79	31.90
2012-2017	2181	14.03	22.34	24.50	24.99	27.33	31.80
2018-2023	2185	12.93	22.20	24.78	25.61	27.67	32.57

Period of Record January 1 1996 through December 31 2023

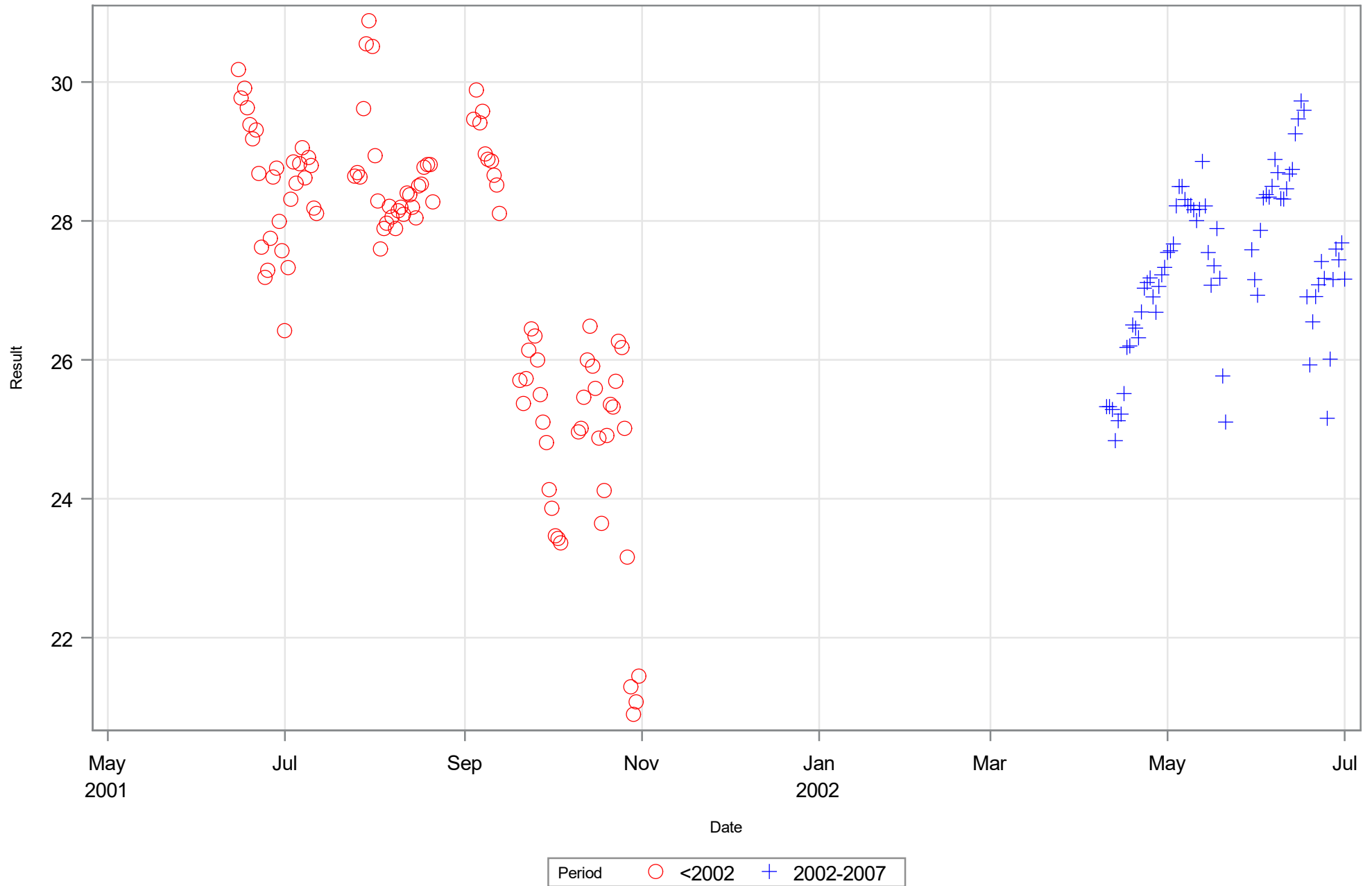
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 02304510 Rowlett

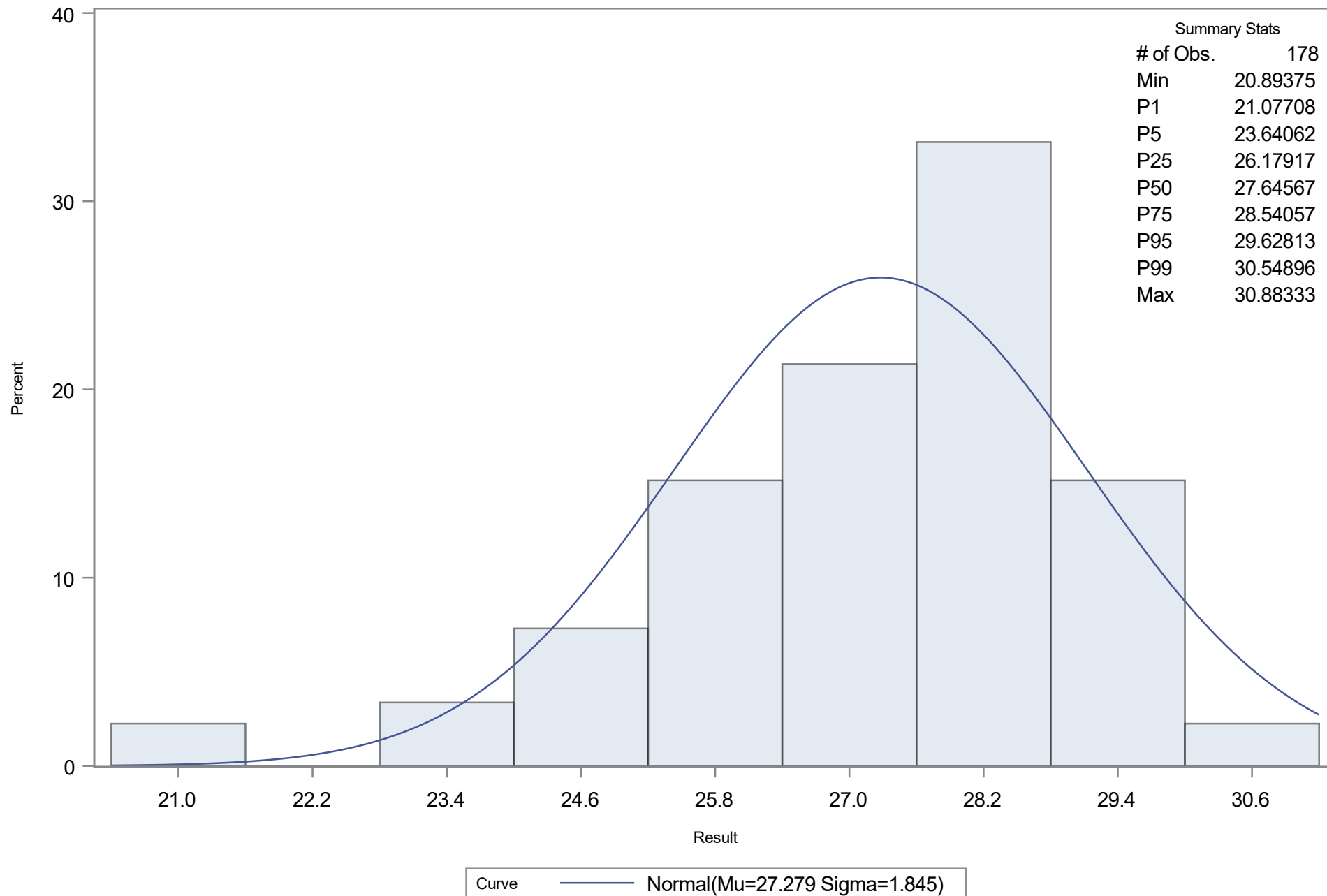


DRAFT

Timeseries of Surface Water Temperature (C) at Station USGS 02304515 Hannahs Whirl



Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	27.27885
Std Dev	Sigma	1.845022

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.10748687	Pr > D	<0.010
Cramer-von Mises	W-Sq	0.54212745	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	3.08667275	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	21.0771	22.9867
5.0	23.6406	24.2441
10.0	25.0104	24.9144
25.0	26.1792	26.0344
50.0	27.6457	27.2789
75.0	28.5406	28.5233
90.0	29.2542	29.6433
95.0	29.6281	30.3136
99.0	30.5490	31.5710

Period of Record January 1 1996 through December 31 2023

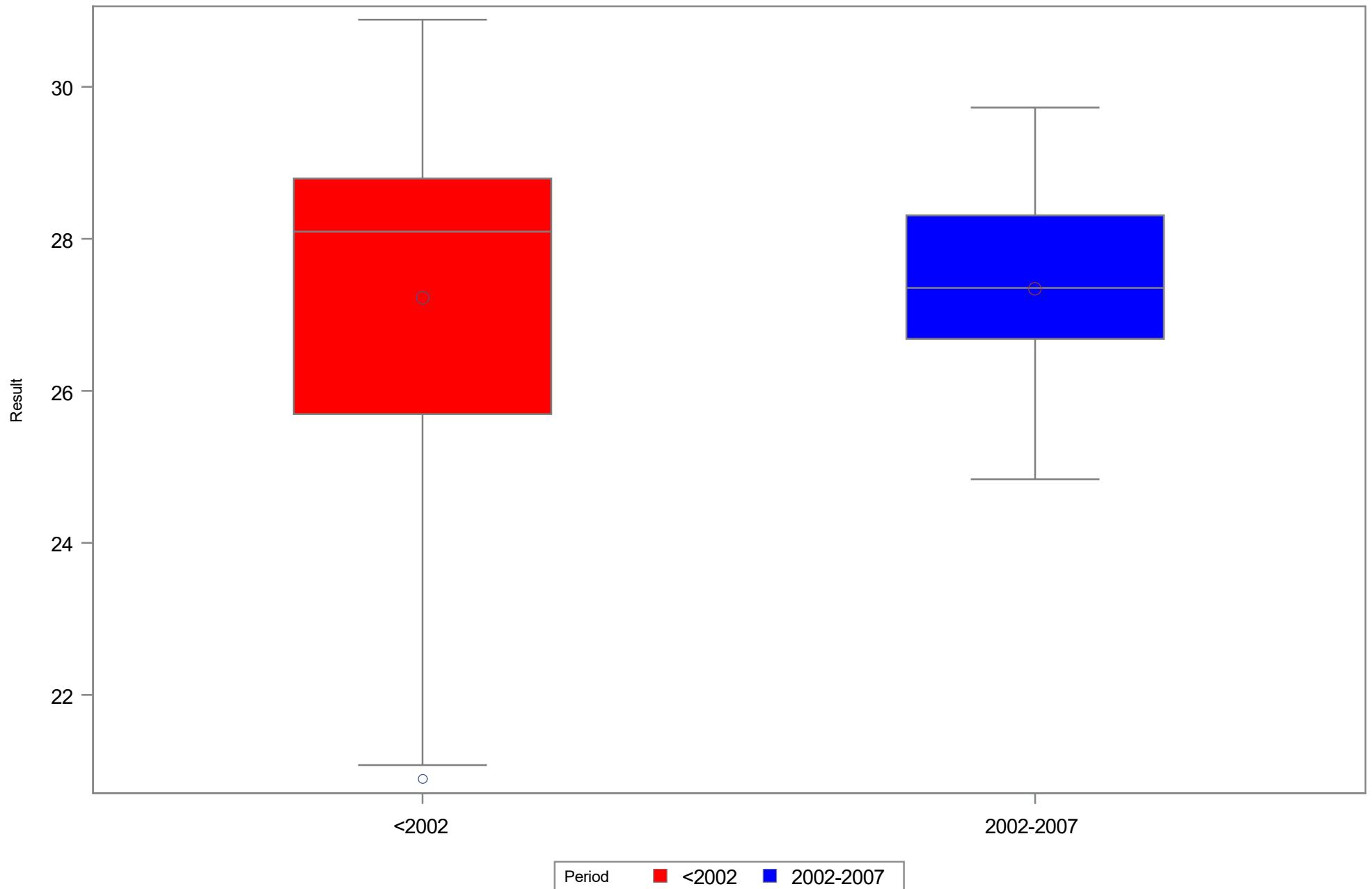
DRAFT

Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	103	20.89	25.69	27.23	28.09	28.79	30.88
2002-2007	75	24.84	26.68	27.35	27.35	28.31	29.73

DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

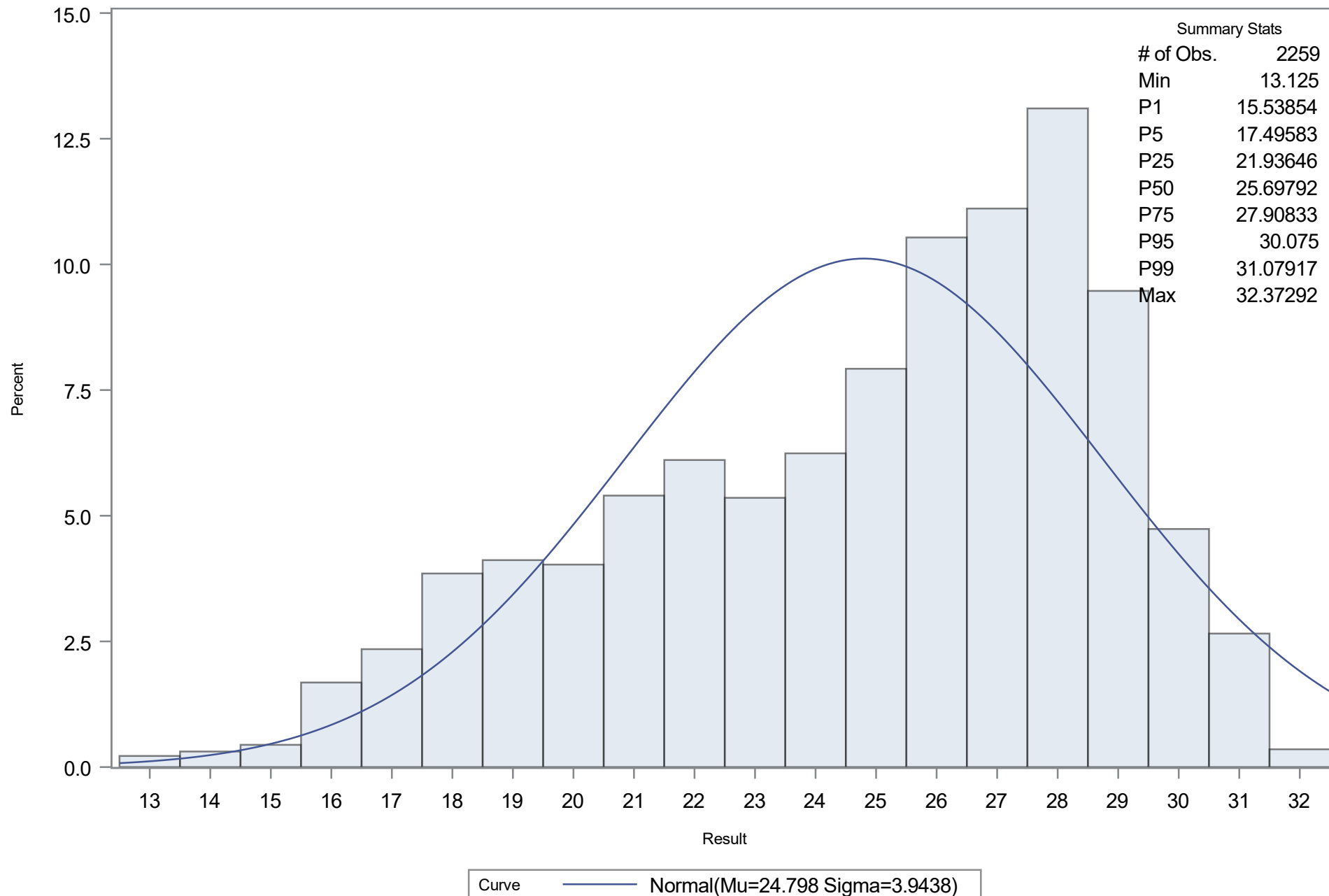
DRAFT

Timeseries of Surface Water Temperature (C) at Station USGS 02304517 BLHannah



Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.7976
Std Dev	Sigma	3.943804

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0934944	Pr > D	<0.010
Cramer-von Mises	W-Sq	5.9851333	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	34.6860283	Pr > A-Sq	<0.005

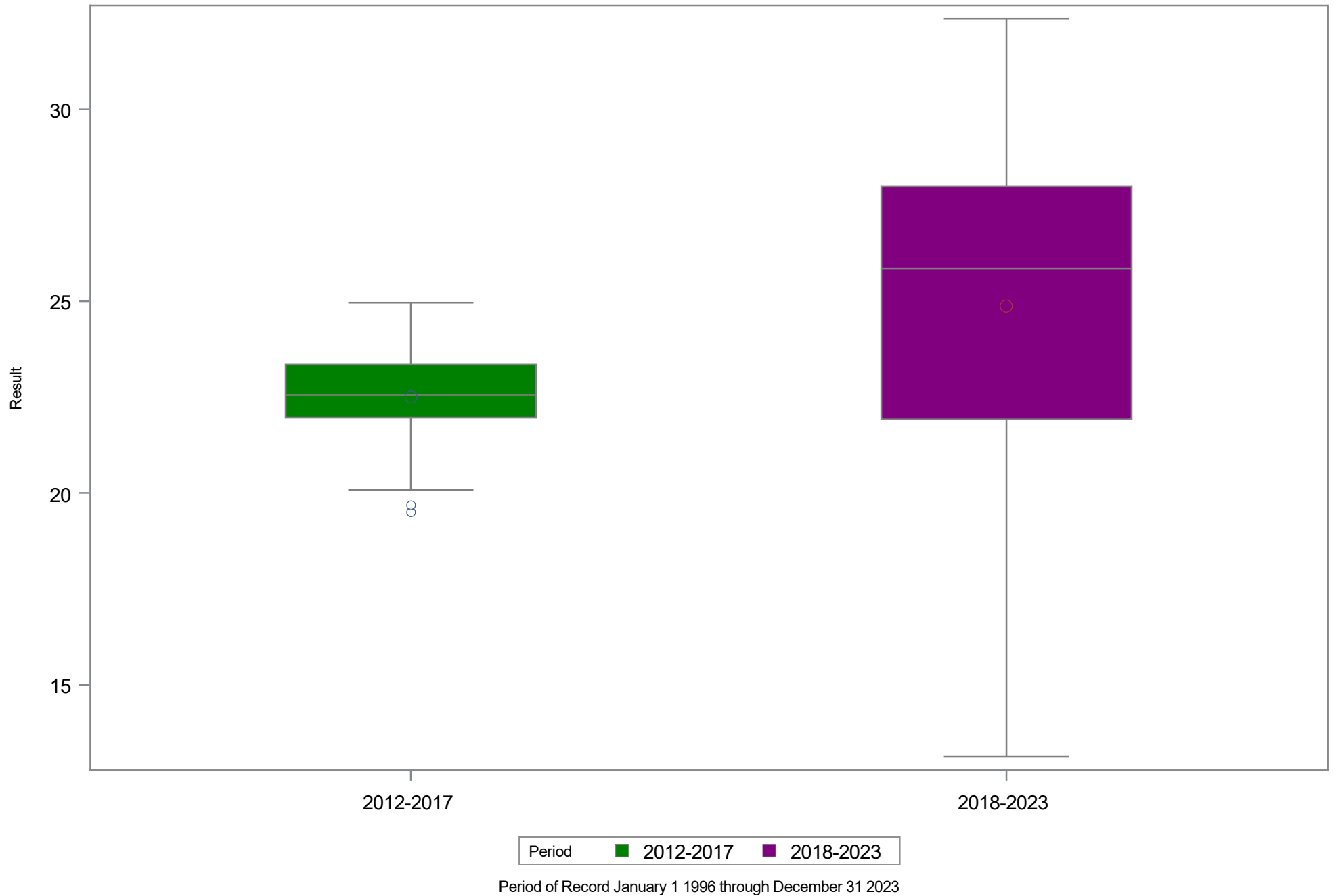
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.5385	15.6229
5.0	17.4958	18.3106
10.0	18.7740	19.7434
25.0	21.9365	22.1375
50.0	25.6979	24.7976
75.0	27.9083	27.4577
90.0	29.2375	29.8518
95.0	30.0750	31.2846
99.0	31.0792	33.9723

DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	19.50	21.97	22.50	22.56	23.35	24.96
2018-2023	2191	13.13	21.92	24.87	25.85	27.99	32.37

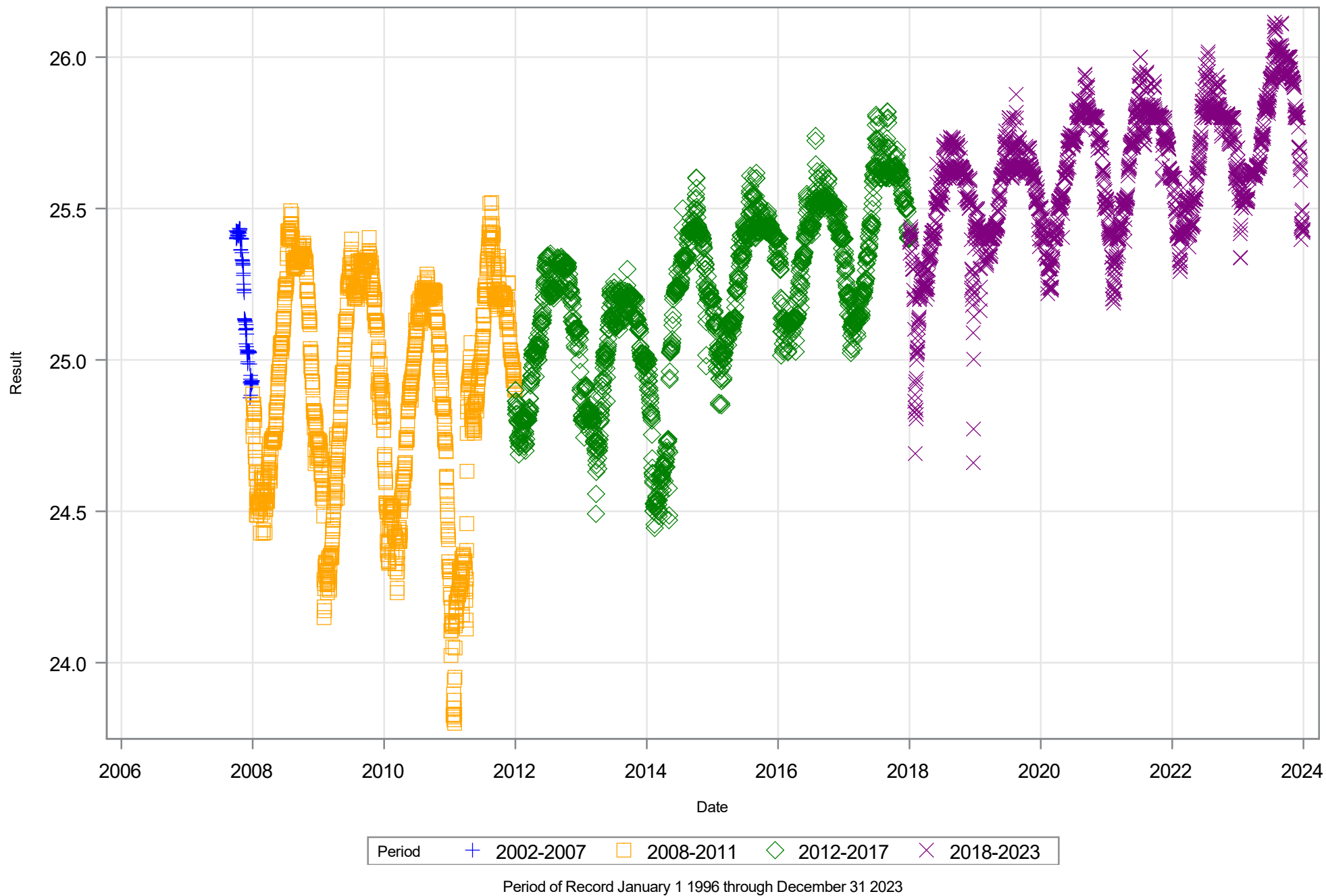
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 02304517 BLHannah



DRAFT

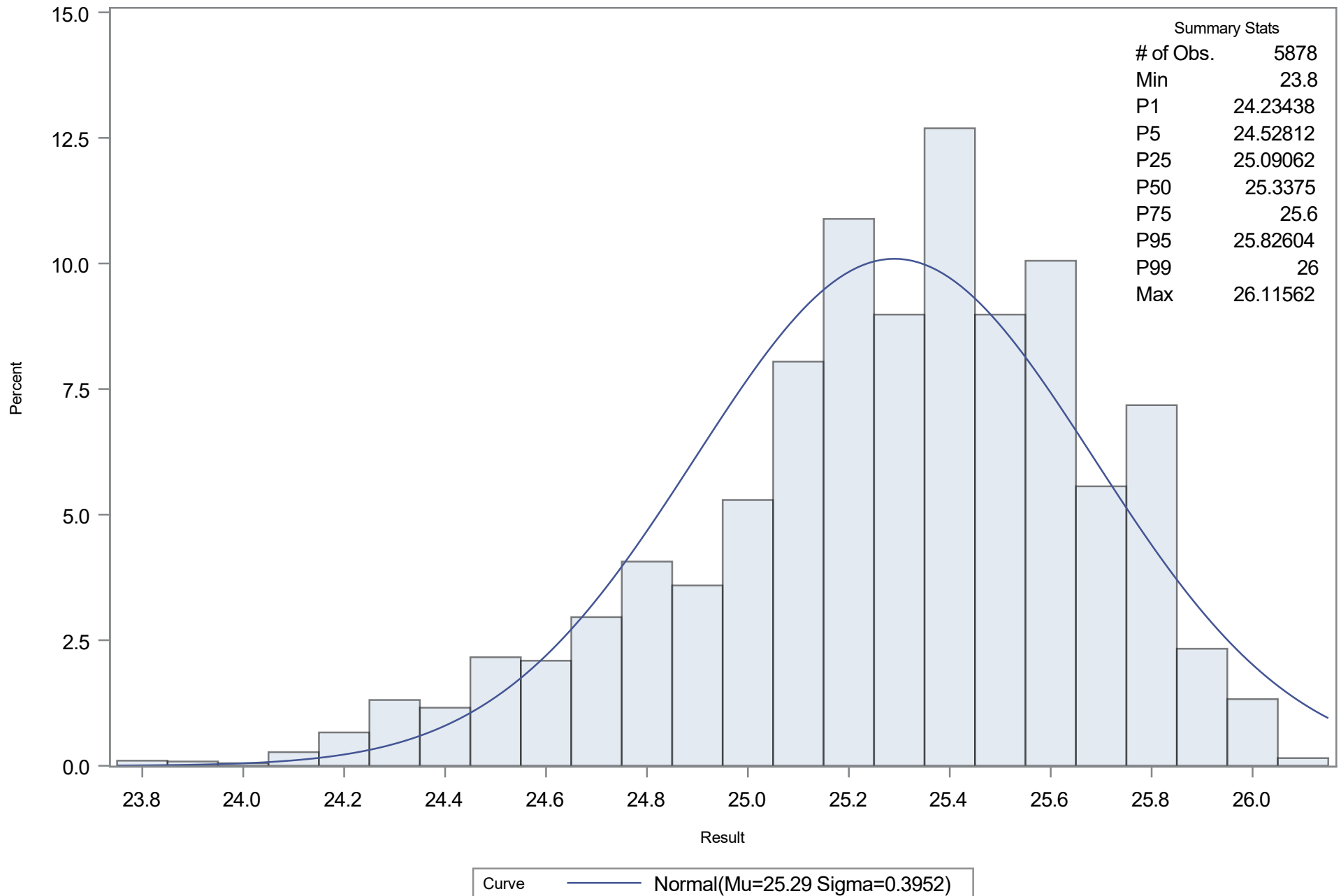
Timeseries of Surface Water Temperature (C) at Station USGS 02306000 SS Pool



DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station USGS 02306000 SS Pool

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	25.29032
Std Dev	Sigma	0.395243

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0749849	Pr > D	<0.010
Cramer-von Mises	W-Sq	7.4176772	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	47.6409950	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	24.2344	24.3708
5.0	24.5281	24.6402
10.0	24.7333	24.7838
25.0	25.0906	25.0237
50.0	25.3375	25.2903
75.0	25.6000	25.5569
90.0	25.8000	25.7968
95.0	25.8260	25.9404
99.0	26.0000	26.2098

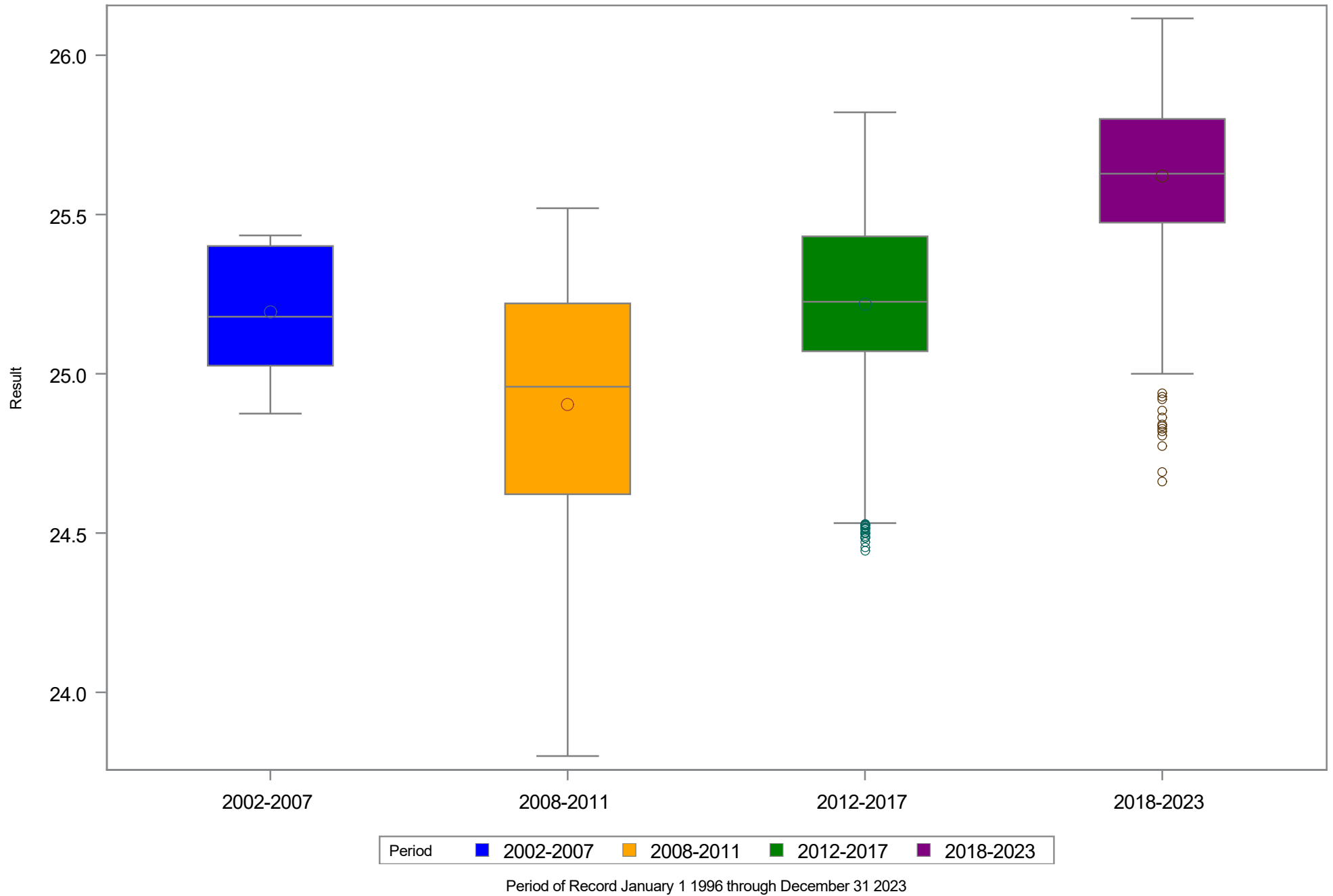
DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 02306000 SS Pool

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	24.88	25.03	25.20	25.18	25.40	25.43
2008-2011	1458	23.80	24.62	24.90	24.96	25.22	25.52
2012-2017	2141	24.44	25.07	25.22	25.23	25.43	25.82
2018-2023	2187	24.66	25.47	25.62	25.63	25.80	26.12

Period of Record January 1 1996 through December 31 2023

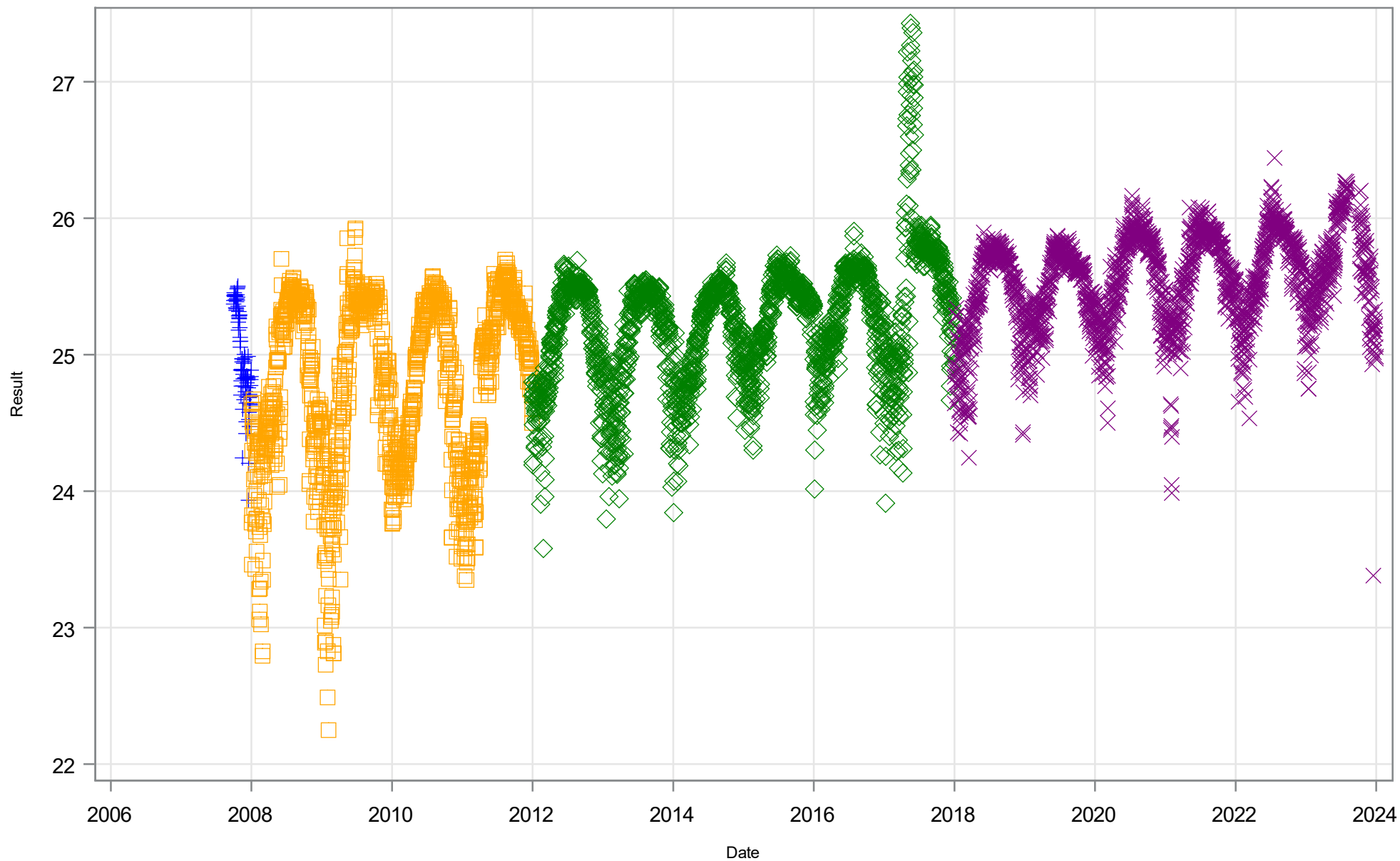
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 02306000 SS Pool



DRAFT

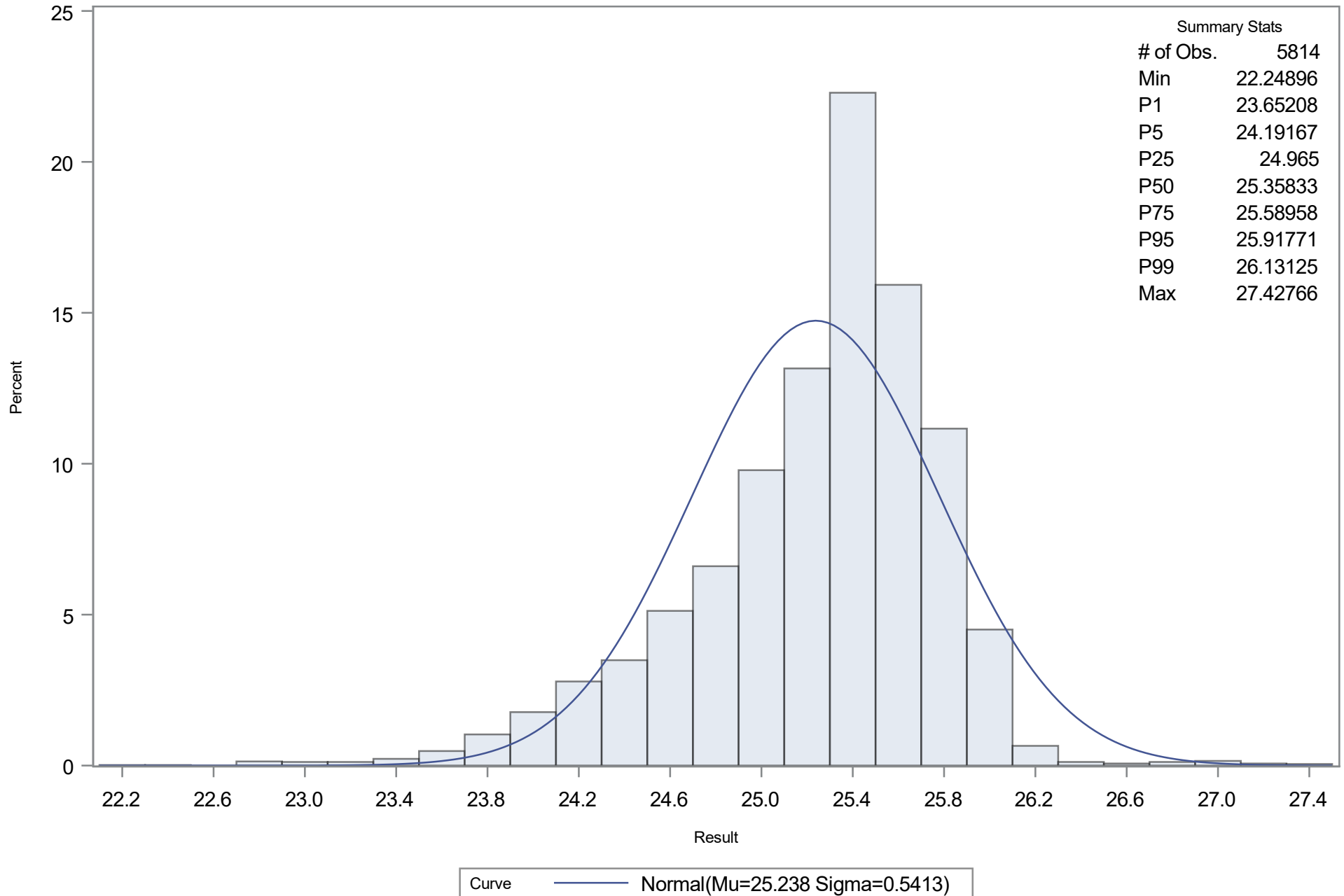
Timeseries of Surface Water Temperature (C) at Station USGS 023060003 SS Run



Period	2002-2007	2008-2011	2012-2017	2018-2023
Symbol	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	25.23791
Std Dev	Sigma	0.541335

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0997890	Pr > D	<0.010
Cramer-von Mises	W-Sq	17.4301204	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	97.9330586	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	23.6521	23.9786
5.0	24.1917	24.3475
10.0	24.4917	24.5442
25.0	24.9650	24.8728
50.0	25.3583	25.2379
75.0	25.5896	25.6030
90.0	25.8094	25.9317
95.0	25.9177	26.1283
99.0	26.1313	26.4972

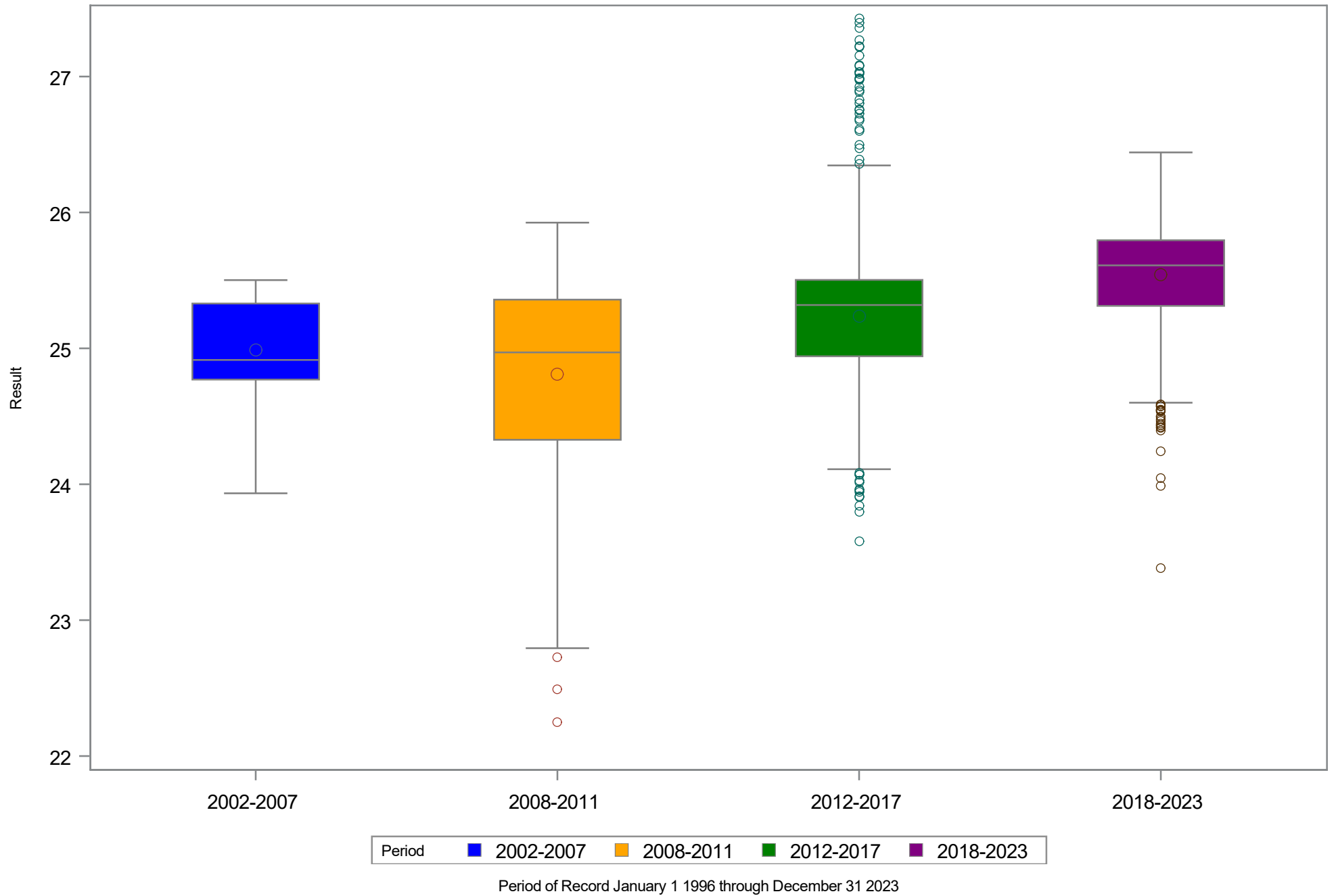
DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 023060003 SS Run

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	92	23.93	24.77	24.99	24.91	25.33	25.50
2008-2011	1450	22.25	24.33	24.81	24.97	25.36	25.93
2012-2017	2148	23.58	24.94	25.23	25.32	25.50	27.43
2018-2023	2124	23.38	25.31	25.54	25.61	25.80	26.44

Period of Record January 1 1996 through December 31 2023

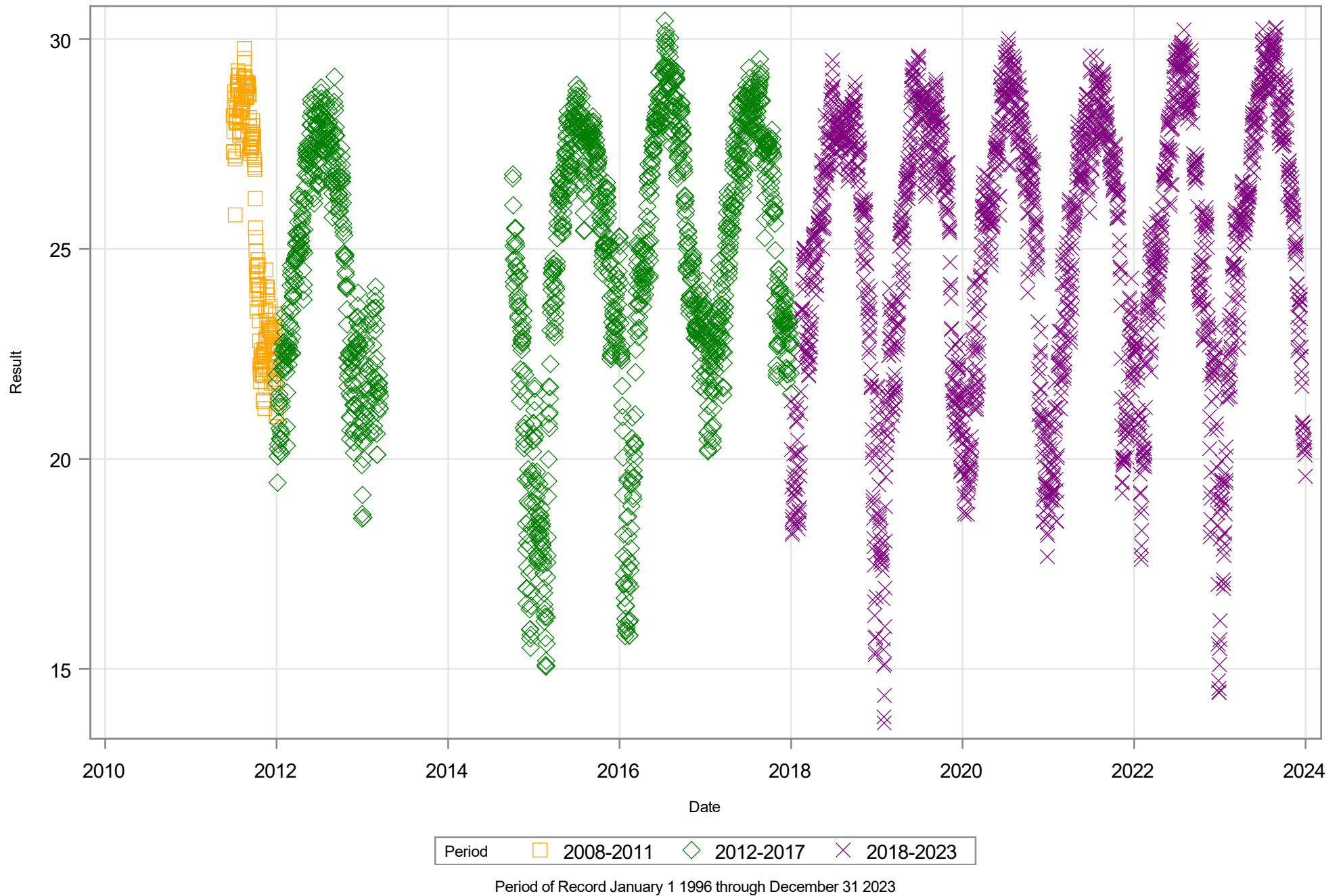
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 023060003 SS Run



DRAFT

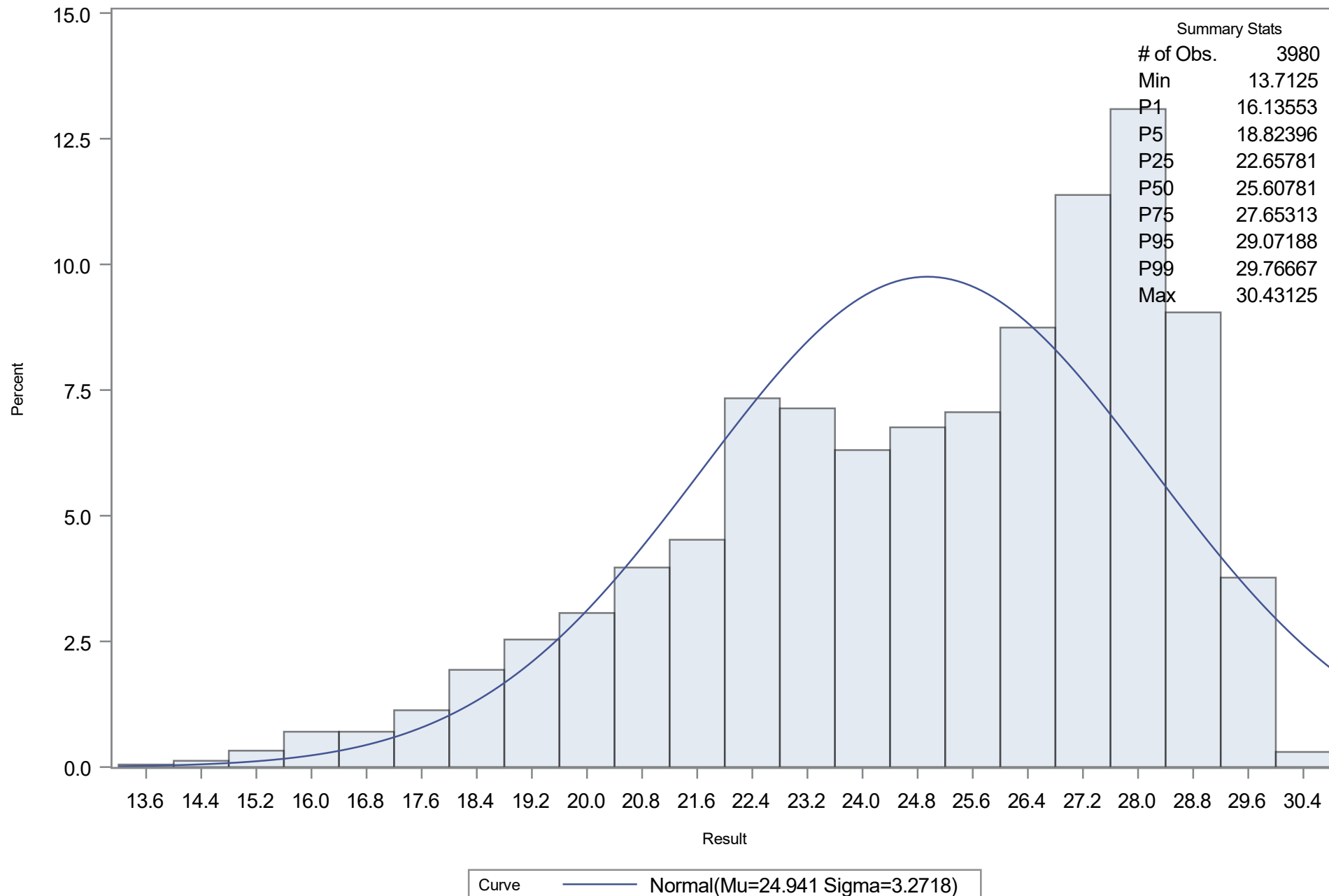
Timeseries of Surface Water Temperature (C) at Station USGS 023060013 I-275



DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.94138
Std Dev	Sigma	3.271842

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0990035	Pr > D	<0.010
Cramer-von Mises	W-Sq	10.2002445	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	62.8131270	Pr > A-Sq	<0.005

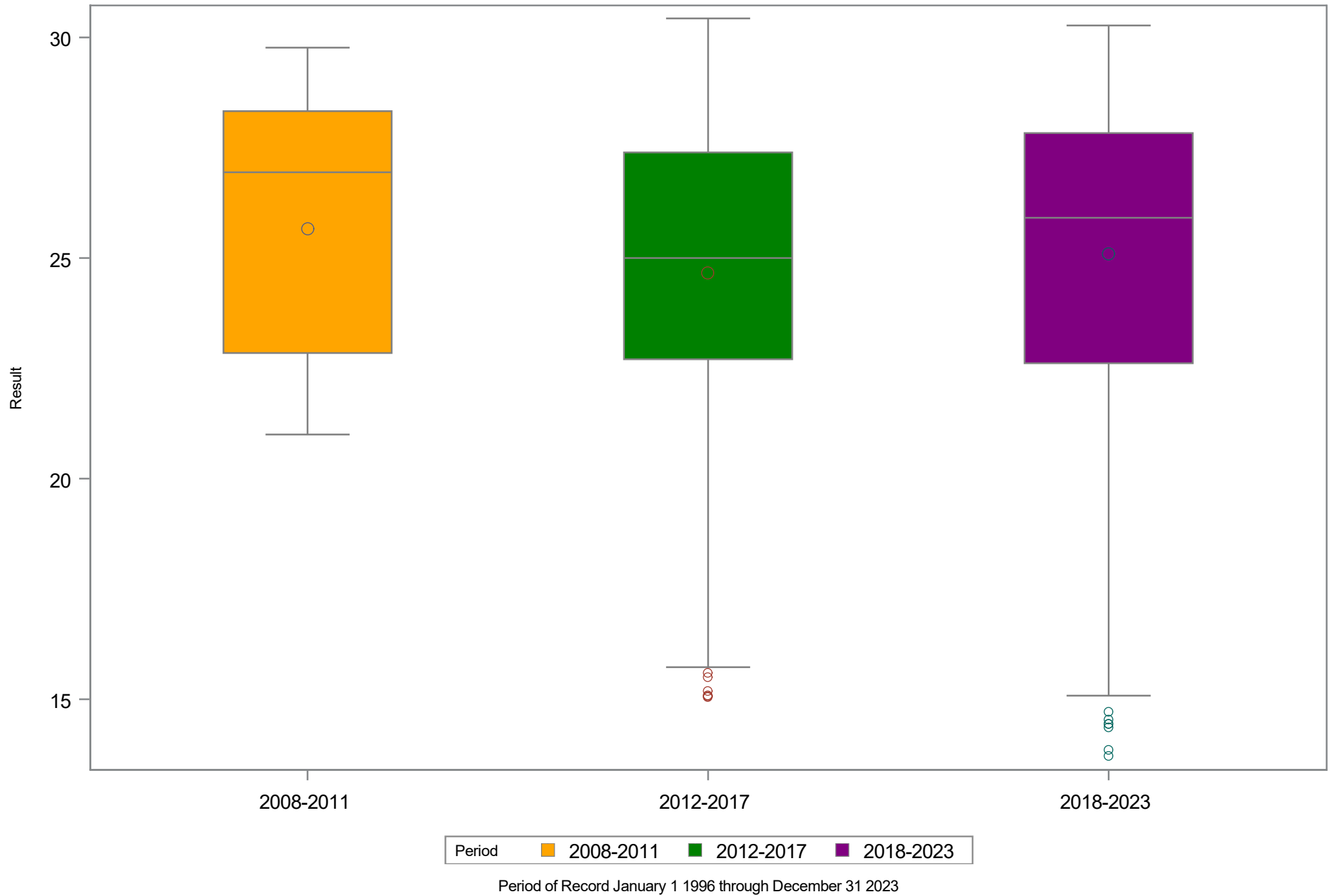
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	16.1355	17.3299
5.0	18.8240	19.5597
10.0	20.2507	20.7483
25.0	22.6578	22.7346
50.0	25.6078	24.9414
75.0	27.6531	27.1482
90.0	28.6198	29.1344
95.0	29.0719	30.3231
99.0	29.7667	32.5528

DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	183	21.00	22.85	25.67	26.94	28.33	29.77
2012-2017	1607	15.06	22.71	24.66	25.00	27.39	30.43
2018-2023	2190	13.71	22.62	25.09	25.91	27.83	30.27

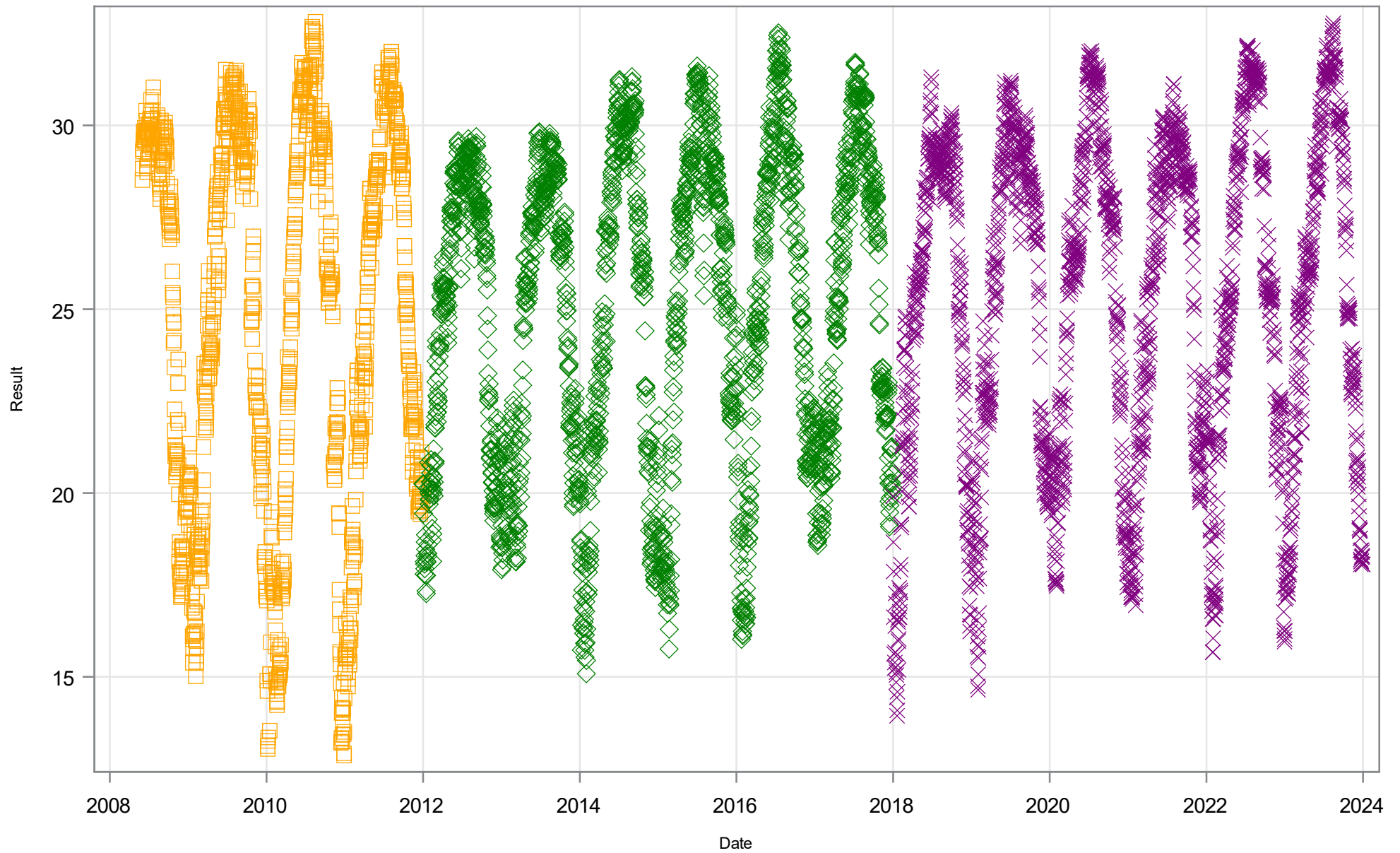
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 023060013 I-275



DRAFT

Timeseries of Surface Water Temperature (C) at Station USGS 02306028 Platt

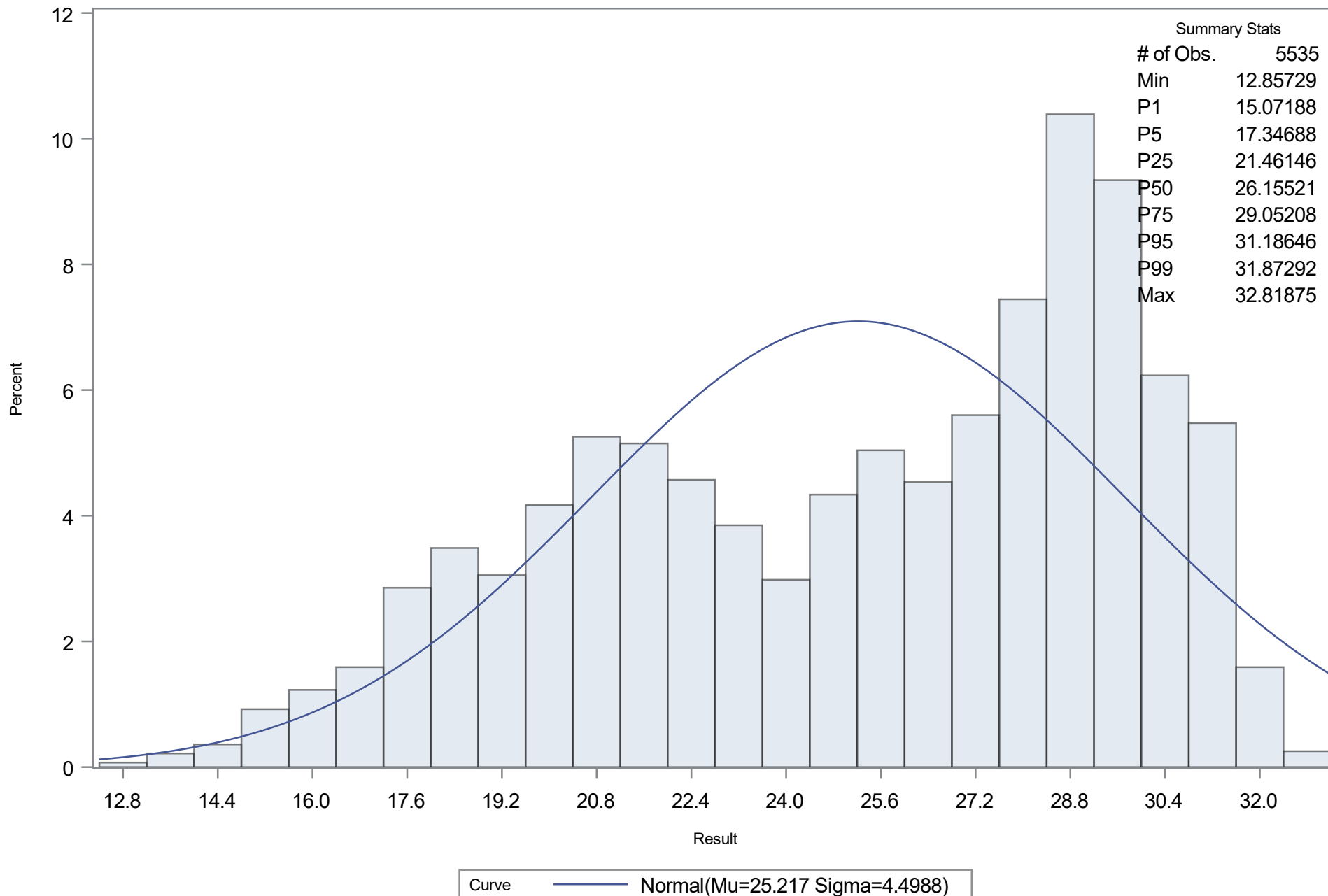


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	25.21735
Std Dev	Sigma	4.498817

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.109599	Pr > D	<0.010
Cramer-von Mises	W-Sq	18.210000	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	105.819647	Pr > A-Sq	<0.005

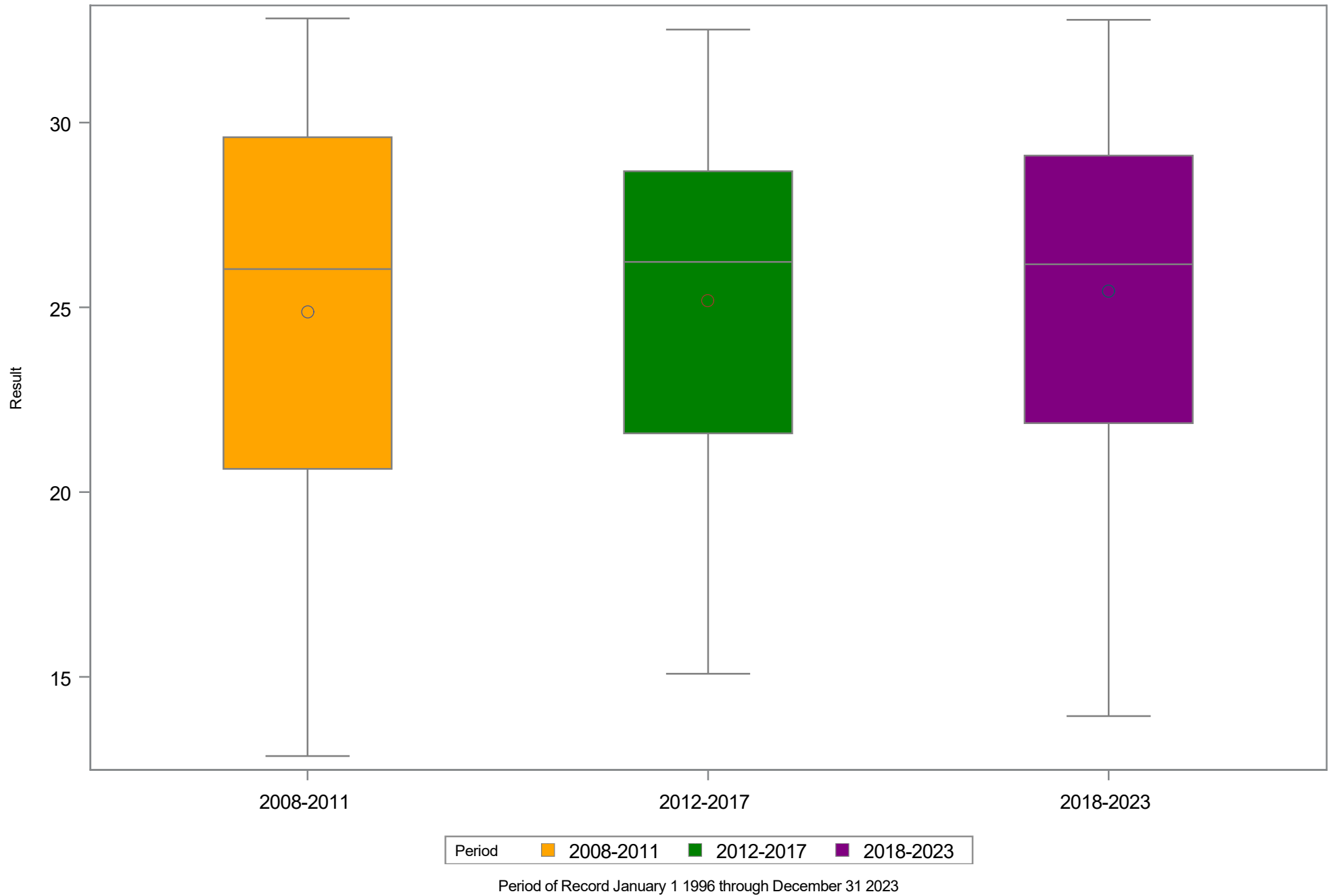
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.0719	14.7515
5.0	17.3469	17.8175
10.0	18.6542	19.4519
25.0	21.4615	22.1829
50.0	26.1552	25.2173
75.0	29.0521	28.2518
90.0	30.4219	30.9828
95.0	31.1865	32.6172
99.0	31.8729	35.6832

DRAFT Distributional Statistics by Period for Surface Water Temperature (C) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1236	12.86	20.63	24.89	26.04	29.60	32.82
2012-2017	2112	15.08	21.59	25.18	26.23	28.68	32.52
2018-2023	2187	13.94	21.87	25.44	26.17	29.11	32.78

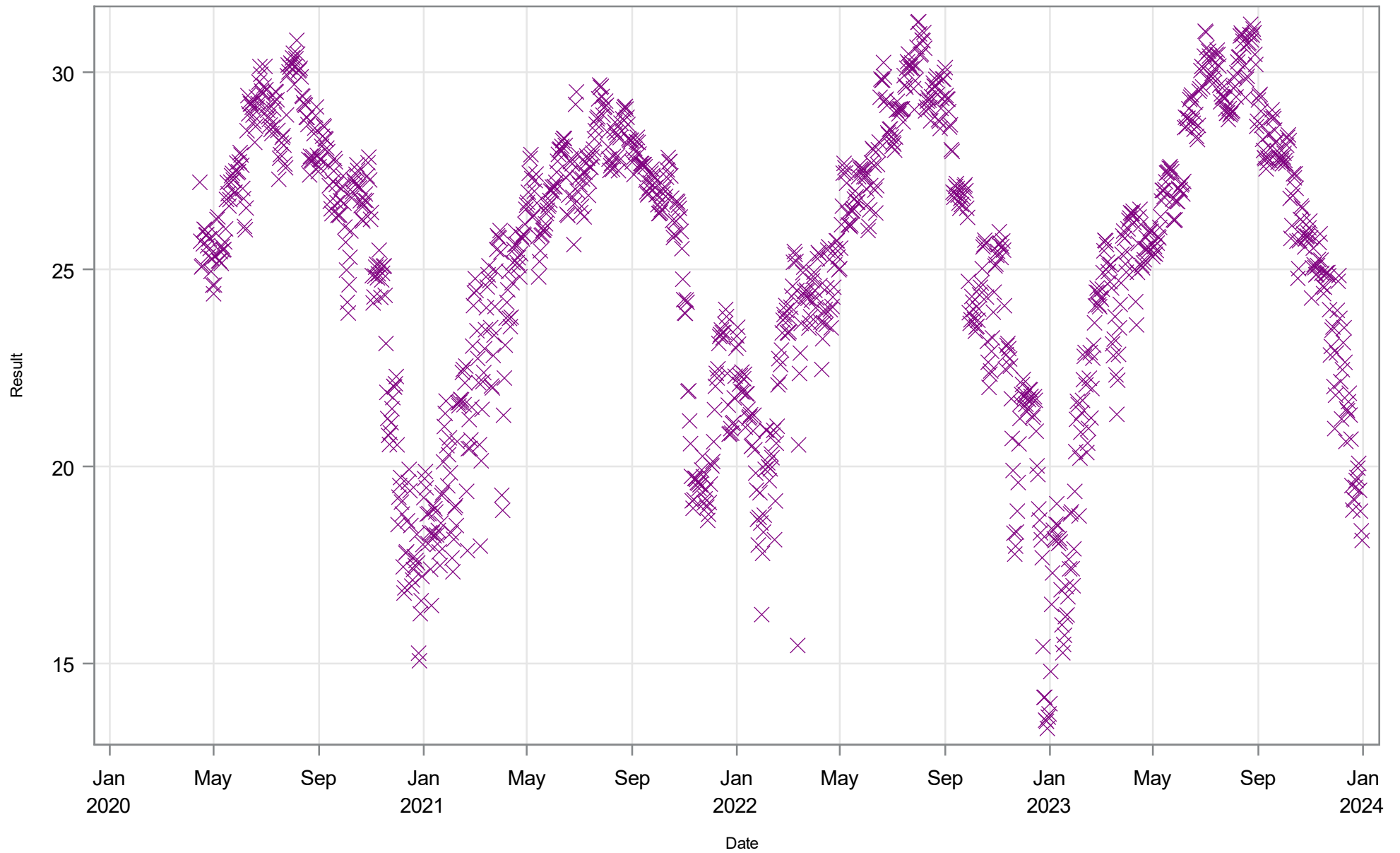
DRAFT

Boxplot by MFL Period for Surface Water Temperature (C) at Station USGS 02306028 Platt



DRAFT

Timeseries of Surface Water Temperature (C) at Station WMD 19206



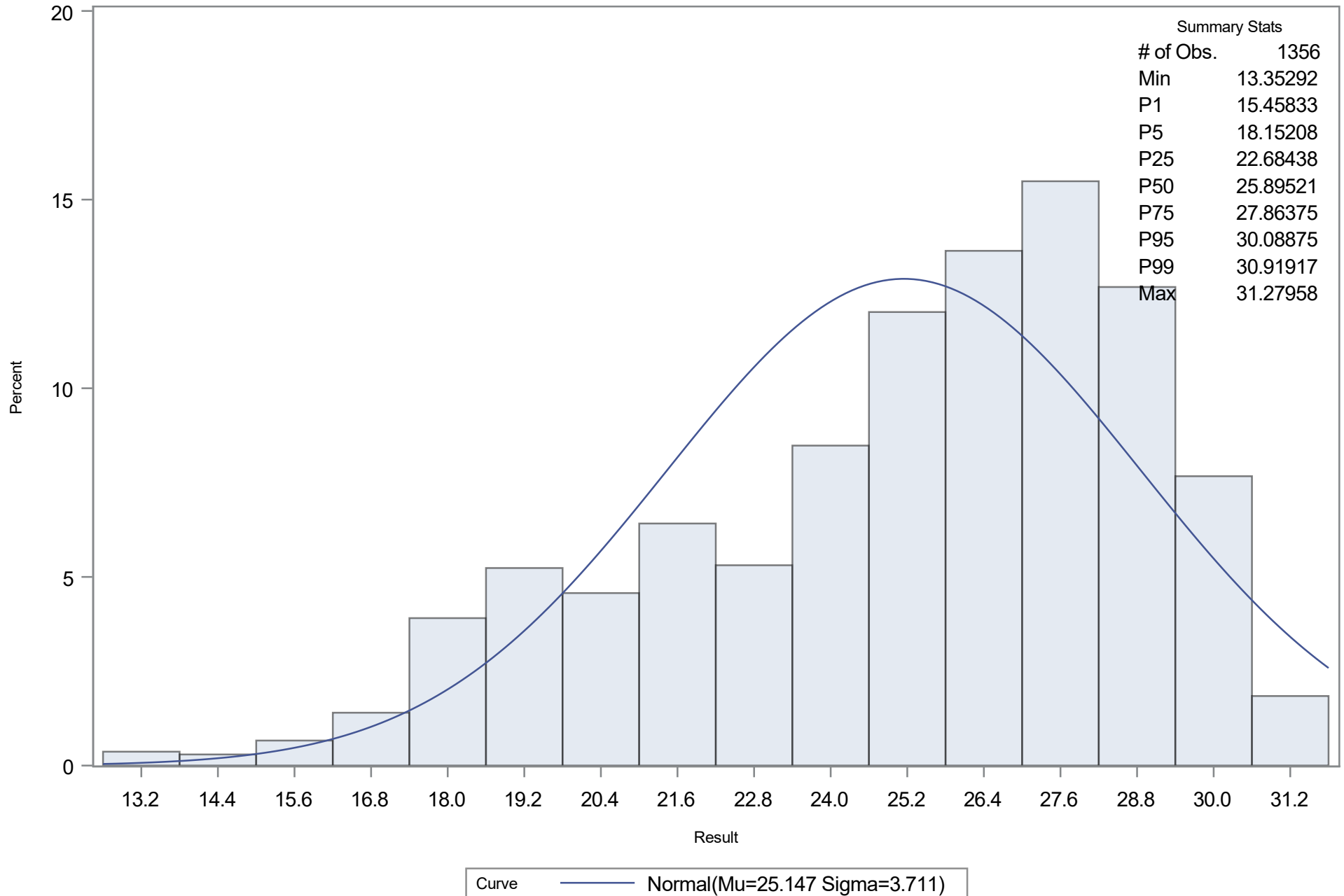
Period × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Water Temperature (C) at Station WMD 19206

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Water Temperature (C) at Station WMD 19206**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	25.14693
Std Dev	Sigma	3.710997

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0907163	Pr > D	<0.010
Cramer-von Mises	W-Sq	3.7326835	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	21.9012427	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.4583	16.5139
5.0	18.1521	19.0429
10.0	19.4013	20.3911
25.0	22.6844	22.6439
50.0	25.8952	25.1469
75.0	27.8638	27.6500
90.0	29.3704	29.9028
95.0	30.0888	31.2510
99.0	30.9192	33.7800

Period of Record January 1 1996 through December 31 2023

DRAFT

Distributional Statistics by Period for Surface Water Temperature (C) at Station WMD 19206

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1356	13.35	22.68	25.15	25.90	27.86	31.28

Period of Record January 1 1996 through December 31 2023

DRAFT

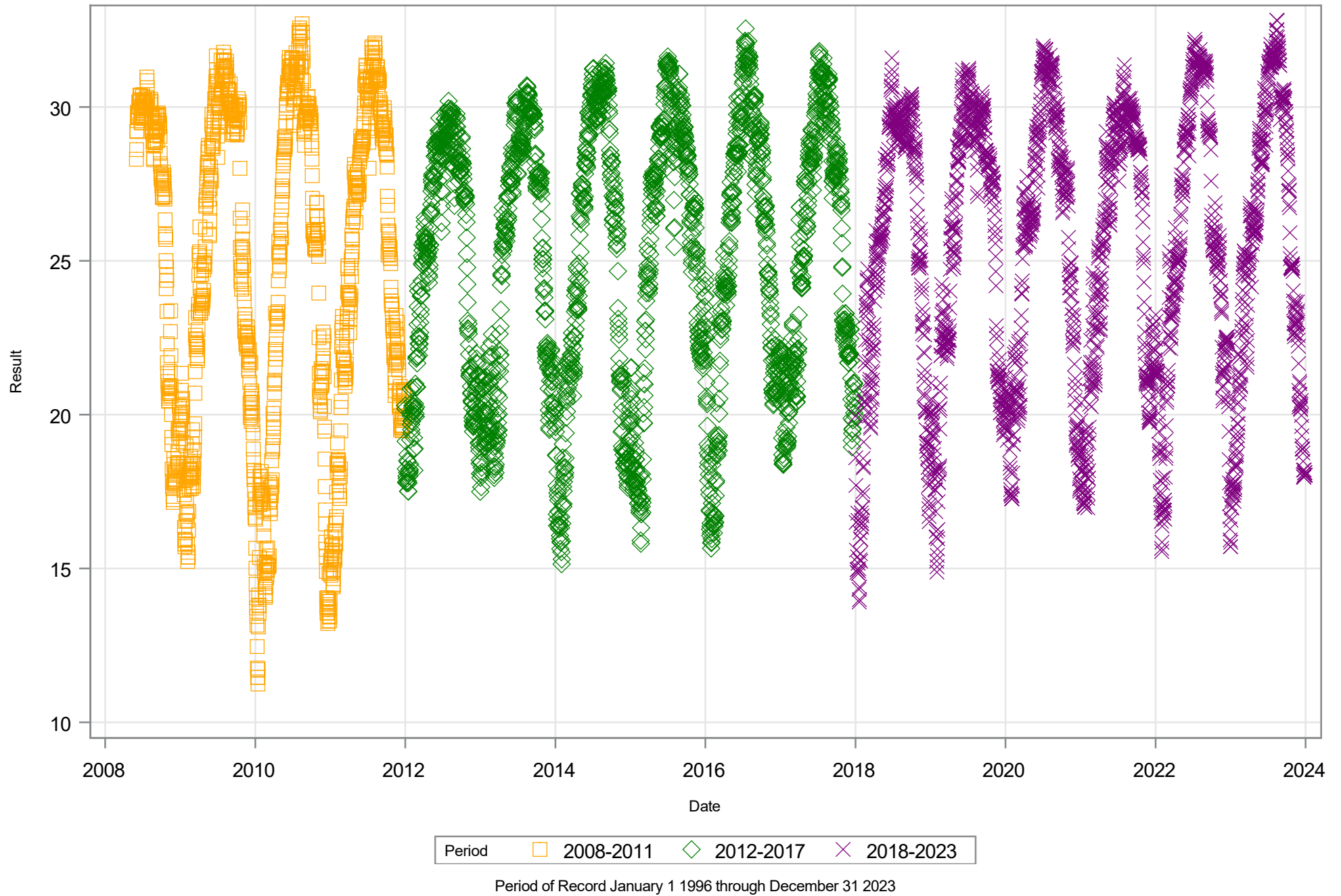
Boxplot by MFL Period for Surface Water Temperature (C) at Station WMD 19206



Period of Record January 1 1996 through December 31 2023

DRAFT

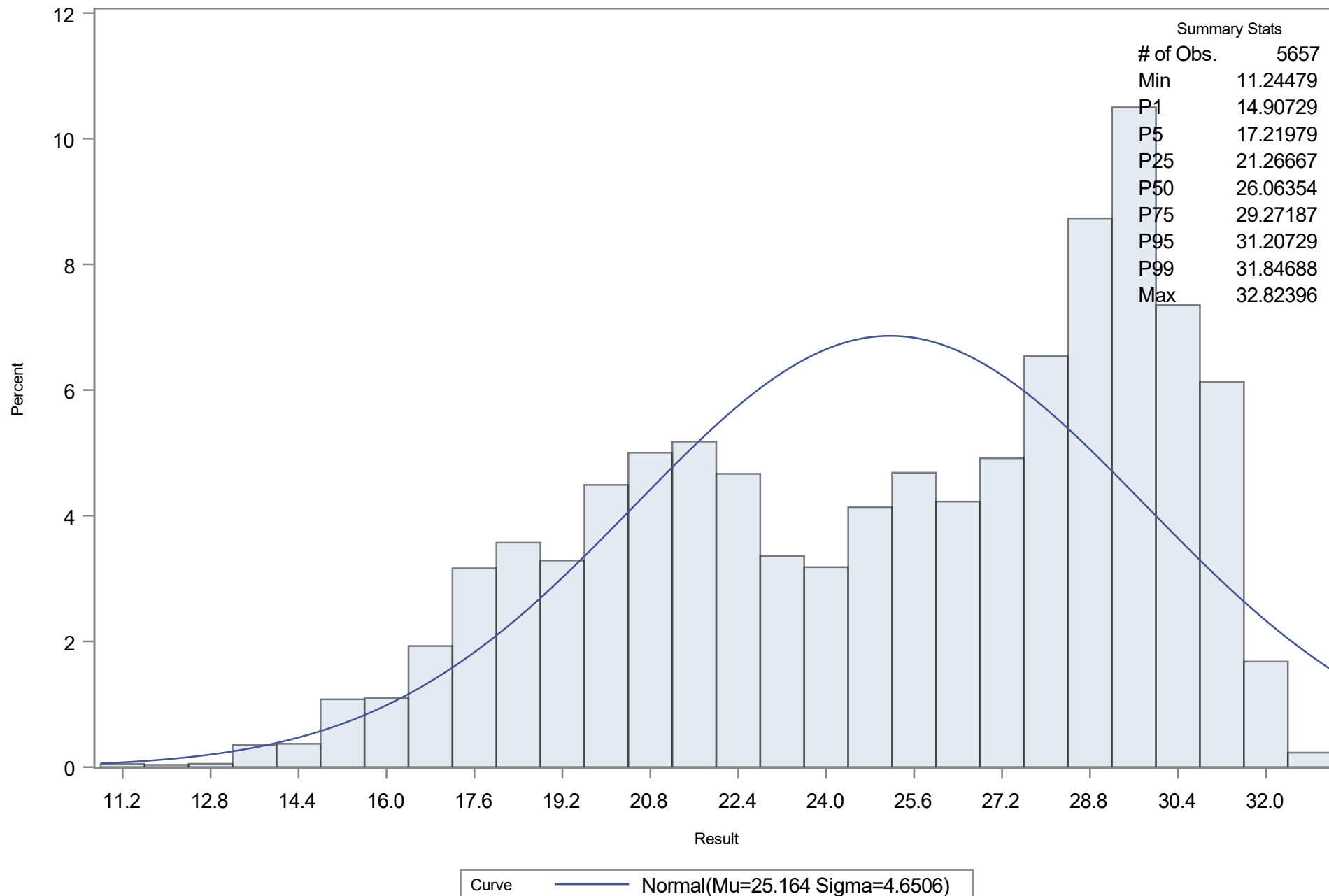
Timeseries of Midwater Water Temperature (C) at Station USGS 02306028 Platt



DRAFT

Univariate Histogram of Midwater Water Temperature (C) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	25.16445
Std Dev	Sigma	4.650648

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.112102	Pr > D	<0.010
Cramer-von Mises	W-Sq	19.768125	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	117.292575	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	14.9073	14.3454
5.0	17.2198	17.5148
10.0	18.3833	19.2044
25.0	21.2667	22.0276
50.0	26.0635	25.1644
75.0	29.2719	28.3013
90.0	30.5104	31.1245
95.0	31.2073	32.8141
99.0	31.8469	35.9835

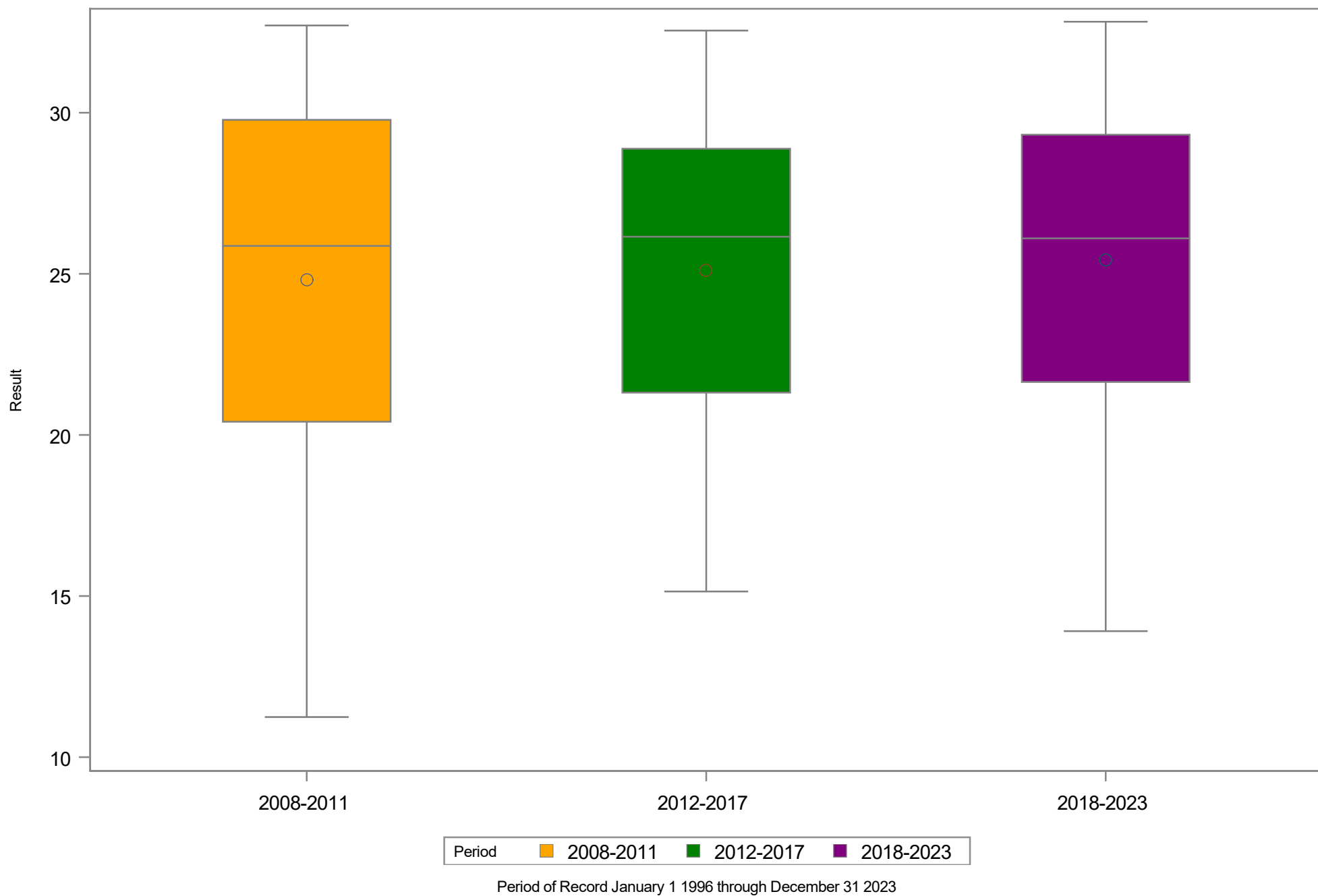
DRAFT Distributional Statistics by Period for Midwater Water Temperature (C) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1286	11.24	20.41	24.82	25.87	29.78	32.71
2012-2017	2184	15.14	21.31	25.11	26.15	28.88	32.55
2018-2023	2187	13.91	21.64	25.42	26.10	29.32	32.82

Period of Record January 1 1996 through December 31 2023

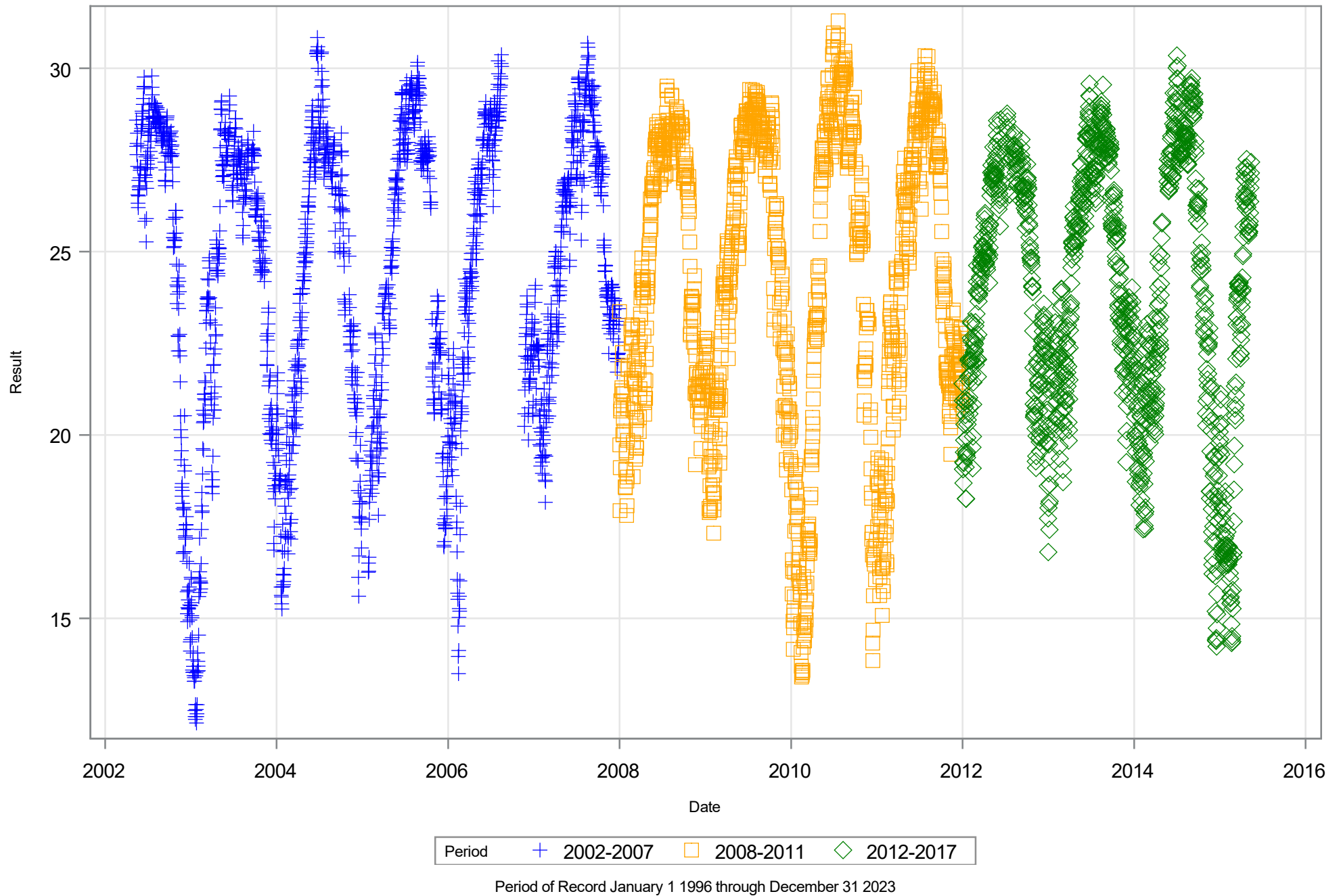
DRAFT

Boxplot by MFL Period for Midwater Water Temperature (C) at Station USGS 02306028 Platt



DRAFT

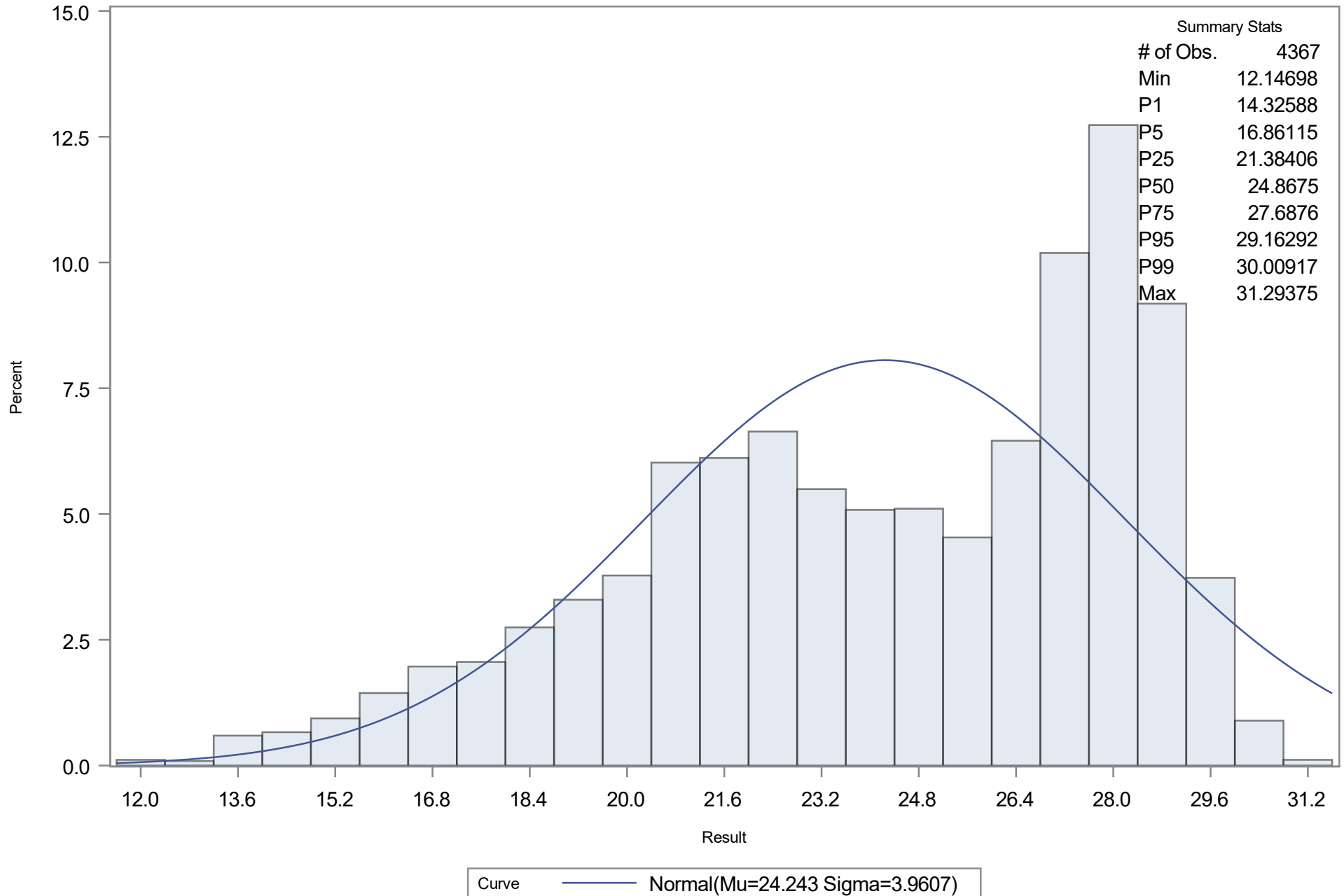
Timeseries of Bottom Water Temperature (C) at Station EPC 2 Rkm 13.7



DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station EPC 2 Rkm 13.7

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.24281
Std Dev	Sigma	3.960693

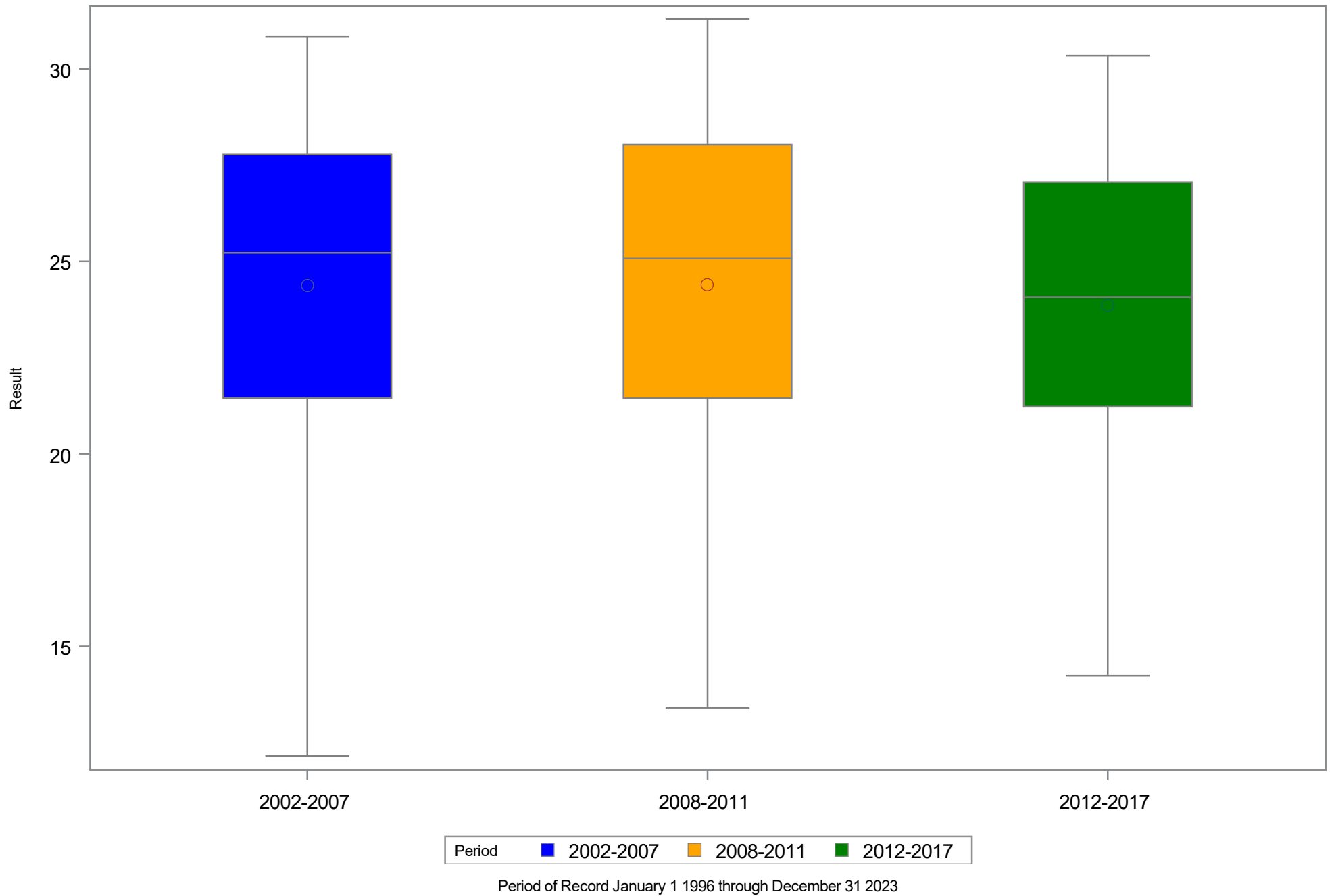
Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.1150525	Pr > D	<0.010
Cramer-von Mises	W-Sq	12.3851573	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	77.0699772	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	14.3259	15.0289
5.0	16.8611	17.7280
10.0	18.6439	19.1670
25.0	21.3841	21.5714
50.0	24.8675	24.2428
75.0	27.6876	26.9143
90.0	28.6747	29.3186
95.0	29.1629	30.7576
99.0	30.0092	33.4568

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1852	12.15	21.45	24.37	25.22	27.77	30.84
2008-2011	1386	13.40	21.45	24.39	25.07	28.03	31.29
2012-2017	1129	14.23	21.22	23.86	24.07	27.06	30.35

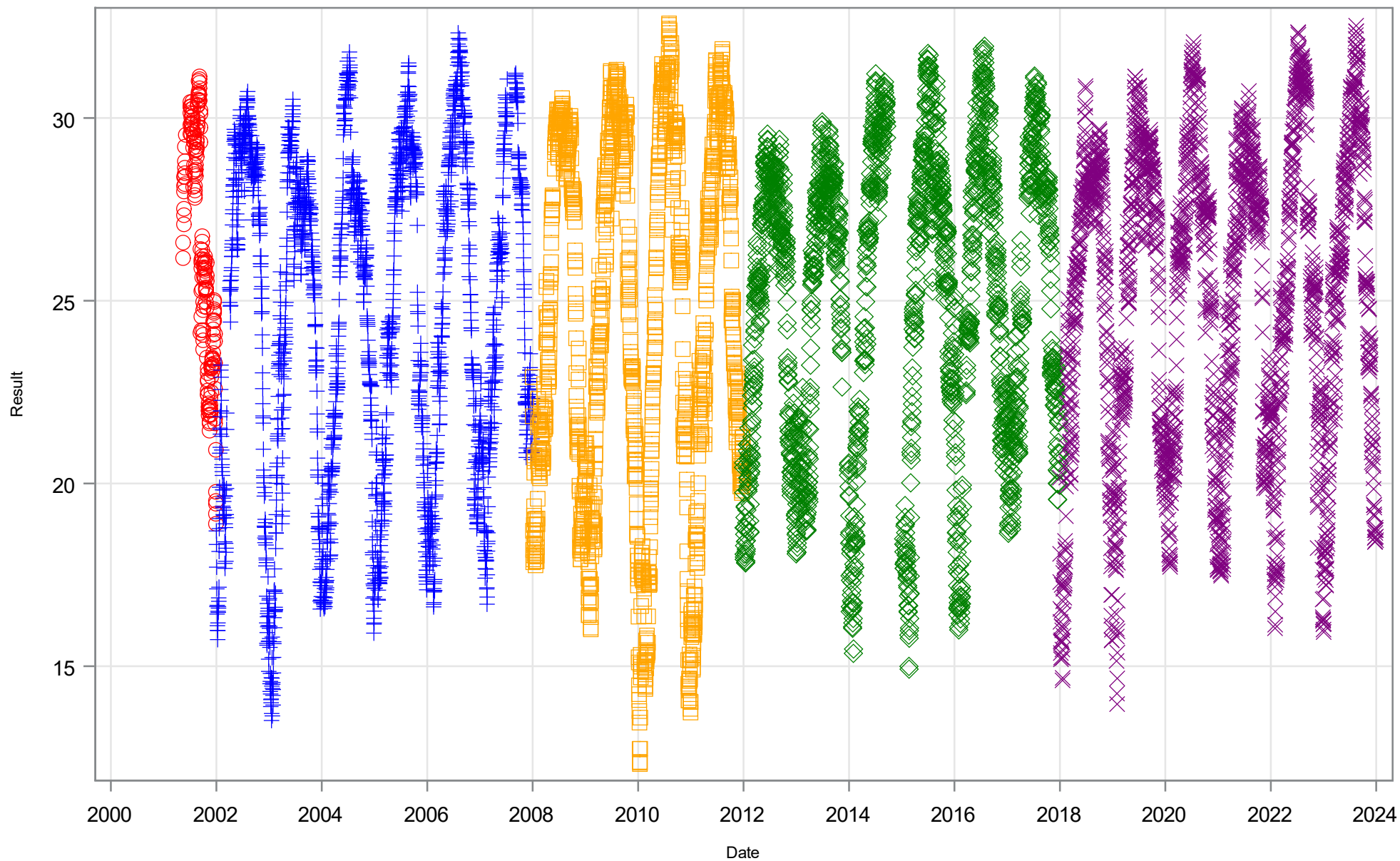
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station EPC 2 Rkm 13.7



DRAFT

Timeseries of Bottom Water Temperature (C) at Station TBW Columbus



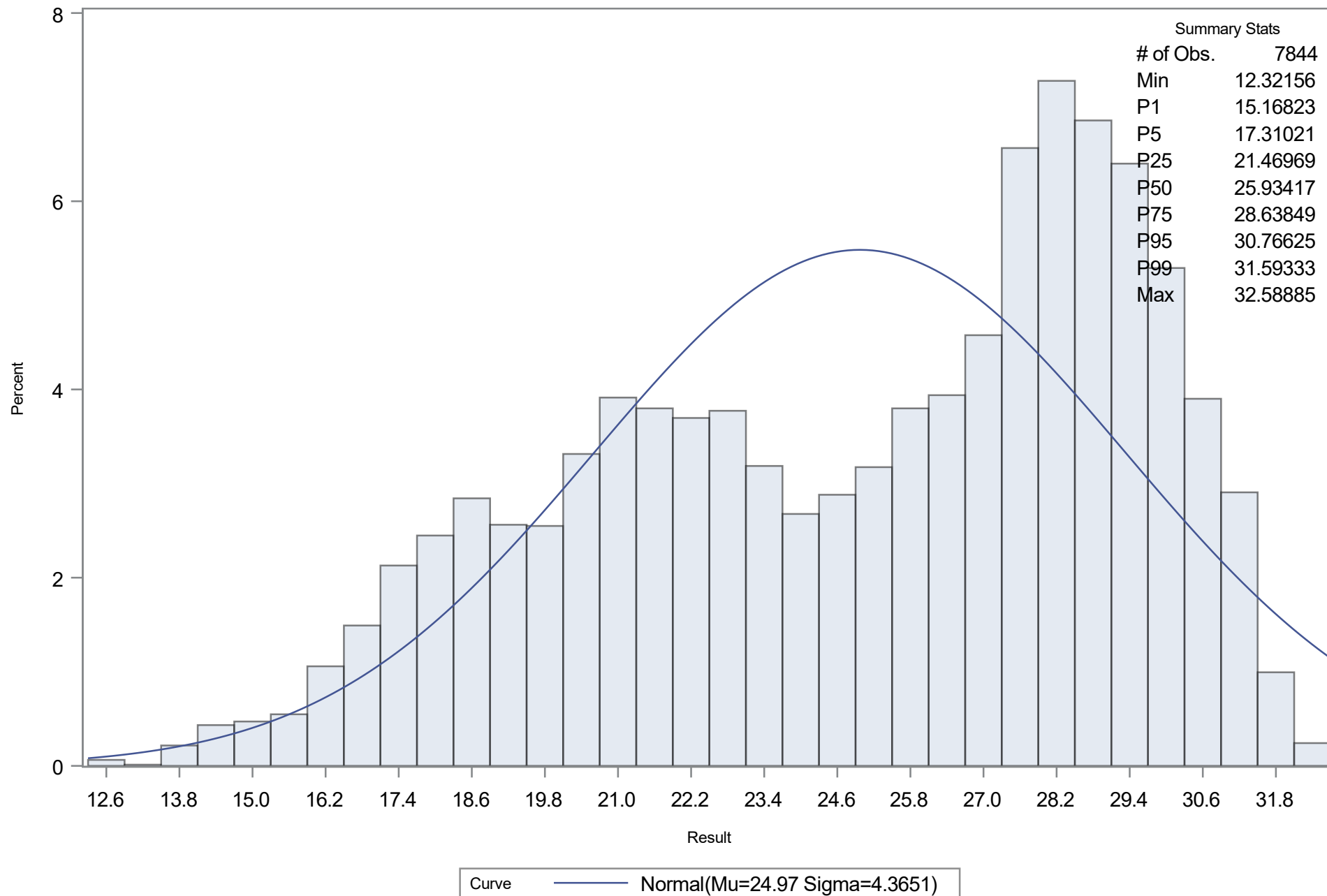
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station TBW Columbus

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Water Temperature (C) at Station TBW Columbus**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.97012
Std Dev	Sigma	4.36515

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.108016	Pr > D	<0.010
Cramer-von Mises	W-Sq	23.754371	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	137.832096	Pr > A-Sq	<0.005

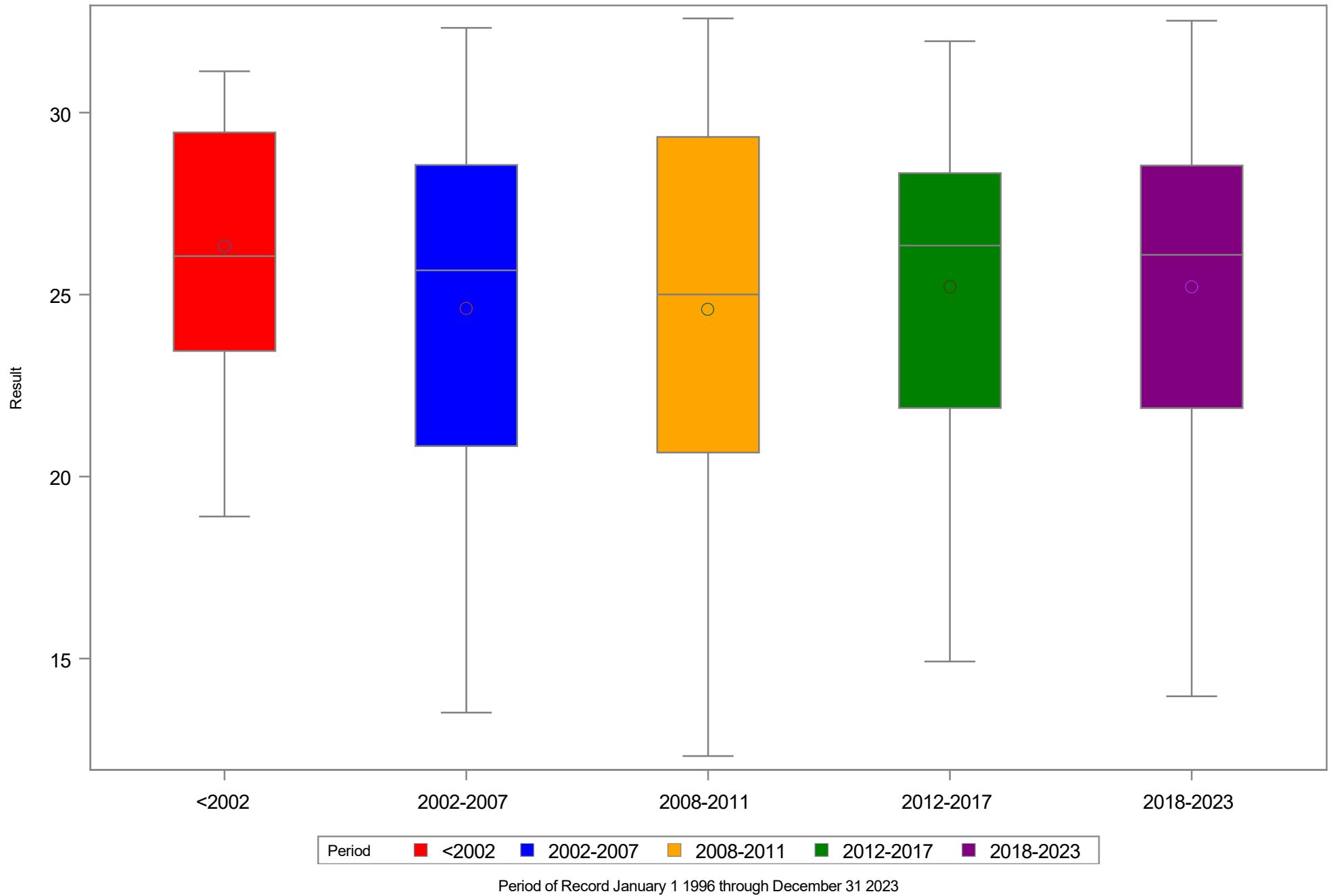
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.1682	14.8153
5.0	17.3102	17.7901
10.0	18.5752	19.3760
25.0	21.4697	22.0259
50.0	25.9342	24.9701
75.0	28.6385	27.9144
90.0	30.0492	30.5643
95.0	30.7663	32.1502
99.0	31.5933	35.1250

Period of Record January 1 1996 through December 31 2023

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	198	18.90	23.45	26.34	26.06	29.46	31.14
2002-2007	2120	13.51	20.84	24.63	25.67	28.56	32.33
2008-2011	1449	12.32	20.66	24.59	25.01	29.33	32.59
2012-2017	1928	14.92	21.89	25.21	26.35	28.34	31.96
2018-2023	2149	13.96	21.88	25.23	26.09	28.55	32.53

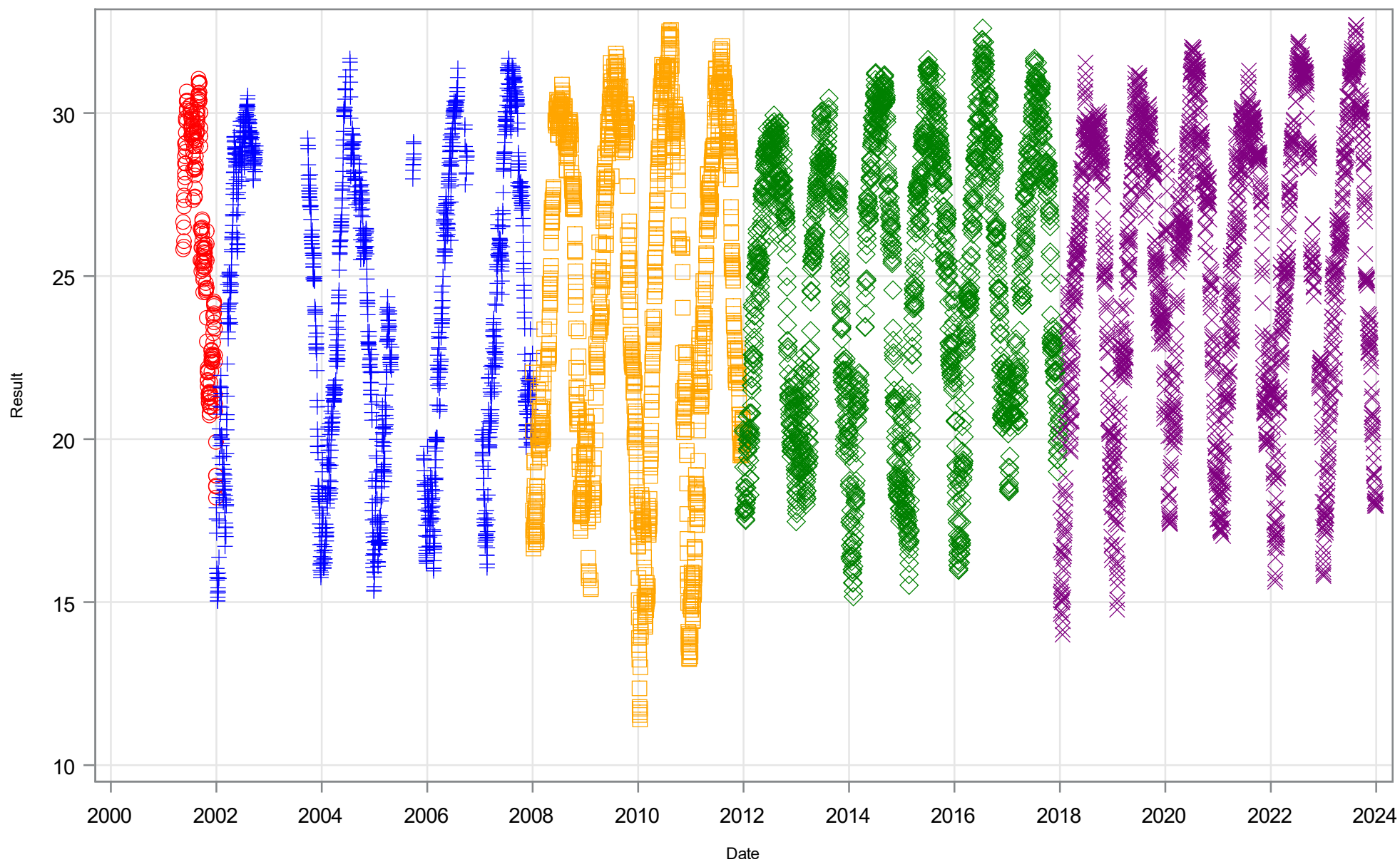
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station TBW Columbus



DRAFT

Timeseries of Bottom Water Temperature (C) at Station TBW Crosstown



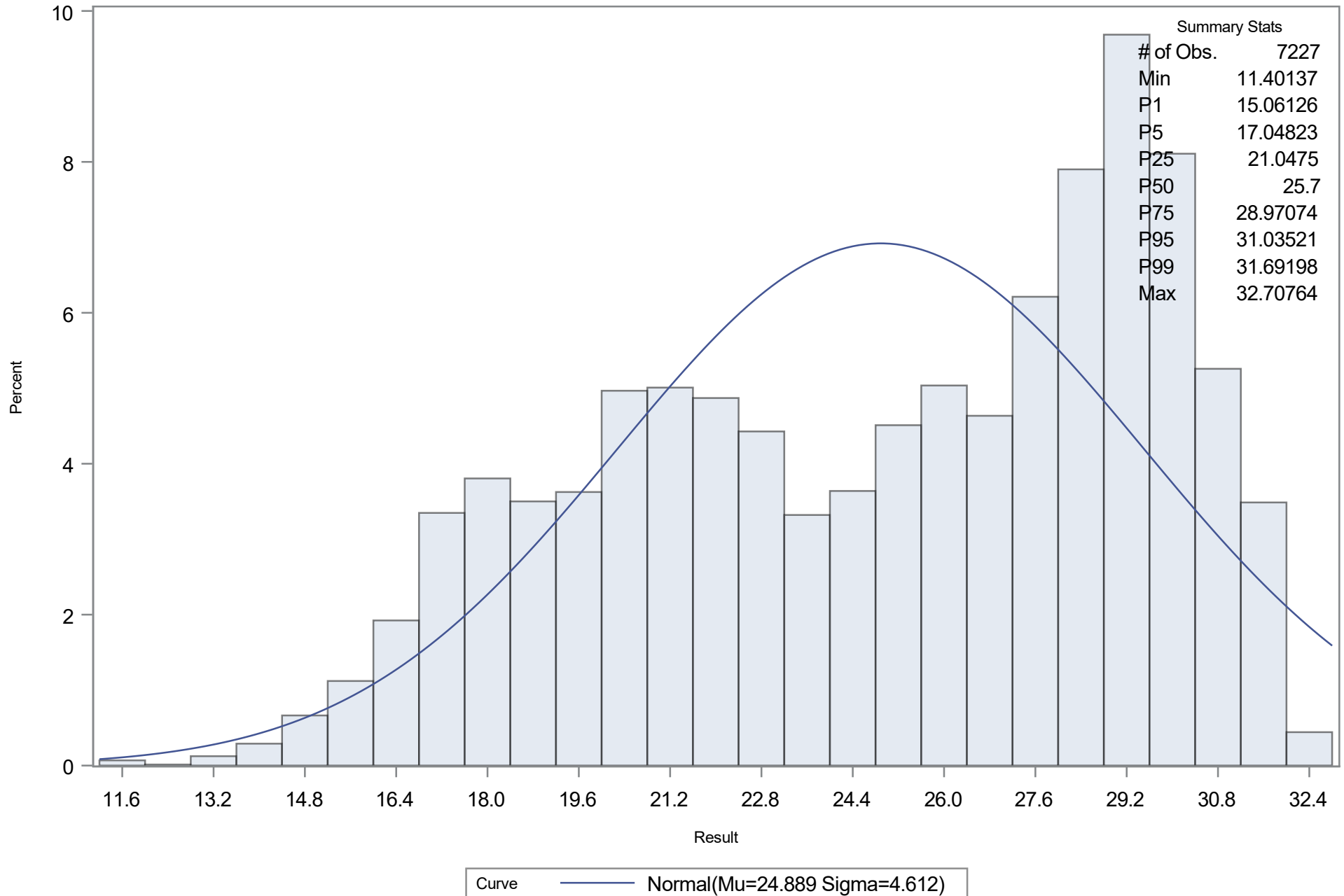
Period ○ <2002 + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station TBW Crosstown

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Water Temperature (C) at Station TBW Crosstown**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.88919
Std Dev	Sigma	4.611984

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.104696	Pr > D	<0.010
Cramer-von Mises	W-Sq	22.212963	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	134.067992	Pr > A-Sq	<0.005

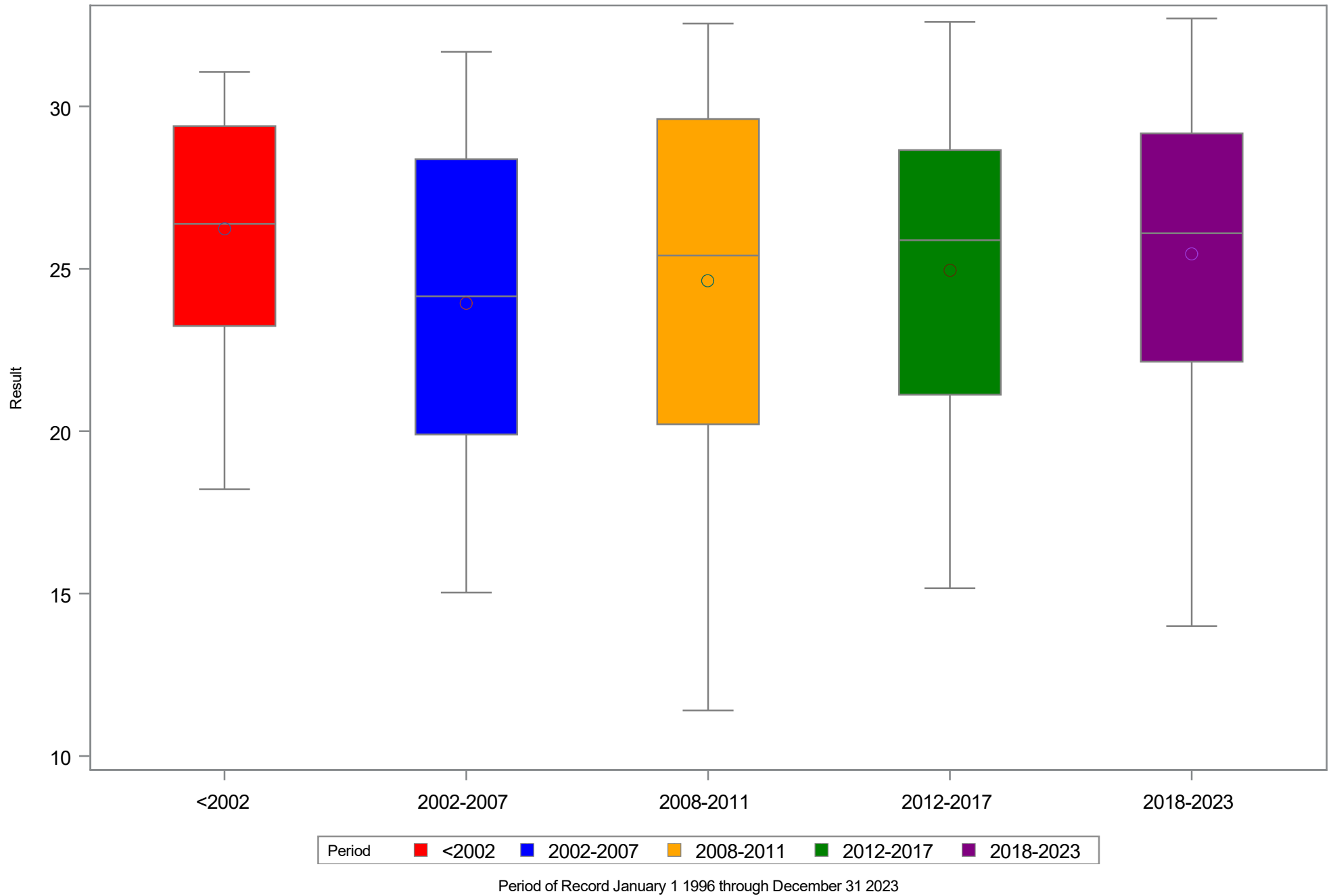
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.0613	14.1601
5.0	17.0482	17.3032
10.0	18.1608	18.9787
25.0	21.0475	21.7785
50.0	25.7000	24.8892
75.0	28.9707	27.9999
90.0	30.2930	30.7997
95.0	31.0352	32.4752
99.0	31.6920	35.6183

Period of Record January 1 1996 through December 31 2023

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	210	18.21	23.24	26.23	26.38	29.39	31.06
2002-2007	1414	15.04	19.90	23.95	24.15	28.37	31.68
2008-2011	1367	11.40	20.21	24.63	25.41	29.61	32.55
2012-2017	2096	15.17	21.13	24.96	25.88	28.65	32.60
2018-2023	2140	14.00	22.14	25.47	26.10	29.17	32.71

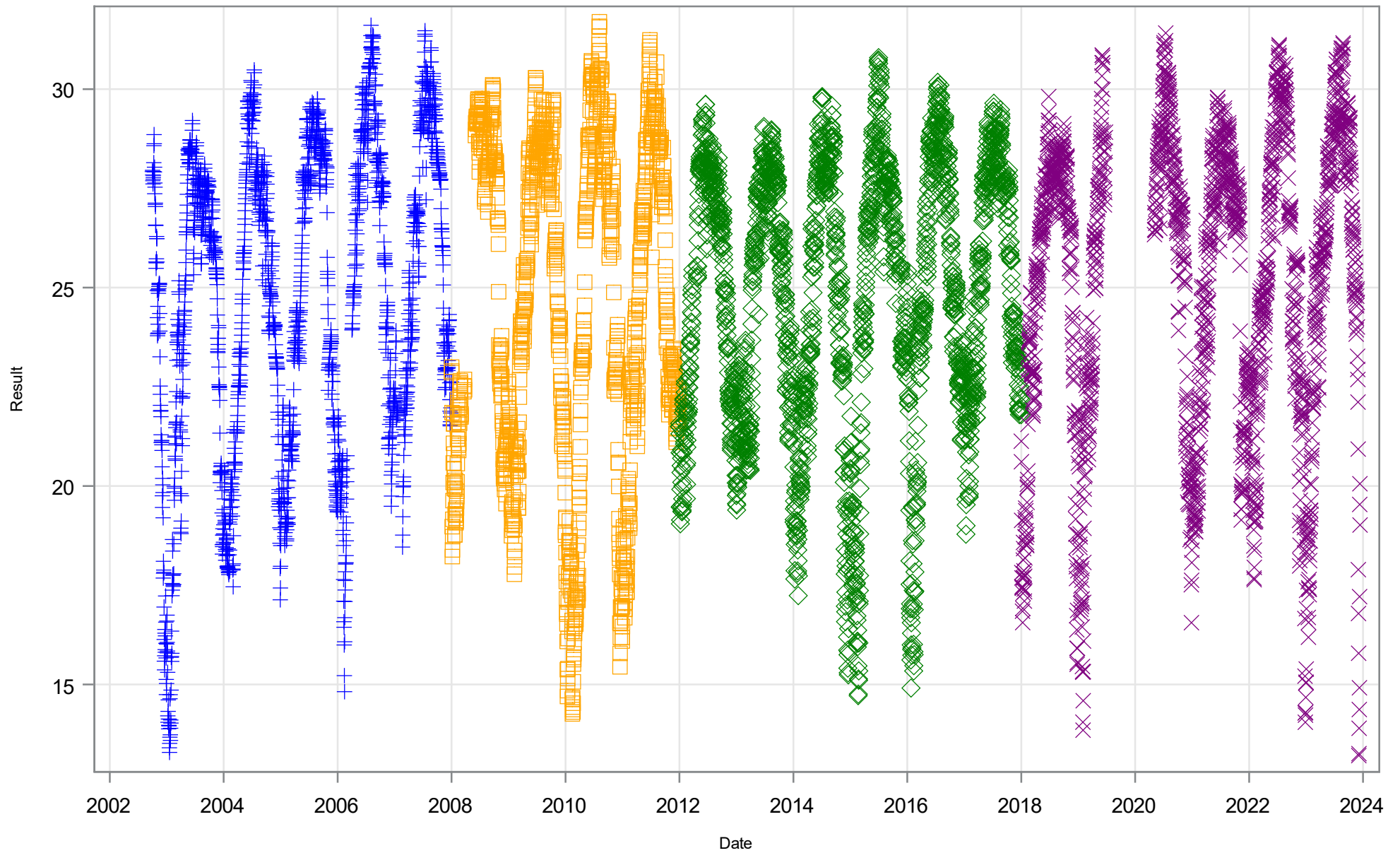
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station TBW Crosstown



DRAFT

Timeseries of Bottom Water Temperature (C) at Station TBW Sligh



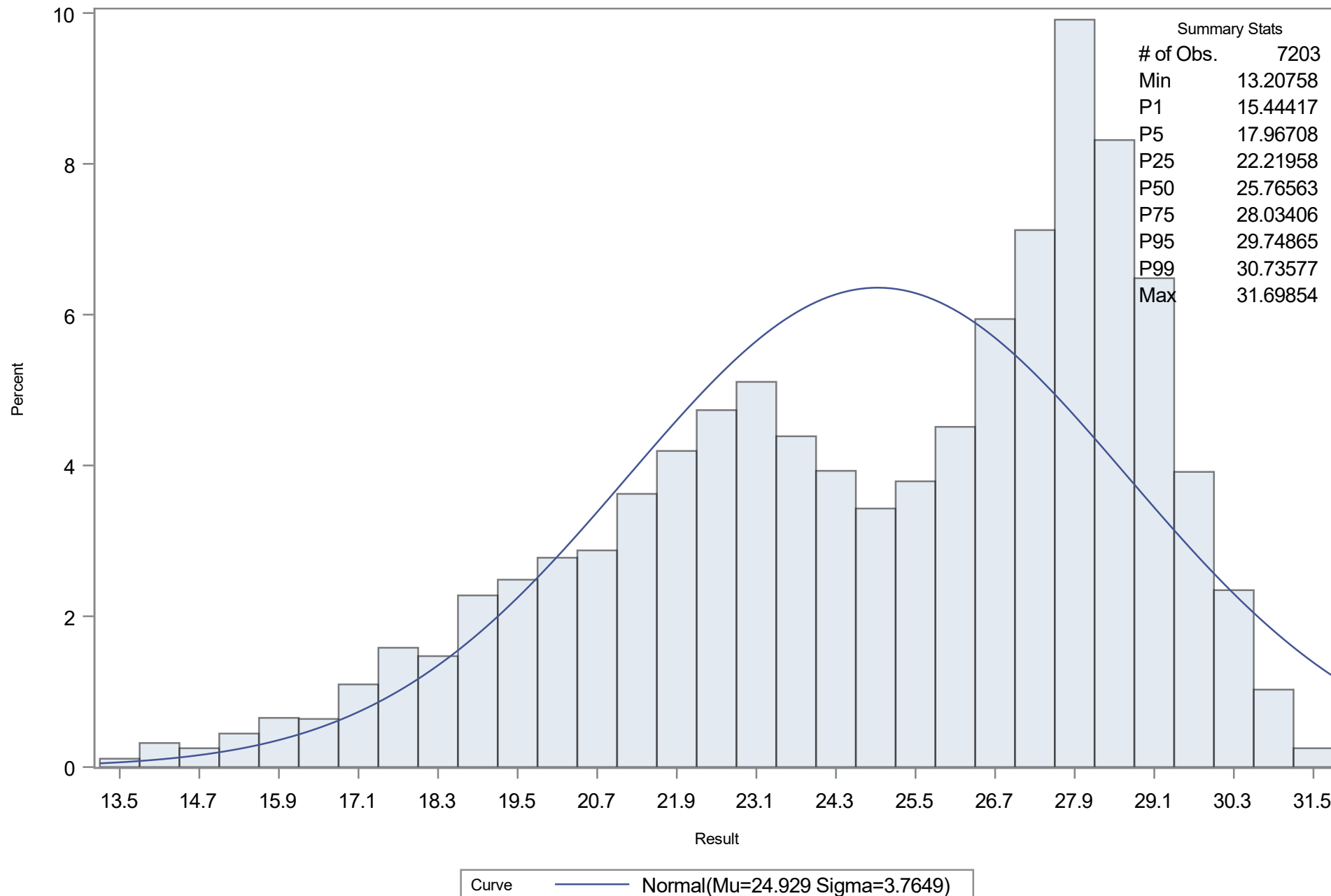
Period	2002-2007	2008-2011	2012-2017	2018-2023
Marker	+	□	◇	×

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station TBW Sligh

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Bottom Water Temperature (C) at Station TBW Sligh**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.92876
Std Dev	Sigma	3.764912

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.107807	Pr > D	<0.010
Cramer-von Mises	W-Sq	20.304488	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	119.057074	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.4442	16.1703
5.0	17.9671	18.7360
10.0	19.4901	20.1038
25.0	22.2196	22.3894
50.0	25.7656	24.9288
75.0	28.0341	27.4682
90.0	29.1390	29.7537
95.0	29.7486	31.1215
99.0	30.7358	33.6873

Period of Record January 1 1996 through December 31 2023

DRAFT

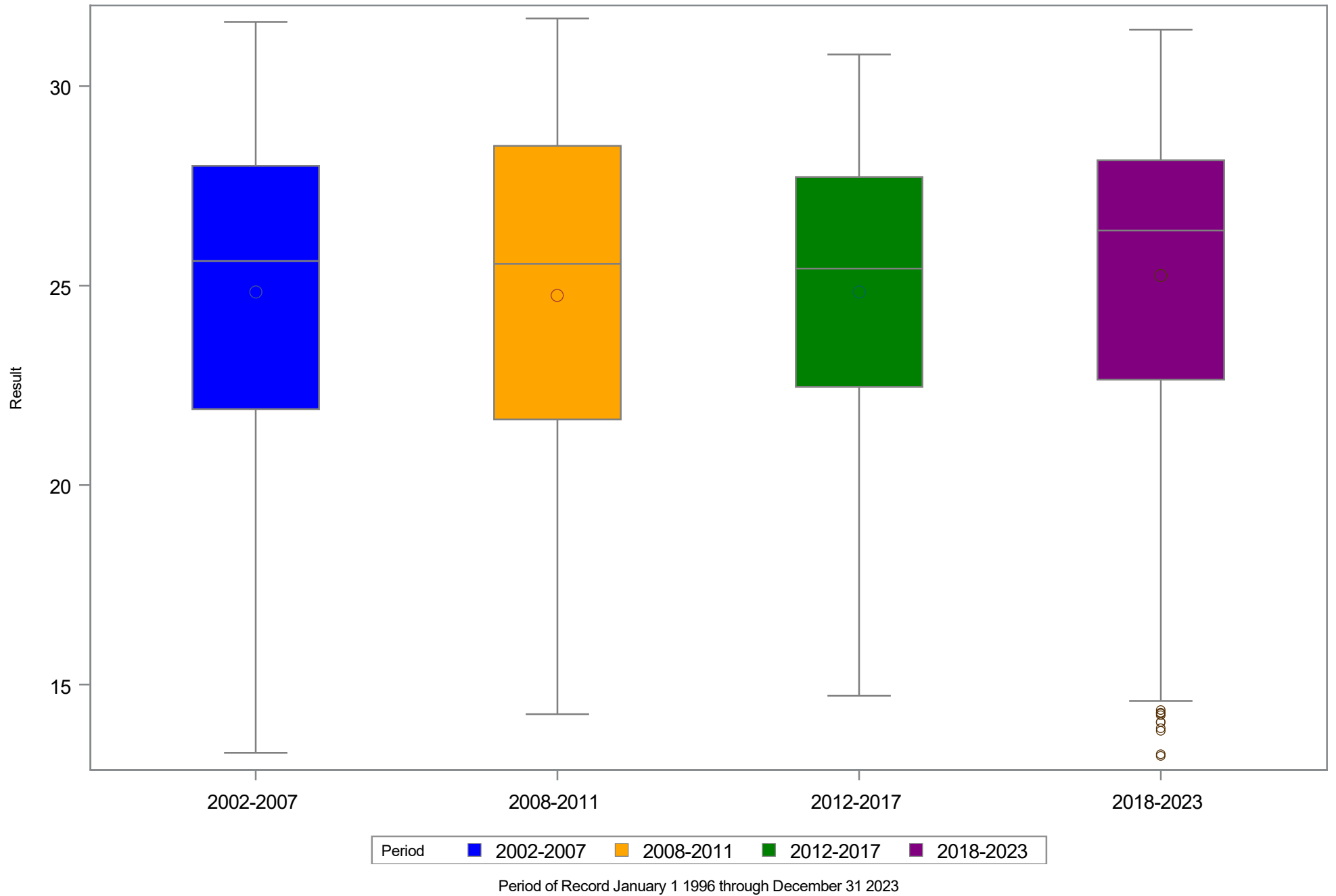
Distributional Statistics by Period for Bottom Water Temperature (C) at Station TBW Sligh

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	1850	13.29	21.90	24.83	25.62	28.00	31.61
2008-2011	1376	14.26	21.65	24.76	25.54	28.50	31.70
2012-2017	2133	14.72	22.46	24.84	25.43	27.72	30.79
2018-2023	1844	13.21	22.65	25.25	26.38	28.14	31.41

Period of Record January 1 1996 through December 31 2023

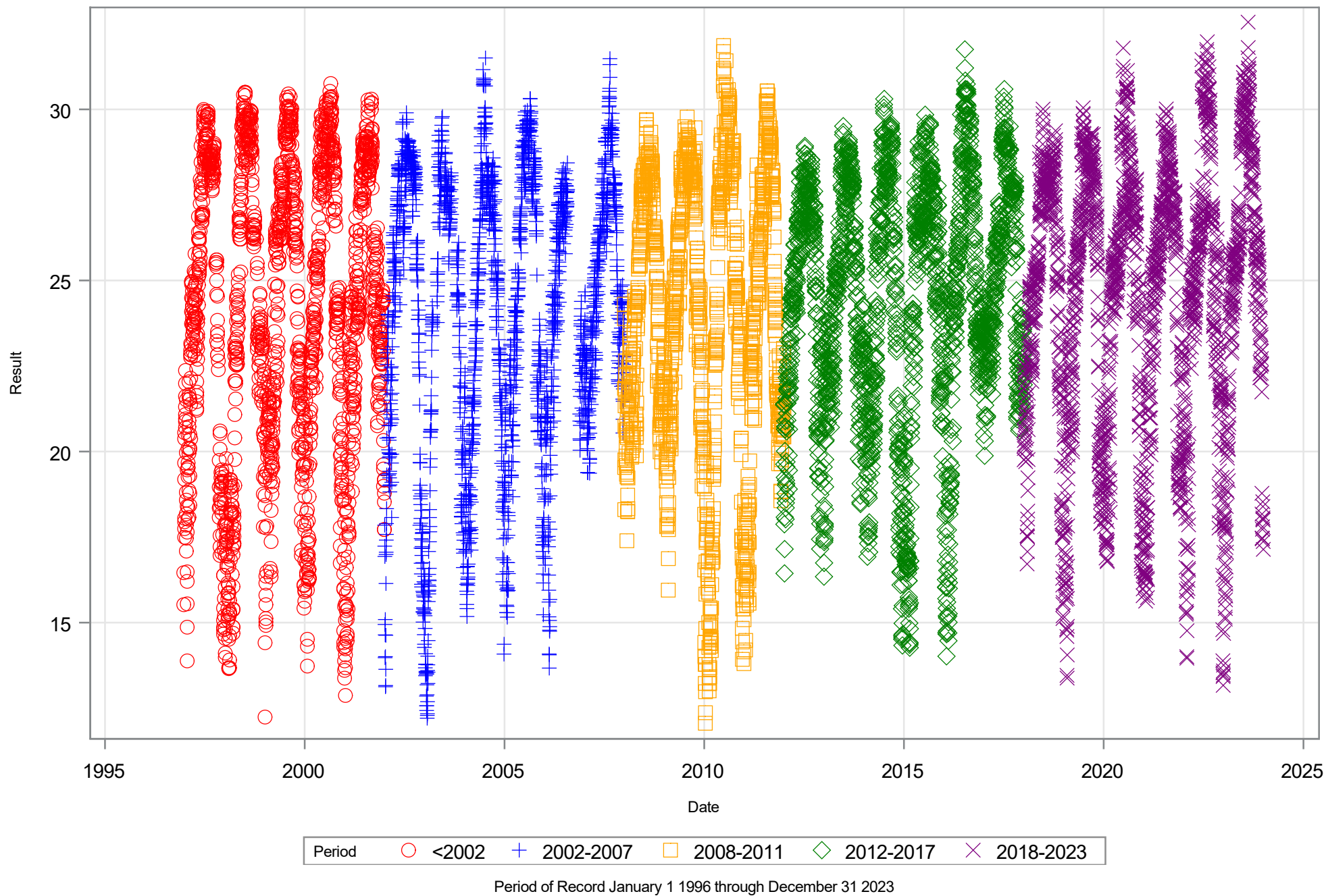
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station TBW Sligh



DRAFT

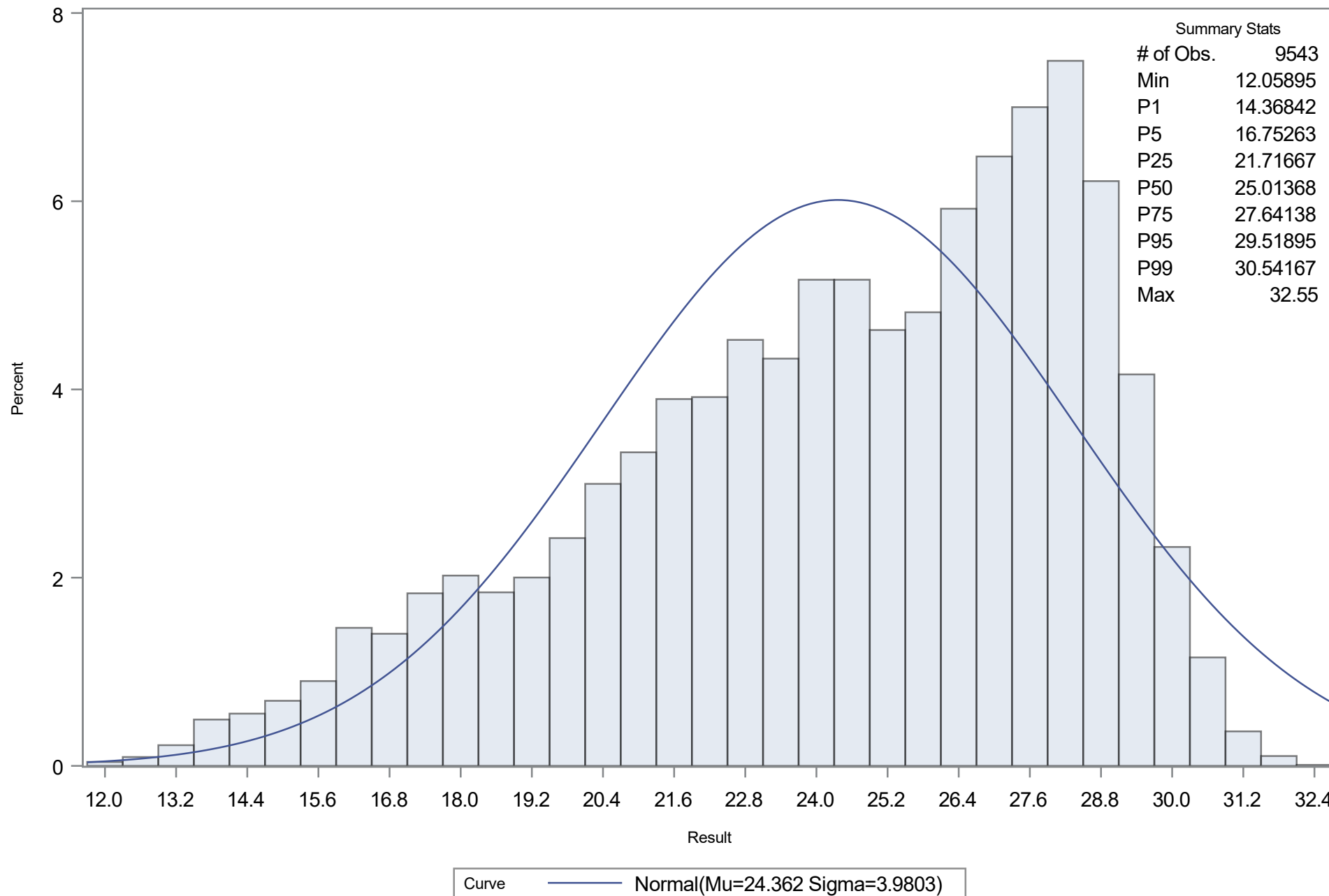
Timeseries of Bottom Water Temperature (C) at Station USGS 02304510 Rowlett



DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station USGS 02304510 Rowlett

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.36172
Std Dev	Sigma	3.980341

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.082229	Pr > D	<0.010
Cramer-von Mises	W-Sq	19.187179	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	124.008661	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	14.3684	15.1021
5.0	16.7526	17.8146
10.0	18.3833	19.2607
25.0	21.7167	21.6770
50.0	25.0137	24.3617
75.0	27.6414	27.0464
90.0	28.9263	29.4627
95.0	29.5189	30.9088
99.0	30.5417	33.6214

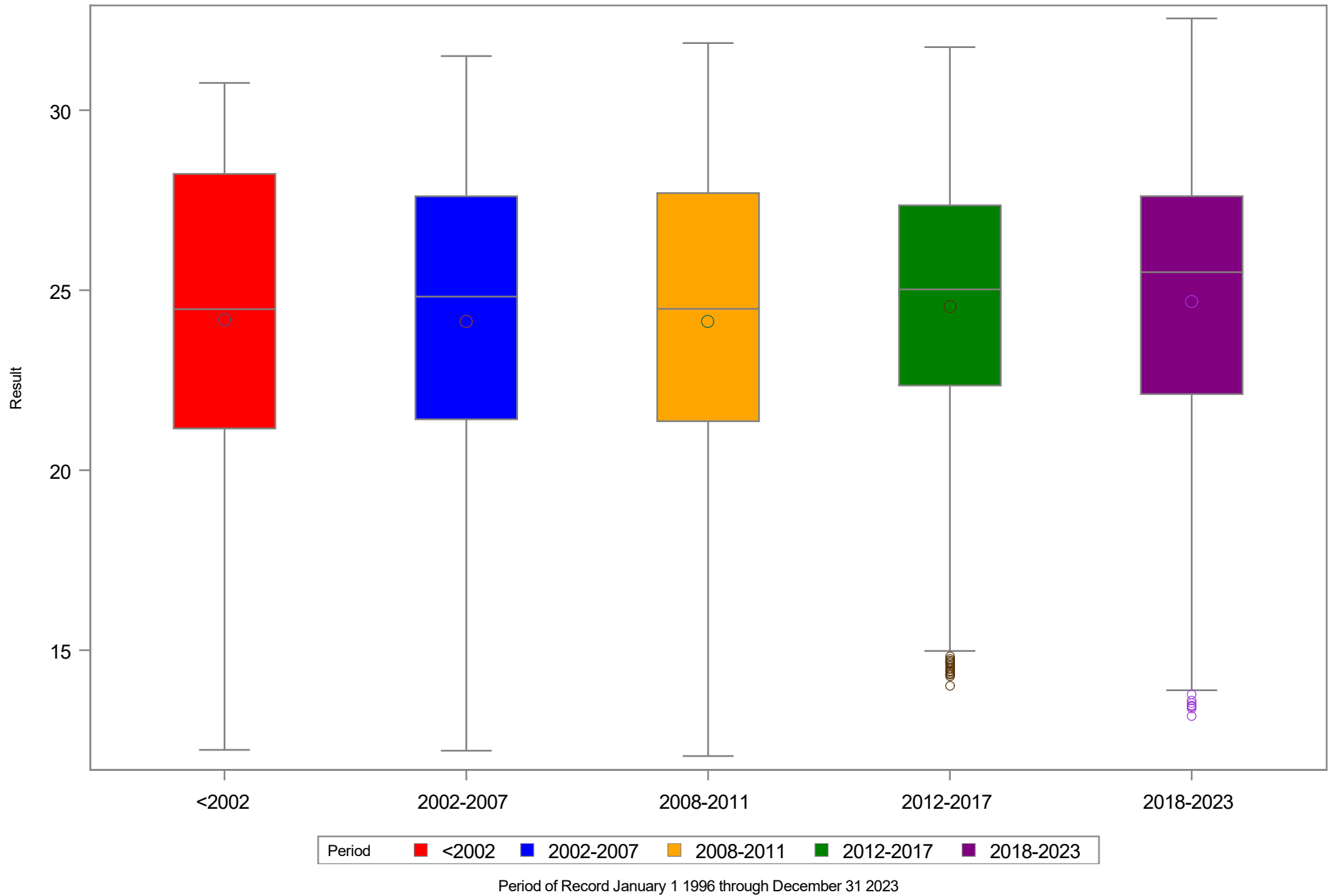
DRAFT Distributional Statistics by Period for Bottom Water Temperature (C) at Station USGS 02304510 Rowlett

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	1767	12.23	21.16	24.19	24.47	28.23	30.76
2002-2007	1952	12.21	21.41	24.14	24.82	27.61	31.50
2008-2011	1458	12.06	21.36	24.13	24.48	27.70	31.86
2012-2017	2178	14.02	22.35	24.53	25.02	27.36	31.75
2018-2023	2188	13.17	22.11	24.69	25.50	27.61	32.55

Period of Record January 1 1996 through December 31 2023

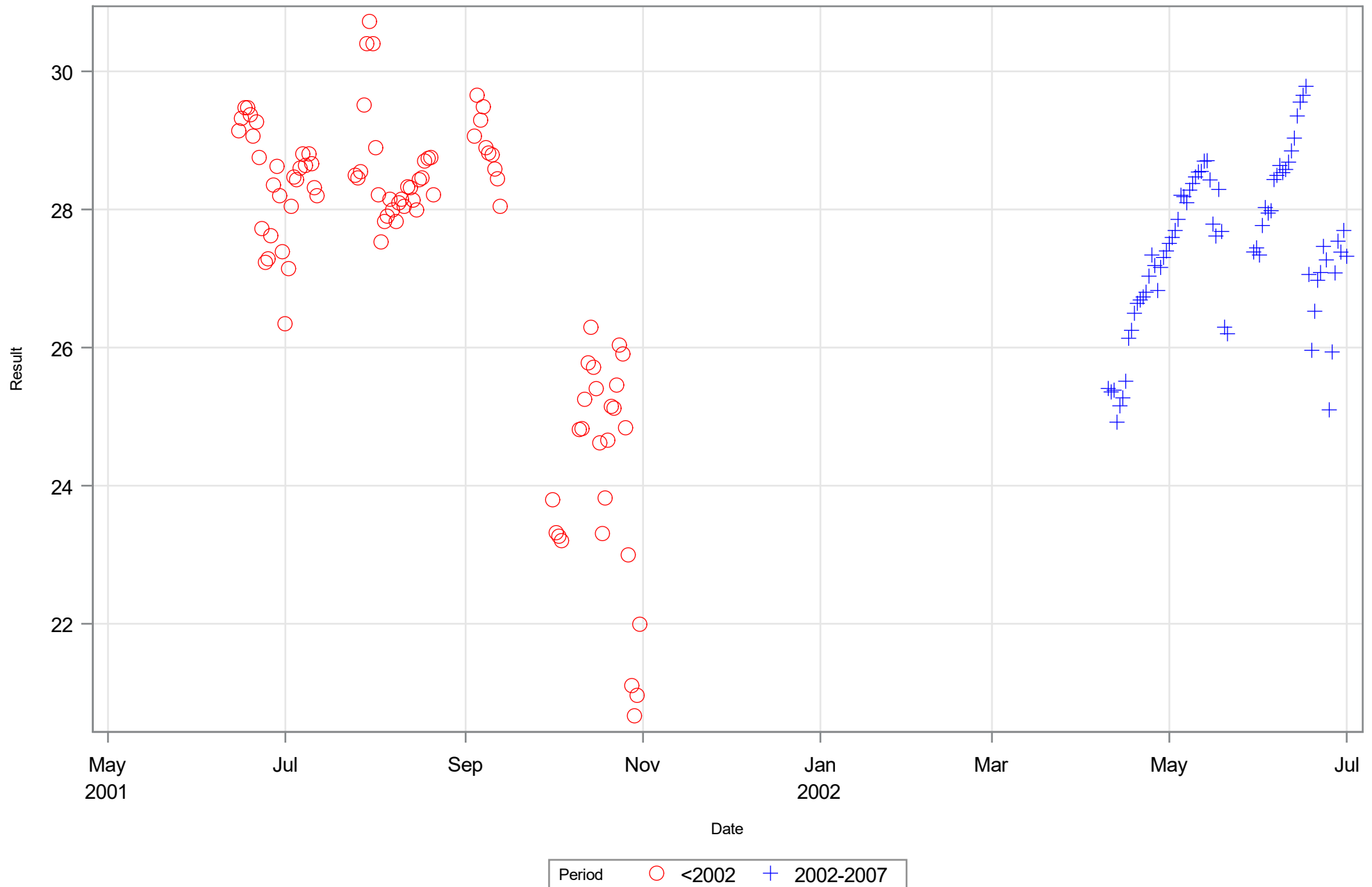
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station USGS 02304510 Rowlett



DRAFT

Timeseries of Bottom Water Temperature (C) at Station USGS 02304515 Hannahs Whirl

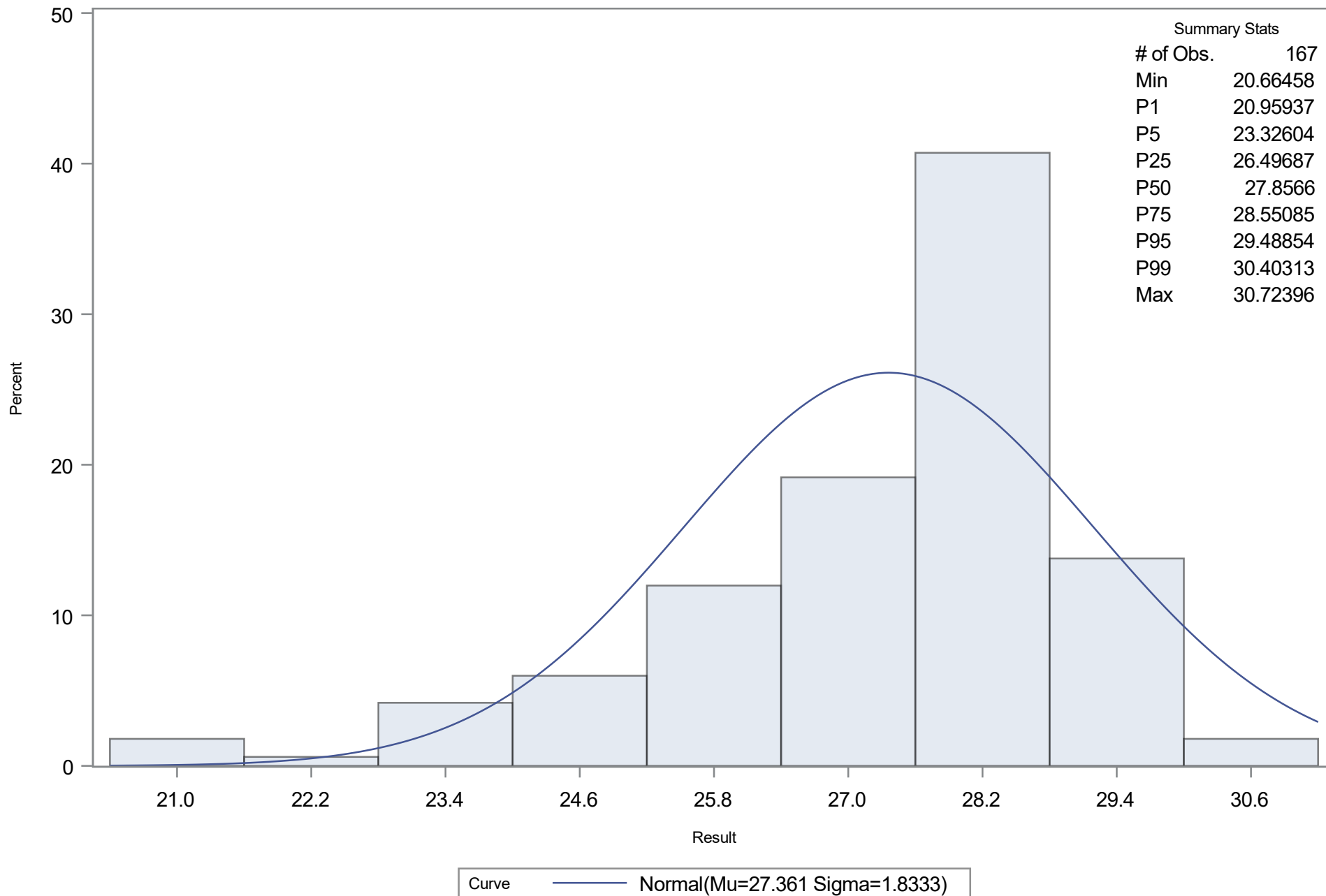


Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station USGS 02304515 Hannahs Whirl

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	27.36092
Std Dev	Sigma	1.833266

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.13886064	Pr > D	<0.010
Cramer-von Mises	W-Sq	0.94262653	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	5.18772873	Pr > A-Sq	<0.005

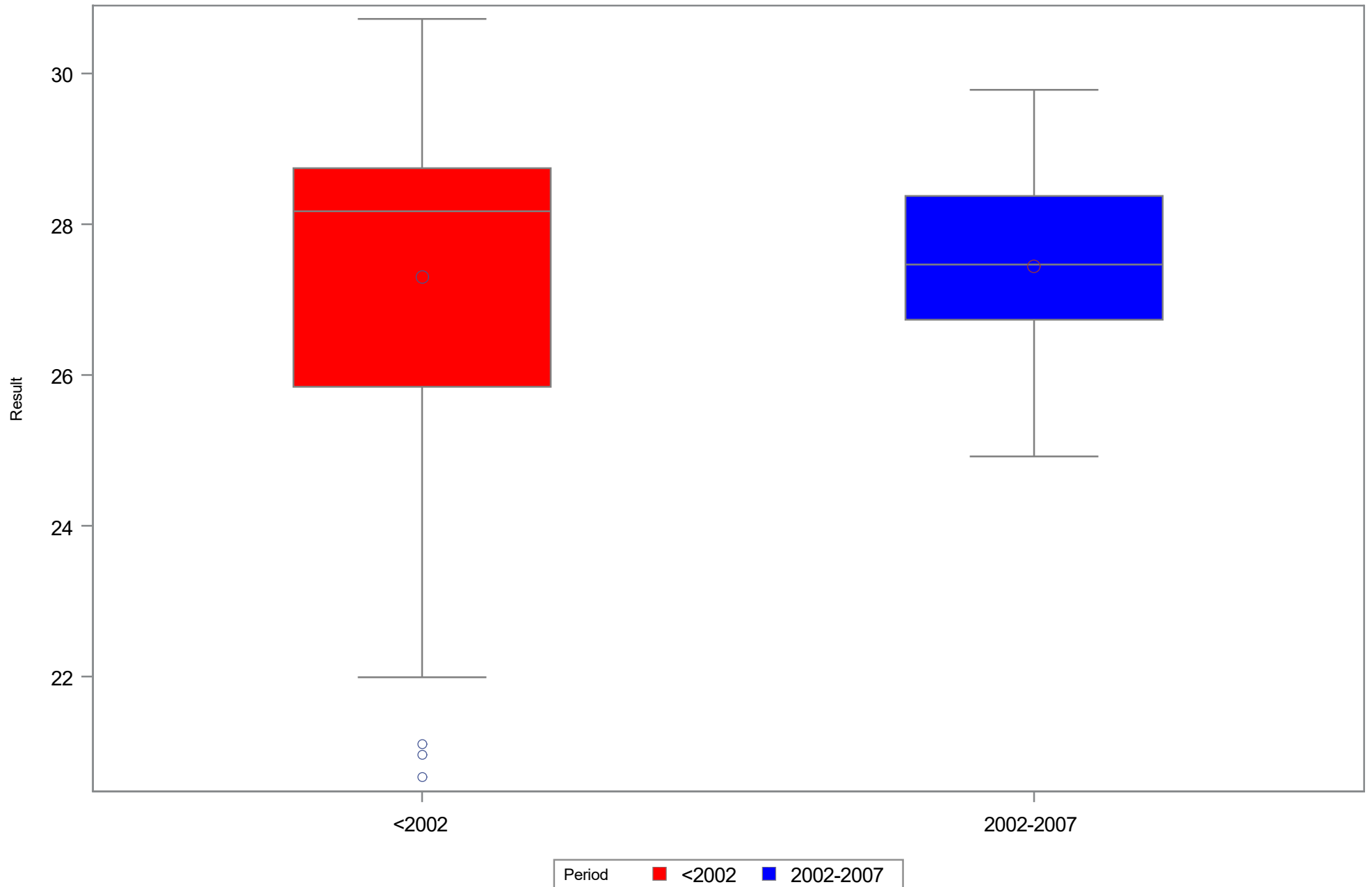
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	20.9594	23.0961
5.0	23.3260	24.3455
10.0	24.9198	25.0115
25.0	26.4969	26.1244
50.0	27.8566	27.3609
75.0	28.5508	28.5974
90.0	29.1343	29.7103
95.0	29.4885	30.3764
99.0	30.4031	31.6257

DRAFT Distributional Statistics by Period for Bottom Water Temperature (C) at Station USGS 02304515 Hannahs Whirl

	N	Min	Q1	Mean	Median	Q3	Max
Period							
<2002	92	20.66	25.84	27.30	28.17	28.74	30.72
2002-2007	75	24.92	26.73	27.44	27.47	28.38	29.78

DRAFT

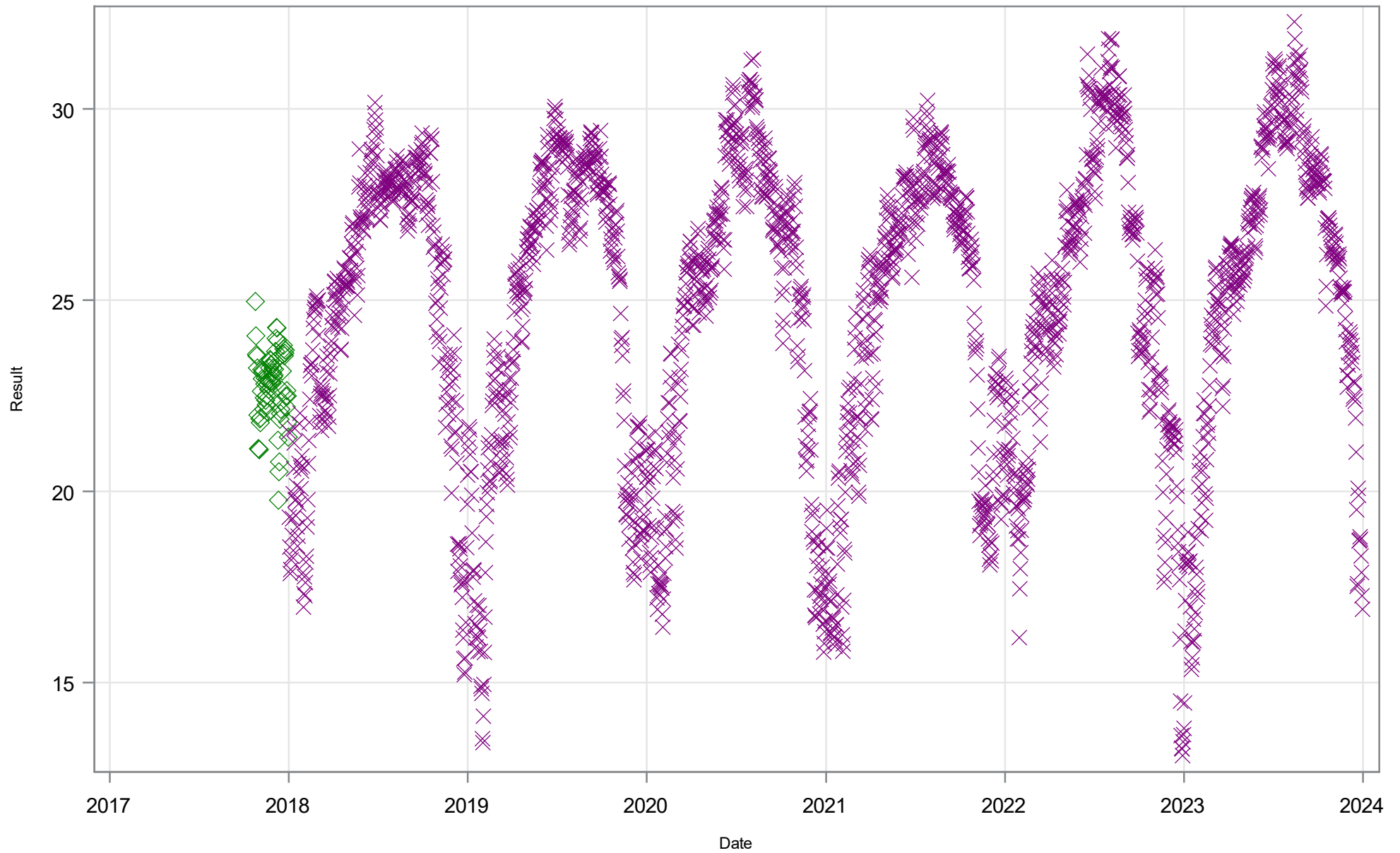
Boxplot by MFL Period for Bottom Water Temperature (C) at Station USGS 02304515 Hannahs Whirl



Period of Record January 1 1996 through December 31 2023

DRAFT

Timeseries of Bottom Water Temperature (C) at Station USGS 02304517 BLHannah



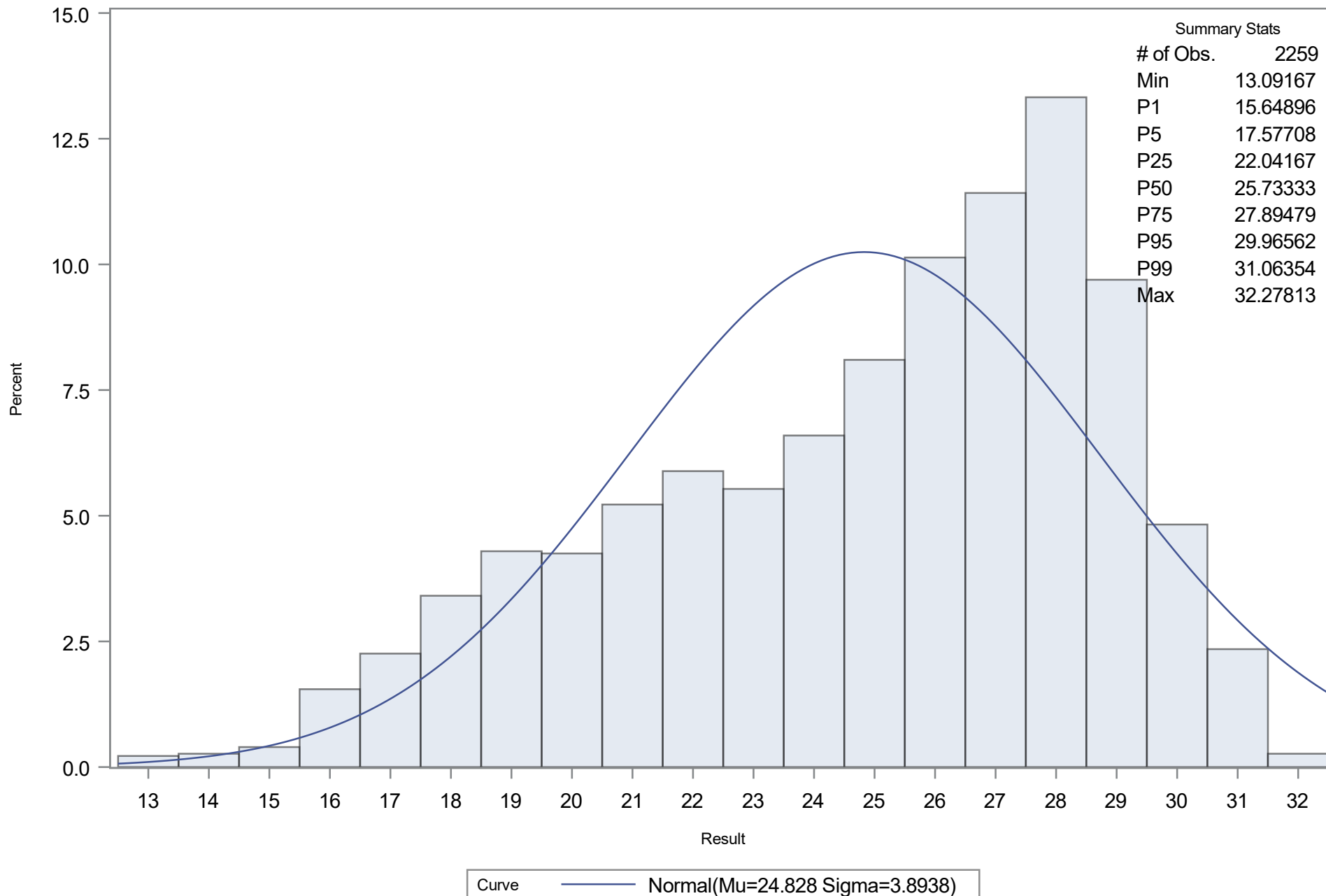
Period ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station USGS 02304517 BLHannah

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.82815
Std Dev	Sigma	3.893843

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.0928430	Pr > D	<0.010
Cramer-von Mises	W-Sq	6.1269414	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	35.5196889	Pr > A-Sq	<0.005

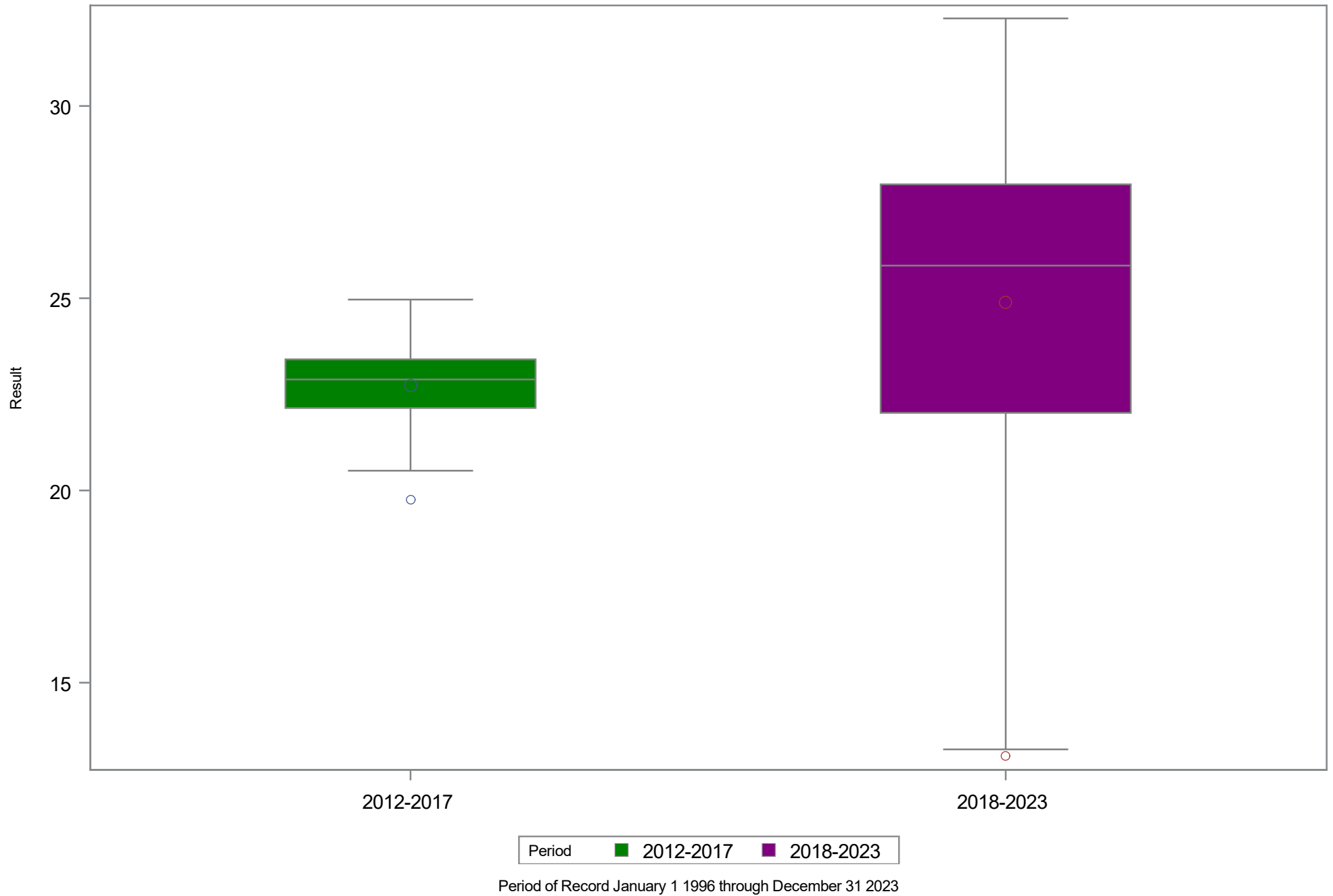
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.6490	15.7697
5.0	17.5771	18.4234
10.0	18.9115	19.8380
25.0	22.0417	22.2018
50.0	25.7333	24.8282
75.0	27.8948	27.4545
90.0	29.2000	29.8183
95.0	29.9656	31.2330
99.0	31.0635	33.8866

DRAFT Distributional Statistics by Period for Bottom Water Temperature (C) at Station USGS 02304517 BLHannah

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2012-2017	68	19.77	22.14	22.74	22.89	23.41	24.96
2018-2023	2191	13.09	22.02	24.89	25.85	27.96	32.28

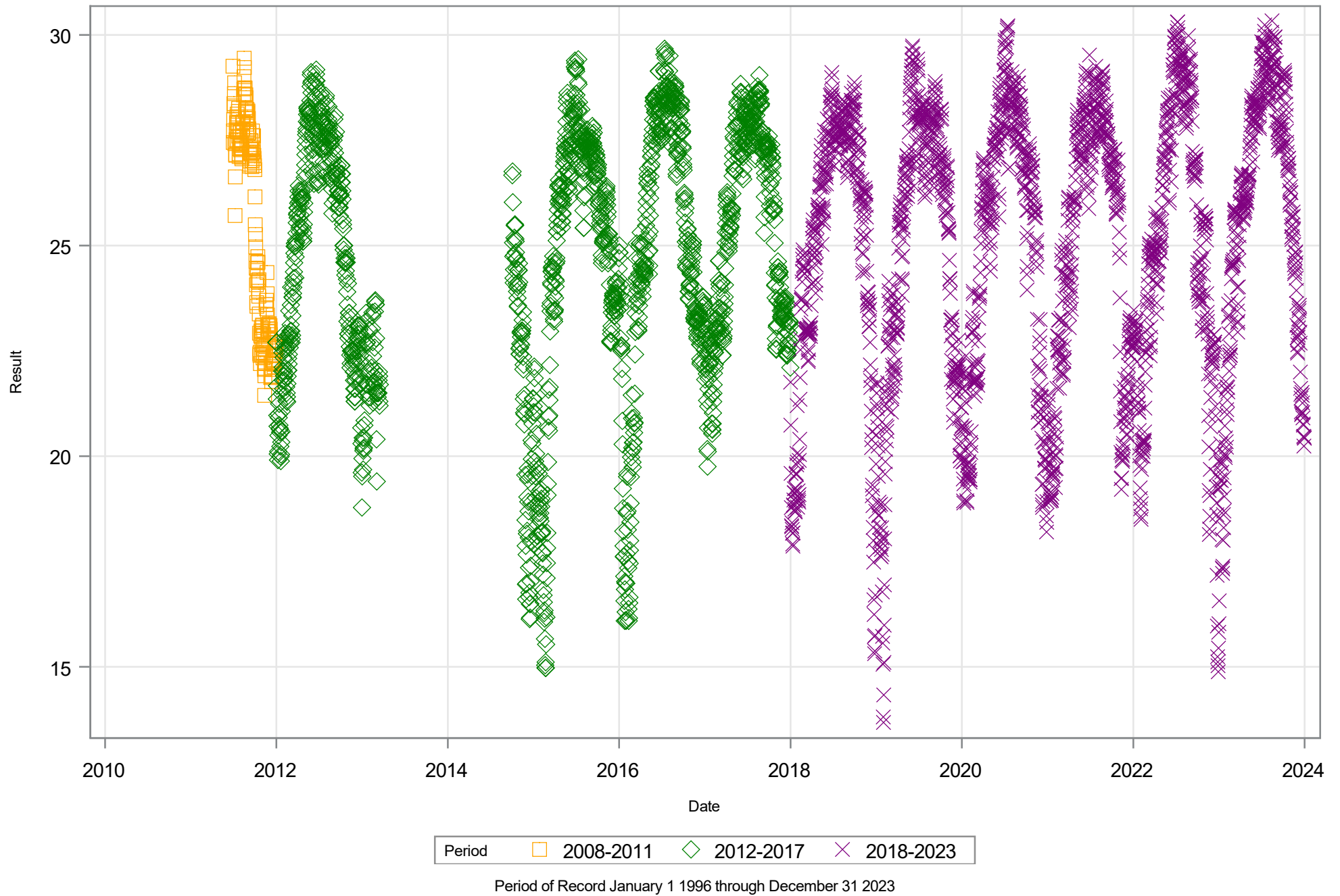
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station USGS 02304517 BLHannah



DRAFT

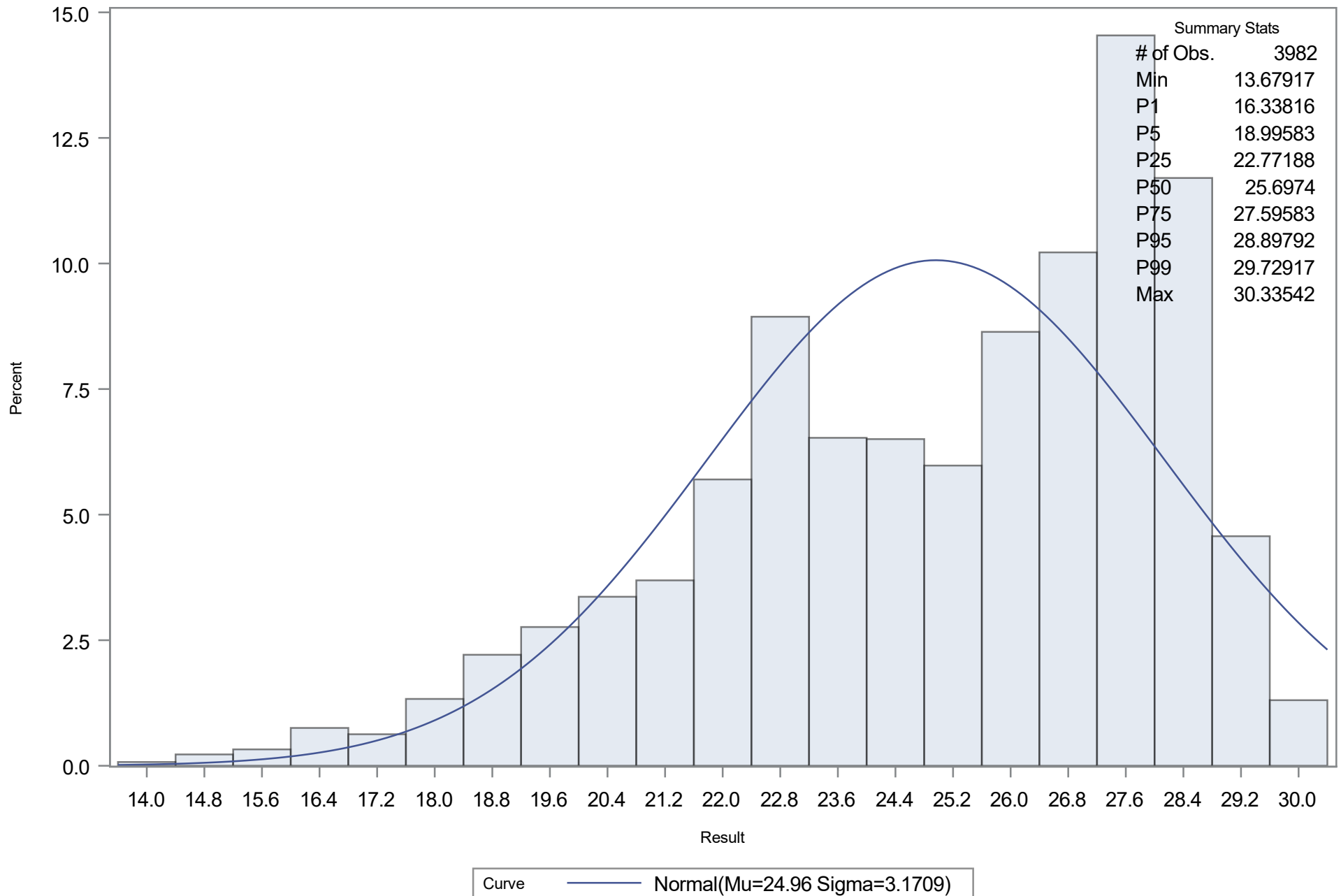
Timeseries of Bottom Water Temperature (C) at Station USGS 023060013 I-275



DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station USGS 023060013 I-275

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	24.9603
Std Dev	Sigma	3.170941

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.1018204	Pr > D	<0.010
Cramer-von Mises	W-Sq	11.0675300	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	66.9783346	Pr > A-Sq	<0.005

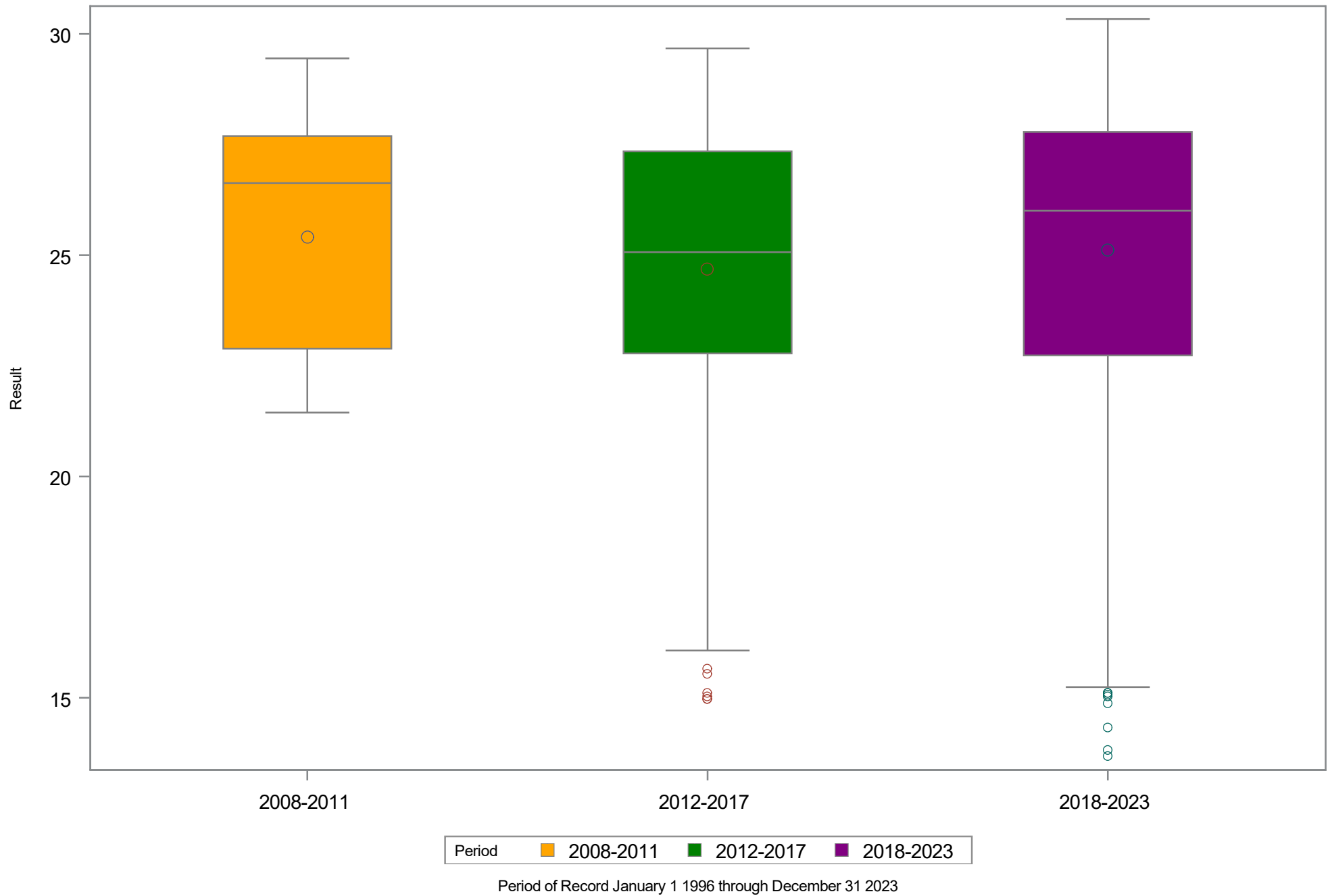
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	16.3382	17.5836
5.0	18.9958	19.7446
10.0	20.3635	20.8966
25.0	22.7719	22.8215
50.0	25.6974	24.9603
75.0	27.5958	27.0991
90.0	28.4406	29.0240
95.0	28.8979	30.1760
99.0	29.7292	32.3370

DRAFT Distributional Statistics by Period for Bottom Water Temperature (C) at Station USGS 023060013 I-275

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	185	21.44	22.89	25.41	26.63	27.69	29.45
2012-2017	1607	14.97	22.78	24.69	25.07	27.35	29.67
2018-2023	2190	13.68	22.74	25.12	26.00	27.78	30.34

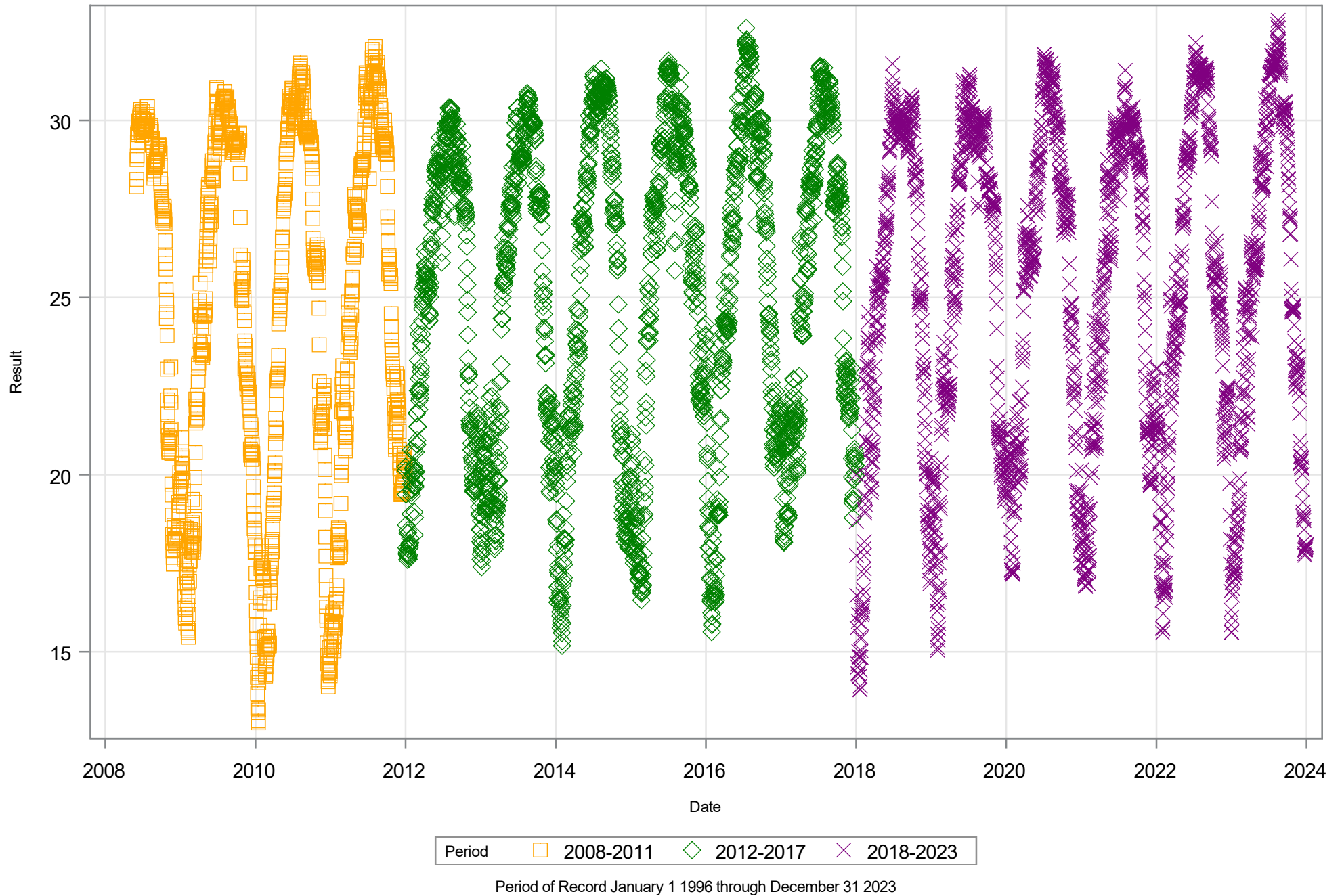
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station USGS 023060013 I-275



DRAFT

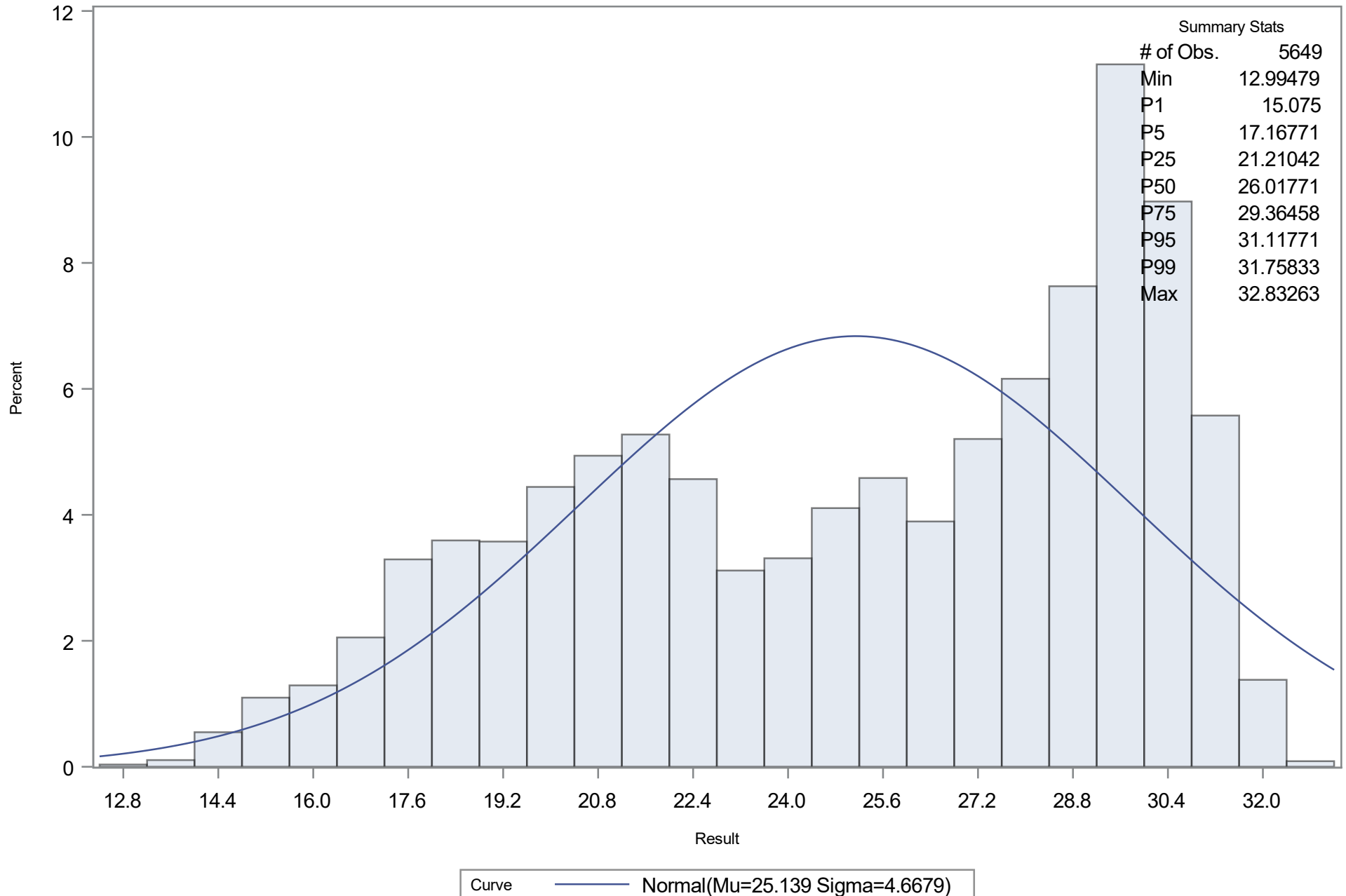
Timeseries of Bottom Water Temperature (C) at Station USGS 02306028 Platt



DRAFT

Univariate Histogram of Bottom Water Temperature (C) at Station USGS 02306028 Platt

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	25.13943
Std Dev	Sigma	4.667855

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.113431	Pr > D	<0.010
Cramer-von Mises	W-Sq	21.185498	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	127.649446	Pr > A-Sq	<0.005

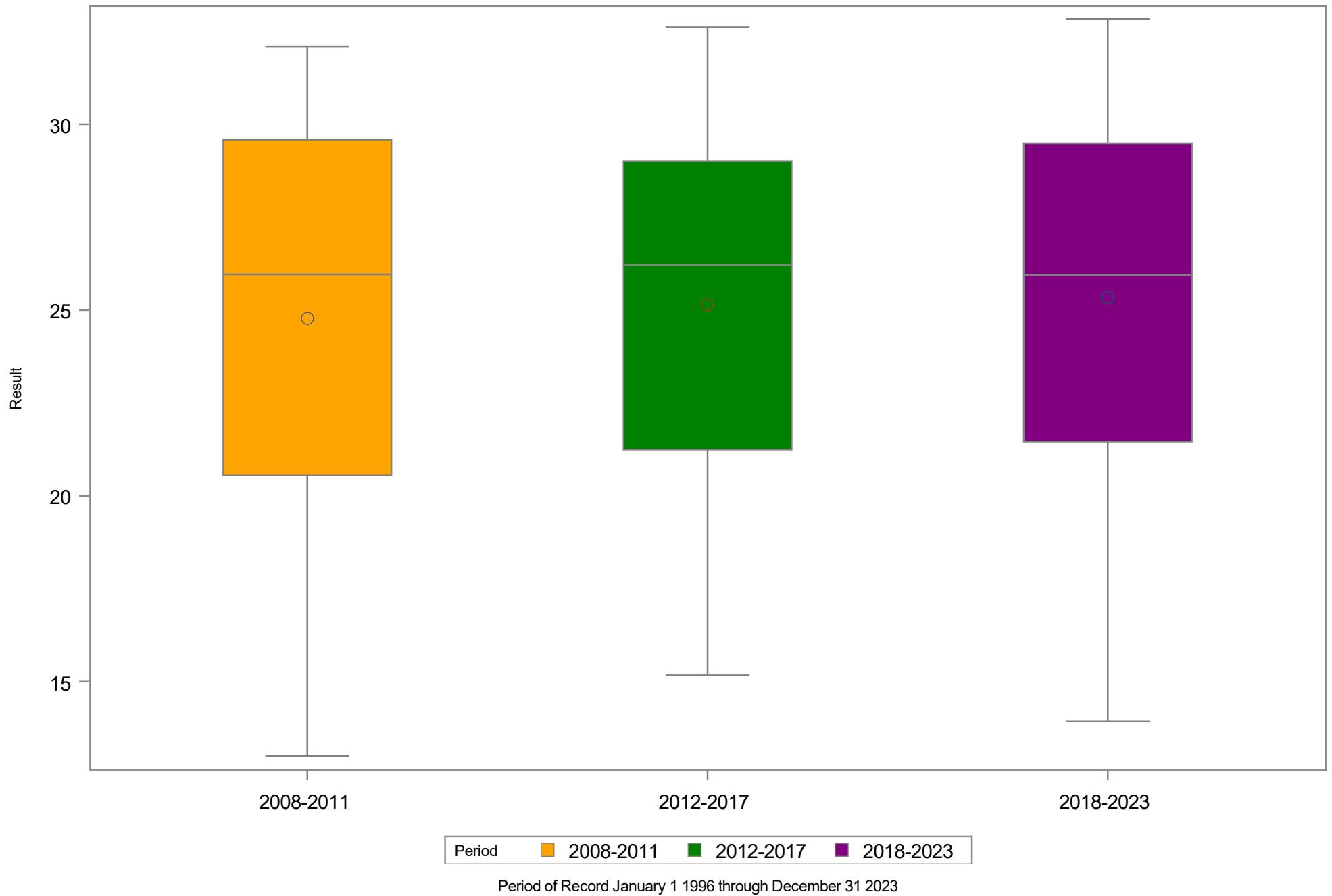
Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	15.0750	14.2804
5.0	17.1677	17.4615
10.0	18.3000	19.1573
25.0	21.2104	21.9910
50.0	26.0177	25.1394
75.0	29.3646	28.2879
90.0	30.4969	31.1215
95.0	31.1177	32.8174
99.0	31.7583	35.9985

DRAFT Distributional Statistics by Period for Bottom Water Temperature (C) at Station USGS 02306028 Platt

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2008-2011	1286	12.99	20.55	24.77	25.96	29.59	32.09
2012-2017	2178	15.17	21.25	25.15	26.22	29.01	32.61
2018-2023	2185	13.93	21.46	25.35	25.95	29.49	32.83

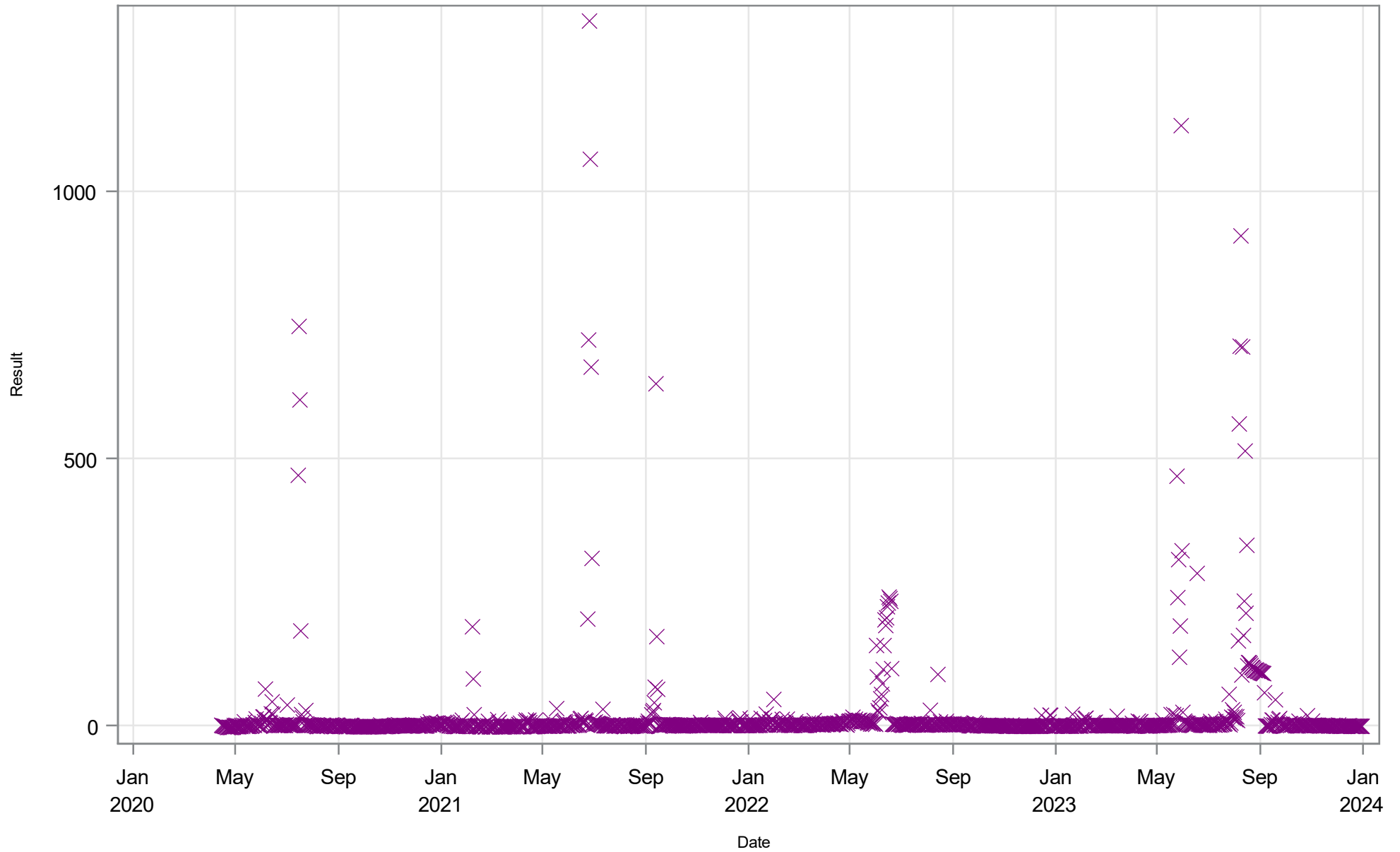
DRAFT

Boxplot by MFL Period for Bottom Water Temperature (C) at Station USGS 02306028 Platt



DRAFT

Timeseries of Surface Turbidity (NTU) at Station WMD 19206



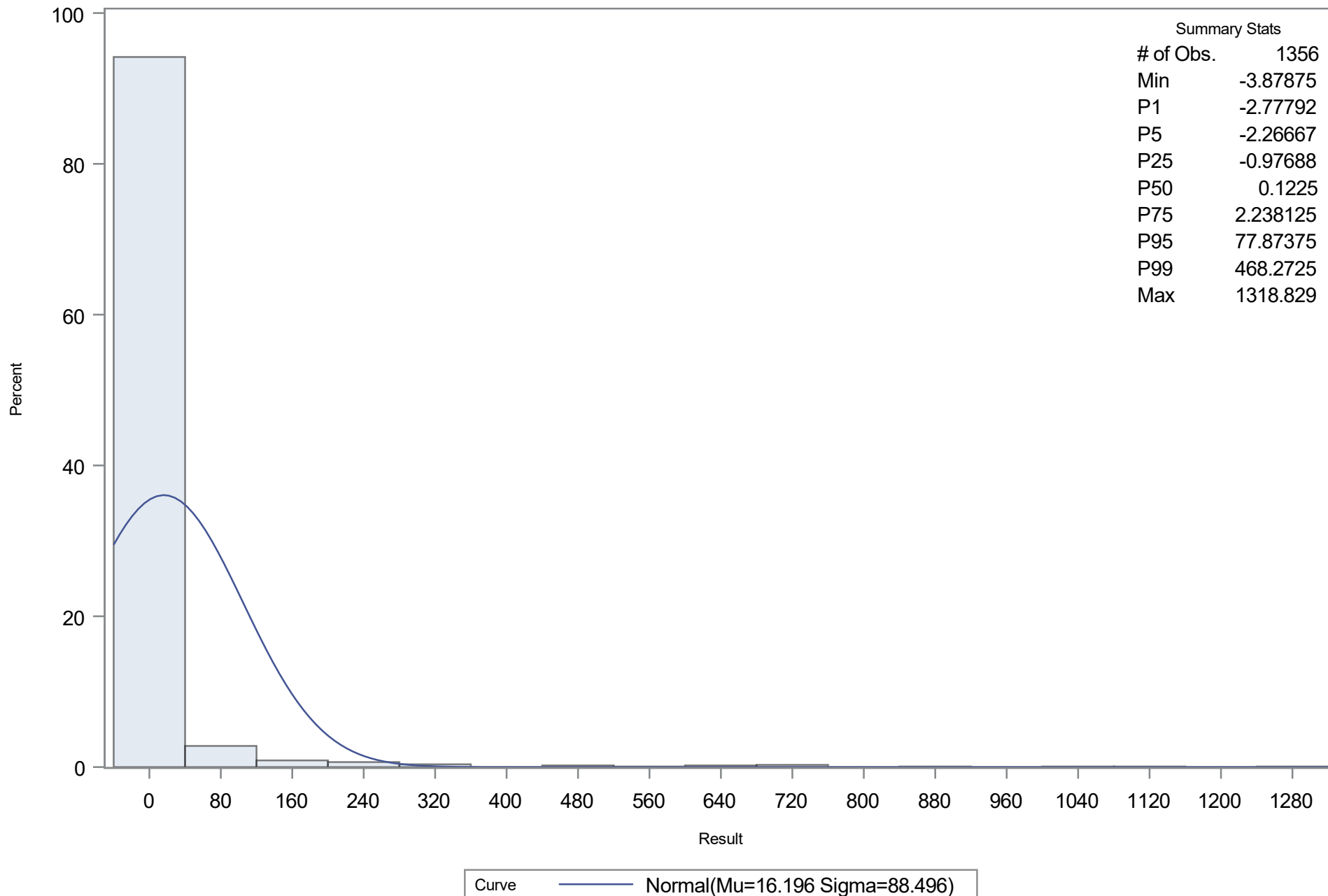
Period × 2018-2023

Period of Record January 1 1996 through December 31 2023

DRAFT

Univariate Histogram of Surface Turbidity (NTU) at Station WMD 19206

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Univariate Histogram of Surface Turbidity (NTU) at Station WMD 19206**Fitted Normal Distribution for Result**

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	16.19556
Std Dev	Sigma	88.49582

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.428013	Pr > D	<0.010
Cramer-von Mises	W-Sq	87.579622	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	410.446411	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	-2.77792	-189.6765
5.0	-2.26667	-129.3671
10.0	-1.74458	-97.2164
25.0	-0.97688	-43.4940
50.0	0.12250	16.1956
75.0	2.23812	75.8851
90.0	10.68625	129.6075
95.0	77.87375	161.7582
99.0	468.27250	222.0676

DRAFT

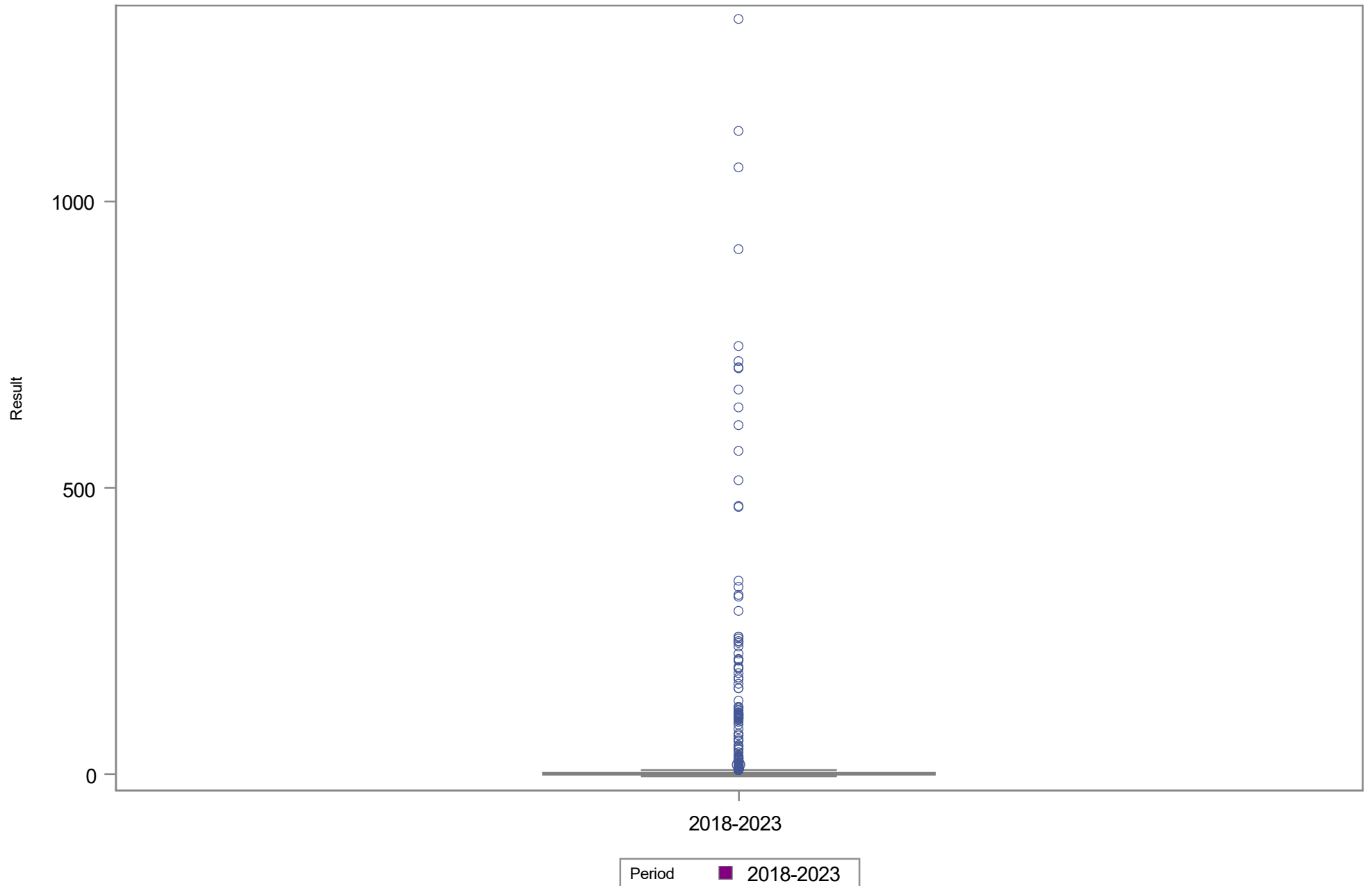
Distributional Statistics by Period for Surface Turbidity (NTU) at Station WMD 19206

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2018-2023	1356	-3.88	-0.98	16.20	0.12	2.24	1318.83

Period of Record January 1 1996 through December 31 2023

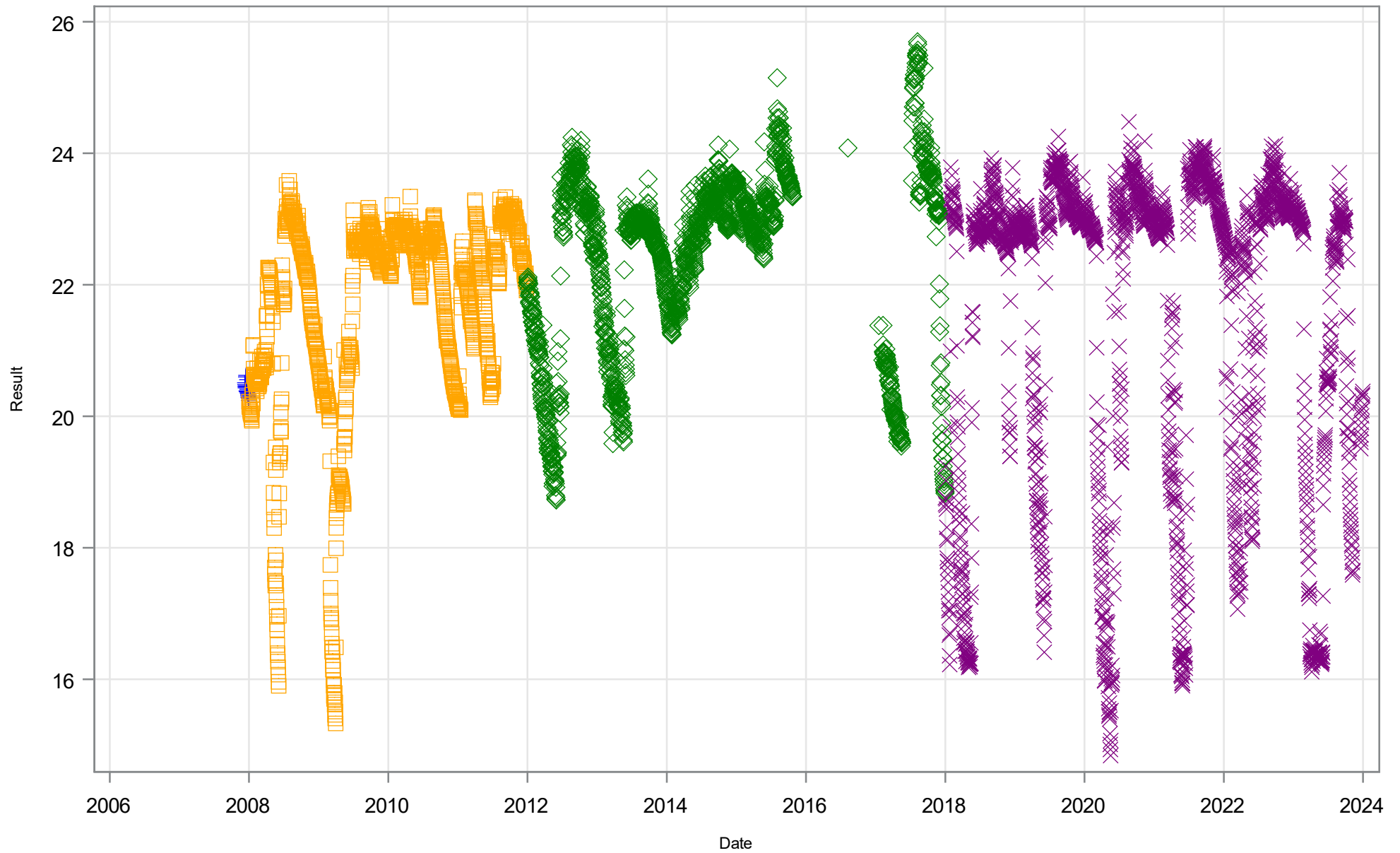
DRAFT

Boxplot by MFL Period for Surface Turbidity (NTU) at Station WMD 19206



DRAFT

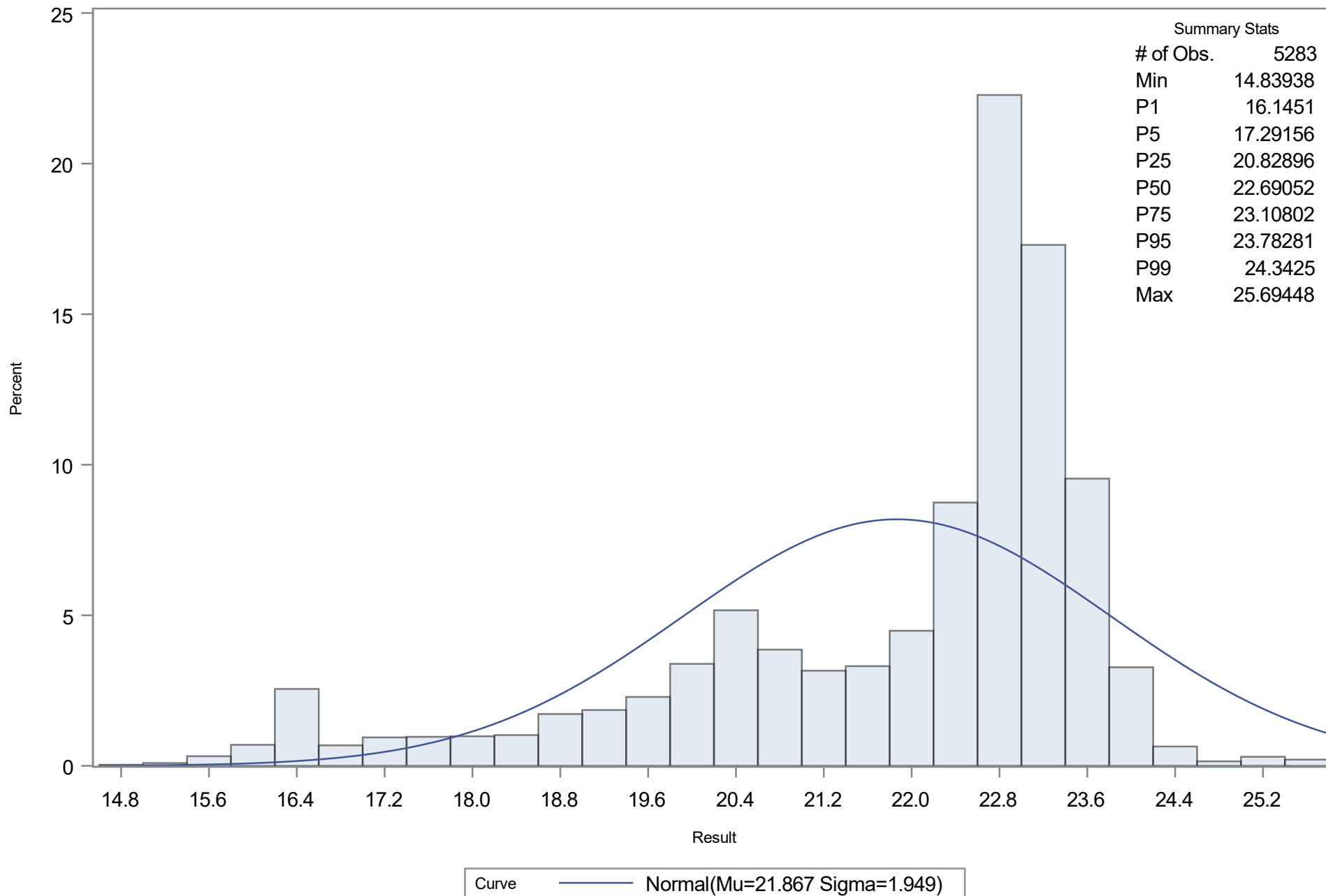
Timeseries of Water Surface Elevation (NAVD88) at Station Blue Sink Water Level



Period + 2002-2007 □ 2008-2011 ◇ 2012-2017 × 2018-2023

Period of Record January 1 1996 through December 31 2023

Distribution of Result



Period of Record January 1 1996 through December 31 2023

Fitted Normal Distribution for Result

Parameters for Normal Distribution		
Parameter	Symbol	Estimate
Mean	Mu	21.86728
Std Dev	Sigma	1.948997

Goodness-of-Fit Tests for Normal Distribution				
Test	Statistic		p Value	
Kolmogorov-Smirnov	D	0.200172	Pr > D	<0.010
Cramer-von Mises	W-Sq	56.687366	Pr > W-Sq	<0.005
Anderson-Darling	A-Sq	307.540281	Pr > A-Sq	<0.005

Quantiles for Normal Distribution		
Percent	Quantile	
	Observed	Estimated
1.0	16.1451	17.3332
5.0	17.2916	18.6615
10.0	18.9786	19.3695
25.0	20.8290	20.5527
50.0	22.6905	21.8673
75.0	23.1080	23.1819
90.0	23.5693	24.3650
95.0	23.7828	25.0731
99.0	24.3425	26.4013

DRAFT Distributional Statistics by Period for Water Surface Elevation (NAVD88) at Station Blue Sink Water Level

	N	Min	Q1	Mean	Median	Q3	Max
Period							
2002-2007	22	20.24	20.33	20.41	20.38	20.46	20.62
2008-2011	1457	15.33	20.84	21.69	22.26	22.72	23.58
2012-2017	1668	18.73	21.54	22.42	22.88	23.34	25.69
2018-2023	2136	14.84	19.81	21.57	22.87	23.22	24.48

Period of Record January 1 1996 through December 31 2023

DRAFT

Boxplot by MFL Period for Water Surface Elevation (NAVD88) at Station Blue Sink Water Level

