

**Valley Lake Station 1**

Cond=Conductivity(uS/cm) DO=Dissolved Oxygen(mg/L) Chl-a=Chlorophyll-a(ug/L) TP=Total Phosphorous(ug P/L) TN=Total Nitrogen(mg/L)  
 Al=Aluminum(ug/L) Ca=Calcium(mg/L) Cl=Chloride(mg/L) Fe=Iron(ug/L) Mg=Magnesium(mg/L) Mn=Manganese(ug/L) K=Potassium(mg/L)  
 Na=Sodium(mg/L) TCH=Total Calculated Hardness(mg CaCO3/L)

Date	Depth(m)	Temp(C)	pH	Cond	DO%	DO	Chl-a	TP*	TN*	Al	Ca	Cl	Fe*	Mg	Mn*	K	Na	TCH
9/12/18	0.5							8.9	0.2	<20	24.0	<2	<50	3.1	16.5	0.3	0.8	72.8
9/12/18	1.0	21.3	7.8	148.3	99.5	8.8	1.0											
9/12/18	2.0	20.9	7.8	149.1	99.2	8.9	1.1											
9/12/18	3.0	20.9	7.9	149.0	99.2	8.9	1.1											
9/12/18	4.0	20.8	7.9	148.9	98.7	8.8	1.0											
9/12/18	5.0	20.5	7.9	149.4	95.8	8.6	1.0											
9/12/18	6.0	20.1	7.7	155.5	96.0	8.7	1.4											
9/12/18	7.0	15.5	7.6	159.2	78.7	7.9	5.0											
9/12/18	8.0	10.8	7.4	168.7	43.1	4.8	8.7											
9/12/18	9.0	9.2	7.3	168.4	0.0	0.0	2.3											
9/12/18	10.0	7.5	7.3	169.4	6.5	0.8	1.9											
9/12/18	11.0	6.8	7.2	167.9	4.5	0.5	2.4											
9/12/18	12.0	6.1	7.1	168.6	11.0	1.4	7.9											
9/12/18	13.0	5.7	7.1	175.4	0.8	0.1												
9/12/18	14.0	5.2	7.1	189.7	1.6	0.2	1.8											
9/12/18	15.0	5.0	7.1	200.1	2.9	0.4	1.2											
9/12/18	16.0	4.9	7.1	206.1	10.7	1.4	1.2											
9/12/18	17.0	4.8	7.0	211.2	4.5	0.6	1.2											
9/12/18	18.0	4.7	7.0	216.4	8.9	1.2	1.3											
9/12/18	19.1	4.7	7.0	220.0	7.0	0.9	1.4											
9/12/18	20.0	4.7	7.0	224.0	10.3	1.3	1.5	475.0	1.9	<20	29.1	<2	4682.0	3.4	5952.4	0.5	0.9	86.8
9/12/18	21.0	4.7	6.9	275.0	6.8	0.9	0.3											
7/20/17	1.0	24.0	8.0	149.4	101.7	8.4												
7/20/17	2.0	23.6	7.9	149.1	101.9	8.5												
7/20/17	3.0	22.9	7.9	150.1	102.0	8.6												
7/20/17	4.0	20.1	8.0	159.3	119.9	10.6												
7/20/17	5.0	15.1	8.2	175.7	126.7	12.3												
7/20/17	6.0	11.8	8.1	183.1	115.7	12.2												
7/20/17	7.1	9.3	7.7	187.6	97.3	10.9												
7/20/17	8.0	7.9	7.5	189.6	77.5	9.0												
7/20/17	9.0	7.0	7.3	190.3	50.9	6.0												
7/20/17	10.0	6.4	7.1	191.5	15.8	1.9												
7/20/17	11.0	5.8	7.0	195.3	4.1	0.5												
7/20/17	12.0	5.4	7.0	198.1	2.8	0.3												
7/20/17	13.1	5.2	7.0	203.1	2.6	0.3												
7/20/17	14.1	5.1	7.1	212.5	4.7	0.6												
7/20/17	15.0	4.9	7.1	219.9	2.2	0.3												
7/20/17	16.0	4.9	7.1	222.9	2.3	0.3												
7/20/17	17.0	4.8	7.1	225.0	1.6	0.2												
7/20/17	18.0	4.8	7.1	228.0	1.6	0.2												
7/20/17	19.0	4.8	7.1	230.5	1.7	0.2												
7/20/17	20.0	4.8	7.1	230.1	1.0	0.1												
7/20/17	20.9	4.8	6.9	409.3	1.0	0.1												

\*Large increase in concentration from surface (0.5 m) to bottom (1 m above sediment) water indicates internal loading from sediments under anoxic conditions.

### Valley Lake Station 1 Temperature, Dissolved Oxygen, Chlorophyll-a and Total Phosphorus Vertical Profiles on 9/12/2018



Anoxia in the hypolimnion and large increase in phosphorus concentration from surface (0.5 m) to bottom (1 m above sediment) water indicates internal loading from sediments. Note the chlorophyll-a (algae/cyanobacteria) maximums in the metalimnion and hypolimnion.

Valley Lake Station 1 Temperature and Dissolved Oxygen Vertical Profiles on 7/20/2017

