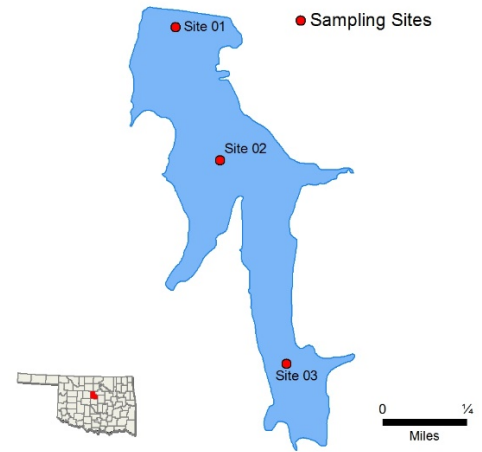


Liberty

Sample Period	Times Visited	Sampling Sites
November 2015 – August 2016	4	3

General	Location	Logan County
	Impoundment	1948
	Area	167 acres
	Capacity	2,740 acre-feet
	Purposes	Water Supply, Recreation



Parameters		Parameter (<i>Descriptions</i>)	Result	Notes/Comments
		In Situ	Average Turbidity	12 NTU
Average Secchi Disk Depth	52 cm			
Water Clarity Rating	Average			
Chlorophyll-a	57.3 mg/m ³			
Trophic State Index	70		Previous Value= 67	
Trophic Class	Hypereutrophic			
Profile	Salinity	0.27 – 0.31 ppt		
	Specific Conductivity	567.7 – 640.1 μS/cm		
	pH	7.57 – 8.65 pH units	Neutral to slightly alkaline	
	Oxidation-Reduction Potential	-11.8 - 307.9 mV		
	Dissolved Oxygen	Up to 40% of water column < 2 mg/L in August		
Nutrients	Surface Total Nitrogen	0.78 mg/L to 1.419mg/L		
	Surface Total Phosphorus	0.054 mg/L to 0.080 mg/L		
	Nitrogen to Phosphorus Ratio	17:1	Phosphorus limited	

Beneficial Uses	Click to learn more about Beneficial Uses	Turbidity	pH	Dissolved Oxygen	Metals	TSI	True Color	Sulfates	Chlorides	Total Dissolved Solids	Enterococci & E. coli	Chlor-a
	Fish & Wildlife Propagation	S	S	S	S							
	Aesthetics					S	S					
	Agriculture							S	S	S		
	Primary Body Contact Recreation										NS	
	Public & Private Water Supply											NS

S = Fully Supporting
 NS = Not Supporting
 NEI = Not Enough Information

Notes

* Standards revision, true color is for permitting purposes only

NTU = nephelometric turbidity units OWQS = Oklahoma Water Quality Standards mg/L = milligrams per liter ppt = parts per thousand
 μS/cm = microsiemens per centimeter mV = millivolts μS/cm = microsiemens/cm En = Enterococci
 E. coli = Escherichia coli Chlor-a = Chlorophyll-a