

# Rothwell Lake



## 2009 DATA

Randolph County  
Latitude: 39.4184

Longitude: -92.4616

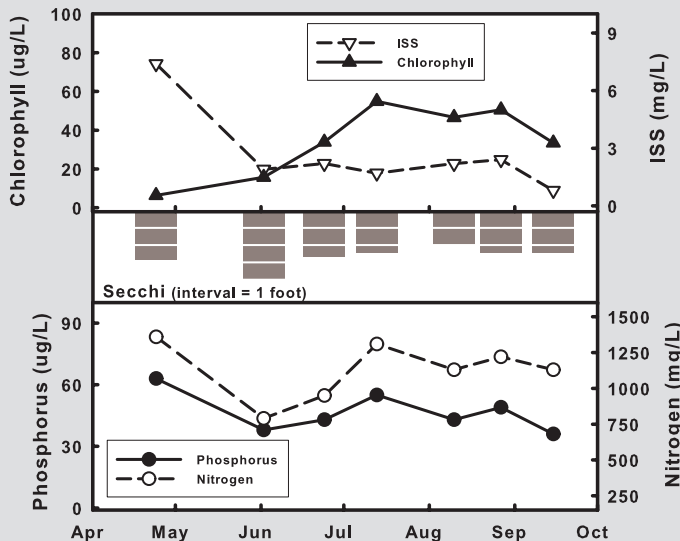
Date	4/24	X	6/2	6/24	7/13	8/10	8/27	9/15	Mean
Secchi (inches)	34		48	32	29	24	29	29	31
TP (µg/L)	63		38	43	55	43	49	36	46
TN (µg/L)	1360		790	950	1310	1130	1220	1130	1111
CHL (µg/L)	6.4		15.8	33.9	54.9	46.6	50.5	33.5	28.4
ISS (mg/L)	7.4		1.9	2.2	1.7	2.2	2.4	0.8	2.2

Rothwell and Waterworks lakes are both located in Rothwell Park in the city of Moberly and were each sampled 7 times in 2009.

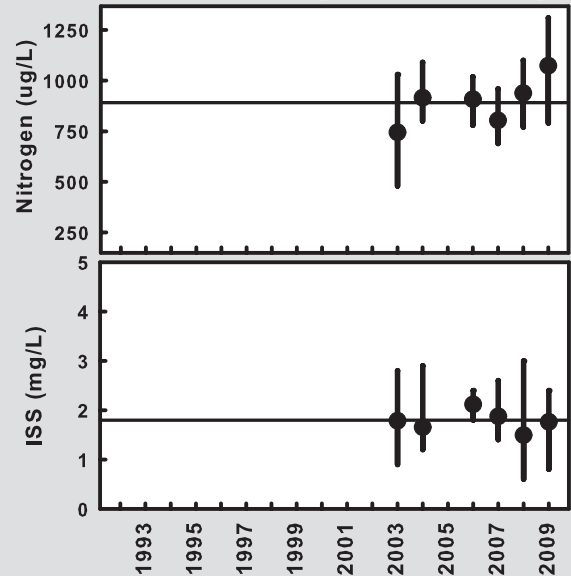
According to the ratio of chlorophyll to phosphorus, Rothwell Lake was in a perpetual algae bloom from the end of June through the end of the sampling season. Generally, there is less than half as much chlorophyll as phosphorus in the lake. However from June 24 through the end of the season there was as much chlorophyll as phosphorus in the lake, indicating that the algae were efficiently using all available nutrients. Despite abundant nutrients, the April sample had the lowest chlorophyll value, likely due to the high levels of suspended sediment particles (ISS).

The 2009 mean nitrogen concentration was the highest observed to date, though phosphorus concentrations (graph not shown) were typical of other years. There were more algae in the lake this year than in the past 3 years, as reflected by the chlorophyll concentrations, which resulted in reduced water clarity (graphs not shown). Suspended sediment values were right about average for Rothwell Lake.

## 2009 GRAPHS



## TREND GRAPHS



See pages 10-11 for help interpreting graphs