



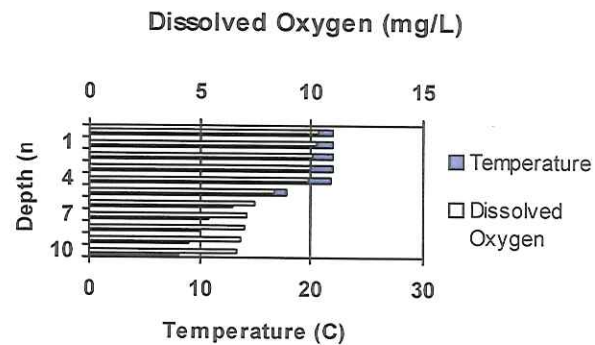
# Water Quality Monitoring Report

2014211

Customer	Waterbody	Sample Information
Loon Lake	Loon Lake	Date: 6/18/2014
		Site: Deep Hole

## On-Site Results

Depth (m)	Temperature (degrees C)	Dissolved Oxygen	
		mg/L	%
0	21.9	10.3	93
1	21.9	10.3	91
2	21.9	10.1	87
3	21.9	10.0	84
4	21.8	9.9	94
5	17.7	8.4	88
6	12.9	7.5	85
7	10.7	7.1	81
8	10.0	7.0	80
9	9.1	6.9	79
10	8.1	6.7	76



Secchi Disk Depth 3.7 meters  
 Thermocline Depth 4.5 meters

## Analytical Results

Parameter	Result	Units	Interpretation
Fecal Bacteria (E. coli)		CFU/100 mL	N/A
Conductivity	232	uS/cm	
Total Dissolved Solids	151	mg/L	Low concentration of dissolved salts
pH	8.5	S.U.	Water is slightly alkaline
Alkalinity	114	mg CaCO3/L	Water is soft
Total Phosphorus	16	ug/L	Moderately phosphorus enriched
Nitrates	250	ug/L	Not nitrogen enriched
Chlorophyll	N/A		

## Trophic State Evaluation

	TSI	Trophic Status
Based on Secchi Disk Depth	41	mesotrophic
Based on Total Phosphorus	40	mesotrophic
Based on Chlorophyll	N/A	

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## Conclusions

- Conditions are good for fish growth.
- Minimum dissolved oxygen is adequate for good fish production.
- pH is within acceptable limits.
- Sample is somewhat phosphorus enriched. Create natural buffer between lawn & lakeshore.
- Repeat LakeCheck in Fall.

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- WARNING. condition requires immediate attention.
  - CAUTION. condition requires further evaluation.
  - OK. condition within acceptable limits.
  - NEUTRAL. condition neither good nor bad.

## Notes

Report describes conditions at the time the sample was collected.

Approved by

*Jaimee Conroy*

Date 10/23/2014

Mrs. Jaimee Conroy, Technical Services Manager

FROM YOUR



DEALER



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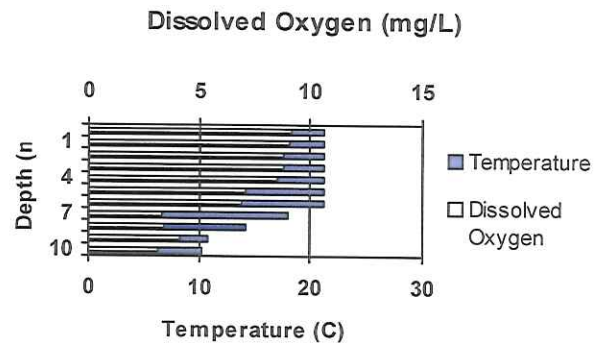
# Water Quality Monitoring Report

2014212

Customer	Waterbody	Sample Information
Loon Lake	Loon Lake	Date: 9/11/2014
		Site: Deep Hole

## On-Site Results

Depth (m)	Temperature (degrees C)	Dissolved Oxygen	
		mg/L	%
0	21.3	9.2	91
1	21.3	9.1	90
2	21.3	8.8	87
3	21.3	8.8	86
4	21.2	8.5	83
5	21.2	7.1	69
6	21.2	6.9	65
7	17.9	3.3	35
8	14.2	3.4	33
9	10.8	4.1	37
10	10.2	3.1	27



Secchi Disk Depth 4.8 meters

Thermocline Depth 6.5 meters

## Analytical Results

Parameter	Result	Units	Interpretation
Fecal Bacteria (E. coli)		CFU/100 mL	N/A
Conductivity	231	uS/cm	
Total Dissolved Solids	150	mg/L	Low concentration of dissolved salts
pH	8.6	S.U.	Water is slightly alkaline
Alkalinity	99	mg CaCO <sub>3</sub> /L	Water is soft
Total Phosphorus	7	ug/L	Slightly phosphorus enriched
Nitrates	300	ug/L	Slightly nitrogen enriched
Chlorophyll		N/A	

## Trophic State Evaluation

	TSI	Trophic Status
Based on Secchi Disk Depth	38	meso-oligotrophic
Based on Total Phosphorus	28	oligotrophic
Based on Chlorophyll	N/A	

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## Conclusions

- Conditions are good for fish growth.
- Minimum dissolved oxygen is nearly low enough to adversely affect sensitive fish.
- pH is within acceptable limits.
- Phosphorus and Nitrogen are within acceptable limits.
- REPEAT LakeCheck NEXT YEAR!

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- WARNING. condition requires immediate attention.
  - CAUTION. condition requires further evaluation.
  - OK. condition within acceptable limits.
  - NEUTRAL. condition neither good nor bad.

## Notes

Report describes conditions at the time the sample was collected.

Approved by

*Jaimee Conroy*

Date 10/23/2014

Mrs. Jaimee Conroy, Technical Services Manager

FROM YOUR **WQ  
PRO** DEALER



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# Bacteria Sampling Report

Waterbody: Loon Lake  
Loon Lake

Date Sampled:  
7/8/2014

Location	<i>E. coli</i>	Total Coliforms	Interpretation
#1	8.0	360	● Water meets bacteriological standards for safe swimming.
#2	4.0	32	● Water meets bacteriological standards for safe swimming.
#3	4.0	340	● Water meets bacteriological standards for safe swimming.

Bacterial counts are expressed as the number of Colony Forming Units per 100 milliliters (CFU/100mL).

For full body contact recreation (including swimming) counts of *E. coli* should not exceed 130 (CFU/100mL) as a monthly geometric mean of at least five samples per the State of Michigan standard, or single samples should not exceed 298 (CFU/100mL) [235 CFU/100mL in a designated bathing beach area] per Federal (EPA) guidelines.

Current recreational water quality standards do not rely on Total Coliform counts.

Approved by \_\_\_\_\_ Date 12-Aug-14  
Mrs. Jaimee Conroy, Technical Services Manager



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