

Thermal Monitoring Equipment in Lake Huron near Bruce Power

Mid June to October 2014

Thermal monitoring is being conducted in the vicinity of Bruce Power via a series of temperature stations (33 stations marked with flags (Marker Buoys) and white bumper floats (Data Buoys)) and current monitors (2 stations, not marked with surface buoys). The GPS coordinates for this monitoring equipment are provided in Table 1. The temperature stations are numbered 1 through 33 and the current monitoring stations are labeled X and Y.

The flagged Marker Buoys are fabricated and marked according to the Canadian Aid to Navigation Systems requirements and coordinates are communicated to the Canadian Coast Guard. A visualization of the buoy set-up at the surface is shown in Figure 1, where there is a flagged Marker Buoy and then a white Data Buoy a short distance away. A diagram of the set up is shown in Figure 2. Note the cross rope between the Marker Buoy and the Data Buoy from prior years has been removed and replaced by a bottom line. Please be aware of this bottom line for stations at shallow depths.

As shown in Figure 2, temperature loggers are attached to the float side. Loggers are located at multiple depths to profile the temperature throughout the water column. This is shown visually in Figure 3 via rings of colour surrounding each station location.

If you have any questions about the monitoring or to report any misplaced or damaged equipment, please contact John Peevers at 519-361-2673 x6583, email john.peevers@brucepower.com or call the Duty Media Officer at 519 361-6161.

Table 1: GPS Co-ordinates of sparbuoy locations

Station Id	Latitude	Longitude	Y Projection	X Projection
1	44.4434	-81.5059	4921246.0	459745.2
2	44.4186	-81.5154	4918491.1	458973.7
3	44.4183	-81.4937	4918449.3	460699.2
4	44.3982	-81.5484	4916249.2	456331.2
5	44.3925	-81.5318	4915608.8	457643.1
6	44.3870	-81.5811	4915023.3	453716.9
7	44.3771	-81.5688	4913909.7	454690.2
8	44.3701	-81.5959	4913153.8	452518.6
9	44.3730	-81.5519	4913450.6	456029.2
10	44.3687	-81.5626	4912982.4	455175.2
11	44.3602	-81.5904	4912046.0	452952.8
12	44.3588	-81.5837	4911889.9	453484.7
13	44.3584	-81.6000	4911856.3	452185.1
14	44.3518	-81.5598	4911103.6	455382.3
15	44.3511	-81.6017	4911043.2	452047.1
16	44.3552	-81.5986	4911493.5	452296.7
17	44.3495	-81.5593	4910848.1	455425.4
18	44.3444	-81.5629	4910274.7	455132.6
19	44.3444	-81.5878	4910292.7	453143.7
20	44.3391	-81.5900	4909710.0	452968.8
21	44.3341	-81.6037	4909162.3	451873.3
22	44.3305	-81.6040	4908753.5	451845.7
23	44.3038	-81.6014	4905787.3	452031.3
24	44.3214	-81.6156	4907756.8	450908.7
25	44.3192	-81.6111	4907503.9	451266.5
26	44.3200	-81.6122	4907592.8	451185.4
27	44.2906	-81.6110	4904330.3	451251.5
28	44.2862	-81.6108	4903837.6	451267.7
29	44.2683	-81.6239	4901856.9	450203.7
30	44.2592	-81.6110	4900845.4	451225.4
31	44.3577	-81.5781	4911769.0	453931.9
32	44.3512	-81.5853	4911047.8	453349.8
33	44.3403	-81.5622	4909826.7	455185.0
X – Gunn Pt.	44.1747	-81.3744	4905003.4	449503.4
Y – Douglas Pt.	44.2008	-81.3680	4909263.1	451591.7



Figure 1: A spar and buoy are visible on the surface a short distance apart for each temperature monitoring location.

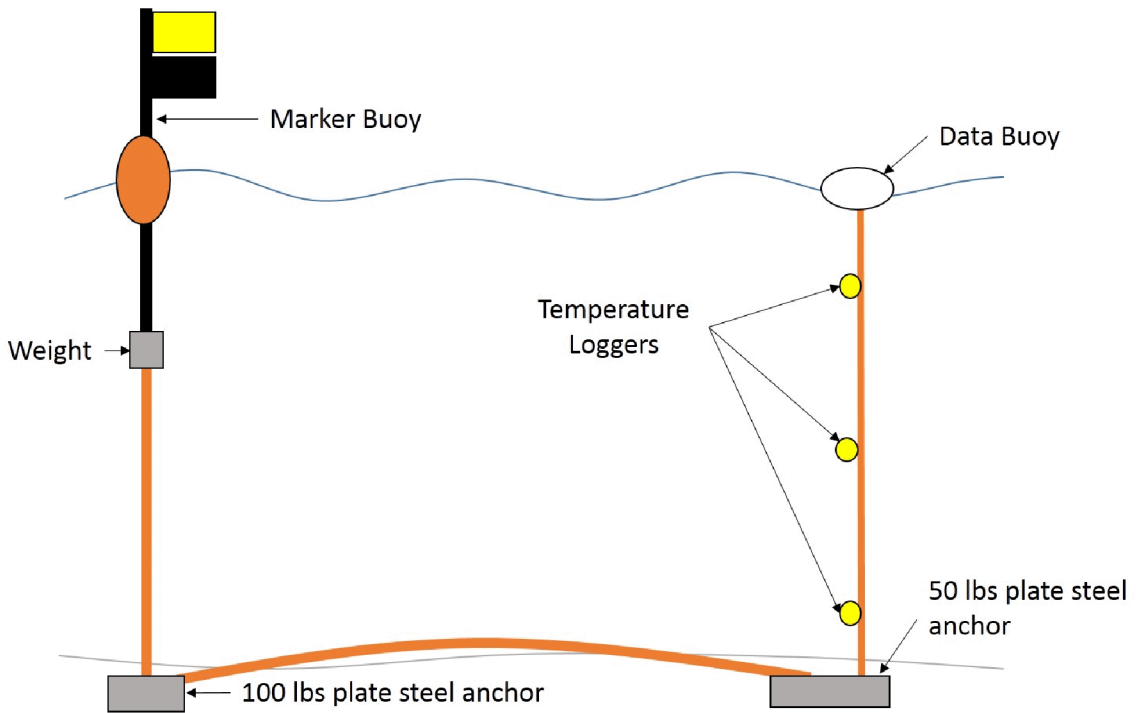


Figure 2: A temperature monitoring location consists of two anchors, one attached to a Marker Buoy and one attached to a Data Buoy, with temperature loggers located along the line from the Data buoy to the anchor and an additional temperature logger in the anchor.