

ANNEX XIV: APPENDIX D

LIMNOLOGY PROFILES

Table D-1 Vertical Profiles of Water Temperature and Dissolved Oxygen Concentrations in Lakes Within the Baseline Study Area, 2013

Parameter		Lake D3 (Counts)		Lake B1 (Christine)		Lake B4 (Cujo)	Duchess Lake				Hammer Lake	Lake Ad8	Lake D2	Lake B15	Lake C1	Lake C3	Lake D4	Lake E1		Lac du Sauvage				Lynx Lake	Paul Lake	
Date		29-Aug-13	30-Aug-13	23-Aug-13	25-Aug-13	3-Sep-13	14-Aug-13	14-Aug-13	16-Aug-13	15-Aug-13	25-Aug-13	5-Sep-13	2-Sep-13	11-Sep-13	27-Aug-13	13-Sep-13	1-Sep-13	19-Aug-13	21-Aug-13	17-Aug-13	19-Aug-13	23-Aug-13	18-Aug-13	27-Aug-13	13-Aug-13	
UTM (NAD 27)	Easting	534196	533955	539084	539516	538438	542533	541840	542810	540690	536459	535572	536305	537136	537652	536758	534233	535528	535087	541931	541468	541455	541133	537304	533296	
Zone 15V	Northing	7169866	7169862	7163776	7163829	7162450	7173092	7174142	7172582	7173257	7158365	7173588	7170060	7163899	7167048	7165651	7168296	7174620	7174630	7167072	7165514	7165904	7167030	7158166	7173981	
pH		7.35	6.88	7.77	7.24	7.49	7.17	7.11	7.25	7.39	8.53	7.09	7.23	6.93	7.35	7.25	7.12	6.98	6.93	6.22	6.57	7.02	6.34	7.16	7.34	
Conductivity (µS/cm)		13.7	17.5	55.6	55.6	214.2	12.5	12.5	13	12.8	22.2	10.4	15.5	12.3	17.9	22.0	15.4	11.8	11.6	14.6	14.5	14.7	14.6	22.4	16.5	
Total Depth (m)		20.0	13.5	2.9	14.5	9.9	9.0	13.0	11.0	12.0	7.5	5.2	5.5	8.1	16.0	15.5	22.4	7.6	8.0	7.2	12.0	9.5	8.0	16.5	14.0	
Secchi Transparency (m)		5.0	5.3	2.9	3.5	4.0	5.5	4.1	5.0	4.2	-	2.9	5.3	3.9	3.6	4.5	7.4	3.3	3.4	4.5	6.5	6.0	-	3.4	4.1	
Water Temperature (°C)	0.3 m	10.4	10.3	13.3	11.3	8.6	19.9	20.1	17.9	19.7	10.5	9.8	9.4	7.0	10.9	8.4	11.3	17.0	15.2	16.8	16.6	13.8	16.6	10.3	20.8	
	1.0 m	10.4	10.2	13.3	11.3	8.5	19.7	19.9	17.9	19.7	10.5	9.0	9.4	7.0	10.9	8.4	11.3	17.0	15.2	16.8	16.5	13.8	16.6	10.3	20.2	
	1.5 m	-	-	13.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2.0 m	10.4	10.1	13.4	11.3	8.5	17.8	19.4	17.9	19.7	10.5	8.9	9.4	6.9	10.9	8.4	11.3	17.0	15.2	16.8	16.5	13.8	16.6	10.2	19.9	
	2.5 m	-	-	13.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3.0 m	10.4	10.1	-	11.1	8.5	16.6	19.2	17.8	19.7	10.5	8.9	9.4	6.8	10.9	8.4	11.3	16.8	15.2	16.5	16.5	13.8	16.6	10.2	18.2	
	4.0 m	10.4	10.1	-	11.2	8.5	16.1	18.7	17.8	16.1	10.5	8.8	9.1	6.8	10.9	8.4	11.3	16.5	15.2	16.4	16.5	13.8	16.1	10.2	15.1	
	5.0 m	10.4	10.1	-	11.1	8.5	14.2	16.9	17.7	14.1	10.1	8.7	9.1	6.8	10.9	8.4	11.3	16.2	15.2	16.3	16.4	13.8	14.8	10.2	13.6	
	6.0 m	10.4	10.1	-	10.9	8.5	13.7	14.9	17.5	13.2	9.6	-	-	6.8	10.9	8.4	11.3	13.9	15.2	15.9	16.4	13.8	13.3	10.2	12.8	
	6.5 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15.9	-	-	-	-	-	
	7.0 m	10.4	10.1	-	10.9	8.5	13.5	14.2	17.5	12.6	9.6	-	-	6.8	10.9	8.4	11.2	13.0	13.2	-	16.4	13.8	13.2	10.2	12.3	
	7.5 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12.5	-	-	-	13.1	-	-	
	8.0 m	10.4	10.1	-	10.9	8.5	13.4	13.8	15.2	12.3	-	-	-	6.8	10.9	8.4	11.2	-	-	-	16.4	13.8	-	10.1	11.9	
	9.0 m	10.2	10.1	-	10.8	8.5	13.4	13.1	13.9	12.0	-	-	-	-	10.9	8.4	11.2	-	-	-	14.8	13.8	-	10.1	11.7	
	9.5 m	-	-	-	-	8.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	10.0 m	10.2	10.1	-	10.8	-	-	12.9	13.5	11.7	-	-	-	-	10.9	8.4	11.1	-	-	-	13.1	-	-	10.1	11.4	
	11.0 m	10.2	10.1	-	10.7	-	-	12.7	12.8	11.7	-	-	-	-	10.8	8.4	11.1	-	-	-	12.4	-	-	10.0	11.1	
	12.0 m	-	10.1	-	10.4	-	-	12.5	-	11.6	-	-	-	-	10.8	8.4	11.0	-	-	-	-	-	-	10.0	11.0	
	12.5 m	-	-	-	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	13.0 m	-	10.2	-	5.7	-	-	-	-	-	-	-	-	-	-	10.8	8.4	10.9	-	-	-	-	-	-	10.0	11.0
	13.5 m	-	-	-	5.6	-	-	-	-	-	-	-	-	-	-	-	-	10.0	-	-	-	-	-	-	-	-
	14.0 m	-	-	-	5.4	-	-	-	-	-	-	-	-	-	-	10.7	8.4	8.5	-	-	-	-	-	-	9.2	-
	14.5 m	-	-	-	5.4	-	-	-	-	-	-	-	-	-	-	-	-	8.0	-	-	-	-	-	-	-	-
	15.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.7	8.4	7.2	-	-	-	-	-	-	5.7	-
	15.5 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.7	-	-	-	-	-	-	-	-
	16.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.6	-	6.5	-	-	-	-	-	-	5.3	-
	17.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1	-	-	-	-	-	-	-	-
	18.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.9	-	-	-	-	-	-	-	-
19.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	
20.0 m	10.3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.4	-	-	-	-	-	-	-	-	
21.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5.3	-	-	-	-	-	-	-	-	
22.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table D-1 Vertical Profiles of Water Temperature and Dissolved Oxygen Concentrations in Lakes Within the Baseline Study Area, 2013

Parameter		Lake D3 (Counts)		Lake B1 (Christine)		Lake B4 (Cujo)	Duchess Lake				Hammer Lake	Lake Ad8	Lake D2	Lake B15	Lake C1	Lake C3	Lake D4	Lake E1		Lac du Sauvage				Lynx Lake	Paul Lake	
Date		29-Aug-13	30-Aug-13	23-Aug-13	25-Aug-13	3-Sep-13	14-Aug-13	14-Aug-13	16-Aug-13	15-Aug-13	25-Aug-13	5-Sep-13	2-Sep-13	11-Sep-13	27-Aug-13	13-Sep-13	1-Sep-13	19-Aug-13	21-Aug-13	17-Aug-13	19-Aug-13	23-Aug-13	18-Aug-13	27-Aug-13	13-Aug-13	
UTM (NAD 27)	Easting	534196	533955	539084	539516	538438	542533	541840	542810	540690	536459	535572	536305	537136	537652	536758	534233	535528	535087	541931	541468	541455	541133	537304	533296	
Zone 15V	Northing	7169866	7169862	7163776	7163829	7162450	7173092	7174142	7172582	7173257	7158365	7173588	7170060	7163899	7167048	7165651	7168296	7174620	7174630	7167072	7165514	7165904	7167030	7158166	7173981	
pH		7.35	6.88	7.77	7.24	7.49	7.17	7.11	7.25	7.39	8.53	7.09	7.23	6.93	7.35	7.25	7.12	6.98	6.93	6.22	6.57	7.02	6.34	7.16	7.34	
Conductivity (µS/cm)		13.7	17.5	55.6	55.6	214.2	12.5	12.5	13	12.8	22.2	10.4	15.5	12.3	17.9	22.0	15.4	11.8	11.6	14.6	14.5	14.7	14.6	22.4	16.5	
Total Depth (m)		20.0	13.5	2.9	14.5	9.9	9.0	13.0	11.0	12.0	7.5	5.2	5.5	8.1	16.0	15.5	22.4	7.6	8.0	7.2	12.0	9.5	8.0	16.5	14.0	
Secchi Transparency (m)		5.0	5.3	2.9	3.5	4.0	5.5	4.1	5.0	4.2	-	2.9	5.3	3.9	3.6	4.5	7.4	3.3	3.4	4.5	6.5	6.0	-	3.4	4.1	
Dissolved Oxygen (mg/L)	0.3 m	9.68	10.10	8.80	9.68	11.03	7.82	8.03	8.76	8.77	8.53	10.43	7.23	10.47	9.52	10.69	9.73	6.98	9.02	9.68	9.18	9.83	9.70	12.07	8.63	
	1.0 m	9.77	9.60	8.89	9.65	10.53	7.53	7.64	8.55	8.55	8.22	10.30	7.17	10.65	9.52	10.60	9.40	6.95	8.77	9.77	9.98	9.77	10.01	11.98	8.90	
	1.5 m	-	-	8.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	2.0 m	9.17	9.41	8.93	9.46	10.45	8.36	7.26	8.56	8.34	7.97	10.18	7.14	10.65	9.61	10.60	9.20	6.94	8.84	9.84	10.08	9.87	9.82	11.95	8.26	
	2.5 m	-	-	8.78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	3.0 m	9.75	9.82	-	9.24	10.53	7.91	8.35	8.09	8.35	7.76	10.35	7.12	10.55	9.62	10.60	9.22	6.94	8.97	9.88	9.89	9.79	9.78	11.57	9.64	
	4.0 m	9.33	9.08	-	9.74	10.59	8.09	8.50	8.52	9.75	7.60	10.34	7.08	10.62	9.51	10.63	9.40	6.91	8.66	9.79	9.27	9.74	9.88	11.68	10.30	
	5.0 m	9.61	9.70	-	9.76	10.36	8.71	7.90	8.46	9.86	7.44	10.15	7.05	10.76	9.53	10.62	9.22	6.79	8.60	9.89	9.20	9.73	10.31	11.72	10.50	
	6.0 m	9.62	9.48	-	9.84	10.47	8.26	8.21	7.81	9.16	7.36	-	-	10.75	9.52	10.55	9.27	6.10	8.57	9.94	9.23	9.62	10.21	11.52	10.23	
	6.5 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.05	-	-	-	-	-	
	7.0 m	9.69	9.15	-	9.68	10.54	7.18	8.13	8.13	8.61	7.13	-	-	10.68	9.61	10.61	9.27	5.98	8.04	-	9.63	9.56	10.41	11.58	8.76	
	7.5 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.35	-	-	-	9.94	-	-
	8.0 m	9.44	9.59	-	9.42	10.45	6.08	7.92	8.70	7.12	-	-	-	-	10.48	9.56	10.42	9.32	-	-	-	10.10	8.90	-	11.61	8.16
	9.0 m	9.53	9.00	-	9.59	10.47	5.74	6.76	8.46	6.99	-	-	-	-	-	9.64	10.43	9.42	-	-	-	9.95	8.50	-	11.48	7.43
	9.5 m	-	-	-	-	10.44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	10.0 m	9.65	9.91	-	9.72	-	-	6.67	7.92	4.52	-	-	-	-	-	9.50	10.42	9.14	-	-	-	10.30	-	-	11.48	6.57
	11.0 m	9.14	9.47	-	9.52	-	-	6.09	6.08	4.47	-	-	-	-	-	9.51	10.42	9.18	-	-	-	10.29	-	-	11.49	6.32
	12.0 m	-	8.21	-	9.08	-	-	5.62	-	4.15	-	-	-	-	-	9.36	10.42	9.19	-	-	-	-	-	-	11.62	5.88
	12.5 m	-	-	-	5.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	13.0 m	-	0.13	-	4.09	-	-	-	-	-	-	-	-	-	-	9.46	10.41	9.41	-	-	-	-	-	-	11.23	4.80
	13.5 m	-	-	-	3.97	-	-	-	-	-	-	-	-	-	-	-	-	9.98	-	-	-	-	-	-	-	-
	14.0 m	-	-	-	3.51	-	-	-	-	-	-	-	-	-	-	9.45	10.42	11.70	-	-	-	-	-	-	11.21	-
	14.5 m	-	-	-	3.05	-	-	-	-	-	-	-	-	-	-	-	-	11.66	-	-	-	-	-	-	-	-
	15.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.58	10.38	11.72	-	-	-	-	-	-	9.65	-
	15.5 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	16.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9.63	-	11.91	-	-	-	-	-	-	8.95	-
17.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.39	-	-	-	-	-	-	-	-	
18.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.32	-	-	-	-	-	-	-	-	
19.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.06	-	-	-	-	-	-	-	-	
20.0 m	6.33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11.11	-	-	-	-	-	-	-	-	
21.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.60	-	-	-	-	-	-	-	-	
22.0 m	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10.54	-	-	-	-	-	-	-	-	

UTM = Universal Transverse Mercator; NAD = North American Datum; pH = Potential of Hydrogen; provides measure of the acidity or alkalinity of a solution on a scale of 0 to 14; µS/cm = microsiemens per centimetre; m = metre; °C = degrees Celsius; mg/L = milligrams per litre; - = not applicable.