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SERVICES

Exploration
Rock Property Measurements
Project Development
Portfolio Management
Grant Applications

Results from Downhole Temperature Profile Readings: SEL 26/2005.

Cambridge, Native Hut & Runnymede.

Prepared for KUTh Energy Ltd

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Executive summary

This report provides results obtained from precision temperature logging undertaken in January of 2009, of three of KUTh's heat flow holes within tenement SEL26/2005.

All three holes (Cambridge, Native Hut and Runnymede) are considered to have reached equilibration. The geothermal gradients are displayed in the enclosed figures, and the logged temperatures are listed in the appendix.

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1.0 Introduction

During January of 2009, three of the completed geothermal exploration holes drilled by KUTh Energy were sampled for temperature.

Temperatures were logged using a thermistor, a type of resistor that relies on the change in resistance to measure temperature change. Each hole was sampled at 1 metre increments. Results are presented in the following report as graphs of geothermal gradients (Figures 1 to 3) and tables of temperature recorded per metre (Appendix 1).

The results presented for all three holes listed are the results from the second logging runs of these holes, and are considered to be equilibrated. It is therefore expected that the results presented here are an accurate representation of the actual thermal conditions of the holes.

The results provided in this report are based on data collected from the field sampling. Detailed analysis of the thermal properties of the areas sampled will be provided in a separate report for all three holes listed incorporating the data obtained from the conductivity analysis. The temperature profile data aids in the selection and sampling of appropriate lithological intervals for conductivity analysis.

2.0 Results

The results provide recorded temperatures for each metre of the successfully logged holes.

The gradient profiles for each of the logged holes can be seen as average temperature gradients over 2m, 4m and 10m in Figures 1 to 4. The variable nature of the gradient profile can be indicative of unconfined aquifer flows disturbing the thermal profile of the well.

The corresponding preliminary geothermal gradients for selected sections are displayed in Table 1

Table 1. Geothermal gradient (°C/km) values for selected depth profiles

Depth (m)	Cambridge	Native Hut	Rheban
50 - 150	34.28	11.21	27.29
150 - BoH	35.11	28.12	36.89

Figure 1 Cambridge Geothermal Gradient

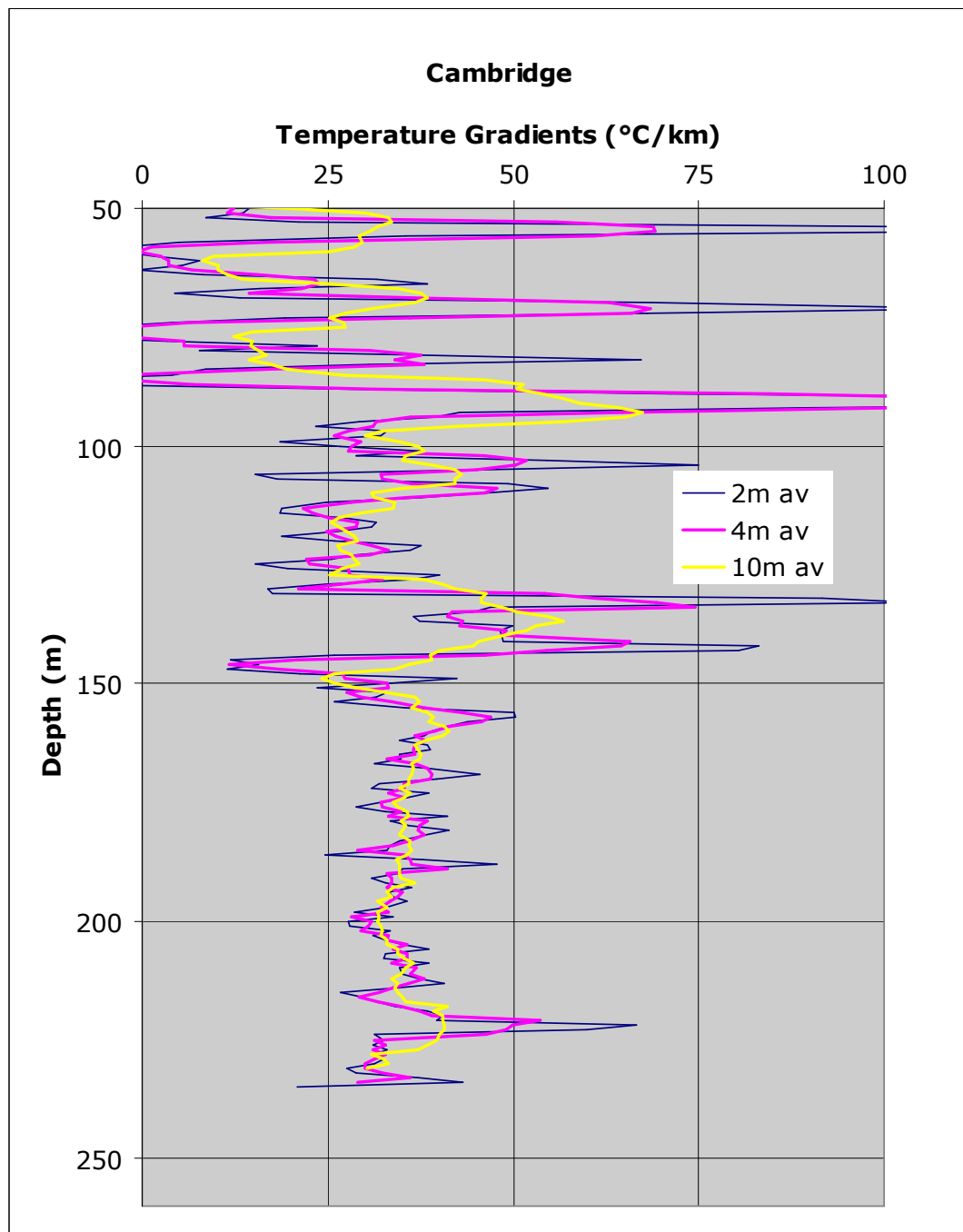


Figure 2 Native Hut Geothermal Gradient

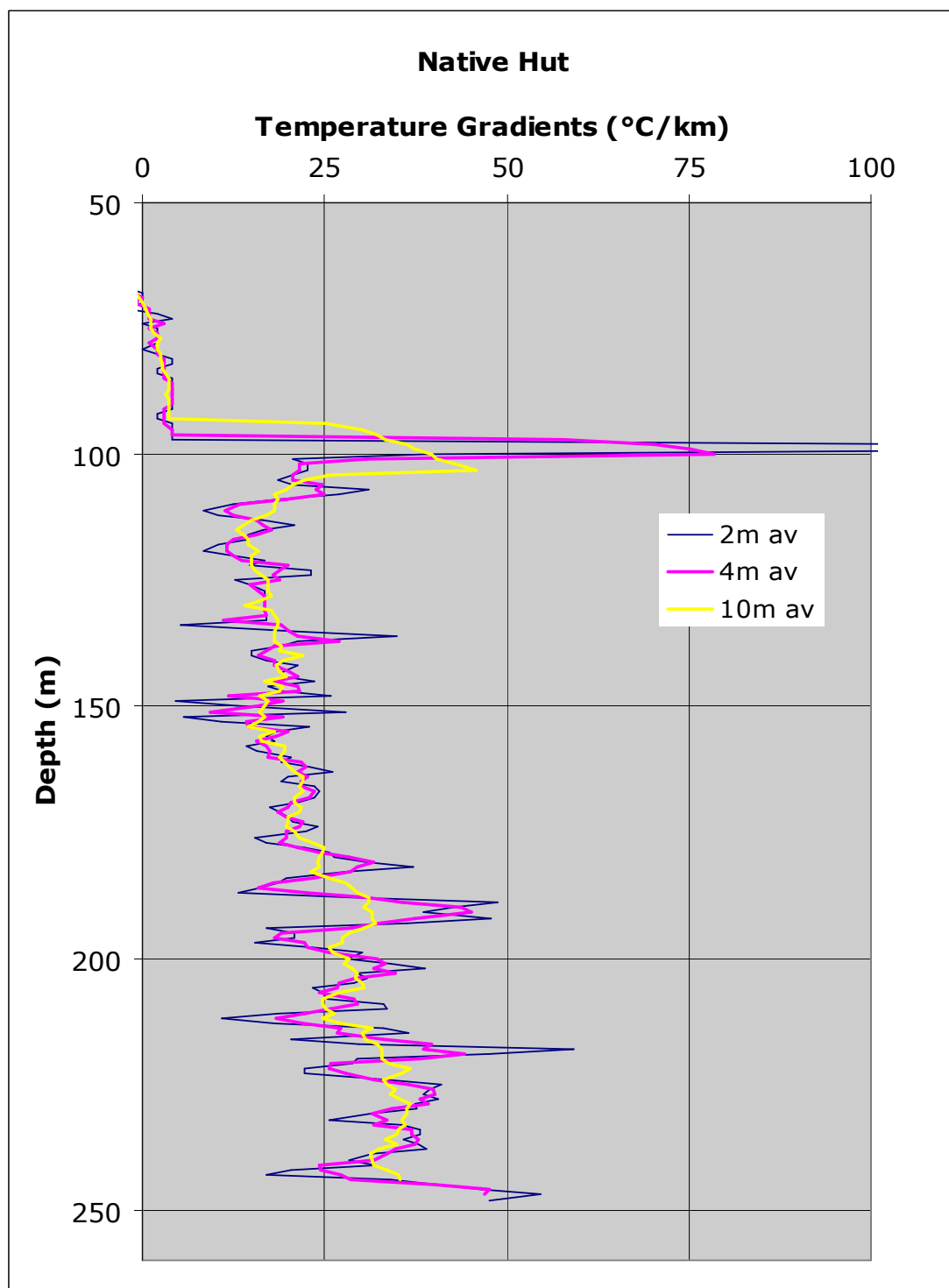
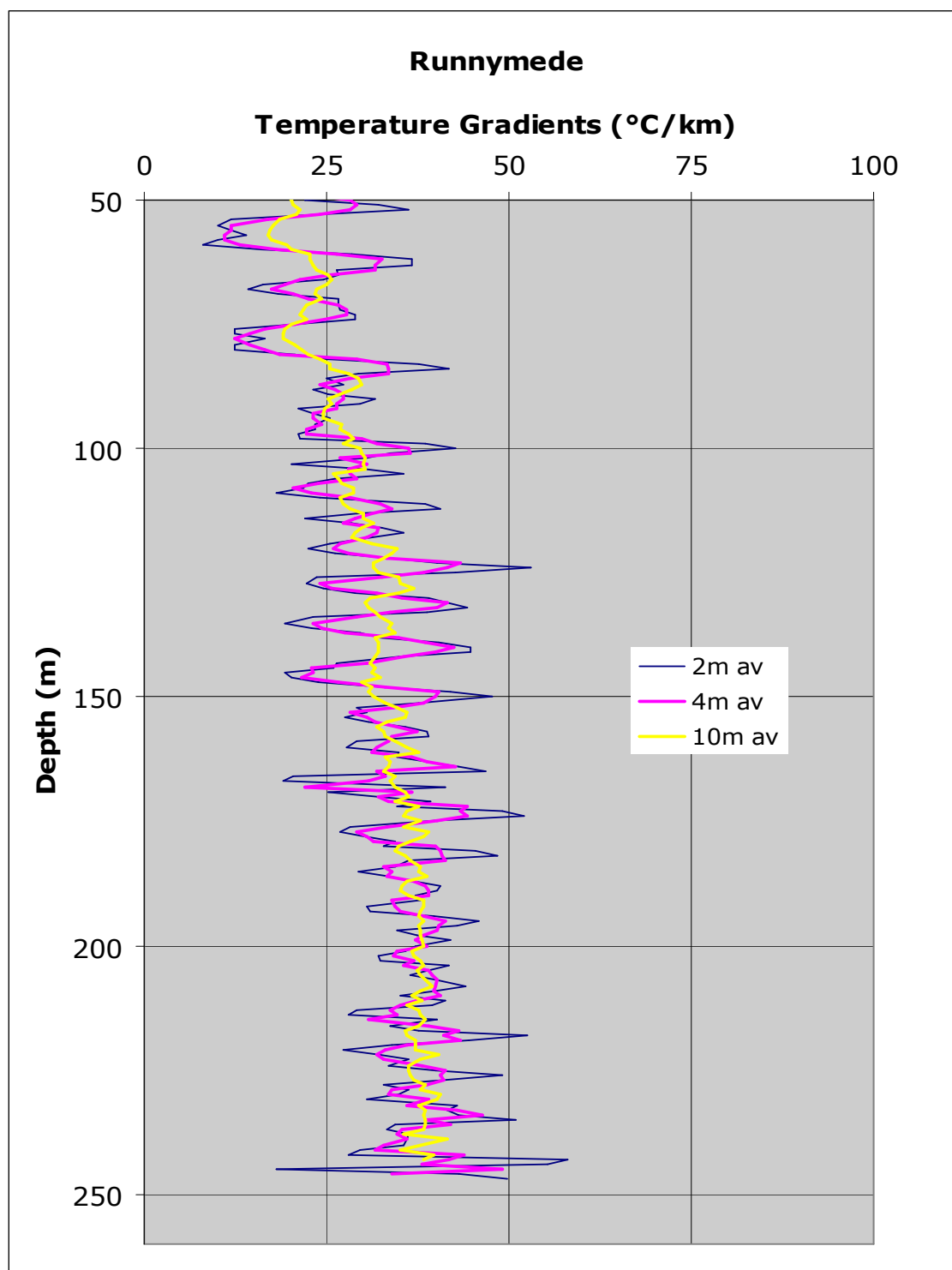


Figure 3 Runnymede Geothermal Gradient



Appendix 1:

Tables of recorded down hole temperature

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Cambridge - Depth vs. Temperature results

Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)
1	24.914	43	15.001	85	15.880	127	17.458
2	24.313	44	15.045	86	15.882	128	17.506
3	23.728	45	15.063	87	15.851	129	17.531
4	23.541	46	15.024	88	15.864	130	17.555
5	23.370	47	15.000	89	15.907	131	17.564
6	23.144	48	14.999	90	16.007	132	17.590
7	22.829	49	15.010	91	16.189	133	17.747
8	22.556	50	15.021	92	16.327	134	17.800
9	22.277	51	15.038	93	16.369	135	17.841
10	21.826	52	15.048	94	16.413	136	17.889
11	21.595	53	15.055	95	16.448	137	17.914
12	21.421	54	15.090	96	16.471	138	17.964
13	21.086	55	15.261	97	16.495	139	18.014
14	20.916	56	15.324	98	16.538	140	18.060
15	20.654	57	15.332	99	16.559	141	18.111
16	20.467	58	15.334	100	16.575	142	18.158
17	20.276	59	15.326	101	16.612	143	18.277
18	15.854	60	15.329	102	16.650	144	18.318
19	15.172	61	15.330	103	16.670	145	18.329
20	14.913	62	15.344	104	16.759	146	18.342
21	14.770	63	15.340	105	16.820	147	18.361
22	14.696	64	15.343	106	16.851	148	18.365
23	14.670	65	15.356	107	16.850	149	18.403
24	14.655	66	15.406	108	16.887	150	18.450
25	14.661	67	15.433	109	16.949	151	18.470
26	14.660	68	15.437	110	16.997	152	18.497
27	14.658	69	15.442	111	17.041	153	18.536
28	14.656	70	15.464	112	17.072	154	18.560
29	14.660	71	15.580	113	17.091	155	18.588
30	14.667	72	15.689	114	17.109	156	18.631
31	14.681	73	15.716	115	17.128	157	18.688
32	14.691	74	15.727	116	17.163	158	18.732
33	14.699	75	15.724	117	17.191	159	18.776
34	14.702	76	15.715	118	17.225	160	18.814
35	14.705	77	15.706	119	17.244	161	18.854
36	14.713	78	15.690	120	17.263	162	18.890
37	14.727	79	15.713	121	17.295	163	18.923
38	14.737	80	15.737	122	17.338	164	18.967
39	14.889	81	15.729	123	17.367	165	19.000
40	14.927	82	15.813	124	17.395	166	19.036
41	14.929	83	15.863	125	17.419	167	19.070
42	14.968	84	15.874	126	17.426	168	19.099

Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)
169	19.147	209	20.520				
170	19.190	210	20.557				
171	19.227	211	20.589				
172	19.254	212	20.627				
173	19.288	213	20.664				
174	19.331	214	20.709				
175	19.360	215	20.732				
176	19.395	216	20.762				
177	19.417	217	20.792				
178	19.460	218	20.825				
179	19.500	219	20.860				
180	19.527	220	20.902				
181	19.571	221	20.941				
182	19.610	222	20.982				
183	19.648	223	21.074				
184	19.679	224	21.101				
185	19.715	225	21.137				
186	19.745	226	21.167				
187	19.764	227	21.199				
188	19.821	228	21.233				
189	19.860	229	21.262				
190	19.891	230	21.298				
191	19.928	231	21.324				
192	19.953	232	21.353				
193	19.994	233	21.382				
194	20.026	234	21.427				
195	20.061	235	21.469				
196	20.093	236	21.469				
197	20.132						
198	20.159						
199	20.189						
200	20.226						
201	20.245						
202	20.282						
203	20.311						
204	20.344						
205	20.377						
206	20.414						
207	20.455						
208	20.480						

Native Hut - Depth vs. Temperature results.

Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)
1	14.689	43	12.843	85	12.697	127	13.491
2	14.698	44	12.835	86	12.701	128	13.508
3	14.591	45	12.827	87	12.705	129	13.525
4	14.478	46	12.819	88	12.709	130	13.542
5	14.373	47	12.802	89	12.713	131	13.559
6	14.283	48	12.790	90	12.717	132	13.575
7	14.161	49	12.782	91	12.721	133	13.592
8	14.058	50	12.770	92	12.725	134	13.609
9	14.003	51	12.737	93	12.725	135	13.603
10	13.945	52	12.729	94	12.729	136	13.652
11	13.939	53	12.721	95	12.733	137	13.673
12	13.877	54	12.717	96	12.737	138	13.694
13	13.883	55	12.713	97	12.741	139	13.711
14	13.784	56	12.705	98	12.745	140	13.724
15	13.709	57	12.701	99	12.964	141	13.741
16	13.674	58	12.697	100	13.018	142	13.758
17	13.538	59	12.693	101	13.042	143	13.784
18	13.518	60	12.689	102	13.059	144	13.796
19	13.417	61	12.685	103	13.088	145	13.822
20	13.362	62	12.685	104	13.104	146	13.843
21	13.300	63	12.681	105	13.129	147	13.856
22	13.262	64	12.677	106	13.141	148	13.882
23	13.225	65	12.673	107	13.170	149	13.908
24	13.192	66	12.673	108	13.203	150	13.891
25	13.171	67	12.669	109	13.224	151	13.934
26	13.142	68	12.669	110	13.240	152	13.947
27	13.113	69	12.669	111	13.249	153	13.945
28	13.097	70	12.669	112	13.257	154	13.968
29	13.076	71	12.669	113	13.270	155	13.991
30	13.060	72	12.665	114	13.290	156	14.005
31	13.043	73	12.673	115	13.311	157	14.025
32	13.023	74	12.673	116	13.324	158	14.042
33	12.998	75	12.673	117	13.340	159	14.053
34	12.974	76	12.677	118	13.353	160	14.073
35	12.957	77	12.677	119	13.361	161	14.094
36	12.941	78	12.681	120	13.370	162	14.111
37	12.916	79	12.681	121	13.386	163	14.140
38	12.896	80	12.681	122	13.403	164	14.163
39	12.884	81	12.685	123	13.416	165	14.180
40	12.867	82	12.689	124	13.449	166	14.201
41	12.859	83	12.693	125	13.462	167	14.227
42	12.851	84	12.693	126	13.474	168	14.250

Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)
169	14.274	209	15.324	249	16.675		
170	14.293	210	15.363				
171	14.309	211	15.392				
172	14.330	212	15.401				
173	14.349	213	15.414				
174	14.371	214	15.437				
175	14.397	215	15.480				
176	14.416	216	15.510				
177	14.428	217	15.520				
178	14.450	218	15.569				
179	14.472	219	15.639				
180	14.501	220	15.664				
181	14.525	221	15.698				
182	14.563	222	15.722				
183	14.599	223	15.742				
184	14.619	224	15.766				
185	14.638	225	15.809				
186	14.656	226	15.848				
187	14.671	227	15.888				
188	14.682	228	15.926				
189	14.728	229	15.970				
190	14.780	230	16.000				
191	14.813	231	16.045				
192	14.857	232	16.063				
193	14.909	233	16.096				
194	14.930	234	16.134				
195	14.943	235	16.173				
196	14.972	236	16.210				
197	14.985	237	16.244				
198	15.002	238	16.286				
199	15.032	239	16.322				
200	15.063	240	16.349				
201	15.088	241	16.379				
202	15.131	242	16.413				
203	15.165	243	16.420				
204	15.190	244	16.447				
205	15.227	245	16.487				
206	15.248	246	16.528				
207	15.274	247	16.580				
208	15.297	248	16.637				

Runnymede - Depth vs. Temperature results.

Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)
1	13.340	43	12.611	85	13.484	127	14.695
2	13.395	44	12.615	86	13.505	128	14.719
3	13.487	45	12.623	87	13.535	129	14.744
4	13.487	46	12.627	88	13.560	130	14.777
5	13.457	47	12.635	89	13.581	131	14.822
6	13.436	48	12.651	90	13.610	132	14.860
7	13.071	49	12.683	91	13.644	133	14.910
8	12.903	50	12.699	92	13.669	134	14.938
9	12.757	51	12.727	93	13.686	135	14.957
10	12.704	52	12.763	94	13.716	136	14.976
11	12.660	53	12.800	95	13.737	137	15.003
12	12.648	54	12.812	96	13.762	138	15.035
13	12.652	55	12.824	97	13.783	139	15.067
14	12.684	56	12.832	98	13.805	140	15.116
15	12.708	57	12.848	99	13.826	141	15.157
16	12.712	58	12.860	100	13.882	142	15.205
17	12.712	59	12.868	101	13.911	143	15.226
18	12.712	60	12.876	102	13.949	144	15.258
19	12.712	61	12.900	103	13.972	145	15.278
20	12.708	62	12.933	104	13.989	146	15.296
21	12.704	63	12.973	105	14.033	147	15.319
22	12.688	64	13.006	106	14.061	148	15.344
23	12.712	65	13.026	107	14.085	149	15.384
24	12.651	66	13.059	108	14.105	150	15.428
25	12.639	67	13.075	109	14.129	151	15.480
26	12.619	68	13.092	110	14.142	152	15.504
27	12.603	69	13.104	111	14.177	153	15.538
28	12.587	70	13.128	112	14.219	154	15.565
29	12.583	71	13.157	113	14.258	155	15.593
30	12.583	72	13.182	114	14.277	156	15.626
31	12.583	73	13.211	115	14.302	157	15.665
32	12.583	74	13.240	116	14.334	158	15.703
33	12.583	75	13.268	117	14.367	159	15.743
34	12.583	76	13.281	118	14.405	160	15.762
35	12.583	77	13.293	119	14.430	161	15.799
36	12.583	78	13.305	120	14.456	162	15.831
37	12.591	79	13.326	121	14.474	163	15.868
38	12.591	80	13.330	122	14.509	164	15.909
39	12.595	81	13.351	123	14.542	165	15.954
40	12.599	82	13.372	124	14.589	166	16.002
41	12.603	83	13.401	125	14.648	167	15.995
42	12.607	84	13.447	126	14.675	168	16.040

Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)	Depth	Temp (°C)
169	16.077	209	17.570				
170	16.091	210	17.601				
171	16.142	211	17.640				
172	16.169	212	17.684				
173	16.211	213	17.719				
174	16.267	214	17.742				
175	16.315	215	17.775				
176	16.346	216	17.822				
177	16.372	217	17.842				
178	16.400	218	17.898				
179	16.432	219	17.947				
180	16.469	220	17.987				
181	16.498	221	18.015				
182	16.560	222	18.041				
183	16.595	223	18.080				
184	16.632	224	18.114				
185	16.663	225	18.147				
186	16.691	226	18.194				
187	16.730	227	18.245				
188	16.765	228	18.276				
189	16.811	229	18.311				
190	16.845	230	18.348				
191	16.886	231	18.380				
192	16.921	232	18.410				
193	16.947	233	18.466				
194	16.983	234	18.493				
195	17.026	235	18.552				
196	17.074	236	18.594				
197	17.112	237	18.621				
198	17.144	238	18.661				
199	17.187	239	18.694				
200	17.228	240	18.733				
201	17.261	241	18.765				
202	17.299	242	18.792				
203	17.325	243	18.821				
204	17.364	244	18.908				
205	17.409	245	18.932				
206	17.442	246	18.944				
207	17.481	247	19.018				
208	17.521	248	19.044				