

APPENDIX 3

TEMPERATURE RESULTS IN °C.

Ablation values in brackets refer to ablation below zero datum for date given, these were necessary where an ablation marginal was used.

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
	<u>Date</u>				
Station 2	10/7	-0.09	-0.74	-0.65	
	17/7	-0.31	-0.67	-0.63	
	24/7	-0.04	-0.55	-0.56	
	31/7	-0.01	-0.33	-0.46	
	7/8	+0.24	-0.08	-0.40	
	14/8	-	-0.03	-0.29	
	21/8	-	+0.01	-0.22	
	28/8	-	+0.00	-0.17	Ablation 1.70m
Station 4		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	10/7	-0.53	-2.14	-2.41	
	17/7	-0.25	-1.86	-2.30	
	24/7	-0.01	-1.55	-2.19	
	31/7	+0.02	-1.21	-2.05	
	7/8	+0.15	-0.89	-1.86	
	14/8	-	-0.66	-1.69	
	21/8	-	-0.53	-1.54	
	28/8	-	-0.33	-1.39	
	12/9	-	-0.12	-1.11	Ablation = 2.59m (1.89m)

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
	<u>Date</u>				
Station 8	3/7	-0.01	-0.03	+0.08	
	10/7	-0.05	-1.94	-2.51	
	17/7	-0.01	-1.58	-2.37	
	24/7	+0.03	-1.23	-2.18	
	31/7	+0.13	-0.85	-2.01	
	7/8	+0.23	-0.61	-1.79	
	14/8	-	-0.47	-1.59	
	21/8	-	-0.40	-1.44	
	12/9		-0.15	-1.00	Ablation 1.96m (1.61m)
Station 8A ₂		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	10/7	-0.56	-2.20	-2.45	
	17/7	-0.32	-1.89	-2.32	
	24/7	+0.01	-1.61	-2.19	
	31/7	+0.03	-1.28	-2.03	
	7/8	+0.13	-0.97	-1.85	
	14/8	+0.11	-0.75	-1.67	
	21/8	+0.31	-0.62	-1.53	
	12/9	-	-0.28	-1.11	Ablation 2.17m (1.50m)

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
	<u>Date</u>				
Station 8A ₃	10/7	-0.49	-1.03		
	17/7	-0.34	-0.85		
	24/7	±0.00	-0.63		
	31/7	+0.01	-0.32		
	7/8	+0.21	-0.02		
	14/8	+0.43	+0.19		
	21/8	-	+0.30		
	12/9	-	+0.57		Ablation 2.04m (1.44m)
Station 12		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	11/6	-1.34	-2.99	-2.92	
	18/6	-1.14	-2.71	-2.81	
	3/7	±0.00	-2.14	-2.56	
	10/7	+0.08	-1.75	-2.42	
	17/7	+0.06	-1.41	-2.25	
	24/7	+0.24	-1.40	-2.09	
	31/7	-	-0.80	-1.92	
	7/8	-	-0.49	-1.71	
	14/8	-	-0.35	-1.52	
	23/8	-	-0.13	-1.26	
	12/9	-	-0.01	-0.94	Ablation 2.13m.

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
Station 12A	<u>Date</u>				
	2:5/5				
	7/8				
	8/8	-0.49	-1.17	-1.66	
	11/8	-0.50	-1.23	-1.65	
	13/8	-0.50	-1.26	-1.57	
	19/8	-0.48	-1.25	-1.48	
	16/8	-0.49	-1.26	?	
	18/8	-0.49	-1.26	?	
	20/8	-0.48	-1.22		
	21/8	-0.47	-1.23		
	12/9	-0.58	-1.05		

		<u>1m</u>	<u>3m</u>	<u>5m</u>
Station 16	11/6	-1.60	-3.31	-3.30
	18/6	-1.38	-3.05	-3.21
	3/7	-0.80	-2.54	-2.95
	12/7	-0.08	-2.26	-2.80
	17/7	-0.18	-2.01	-2.72
	24/7	+0.03	-1.75	-2.58
	31/9	+0.02	-1.44	-2.43
	7/8	-	-1.12	-2.22
	16/8	-	-0.89	-2.00
	21/8	-	-0.80	-1.88
	12/9	-	-0.46	-1.47
	18/9	-	-0.39	-1.38

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
Station 16B	<u>Date</u>				
	10/7	-0.18	-1.63	-2.31	
	12/7	-0.17	-1.60	-2.30	
	17/7	-0.23	-1.53	-2.21	
	24/7	-0.21	-1.44	-2.14	
	31/7	-0.08	-1.38	-2.01	
	7/8	+0.04	-1.22	-1.93	
	14/8	+0.04	-1.09	-1.84	
	21/8	+0.04	-0.97	-1.75	
	12/9		-0.62	-1.35	Ablation = 0.63m (1.28m)
Station 20		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	11/6	-1.59	-3.05	-3.02	
	18/6	-1.39	-2.82	-2.97	
	3/7	-1.06	-2.36	-2.76	
	10/7	-0.78	-2.21	-2.67	
	17/7	-0.56	-2.05	-2.56	
	24/7	-0.06	-1.90	-2.47	
	31/7	+0.04	-1.64	-2.38	
	7/8	+0.04	-1.35	-2.25	
	14/8	+0.02	-1.13	-2.14	
	21/8	+0.00	-1.03	-2.02	
	12/9	-	-0.71	-1.65	
	18/9	-	-0.71	-1.57	Ablation = 1.35m

Station 20A ₂	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
	<u>Date</u>				
	11/6	-1.60	-3.06	-3.08	
	18/6	-1.37	-2.77	-2.97	
	3/7	-0.22	-2.21	-2.67	
	10/7	-0.01	-1.85	-2.56	
	17/7	-0.03	-1.54	-2.37	
	24/7	+0.01	-1.29	-2.22	
	31/7	+0.03	-0.95	-1.97	
	7/8	+0.66	-0.59	-1.69	
	14/8	-	-0.45	-1.49	
	23/8	-	0.34	-1.31	
	12/9	-	-0.23	-0.98	Ablation 1.60m

Station 20B ₂		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	11/6	-0.02	-0.28	-0.73	
	18/6	-0.02	-0.24	-0.59	
	3/7	-0.01	-0.09	-0.31	
	10/7	-0.01	-0.03	-0.30	
	17/7	+0.00	-0.00	-0.27	
	24/7	-0.01	-0.03	+0.11	
	31/7	-0.01	+0.23	-0.08	
	7/8	+0.02	+0.21	-0.19	
	14/8	-0.05	+0.04	-0.06	
	21/8	+0.01	-0.02	-0.17	
	12/9	+0.16	+0.00	-0.08	Ablation 0.90m

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
Station 20A ₄	<u>Date</u>	0.0m	1.75m	3.75m	
	18/9	-0.68	-0.47	-1.27	
Station 24		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	11/6	-0.98	-2.08	-2.03	
	18/6	-0.87	-1.92	-1.97	
	3/7	-0.65	-1.55	-1.78	
	10/7	-0.58	-1.45	-1.63	
	17/7	-0.53	-1.54	-1.54	
	24/7	-0.04	-1.28	-1.52	
	31/7	+0.02	-1.10	-1.43	
	7/8	+0.06	-0.94	-1.24	
	14/8	-0.05	-0.86	-1.06	
	21/8	-0.03	-0.74	-0.86	
	12/9	-	-0.44	-0.76	Ablation 1.10m
Station 25		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	31/7	-0.02	-0.19	-0.39	
	7/8	-0.01	-0.38	-0.41	
	16/8	-0.02	-0.36	-0.38	
	23/8	-0.00	-0.30	-0.34	Ablation 0.60m
Station 26		<u>1m</u>	<u>3m</u>	<u>5m</u>	
	31/9	+0.02	-0.06	-0.00	
	7/8	+0.07	-0.03		
	16/8	-0.00	-0.06	-0.00	
	23/8	+0.07	-0.03	+0.03	Ablation 0.35m

	<u>Depth</u>	<u>1m</u>	<u>3m</u>	<u>5m</u>	<u>Initial Depth</u>
Station 27	<u>Date</u>				
	17/7			-0.04	
	24/7			-0.05	
	31/7			-0.03	
	7/8			+0.01	
Station 5		<u>1.3m</u>		<u>20m</u>	
	21/8	+0.04		-0.22	
Station 13				<u>28m</u>	Thermistor drilled into the side of a moulin.
	18/8			-0.35	
Station 15		<u>1.0m</u>	<u>1.25m</u>	<u>1.5m</u>	<u>1.75m</u>
	31/7	0.00	-0.17	-0.44	-0.72
	5/8	+0.02	-0.02	-0.23	-0.49
	6/8	+0.01	-0.01	-0.22	-0.44
	7/8	+0.01	-0.02	-0.21	-0.42
	7/8	+0.01	-0.04	-0.21	-0.44
	8/8	+0.02	-0.02	-0.21	-0.42
	11/8	+0.02	-0.00	-0.11	-0.30
	13/8	+0.03	-0.01	-0.11	-0.28
	14/8	+0.03	-0.02	-0.22	-0.32
	16/8	+0.02	-0.05	-0.19	-0.33
	18/8	+0.03	-0.00	-0.11	-0.29
	20/8	+0.04	-0.01	-0.05	-0.21
	21/8	+0.08	+0.01	-0.02	-0.17
	23/8	+0.10	+0.04	+0.05	-0.07
	12/9	+0.01	+0.01	-0.01	-0.08
	18/9	-0.50	-0.40	-0.33	-0.33 Ablation 0.92.

Station 15 Cont/...	<u>Depth</u>	<u>2.0m</u>	<u>2.25m</u>	<u>2.5m</u>	<u>3.0m</u>	
	<u>Date</u>					
	31/7	-0.97	-1.22	-1.44	-1.79	
	5/8	-0.72	-0.96	-1.20	-1.58	
	6/8	-0.57	-0.91	-	-1.53	
	7/8	-0.58	-0.88	-1.11	-1.48	
	7/8	-0.59	-0.89	-1.12	-1.48	
	8/8	-0.58	-1.00?	-1.10	-1.46	
	11/8	-0.52	-0.75	-0.99	-1.35	
	13/8	-0.41	-0.69	-0.93	-1.28	
	14/8	-0.41	-0.70	-0.91	-1.24	
	21/8	-0.33	-0.56	-0.78	-1.09	
	12/9	-0.19	-0.34	-0.47	-0.72	
	18/9	-0.50	-0.53	-0.58	-0.75	Ablation 1.07.
		<u>3m</u>	<u>5m</u>	<u>7m</u>	<u>9m</u>	
	31/7	-1.83	-2.50		-2.07	
	6/8	-1.59	-2.41		-2.10	
	7/8	-1.57	-2.43	-2.30?	-2.11	
	7/8	-1.57	-2.42		-2.10	
	8/8	-1.57	-2.32	-2.20?	-2.10	
	13/8	-1.39	-2.24		-2.12	
	14/8	-1.34	-2.09	-2.20?	-2.09	
	21/8	-1.19	-1.45		-2.14	
	12/9	-0.81	-0.76		-2.10	
	18/9	-0.65	-0.63		-2.08	Ablation 0.92.

Station 15	Depth	9m	15m	21m	27m
Cont/...	<u>Date</u>				
	31/7	-1.99	-1.21	-0.62	-0.21
	6/8	-2.03	-1.24	-0.71	-0.32
	7/8	-2.02	-1.26	-0.72	-0.32
	7/8	-2.02	-1.25	-0.71	-0.33
	8/8	-2.03	-1.27	-0.72	-0.34
	13/8	-2.04	-1.28	-0.74	-0.35
	21/8	-2.05	-1.30	-0.75	-0.36
	12/9	-2.01	-1.30	-0.76	-0.37
	18/9	-1.99	-1.30	-0.75	-0.36 Ablation 0.60

Station 15E₁ & E₂

Depth	1m (Black)	2m (White)	1m (White)	2m (Black)
<u>Date</u>				
31/7	+0.05	-0.89	-0.32	-1.19
5/8	+0.17	-0.74	-0.18	-0.94
6/8	+0.07	-0.57	-0.17	-0.94
7/8	+0.01	-0.56	-0.16	-0.91
7/8	+0.04	-0.56	-0.18	-0.88
8/8	+0.02	-0.52	-0.16	-0.84
11/8	+0.08	-0.41	-0.11	-0.72
13/8	+0.27	-0.38	-0.11	-0.66
14/8	+0.11	-0.39	-0.15	-0.67
16/8	+0.05	-0.42	-0.15	-0.66
18/8	+0.15	-0.42	-0.13	-0.64
20/8	+0.20	-0.32	-0.11	-0.57

Cont/...

Station 15E₁ & E₂ Cont/....

Depth	1m (Black)	2m (White)		1m (White)	2m (Black)
<u>Date</u>					
21/8	+0.23	-0.27		-0.10	-0.54
23/8	+0.18	-0.01		-0.05	-0.46
12/9	-0.11	-0.23	Ablation 0.81	-0.25	-0.36 Ablation 0.50

APPENDIX 4.

A note on Statistical Techniques.

In this study Pearson's (Product-Moment) correlation coefficient was used. For the sake of simplicity the variables were assumed to be normal distributed. The correlation coefficient was calculated using the Hewlett-Packard 98 calculator, which also drew a linear regression line through the points.

The Pearson's correlation coefficient was calculated using the equation:

$$r = \frac{XY/n - \bar{x}\bar{y}}{S_x S_y}$$

X and Y = Variables

\bar{x} and \bar{y} = Means of the variables

S_x and S_y = Sample standard of variables

n = Number of variables.

The correlation coefficients were tested for significance, and the level of significance is stated where relevant.