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Eco-hydrology of Pollardstown Fen,

Co. Kildare, Ireland

Volume II of II
Appendices: Tables, Figures and Photographs

Presented in fulfilment
of the requirements for the degree of
Doctor of Philosophy
February 2008

by

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APPENDIX 1

Standpipe Information – Permanent Quadrates

This appendix includes coordinates, elevation and depth data of the standpipes that were installed within 10 Permanent Quadrats in scattered locations around the fen area. The installation was undertaken in 1997 by K.T. Cullen Ltd. (now White Young Green Ltd.) and was performed with a hand auger. No borehole logs are available; however all standpipes are screened in the peat substrate. Coordinates and elevations were surveyed by myself using Trimbe® GPS equipment. Accuracy of this equipment is 0.02 m.

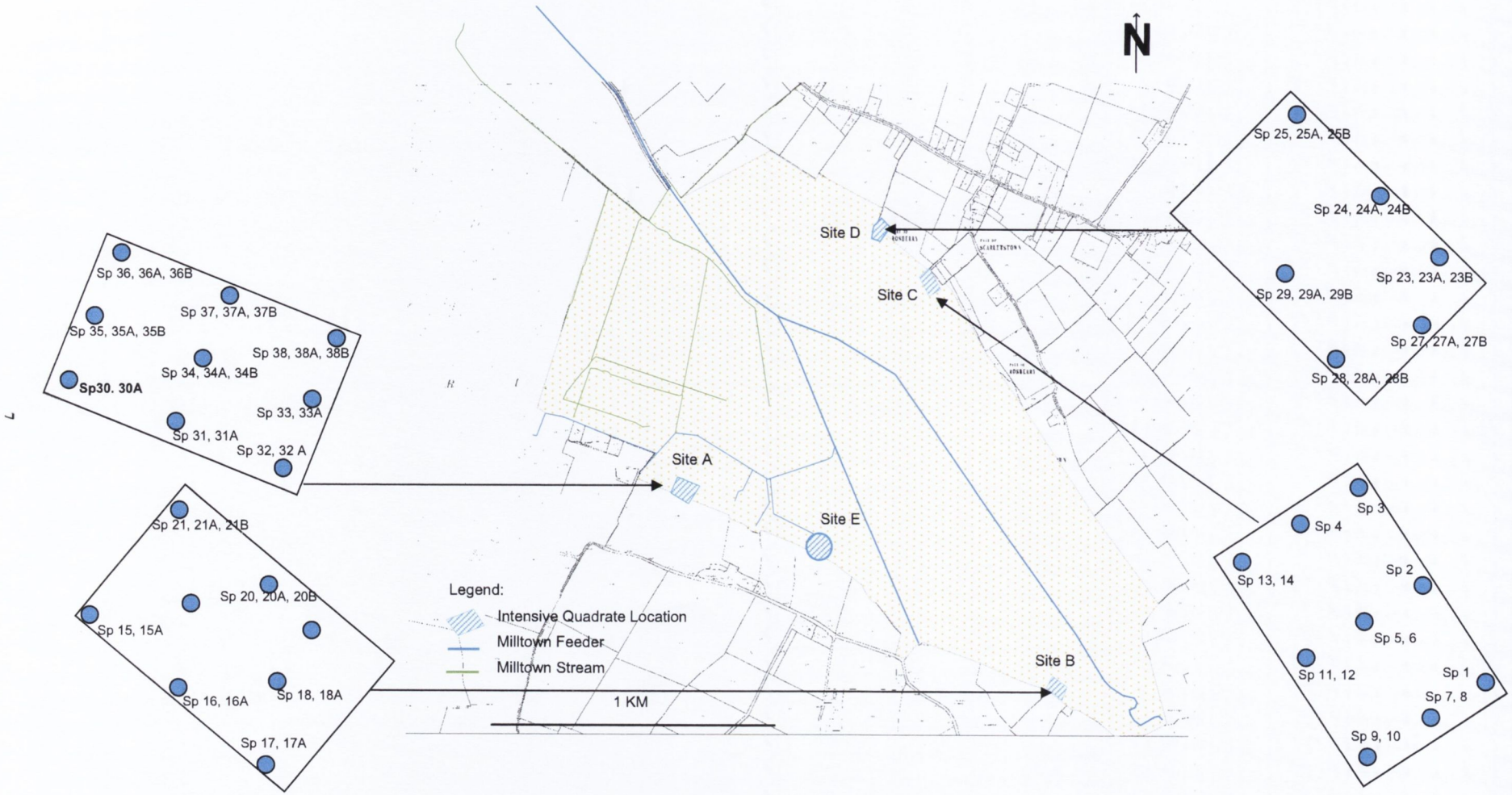
	Standpipe ID	East	North	Ground level m OD Poolbeg	Top of the casing m OD Poolbeg	Depth below GL m
PQ1	S1 Deep	277366,46	215438,18	86,07	86,57	2,0
	S1 Shallow	277366,15	215437,98	86,08	86,2	1,1
PQ2	S2 Deep	277457,3	215843,24	85,44	86,09	2,7
	S2 Shallow	277457,06	215843,79	85,44	85,73	1,6
PQ3	S3 Deep	277635,68	215321,03	86,92	87,71	2,2
	S3 Shallow	277635,53	215321,47	86,86	86,99	1,1
PQ4	S4 Deep	277859,00	215284,00	86,63	87,67	3,1
	S4 Shallow	277859,00	215284,00	86,41	86,54	1,2
PQ5	S5 Deep	277096,18	216779,49	85,70	86,64	3,1
	S5 Shallow	277096,32	216779,12	85,75	85,92	1,2
PQ6	S6 Deep	277307,75	216530,85	85,72	86,15	3,1
	S6 Shallow	277308,01	216531,16	85,66	85,79	1,1
PQ7	S7 Deep	276967,97	215891,42	85,85	86,96	3,1
	S7 Shallow	276968,08	215891,11	85,89	85,96	1,1
PQ8	S8 Deep	276800,66	216086,66	85,01	85,95	3,1
	S8 Shallow	276800,34	216087,08	84,97	85,10	1,2
PQ9	S9 Deep	277037,04	215703,05	86,63	87,19	2,4
	S9 Shallow	277036,6	215703,28	86,62	86,80	1,2
PQ10	S10 Shallow	276426,71	215904,5	88,55	88,79	0,9



APPENDIX 2

Standpipe Information – Intensive Quadrates

This appendix includes coordinates, elevation and depth data of the standpipes that were installed within Intensive Quadrats A, B, C, and D, located at the fen's margins. The installation was carried out in 2000-2001 and was supervised by K.T. Cullen Ltd. (now White Young Green Ltd.). Coordinates and elevations were surveyed by myself using Trimbe® GPS equipment.


N
Site D
Site C
Site A
Site E
Site B
Sp 25, 25A, 25B
Sp 24, 24A, 24B
Sp 23, 23A, 23B
Sp 29, 29A, 29B
Sp 27, 27A, 27B
Sp 28, 28A, 28B
Sp 36, 36A, 36B
Sp 37, 37A, 37B
Sp 35, 35A, 35B
Sp 38, 38A, 38B
Sp 34, 34A, 34B
Sp30. 30A
Sp 33, 33A
Sp 31, 31A
Sp 32, 32 A
Sp 21, 21A, 21B
Sp 20, 20A, 20B
Sp 15, 15A
Sp 16, 16A
Sp 18, 18A
Sp 17, 17A
Sp 3
Sp 4
Sp 2
Sp 13, 14
Sp 5, 6
Sp 11, 12
Sp 1
Sp 7, 8
Sp 9, 10
Legend:
Intensive Quadrate Location
Milltown Feeder
Milltown Stream
1 KM

IQ	Standpipe ID*	East	North	Ground level m OD Poolbeg	Top of the casing m OD Poolbeg	Top of the casing from 26/06/2003 m OD Poolbeg	Depth below GL m
A	30	276391,51	215910,40	89,23	89,83		7,00
	30A	276391,99	215910,86	89,21	89,72		3,00
	31	276423,62	215894,71	89,08	89,53		7,00
	31A	276423,20	215894,79	89,04	89,69		2,00
	32	276449,98	215878,41	89,28	89,71		5,00
	32A	276449,98	215878,41	89,32	89,32		2,00
	33	276470,91	215906,65	88,16	89,20		8,00
	33A	276471,82	215906,09	88,18	88,55		4,00
	34	276433,82	215925,60	88,03	89,10		6,00
	34A	276432,58	215926,16	88,02	88,46		3,00
	34B	276434,30	215925,31	87,99	88,72		1,00
	35	276402,97	215934,97	87,99	89,17		9,00
	35A	276402,44	215934,18	88,07	88,48		3,00
	35B	276403,38	215934,34	88,06	88,71		1,00
	36	276412,73	215958,44	87,42	89,52	87,70	8,00
	36A	276412,14	215957,99	87,40	87,81		4,00
	36B	276412,03	215957,29	87,44	87,99		1,00
	37	276440,56	215946,19	87,10	89,10	87,35	7,00
	37A	276441,47	215945,83	86,99	87,11		4,50
	37B	276441,58	215945,39	87,07	87,47		1,00
	38	276489,73	215932,49	87,35	88,32		8,00
	38A	276471,80	215906,68		88,24	87,61	4,00
	38B	276490,18	215932,59	87,36	88,35		1,00
B	15	277732,41	215247,32	88,76	88,97		6,00
	15A	277732,41	215247,32				2,00
	16	277753,02	215238,06	88,57	89,17		5,00
	16A	277752,76	215237,66	88,63	88,90		2,00
	17	277779,47	215221,61	88,64	89,49		5,00
	17A	277779,31	215222,18	88,63	88,77		2,00
	18	277774,83	215245,89	87,22	88,63		5,00
	18A	277775,30	215245,49	87,21	88,34		2,00
	19	277752,16	215261,23	86,79	87,76		4,00
	19A	277751,05	215264,83	86,50	86,96		2,00
	20	277767,71	215283,28	86,42	87,91		7,00
	20A	277767,38	215282,71	86,36	87,27		3,00
	20B	277767,20	215283,25	86,44	87,39		1,00
	21	277788,56	215273,82	86,41	87,58		8,00
	21A	277788,68	215274,38	86,38	86,86		3,00
	21B	277788,66	215273,97	86,08	86,70		1,00
	22	277749,90	215294,93	86,71	88,38		8,50
	22A	277749,90	215294,93	86,88	87,41		3,50
	22B	277749,77	215294,09	86,81	87,31		1,50
C	1	277374,38	216645,13	87,22	88,77	87,65	7,00
	2	277364,05	216666,80	87,48	89,27	88,17	7,00
	3			87,85	89,33		8,00
	4	277320,75	216655,11	85,93	87,76		7,00
	5	277340,70	216634,54	85,94	87,35		5,00
	6	277341,07	216634,07	85,95	86,47		2,00
	7	277358,91	216617,41	86,13	88,04		7,00
	8	277358,91	216617,82	86,06	86,67		2,00

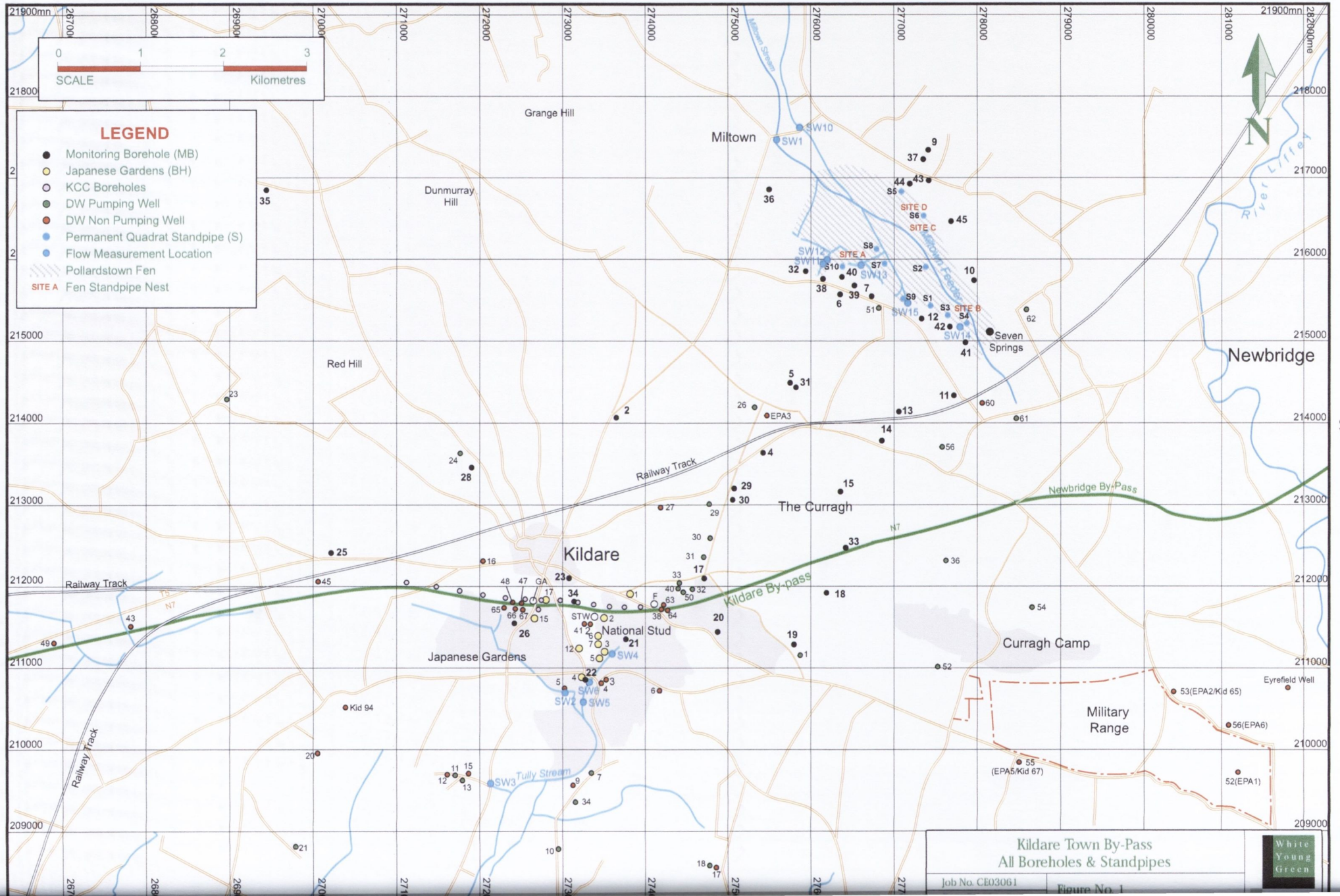
	9	277314,47	216584,81	85,73	86,39		8,00
	10	277314,43	216585,31	85,75	86,04		5,00
	11	277301,42	216612,94	85,72	86,45		5,00
	12	277300,66	216612,64	85,73	86,31		4,00
	13	277286,48	216639,96	85,66	85,87		5,00
	14	277285,95	216640,66	85,71	86,23		4,00
D	23	277164,97	216805,54	86,68	87,82	87,41	9,00
	23A	277164,97	216806,13	86,62	86,78		3,00
	23B	277164,56	216805,87	86,67	87,29		1,00
	24	277152,08	216814,36	86,72	87,05	87,37	9,00
	24A	277151,59	216814,73	86,71	87,26		3,00
	24B	277151,96	216814,88	86,73	87,57		1,00
	25	277131,16	216827,42	86,79	87,91		9,00
	25A	277131,39	216827,86	86,77	87,09		3,00
	25B	277131,70	216827,75	86,82	87,52		1,00
	27	277159,67	216772,23	85,83	86,57	86,78	11,00
	27A	277160,14	216772,43	85,71	86,44		3,00
	27B	277160,08	216771,90	85,75	86,28		1,00
	28	277142,19	216764,08	85,67	85,71	86,71	11,00
	28A	277142,23	216764,38	85,63	86,51	87.51	3,00
	28B	277141,78	216763,88	85,66	86,03		1,00
	29	277119,05	216784,65	85,61	86,12	86,47	11,00
	29A	277118,02	216785,07	86,17	86,68		3,00
	29B	277117,96	216784,76	86,19	86,50		1,00

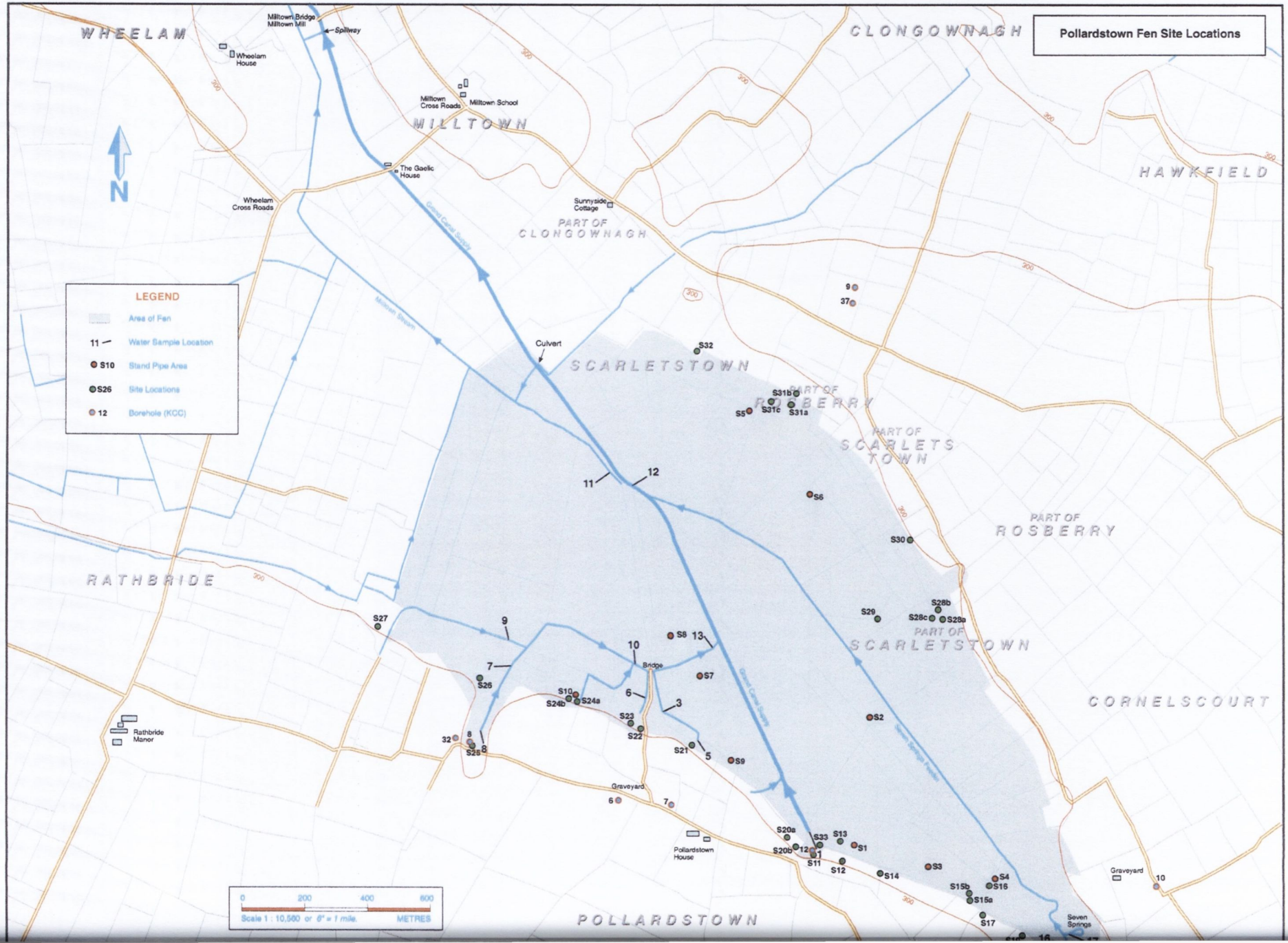
** A refers to middle, B refers to shallow*

APPENDIX 3

Monitoring Borehole Location Maps

This appendix presents two maps of borehole locations around the Curragh region and the Pollardstown fen. These maps were produced by White Young Green Ltd. and are presented with their permission.


SCALE
0 1 2 3
Kilometres
LEGEND
Monitoring Borehole (MB)
Japanese Gardens (BH)
KCC Boreholes
DW Pumping Well
DW Non Pumping Well
Permanent Quadrat Standpipe (S)
Flow Measurement Location
Pollardstown Fen
SITE A Fen Standpipe Nest
N
Grange Hill
Miltown
Dunmurray Hill
Red Hill
Seven Springs
Newbridge
The Curragh
Kildare
National Stud
Japanese Gardens
Curragh Camp
Military Range
Railway Track
Newbridge By-Pass
Kildare By-pass
N7
Miltown Stream
River Liffey
Pollardstown Fen
Tully Stream
Eyrefield Well
SITE A
SITE B
SITE C
SITE D
EPA3
Kid 94
53(EPA2/Kid 65)
56(EPA6)
55 (EPA5/Kid 67)
52(EPA1)
Kildare Town By-Pass
All Boreholes & Standpipes
Job No. CE03061
Figure No. 1
White Young Green


Pollardstown Fen Site Locations
WHEELAM
CLONGOWNAGH
HAWKFIELD
MILLTOWN
SCARLETSTOWN
PART OF CLONGOWNAGH
PART OF ROSBERRY
PART OF SCARLETSTOWN
RATHBRIDE
CORNELSCOURT
POLLARDSTOWN
Milltown Bridge
Milltown Mill
Spillway
Wheelam House
Milltown Cross Roads
Milltown School
The Gaelic House
Wheelam Cross Roads
Sunnyside Cottage
Culvert
Bridge
Graveyard
Rathbride Manor
Pollardstown House
Seven Springs
LEGEND
Area of Fen
Water Sample Location
Stand Pipe Area
Site Locations
Borehole (KCC)
N
0 200 400 600
Scale 1 : 10,500 or 6" = 1 mile.
METRES

APPENDIX 4

Monitoring Borehole Information

This appendix includes coordinates, elevation and depth data of all the monitoring boreholes that were installed within the Curragh aquifer. Drilling was carried out in 1998 and was supervised by K.T. Cullen Ltd. (now White Young Green Ltd.). These data were supplied by WYG Ltd. Only these boreholes that are highlighted were surveyed by myself, using Trimble® GPS equipment.

Seven boreholes were used for analyses in this thesis. This includes boreholes: MB5, MB6, MB7, MB17, MB29, MB30, and MB3. Borehole logs for these boreholes are provided in here.

Well number	Easting	Northing	Elevation m OD Poolbeg	Comments
1	271930	213313	110,98	
2	273616	214051	109,27	3 Piezometers installed at depths: Piezo 1 (15-21m), Piezo 2 (27-33m), Piezo 3 (41-47m)
3	275033	213036	100,04	Backfield
4	275498	213751	104,76	Screen (14-18m)
5	275801	214565	110,06	Screen (17-22 m)
6	276667	215578	105,78	Screen (16,5-20,5)
7	276810	215540	107,56	3 Piezometers installed at depths: Piezo 1 (22-25m), Piezo 2 (42-45m), Piezo 3 (58-61m)
8	276152	215742	89,82	Buried
9	277442	217163	91,67	Scrren (6-21)
10	278366	215282	97,11	Blocked with stones
11	277825	214464	109,30	Buried
12	277263	215397	88,00	Artesian
13	277166	214160	114,65	Dry
14	276960	213834	113,75	3 Piezometers installed at depths: Piezo 1 (11,5-12,5m), Piezo 2 (29-35m), Piezo 3 (42-48m)
15	276419	216240	107,86	Screen (16,6-20,6)
16	276483	212594	107,28	Backfield
17	274779	212226	99,86	Screen (9-15m)
18	276556	211940	116,00	Screen (24-30m)
19	275889	211391	100,89	2 Piezometers installed; Piezo 1 (18,5-24m), Piezon 2 (42-48 m)
20	274844	211547	95,25	Gone due to construction
21	273745	211366	91,24	Screen (9-15m)
22	273434	210903	87,56	Artesian
23	273088	212054	93,11	Screen (18,8-24,8 m)
24	271951	212321	95,71	Ploughed up
25	270488	212383	100,46	Dry
26	272509	211564	91,02	Screen (9,5-12,5 m), Covered
27				Screen (11,7-14,7)
28	271930	213314	110,98	Screen (17-23 m)
29	275043	213065	99,84	Screen (9,3-13,3)
30	275041	213189	99,96	Screen (12-24 m)
31	275770	214565	110,37	Screen (20-30 m)
32	276103	215752	90,04	Screen (20-30 m)
33	276482	212594	107,28	Screen (17-23 m)
34	273212	211842	92,17	3 Piezometers installed at depths: Piezo 1 (6m), Piezo 2 (22m), Piezo 3 (48m), Gone due to construction
35	269790	216732	97,40	Screen (18-24 m)
36	275469	216581	84,85	Screen (4,5-10,5)
37	277433	217126	91,70	Screen (14,2-18,2)
38	276373	215671	98,53	Fen south
39	276463	215756	96,96	Fen south
40			93,12	Fen south
41	277580	214928		Fen south
42	277655	215177	95,60	Fen south
43	277307	217059	93,28	Fen north
44	277192	216994	92,25	Fen north
45	277455	216785	91,95	Fen north
BH1	273677	211917	97,66	Japanese Garden Borehole
BH2	273734	211546	91,87	Japanese Garden Borehole
BH3	273680	211192	91,98	Japanese Garden Borehole
BH4	273348	211040	90,71	Japanese Garden Borehole

Well number	Easting	Northing	Elevation m OD Poolbeg	Comments
BH5	273871	211207	92,72	Japanese Garden Borehole
BH6	273616	211444	89,05	Japanese Garden Borehole

Highlighted are standpipes used in the analysis.

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 5
ng Method: ight Cable Percussion Boring.	Dates: 23/06/98 - 26/06/98	Client: KILDARE COUNTY COUNCIL	Sheet: 1/3
e Diameters: 00mm Cased to 22.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
SOIL	(0.30) 0.30			0.30	B			
se grey brown silty fine to coarse sandy fine to rse subrounded GRAVEL	(0.70) 1.00			1.00	B			
se to medium dense grey and grey brown fine to rse sandy fine to coarse subrounded GRAVEL	(2.40) 3.40			3.40	B			
y dense grey and grey brown slightly silty fine to rse sandy fine to coarse subrounded GRAVEL (THIS GRAVEL IS CONGLOMERATED)	(6.60) 10.00			4.00	B			

arks

talled 50mm standpipe to 22.0m slotted from 22.0m to 17.0m.
in from 17.0m to 0.0m, bentonite seal from 1.5m to 0.0m.
sh cover fitted.
selling from 3.40m to 5.20m for 3 hours. ,Chiselling from 5.20m to 8.80m
4 hours.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale: 1:50	Logged By: DC
Figure No.: 3029.5	
Borehole Number: 5	

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	5

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	23/06/98 - 26/06/98	KILDARE COUNTY COUNCIL	2/3

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 22.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
Very dense grey and grey brown slightly silty fine to coarse sandy fine to coarse subrounded GRAVEL	(2.40)							
(THIS GRAVEL IS CONGLOMERATED)								
Stiff brown friable fine sandy silty CLAY containing a little gravel with occasional cobbles and boulders	12.40 (1.00)			12.40	B			
Dense grey and grey brown slightly silty fine to coarse sandy fine to coarse subrounded GRAVEL containing occasional cobbles and boulders	13.40 (6.60)			13.40	B			
				17.30	B			
	20.00							

Remarks

Installed 50mm standpipe to 22.0m slotted from 22.0m to 17.0m. Plain from 17.0m to 0.0m, bentonite seal from 1.5m to 0.0m. Flush cover fitted.
Chiselling from 12.20m to 8.80m for 4 hours. Chiselling from 13.20m to 13.40m for 1.5 hours. Chiselling from 13.40m to 17.00m for 2 hours.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.5

Borehole Number 5

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 5
ing Method: Light Cable Percussion Boring.	Dates: 23/06/98 - 26/06/98	Client: KILDARE COUNTY COUNCIL	Sheet: 3/3
e Diameters: 200mm Cased to 22.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD):

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
nse grey and grey brown slightly silty fine to arse sandy fine to coarse subrounded GRAVEL ntaining occasional cobbles and boulders	(2.00)							
	22.00							26/06/98
END OF BOREHOLE AT 22.0m								

arks
talled 50mm standpipe to 22.0m slotted from 22.0m to 17.0m.
in from 17.0m to 0.0m, bentonite seal from 1.5m to 0.0m.
sh cover fitted.

SAMPLE / TEST KEY
- J Disturbed Sample
- B Bulk Sample
- U Undisturbed Core Sample
- P Piston Sample
- V Field Vane Test
- W Water Sample
- SPT Standard Penetration Test
- CPT Cone Penetration Test
- ( ) Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.5

Borehole Number 5

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	6

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	28/05/98 - 01/06/98	KILDARE COUNTY COUNCIL	1/3

Hole Diameters	Location	Engineer	Ground Level (m
200mm Cased to 20.50m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progre
TOPSOIL	(0.20) 0.20							
Medium dense brown silty fine to coarse sandy fine to coarse subrounded GRAVEL containing occasional cobbles				1.00	B			
				2.00	B			
				5.00	B			
	(9.80)							
	10.00							

Remarks

Installed 50mm standpipe to 20.5m slotted from 20.5m to 16.5m with gravel pack.
Plain from 16.5m to 0.0m, bentonite seal from 1.5m to 0.0m.
Flush cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged
1:50	DC

Figure No. 3029.6

Borehole Number 6

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 6
ing Method: Light Cable Percussion Boring.	Dates: 28/05/98 - 01/06/98	Client: KILDARE COUNTY COUNCIL	Sheet: 2/3
e Diameters: 200mm Cased to 20.50m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD):

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
dium dense brown silty fine to coarse sandy fine to arse subrounded GRAVEL containing occasional obles	(0.90)							
ry dark grey brown and brown slightly silty fine to arse sandy fine to coarse GRAVEL (THIS GRAVEL IS CONGLOMERATED)	10.90			11.90	B			
	(5.50)							
ium dense grey brown and brown silty fine to rse sandy fine to coarse GRAVEL	16.40 (0.50)			16.40	B			
ff friable brown fine sandy silty CLAY containing ittle gravel with occasional cobbles and boulders	16.90 (0.90)			16.90	B			
ium dense to dense brown and grey brown slightly ty fine to coarse sandy fine to coarse GRAVEL	17.80 (2.20)			17.80	B			
	20.00							

arks

talled 50mm standpipe to 20.5m slotted from 20.5m to 16.5m with gravel
k.
in from 16.5m to 0.0m, bentonite seal from 1.5m to 0.0m.
sh cover fitted.
selling from 11.90m to 16.40m for 4 hours. Chiselling from 19.90m to
50m for 1 hour.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.6

Borehole Number 6

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	6

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	26/05/98 - 01/06/98	KILDARE COUNTY COUNCIL	3/3

Hole Diameters	Location	Engineer	Ground Level (m
200mm Cased to 20.50m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progre
BOULDER	(0.50)							
	20.50							01/06/
END OF BOREHOLE AT 20.5m								

Remarks

stalled 50mm standpipe to 20.5m slotted from 20.5m to 16.5m with gravel
ck.
lain from 16.5m to 0.0m, bentonite seal from 1.5m to 0.0m.
Flush cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged
1:50	DC

Figure No. 3029.6

Borehole Number 6

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 7
ing Method: Light Cable Percussion Boring.	Dates: 11/08/98 - 17/08/98	Client: KILDARE COUNTY COUNCIL	Sheet: 1/7
e Diameters: 200mm Cased to 61.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
PSOIL	(0.20) 0.20							
rm brown sandy silty CLAY	(0.40) 0.60							
dium dense brown sandy silty fine to coarse sandy he to coarse subrounded GRAVEL	(9.40)							
	10.00							

arks
m nested piezometers installed.
tom piezometer response zone 61.0 to 58.0m.
dle piezometer response zone 45.0 to 42.0m.
piezometer response zone 25.0 to 22.0m.
sh lockable cover fitted.

SAMPLE / TEST KEY
- J Disturbed Sample
- B Bulk Sample
- U Undisturbed Core Sample
- P Piston Sample
- V Field Vane Test
- W Water Sample
- SPT Standard Penetration Test
- CPT Cone Penetration Test
- ( ) Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.7

Borehole Number 7

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	7

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	11/08/98 - 17/08/98	KILDARE COUNTY COUNCIL	2/7

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 61.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level *	Daily Progress
Medium dense brown sandy silty fine to coarse sandy fine to coarse subrounded GRAVEL	(4.70)							
	14.70							
ense grey gravelly SILT	(1.60)			14.90	B			
	16.30			16.30	B			
dium dense brown sandy silty fine to coarse sandy ine to coarse subrounded GRAVEL	(3.70)			16.40	B			
				19.60	B		* Water struck.	
	20.00							

Remarks

0mm nested piezometers installed.
ttom piezometer response zone 61.0 to 58.0m.
iddle piezometer response zone 45.0 to 42.0m.
op piezometer response zone 25.0 to 22.0m.
lush lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.7

Borehole Number 7

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 7
ing Method: Light Cable Percussion Boring.	Dates: 11/08/98 - 17/08/98	Client: KILDARE COUNTY COUNCIL	Sheet: 3/7
e Diameters: 200mm Cased to 61.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
dium dense brown sandy silty fine to coarse sandy ne to coarse subrounded GRAVEL	(10.00)			23.90	B			
	30.00							

Remarks
- nested piezometers installed.
- om piezometer response zone 61.0 to 58.0m.
- le piezometer response zone 45.0 to 42.0m.
- piezometer response zone 25.0 to 22.0m.
- h lockable cover fitted.

SAMPLE / TEST KEY
- J Disturbed Sample
- B Bulk Sample
- U Undisturbed Core Sample
- P Piston Sample
- V Field Vane Test
- W Water Sample
- SPT Standard Penetration Test
- CPT Cone Penetration Test
- ( ) Penetration < 300mm

Scale: 1:50 | Logged By: DC

Figure No.: 3029.7

Borehole Number: 7

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	7

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	11/08/98 - 17/08/98	KILDARE COUNTY COUNCIL	4/7

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 61.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
Dense brown silty fine to coarse sandy fine to coarse subrounded GRAVEL	(9.50)							
Stiff brown friable fine sandy silty CLAY containing a little gravel and occasional cobbles and boulders	39.50 (0.50) 40.00							

Remarks

200mm nested piezometers installed.
Bottom piezometer response zone 61.0 to 58.0m.
Middle piezometer response zone 45.0 to 42.0m.
Top piezometer response zone 25.0 to 22.0m.
Flush lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.7

Borehole Number 7

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 7
ng Method: ight Cable Percussion Boring.	Dates: 11/08/98 - 17/08/98	Client: KILDARE COUNTY COUNCIL	Sheet: 5/7
Diameters: 00mm Cased to 61.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
ff brown friable fine sandy silty CLAY containing ittle gravel with occasional cobbles and boulders	(2.00) 42.00							
se brown slightly silty fine to coarse sandy fine coarse subrounded GRAVEL	(8.00) 50.00							

arks
m nested piezometers installed.
tom piezometer response zone 61.0 to 58.0m.
dle piezometer response zone 45.0 to 42.0m.
piezometer response zone 25.0 to 22.0m.
sm lockable cover fitted.

SAMPLE / TEST KEY
- J Disturbed Sample
- B Bulk Sample
- U Undisturbed Core Sample
- P Piston Sample
- V Field Vane Test
- W Water Sample
- SPT Standard Penetration Test
- CPT Cone Penetration Test
- ( ) Penetration < 300mm

Scale: 1:50 | Logged By: DC
Figure No.: 3029.7
Borehole Number: 7

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	7

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	11/08/98 - 17/08/98	KILDARE COUNTY COUNCIL	6/7

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 61.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
ense brown slightly silty fine to coarse sandy fine o coarse subrounded GRAVEL	(1.00)							
	51.00							
oderately strong grey fine grained CARBONIFEROUS IMESTONE	(9.00)							
	60.00							

emarks

mm nested piezometers installed.
tom piezometer response zone 61.0 to 58.0m.
ddle piezometer response zone 45.0 to 42.0m.
p piezometer response zone 25.0 to 22.0m.
ush lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.7

Borehole Number 7

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 7
g Method: ight Cable Percussion Boring.	Dates: 11/08/98 - 17/08/98	Client: KILDARE COUNTY COUNCIL	Sheet: 7/7
Diameters: 0mm Cased to 61.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
erately strong grey fine grained CARBONIFEROUS STONE	(61.00)							17/08/98
ND OF BOREHOLE 61.0m.	61.00							

rks
nested piezometers installed.
om piezometer response zone 61.0 to 58.0m.
le piezometer response zone 45.0 to 42.0m.
piezometer response zone 25.0 to 22.0m.
lockable cover fitted.

SAMPLE / TEST KEY
J Disturbed Sample
B Bulk Sample
U Undisturbed Core Sample
P Piston Sample
V Field Vane Test
W Water Sample
SPT Standard Penetration Test
CPT Cone Penetration Test
( ) Penetration < 300mm

Scale: 1:50 | Logged By: DC
Figure No.: 3029.7
Borehole Number: 7

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	17

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	03/08/98 - 04/08/98	KILDARE COUNTY COUNCIL	1/2

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 15.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
TOPSOIL	(0.50)							
	0.50			0.50	B			
Firm brown sandy silty CLAY	(0.40)							
	0.90			0.90	B			
Stiff brown sandy silty gravelly CLAY containing cobbles and boulders				2.70	B			
	(7.00)							
	7.90			8.00	B		* Water struck.	
Medium dense brown silty fine to coarse sandy fine to subrounded GRAVEL	(2.10)							
....becoming dense and conglomerated from 9.4m.				9.40	B			
	10.00							

Remarks

150mm slotted screen and sock installed 9.0m to 15.0m.
Bentonite seal 8.0m to 9.0m.
150mm plain pipe to ground level.
Flush cover and adjustable cap installed.
Chiselling from 2.70m to 7.00m for 1.5 hours. Chiselling from 9.40m to 14.20m for 2 hours.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.17

Borehole Number 17

Glover Site Investigations Ltd

ng Method ight Cable Percussion Boring.	Dates 03/08/98 - 04/08/98	Site KILDARE BYPASS - MONITOR WELLS	Borehole Number 17
		Client KILDARE COUNTY COUNCIL	Sheet 2/2
Diameters 00mm Cased to 15.00m	Location AS PLAN	Engineer K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
dium dense brown silty fine to coarse sandy fine to arse subrounded GRAVEL	(5.00)			14.20	B			
	15.00							04/08/98
ND OF BOREHOLE 15.0m.								

arks
mm slotted screen and sock installed 9.0m to 15.0m.
tonite seal 8.0m to 9.0m.
mm plain pipe to ground level.
sh cover and adjustable cap installed.

SAMPLE / TEST KEY
- J Disturbed Sample
- B Bulk Sample
- U Undisturbed Core Sample
- P Piston Sample
- V Field Vane Test
- W Water Sample
- SPT Standard Penetration Test
- CPT Cone Penetration Test
- ( ) Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No.
3029.17

Borehole Number 17

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 29
Boring Method: Light Cable Percussion Boring.	Dates: 26/05/98 - 01/06/98	Client: KILDARE COUNTY COUNCIL	Sheet: 1/2
Hole Diameters: 200mm Cased to 13.30m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD):

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
TOPSOIL	(0.40)							
	0.40							
Firm brown friable fine sandy silty CLAY containing a little gravel with occasional cobbles and boulders	(1.30)							
	1.70							
Very dense grey brown and brown slightly silty fine to coarse sandy fine to coarse subrounded GRAVEL containing occasional cobbles and boulders								
(THIS MATERIAL IS CONGLOMERATED)	(8.30)							
	10.00							

Remarks

Installed 50mm standpipe to 13.3m.
Slotted from 13.3m to 9.3m.
Plain from 9.3 to 0.0m.
Sand from 8.0 to 7.0m.
Installed flush cover.
Bailing from 1.80m to 6.00m for 5 hours.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale: 1:50	Logged By: DC
Figure No.: 3029.3A	
Borehole Number: 29	

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	29

Method	Dates	Client	Sheet
t Cable Percussion Boring.	26/05/98 - 01/06/98	KILDARE COUNTY COUNCIL	2/2

meters	Location	Engineer	Ground Level (mOD)
m Cased to 13.30m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
lense grey brown and brown slightly silty fine rse sandy fine to coarse subrounded GRAVEL ning occasional cobbles and boulders								
	(3.30)							
S MATERIAL IS CONGLOMERATED)								
	13.30							
OF BOREHOLE 13.3m.							dry:01/06/98	

led 50mm standpipe to 13.3m.
d from 13.3m to 9.3m.
from 9.3 to 0.0m.
rom 8.0 to 7.0m.
led flush cover.
ling from 12.00m to 13.30m for 4 hours.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.3A

Borehole Number 29

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	30

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	26/08/98 - 26/08/98	KILDARE COUNTY COUNCIL	1/3

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 24.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level *	Daily Progress
TOPSOIL	(0.50) 0.50							
Firm brown silty CLAY containing a trace of sand and a little fine to coarse gravel	(1.00) 1.50							
Medium dense grey brown and brown fine to coarse sandy fine to coarse subrounded GRAVEL	(8.50) 10.00						* Water struck.	

Remarks

Installed 100mm standpipe to 24.0m.
Slotted from 24.0 to 12.0m with gravel pack.
Drain from 12.0 to 0.0m.
Bentonite seal from 4.0 to 0.0m.
Flush lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.3 B

Borehole Number 30

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	30

Method	Dates	Client	Sheet
t Cable Percussion Boring.	26/08/98 - 26/08/98	KILDARE COUNTY COUNCIL	2/3

meters	Location	Engineer	Ground Level (mOD)
m Cased to 24.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
dense to dense grey brown and brown fine to sandy fine to coarse subrounded GRAVEL	(9.50)							
ely strong grey fine grained CARBONIFEROUS ONE	19.50 (0.50) 20.00							

ed 100mm standpipe to 24.0m.
from 24.0 to 12.0m with gravel pack.
From 12.0 to 0.0m.
te seal from 4.0 to 0.0m.
ockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.3 B

Borehole Number 30

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	30

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	26/08/98 - 26/08/98	KILDARE COUNTY COUNCIL	3/3

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 24.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
Moderately strong grey fine grained CARBONIFEROUS LIMESTONE	(4.00)							
	24.00							26/08/98
END OF BOREHOLE 24.0m.								

Remarks

Installed 100mm standpipe to 24.0m.
Slotted from 24.0 to 12.0m with gravel pack.
Plain from 12.0 to 0.0m.
Bentonite seal from 4.0 to 0.0m.
Flush lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.3 B

Borehole Number 30

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 31
Method: ght Cable Percussion Boring.	Dates: 10/08/98 - 18/08/98	Client: KILDARE COUNTY COUNCIL	Sheet: 1/3
iameters: mm Cased to 30.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD)

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Sample	Test	Water Level	Daily Progress
IL	(0.50)							
	0.50							
brown silty sandy gravelly CLAY containing es and boulders				0.90	B			
	(1.30)							
	1.80			1.80	B			
dense brown silty sandy GRAVEL containing es (conglomerated)								
	(8.20)							
	10.00							

lled 100mm standpipe to 30.0m.
ed from 30..0 to 20.0m with gravel pack.
from 20.0 to 0.0m.
nite seal from 1.0 to 0.0m.
lockable cover fitted.
lling from 1.80m to 3.00m for 1 hour. Chiselling from 3.00m to 12.00m hours.

SAMPLE / TEST KEY
- J Disturbed Sample
- B Bulk Sample
- U Undisturbed Core Sample
- P Piston Sample
- V Field Vane Test
- W Water Sample
- SPT Standard Penetration Test
- CPT Cone Penetration Test
- ( ) Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.5N

Borehole Number 31

Glover Site Investigations Ltd

Site	Borehole Number
KILDARE BYPASS - MONITOR WELLS	31

Boring Method	Dates	Client	Sheet
Light Cable Percussion Boring.	10/08/98 - 18/08/98	KILDARE COUNTY COUNCIL	2/3

Hole Diameters	Location	Engineer	Ground Level (mOD)
200mm Cased to 30.00m	AS PLAN	K.T. CULLEN & Co.	

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
Very dense grey and grey brown slightly silty fine to coarse sandy fine to coarse subrounded GRAVEL	(1.90)							
Stiff brown friable fine sandy silty CLAY containing a little gravel with occasional cobbles and boulders	11.90 (2.30)							
Dense grey and grey brown slightly silty fine to coarse sandy fine to coarse subrounded GRAVEL containing occasional cobbles and boulders	14.20 (5.80)							
	20.00							

Remarks

Installed 100mm standpipe to 30.0m.
Slotted from 30.0 to 20.0m with gravel pack.
Plain from 20.0 to 0.0m.
Bentonite seal from 1.0 to 0.0m.
Flush lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.5N

Borehole Number 31

Glover Site Investigations Ltd

Site: KILDARE BYPASS - MONITOR WELLS			Borehole Number: 31
Method: ght Cable Percussion Boring.	Dates: 10/08/98 - 18/08/98	Client: KILDARE COUNTY COUNCIL	Sheet: 3/3
iameters: mm Cased to 30.00m	Location: AS PLAN	Engineer: K.T. CULLEN & Co.	Ground Level (mOD):

Description	Depth m (Thickness)	Legend	Level (mOD)	Samples / Tests: Depth (m)	Samples / Tests: Sample	Samples / Tests: Test	Water Level	Daily Progress
grey and grey brown slightly silty fine to e sandy fine to coarse subrounded GRAVEL lining occasional cobbles and boulders	(10.00)							
OF BOREHOLE 30.0m.	30.00							18/08/98

lled 100mm standpipe to 30.0m.
d from 30.0 to 20.0m with gravel pack.
from 20.0 to 0.0m.
ite seal from 1.0 to 0.0m.
lockable cover fitted.

SAMPLE / TEST KEY

J	Disturbed Sample
B	Bulk Sample
U	Undisturbed Core Sample
P	Piston Sample
V	Field Vane Test
W	Water Sample
SPT	Standard Penetration Test
CPT	Cone Penetration Test
( )	Penetration < 300mm

Scale	Logged By
1:50	DC

Figure No. 3029.5N

Borehole Number 31

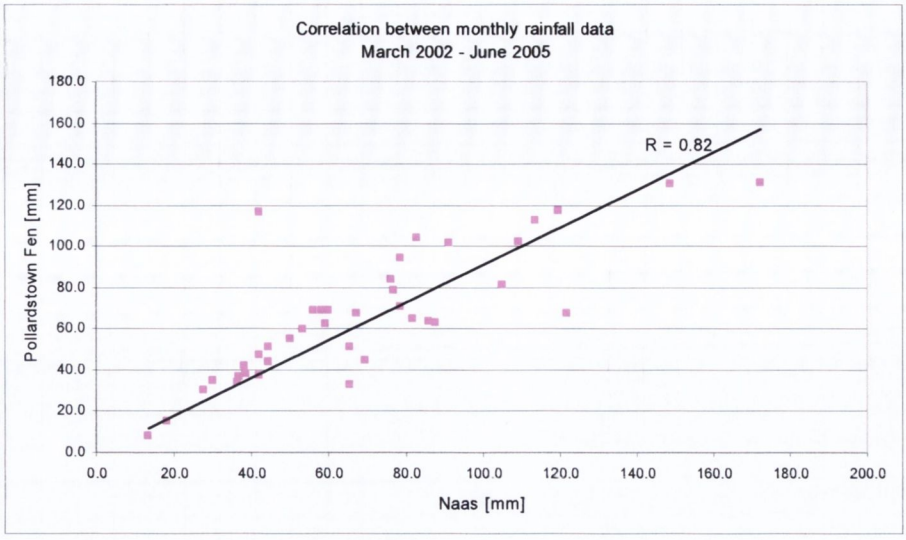
APPENDIX 5

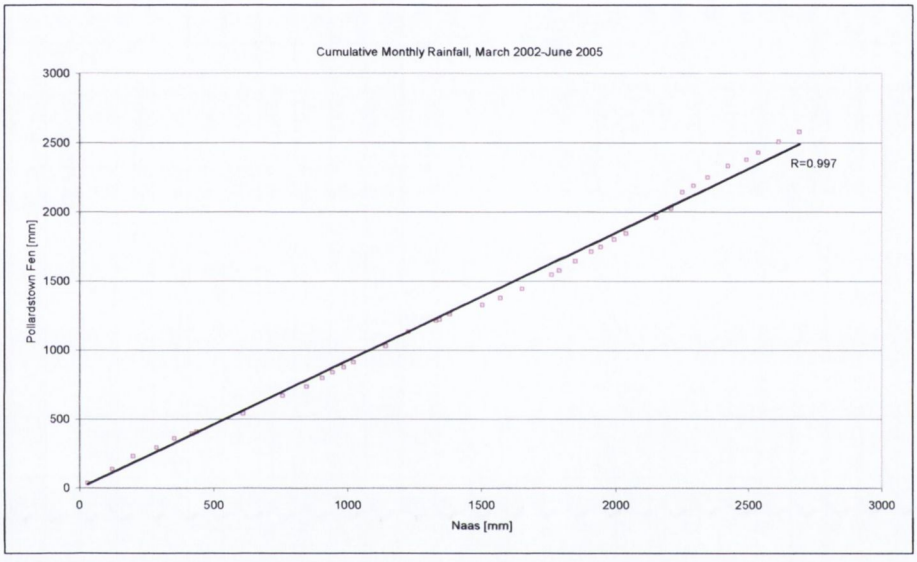
Comparison of Rainfall data between Pollardstown Fen, Naas and Casement

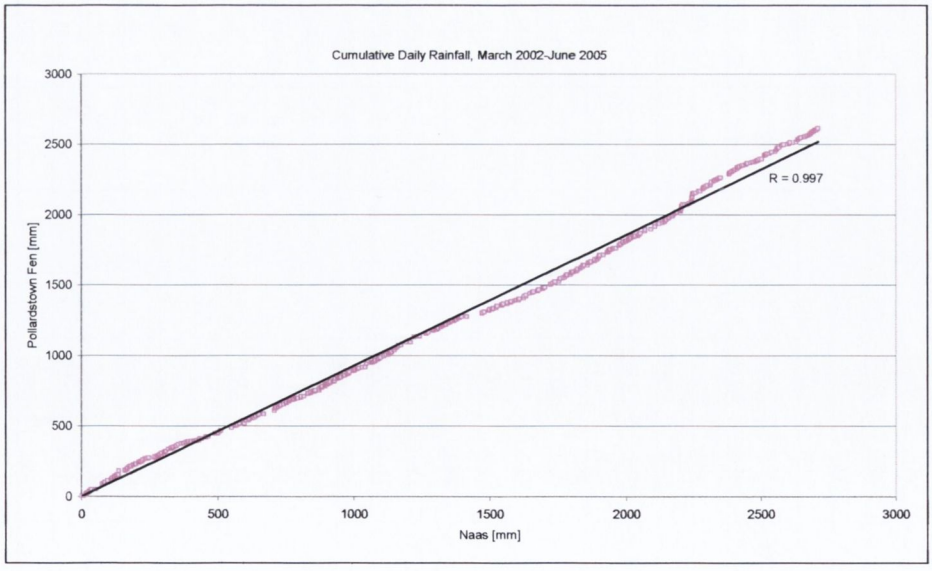
This appendix contains a comparison between daily and monthly rainfall records from Pollardstown Fen weather station, CBS Naas and Casement Aerodrome synoptic stations. Correlation coefficients were determined using Excel calculation spreadsheets.

		y		s2y	0.82	x		s2x	covxy		x	y	s2x	covariance covxy	regression constants a	b (0.7<=b<=1.3)	yi^	sxsy	r	r2
		PFen	cumulative			Naas	cumulative			mean	67.9	65.2	48158.24	35185	15.60309172	0.73		42696.6259	0.82	0.7
	March	34.6	34.60	938.84	1.15	30.20	30.20	1424.31	1156.37	SD	35.14009909	31.15487172	s2y				38			
	April	101.2	135.80	1293.09	1.12	91.30	121.50	545.69	840.02				37854.42				82			
	May	94.2	230.00	838.66	1.15	78.60	200.10	113.64	308.71								73			
	june	63.8	293.80	2.07	1.03	86.10	286.20	329.79	-26.16								79			
	july	67.2	361.00	3.84	1.02	67.40	353.60	0.29	-1.06		Good correlation is achieved when r2>=0.7 and b ranges from (0.7<=b<=1.3)						65			
	august	33.0	394.00	1039.45	0.94	65.70	419.30	5.02	72.22								64			
	september	14.8	408.80	2544.24	0.93	18.40	437.70	2454.21	2498.82								29			
	october	131.2	540.00	4350.67	0.89	172.40	610.10	10911.89	6890.14								142			
	november	130.4	670.40	4245.77	0.88	148.70	758.80	6522.18	5262.29								124			
2002	december	63.0	733.40	5.02	0.87	87.70	846.50	390.46	-44.27								80			
	january	62.0	795.40	10.50	0.88	59.30	905.80	74.65	28.00								59			
	february	41.6	837.00	558.87	0.89	38.20	944.00	884.47	703.07								44			
	March	37.4	874.38	776.33	0.89	42.20	986.20	662.55	717.18								46			
	April	36.5	910.92	823.75	0.89	37.00	1023.20	957.28	888.01								43			
	May	117.4	1028.32	2720.62	0.90	119.40	1142.60	2648.13	2684.13								103			
	june	103.8	1132.12	1486.84	0.92	83.00	1225.60	226.80	580.71								76			
	july	81.0	1213.12	248.36	0.91	105.10	1330.70	1380.87	585.63								92			
	august	7.8	1220.92	3299.40	0.91	13.20	1343.90	2996.47	3144.29								25			
	september	38.2	1259.12	731.18	0.91	38.80	1382.70	849.14	787.96								44			
	october	67.4	1326.52	4.66	0.88	121.50	1504.20	2868.67	115.67								104			
	november	50.8	1377.32	208.53	0.88	65.90	1570.10	4.16	29.46								64			
2003	december	64.6	1441.92	0.41	0.87	81.80	1651.90	192.10	-8.88								75			
	january	102.4	1544.32	1380.83	0.88	109.20	1761.10	1702.39	1533.20								95			
	february	30.0	1574.32	1241.89	0.88	27.90	1789.00	1603.20	1411.03								36			
	March	68.8	1643.12	12.67	0.89	58.40	1847.40	91.01	-33.96								58			
	April	68.8	1711.92	12.67	0.90	60.00	1907.40	63.04	-28.26								59			
	May	34.0	1745.92	975.96	0.90	36.40	1943.80	994.77	985.32								42			
	june	54.8	1800.72	109.00	0.90	50.20	1994.00	314.71	185.21								52			
	july	44.0	1844.72	451.16	0.90	44.50	2038.50	549.43	497.88								48			
	august	112.9	1957.62	2271.43	0.91	113.60	2152.10	2084.84	2176.14								99			
	september	69.0	2026.62	14.13	0.92	56.10	2208.20	140.19	-44.51								57			
	october	116.2	2142.82	2596.68	0.95	42.20	2250.40	662.55	-1311.70								46			
	november	46.8	2189.62	340.05	0.96	42.20	2292.60	662.55	474.66								46			
2004	december	59.8	2249.42	29.60	0.96	53.30	2345.90	214.33	79.65								55			

	january	83.6	2333.02	337.07	0.96	76.30	2422.20	69.89	153.49								71			
	february	44.6	2377.62	426.03	0.95	69.70	2491.90	3.10	-36.33								67			
	March	50.8	2428.42	208.53	0.96	44.50	2536.40	549.43	338.48								48			
	April	78.8	2507.22	183.86	0.96	76.90	2613.30	80.28	121.49								72			
	May	70.4	2577.62	26.62	0.96	78.90	2692.20	120.12	56.55								73			
2005	june	32.0	2609.62	1104.93	0.96	25.4	2717.60	1809.65	1414.05								34			

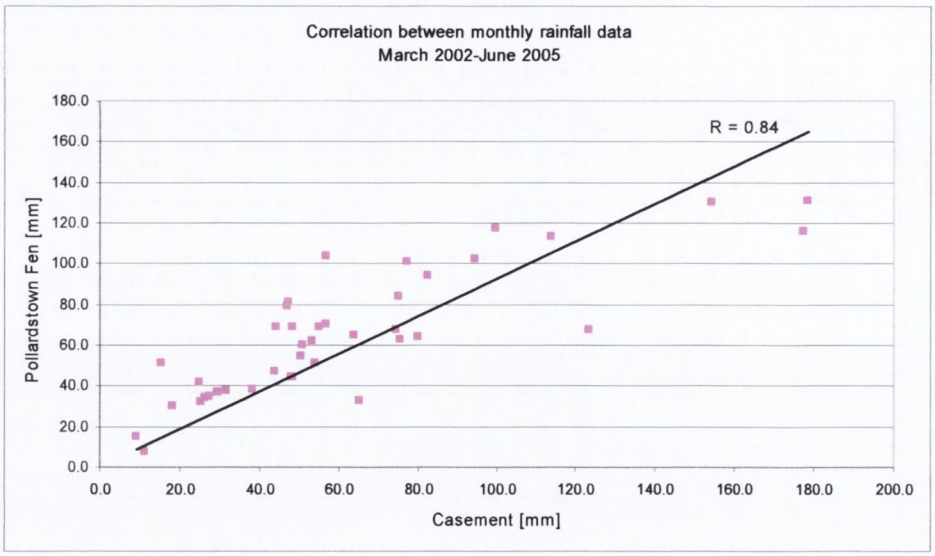

Correlation between monthly rainfall data
March 2002 - June 2005
R = 0.82
Pollardstown Fen [mm]
Naas [mm]
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
160.0
180.0
200.0

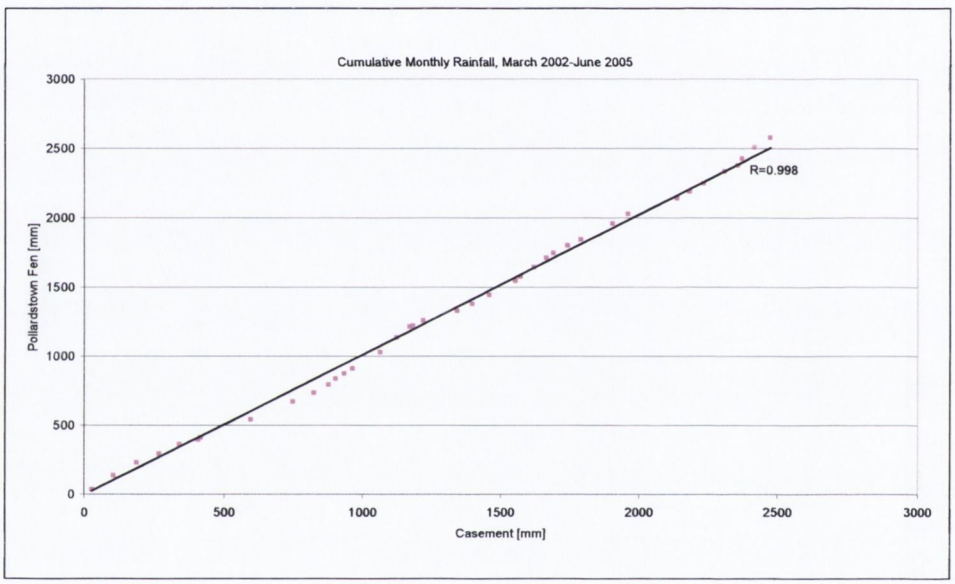

Cumulative Monthly Rainfall, March 2002-June 2005
R=0.997
Pollardstown Fen [mm]
Naas [mm]
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000

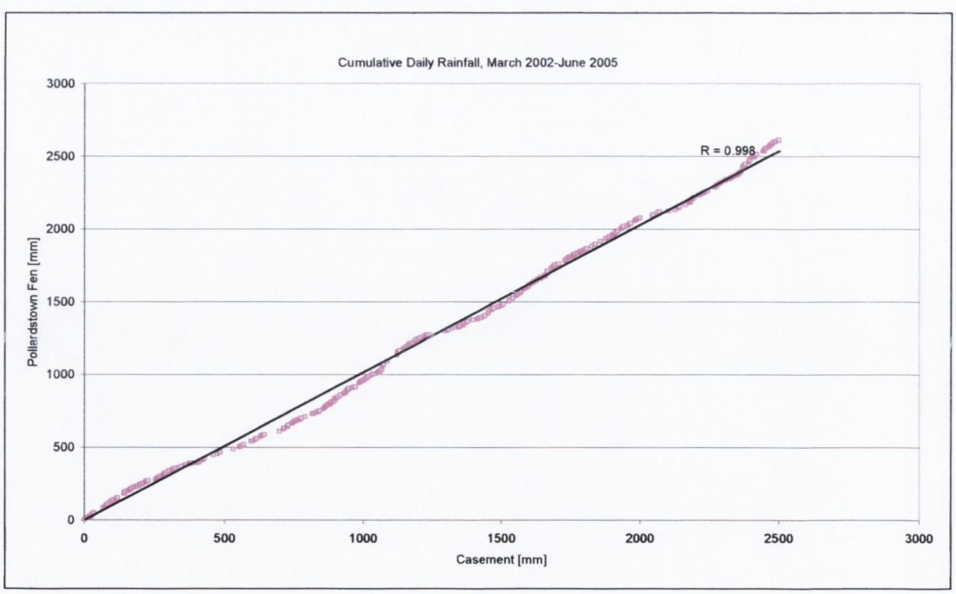

Cumulative Daily Rainfall, March 2002-June 2005
R = 0.997
Pollardstown Fen [mm]
Naas [mm]
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000

		y		s2y	0.84	x		s2x	covxy		x	y	s2x	covariance covxy	regression constants a	b (0.7<=b<=1.3)	yi^	sxsy	r	
		PFen	cumulative			Casement	cumulative			mean	63.5	66.1	65174.08	41541	25.64470284	0.64		49689.23918	0.84	0
	March	34.6	34.60	991.79	1.26	27.50	27.50	1293.05	1132.45	SD	40.86810158	31.15487172	s2y				43			
	April	101.2	135.80	1232.52	1.30	77.20	104.70	188.82	482.41				37883.47				75			
	May	94.2	230.00	790.02	1.23	82.50	187.20	362.56	535.19								78			
	june	63.8	293.80	5.26	1.10	80.10	267.30	276.92	-38.15								77			
	july	67.2	361.00	1.23	1.06	74.40	341.70	119.71	12.11		Good correlation is achieved when r2>=0.7 and b ranges from (0.7<=b<=1.3)						73			
	august	33.0	394.00	1095.13	0.97	65.40	407.10	3.77	-64.23								67			
	september	14.8	408.80	2630.95	0.98	9.30	416.40	2933.19	2777.96								32			
	october	131.2	540.00	4238.95	0.91	178.70	595.10	13280.49	7503.03								140			
	november	130.4	670.40	4135.42	0.89	154.20	749.30	8233.93	5835.31								124			
2002	december	63.0	733.40	9.57	0.89	75.40	824.70	142.59	-36.93								74			
	january	62.0	795.40	16.75	0.91	53.5	878.20	99.18	40.76								60			
	february	41.6	837.00	599.89	0.93	24.8	903.00	1494.52	946.86								41			
	March	37.4	874.38	824.55	0.94	31.7	934.70	1008.63	911.96								46			
	April	36.5	910.92	873.40	0.94	29.5	964.20	1153.21	1003.60								44			
	May	117.4	1028.32	2632.43	0.97	99.9	1064.10	1327.95	1869.69								89			
	june	103.8	1132.12	1421.84	1.01	56.8	1120.90	44.34	-251.09								62			
	july	81.0	1213.12	222.23	1.04	47.4	1168.30	257.89	-239.40								56			
	august	7.8	1220.92	3398.04	1.04	11.2	1179.50	2731.00	3046.32								33			
	september	38.2	1259.12	778.01	1.03	38.4	1217.90	627.95	698.96								50			
	october	67.4	1326.52	1.71	0.99	123.5	1341.40	3604.92	78.49								104			
	november	50.8	1377.32	233.87	0.99	54.3	1395.70	83.89	140.07								60			
2003	december	64.6	1441.92	2.23	0.99	63.8	1459.50	0.12	-0.51								66			
2004	january	102.4	1544.32	1318.22	0.99	94.40	1553.90	957.35	1123.38								86			
	february	30.0	1574.32	1302.69	1.00	18.40	1572.30	2030.31	1626.30								37			
	March	68.8	1643.12	7.33	1.01	48.50	1620.80	223.77	-40.50								57			
	April	68.8	1711.92	7.33	1.03	44.40	1665.20	363.24	-51.60								54			
	May	34.0	1745.92	1029.94	1.03	26.40	1691.60	1373.37	1189.32								42			
	june	54.8	1800.72	127.53	1.03	50.70	1742.30	162.79	144.08								58			
	july	44.0	1844.72	488.09	1.03	48.20	1790.50	232.84	337.11								56			
	august	112.9	1957.62	2190.92	1.03	113.90	1904.40	2544.30	2361.01								98			
	september	69.0	2026.62	8.45	1.03	55.30	1959.70	66.57	-23.72								61			
	october	116.2	2142.82	2510.74	1.00	177.40	2137.10	12982.56	5709.27								139			
	november	46.8	2189.62	372.21	1.00	43.80	2180.90	386.48	379.28								54			

	december	59.8	2249.42	39.60	1.01	51.10	2232.00	152.74	77.77								58			
	january	83.6	2333.02	306.50	1.01	75.10	2307.10	135.51	203.80								74			
	february	44.6	2377.62	461.94	1.01	48.40	2355.50	226.77	323.66								56			
	March	50.8	2428.42	233.87	1.02	15.40	2370.90	2309.66	734.95								35			
	April	78.8	2507.22	161.47	1.04	47.20	2418.10	264.35	-206.61								56			
	May	70.4	2577.62	18.55	1.04	56.80	2474.90	44.34	-28.68								62			
2005	june	32.0	2609.62	1162.32	1.04	25.40	2500.30	1448.5	1298								42			


Correlation between monthly rainfall data
March 2002-June 2005
R = 0.84
Pollardstown Fen [mm]
Casement [mm]
180.0
160.0
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
0.0
20.0
40.0
60.0
80.0
100.0
120.0
140.0
160.0
180.0
200.0


Cumulative Monthly Rainfall, March 2002-June 2005
R=0.998
Pollardstown Fen [mm]
Casement [mm]
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000

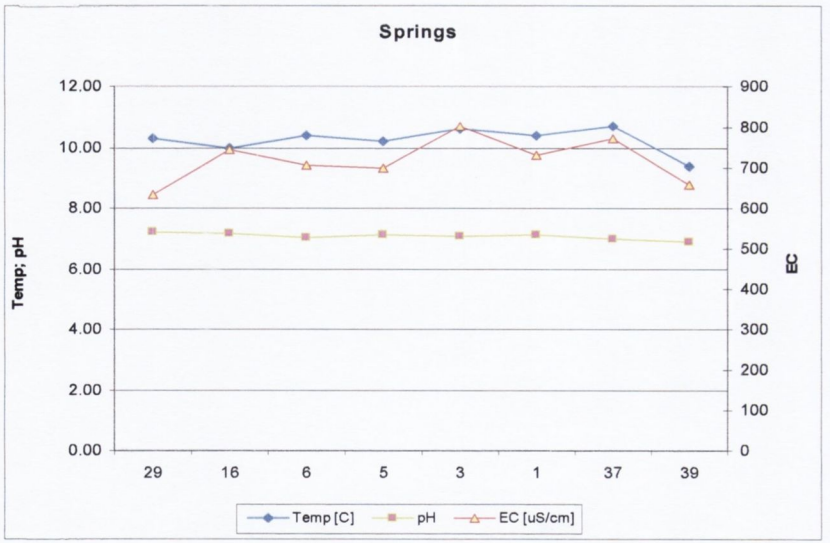

Cumulative Daily Rainfall, March 2002-June 2005
R = 0.998
Pollardstown Fen [mm]
Casement [mm]
3000
2500
2000
1500
1000
500
0
0
500
1000
1500
2000
2500
3000

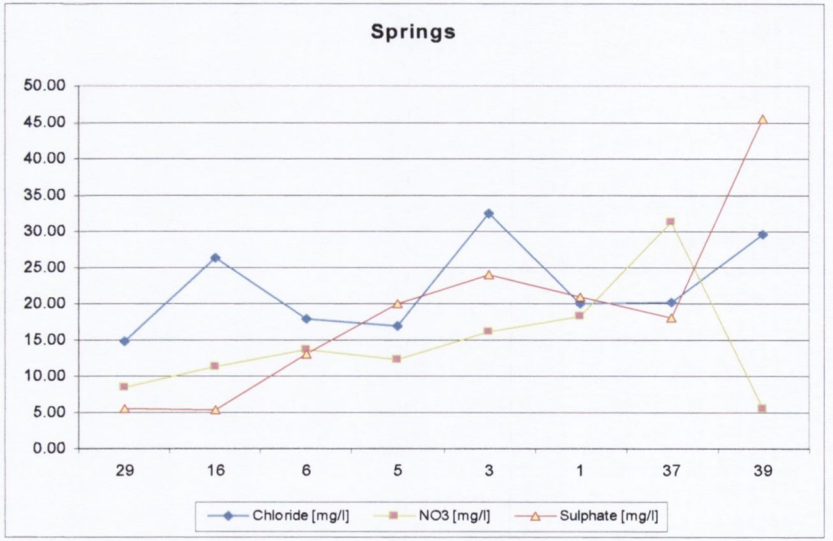
APPENDIX 6

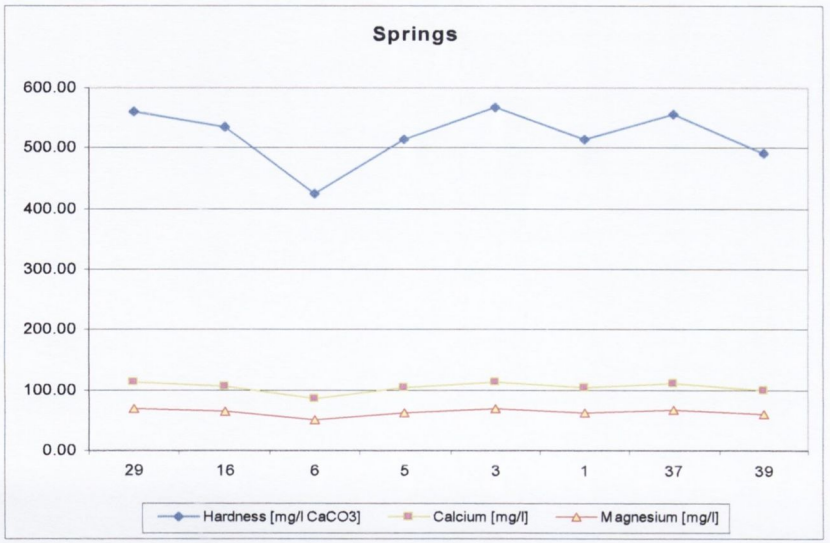
Hydrochemistry of water samples collected at Pollardstown Fen

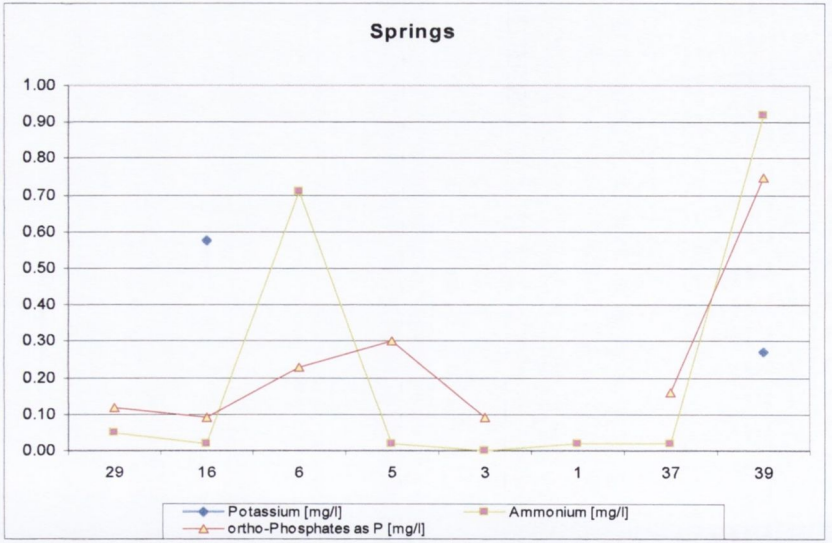
This appendix contains graphical presentation of hydro-chemical parameters measured at Pollardstown Fen. Data were organised with regard to sampling locations and depths from which water samples were taken. Numerical results are presented and discussed in volume I. All samples were collected by myself and analysed in the college's environmental laboratory. Sampling locations are presented on x-axis, while concentrations of specific ions and/or physio-chemical parameters are presented on y-axis. At the end, ionic balance calculations are presented in a tabular form.

SPRINGS

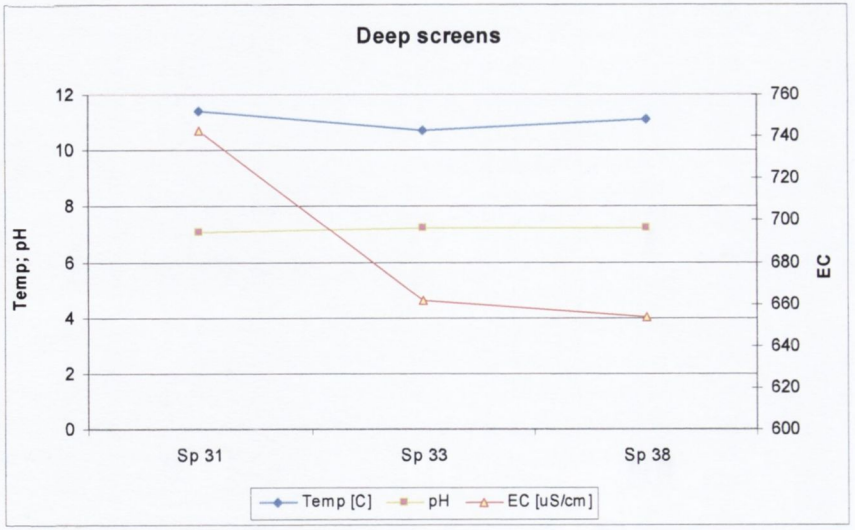

Springs
Temp; pH
EC
12.00
10.00
8.00
6.00
4.00
2.00
0.00
900
800
700
600
500
400
300
200
100
0
29
16
6
5
3
1
37
39
Temp [C]
pH
EC [uS/cm]

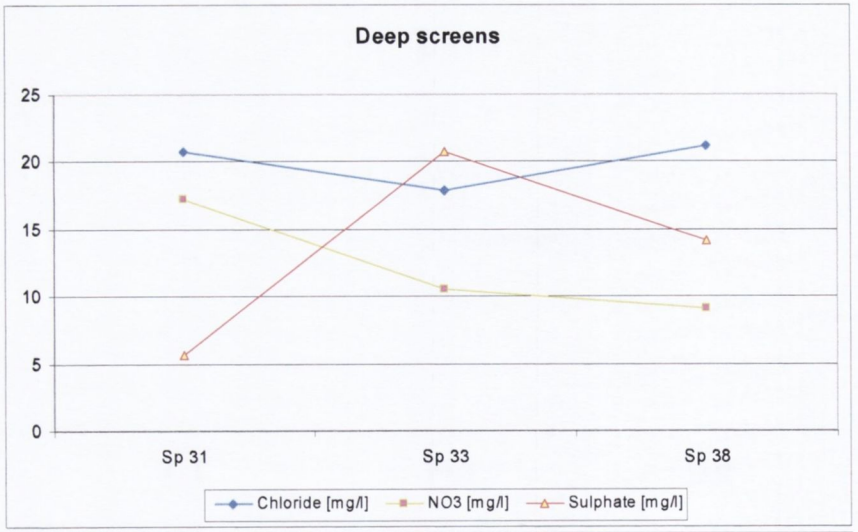

Springs
50.00
45.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
29
16
6
5
3
1
37
39
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]

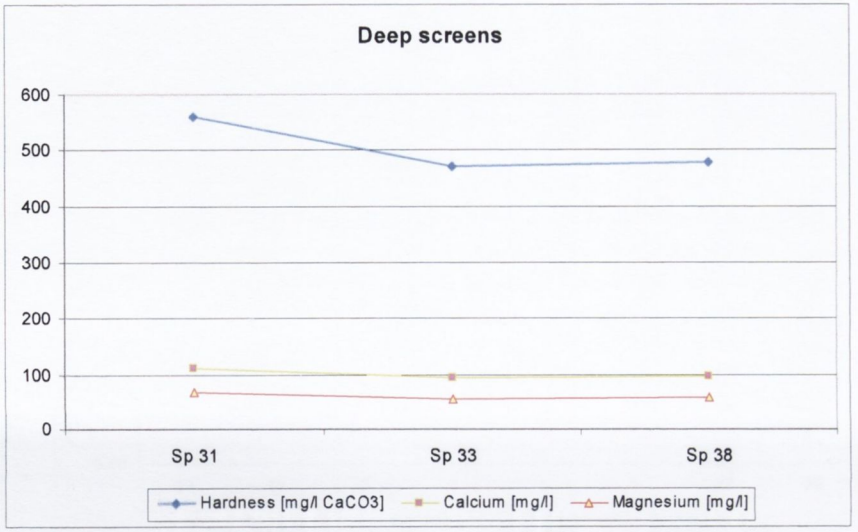

Springs
600.00
500.00
400.00
300.00
200.00
100.00
0.00
29
16
6
5
3
1
37
39
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]

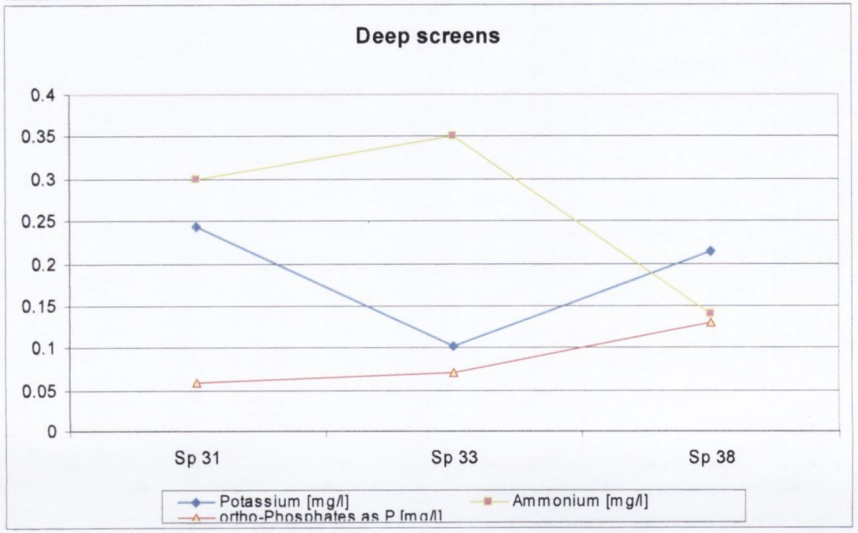

Springs
1.00
0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
29
16
6
5
3
1
37
39
Potassium [mg/l]
Ammonium [mg/l]
ortho-Phosphates as P [mg/l]

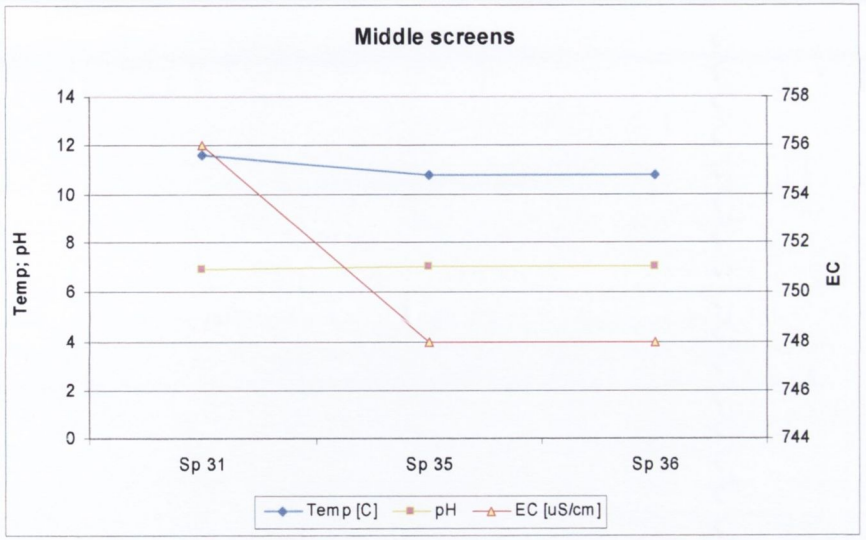
SITE A

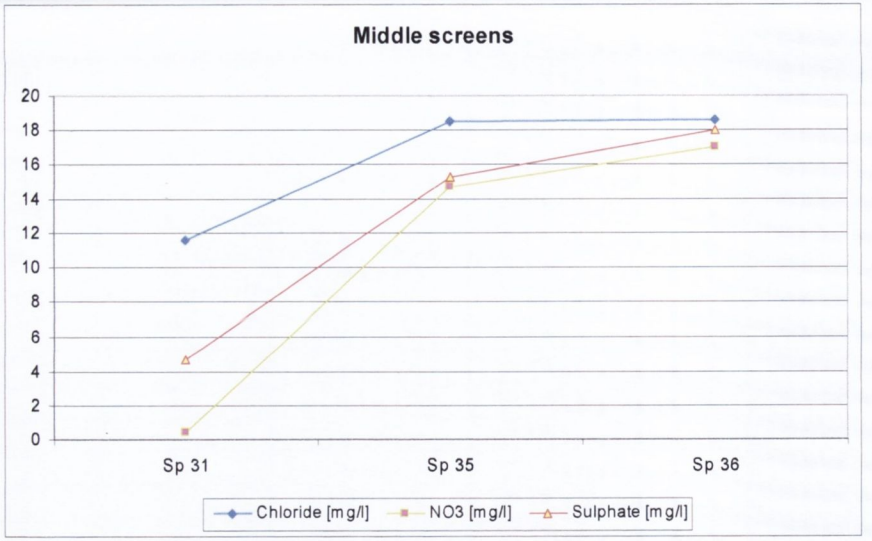

Deep screens
Temp; pH
EC
12
10
8
6
4
2
0
760
740
720
700
680
660
640
620
600
Sp 31
Sp 33
Sp 38
Temp [C]
pH
EC [uS/cm]

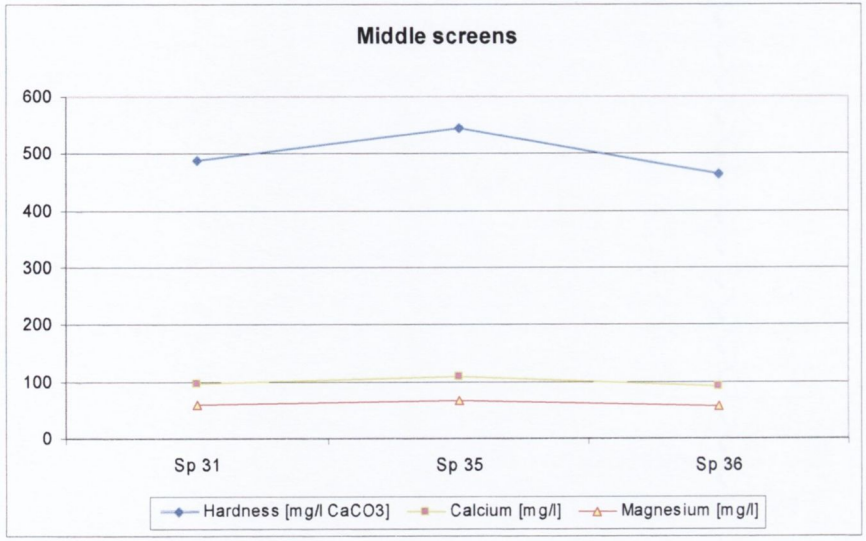

Deep screens
25
20
15
10
5
0
Sp 31
Sp 33
Sp 38
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]

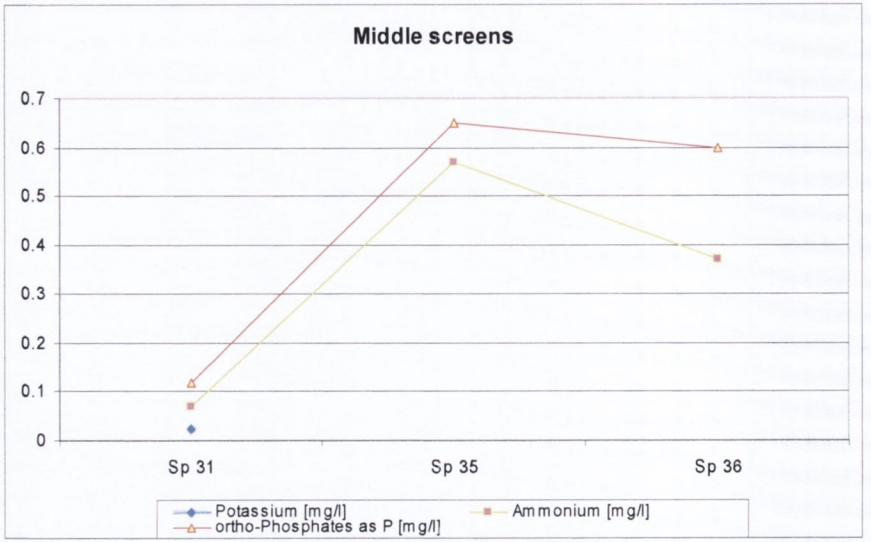

Deep screens
600
500
400
300
200
100
0
Sp 31
Sp 33
Sp 38
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]

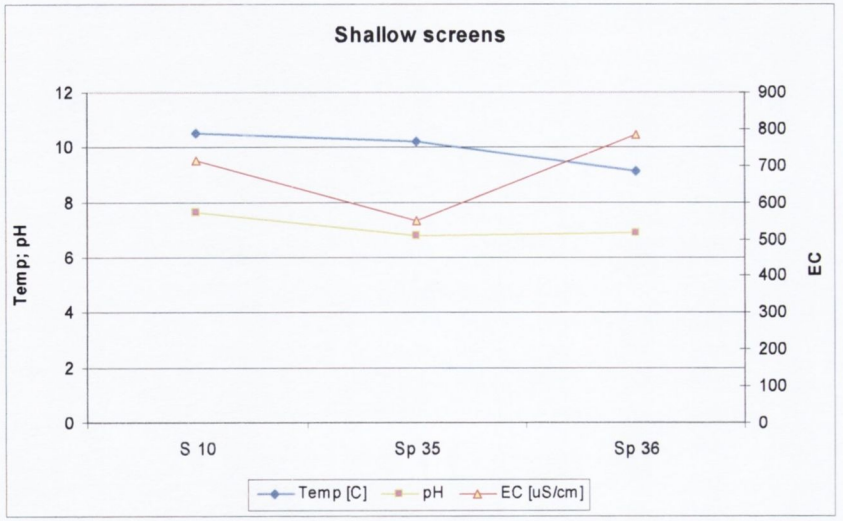

Deep screens
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Sp 31
Sp 33
Sp 38
Potassium [mg/l]
Ammonium [mg/l]
ortho-Phosphates as P [mg/l]

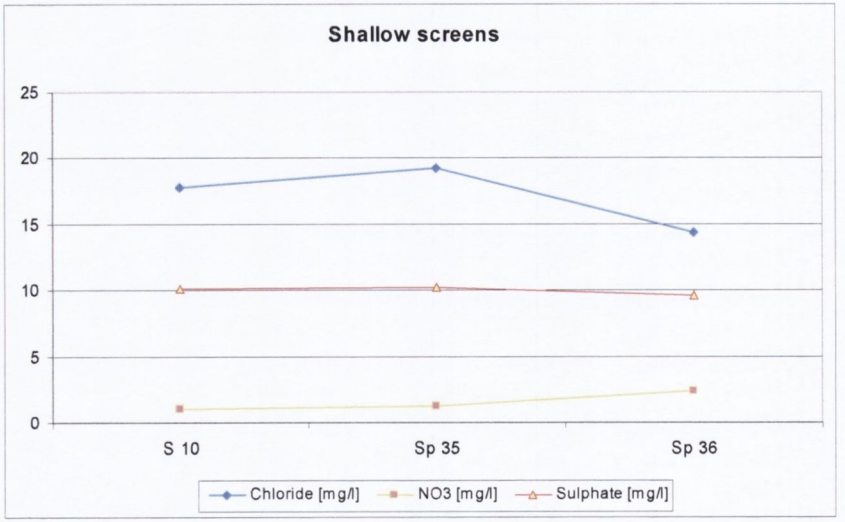

Middle screens
Temp; pH
EC
14
12
10
8
6
4
2
0
758
756
754
752
750
748
746
744
Sp 31
Sp 35
Sp 36
Temp [C]
pH
EC [uS/cm]

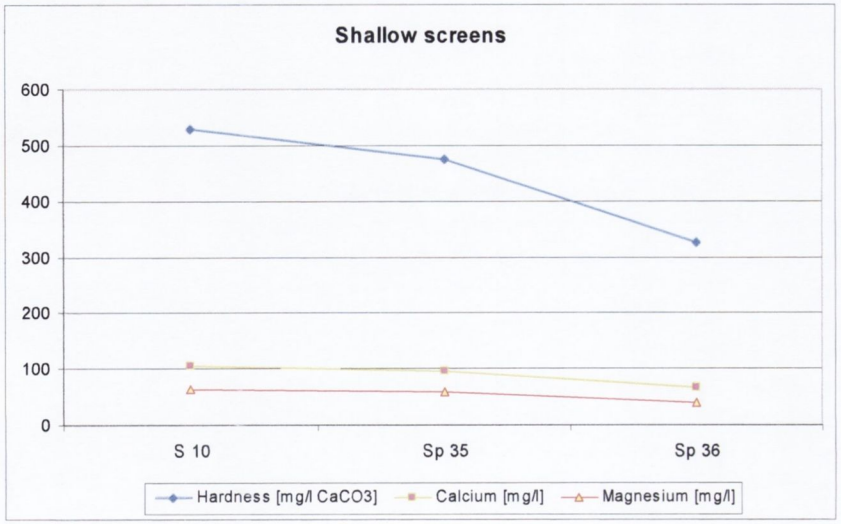

Middle screens
20
18
16
14
12
10
8
6
4
2
0
Sp 31
Sp 35
Sp 36
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]

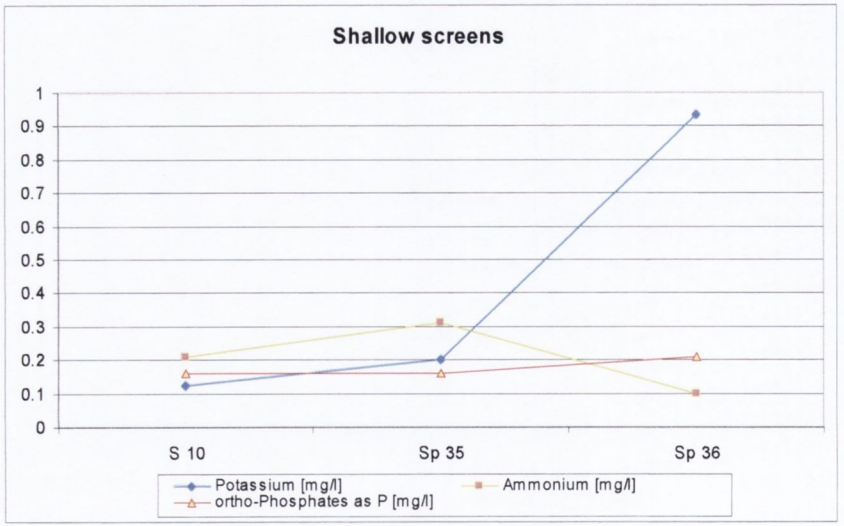

Middle screens
600
500
400
300
200
100
0
Sp 31
Sp 35
Sp 36
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]


Middle screens
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Sp 31
Sp 35
Sp 36
Potassium [mg/l]
ortho-Phosphates as P [mg/l]
Ammonium [mg/l]

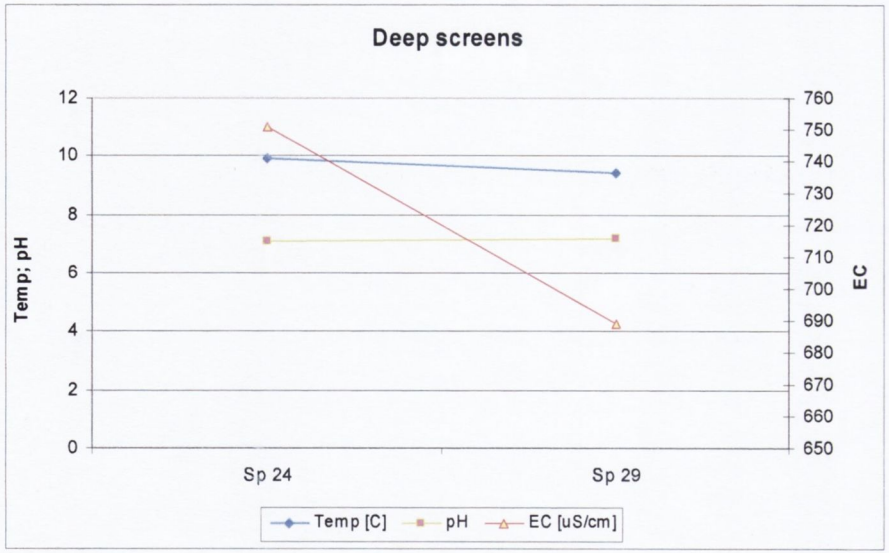

Shallow screens
Temp; pH
EC
12
10
8
6
4
2
0
900
800
700
600
500
400
300
200
100
0
S 10
Sp 35
Sp 36
Temp [C]
pH
EC [uS/cm]

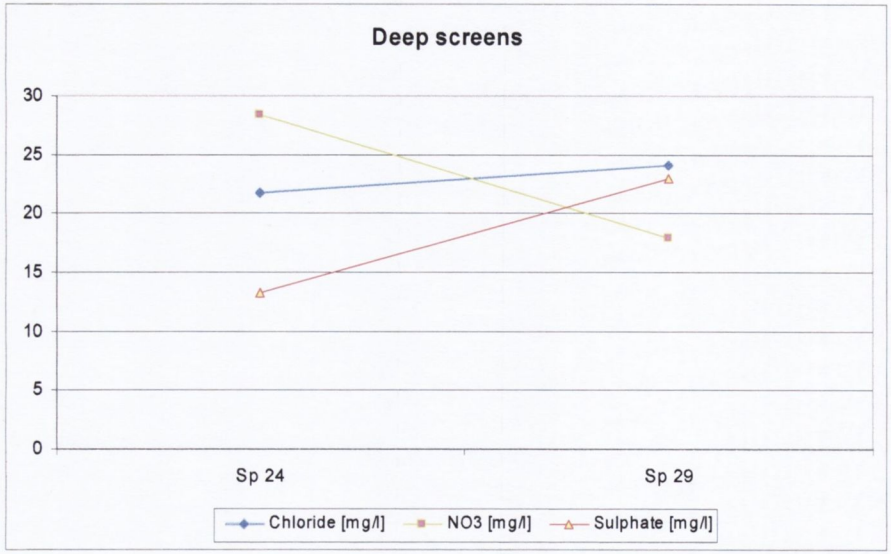

Shallow screens
25
20
15
10
5
0
S 10
Sp 35
Sp 36
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]

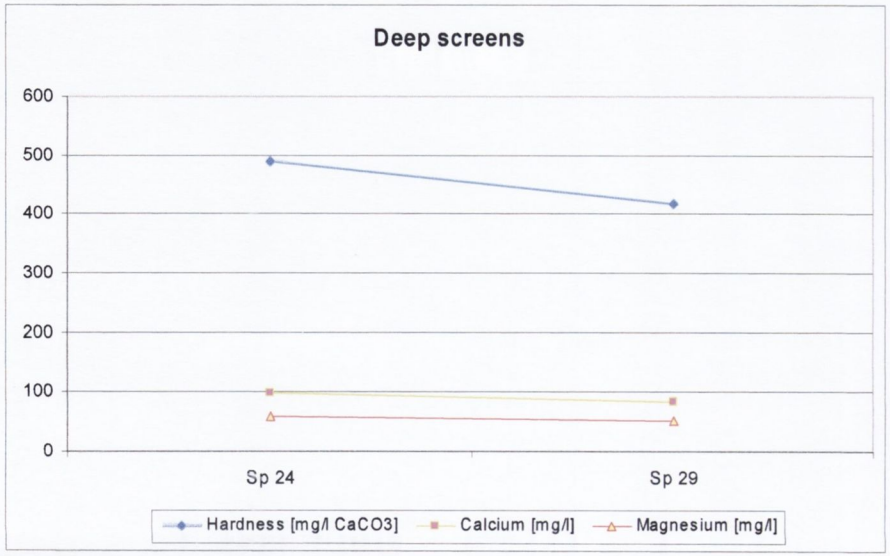

Shallow screens
600
500
400
300
200
100
0
S 10
Sp 35
Sp 36
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]

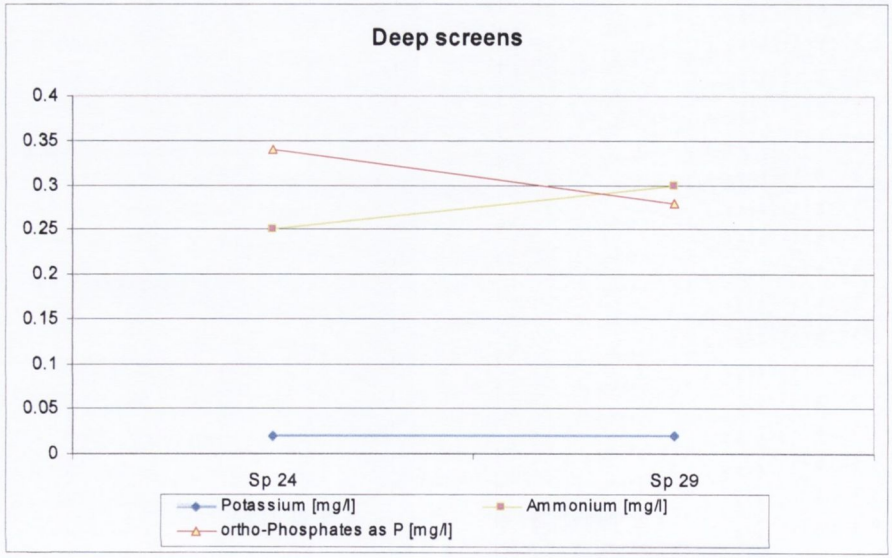

Shallow screens
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
S 10
Sp 35
Sp 36
Potassium [mg/l]
Ammonium [mg/l]
ortho-Phosphates as P [mg/l]

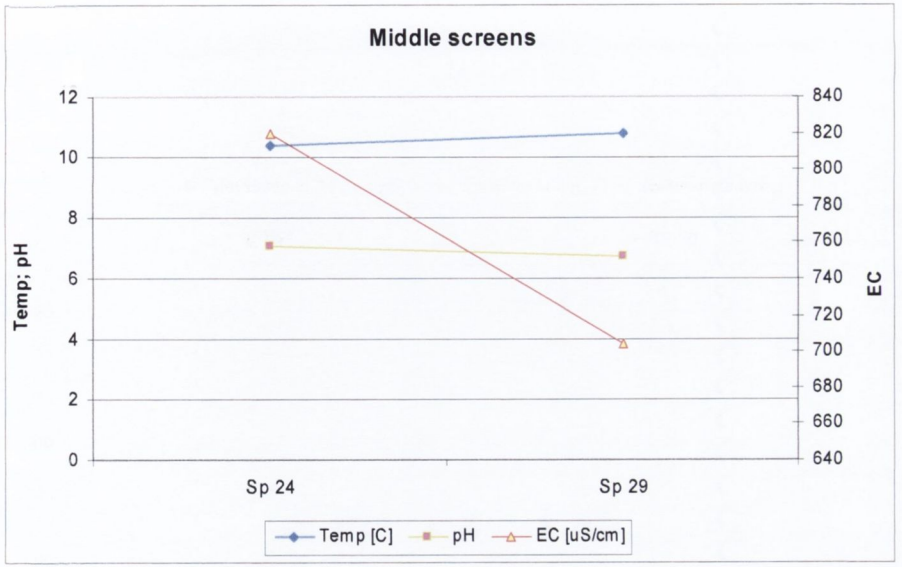
SITE D

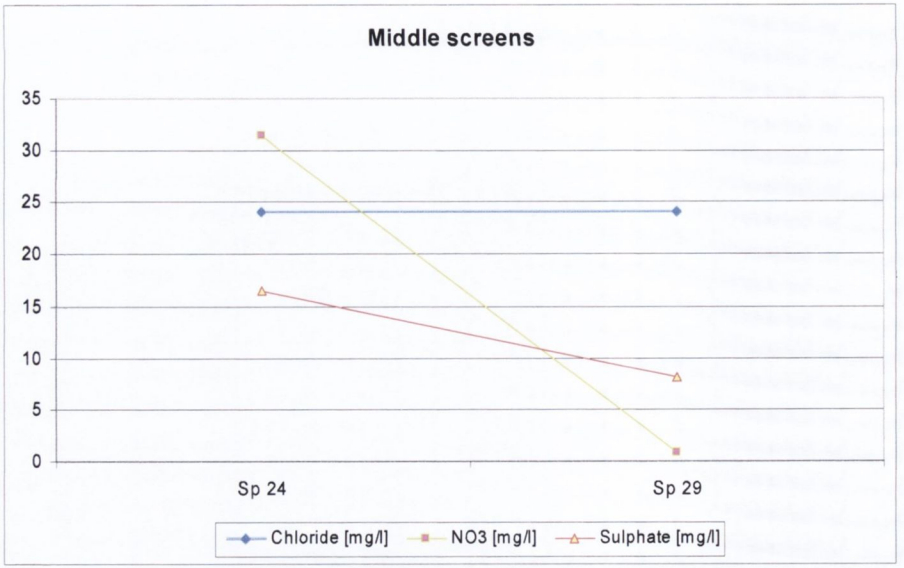

Deep screens
Temp; pH
EC
12
10
8
6
4
2
0
760
750
740
730
720
710
700
690
680
670
660
650
Sp 24
Sp 29
Temp [C]
pH
EC [uS/cm]

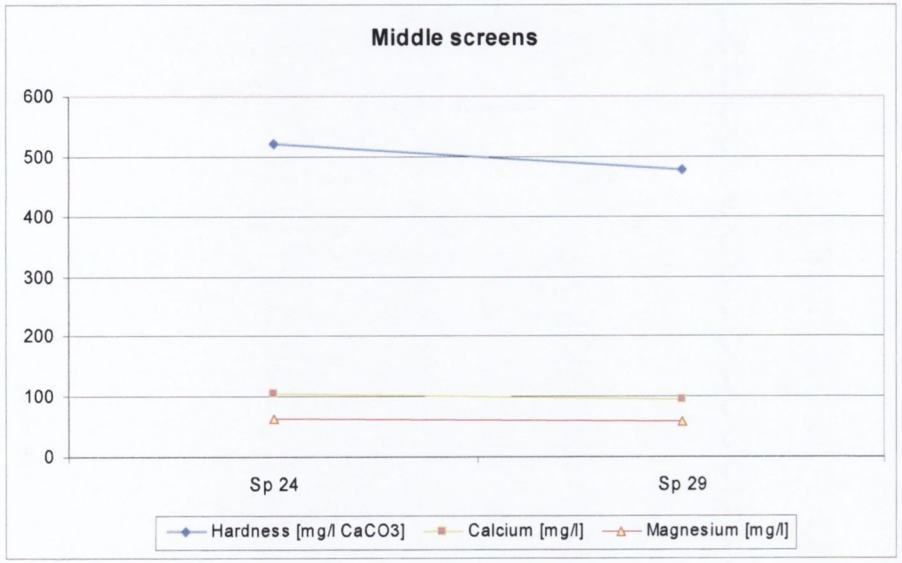

Deep screens
30
25
20
15
10
5
0
Sp 24
Sp 29
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]

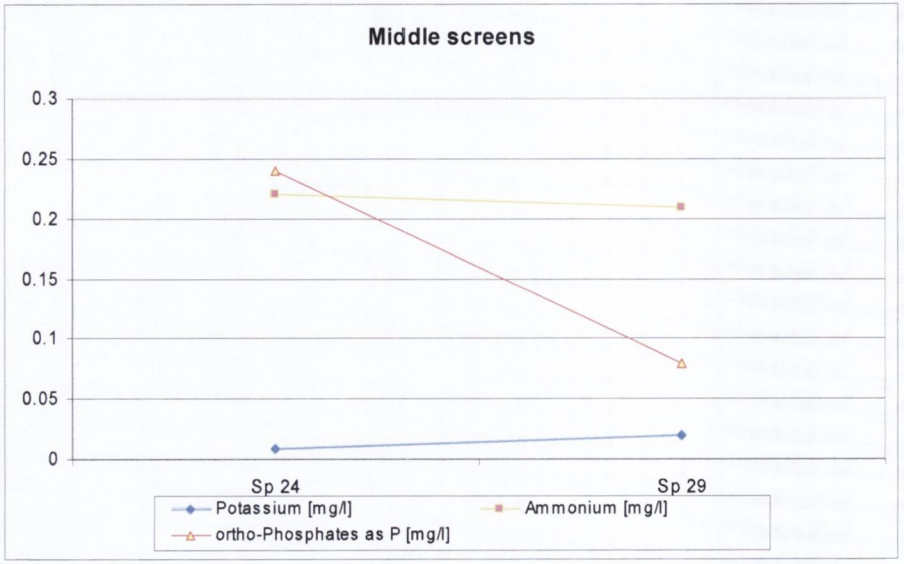

Deep screens
600
500
400
300
200
100
0
Sp 24
Sp 29
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]

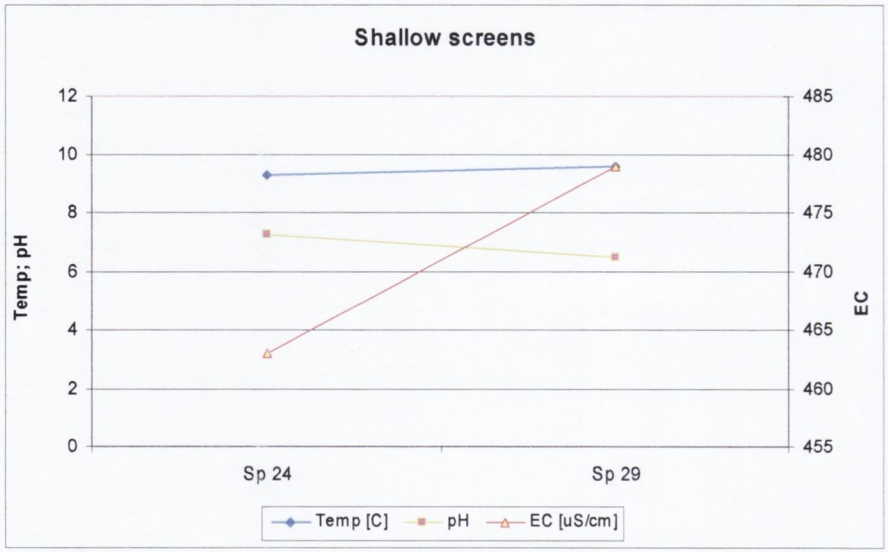

Deep screens
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
Sp 24
Sp 29
Potassium [mg/l]
Ammonium [mg/l]
ortho-Phosphates as P [mg/l]

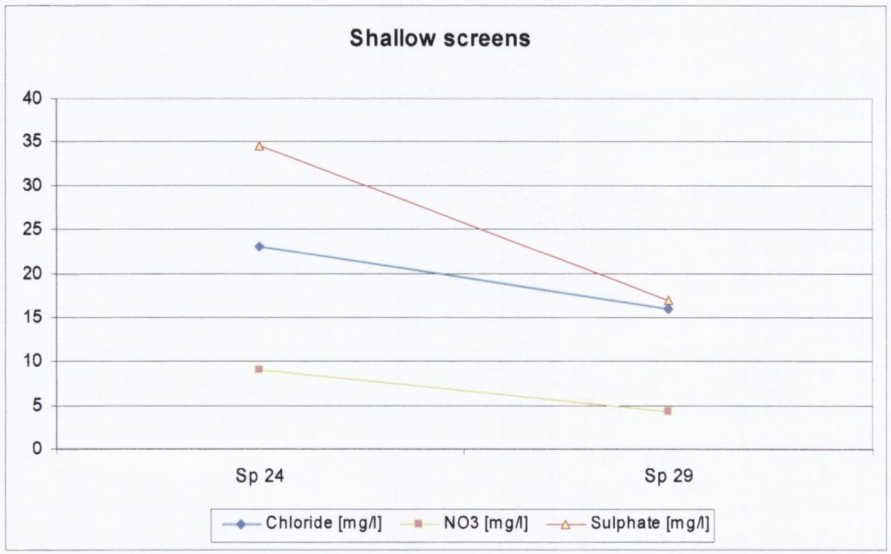

Middle screens
Temp; pH
EC
12
10
8
6
4
2
0
840
820
800
780
760
740
720
700
680
660
640
Sp 24
Sp 29
Temp [C]
pH
EC [uS/cm]

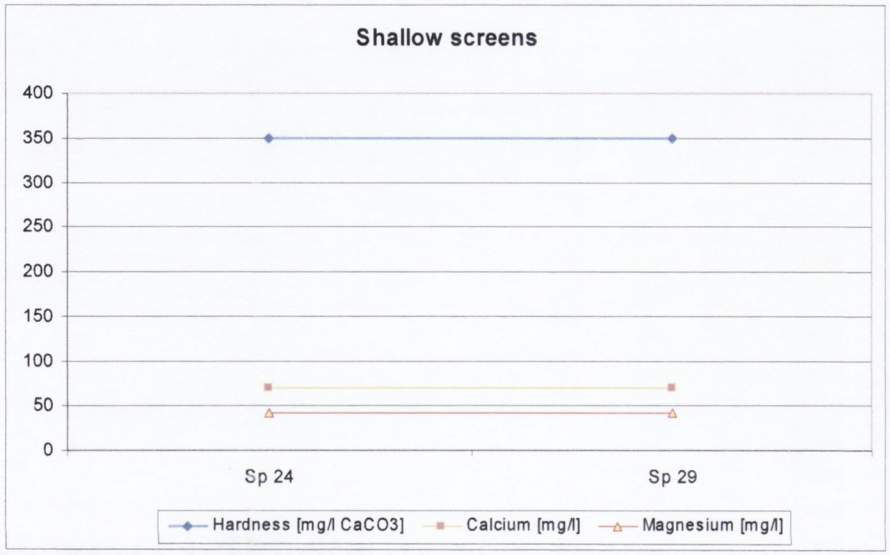

Middle screens
35
30
25
20
15
10
5
0
Sp 24
Sp 29
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]

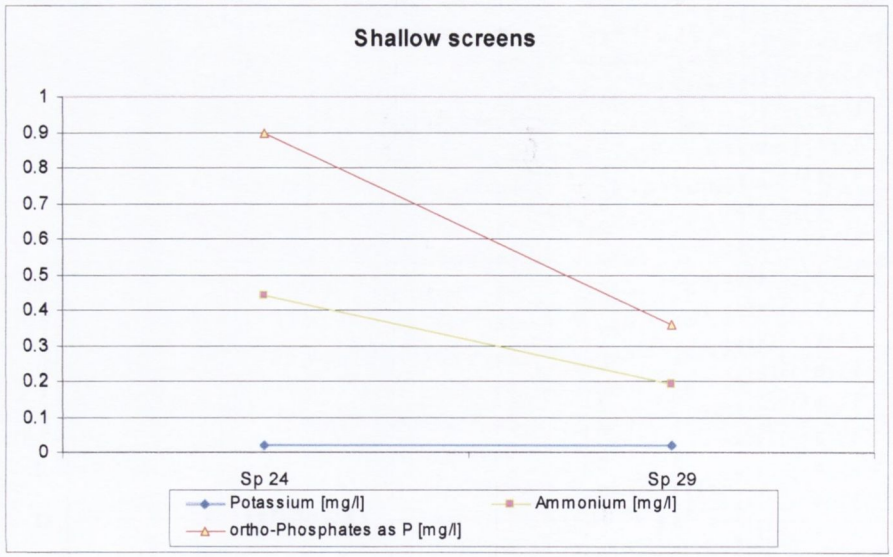

Middle screens
600
500
400
300
200
100
0
Sp 24
Sp 29
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]


Middle screens
0.3
0.25
0.2
0.15
0.1
0.05
0
Sp 24
Sp 29
Potassium [mg/l]
Ammonium [mg/l]
ortho-Phosphates as P [mg/l]


Shallow screens
Temp; pH
EC
12
10
8
6
4
2
0
485
480
475
470
465
460
455
Sp 24
Sp 29
Temp [C]
pH
EC [uS/cm]


Shallow screens
40
35
30
25
20
15
10
5
0
Sp 24
Sp 29
Chloride [mg/l]
NO3 [mg/l]
Sulphate [mg/l]


Shallow screens
400
350
300
250
200
150
100
50
0
Sp 24
Sp 29
Hardness [mg/l CaCO3]
Calcium [mg/l]
Magnesium [mg/l]


Shallow screens
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
Sp 24
Sp 29
Potassium [mg/l]
Ammonium [mg/l]
ortho-Phosphates as P [mg/l]

APPENDIX 7

Hydrochemistry of water from Pollardstown Fen and from the Curragh aquifer – data from WYG Ltd.

This appendix contains historical hydrochemical results of selected springs and monitoring boreholes from Pollardstown Fen and the Curragh aquifer. These data were available from WYG Ltd. database and cover years from 1987 to 2002.

Seven Springs (Coxon C.), source: WYG data base;

PARAMETER	UNIT	87-10-13	87-10-27	87-11-09	87-11-24	87-12-08	87-12-21	88-01-05	88-01-19	88-02-02	88-02-16	88-02-29	88-03-15	88-03-28	88-04-11
Temperature	oC			10,2	10,1	10,1	10,2	10,2	10,1	10	10,1	9,7	10,1	10,1	
pH	units	7,2	7,2	7,2	7,2	7,2	7,2	7,2	7,2	7,2	7,2	7,2	7,1	7,0	7,2
Conductivity	µS/cm	698	700	701	707	708	699	696	712	711	704	698	696	691	722
Bicarbonate	HCO_3 mg/l	417	408	410	415	417	416	417	417	415	413	415	415	412	393
Calcium	Ca mg/l	116	119	116	115	119	116	120	122	120	120	119	116	115	121
Magnesium	Mg mg/l	18	18	20	20	19	18	19	18	18	17	17	17	18	16
Sodium	Na mg/l	8,4	8,2	8,1	8,2	8,2	8,1	8,1	8,2	8	8,1	8,5	7,7	8,1	8
Potassium	K mg/l	1,5	1	0,8	0,9	0,9	0,9	0,9	1	1	0,9	0,9	0,9	0,7	1
Sulphate	SO_4 mg/l	17	15	14	17	16	15	15	14	15	13	16	15	17	16
Chloride	Cl mg/l	15	15	14	15	13	14	14	14	14	14	16	15	16	15
Nitrate	NO_3 mg/l	15	14	15	15	16	15	15	15	15	13	15	15	12	18
Ammonium	NH_4 mg/l	0	0	0	0	0	0	0		0	0,01	0,01	0,01	0	0,03

PARAMETER	UNIT	88-04-26	88-05-10	88-05-24	88-06-08	88-06-22	88-07-05	88-07-19	88-08-02	88-08-16	88-08-31	88-09-13	88-09-27	88-12-01	89-06-27
Temperature	oC	10,4	11	10,4	10,3	10,5	10,4	10,4	10,7	10,8	10,8	10,4	11,6		
pH	units	7,2	7,0	7,1			7,2	7,2	7,5	7,4	7,1	7,3	7,3	7,3	7,2
Conductivity	µS/cm	686	700	706	713	717	697	720	705	730	711	723	737	712	761
Bicarbonate	HCO_3 mg/l	362	408	410	410	422	422	417	412	410	412	417	413	415	417
Calcium	Ca mg/l	116	116	119	120	122	121	122	121	124	120	123	120	119	123
Magnesium	Mg mg/l	16	18	18	18	19	18	17	19	19	18	18	17	18	19
Sodium	Na mg/l	7,7	8,2	8,1	8	8,4	8,3	7,9	8	8,1	7,9	8	7,8	8,4	7,7
Potassium	K mg/l	0,9	0,9	1	0,8	0,8	0,8	0,7	0,8	1	0,9	1	0,9	1	0,8
Sulphate	SO_4 mg/l	16	16	19	13	17	15	15	16	16	17	15	15	20	23
Chloride	Cl mg/l	18	20	21	21	21	18	17	17	21	21	14	18	14	14
Nitrate	NO_3 mg/l	18	15	15	15	18	15	15	15	15	15	18	18	16	15
Ammonium	NH_4 mg/l	0	0	0	0	0	0	0	0	0	0,04	0	0	0	0

Sample Reference	Units	MB 2	MB 6	MB 10	MB 19	MB 19a	MB 43	Sp 23	Sp 22	Sp 34	MB 12
Sample Location		mid-Curragh	South of the fen	NE of the fen	South Currgah	South Curragh	upgradient from site D	Site D	Site B	Site A	Public Entrance
Sample Date		14/5/2002	14/05/2002	14/05/2002	14/05/2002	14/05/2002	14/05/2002	14/05/2002	14/05/2002	14/05/2002	01/02/2002
Screen Location		41-47 m	16,5-20,5 m	10-21 m	18,5-24,5 m	42-48 m	4,5-11,5 m	8-9 m	7,5-8,5 m	5-6 m	7-13 m
Aquifer		Limestone	Gravel	Gravel	Sand and Gravel	Limestone	Gravel	Gravel	Gravel	Gravel	Gravel
Temperature	deg C	11,8	13,4	12,7				10	9,8	10	
pH Value Field		7,71	6,87	7,14	7,21			7,58	7,5	8,21	
pH Value - Laboratoty		7,58	7,32	7,47	7,44	7,46	7,16	7,61	7,49	7,44	7,4
Conductivity - Field	µS/cm	718	754	725	642			769	750	660	
Conductivity - Laboratory	µS/cm	667	696	688	602	534	777	733	731	626	625
Bicarbonate	mg/l	416	452	484	406	408	512	420	416	408	
Alkalinity	mg/l	416	452	484	406	408	512	420	416	408	335
Total Hardness as $CaCO_3$	mg/l	399	405	383	361	365	435	431	416	363	349
Nitrite as NO2	mg/l	<0,01	0,01	0,06	<0,01	0,02	0,03	<0,01	<0,01	<0,01	<0,01
Nitrate as NO3	mg/l	27,1	20,7	24	6,1	6,2	29,3	40,8	40,8	15,5	12
Sulphate as SO_4	mg/l	13	10	21	9	9	19	23	24	13	17
Chloride as Cl	mg/l	19	19	16	<10	<10	32	21	21	12	18
Calcium, total as Ca	mg/l	131	149	186	124	126	252	145	147	142	110
Magnesium total as Mg	mg/l	18	10	12	13	14	13	19	18	10	18
Potassium, total as K	mg/l	1	9	2	<1	<1	2	2	2	<1	1,2
Sodium, total as Na	mg/l	8	9	11	7	7	16	9	9	9	11
Fluoride as F	mg/l	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	
Iron, total as Fe	mg/l	0,165	3,445	2,01	0,101	0,115	7,67	0,025	0,055	0,246	0,09
Monganese, total as Mn	mg/l	0,018	0,725	0,49	0,016	0,017	0,68	0,006	0,008	0,058	<0,01
Aluminium, total as Al	mg/l	0,09	2,56	0,752	0,027	0,039	8,3	0,023	0,052	0,177	0,12
Selenium, total as Se	mg/l	<0,001	<0,001	<0,001	<0,001	<0,001	<0,001	<0,001	<0,001	<0,001	
Lead, total as Pb	mg/l	0,002	0,033	0,03	<0,001	<0,001	0,029	<0,001	<0,001	0,002	<0,05
Copper, total as Cu	mg/l	<0,005	0,01	0,011	0,008	0,009	0,01	<0,005	<0,005	<0,005	<0,01
Zinc, total Zn	mg/l	0,019	0,072	0,062	0,024	0,024	0,127	<0,01	<0,01	0,014	0,2
Barium, total as B	mg/l	0,115	0,276	0,122	0,059	0,059	0,141	0,058	0,057	0,076	0,31
Baron, total as B	mg/l	0,032	0,03	0,064	<0,02	<0,02	0,074	0,045	0,041	0,027	0,17
Sollids, Dissolved 180 deg C	mg/l	474	520	486	324	388	588	512	528	428	
Stontium, total as Sr	mg/l	0,19	0,169	0,238	0,171	0,172	0,282	0,207	0,212	0,186	0,19
Ammonical Nitrogen as NH_4	mg/l	<0,04	<0,04	<0,04	<0,04	<0,04	0,04	0,04	0,04	0,04	<0,05
Total Phosphorus as P	mg/l	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,1	<0,05
Saturation Index		+ 0,96	+ 0,22	+ 0,59			0,86	+ 0,83	+ 0,75	+ 0,75	

APPENDIX 8

Daily Rainfall Data from Pollardstown Fen

This appendix contains daily rainfall data recorded at Pollardstown Fen from March 2002 until September 2005. Hourly data are too lengthy to present but are available on request.

2002	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1			0.0	3.6	4.0	1.0	5.2	8.0	0	0.2	1.0	4.2
2			0.0	2.8	2.8	7.8	0.2	6.2	0.20	0.2	8.0	2.8
3			0.0	3.8	0.4	4.2	0.8	1.8	0.0	0.2	5.8	2.6
4			0.4	0.0	0.0	1.6	8.2	0.6	0.0	0.2	0.4	0.4
5			0.2	0.0	0.0	0.0	1.8	0.0	0.4	0.2	1.2	0.4
6			0.2	0.0	0.0	0.0	0.8	0.2	1.0	0.0	2.0	0.2
7			0.0	0.0	1.0	4.0	3.0	0.4	1.6	0.0	0.0	0.8
8			2.8	0.2	0.0	1.6	5.2	7.0	0.6	7.2	11.6	0.0
9			10.4	0.0	0.0	9.8	0.8	0.2	0.4	7.0	6.6	0.0
10			6.4	0.0	0.2	6.2	2.4	0.0	0.0	0.0	4.2	0.0
11			0.0	0.2	0.0	1.0	13.6	2.6	0.0	20.8	2.0	0.0
12			0.2	0.4	0.8	0.2	3.2	0.0	0.2	0.4	1.0	3.4
13			0.6	0.2	5.0	3.4	0.2	0.2	0.2	6.0	0.4	0.6
14			0.0	1.0	1.2	4.2	0.0	0.0	0.4	0.2	24.2	0.4
15			0.4	0.0	0.0	0.0	0.0	1.4	0.2	11.6	15.4	2.4
16			0.4	0.4	0.2	7.4	0.0	0.0	0.0	0.2	0.0	0.0
17			1.4	36.6	29.0	0.2	0.0	0.2	0.0	2.8	0.0	0.2
18			1.6	1.6	0.2	0.0	0.0	0.0	0.0	0.2	3.6	0.0
19			0.2	0.6	3.2	0.4	6.0	0.0	0.0	0.0	5.0	0.2
20			2.4	1.6	4.2	0.4	0.2	0.4	0.2	20.4	0.6	1.2
21			0.4	10.2	3.0	2.0	0.0	0.0	0.2	13.4	7.0	4.8
22			0.0	0.0	5.8	2.2	0.8	0.0	0.0	0.6	0.2	0.4
23			0.0	0.0	5.6	1.8	2.2	0.2	0.0	0.4	2.0	2.2
24			0.2	0.8	6.8	0.2	0.0	2.8	0.2	1.6	4.8	0.4
25			0.6	1.8	3.4	0.0	0.0	0.0	0	4.4	2.6	0.4
26			0.2	9.4	0.4	0.0	0.0	0.0	0	6.0	2.8	2.4
27			0.0	9.8	1.6	0.0	0.0	0.0	0	4.2	10.4	9.0
28			0.0	9.4	8.8	0.0	3.2	0.0	0	0.4	0.4	0.0
29			0.2	1.4	3.4	0.6	4.0	0.2	0	22.2	0.2	18.4
30			4.4	5.4	3.2	3.6	2.8	0.4	9.0	0.0	7.0	0.8
31			1.0		0		2.6	0.2		0.2		4.4
Total	**0.0**	**0.0**	**34.6**	**101.2**	**94.2**	**63.8**	**67.2**	**33.0**	**14.8**	**131.2**	**130.4**	**63.0**

2003	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	6.4	1.0	5.0	2.9	5.2	0.4	4.0	0.0	0.0	0.0	2.4	0.2
2	1.2	2.4	0.6	0.9	0.4	0.0	0.2	0.2	0.0	0.2	0.6	3.8
3	1.2	0.4	1.0	0.2	1.8	11.0	0.6	0.2	0.0	0.0	0.2	0.0
4	0.2	0.8	1.2	0.4	24.8	0.8	0.0	0.0	0.0	0.0	0.2	0.0
5	0.2	0.2	0.0	0.2	5.8	1.0	0.0	0.2	1.4	8.2	1.2	0.2
6	0.2	3.0	0.6	0.2	0.8	0.0	0.6	0.2	0.0	0.0	0.2	0.2
7	0.0	0.0	3.2	0.2	0.4	13.8	2.6	0.0	9.8	4.6	0.0	0.0
8	0.2	2.6	8.8	0.2	0.0	1.0	15.8	0.2	0.2	0.0	0.0	0.2
9	4.0	2.4	1.8	0.2	3.4	5.8	0.0	0.0	3.4	1.4	0.0	1.6
10	0.0	6.6	9.6	0.2	0.6	8.2	1.8	0.0	1.0	0.0	0.2	1.4
11	0.2	0.2	2.0	0.2	5.8	0.4	0.0	0.0	2.4	0.0	4.4	4.4
12	0.2	0.2	0.2	0.2	6.2	0.6	0.0	0.0	0.4	0.2	0.4	2.4
13	0.6	0.0	0.2	1.5	0.8	0.0	0.0	0.0	0.2	1.4	4.4	0.8
14	0.2	0.0	0.2	0.7	0.2	0.0	2.0	0.2	0.0	0.0	9.4	0.0
15	3.6	0.2	0.0	0.2	4.8	0.0	6.4	0.0	0.0	0.0	0.2	0.2
16	0.2	0.0	0.0	0.2	8.0	0.0	0.4	0.0	0.2	0.2	0.2	0.2
17	10.8	0.0	0.2	0.2	7.2	0.0	11.2	1.4	0.2	0.2	1.4	0.0
18	8.4	0.0	0.2	0.2	9.6	0.4	0.6	0.2	4.6	0.2	0.0	0.2
19	0.8	0.0	0.4	0.2	8.2	0.4	3.8	0.0	1.4	0.6	5.0	0.6
20	6.0	0.8	0.0	0.2	1.0	0.0	0.6	0.0	1.0	0.2	4.4	7.4
21	1.4	0.2	0.0	8.0	10.0	0.6	2.4	0.0	1.2	0.4	0.2	0.2
22	0.0	0.0	0.2	0.2	1.0	0.2	0.4	3.4	4.4	22.6	0.2	0.8
23	0.4	1.4	0.0	0.2	2.6	0.0	3.0	0.0	0.4	5.6	0.2	0.6
24	1.4	0.2	0.0	1.6	0.8	0.0	4.2	0.0	0.0	0.2	0.2	0.0
25	6.0	0.0	0.0	5.2	0.0	0.0	0.8	0.2	0.2	0.2	4.4	5.8
26	0.2	1.4	0.0	3.1	0.8	1.0	0.0	0.0	1.6	0.2	0.8	14.0
27	0.6	1.0	0.2	1.8	1.8	21.0	2.0	0.2	0.0	0.2	0.6	0.2
28	4.0	16.6	1.0	4.6	3.4	0.0	6.6	0.6	0.2	3.4	0.4	0.2
29	0.2		0.2	0.4	1.8	0.0	6.6	0.4	1.0	1.8	8.8	0.0
30	1.4		0.2	1.3	0.2	37.2	1.0	0.0	3.0	8.4	0.2	7.2
31	1.8		0.2		0		3.4	0.2		7.0		11.8
Total	**62.0**	**41.6**	**37.4**	**36.5**	**117.4**	**103.8**	**81.0**	**7.8**	**38.2**	**67.4**	**50.8**	**64.6**

2004	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	0.2	3.2	0.2	1.6	0.0	0.00	2.6	0.0	0.2	3.20	0.00	1.2
2	4.6	3.8	0.0	3.8	0.0	0.60	2.8	0.0	0.6	3.60	0.20	0.0
3	3.0	5.2	13.2	11.8	2.6	1.20	2.8	0.3	0.2	3.20	1.20	0.6
4	0.8	9.4	4.0	3.8	18.6	0.00	0.4	0.9	0.0	16.40	0.40	0.0
5	0.2	0.0	0.0	0.6	1.8	0.20	6.0	6.6	0.0	0.80	0.00	0.6
6	3.2	0.0	1.2	3.2	0.8	0.00	4.0	1.4	0.2	1.20	0.00	1.0
7	4.6	0.2	0.2	0.2	0.0	0.00	0.2	0.0	0.0	0.00	0.20	0.2
8	6.8	0.0	0.2	0.4	0.2	0.00	0.2	1.0	0.2	0.60	1.20	1.4
9	3.2	0.0	0.0	3.2	1.4	0.00	0.6	0.3	0.0	0.20	0.40	0.0
10	6.2	0.0	0.2	1.8	0.0	3.20	4.2	0.0	0.8	0.00	0.00	1.0
11	4.6	0.0	0.6	0.0	0.0	2.80	4.6	3.0	1.2	0.00	0.40	0.2
12	4.6	0.0	1.6	0.0	0.0	0.40	0.0	4.7	7.4	0.20	0.80	0.0
13	0.6	1.0	2.4	0.2	0.0	0.00	0.2	0.0	2.0	3.60	0.00	0.2
14	0.6	0.2	5.2	0.4	0.0	0.00	1.2	0.0	4.4	2.80	0.00	3.4
15	19.0	0.2	1.6	10.8	0.0	0.00	6.6	15.6	0.6	0.20	0.40	3.8
16	1.8	1.0	9.0	0.4	0.0	0.00	0.0	11.1	8.2	3.60	0.40	2.4
17	0.2	0.0	0.2	8.0	0.0	0.00	4.2	2.0	0.2	0.60	1.00	8.8
18	0.2	0.2	5.0	2.4	0.0	2.40	0.4	18.8	12.4	0.00	13.00	11.6
19	0.0	0.2	7.8	7.0	0.0	0.40	0.2	19.0	5.2	6.60	0.20	0.8
20	0.2	0.2	4.2	1.4	0.0	0.00	0.4	0.7	2.8	14.40	14.80	1.6
21	0.0	0.0	8.8	0.6	0.0	0.00	0.2	0.0	0.0	8.40	1.40	2.8
22	1.0	0.0	1.8	0.4	0.2	19.60	0.2	7.9	3.2	11.00	0.00	6.6
23	6.8	0.0	0.4	0.0	0.0	7.40	0.0	6.5	2.4	5.00	0.00	0.4
24	1.0	3.4	0.2	0.0	0.0	0.80	0.0	7.9	0.2	3.00	0.20	3.6
25	0.2	0.4	0.4	0.0	0.0	0.00	0.6	3.9	1.0	0.60	2.40	0.0
26	5.0	1.0	0.0	0.2	0.0	3.00	0.2	0.5	0.6	0.40	0.20	0.8
27	1.6	0.2	0.0	0.0	0.0	0.60	0.2	0.3	0.8	2.60	2.20	4.2
28	1.8	0.2	0.4	0.0	2.8	8.80	0.2	0.3	2.2	8.80	0.20	0.2
29	0.0	0.0	0.0	1.8	4.6	0.00	0.0	0.2	4.4	14.80	0.20	0.4
30	2.0		0.0	0.0	1.0	3.40	0.4	0.0	7.6	0.00	5.40	1.6
31	18.4		0.0		6.0		0.4	0.0		0.40		0.4
Total	**102.4**	**30.0**	**68.8**	**64.0**	**34.0**	**54.8**	**44.0**	**112.9**	**69.0**	**116.2**	**46.8**	**59.8**

2005	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	3.8	0	1.2	10	0.8	0.6	3	0	0.20			
2	0.2	0.2	0.8	0	4	2.2	2.4	3.8	0.20			
3	0.4	0	1	0.2	17	3.6	1.6	0.2	0.00			
4	3.6	3.4	1.4	1.6	0	1.8	0.6	7	0.00			
5	1.6	0.2	0	2.6	0.6	0	5.6	1	0.00			
6	0	3	0.2	14.4	0.2	0	0.8	1	0.20			
7	22.6	0.2	0.2	4.4	0.2	0	1	0	0.00			
8	6.2	2.8	0	0.2	0.2	0	1	0.2	2.40			
9	0.6	2	0	0.2	0.4	0	0.4	0	9.60			
10	0.4	2.4	0.4	0.2	0.2	0	0	0	0.20			
11	2.8	3.6	0.2	0.2	0	0	0.2	0.8	0.00			
12	1	5.8	0.2	1	0	0	0	0.2	0.00			
13	0.2	1.2	0	6.2	0	0.2	0	6.4	0.00			
14	0.4	0	6.4	2	0	0.6	1	0	0.20			
15	1	0	0	0.2	0	3.6	0.6	0	9.00			
16	2.8	0.4	0	0	0.2	3.4	0	0	0.00			
17	5	0.4	0	16.2	0	0	0	0.2	0.20			
18	6	0.2	0	0.8	7.2	0	1.4	10	0.00			
19	4.8	0	0	0.2	1.2	0.8	0	1.6	7.80			
20	1.2	0	0.6	0	4	0	1	0.2	0.20			
21	5.6	4	24.4	0	4.4	0.2	0.8	3.2	0.00			
22	9.2	4.4	0.4	0.2	1.8	0	0	1.6	1.20			
23	0	1.6	2.8	2.6	6	0.2	17.6	1	1.80			
24	0.2	3.8	0.8	0	5.4	2.2	3	7.2	5.00			
25	0.8	4.8	0.2	1	7.6	0	0	2.8	6.60			
26	2.8	0	0.2	4.4	2	0.2	0	0.6	9.20			
27	0	0.2	0.2	2.2	2	0	0	0	2.20			
28	0	0	4.2	4.2	0.2	0.8	15.2	0	8.60			
29	0		2.8	0	0	6.2	9.8	0.8	2.00			
30	0.4		2	3.6	4.8	5.4	2.6	0.4	0.20			
31	0		0.2		0.2		0.2	0.8				
Total	**83.6**	**44.6**	**50.8**	**78.8**	**70.4**	**32.0**	**69.8**	**51.0**	**67.0**			

APPENDIX 9

Daily Evapotranspiration Calculations

This appendix presents daily potential and actual evapotranspiration data computed from meteorological inputs recorded at the Pollardstown Fen's weather station using Modified Penmann-Montheith methodology recommended by Food and Agricultural Organisation for United Nations (Allen *et. al.*, 1998). Actual Evapotranspiration was determined using Aslyng soil moisture deficit model.

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
01/03/2002	0.0			
02/03/2002	0.0			
03/03/2002	0.0			
04/03/2002	0.4	0.86	0.0	0.9
05/03/2002	0.2	0.78	0.5	0.78
06/03/2002	0.2	0.72	1.0	0.72
07/03/2002	0.0	1.94	1.6	1.94
08/03/2002	2.8	0.78	3.5	0.78
09/03/2002	10.4	0.94	1.5	0.94
10/03/2002	6.4	1.66	0.0	1.66
11/03/2002	0.0	1.82	0.0	1.82
12/03/2002	0.2	0.89	1.8	0.89
13/03/2002	0.6	1.50	2.5	1.50
14/03/2002	0.0	1.79	3.4	1.79
15/03/2002	0.4	0.43	5.2	0.43
16/03/2002	0.4	2.16	5.2	2.16
17/03/2002	1.4	0.54	7.0	0.54
18/03/2002	1.6	0.38	6.1	0.38
19/03/2002	0.2	0.49	4.9	0.49
20/03/2002	2.4	0.48	5.2	0.48
21/03/2002	0.4	1.96	3.3	1.96
22/03/2002	0.0	1.35	4.8	1.35
23/03/2002	0.0	1.86	6.2	1.86
24/03/2002	0.2	0.73	8.1	0.73
25/03/2002	0.6	0.77	8.6	0.77
26/03/2002	0.2	1.99	8.8	1.99
27/03/2002	0.0	2.18	10.5	2.18
28/03/2002	0.0	2.15	12.7	2.15
29/03/2002	0.2	1.91	14.9	1.91
30/03/2002	4.4	1.67	16.6	1.67
31/03/2002	1.0	0.90	13.9	0.90
01/04/2002	3.6	1.50	13.8	1.50
02/04/2002	2.8	1.19	11.7	1.19
03/04/2002	3.8	2.31	10.1	2.31
04/04/2002	0.0	1.28	8.6	1.28
05/04/2002	0.0	1.66	9.8	1.66
06/04/2002	0.0	2.68	11.5	2.68
07/04/2002	0.0	2.91	14.2	2.91
08/04/2002	0.2	1.88	17.1	1.88
09/04/2002	0.0	2.22	18.8	2.22
10/04/2002	0.0	2.74	21.0	2.74
11/04/2002	0.2	1.73	23.7	1.73
12/04/2002	0.4	1.09	25.2	1.09
13/04/2002	0.2	1.80	25.9	1.80
14/04/2002	1.0	1.85	27.5	1.85
15/04/2002	0.0	2.83	28.4	2.83
16/04/2002	0.4	2.16	31.2	2.16
17/04/2002	36.6	0.34	33.0	0.34
18/04/2002	1.6	1.43	0.0	1.38
19/04/2002	0.6	2.39	0.0	2.39
20/04/2002	1.6	0.97	1.8	0.97
21/04/2002	10.2	1.08	1.2	1.08
22/04/2002	0.0	2.37	0.0	2.37
23/04/2002	0.0	4.14	2.4	4.14
24/04/2002	0.8	3.11	6.5	3.11
25/04/2002	1.8	2.03	8.8	2.03
26/04/2002	9.4	3.21	9.1	3.21
27/04/2002	9.8	1.10	2.9	1.10
28/04/2002	9.4	1.99	0.0	1.99
29/04/2002	1.4	2.42	0.0	2.42
30/04/2002	5.4	2.25	1.0	2.25
01/05/2002	4.0	0.98	0.0	0.98
02/05/2002	2.8	1.57	0.0	1.57

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
03/05/2002	0.4	1.94	0.0	1.94
04/05/2002	0.0	2.52	1.5	2.52
05/05/2002	0.0	3.35	4.1	3.35
06/05/2002	0.0	3.18	7.4	3.18
07/05/2002	1.0	2.44	10.6	2.44
08/05/2002	0.0	2.53	12.0	2.53
09/05/2002	0.0	3.28	14.6	3.28
10/05/2002	0.2	2.14	17.9	2.14
11/05/2002	0.0	2.86	19.8	2.86
12/05/2002	0.8	3.27	22.7	3.27
13/05/2002	5.0	2.09	25.1	2.09
14/05/2002	1.2	2.87	22.2	2.87
15/05/2002	0.0	2.61	23.9	2.61
16/05/2002	0.2	2.62	26.5	2.62
17/05/2002	29.0	0.28	28.9	0.28
18/05/2002	0.2	2.49	0.2	2.49
19/05/2002	3.2	2.07	2.5	2.07
20/05/2002	4.2	2.68	1.4	2.68
21/05/2002	3.0	1.43	0.0	1.43
22/05/2002	5.8	2.83	0.0	2.83
23/05/2002	5.6	2.16	0.0	2.16
24/05/2002	6.8	1.53	0.0	1.53
25/05/2002	3.4	2.32	0.0	2.32
26/05/2002	0.4	2.27	0.0	2.27
27/05/2002	1.6	2.02	1.9	2.02
28/05/2002	8.8	1.45	2.3	1.45
29/05/2002	3.4	1.87	0.0	1.87
30/05/2002	3.2	3.02	0.0	3.02
31/05/2002	0	2.87	0.0	2.87
01/06/2002	1.0	4.39	2.9	4.39
02/06/2002	7.8	2.30	6.3	2.30
03/06/2002	4.2	2.98	0.8	2.98
04/06/2002	1.6	1.59	0.0	1.59
05/06/2002	0.0	2.65	0.0	2.65
06/06/2002	0.0	1.89	2.6	1.89
07/06/2002	4.0	0.72	4.5	0.72
08/06/2002	1.6	0.45	1.3	0.45
09/06/2002	9.8	2.19	0.1	2.19
10/06/2002	6.2	2.33	0.0	2.33
11/06/2002	1.0	2.77	0.0	2.77
12/06/2002	0.2	2.60	1.8	2.60
13/06/2002	3.4	1.23	4.2	1.23
14/06/2002	4.2	1.99	2.0	1.99
15/06/2002	0.0	2.67	0.0	2.67
16/06/2002	7.4	1.70	2.7	1.70
17/06/2002	0.2	4.17	0.0	4.17
18/06/2002	0.0	2.78	4.0	2.78
19/06/2002	0.4	2.58	6.8	2.58
20/06/2002	0.4	3.15	8.9	3.15
21/06/2002	2.0	2.79	11.7	2.79
22/06/2002	2.2	3.27	12.5	3.27
23/06/2002	1.8	1.76	13.5	1.76
24/06/2002	0.2	1.47	13.5	1.47
25/06/2002	0.0	3.42	14.8	3.42
26/06/2002	0.0	2.34	18.2	2.34
27/06/2002	0.0	3.01	20.5	3.01
28/06/2002	0.0	2.89	23.5	2.89
29/06/2002	0.6	2.37	26.4	2.37
30/06/2002	3.6	0.57	28.2	0.57
01/07/2002	5.2	1.87	25.2	1.87
02/07/2002	0.2	2.24	21.8	2.24
03/07/2002	0.8	2.80	23.9	2.80
04/07/2002	8.2	1.42	25.9	1.42

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
05/07/2002	1.8	2.19	19.1	2.19
06/07/2002	0.8	1.88	19.5	1.88
07/07/2002	3.0	2.89	20.6	2.89
08/07/2002	5.2	2.60	20.4	2.60
09/07/2002	0.8	2.70	17.8	2.70
10/07/2002	2.4	1.97	19.7	1.97
11/07/2002	13.6	1.76	19.3	1.76
12/07/2002	3.2	2.35	7.5	2.35
13/07/2002	0.2	3.78	6.6	3.78
14/07/2002	0.0	3.21	10.2	3.21
15/07/2002	0.0	1.92	13.4	1.92
16/07/2002	0.0	2.40	15.3	2.40
17/07/2002	0.0	2.76	17.7	2.76
18/07/2002	0.0	2.91	20.5	2.91
19/07/2002	6.0	1.28	23.4	1.28
20/07/2002	0.2	2.10	18.7	2.10
21/07/2002	0.0	2.84	20.6	2.84
22/07/2002	0.8	2.82	23.4	2.82
23/07/2002	2.2	2.08	25.4	2.08
24/07/2002	0.0	2.51	25.3	2.51
25/07/2002	0.0	3.16	27.8	3.16
26/07/2002	0.0	3.36	31.0	3.36
27/07/2002	0.0	3.04	34.4	3.00
28/07/2002	3.2	1.04	37.4	0.99
29/07/2002	4.0	1.23	35.1	1.13
30/07/2002	2.8	1.86	32.3	1.76
31/07/2002	2.6	0.79	31.2	0.77
01/08/2002	8.0	1.55	29.4	1.53
02/08/2002	6.2	0.39	22.9	0.39
03/08/2002	1.8	1.13	17.1	1.13
04/08/2002	0.6	4.51	16.4	4.51
05/08/2002	0.0	4.29	20.4	4.29
06/08/2002	0.2	1.57	24.6	1.57
07/08/2002	0.4	1.80	26.0	1.80
08/08/2002	7.0	0.48	27.4	0.48
09/08/2002	0.2	3.05	20.9	3.05
10/08/2002	0.0	3.29	23.7	3.29
11/08/2002	2.6	2.65	27.0	2.65
12/08/2002	0.0	2.35	27.1	2.35
13/08/2002	0.2	1.57	29.4	1.57
14/08/2002	0.0	1.54	30.8	1.54
15/08/2002	1.4	3.78	32.3	3.75
16/08/2002	0.0	3.83	34.7	3.73
17/08/2002	0.2	2.78	38.4	2.63
18/08/2002	0.0	2.52	40.9	2.29
19/08/2002	0.0	2.75	43.1	2.42
20/08/2002	0.4	2.04	45.6	1.74
21/08/2002	0.0	4.07	46.9	3.37
22/08/2002	0.0	2.26	50.3	1.84
23/08/2002	0.2	3.37	52.1	2.61
24/08/2002	2.8	1.80	54.5	1.36
25/08/2002	0.0	2.59	53.1	1.89
26/08/2002	0.0	2.71	55.0	2.02
27/08/2002	0.0	1.22	57.0	0.88
28/08/2002	0.0	1.76	57.9	1.23
29/08/2002	0.2	2.57	59.1	1.78
30/08/2002	0.4	0.81	60.7	0.55
31/08/2002	0.2	2.04	60.8	1.35
01/09/2002	0	3.01	62.0	1.98
02/09/2002	0.2	2.67	63.9	1.72
03/09/2002	0.0	2.63	65.5	1.64
04/09/2002	0.0	1.14	67.1	0.69
05/09/2002	0.4	0.65	67.8	0.38

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
06/09/2002	1.0	1.29	67.8	0.75
07/09/2002	1.6	1.23	67.5	0.72
08/09/2002	0.6	0.69	66.6	0.40
09/09/2002	0.4	1.49	66.4	0.88
10/09/2002	0.0	2.66	66.9	1.58
11/09/2002	0.0	3.10	68.5	1.83
12/09/2002	0.2	1.13	70.3	0.65
13/09/2002	0.2	2.46	70.8	1.36
14/09/2002	0.4	2.13	71.9	1.16
15/09/2002	0.2	1.91	72.7	1.02
16/09/2002	0.0	1.64	73.5	0.86
17/09/2002	0.0	1.04	74.4	0.54
18/09/2002	0.0	1.30	74.9	0.66
19/09/2002	0.0	1.14	75.6	0.57
20/09/2002	0.2	1.56	76.2	0.77
21/09/2002	0.2	2.10	76.7	1.02
22/09/2002	0.0	0.83	77.5	0.40
23/09/2002	0.0	1.64	77.9	0.77
24/09/2002	0.2	1.23	78.7	0.58
25/09/2002	0	1.74	79.1	0.80
26/09/2002	0	0.67	79.9	0.30
27/09/2002	0	1.38	80.2	0.62
28/09/2002	0	1.27	80.8	0.56
29/09/2002	0	2.56	81.4	1.12
30/09/2002	9.0	1.65	82.5	0.71
01/10/2002	0.2	1.58	74.2	0.66
02/10/2002	0.2	0.16	74.7	0.08
03/10/2002	0.2	1.52	74.5	0.77
04/10/2002	0.2	1.46	75.1	0.74
05/10/2002	0.2	1.55	75.6	0.77
06/10/2002	0.0	1.08	76.2	0.53
07/10/2002	0.0	1.60	76.7	0.78
08/10/2002	7.2	0.72	77.5	0.35
09/10/2002	7.0	0.30	70.7	0.14
10/10/2002	0.0	1.21	63.8	0.66
11/10/2002	20.8	0.10	64.5	0.06
12/10/2002	0.4	0.82	43.7	0.51
13/10/2002	6.0	0.16	43.8	0.14
14/10/2002	0.2	0.18	38.0	0.15
15/10/2002	11.6	0.20	37.9	0.19
16/10/2002	0.2	0.61	26.5	0.56
17/10/2002	2.8	0.18	26.9	0.18
18/10/2002	0.2	0.46	24.3	0.46
19/10/2002	0.0	0.45	24.5	0.45
20/10/2002	20.4	0.12	25.0	0.12
21/10/2002	13.4	0.12	4.7	0.12
22/10/2002	0.6	0.17	0.0	0.17
23/10/2002	0.4	0.52	0.0	0.52
24/10/2002	1.6	0.04	0.1	0.04
25/10/2002	4.4	0.99	0.0	0.99
26/10/2002	6.0	0.78	0.0	0.78
27/10/2002	4.2	1.01	0.0	1.01
28/10/2002	0.4	0.15	0.0	0.15
29/10/2002	22.2	0.00	0.0	0.00
30/10/2002	0.0	0.31	0.0	0.31
31/10/2002	0.2	0.40	0.3	0.40
01/11/2002	1.0	0.10	0.5	0.10
02/11/2002	8.0	0.14	0.0	0.14
03/11/2002	5.8	0.00	0.0	0.00
04/11/2002	0.4	0.65	0.0	0.65
05/11/2002	1.2	0.18	0.2	0.18
06/11/2002	2.0	0.50	0.0	0.50
07/11/2002	0.0	0.10	0.0	0.10

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
08/11/2002	11.6	0.11	0.1	0.11
09/11/2002	6.6	0.12	0.0	0.12
10/11/2002	4.2	0.18	0.0	0.18
11/11/2002	2.0	0.36	0.0	0.36
12/11/2002	1.0	0.35	0.0	0.35
13/11/2002	0.4	0.01	0.0	0.01
14/11/2002	24.2	0.00	0.0	0.00
15/11/2002	15.4	0.00	0.0	0.00
16/11/2002	0.0	0.00	0.0	0.00
17/11/2002	0.0	0.02	0.0	0.02
18/11/2002	3.6	0.57	0.0	0.57
19/11/2002	5.0	0.13	0.0	0.13
20/11/2002	0.6	0.31	0.0	0.31
21/11/2002	7.0	0.15	0.0	0.15
22/11/2002	0.2	0.30	0.0	0.30
23/11/2002	2.0	0.00	0.1	0.00
24/11/2002	4.8	0.00	0.0	0.00
25/11/2002	2.6	0.10	0.0	0.10
26/11/2002	2.8	0.58	0.0	0.58
27/11/2002	10.4	0.17	0.0	0.17
28/11/2002	0.4	0.00	0.0	0.00
29/11/2002	0.2	0.00	0.0	0.00
30/11/2002	7.0	0.23	0.0	0.23
01/12/2002	4.2	0.23	0.0	0.23
02/12/2002	2.8	0.18	0.0	0.18
03/12/2002	2.6	0.06	0.0	0.06
04/12/2002	0.4	0.00	0.0	0.00
05/12/2002	0.4	0.00	0.0	0.00
06/12/2002	0.2	0.00	0.0	0.00
07/12/2002	0.8	0.09	0.0	0.09
08/12/2002	0.0	0.10	0.0	0.10
09/12/2002	0.0	0.18	0.1	0.18
10/12/2002	0.0	0.60	0.3	0.60
11/12/2002	0.0	0.27	0.9	0.27
12/12/2002	3.4	0.00	1.2	0.00
13/12/2002	0.6	0.00	0.0	0.00
14/12/2002	0.4	0.00	0.0	0.00
15/12/2002	2.4	0.04	0.0	0.04
16/12/2002	0.0	0.00	0.0	0.00
17/12/2002	0.2	0.00	0.0	0.00
18/12/2002	0.0	0.00	0.0	0.00
19/12/2002	0.2	0.00	0.0	0.00
20/12/2002	1.2	0.06	0.0	0.06
21/12/2002	4.8	0.00	0.0	0.00
22/12/2002	0.4	0.00	0.0	0.00
23/12/2002	2.2	0.56	0.0	0.56
24/12/2002	0.4	0.01	0.0	0.01
25/12/2002	0.4	0.12	0.0	0.12
26/12/2002	2.4	0.00	0.0	0.00
27/12/2002	9.0	0.07	0.0	0.07
28/12/2002	0.0	0.00	0.0	0.00
29/12/2002	18.4	0.18	0.0	0.18
30/12/2002	0.8	0.00	0.0	0.00
31/12/2002	4.4	0.01	0.0	0.01
01/01/2003	6.4	0.00	0.0	0.00
02/01/2003	1.2	0.00	0.0	0.00
03/01/2003	1.2	0.00	0.0	0.00
04/01/2003	0.2	0.00	0.0	0.00
05/01/2003	0.2	0.00	0.0	0.00
06/01/2003	0.2	0.03	0.0	0.03
07/01/2003	0.0	0.53	0.0	0.53
08/01/2003	0.2	0.00	0.5	0.00
09/01/2003	4.0	0.04	0.3	0.04

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
10/01/2003	0.0	0.08	0.0	0.08
11/01/2003	0.2	0.00	0.1	0.00
12/01/2003	0.2	0.40	0.0	0.40
13/01/2003	0.6	0.06	0.2	0.06
14/01/2003	0.2	0.54	0.0	0.54
15/01/2003	3.6	0.11	0.3	0.11
16/01/2003	0.2	0.60	0.0	0.60
17/01/2003	10.8	0.29	0.4	0.29
18/01/2003	8.4	0.26	0.0	0.26
19/01/2003	0.8	0.00	0.0	0.00
20/01/2003	6.0	0.36	0.0	0.36
21/01/2003	1.4	0.00	0.0	0.00
22/01/2003	0.0	0.08	0.0	0.08
23/01/2003	0.4	0.41	0.1	0.41
24/01/2003	1.4	0.59	0.1	0.59
25/01/2003	6.0	0.42	0.0	0.42
26/01/2003	0.2	0.52	0.0	0.52
27/01/2003	0.6	0.27	0.3	0.27
28/01/2003	4.0	0.41	0.0	0.41
29/01/2003	0.2	0.09	0.0	0.09
30/01/2003	1.4	0.57	0.0	0.57
31/01/2003	1.0	0.18	0.0	0.18
01/02/2003	2.4	0.29	0.0	0.29
02/02/2003	0.4	0.05	0.0	0.05
03/02/2003	0.8	0.00	0.0	0.00
04/02/2003	0.2	0.22	0.0	0.22
05/02/2003	3.0	0.62	0.0	0.62
06/02/2003	0.0	0.26	0.0	0.26
07/02/2003	2.6	0.14	0.3	0.14
08/02/2003	2.4	0.29	0.0	0.29
09/02/2003	6.6	0.41	0.0	0.41
10/02/2003	0.2	0.39	0.0	0.39
11/02/2003	0.2	0.10	0.2	0.10
12/02/2003	0.0	0.18	0.1	0.18
13/02/2003	0.0	0.36	0.3	0.36
14/02/2003	0.2	0.05	0.6	0.05
15/02/2003	0.0	0.41	0.5	0.41
16/02/2003	0.0	0.75	0.9	0.75
17/02/2003	0.0	0.88	1.6	0.88
18/02/2003	0.0	0.99	2.5	0.99
19/02/2003	0.8	0.34	3.5	0.34
20/02/2003	0.2	0.05	3.1	0.05
21/02/2003	0.0	0.52	2.9	0.52
22/02/2003	1.4	1.10	3.4	1.10
23/02/2003	0.2	1.29	3.1	1.29
24/02/2003	0.0	0.48	4.2	0.48
25/02/2003	1.4	0.63	4.7	0.63
26/02/2003	1.0	0.25	3.9	0.25
27/02/2003	16.6	0.95	3.2	0.95
28/02/2003	0.0	0.19	0.0	0.19
01/03/2003	5.0	0.18	0.2	0.18
02/03/2003	0.6	1.08	0.0	1.08
03/03/2003	1.0	0.43	0.5	0.43
04/03/2003	1.2	0.81	0.0	0.81
05/03/2003	0.0	0.88	0.0	0.88
06/03/2003	0.6	0.90	0.9	0.90
07/03/2003	3.2	1.12	1.2	1.12
08/03/2003	8.8	0.25	0.0	0.25
09/03/2003	1.8	1.06	0.0	1.06
10/03/2003	9.6	0.85	0.0	0.85
11/03/2003	2.0	0.81	0.0	0.81
12/03/2003	0.2	0.82	0.0	0.82
13/03/2003	0.2	0.72	0.6	0.72

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
14/03/2003	0.2	1.35	1.1	1.35
15/03/2003	0.0	1.52	2.3	1.52
16/03/2003	0.0	1.52	3.8	1.52
17/03/2003	0.2	1.60	5.3	1.60
18/03/2003	0.2	1.57	6.7	1.57
19/03/2003	0.4	1.58	8.1	1.58
20/03/2003	0.0	1.11	9.3	1.11
21/03/2003	0.0	1.61	10.4	1.61
22/03/2003	0.2	1.65	12.0	1.65
23/03/2003	0.0	1.97	13.5	1.97
24/03/2003	0.0	1.81	15.4	1.81
25/03/2003	0.0	1.83	17.2	1.83
26/03/2003	0.0	2.00	19.1	2.00
27/03/2003	0.2	2.00	21.1	2.00
28/03/2003	1.0	1.86	22.8	1.86
29/03/2003	0.2	1.94	23.7	1.94
30/03/2003	0.2	1.96	25.4	1.96
31/03/2003	0.2	2.23	27.1	2.23
01/04/2003	2.9	1.67	29.1	1.67
02/04/2003	0.9	1.87	27.8	1.87
03/04/2003	0.2	1.81	28.9	1.81
04/04/2003	0.4	2.46	30.4	2.46
05/04/2003	0.2	2.09	32.5	2.08
06/04/2003	0.2	1.67	34.3	1.62
07/04/2003	0.2	1.73	35.7	1.65
08/04/2003	0.2	1.86	37.1	1.74
09/04/2003	0.2	2.09	38.6	1.93
10/04/2003	0.2	1.71	40.3	1.55
11/04/2003	0.2	1.81	41.6	1.60
12/04/2003	0.2	1.74	43.0	1.52
13/04/2003	1.5	1.88	44.3	1.61
14/04/2003	0.7	2.23	44.4	1.87
15/04/2003	0.2	2.98	45.5	2.51
16/04/2003	0.2	3.27	47.8	2.70
17/04/2003	0.2	2.73	50.3	2.19
18/04/2003	0.2	2.27	52.2	1.76
19/04/2003	0.2	1.60	53.7	1.21
20/04/2003	0.2	1.56	54.7	1.15
21/04/2003	8.0	1.45	55.6	1.05
22/04/2003	0.2	2.28	48.6	1.63
23/04/2003	0.2	2.36	50.0	1.87
24/04/2003	1.6	2.04	51.7	1.59
25/04/2003	5.2	2.15	51.6	1.64
26/04/2003	3.1	2.09	48.0	1.59
27/04/2003	1.8	2.20	46.5	1.76
28/04/2003	4.6	1.57	46.5	1.28
29/04/2003	0.4	2.45	43.2	2.00
30/04/2003	1.3	2.03	44.8	1.73
01/05/2003	5.2	1.70	45.2	1.42
02/05/2003	0.4	2.07	41.4	1.72
03/05/2003	1.8	0.73	42.7	0.64
04/05/2003	24.8	0.80	41.6	0.68
05/05/2003	5.8	3.15	17.4	2.74
06/05/2003	0.8	2.93	14.4	2.93
07/05/2003	0.4	2.02	16.5	2.02
08/05/2003	0.0	2.68	18.1	2.68
09/05/2003	3.4	2.71	20.8	2.71
10/05/2003	0.6	2.31	20.1	2.31
11/05/2003	5.8	2.08	21.8	2.08
12/05/2003	6.2	1.93	18.1	1.93
13/05/2003	0.8	3.02	13.8	3.02
14/05/2003	0.2	3.08	16.1	3.08
15/05/2003	4.8	1.82	18.9	1.82
16/05/2003	8.0	1.49	16.0	1.49
17/05/2003	7.2	1.46	9.4	1.46
18/05/2003	9.6	1.96	3.7	1.96
19/05/2003	8.2	1.81	0.0	1.81
20/05/2003	1.0	1.86	0.0	1.86
21/05/2003	10.0	0.63	0.9	0.63
22/05/2003	1.0	2.97	0.0	2.97
23/05/2003	2.6	2.19	2.0	2.19
24/05/2003	0.8	2.21	1.6	2.21
25/05/2003	0.0	2.66	3.0	2.66
26/05/2003	0.8	1.83	5.6	1.83
27/05/2003	1.8	1.96	6.7	1.96
28/05/2003	3.4	2.13	6.8	2.13
29/05/2003	1.8	2.79	5.6	2.79
30/05/2003	0.2	5.32	6.5	5.32
31/05/2003	0	3.98	11.7	3.98
01/06/2003	0.4	2.23	15.6	2.23
02/06/2003	0.0	4.43	17.5	4.43
03/06/2003	11.0	0.41	21.9	0.41
04/06/2003	0.8	2.50	11.3	2.50
05/06/2003	1.0	3.20	13.0	3.20
06/06/2003	0.0	4.67	15.2	4.67
07/06/2003	13.8	2.59	19.9	2.59
08/06/2003	1.0	2.49	8.7	2.49
09/06/2003	5.8	1.51	10.2	1.51
10/06/2003	8.2	2.77	5.9	2.77
11/06/2003	0.4	3.18	0.5	3.18
12/06/2003	0.6	3.43	3.2	3.43
13/06/2003	0.0	3.06	6.1	3.06
14/06/2003	0.0	5.16	9.1	5.16
15/06/2003	0.0	3.37	14.3	3.37
16/06/2003	0.0	4.07	17.7	4.07
17/06/2003	0.0	2.73	21.7	2.73
18/06/2003	0.4	2.77	24.4	2.77
19/06/2003	0.4	3.86	26.8	3.86
20/06/2003	0.0	3.45	30.3	3.45
21/06/2003	0.6	2.73	33.7	2.72
22/06/2003	0.2	2.39	35.8	2.29
23/06/2003	0.0	2.88	37.9	2.69
24/06/2003	0.0	4.05	40.6	3.69
25/06/2003	0.0	4.71	44.3	4.16
26/06/2003	1.0	3.45	48.5	2.90
27/06/2003	21.0	2.08	50.4	1.65
28/06/2003	0.0	2.97	31.0	2.30
29/06/2003	0.0	3.55	33.3	3.51
30/06/2003	37.2	0.68	36.8	0.65
01/07/2003	4.0	2.20	0.3	2.04
02/07/2003	0.2	3.79	0.0	3.79
03/07/2003	0.6	1.99	3.6	1.99
04/07/2003	0.0	1.35	5.0	1.35
05/07/2003	0.0	2.14	6.3	2.14
06/07/2003	0.6	3.31	8.5	3.31
07/07/2003	2.6	1.16	11.2	1.16
08/07/2003	15.8	2.14	9.7	2.14
09/07/2003	0.0	2.69	0.0	2.69
10/07/2003	1.8	3.67	2.7	3.67
11/07/2003	0.0	3.04	4.6	3.04
12/07/2003	0.0	3.15	7.6	3.15
13/07/2003	0.0	3.41	10.7	3.41
14/07/2003	2.0	2.93	14.2	2.93
15/07/2003	6.4	1.33	15.1	1.33
16/07/2003	0.4	2.90	10.0	2.90
17/07/2003	11.2	0.16	12.5	0.16

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
18/07/2003	0.6	3.18	1.5	3.18
19/07/2003	3.8	4.29	4.1	4.29
20/07/2003	0.6	4.19	4.6	4.19
21/07/2003	2.4	2.90	8.1	2.90
22/07/2003	0.4	1.77	8.6	1.77
23/07/2003	3.0	2.69	10.0	2.69
24/07/2003	4.2	2.26	9.7	2.26
25/07/2003	0.8	2.59	7.8	2.59
26/07/2003	0.0	2.07	9.5	2.07
27/07/2003	2.0	2.81	11.6	2.81
28/07/2003	6.6	1.15	12.4	1.15
29/07/2003	6.6	0.85	7.0	0.85
30/07/2003	1.0	2.95	1.2	2.95
31/07/2003	3.4	2.17	3.2	2.17
01/08/2003	0.0	2.32	1.9	2.32
02/08/2003	0.2	2.87	4.3	2.87
03/08/2003	0.2	3.37	6.9	3.37
04/08/2003	0.0	3.76	10.1	3.76
05/08/2003	0.2	3.85	13.9	3.85
06/08/2003	0.2	1.59	17.5	1.59
07/08/2003	0.0	5.08	18.9	5.08
08/08/2003	0.2	4.26	24.0	4.26
09/08/2003	0.0	1.57	28.1	1.57
10/08/2003	0.0	3.90	29.6	3.90
11/08/2003	0.0	3.43	33.5	3.43
12/08/2003	0.0	3.68	37.0	3.53
13/08/2003	0.0	4.06	40.5	3.74
14/08/2003	0.2	3.15	44.2	2.78
15/08/2003	0.0	2.42	46.8	2.03
16/08/2003	0.0	3.33	48.9	2.71
17/08/2003	1.4	2.13	51.6	1.69
18/08/2003	0.2	2.70	51.8	2.05
19/08/2003	0.0	2.63	53.7	1.99
20/08/2003	0.0	2.57	55.7	1.89
21/08/2003	0.0	2.04	57.6	1.46
22/08/2003	3.4	0.98	59.0	0.68
23/08/2003	0.0	3.39	56.3	2.30
24/08/2003	0.0	3.73	58.6	2.64
25/08/2003	0.2	2.41	61.3	1.64
26/08/2003	0.0	2.16	62.7	1.41
27/08/2003	0.2	2.88	64.1	1.83
28/08/2003	0.6	1.01	65.7	0.63
29/08/2003	0.4	1.64	65.8	0.99
30/08/2003	0.0	2.05	66.4	1.24
31/08/2003	0.2	1.63	67.6	0.97
01/09/2003	0.0	1.90	68.4	1.11
02/09/2003	0.0	1.66	69.5	0.95
03/09/2003	0.0	1.92	70.4	1.08
04/09/2003	0.0	2.65	71.5	1.46
05/09/2003	1.4	0.60	73.0	0.32
06/09/2003	0.0	2.82	71.9	1.47
07/09/2003	9.8	1.02	73.4	0.54
08/09/2003	0.2	2.36	64.1	1.22
09/09/2003	3.4	1.26	65.1	0.78
10/09/2003	1.0	1.86	62.5	1.14
11/09/2003	2.4	2.27	62.6	1.45
12/09/2003	0.4	2.08	61.7	1.33
13/09/2003	0.2	2.10	62.6	1.36
14/09/2003	0.0	2.95	63.8	1.88
15/09/2003	0.0	2.60	65.7	1.63
16/09/2003	0.2	3.00	67.3	1.81
17/09/2003	0.2	3.40	68.9	1.99
18/09/2003	4.6	1.61	70.7	0.91

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
19/09/2003	1.4	1.31	67.0	0.72
20/09/2003	1.0	0.15	66.3	0.09
21/09/2003	1.2	2.50	65.4	1.49
22/09/2003	4.4	2.23	65.7	1.35
23/09/2003	0.4	1.26	62.7	0.76
24/09/2003	0.0	1.57	63.0	1.00
25/09/2003	0.2	1.92	64.0	1.21
26/09/2003	1.6	2.28	65.0	1.42
27/09/2003	0.0	1.54	64.8	0.94
28/09/2003	0.2	1.37	65.8	0.84
29/09/2003	1.0	0.15	66.4	0.09
30/09/2003	3.0	0.43	65.5	0.26
01/10/2003	0.0	1.39	62.8	0.84
02/10/2003	0.2	1.59	63.6	1.01
03/10/2003	0.0	1.14	64.4	0.71
04/10/2003	0.0	1.15	65.1	0.71
05/10/2003	8.2	0.34	65.8	0.21
06/10/2003	0.0	1.63	57.8	0.98
07/10/2003	4.6	1.22	58.8	0.84
08/10/2003	0.0	1.19	55.1	0.81
09/10/2003	1.4	1.30	55.9	0.94
10/10/2003	0.0	1.08	55.4	0.77
11/10/2003	0.0	1.10	56.2	0.79
12/10/2003	0.2	0.51	57.0	0.36
13/10/2003	1.4	0.80	57.1	0.56
14/10/2003	0.0	0.63	56.3	0.44
15/10/2003	0.0	0.79	56.7	0.56
16/10/2003	0.2	0.74	57.3	0.52
17/10/2003	0.2	0.55	57.6	0.38
18/10/2003	0.2	0.52	57.8	0.36
19/10/2003	0.6	0.15	58.0	0.11
20/10/2003	0.2	0.82	57.5	0.57
21/10/2003	0.4	0.50	57.8	0.35
22/10/2003	22.6	0.00	57.8	0.00
23/10/2003	5.6	0.76	35.2	0.53
24/10/2003	0.2	0.38	30.1	0.36
25/10/2003	0.2	0.29	30.3	0.29
26/10/2003	0.2	0.43	30.3	0.43
27/10/2003	0.2	0.65	30.6	0.64
28/10/2003	3.4	0.21	31.0	0.21
29/10/2003	1.8	0.24	27.8	0.24
30/10/2003	8.4	0.16	26.3	0.16
31/10/2003	7.0	0.39	18.0	0.39
01/11/2003	2.4	0.49	11.4	0.49
02/11/2003	0.6	0.79	9.5	0.79
03/11/2003	0.2	0.99	9.7	0.99
04/11/2003	0.2	1.16	10.5	1.16
05/11/2003	1.2	1.79	11.4	1.79
06/11/2003	0.2	0.81	12.0	0.81
07/11/2003	0.0	1.40	12.6	1.40
08/11/2003	0.0	1.05	14.0	1.05
09/11/2003	0.0	1.04	15.1	1.04
10/11/2003	0.2	0.73	16.1	0.73
11/11/2003	4.4	0.43	16.7	0.43
12/11/2003	0.4	0.57	12.7	0.57
13/11/2003	4.4	0.65	12.8	0.65
14/11/2003	9.4	0.63	9.1	0.63
15/11/2003	0.2	0.22	0.3	0.22
16/11/2003	0.2	0.16	0.3	0.16
17/11/2003	1.4	0.42	0.3	0.42
18/11/2003	0.0	0.52	0.0	0.52
19/11/2003	5.0	0.31	0.5	0.31
20/11/2003	4.4	0.27	0.0	0.27

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
21/11/2003	0.2	0.14	0.0	0.14
22/11/2003	0.2	0.17	0.0	0.17
23/11/2003	0.2	0.09	0.0	0.09
24/11/2003	0.2	0.47	0.0	0.47
25/11/2003	4.4	0.37	0.3	0.37
26/11/2003	0.8	0.37	0.0	0.37
27/11/2003	0.6	0.31	0.0	0.31
28/11/2003	0.4	0.74	0.0	0.74
29/11/2003	8.8	0.42	0.3	0.42
30/11/2003	0.2	0.15	0.0	0.15
01/12/2003	0.2	0.12	0.0	0.12
02/12/2003	3.8	0.03	0.0	0.03
03/12/2003	0.0	0.00	0.0	0.00
04/12/2003	0.0	0.00	0.0	0.00
05/12/2003	0.2	0.28	0.0	0.28
06/12/2003	0.2	0.26	0.1	0.26
07/12/2003	0.0	0.00	0.1	0.00
08/12/2003	0.2	0.01	0.1	0.01
09/12/2003	1.6	0.38	0.0	0.38
10/12/2003	1.4	0.18	0.0	0.18
11/12/2003	4.4	0.00	0.0	0.00
12/12/2003	2.4	0.68	0.0	0.68
13/12/2003	0.8	0.00	0.0	0.00
14/12/2003	0.0	0.11	0.0	0.11
15/12/2003	0.2	0.00	0.1	0.00
16/12/2003	0.2	0.51	0.0	0.51
17/12/2003	0.0	0.00	0.3	0.00
18/12/2003	0.2	0.00	0.3	0.00
19/12/2003	0.6	0.06	0.1	0.06
20/12/2003	7.4	0.02	0.0	0.02
21/12/2003	0.2	0.00	0.0	0.00
22/12/2003	0.8	0.00	0.0	0.00
23/12/2003	0.6	0.00	0.0	0.00
24/12/2003	0.0	0.38	0.0	0.38
25/12/2003	5.8	0.08	0.4	0.08
26/12/2003	14.0	0.00	0.0	0.00
27/12/2003	0.2	0.00	0.0	0.00
28/12/2003	0.2	0.00	0.0	0.00
29/12/2003	0.0	0.00	0.0	0.00
30/12/2003	7.2	0.07	0.0	0.07
31/12/2003	11.8	0.26	0.0	0.26
01/01/2004	0.2	0.32	0.0	0.32
02/01/2004	4.6	0.12	0.1	0.12
03/01/2004	3.0	0.00	0.0	0.00
04/01/2004	0.8	0.06	0.0	0.06
05/01/2004	0.2	0.01	0.0	0.01
06/01/2004	3.2	0.00	0.0	0.00
07/01/2004	4.6	0.66	0.0	0.66
08/01/2004	6.8	0.00	0.0	0.00
09/01/2004	3.2	0.17	0.0	0.17
10/01/2004	6.2	0.25	0.0	0.25
11/01/2004	4.6	0.00	0.0	0.00
12/01/2004	4.6	0.07	0.0	0.07
13/01/2004	0.6	0.09	0.0	0.09
14/01/2004	0.6	0.00	0.0	0.00
15/01/2004	19.0	0.00	0.0	0.00
16/01/2004	1.8	0.00	0.0	0.00
17/01/2004	0.2	0.00	0.0	0.00
18/01/2004	0.2	0.11	0.0	0.11
19/01/2004	0.0	0.34	0.0	0.34
20/01/2004	0.2	0.22	0.3	0.22
21/01/2004	0.0	0.29	0.4	0.29
22/01/2004	1.0	0.18	0.6	0.18

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
23/01/2004	6.8	0.00	0.0	0.00
24/01/2004	1.0	0.00	0.0	0.00
25/01/2004	0.2	0.00	0.0	0.00
26/01/2004	5.0	0.00	0.0	0.00
27/01/2004	1.6	0.00	0.0	0.00
28/01/2004	1.8	0.06	0.0	0.06
29/01/2004	0.0	0.10	0.0	0.10
30/01/2004	2.0	0.43	0.1	0.43
31/01/2004	18.4	0.10	0.0	0.10
01/02/2004	3.2	0.00	0.0	0.00
02/02/2004	3.8	0.36	0.0	0.36
03/02/2004	5.2	0.22	0.0	0.22
04/02/2004	9.4	0.00	0.0	0.00
05/02/2004	0.0	0.59	0.0	0.59
06/02/2004	0.0	0.04	0.6	0.04
07/02/2004	0.2	0.67	0.6	0.67
08/02/2004	0.0	0.43	1.1	0.43
09/02/2004	0.0	0.51	1.5	0.51
10/02/2004	0.0	0.41	2.0	0.41
11/02/2004	0.0	0.39	2.4	0.39
12/02/2004	0.0	0.83	2.8	0.83
13/02/2004	1.0	0.11	3.7	0.11
14/02/2004	0.2	0.17	2.8	0.17
15/02/2004	0.2	0.34	2.7	0.34
16/02/2004	1.0	0.55	2.9	0.55
17/02/2004	0.0	0.57	2.4	0.57
18/02/2004	0.2	0.29	3.0	0.29
19/02/2004	0.2	0.41	3.1	0.41
20/02/2004	0.2	0.65	3.3	0.65
21/02/2004	0.0	0.74	3.8	0.74
22/02/2004	0.0	0.82	4.5	0.82
23/02/2004	0.0	0.53	5.3	0.53
24/02/2004	3.4	0.31	5.8	0.31
25/02/2004	0.4	0.33	2.8	0.33
26/02/2004	1.0	0.70	2.7	0.70
27/02/2004	0.2	0.67	2.4	0.67
28/02/2004	0.2	0.82	2.9	0.82
29/02/2004	0.0	0.57	3.5	0.57
01/03/2004	0.2	0.68	4.0	0.68
02/03/2004	0.0	1.07	4.5	1.07
03/03/2004	13.2	0.20	5.6	0.20
04/03/2004	4.0	0.83	0.0	0.83
05/03/2004	0.0	1.19	0.0	1.19
06/03/2004	1.2	0.97	1.2	0.97
07/03/2004	0.2	0.96	1.0	0.96
08/03/2004	0.2	0.98	1.7	0.98
09/03/2004	0.0	0.75	2.5	0.75
10/03/2004	0.2	0.58	3.2	0.58
11/03/2004	0.6	0.47	3.6	0.47
12/03/2004	1.6	1.01	3.5	1.01
13/03/2004	2.4	0.95	2.9	0.95
14/03/2004	5.2	1.59	1.5	1.59
15/03/2004	1.6	0.66	0.0	0.66
16/03/2004	9.0	0.63	0.0	0.63
17/03/2004	0.2	1.61	0.0	1.61
18/03/2004	5.0	1.22	1.4	1.22
19/03/2004	7.8	1.89	0.0	1.89
20/03/2004	4.2	1.35	0.0	1.35
21/03/2004	8.8	0.97	0.0	0.97
22/03/2004	1.8	1.44	0.0	1.44
23/03/2004	0.4	1.10	0.0	1.10
24/03/2004	0.2	1.60	0.7	1.60
25/03/2004	0.4	1.75	2.1	1.75

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
26/03/2004	0.0	1.26	3.4	1.26
27/03/2004	0.0	0.71	4.7	0.71
28/03/2004	0.4	1.18	5.4	1.18
29/03/2004	0.0	0.98	6.2	0.98
30/03/2004	0.0	1.36	7.2	1.36
31/03/2004	0.0	1.84	8.5	1.84
01/04/2004	0.2	0.91	10.4	0.91
02/04/2004	0.0	1.60	11.1	1.60
03/04/2004	13.2	1.95	12.7	1.95
04/04/2004	4.0	1.15	1.4	1.15
05/04/2004	0.0	1.45	0.0	1.45
06/04/2004	1.2	2.02	1.5	2.02
07/04/2004	0.2	1.62	2.3	1.62
08/04/2004	0.2	1.15	3.7	1.15
09/04/2004	0.0	1.18	4.6	1.18
10/04/2004	0.2	1.64	5.8	1.64
11/04/2004	0.6	1.00	7.3	1.00
12/04/2004	1.6	1.47	7.7	1.47
13/04/2004	2.4	0.45	7.5	0.45
14/04/2004	5.2	2.01	5.6	2.01
15/04/2004	1.6	1.93	2.4	1.93
16/04/2004	9.0	2.24	2.7	2.24
17/04/2004	0.2	0.64	0.0	0.64
18/04/2004	5.0	1.81	0.4	1.81
19/04/2004	7.8	2.22	0.0	2.22
20/04/2004	4.2	1.30	0.0	1.30
21/04/2004	8.8	2.62	0.0	2.62
22/04/2004	1.8	2.43	0.0	2.43
23/04/2004	0.4	2.14	0.6	2.14
24/04/2004	0.2	3.75	2.4	3.75
25/04/2004	0.4	3.42	5.9	3.42
26/04/2004	0.0	1.83	8.9	1.83
27/04/2004	0.0	2.29	10.8	2.29
28/04/2004	0.4	2.81	13.1	2.81
29/04/2004	0.0	2.43	15.5	2.43
30/04/2004	0.0	0.86	17.9	0.86
01/05/2004	0	3.51	18.8	3.51
02/05/2004	0	2.88	22.3	2.88
03/05/2004	2.6	2.76	25.2	2.76
04/05/2004	18.6	1.47	25.3	1.47
05/05/2004	1.8	1.77	8.2	1.77
06/05/2004	0.8	2.38	8.2	2.38
07/05/2004	0	2.16	9.7	2.16
08/05/2004	0.2	3.65	11.9	3.65
09/05/2004	1.4	1.20	15.3	1.20
10/05/2004	0	1.41	15.1	1.41
11/05/2004	0	1.06	16.5	1.06
12/05/2004	0	0.73	17.6	0.73
13/05/2004	0	1.27	18.3	1.27
14/05/2004	0	1.90	19.6	1.90
15/05/2004	0	2.96	21.5	2.96
16/05/2004	0	3.44	24.5	3.44
17/05/2004	0	2.20	27.9	2.20
18/05/2004	0	4.86	30.1	4.86
19/05/2004	0	2.17	35.0	2.17
20/05/2004	0	2.01	37.1	1.90
21/05/2004	0	2.09	39.0	1.92
22/05/2004	0.2	4.22	40.9	3.80
23/05/2004	0	4.35	44.5	3.82
24/05/2004	0	2.88	48.4	2.42
25/05/2004	0	3.63	50.8	2.89
26/05/2004	0	4.09	53.7	3.15
27/05/2004	0	3.89	56.8	2.87
28/05/2004	2.8	3.29	59.7	2.31
29/05/2004	4.6	3.37	59.2	2.26
30/05/2004	1	2.02	56.9	1.37
31/05/2004	6	1.46	57.2	1.03
01/06/2004	0.00	4.61	52.2	3.21
02/06/2004	0.60	3.09	55.5	2.32
03/06/2004	1.20	1.87	57.2	1.34
04/06/2004	0.00	2.20	57.3	1.54
05/06/2004	0.20	3.96	58.9	2.76
06/06/2004	0.00	3.77	61.4	2.56
07/06/2004	0.00	3.82	64.0	2.49
08/06/2004	0.00	3.11	66.5	1.94
09/06/2004	0.00	3.98	68.4	2.37
10/06/2004	3.20	3.51	70.8	2.01
11/06/2004	2.80	2.43	69.6	1.33
12/06/2004	0.40	2.77	68.1	1.55
13/06/2004	0.00	3.21	69.3	1.85
14/06/2004	0.00	6.35	71.1	3.58
15/06/2004	0.00	2.41	74.7	1.31
16/06/2004	0.00	6.75	76.0	3.40
17/06/2004	0.00	2.94	79.4	1.44
18/06/2004	2.40	2.36	80.8	1.06
19/06/2004	0.40	3.04	79.5	1.32
20/06/2004	0.00	2.47	80.4	1.11
21/06/2004	0.00	1.93	81.5	0.85
22/06/2004	19.60	1.31	82.4	0.56
23/06/2004	7.40	1.36	63.4	0.57
24/06/2004	0.80	3.11	56.5	1.96
25/06/2004	0.00	4.78	57.7	3.37
26/06/2004	3.00	4.40	61.1	3.05
27/06/2004	0.60	3.55	61.1	2.33
28/06/2004	8.80	2.35	62.8	1.54
29/06/2004	0.00	2.48	55.6	1.58
30/06/2004	3.40	3.23	57.1	2.31
01/07/2004	2.6	3.44	56.0	2.40
02/07/2004	2.8	2.20	55.9	1.56
03/07/2004	2.8	2.93	54.6	2.09
04/07/2004	0.4	2.56	53.9	1.86
05/07/2004	6.0	2.75	55.4	2.02
06/07/2004	4.0	2.85	51.4	2.05
07/07/2004	0.2	3.41	49.4	2.60
08/07/2004	0.2	2.50	51.8	1.96
09/07/2004	0.6	3.63	53.6	2.75
10/07/2004	4.2	2.07	55.7	1.53
11/07/2004	4.6	2.57	53.1	1.84
12/07/2004	0.0	2.95	50.3	2.19
13/07/2004	0.2	2.99	52.5	2.31
14/07/2004	1.2	1.99	54.6	1.49
15/07/2004	6.6	1.10	54.9	0.80
16/07/2004	0.0	2.56	49.1	1.85
17/07/2004	4.2	3.21	51.0	2.53
18/07/2004	0.4	2.73	49.3	2.09
19/07/2004	0.2	3.04	51.0	2.39
20/07/2004	0.4	2.01	53.2	1.54
21/07/2004	0.2	2.91	54.3	2.16
22/07/2004	0.2	4.44	56.3	3.24
23/07/2004	0.0	2.73	59.3	1.93
24/07/2004	0.0	2.04	61.3	1.38
25/07/2004	0.6	1.12	62.6	0.73
26/07/2004	0.2	0.70	62.8	0.45
27/07/2004	0.2	2.48	63.0	1.58
28/07/2004	0.2	2.38	64.4	1.51
29/07/2004	0.0	1.64	65.7	1.01

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
30/07/2004	0.4	3.62	66.7	2.18
31/07/2004	0.4	3.61	68.5	2.14
01/08/2004	0.0	4.47	70.2	2.56
02/08/2004	0.0	3.63	72.8	2.01
03/08/2004	0.3	1.24	74.8	0.65
04/08/2004	0.9	2.22	75.1	1.12
05/08/2004	6.6	3.21	75.4	1.60
06/08/2004	1.4	3.03	70.4	1.50
07/08/2004	0.0	2.80	70.5	1.55
08/08/2004	1.0	2.11	72.0	1.16
09/08/2004	0.3	3.30	72.2	1.76
10/08/2004	0.0	2.44	73.6	1.30
11/08/2004	3.0	2.10	74.9	1.08
12/08/2004	4.7	3.14	73.0	1.57
13/08/2004	0.0	2.34	69.9	1.22
14/08/2004	0.0	3.83	71.1	2.13
15/08/2004	15.6	3.50	73.2	1.90
16/08/2004	11.1	2.17	59.5	1.13
17/08/2004	2.0	2.57	49.6	1.73
18/08/2004	18.8	1.80	49.3	1.41
19/08/2004	19.0	1.42	31.9	1.11
20/08/2004	0.7	3.50	14.0	3.43
21/08/2004	0.0	2.36	16.7	2.36
22/08/2004	7.9	0.79	19.1	0.79
23/08/2004	6.5	1.99	12.0	1.99
24/08/2004	7.9	2.30	7.5	2.30
25/08/2004	3.9	1.77	1.9	1.77
26/08/2004	0.5	1.78	0.0	1.78
27/08/2004	0.3	3.28	1.3	3.28
28/08/2004	0.3	1.89	4.3	1.89
29/08/2004	0.2	2.49	5.9	2.49
30/08/2004	0.0	2.45	8.1	2.45
31/08/2004	0.0	3.15	10.6	3.15
01/09/2004	0.2	1.31	13.7	1.31
02/09/2004	0.6	1.41	14.9	1.41
03/09/2004	0.2	1.60	15.7	1.60
04/09/2004	0.0	4.17	17.1	4.17
05/09/2004	0.0	2.66	21.2	2.66
06/09/2004	0.2	1.72	23.9	1.72
07/09/2004	0.0	2.84	25.4	2.84
08/09/2004	0.2	3.00	28.3	3.00
09/09/2004	0.0	2.69	31.1	2.69
10/09/2004	0.8	0.98	33.7	0.97
11/09/2004	1.2	1.56	33.9	1.49
12/09/2004	7.4	0.20	34.2	0.19
13/09/2004	2.0	1.90	27.0	1.81
14/09/2004	4.4	2.51	26.8	2.51
15/09/2004	0.6	2.22	24.9	2.22
16/09/2004	8.2	0.98	26.5	0.98
17/09/2004	0.2	1.39	19.3	1.39
18/09/2004	12.4	2.23	20.5	2.23
19/09/2004	5.2	1.10	10.3	1.10
20/09/2004	2.8	1.25	6.2	1.25
21/09/2004	0.0	1.75	4.7	1.75
22/09/2004	3.2	1.17	6.4	1.17
23/09/2004	2.4	2.22	4.4	2.22
24/09/2004	0.2	1.32	4.2	1.32
25/09/2004	1.0	1.12	5.4	1.12
26/09/2004	0.6	1.55	5.5	1.55
27/09/2004	0.8	1.20	6.4	1.20
28/09/2004	2.2	0.54	6.8	0.54
29/09/2004	4.4	0.89	5.2	0.89
30/09/2004	7.6	1.61	1.7	1.61

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
01/10/2004	3.2	1.03	0.0	1.03
02/10/2004	3.6	1.12	0.0	1.12
03/10/2004	3.2	0.43	0.0	0.43
04/10/2004	16.4	1.53	0.0	1.53
05/10/2004	0.8	1.05	0.0	1.05
06/10/2004	1.2	1.37	0.3	1.37
07/10/2004	0	1.36	0.4	1.36
08/10/2004	0.6	0.78	1.8	0.78
09/10/2004	0.2	0.95	2.0	0.95
10/10/2004	0	0.86	2.7	0.86
11/10/2004	0	0.57	3.6	0.57
12/10/2004	0.2	0.63	4.1	0.63
13/10/2004	3.6	0.80	4.6	0.80
14/10/2004	2.8	0.35	1.8	0.35
15/10/2004	0.2	0.95	0.0	0.95
16/10/2004	3.6	0.61	0.8	0.61
17/10/2004	0.6	0.36	0.0	0.36
18/10/2004	0	0.58	0.0	0.58
19/10/2004	6.6	0.40	0.6	0.40
20/10/2004	14.4	0.30	0.0	0.30
21/10/2004	8.4	0.75	0.0	0.75
22/10/2004	11	0.00	0.0	0.00
23/10/2004	5	0.30	0.0	0.30
24/10/2004	3	1.15	0.0	1.15
25/10/2004	0.6	0.75	0.0	0.75
26/10/2004	0.4	0.47	0.1	0.47
27/10/2004	2.6	0.05	0.2	0.05
28/10/2004	8.8	0.30	0.0	0.30
29/10/2004	14.8	0.07	0.0	0.07
30/10/2004	0	0.30	0.0	0.30
31/10/2004	0.4	0.16	0.3	0.16
01/11/2004	0.00	0.37	0.1	0.37
02/11/2004	0.20	0.41	0.4	0.41
03/11/2004	1.20	0.42	0.6	0.42
04/11/2004	0.40	0.06	0.0	0.06
05/11/2004	0.00	0.26	0.0	0.26
06/11/2004	0.00	0.38	0.3	0.38
07/11/2004	0.20	0.28	0.6	0.28
08/11/2004	1.20	0.34	0.7	0.34
09/11/2004	0.40	0.34	0.0	0.34
10/11/2004	0.00	0.30	0.0	0.30
11/11/2004	0.40	0.03	0.3	0.03
12/11/2004	0.80	0.62	0.0	0.62
13/11/2004	0.00	0.25	0.0	0.25
14/11/2004	0.00	0.27	0.2	0.27
15/11/2004	0.40	0.06	0.5	0.06
16/11/2004	0.40	0.15	0.2	0.15
17/11/2004	1.00	0.08	0.0	0.08
18/11/2004	13.00	0.00	0.0	0.00
19/11/2004	0.20	0.00	0.0	0.00
20/11/2004	14.80	0.02	0.0	0.02
21/11/2004	1.40	0.22	0.0	0.22
22/11/2004	0.00	0.39	0.0	0.39
23/11/2004	0.00	0.15	0.4	0.15
24/11/2004	0.20	0.29	0.5	0.29
25/11/2004	2.40	0.14	0.6	0.14
26/11/2004	0.20	0.00	0.0	0.00
27/11/2004	2.20	0.00	0.0	0.00
28/11/2004	0.20	0.00	0.0	0.00
29/11/2004	0.20	0.01	0.0	0.01
30/11/2004	5.40	0.00	0.0	0.00
01/12/2004	1.2	0.00	0.0	0.00
02/12/2004	0.0	0.00	0.0	0.00

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
03/12/2004	0.6	0.24	0.0	0.24
04/12/2004	0.0	0.22	0.0	0.22
05/12/2004	0.6	0.11	0.2	0.11
06/12/2004	1.0	0.20	0.0	0.20
07/12/2004	0.2	0.00	0.0	0.00
08/12/2004	1.4	0.33	0.0	0.33
09/12/2004	0.0	0.73	0.0	0.73
10/12/2004	1.0	0.18	0.7	0.18
11/12/2004	0.2	0.43	0.0	0.43
12/12/2004	0.0	0.12	0.2	0.12
13/12/2004	0.2	0.09	0.4	0.09
14/12/2004	3.4	0.37	0.2	0.37
15/12/2004	3.8	0.00	0.0	0.00
16/12/2004	2.4	0.13	0.0	0.13
17/12/2004	8.8	0.00	0.0	0.00
18/12/2004	11.6	0.00	0.0	0.00
19/12/2004	0.8	0.00	0.0	0.00
20/12/2004	1.6	0.00	0.0	0.00
21/12/2004	2.8	0.00	0.0	0.00
22/12/2004	6.6	0.06	0.0	0.06
23/12/2004	0.4	0.36	0.0	0.36
24/12/2004	3.6	0.00	0.0	0.00
25/12/2004	0.0	0.00	0.0	0.00
26/12/2004	0.8	0.00	0.0	0.00
27/12/2004	4.2	0.29	0.0	0.29
28/12/2004	0.2	0.00	0.0	0.00
29/12/2004	0.4	0.06	0.0	0.06
30/12/2004	1.6	0.14	0.0	0.14
31/12/2004	0.4	0.00	0.0	0.00
01/01/2005	3.8	0.05	0.0	0.05
02/01/2005	0.2	0.04	0.0	0.04
03/01/2005	0.4	0.49	0.0	0.49
04/01/2005	3.6	0.36	0.1	0.36
05/01/2005	1.6	0.00	0.0	0.00
06/01/2005	0	0.56	0.0	0.56
07/01/2005	22.6	0.23	0.6	0.23
08/01/2005	6.2	0.33	0.0	0.33
09/01/2005	0.6	0.31	0.0	0.31
10/01/2005	0.4	0.37	0.0	0.37
11/01/2005	2.8	0.67	0.0	0.67
12/01/2005	1	0.10	0.0	0.10
13/01/2005	0.2	0.00	0.0	0.00
14/01/2005	0.4	0.76	0.0	0.76
15/01/2005	1	0.30	0.4	0.30
16/01/2005	2.8	0.41	0.0	0.41
17/01/2005	5	0.04	0.0	0.04
18/01/2005	6	0.21	0.0	0.21
19/01/2005	4.8	0.15	0.0	0.15
20/01/2005	1.2	0.47	0.0	0.47
21/01/2005	5.6	0.00	0.0	0.00
22/01/2005	9.2	0.04	0.0	0.04
23/01/2005	0	0.00	0.0	0.00
24/01/2005	0.2	0.17	0.0	0.17
25/01/2005	0.8	0.00	0.0	0.00
26/01/2005	2.8	0.12	0.0	0.12
27/01/2005	0	0.23	0.0	0.23
28/01/2005	0	0.44	0.2	0.44
29/01/2005	0	0.17	0.7	0.17
30/01/2005	0.4	0.39	0.8	0.39
31/01/2005	0	1.00	0.8	1.00
01/02/2005	0	0.25	1.8	0.25
02/02/2005	0.2	0.18	2.1	0.18
03/02/2005	0	0.13	2.1	0.13

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
04/02/2005	3.4	0.58	2.2	0.58
05/02/2005	0.2	0.00	0.0	0.00
06/02/2005	3	0.04	0.0	0.04
07/02/2005	0.2	0.50	0.0	0.50
08/02/2005	2.8	0.33	0.3	0.33
09/02/2005	2	0.31	0.0	0.31
10/02/2005	2.4	0.51	0.0	0.51
11/02/2005	3.6	0.24	0.0	0.24
12/02/2005	5.8	1.10	0.0	1.10
13/02/2005	1.2	1.16	0.0	1.16
14/02/2005	0	0.80	0.0	0.80
15/02/2005	0	0.04	0.8	0.04
16/02/2005	0.4	0.28	0.8	0.28
17/02/2005	0.4	0.51	0.7	0.51
18/02/2005	0.2	0.87	0.8	0.87
19/02/2005	0	0.63	1.5	0.63
20/02/2005	0	0.92	2.1	0.92
21/02/2005	4	0.00	3.1	0.00
22/02/2005	4.4	0.17	0.0	0.17
23/02/2005	1.6	0.00	0.0	0.00
24/02/2005	3.8	0.15	0.0	0.15
25/02/2005	4.8	0.52	0.0	0.52
26/02/2005	0	0.73	0.0	0.73
27/02/2005	0.2	0.00	0.7	0.00
28/02/2005	0	0.00	0.5	0.00
01/03/2005	1.2	0.84	0.5	0.84
02/03/2005	0.8	1.08	0.2	1.08
03/03/2005	1	0.53	0.4	0.53
04/03/2005	1.4	1.21	0.0	1.21
05/03/2005	0	1.07	0.0	1.07
06/03/2005	0.2	0.82	1.1	0.82
07/03/2005	0.2	0.62	1.7	0.62
08/03/2005	0	0.43	2.1	0.43
09/03/2005	0	0.44	2.5	0.44
10/03/2005	0.4	0.90	3.0	0.90
11/03/2005	0.2	1.14	3.5	1.14
12/03/2005	0.2	1.01	4.4	1.01
13/03/2005	0	0.53	5.2	0.53
14/03/2005	6.4	0.58	5.8	0.58
15/03/2005	0	0.88	0.0	0.88
16/03/2005	0	2.35	0.9	2.35
17/03/2005	0	1.22	3.2	1.22
18/03/2005	0	1.24	4.4	1.24
19/03/2005	0	1.75	5.7	1.75
20/03/2005	0.6	1.66	7.4	1.66
21/03/2005	24.4	0.27	8.5	0.27
22/03/2005	0.4	1.47	0.0	1.47
23/03/2005	2.8	1.44	1.1	1.44
24/03/2005	0.8	1.44	0.0	1.44
25/03/2005	0.2	1.05	0.6	1.05
26/03/2005	0.2	1.79	1.5	1.79
27/03/2005	0.2	0.13	3.1	0.13
28/03/2005	4.2	0.99	3.0	0.99
29/03/2005	2.8	0.54	0.0	0.54
30/03/2005	2	0.44	0.0	0.44
31/03/2005	0.2	1.08	0.0	1.08
01/04/2005	10	0.99	0.9	0.99
02/04/2005	0	1.96	0.0	1.96
03/04/2005	0.2	1.02	2.0	1.02
04/04/2005	1.6	1.54	2.8	1.54
05/04/2005	2.6	1.55	2.7	1.55
06/04/2005	14.4	1.27	1.7	1.27
07/04/2005	4.4	1.11	0.0	1.11

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
08/04/2005	0.2	1.90	0.0	1.90
09/04/2005	0.2	1.27	1.7	1.27
10/04/2005	0.2	2.04	2.8	2.04
11/04/2005	0.2	1.67	4.6	1.67
12/04/2005	1	2.09	6.1	2.09
13/04/2005	6.2	1.90	7.2	1.90
14/04/2005	2	0.97	2.9	0.97
15/04/2005	0.2	1.45	1.9	1.45
16/04/2005	0	1.29	3.1	1.29
17/04/2005	16.2	0.87	4.4	0.87
18/04/2005	0.8	1.35	0.0	1.35
19/04/2005	0.2	2.04	0.5	2.04
20/04/2005	0	0.51	2.4	0.51
21/04/2005	0	2.54	2.9	2.54
22/04/2005	0.2	2.06	5.4	2.06
23/04/2005	2.6	0.67	7.3	0.67
24/04/2005	0	2.55	5.4	2.55
25/04/2005	1	2.21	7.9	2.21
26/04/2005	4.4	2.46	9.1	2.46
27/04/2005	2.2	2.40	7.2	2.40
28/04/2005	4.2	2.93	7.4	2.93
29/04/2005	0	3.26	6.1	3.26
30/04/2005	3.6	1.07	9.4	1.07
01/05/2005	0.8	2.31	6.8	2.31
02/05/2005	4	1.93	8.4	1.93
03/05/2005	17	1.50	6.3	1.50
04/05/2005	0	3.03	0.0	3.03
05/05/2005	0.6	2.31	3.0	2.31
06/05/2005	0.2	1.58	4.7	1.58
07/05/2005	0.2	2.82	6.1	2.82
08/05/2005	0.2	2.14	8.7	2.14
09/05/2005	0.4	1.87	10.7	1.87
10/05/2005	0.2	3.21	12.1	3.21
11/05/2005	0	2.04	15.2	2.04
12/05/2005	0	3.20	17.2	3.20
13/05/2005	0	3.20	20.4	3.20
14/05/2005	0	3.03	23.6	3.03
15/05/2005	0	3.67	26.6	3.67
16/05/2005	0.2	1.22	30.3	1.22
17/05/2005	0	2.82	31.3	2.81
18/05/2005	7.2	1.12	34.1	1.11
19/05/2005	1.2	3.06	28.0	2.92
20/05/2005	4	2.25	29.8	2.25
21/05/2005	4.4	2.51	28.0	2.51
22/05/2005	1.8	2.23	26.1	2.23
23/05/2005	6	2.53	26.5	2.53
24/05/2005	5.4	1.85	23.1	1.85
25/05/2005	7.6	1.81	19.5	1.81
26/05/2005	2	3.36	13.7	3.36
27/05/2005	2	1.83	15.1	1.83
28/05/2005	0.2	2.87	14.9	2.87
29/05/2005	0	3.13	17.6	3.13
30/05/2005	4.8	1.69	20.7	1.69
31/05/2005	0.2	2.47	17.6	2.47
01/06/2005	0.6	2.01	19.9	2.01
02/06/2005	2.2	2.35	21.3	2.35
03/06/2005	3.6	3.01	21.5	3.01
04/06/2005	1.8	2.27	20.9	2.27
05/06/2005	0	1.94	21.3	1.94
06/06/2005	0	3.91	23.3	3.91
07/06/2005	0	2.56	27.2	2.56
08/06/2005	0	3.62	29.7	3.62
09/06/2005	0	1.75	33.4	1.75

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
10/06/2005	0	3.81	35.1	3.67
11/06/2005	0	4.48	38.8	4.22
12/06/2005	0	2.18	43.0	1.97
13/06/2005	0.2	2.41	45.0	2.06
14/06/2005	0.6	1.73	46.8	1.45
15/06/2005	3.6	3.28	47.7	2.67
16/06/2005	3.4	4.41	46.7	3.54
17/06/2005	0	3.20	46.9	2.61
18/06/2005	0	3.03	49.5	2.46
19/06/2005	0.8	4.47	52.0	3.50
20/06/2005	0	3.25	54.7	2.46
21/06/2005	0.2	2.70	57.1	1.96
22/06/2005	0	5.52	58.9	3.86
23/06/2005	0.2	2.08	62.7	1.41
24/06/2005	2.2	1.69	63.9	1.08
25/06/2005	0	1.54	62.8	0.96
26/06/2005	0.2	4.29	63.8	2.73
27/06/2005	0	4.92	66.3	3.07
28/06/2005	0.8	2.78	69.4	1.66
29/06/2005	6.2	2.93	70.2	1.65
30/06/2005	5.4	2.95	65.7	1.63
01/07/2005	3	1.59	61.9	0.96
02/07/2005	2.4	3.73	59.9	2.40
03/07/2005	1.6	2.76	59.9	1.85
04/07/2005	0.6	3.68	60.1	2.46
05/07/2005	5.6	2.32	62.0	1.54
06/07/2005	0.8	1.88	57.9	1.21
07/07/2005	1	1.71	58.3	1.18
08/07/2005	1	1.68	58.5	1.15
09/07/2005	0.4	1.56	58.7	1.07
10/07/2005	0	5.08	59.3	3.46
11/07/2005	0.2	5.46	62.8	3.68
12/07/2005	0	3.33	66.3	2.12
13/07/2005	0	4.63	68.4	2.77
14/07/2005	1	3.19	71.2	1.83
15/07/2005	0.6	3.51	72.0	1.91
16/07/2005	0	4.74	73.3	2.53
17/07/2005	0	3.16	75.8	1.64
18/07/2005	1.4	3.87	77.5	1.90
19/07/2005	0	2.90	78.0	1.37
20/07/2005	1	2.94	79.3	1.37
21/07/2005	0.8	2.83	79.7	1.28
22/07/2005	0	2.55	80.2	1.14
23/07/2005	17.6	0.85	81.3	0.38
24/07/2005	3	0.77	64.1	0.33
25/07/2005	0	1.79	61.4	1.11
26/07/2005	0	2.41	62.6	1.57
27/07/2005	0	2.86	64.1	1.83
28/07/2005	15.2	0.35	65.9	0.22
29/07/2005	9.8	0.31	51.0	0.19
30/07/2005	2.6	0.97	41.3	0.74
31/07/2005	0.2	1.51	39.5	1.32
01/08/2005	0.0	3.20	40.6	2.86
02/08/2005	3.8	2.48	43.5	2.19
03/08/2005	0.2	3.65	41.9	3.11
04/08/2005	7.0	1.22	44.8	1.06
05/08/2005	1.0	3.70	38.8	3.09
06/08/2005	1.0	1.48	40.9	1.34
07/08/2005	0.0	3.92	41.3	3.44
08/08/2005	0.2	3.49	44.7	3.05
09/08/2005	0.0	2.37	47.5	1.99
10/08/2005	0.0	3.32	49.5	2.67
11/08/2005	0.8	1.57	52.2	1.23

	RF[1]	PE[2]	SMD[3]	AE[4]
	mm	mm	mm	mm
	meas.	calc.	calc.	calc.
12/08/2005	0.2	1.49	52.6	1.12
13/08/2005	6.4	2.49	53.6	1.86
14/08/2005	0.0	1.46	49.0	1.07
15/08/2005	0.0	1.17	50.1	0.93
16/08/2005	0.0	2.49	51.0	1.93
17/08/2005	0.2	1.38	52.9	1.06
18/08/2005	10.0	1.67	53.8	1.24
19/08/2005	1.6	1.89	45.0	1.39
20/08/2005	0.2	3.29	44.8	2.74
21/08/2005	3.2	1.52	47.4	1.27
22/08/2005	1.6	2.98	45.5	2.41
23/08/2005	1.0	0.99	46.3	0.82
24/08/2005	7.2	2.54	46.1	2.08
25/08/2005	2.8	1.74	41.0	1.43
26/08/2005	0.6	1.50	39.6	1.31
27/08/2005	0.0	2.02	40.3	1.80
28/08/2005	0.0	2.37	42.1	2.10
29/08/2005	0.8	2.80	44.2	2.42
30/08/2005	0.4	2.36	45.8	1.99
31/08/2005	0.8	0.85	47.4	0.70
01/09/2005	0.2	2.50	47.3	2.02
02/09/2005	0.2	2.47	49.1	1.99
03/09/2005	0.0	2.69	50.9	2.12
04/09/2005	0.0	1.12	53.1	0.86
05/09/2005	0.0	2.54	53.9	1.89
06/09/2005	0.2	1.89	55.8	1.39
07/09/2005	0.0	2.45	57.0	1.75
08/09/2005	2.4	1.31	58.7	0.92
09/09/2005	9.6	0.47	57.3	0.32
10/09/2005	0.2	0.84	48.0	0.59
11/09/2005	0.0	1.88	48.4	1.51
12/09/2005	0.0	2.62	49.9	2.09
13/09/2005	0.0	2.39	52.0	1.87
14/09/2005	0.2	1.68	53.8	1.27
15/09/2005	9.0	0.62	54.9	0.46
16/09/2005	0.0	1.22	46.3	0.88
17/09/2005	0.2	1.70	47.2	1.39
18/09/2005	0.0	1.98	48.4	1.60
19/09/2005	7.8	0.31	50.0	0.25
20/09/2005	0.2	1.30	42.5	1.01
21/09/2005	0.0	1.79	43.3	1.54
22/09/2005	1.2	1.35	44.8	1.15
23/09/2005	1.8	1.88	44.8	1.57
24/09/2005	5.0	1.37	44.5	1.14
25/09/2005	6.6	1.51	40.7	1.26
26/09/2005	9.2	0.61	35.3	0.54
27/09/2005	2.2	1.66	26.7	1.56
28/09/2005	8.6	0.25	26.1	0.25
29/09/2005	2.0	0.68	17.7	0.68
30/09/2005	0.2	1.03	16.4	1.03
01/10/2005	0.8	1.18	17.2	1.18
02/10/2005	0.2	1.12	17.6	1.12
03/10/2005	0	0.64	18.5	0.64
04/10/2005	0	0.93	19.1	0.93
05/10/2005	0	0.96	20.1	0.96
06/10/2005	0	0.86	21.0	0.86
07/10/2005	0	1.62	21.9	1.62
08/10/2005	4.8	0.81	23.5	0.81
09/10/2005	0.2	1.09	19.5	1.09
10/10/2005	11.6	0.66	20.4	0.66
11/10/2005	9.2	0.00	9.5	0.00
12/10/2005	0.2	0.66	0.3	0.66
13/10/2005	0.4	0.27	0.7	0.27
14/10/2005	0	0.51	0.6	0.51
15/10/2005	0.2	1.47	1.1	1.47
16/10/2005	0	0.02	2.4	0.02
17/10/2005	1.6	1.03	2.4	1.03
18/10/2005	0.4	-0.03	1.8	-0.03
19/10/2005	6	0.05	1.4	0.05
20/10/2005	1.8	0.73	0.0	0.73
21/10/2005	3.6	0.11	0.0	0.11
22/10/2005	1.4	0.40	0.0	0.40
23/10/2005	9	0.55	0.0	0.55
24/10/2005	12.4	0.40	0.0	0.40
25/10/2005	4.4	0.54	0.0	0.54
26/10/2005	0.2	0.84	0.0	0.84
27/10/2005	0	1.56	0.6	1.56
28/10/2005	3.4	0.63	2.2	0.63
29/10/2005	12.4	0.10	0.0	0.10
30/10/2005	4.8	1.31	0.0	1.31
31/10/2005	4	0.16	0.0	0.16

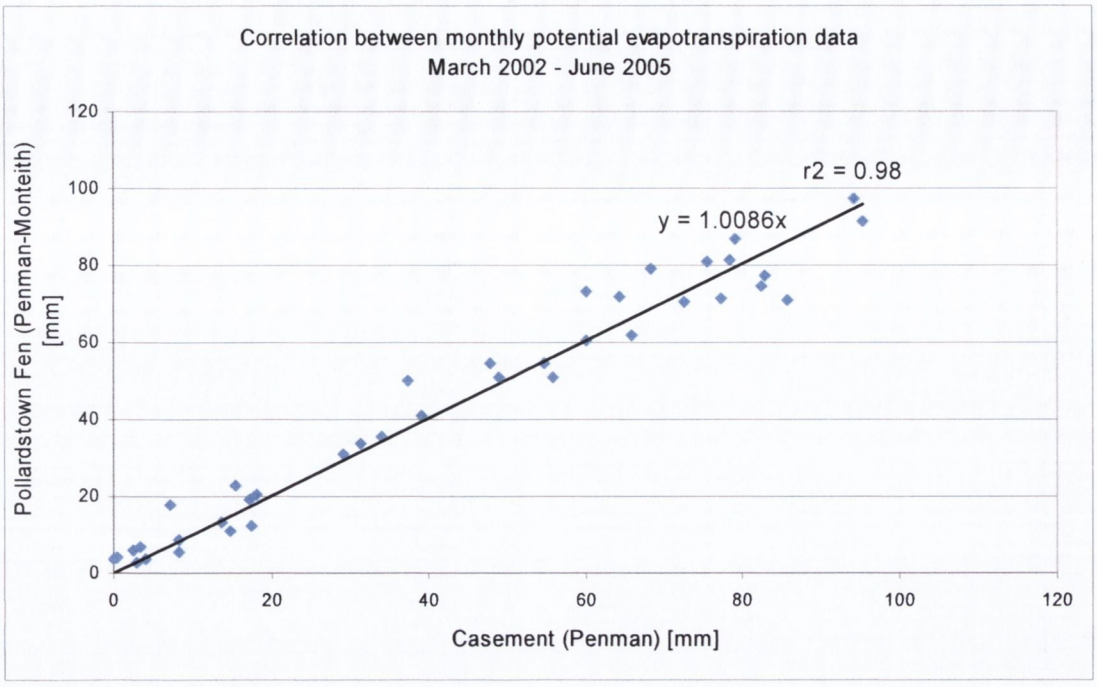
[1] – Precipitation (gross rainfall)
[2] – Potential Evapotranspiration
[3] – Soil Moisture Deficit
[4] – Actual Evapotranspiration

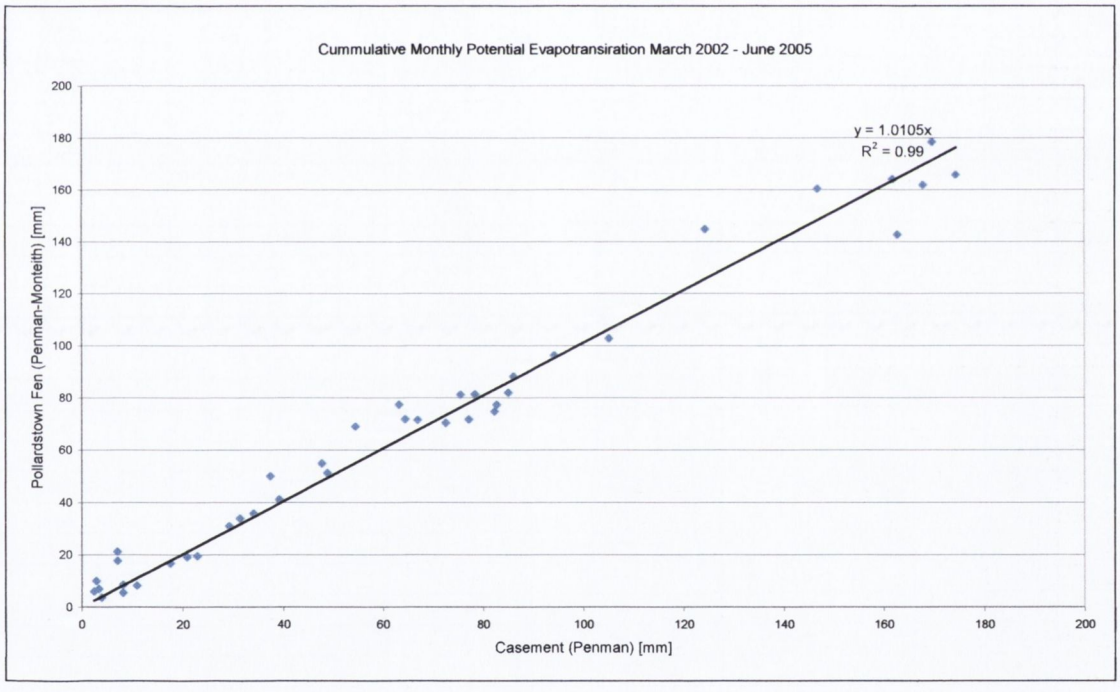
APPENDIX 10

Comparison between evapotranspiration data from Casement weather station and Pollardstown Fen

This appendix presents comparison between daily and monthly Potential Evapotranspiration data from synoptic stations in Casement and Pollardstown Fen. Data from Casement are computed using the Penmann (1948) formula for monthly data and daily computation is done using the Makking formula.

Year	Month	Casement Potential Evapotranspiration (Penman)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
		mm	mm	mm	mm	mm
2002	3	34.0	35.6	-1.62	34.0	35.6
2002	4	60.2	60.7	-0.46	94.2	96.3
2002	5	77.2	71.6	5.61	77.2	71.6
2002	6	85.6	71.0	14.60	162.8	142.6
2002	7	64.4	71.7	-7.32	64.4	71.7
2002	8	60.0	73.1	-13.08	124.4	144.8
2002	9	37.4	49.9	-12.55	37.4	49.9
2002	10	17.1	18.9	-1.85	54.5	68.9
2002	11	8.2	5.4	2.82	8.2	5.4
2002	12	2.8	2.8	0.02	11.0	8.1
2003	1	3.4	6.8	-3.45	3.4	6.8
2003	2	17.4	12.2	5.26	20.8	19.0
2003	3	39.2	41.0	-1.83	39.2	41.0
2003	4	66.0	61.7	4.33	105.2	102.7
2003	5	72.6	70.3	2.32	72.6	70.3
2003	6	95.3	91.4	3.90	167.9	161.6
2003	7	82.7	77.2	5.50	82.7	77.2
2003	8	79.1	86.6	-7.54	161.8	163.8
2003	9	47.8	54.8	-6.96	47.8	54.8
2003	10	15.4	22.6	-7.21	63.2	77.4
2003	11	7.1	17.7	-10.56	7.1	17.7
2003	12	0.0	3.4	-3.45	7.1	21.1
2004	1	4.0	3.6	0.43	4.0	3.6
2004	2	13.5	13.0	0.51	17.5	16.6
2004	3	31.3	33.8	-2.47	31.3	33.8
2004	4	54.7	54.3	0.36	86.0	88.1
2004	5	75.5	81.1	-5.54	75.5	81.1
2004	6	94.1	97.2	-3.05	169.6	178.2
2004	7	78.4	81.2	-2.78	78.4	81.2
2004	8	68.4	79.1	-10.72	146.8	160.3
2004	9	48.9	51.1	-2.24	48.9	51.1
2004	10	18.1	20.3	-2.28	66.9	71.4
2004	11	2.4	5.8	-3.41	2.4	5.8
2004	12	0.4	4.1	-3.64	2.9	9.9
2005	1	8.2	8.4	-0.24	8.2	8.4
2005	2	14.7	11.0	3.76	22.9	19.4
2005	3	29.1	30.9	-1.79	29.1	30.9
2005	4	55.9	51.0	4.96	85.0	81.9
2005	5	82.3	74.6	7.68	82.3	74.6
2005	6	92.1	91.1	1.02	174.4	165.7
		CORRELATION COEFFICIENT		AVERAGE	CORRELATION COEFFICIENT	
		0.98		-1.32	0.99	


Correlation between monthly potential evapotranspiration data
March 2002 - June 2005
Pollardstown Fen (Penman-Monteith) [mm]
Casement (Penman) [mm]
r2 = 0.98
y = 1.0086x
0
20
40
60
80
100
120


Cummulative Monthly Potential Evapotransiration March 2002 - June 2005
Pollardstown Fen (Penman-Monteith) [mm]
Casement (Penman) [mm]
y = 1.0105x
R² = 0.99
0
20
40
60
80
100
120
140
160
180
200

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2002	3	4	0.65	0.86	-0.21	0.6	0.9
2002	3	5	1.07	0.78	0.29	1.7	1.6
2002	3	6	0.52	0.72	-0.20	2.2	2.4
2002	3	7	1.09	1.94	-0.85	3.3	4.3
2002	3	8	0.80	0.78	0.03	4.1	5.1
2002	3	9	1.06	0.94	0.12	5.2	6.0
2002	3	10	1.14	1.66	-0.53	6.3	7.7
2002	3	11	1.73	1.82	-0.09	8.1	9.5
2002	3	12	1.31	0.89	0.42	9.4	10.4
2002	3	13	1.59	1.50	0.09	11.0	11.9
2002	3	14	1.21	1.79	-0.58	12.2	13.7
2002	3	15	0.18	0.43	-0.25	12.3	14.1
2002	3	16	1.98	2.16	-0.18	14.3	16.3
2002	3	17	0.50	0.54	-0.04	14.8	16.8
2002	3	18	0.78	0.38	0.40	15.6	17.2
2002	3	19	0.86	0.49	0.37	16.5	17.7
2002	3	20	0.71	0.48	0.23	17.2	18.2
2002	3	21	1.75	1.96	-0.21	18.9	20.1
2002	3	22	1.09	1.35	-0.26	20.0	21.5
2002	3	23	1.39	1.86	-0.47	21.4	23.3
2002	3	24	0.57	0.73	-0.16	22.0	24.1
2002	3	25	1.06	0.77	0.29	23.0	24.8
2002	3	26	2.11	1.99	0.12	25.1	26.8
2002	3	27	2.08	2.18	-0.10	27.2	29.0
2002	3	28	2.19	2.15	0.04	29.4	31.2
2002	3	29	2.17	1.91	0.26	31.6	33.1
2002	3	30	1.36	1.67	-0.31	33.0	34.7
2002	3	31	1.48	0.90	0.58	34.4	35.6
2002	4	1	1.11	1.50	-0.39	35.6	37.1
2002	4	2	1.25	1.19	0.05	36.8	38.3
2002	4	3	2.00	2.31	-0.31	38.8	40.6
2002	4	4	1.38	1.28	0.10	40.2	41.9
2002	4	5	1.86	1.66	0.20	42.0	43.6
2002	4	6	2.44	2.68	-0.24	44.5	46.3
2002	4	7	2.60	2.91	-0.31	47.1	49.2
2002	4	8	1.62	1.88	-0.26	48.7	51.0
2002	4	9	1.88	2.22	-0.34	50.6	53.3
2002	4	10	2.29	2.74	-0.45	52.9	56.0
2002	4	11	1.62	1.73	-0.11	54.5	57.7
2002	4	12	1.36	1.09	0.27	55.8	58.8
2002	4	13	1.94	1.80	0.14	57.8	60.6
2002	4	14	1.25	1.85	-0.60	59.0	62.5
2002	4	15	2.42	2.83	-0.41	61.4	65.3
2002	4	16	2.38	2.16	0.22	63.8	67.5
2002	4	17	0.33	0.34	-0.01	64.2	67.8
2002	4	18	1.21	1.43	-0.22	65.4	69.2
2002	4	19	2.50	2.39	0.10	67.9	71.6
2002	4	20	1.18	0.97	0.21	69.0	72.6
2002	4	21	2.00	1.08	0.91	71.0	73.7
2002	4	22	2.42	2.37	0.05	73.5	76.1
2002	4	23	2.48	4.14	-1.66	75.9	80.2
2002	4	24	2.64	3.11	-0.47	78.6	83.3
2002	4	25	1.77	2.03	-0.25	80.4	85.3
2002	4	26	2.58	3.21	-0.62	82.9	88.5
2002	4	27	1.38	1.10	0.27	84.3	89.6
2002	4	28	2.34	1.99	0.35	86.7	91.6
2002	4	29	2.44	2.42	0.02	89.1	94.1
2002	4	30	2.72	2.25	0.47	91.8	96.3
2002	5	1	1.87	0.98	0.88	93.7	97.3

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2002	5	2	2.51	1.57	0.94	96.2	98.9
2002	5	3	2.42	1.94	0.48	98.6	100.8
2002	5	4	2.28	2.52	-0.25	100.9	103.3
2002	5	5	3.46	3.35	0.11	104.4	106.7
2002	5	6	3.01	3.18	-0.17	107.4	109.9
2002	5	7	2.18	2.44	-0.26	109.5	112.3
2002	5	8	2.26	2.53	-0.27	111.8	114.8
2002	5	9	2.95	3.28	-0.33	114.8	118.1
2002	5	10	2.01	2.14	-0.14	116.8	120.3
2002	5	11	3.53	2.86	0.67	120.3	123.1
2002	5	12	2.68	3.27	-0.59	123.0	126.4
2002	5	13	1.63	2.09	-0.47	124.6	128.5
2002	5	14	2.95	2.87	0.08	127.5	131.4
2002	5	15	2.30	2.61	-0.32	129.8	134.0
2002	5	16	2.80	2.62	0.18	132.6	136.6
2002	5	17	0.43	0.28	0.15	133.1	136.9
2002	5	18	2.48	2.49	-0.01	135.6	139.4
2002	5	19	1.90	2.07	-0.17	137.5	141.4
2002	5	20	2.28	2.68	-0.40	139.7	144.1
2002	5	21	1.26	1.43	-0.17	141.0	145.5
2002	5	22	2.14	2.83	-0.69	143.1	148.4
2002	5	23	2.58	2.16	0.42	145.7	150.5
2002	5	24	2.71	1.53	1.17	148.4	152.1
2002	5	25	2.40	2.32	0.08	150.8	154.4
2002	5	26	2.66	2.27	0.39	153.5	156.6
2002	5	27	2.39	2.02	0.37	155.9	158.7
2002	5	28	2.03	1.45	0.58	157.9	160.1
2002	5	29	2.98	1.87	1.11	160.9	162.0
2002	5	30	3.48	3.02	0.46	164.3	165.0
2002	5	31	2.88	2.87	0.01	167.2	167.9
2002	6	1	1.95	4.39	-2.44	169.2	172.3
2002	6	2	1.46	2.30	-0.85	170.6	174.6
2002	6	3	3.02	2.98	0.05	173.6	177.5
2002	6	4	2.21	1.59	0.62	175.9	179.1
2002	6	5	2.90	2.65	0.25	178.8	181.8
2002	6	6	1.35	1.89	-0.54	180.1	183.7
2002	6	7	0.93	0.72	0.21	181.0	184.4
2002	6	8	1.26	0.45	0.81	182.3	184.8
2002	6	9	3.12	2.19	0.93	185.4	187.0
2002	6	10	3.39	2.33	1.06	188.8	189.4
2002	6	11	2.80	2.77	0.03	191.6	192.1
2002	6	12	2.56	2.60	-0.04	194.2	194.7
2002	6	13	1.24	1.23	0.01	195.4	196.0
2002	6	14	1.86	1.99	-0.12	197.3	197.9
2002	6	15	2.04	2.67	-0.63	199.3	200.6
2002	6	16	1.42	1.70	-0.29	200.7	202.3
2002	6	17	3.95	4.17	-0.22	204.7	206.5
2002	6	18	3.34	2.78	0.56	208.0	209.3
2002	6	19	2.91	2.58	0.33	210.9	211.9
2002	6	20	3.95	3.15	0.79	214.9	215.0
2002	6	21	2.62	2.79	-0.17	217.5	217.8
2002	6	22	3.39	3.27	0.12	220.9	221.1
2002	6	23	3.18	1.76	1.41	224.1	222.8
2002	6	24	2.13	1.47	0.66	226.2	224.3
2002	6	25	2.72	3.42	-0.69	228.9	227.7
2002	6	26	2.08	2.34	-0.26	231.0	230.1
2002	6	27	3.15	3.01	0.14	234.1	233.1
2002	6	28	2.78	2.89	-0.11	236.9	235.9
2002	6	29	2.29	2.37	-0.08	239.2	238.3

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2002	6	30	1.15	0.57	0.58	240.4	238.9
2002	7	1	1.84	1.87	-0.03	242.2	240.8
2002	7	2	2.10	2.24	-0.14	244.3	243.0
2002	7	3	2.49	2.80	-0.30	246.8	245.8
2002	7	4	1.19	1.42	-0.23	248.0	247.2
2002	7	5	2.91	2.19	0.72	250.9	249.4
2002	7	6	1.85	1.88	-0.03	252.8	251.3
2002	7	7	2.14	2.89	-0.75	254.9	254.2
2002	7	8	2.39	2.60	-0.21	257.3	256.8
2002	7	9	1.82	2.70	-0.88	259.1	259.5
2002	7	10	2.61	1.97	0.64	261.7	261.4
2002	7	11	2.89	1.76	1.14	264.6	263.2
2002	7	12	2.98	2.35	0.63	267.6	265.6
2002	7	13	3.62	3.78	-0.17	271.2	269.3
2002	7	14	3.12	3.21	-0.09	274.3	272.5
2002	7	15	1.81	1.92	-0.11	276.1	274.5
2002	7	16	1.51	2.40	-0.88	277.7	276.9
2002	7	17	2.50	2.76	-0.27	280.2	279.6
2002	7	18	2.79	2.91	-0.12	282.9	282.5
2002	7	19	1.53	1.28	0.25	284.5	283.8
2002	7	20	1.30	2.10	-0.80	285.8	285.9
2002	7	21	3.50	2.84	0.66	289.3	288.8
2002	7	22	2.62	2.82	-0.20	291.9	291.6
2002	7	23	1.80	2.08	-0.28	293.7	293.7
2002	7	24	1.79	2.51	-0.72	295.5	296.2
2002	7	25	2.56	3.16	-0.60	298.0	299.3
2002	7	26	2.94	3.36	-0.42	301.0	302.7
2002	7	27	2.83	3.04	-0.20	303.8	305.7
2002	7	28	1.15	1.04	0.11	304.9	306.7
2002	7	29	1.43	1.23	0.20	306.4	308.0
2002	7	30	1.56	1.86	-0.30	307.9	309.8
2002	7	31	1.04	0.79	0.26	309.0	310.6
2002	8	1	1.25	1.55	-0.31	310.2	312.2
2002	8	2	0.43	0.39	0.04	310.7	312.6
2002	8	3	1.09	1.13	-0.04	311.7	313.7
2002	8	4	3.32	4.51	-1.18	315.1	318.2
2002	8	5	3.87	4.29	-0.41	318.9	322.5
2002	8	6	1.83	1.57	0.25	320.8	324.1
2002	8	7	1.64	1.80	-0.16	322.4	325.9
2002	8	8	1.02	0.48	0.53	323.4	326.3
2002	8	9	2.39	3.05	-0.66	325.8	329.4
2002	8	10	3.03	3.29	-0.25	328.8	332.7
2002	8	11	2.63	2.65	-0.01	331.5	335.3
2002	8	12	2.45	2.35	0.10	333.9	337.7
2002	8	13	2.32	1.57	0.75	336.2	339.2
2002	8	14	2.19	1.54	0.65	338.4	340.8
2002	8	15	3.21	3.78	-0.58	341.6	344.6
2002	8	16	3.23	3.83	-0.60	344.9	348.4
2002	8	17	2.89	2.78	0.11	347.8	351.2
2002	8	18	1.59	2.52	-0.94	349.3	353.7
2002	8	19	1.16	2.75	-1.59	350.5	356.5
2002	8	20	1.61	2.04	-0.43	352.1	358.5
2002	8	21	2.75	4.07	-1.32	354.9	362.6
2002	8	22	1.92	2.26	-0.34	356.8	364.8
2002	8	23	2.49	3.37	-0.89	359.3	368.2
2002	8	24	1.70	1.80	-0.11	361.0	370.0
2002	8	25	2.99	2.59	0.40	364.0	372.6
2002	8	26	3.10	2.71	0.39	367.1	375.3
2002	8	27	1.56	1.22	0.34	368.6	376.5

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2002	8	28	2.15	1.76	0.39	370.8	378.3
2002	8	29	2.00	2.57	-0.57	372.8	380.9
2002	8	30	0.88	0.81	0.06	373.6	381.7
2002	8	31	1.90	2.04	-0.14	375.5	383.7
2002	9	1	2.81	3.01	-0.20	378.4	386.7
2002	9	2	2.86	2.67	0.19	381.2	389.4
2002	9	3	2.88	2.63	0.25	384.1	392.0
2002	9	4	1.21	1.14	0.08	385.3	393.2
2002	9	5	1.00	0.65	0.36	386.3	393.8
2002	9	6	1.40	1.29	0.11	387.7	395.1
2002	9	7	1.57	1.23	0.33	389.3	396.3
2002	9	8	1.18	0.69	0.49	390.5	397.0
2002	9	9	1.27	1.49	-0.22	391.7	398.5
2002	9	10	1.99	2.66	-0.67	393.7	401.2
2002	9	11	2.30	3.10	-0.81	396.0	404.3
2002	9	12	0.88	1.13	-0.25	396.9	405.4
2002	9	13	2.33	2.46	-0.13	399.2	407.9
2002	9	14	0.91	2.13	-1.22	400.1	410.0
2002	9	15	0.98	1.91	-0.93	401.1	411.9
2002	9	16	0.69	1.64	-0.95	401.8	413.5
2002	9	17	0.81	1.04	-0.23	402.6	414.6
2002	9	18	0.81	1.30	-0.49	403.4	415.9
2002	9	19	1.11	1.14	-0.03	404.5	417.0
2002	9	20	1.44	1.56	-0.12	406.0	418.6
2002	9	21	1.46	2.10	-0.64	407.4	420.7
2002	9	22	0.59	0.83	-0.24	408.0	421.5
2002	9	23	1.05	1.64	-0.59	409.1	423.2
2002	9	24	1.33	1.23	0.10	410.4	424.4
2002	9	25	0.91	1.74	-0.83	411.3	426.1
2002	9	26	0.80	0.67	0.13	412.1	426.8
2002	9	27	1.03	1.38	-0.35	413.2	428.2
2002	9	28	0.57	1.27	-0.70	413.7	429.4
2002	9	29	1.04	2.56	-1.52	414.8	432.0
2002	9	30	1.08	1.65	-0.57	415.8	433.7
2002	10	1	0.88	1.58	-0.71	416.7	435.2
2002	10	2	0.27	0.16	0.11	417.0	435.4
2002	10	3	1.42	1.52	-0.10	418.4	436.9
2002	10	4	1.16	1.46	-0.31	419.6	438.4
2002	10	5	1.38	1.55	-0.17	421.0	439.9
2002	10	6	0.61	1.08	-0.47	421.6	441.0
2002	10	7	0.94	1.60	-0.66	422.5	442.6
2002	10	8	0.13	0.72	-0.60	422.6	443.3
2002	10	9	0.43	0.30	0.13	423.1	443.6
2002	10	10	1.14	1.21	-0.07	424.2	444.8
2002	10	11	0.09	0.10	-0.01	424.3	444.9
2002	10	12	1.53	0.82	0.71	425.8	445.8
2002	10	13	0.56	0.16	0.40	426.4	445.9
2002	10	14	1.00	0.18	0.82	427.4	446.1
2002	10	15	0.34	0.20	0.14	427.7	446.3
2002	10	16	0.92	0.61	0.30	428.6	446.9
2002	10	17	0.80	0.18	0.62	429.4	447.1
2002	10	18	1.19	0.46	0.72	430.6	447.6
2002	10	19	1.08	0.45	0.63	431.7	448.0
2002	10	20	0.11	0.12	-0.01	431.8	448.1
2002	10	21	0.56	0.12	0.44	432.4	448.2
2002	10	22	0.33	0.17	0.16	432.7	448.4
2002	10	23	0.97	0.52	0.45	433.7	448.9
2002	10	24	0.35	0.04	0.31	434.0	449.0
2002	10	25	0.76	0.99	-0.24	434.8	450.0

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2002	10	26	0.92	0.78	0.14	435.7	450.7
2002	10	27	0.81	1.01	-0.20	436.5	451.7
2002	10	28	0.59	0.15	0.44	437.1	451.9
2002	10	29	0.11	0.00	0.11	437.2	451.9
2002	10	30	0.39	0.31	0.09	437.6	452.2
2002	10	31	0.25	0.40	-0.15	437.8	452.6
2002	11	1	0.23	0.10	0.13	438.1	452.7
2002	11	2	0.12	0.14	-0.02	438.2	452.8
2002	11	3	0.61	0.00	0.61	438.8	452.8
2002	11	4	0.77	0.65	0.12	439.6	453.5
2002	11	5	0.43	0.18	0.25	440.0	453.7
2002	11	6	0.77	0.50	0.28	440.8	454.2
2002	11	7	0.46	0.10	0.36	441.2	454.3
2002	11	8	0.23	0.11	0.12	441.4	454.4
2002	11	9	0.23	0.12	0.11	441.7	454.5
2002	11	10	0.82	0.18	0.63	442.5	454.7
2002	11	11	0.60	0.36	0.24	443.1	455.0
2002	11	12	0.74	0.35	0.39	443.8	455.4
2002	11	13	0.42	0.01	0.41	444.3	455.4
2002	11	14	0.07	0.00	0.07	444.3	455.4
2002	11	15	0.11	0.00	0.11	444.4	455.4
2002	11	16	0.39	0.00	0.39	444.8	455.4
2002	11	17	0.42	0.02	0.40	445.2	455.4
2002	11	18	0.43	0.57	-0.14	445.7	456.0
2002	11	19	0.12	0.13	-0.01	445.8	456.1
2002	11	20	0.52	0.31	0.21	446.3	456.4
2002	11	21	0.31	0.15	0.16	446.6	456.6
2002	11	22	0.55	0.30	0.24	447.2	456.9
2002	11	23	0.36	0.00	0.36	447.5	456.9
2002	11	24	0.26	0.00	0.26	447.8	456.9
2002	11	25	0.36	0.10	0.26	448.1	457.0
2002	11	26	0.23	0.58	-0.35	448.4	457.6
2002	11	27	0.21	0.17	0.05	448.6	457.7
2002	11	28	0.36	0.00	0.36	448.9	457.7
2002	11	29	0.39	0.00	0.39	449.3	457.7
2002	11	30	0.19	0.23	-0.04	449.5	458.0
2002	12	1	0.30	0.23	0.07	449.8	458.2
2002	12	2	0.27	0.18	0.09	450.1	458.4
2002	12	3	0.20	0.06	0.15	450.3	458.4
2002	12	4	0.31	0.00	0.31	450.6	458.4
2002	12	5	0.35	0.00	0.35	451.0	458.4
2002	12	6	0.23	0.00	0.23	451.2	458.4
2002	12	7	0.16	0.09	0.07	451.3	458.5
2002	12	8	0.04	0.10	-0.06	451.4	458.6
2002	12	9	0.41	0.18	0.22	451.8	458.8
2002	12	10	0.22	0.60	-0.38	452.0	459.4
2002	12	11	0.19	0.27	-0.09	452.2	459.7
2002	12	12	0.03	0.00	0.03	452.2	459.7
2002	12	13	0.15	0.00	0.15	452.4	459.7
2002	12	14	0.12	0.00	0.12	452.5	459.7
2002	12	15	0.03	0.04	-0.01	452.5	459.7
2002	12	16	0.07	0.00	0.07	452.6	459.7
2002	12	17	0.12	0.00	0.12	452.7	459.7
2002	12	18	0.21	0.00	0.21	452.9	459.7
2002	12	19	0.43	0.00	0.43	453.3	459.7
2002	12	20	0.06	0.06	0.00	453.4	459.8
2002	12	21	0.04	0.00	0.04	453.4	459.8
2002	12	22	0.19	0.00	0.19	453.6	459.8
2002	12	23	0.10	0.56	-0.47	453.7	460.3

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2002	12	24	0.34	0.01	0.32	454.1	460.4
2002	12	25	0.29	0.12	0.17	454.4	460.5
2002	12	26	0.22	0.00	0.22	454.6	460.5
2002	12	27	0.12	0.07	0.05	454.7	460.5
2002	12	28	0.23	0.00	0.23	454.9	460.5
2002	12	29	0.10	0.18	-0.08	455.0	460.7
2002	12	30	0.08	0.00	0.08	455.1	460.7
2002	12	31	0.10	0.01	0.10	455.2	460.7
2003	1	1	0.24	0.00	0.24	455.5	460.7
2003	1	2	0.15	0.00	0.15	455.6	460.7
2003	1	3	0.22	0.00	0.22	455.8	460.7
2003	1	4	0.31	0.00	0.31	456.1	460.7
2003	1	5	0.28	0.00	0.28	456.4	460.7
2003	1	6	0.21	0.03	0.18	456.6	460.8
2003	1	7	0.16	0.53	-0.38	456.8	461.3
2003	1	8	0.24	0.00	0.24	457.0	461.3
2003	1	9	0.28	0.04	0.25	457.3	461.3
2003	1	10	0.13	0.08	0.05	457.4	461.4
2003	1	11	0.30	0.00	0.30	457.7	461.4
2003	1	12	0.14	0.40	-0.25	457.9	461.8
2003	1	13	0.19	0.06	0.13	458.1	461.9
2003	1	14	0.21	0.54	-0.34	458.3	462.4
2003	1	15	0.45	0.11	0.33	458.7	462.5
2003	1	16	0.35	0.60	-0.25	459.1	463.1
2003	1	17	0.48	0.29	0.19	459.5	463.4
2003	1	18	0.14	0.26	-0.12	459.7	463.7
2003	1	19	0.43	0.00	0.43	460.1	463.7
2003	1	20	0.59	0.36	0.23	460.7	464.0
2003	1	21	0.27	0.00	0.27	461.0	464.0
2003	1	22	0.45	0.08	0.37	461.4	464.1
2003	1	23	0.54	0.41	0.13	462.0	464.5
2003	1	24	0.46	0.59	-0.13	462.4	465.1
2003	1	25	0.52	0.42	0.10	462.9	465.5
2003	1	26	0.44	0.52	-0.08	463.4	466.1
2003	1	27	0.22	0.27	-0.04	463.6	466.3
2003	1	28	0.31	0.41	-0.11	463.9	466.7
2003	1	29	0.35	0.09	0.26	464.3	466.8
2003	1	30	0.60	0.57	0.04	464.9	467.4
2003	1	31	0.22	0.18	0.04	465.1	467.6
2003	2	1	0.67	0.29	0.38	465.8	467.9
2003	2	2	0.31	0.05	0.26	466.1	467.9
2003	2	3	0.48	0.00	0.48	466.5	467.9
2003	2	4	0.64	0.22	0.42	467.2	468.1
2003	2	5	0.76	0.62	0.13	467.9	468.8
2003	2	6	0.55	0.26	0.29	468.5	469.0
2003	2	7	0.47	0.14	0.33	469.0	469.2
2003	2	8	0.26	0.29	-0.03	469.2	469.5
2003	2	9	0.90	0.41	0.50	470.1	469.9
2003	2	10	0.19	0.39	-0.21	470.3	470.3
2003	2	11	0.89	0.10	0.78	471.2	470.4
2003	2	12	0.94	0.18	0.76	472.1	470.5
2003	2	13	0.79	0.36	0.43	472.9	470.9
2003	2	14	0.30	0.05	0.25	473.2	471.0
2003	2	15	1.02	0.41	0.61	474.2	471.4
2003	2	16	0.38	0.75	-0.37	474.6	472.1
2003	2	17	0.95	0.88	0.07	475.6	473.0
2003	2	18	0.65	0.99	-0.35	476.2	474.0
2003	2	19	0.70	0.34	0.36	476.9	474.3
2003	2	20	0.17	0.05	0.12	477.1	474.4

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2003	2	21	1.29	0.52	0.78	478.4	474.9
2003	2	22	1.22	1.10	0.13	479.6	476.0
2003	2	23	1.13	1.29	-0.16	480.7	477.3
2003	2	24	0.59	0.48	0.11	481.3	477.8
2003	2	25	0.30	0.63	-0.33	481.6	478.4
2003	2	26	0.59	0.25	0.34	482.2	478.6
2003	2	27	0.53	0.95	-0.41	482.7	479.6
2003	2	28	0.19	0.19	-0.01	482.9	479.8
2003	3	1	0.41	0.18	0.24	483.3	479.9
2003	3	2	1.47	1.08	0.39	484.8	481.0
2003	3	3	0.39	0.43	-0.04	485.2	481.5
2003	3	4	0.77	0.81	-0.04	486.0	482.3
2003	3	5	1.17	0.88	0.29	487.1	483.1
2003	3	6	1.41	0.90	0.50	488.5	484.0
2003	3	7	1.04	1.12	-0.08	489.6	485.2
2003	3	8	0.65	0.25	0.41	490.2	485.4
2003	3	9	0.66	1.06	-0.40	490.9	486.5
2003	3	10	0.84	0.85	-0.01	491.7	487.3
2003	3	11	1.06	0.81	0.25	492.8	488.1
2003	3	12	1.59	0.82	0.76	494.4	489.0
2003	3	13	1.07	0.72	0.35	495.4	489.7
2003	3	14	1.85	1.35	0.50	497.3	491.0
2003	3	15	1.78	1.52	0.27	499.1	492.5
2003	3	16	2.02	1.52	0.50	501.1	494.1
2003	3	17	2.03	1.60	0.43	503.1	495.7
2003	3	18	1.78	1.57	0.22	504.9	497.2
2003	3	19	1.55	1.58	-0.04	506.5	498.8
2003	3	20	0.91	1.11	-0.20	507.4	499.9
2003	3	21	1.95	1.61	0.34	509.3	501.5
2003	3	22	1.61	1.65	-0.04	510.9	503.2
2003	3	23	2.19	1.97	0.23	513.1	505.2
2003	3	24	2.14	1.81	0.33	515.3	507.0
2003	3	25	1.92	1.83	0.09	517.2	508.8
2003	3	26	1.98	2.00	-0.03	519.2	510.8
2003	3	27	2.23	2.00	0.24	521.4	512.8
2003	3	28	0.90	1.86	-0.96	522.3	514.6
2003	3	29	2.16	1.94	0.21	524.5	516.6
2003	3	30	1.42	1.96	-0.54	525.9	518.6
2003	3	31	2.17	2.23	-0.06	528.0	520.8
2003	4	1	1.57	1.67	-0.10	529.6	522.5
2003	4	2	1.65	1.87	-0.22	531.3	524.3
2003	4	3	0.85	1.81	-0.97	532.1	526.1
2003	4	4	2.74	2.46	0.28	534.8	528.6
2003	4	5	1.96	2.09	-0.13	536.8	530.7
2003	4	6	0.82	1.67	-0.84	537.6	532.4
2003	4	7	1.07	1.73	-0.66	538.7	534.1
2003	4	8	2.51	1.86	0.65	541.2	536.0
2003	4	9	2.18	2.09	0.08	543.4	538.0
2003	4	10	1.95	1.71	0.24	545.3	539.8
2003	4	11	0.78	1.81	-1.03	546.1	541.6
2003	4	12	1.18	1.74	-0.56	547.3	543.3
2003	4	13	0.47	1.88	-1.41	547.8	545.2
2003	4	14	1.64	2.23	-0.59	549.4	547.4
2003	4	15	2.57	2.98	-0.41	552.0	550.4
2003	4	16	2.53	3.27	-0.74	554.5	553.7
2003	4	17	2.50	2.73	-0.23	557.0	556.4
2003	4	18	2.18	2.27	-0.09	559.2	558.7
2003	4	19	2.08	1.60	0.47	561.3	560.3
2003	4	20	1.08	1.56	-0.48	562.3	561.8

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2003	4	21	0.33	1.45	-1.12	562.7	563.3
2003	4	22	1.47	2.28	-0.82	564.1	565.6
2003	4	23	2.04	2.36	-0.31	566.2	567.9
2003	4	24	0.67	2.04	-1.37	566.8	570.0
2003	4	25	0.91	2.15	-1.24	567.8	572.1
2003	4	26	1.64	2.09	-0.45	569.4	574.2
2003	4	27	1.91	2.20	-0.30	571.3	576.4
2003	4	28	0.77	1.57	-0.80	572.1	578.0
2003	4	29	2.27	2.45	-0.18	574.3	580.4
2003	4	30	1.84	2.03	-0.19	576.2	582.5
2003	5	1	1.33	1.70	-0.36	577.5	584.1
2003	5	2	1.26	2.07	-0.82	578.8	586.2
2003	5	3	0.72	0.73	-0.01	579.5	587.0
2003	5	4	0.59	0.80	-0.21	580.1	587.8
2003	5	5	2.86	3.15	-0.28	582.9	590.9
2003	5	6	2.88	2.93	-0.05	585.8	593.8
2003	5	7	2.16	2.02	0.14	588.0	595.9
2003	5	8	2.77	2.68	0.10	590.8	598.5
2003	5	9	2.60	2.71	-0.11	593.4	601.2
2003	5	10	2.78	2.31	0.47	596.1	603.6
2003	5	11	2.33	2.08	0.25	598.5	605.6
2003	5	12	2.35	1.93	0.42	600.8	607.6
2003	5	13	2.68	3.02	-0.34	603.5	610.6
2003	5	14	2.29	3.08	-0.79	605.8	613.7
2003	5	15	1.78	1.82	-0.04	607.6	615.5
2003	5	16	1.36	1.49	-0.12	608.9	617.0
2003	5	17	1.46	1.46	0.00	610.4	618.4
2003	5	18	2.21	1.96	0.25	612.6	620.4
2003	5	19	1.81	1.81	0.00	614.4	622.2
2003	5	20	1.81	1.86	-0.05	616.2	624.0
2003	5	21	1.18	0.63	0.55	617.4	624.7
2003	5	22	2.45	2.97	-0.52	619.8	627.6
2003	5	23	3.01	2.19	0.83	622.9	629.8
2003	5	24	1.81	2.21	-0.41	624.7	632.0
2003	5	25	2.41	2.66	-0.26	627.1	634.7
2003	5	26	1.63	1.83	-0.20	628.7	636.5
2003	5	27	1.70	1.96	-0.26	630.4	638.5
2003	5	28	1.77	2.13	-0.37	632.2	640.6
2003	5	29	2.72	2.79	-0.07	634.9	643.4
2003	5	30	3.99	5.32	-1.32	638.9	648.7
2003	5	31	4.00	3.98	0.02	642.9	652.7
2003	6	1	1.68	2.23	-0.55	644.6	654.9
2003	6	2	4.14	4.43	-0.29	648.7	659.4
2003	6	3	0.95	0.41	0.53	649.6	659.8
2003	6	4	2.16	2.50	-0.34	651.8	662.3
2003	6	5	2.31	3.20	-0.89	654.1	665.5
2003	6	6	3.36	4.67	-1.31	657.5	670.2
2003	6	7	2.72	2.59	0.13	660.2	672.8
2003	6	8	3.71	2.49	1.22	663.9	675.2
2003	6	9	1.18	1.51	-0.33	665.1	676.8
2003	6	10	3.35	2.77	0.58	668.4	679.5
2003	6	11	3.50	3.18	0.32	671.9	682.7
2003	6	12	2.81	3.43	-0.62	674.7	686.1
2003	6	13	2.35	3.06	-0.71	677.1	689.2
2003	6	14	4.03	5.16	-1.13	681.1	694.4
2003	6	15	2.09	3.37	-1.28	683.2	697.7
2003	6	16	2.82	4.07	-1.25	686.0	701.8
2003	6	17	2.24	2.73	-0.49	688.3	704.5
2003	6	18	1.85	2.77	-0.92	690.1	707.3

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2003	6	19	2.32	3.86	-1.54	692.4	711.2
2003	6	20	1.81	3.45	-1.64	694.2	714.6
2003	6	21	1.51	2.73	-1.22	695.7	717.3
2003	6	22	1.31	2.39	-1.08	697.1	719.7
2003	6	23	1.80	2.88	-1.08	698.9	722.6
2003	6	24	2.81	4.05	-1.24	701.7	726.7
2003	6	25	2.93	4.71	-1.78	704.6	731.4
2003	6	26	1.50	3.45	-1.94	706.1	734.8
2003	6	27	0.82	2.08	-1.26	706.9	736.9
2003	6	28	1.66	2.97	-1.31	708.6	739.9
2003	6	29	2.09	3.55	-1.47	710.7	743.4
2003	6	30	0.44	0.68	-0.23	711.1	744.1
2003	7	1	2.08	2.20	-0.12	713.2	746.3
2003	7	2	3.66	3.79	-0.13	716.8	750.1
2003	7	3	1.82	1.99	-0.17	718.7	752.1
2003	7	4	0.94	1.35	-0.41	719.6	753.4
2003	7	5	1.27	2.14	-0.87	720.9	755.6
2003	7	6	2.68	3.31	-0.63	723.5	758.9
2003	7	7	2.75	1.16	1.58	726.3	760.0
2003	7	8	1.97	2.14	-0.17	728.3	762.2
2003	7	9	2.54	2.69	-0.15	730.8	764.9
2003	7	10	2.52	3.67	-1.15	733.3	768.5
2003	7	11	2.10	3.04	-0.94	735.4	771.6
2003	7	12	3.06	3.15	-0.09	738.5	774.7
2003	7	13	3.39	3.41	-0.03	741.9	778.1
2003	7	14	2.20	2.93	-0.73	744.1	781.1
2003	7	15	1.40	1.33	0.06	745.5	782.4
2003	7	16	2.19	2.90	-0.72	747.7	785.3
2003	7	17	0.25	0.16	0.09	747.9	785.5
2003	7	18	3.01	3.18	-0.17	750.9	788.6
2003	7	19	2.96	4.29	-1.34	753.9	792.9
2003	7	20	2.60	4.19	-1.59	756.5	797.1
2003	7	21	2.74	2.90	-0.15	759.2	800.0
2003	7	22	1.13	1.77	-0.64	760.3	801.8
2003	7	23	1.99	2.69	-0.69	762.3	804.5
2003	7	24	1.86	2.26	-0.40	764.2	806.7
2003	7	25	2.23	2.59	-0.35	766.4	809.3
2003	7	26	1.82	2.07	-0.25	768.2	811.4
2003	7	27	2.27	2.81	-0.54	770.5	814.2
2003	7	28	1.22	1.15	0.07	771.7	815.3
2003	7	29	1.03	0.85	0.17	772.8	816.2
2003	7	30	1.88	2.95	-1.08	774.6	819.2
2003	7	31	1.61	2.17	-0.56	776.2	821.3
2003	8	1	1.67	2.32	-0.66	777.9	823.6
2003	8	2	2.67	2.87	-0.20	780.6	826.5
2003	8	3	2.33	3.37	-1.04	782.9	829.9
2003	8	4	2.74	3.76	-1.02	785.7	833.6
2003	8	5	2.19	3.85	-1.66	787.8	837.5
2003	8	6	1.17	1.59	-0.43	789.0	839.1
2003	8	7	3.01	5.08	-2.06	792.0	844.2
2003	8	8	2.81	4.26	-1.45	794.8	848.4
2003	8	9	1.77	1.57	0.21	796.6	850.0
2003	8	10	2.22	3.90	-1.69	798.8	853.9
2003	8	11	1.69	3.43	-1.75	800.5	857.3
2003	8	12	1.65	3.68	-2.02	802.2	861.0
2003	8	13	1.88	4.06	-2.18	804.0	865.1
2003	8	14	1.38	3.15	-1.77	805.4	868.2
2003	8	15	1.20	2.42	-1.21	806.6	870.6
2003	8	16	1.68	3.33	-1.65	808.3	874.0

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2003	8	17	0.78	2.13	-1.35	809.1	876.1
2003	8	18	1.24	2.70	-1.46	810.3	878.8
2003	8	19	0.84	2.63	-1.79	811.2	881.4
2003	8	20	1.03	2.57	-1.54	812.2	884.0
2003	8	21	0.95	2.04	-1.09	813.2	886.0
2003	8	22	0.44	0.98	-0.54	813.6	887.0
2003	8	23	1.42	3.39	-1.97	815.0	890.4
2003	8	24	1.53	3.73	-2.20	816.5	894.1
2003	8	25	1.12	2.41	-1.29	817.7	896.6
2003	8	26	0.91	2.16	-1.25	818.6	898.7
2003	8	27	1.18	2.88	-1.70	819.8	901.6
2003	8	28	0.41	1.01	-0.60	820.2	902.6
2003	8	29	0.97	1.64	-0.67	821.1	904.2
2003	8	30	1.13	2.05	-0.92	822.3	906.3
2003	8	31	0.65	1.63	-0.98	822.9	907.9
2003	9	1	0.80	1.90	-1.10	823.7	909.8
2003	9	2	0.68	1.66	-0.98	824.4	911.5
2003	9	3	0.59	1.92	-1.33	825.0	913.4
2003	9	4	0.77	2.65	-1.88	825.8	916.1
2003	9	5	0.55	0.60	-0.05	826.3	916.7
2003	9	6	0.99	2.82	-1.83	827.3	919.5
2003	9	7	0.38	1.02	-0.64	827.7	920.5
2003	9	8	0.88	2.36	-1.48	828.6	922.9
2003	9	9	0.53	1.26	-0.73	829.1	924.1
2003	9	10	0.76	1.86	-1.11	829.8	926.0
2003	9	11	0.89	2.27	-1.38	830.7	928.2
2003	9	12	0.84	2.08	-1.25	831.6	930.3
2003	9	13	1.12	2.10	-0.99	832.7	932.4
2003	9	14	1.14	2.95	-1.81	833.8	935.4
2003	9	15	0.80	2.60	-1.81	834.6	938.0
2003	9	16	1.01	3.00	-1.98	835.6	941.0
2003	9	17	1.01	3.40	-2.39	836.6	944.4
2003	9	18	0.49	1.61	-1.12	837.1	946.0
2003	9	19	0.42	1.31	-0.89	837.6	947.3
2003	9	20	0.19	0.15	0.04	837.7	947.5
2003	9	21	0.82	2.50	-1.68	838.6	950.0
2003	9	22	0.92	2.23	-1.31	839.5	952.2
2003	9	23	0.87	1.26	-0.38	840.4	953.4
2003	9	24	0.90	1.57	-0.67	841.3	955.0
2003	9	25	0.77	1.92	-1.14	842.0	956.9
2003	9	26	0.85	2.28	-1.43	842.9	959.2
2003	9	27	0.79	1.54	-0.74	843.7	960.7
2003	9	28	0.89	1.37	-0.48	844.6	962.1
2003	9	29	0.29	0.15	0.14	844.9	962.2
2003	9	30	0.40	0.43	-0.03	845.3	962.7
2003	10	1	0.89	1.39	-0.50	846.1	964.1
2003	10	2	0.90	1.59	-0.69	847.0	965.7
2003	10	3	0.51	1.14	-0.63	847.5	966.8
2003	10	4	0.70	1.15	-0.45	848.2	967.9
2003	10	5	0.37	0.34	0.03	848.6	968.3
2003	10	6	0.56	1.63	-1.07	849.2	969.9
2003	10	7	0.49	1.22	-0.73	849.7	971.1
2003	10	8	0.50	1.19	-0.69	850.2	972.3
2003	10	9	0.81	1.30	-0.49	851.0	973.6
2003	10	10	0.55	1.08	-0.53	851.5	974.7
2003	10	11	0.40	1.10	-0.70	851.9	975.8
2003	10	12	0.23	0.51	-0.28	852.2	976.3
2003	10	13	0.17	0.80	-0.63	852.3	977.1
2003	10	14	0.35	0.63	-0.28	852.7	977.7

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2003	10	15	0.79	0.79	0.01	853.5	978.5
2003	10	16	1.04	0.74	0.30	854.5	979.3
2003	10	17	0.87	0.55	0.32	855.4	979.8
2003	10	18	0.35	0.52	-0.16	855.7	980.3
2003	10	19	0.14	0.15	-0.01	855.9	980.5
2003	10	20	0.81	0.82	-0.01	856.7	981.3
2003	10	21	0.60	0.50	0.10	857.3	981.8
2003	10	22	0.17	0.00	0.17	857.4	981.8
2003	10	23	0.98	0.76	0.22	858.4	982.6
2003	10	24	0.71	0.38	0.33	859.1	982.9
2003	10	25	0.73	0.29	0.43	859.9	983.2
2003	10	26	0.99	0.43	0.57	860.8	983.7
2003	10	27	1.04	0.65	0.40	861.9	984.3
2003	10	28	0.34	0.21	0.13	862.2	984.5
2003	10	29	0.54	0.24	0.30	862.8	984.8
2003	10	30	0.01	0.16	-0.15	862.8	984.9
2003	10	31	0.27	0.39	-0.12	863.1	985.3
2003	11	1	0.50	0.49	0.02	863.6	985.8
2003	11	2	0.92	0.79	0.13	864.5	986.6
2003	11	3	0.82	0.99	-0.17	865.3	987.6
2003	11	4	0.47	1.16	-0.69	865.8	988.7
2003	11	5	0.52	1.79	-1.27	866.3	990.5
2003	11	6	0.65	0.81	-0.16	866.9	991.3
2003	11	7	0.90	1.40	-0.50	867.8	992.7
2003	11	8	0.09	1.05	-0.96	867.9	993.8
2003	11	9	0.59	1.04	-0.45	868.5	994.8
2003	11	10	0.87	0.73	0.14	869.4	995.6
2003	11	11	0.06	0.43	-0.36	869.4	996.0
2003	11	12	0.73	0.57	0.16	870.2	996.5
2003	11	13	0.20	0.65	-0.45	870.4	997.2
2003	11	14	0.21	0.63	-0.41	870.6	997.8
2003	11	15	0.50	0.22	0.28	871.1	998.0
2003	11	16	0.62	0.16	0.46	871.7	998.2
2003	11	17	0.18	0.42	-0.25	871.9	998.6
2003	11	18	0.24	0.52	-0.28	872.1	999.1
2003	11	19	0.21	0.31	-0.09	872.3	999.5
2003	11	20	0.37	0.27	0.10	872.7	999.7
2003	11	21	0.57	0.14	0.42	873.3	999.9
2003	11	22	0.56	0.17	0.38	873.8	1000.0
2003	11	23	0.53	0.09	0.44	874.3	1000.1
2003	11	24	0.43	0.47	-0.03	874.8	1000.6
2003	11	25	0.29	0.37	-0.09	875.1	1001.0
2003	11	26	0.33	0.37	-0.04	875.4	1001.3
2003	11	27	0.45	0.31	0.14	875.8	1001.6
2003	11	28	0.25	0.74	-0.49	876.1	1002.4
2003	11	29	0.21	0.42	-0.21	876.3	1002.8
2003	11	30	0.34	0.15	0.19	876.7	1003.0
2003	12	1	0.17	0.12	0.05	876.8	1003.1
2003	12	2	0.27	0.03	0.24	877.1	1003.1
2003	12	3	0.12	0.00	0.12	877.2	1003.1
2003	12	4	0.21	0.00	0.21	877.4	1003.1
2003	12	5	0.13	0.28	-0.15	877.6	1003.4
2003	12	6	0.12	0.26	-0.14	877.7	1003.7
2003	12	7	0.43	0.00	0.43	878.1	1003.7
2003	12	8	0.32	0.01	0.30	878.4	1003.7
2003	12	9	0.27	0.38	-0.11	878.7	1004.0
2003	12	10	0.11	0.18	-0.07	878.8	1004.2
2003	12	11	0.37	0.00	0.37	879.2	1004.2
2003	12	12	0.18	0.68	-0.50	879.3	1004.9

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2003	12	13	0.25	0.00	0.25	879.6	1004.9
2003	12	14	0.35	0.11	0.23	879.9	1005.0
2003	12	15	0.31	0.00	0.31	880.3	1005.0
2003	12	16	0.11	0.51	-0.40	880.4	1005.5
2003	12	17	0.28	0.00	0.28	880.6	1005.5
2003	12	18	0.11	0.00	0.11	880.8	1005.5
2003	12	19	0.31	0.06	0.25	881.1	1005.6
2003	12	20	0.14	0.02	0.12	881.2	1005.6
2003	12	21	0.15	0.00	0.15	881.4	1005.6
2003	12	22	0.09	0.00	0.09	881.4	1005.6
2003	12	23	0.17	0.00	0.17	881.6	1005.6
2003	12	24	0.18	0.38	-0.20	881.8	1006.0
2003	12	25	0.14	0.08	0.06	881.9	1006.1
2003	12	26	0.12	0.00	0.12	882.0	1006.1
2003	12	27	0.17	0.00	0.17	882.2	1006.1
2003	12	28	0.27	0.00	0.27	882.5	1006.1
2003	12	29	0.34	0.00	0.34	882.8	1006.1
2003	12	30	0.05	0.07	-0.02	882.9	1006.1
2003	12	31	0.10	0.26	-0.17	883.0	1006.4
2004	1	1	0.19	0.32	-0.13	883.2	1006.7
2004	1	2	0.18	0.12	0.06	883.3	1006.8
2004	1	3	0.21	0.00	0.21	883.6	1006.8
2004	1	4	0.20	0.06	0.14	883.8	1006.9
2004	1	5	0.17	0.01	0.17	883.9	1006.9
2004	1	6	0.29	0.00	0.29	884.2	1006.9
2004	1	7	0.28	0.66	-0.38	884.5	1007.6
2004	1	8	0.28	0.00	0.28	884.8	1007.6
2004	1	9	0.36	0.17	0.19	885.1	1007.7
2004	1	10	0.23	0.25	-0.02	885.4	1008.0
2004	1	11	0.26	0.00	0.26	885.6	1008.0
2004	1	12	0.33	0.07	0.26	886.0	1008.1
2004	1	13	0.36	0.09	0.27	886.3	1008.1
2004	1	14	0.27	0.00	0.27	886.6	1008.1
2004	1	15	0.14	0.00	0.14	886.7	1008.1
2004	1	16	0.45	0.00	0.45	887.2	1008.1
2004	1	17	0.30	0.00	0.30	887.5	1008.1
2004	1	18	0.27	0.11	0.16	887.7	1008.3
2004	1	19	0.23	0.34	-0.10	888.0	1008.6
2004	1	20	0.18	0.22	-0.04	888.2	1008.8
2004	1	21	0.15	0.29	-0.14	888.3	1009.1
2004	1	22	0.21	0.18	0.04	888.5	1009.3
2004	1	23	0.15	0.00	0.15	888.7	1009.3
2004	1	24	0.56	0.00	0.56	889.2	1009.3
2004	1	25	0.55	0.00	0.55	889.8	1009.3
2004	1	26	0.24	0.00	0.24	890.0	1009.3
2004	1	27	0.27	0.00	0.27	890.3	1009.3
2004	1	28	0.25	0.06	0.19	890.5	1009.3
2004	1	29	0.51	0.10	0.41	891.0	1009.4
2004	1	30	0.19	0.43	-0.23	891.2	1009.9
2004	1	31	0.26	0.10	0.16	891.5	1010.0
2004	2	1	0.40	0.00	0.40	891.9	1010.0
2004	2	2	0.22	0.36	-0.14	892.1	1010.3
2004	2	3	0.48	0.22	0.25	892.6	1010.5
2004	2	4	0.32	0.00	0.32	892.9	1010.5
2004	2	5	0.79	0.59	0.20	893.7	1011.1
2004	2	6	0.35	0.04	0.31	894.1	1011.2
2004	2	7	0.68	0.67	0.01	894.7	1011.8
2004	2	8	0.64	0.43	0.20	895.4	1012.3
2004	2	9	0.36	0.51	-0.15	895.7	1012.8

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2004	2	10	0.51	0.41	0.09	896.2	1013.2
2004	2	11	0.86	0.39	0.48	897.1	1013.6
2004	2	12	0.62	0.83	-0.22	897.7	1014.4
2004	2	13	0.41	0.11	0.29	898.1	1014.5
2004	2	14	0.64	0.17	0.47	898.8	1014.7
2004	2	15	0.60	0.34	0.26	899.4	1015.0
2004	2	16	0.42	0.55	-0.13	899.8	1015.6
2004	2	17	0.56	0.57	-0.01	900.4	1016.2
2004	2	18	0.94	0.29	0.65	901.3	1016.5
2004	2	19	0.54	0.41	0.13	901.8	1016.9
2004	2	20	0.92	0.65	0.27	902.8	1017.5
2004	2	21	0.64	0.74	-0.10	903.4	1018.2
2004	2	22	0.76	0.82	-0.06	904.1	1019.1
2004	2	23	0.69	0.53	0.16	904.8	1019.6
2004	2	24	0.35	0.31	0.03	905.2	1019.9
2004	2	25	0.70	0.33	0.37	905.9	1020.2
2004	2	26	0.78	0.70	0.08	906.7	1020.9
2004	2	27	1.05	0.67	0.38	907.7	1021.6
2004	2	28	1.09	0.82	0.28	908.8	1022.4
2004	2	29	0.96	0.57	0.39	909.8	1023.0
2004	3	1	1.21	0.68	0.53	911.0	1023.7
2004	3	2	0.79	1.07	-0.27	911.8	1024.7
2004	3	3	0.38	0.20	0.18	912.1	1024.9
2004	3	4	1.38	0.83	0.55	913.5	1025.8
2004	3	5	1.01	1.19	-0.18	914.5	1027.0
2004	3	6	1.21	0.97	0.24	915.7	1027.9
2004	3	7	1.30	0.96	0.34	917.0	1028.9
2004	3	8	1.46	0.98	0.48	918.5	1029.9
2004	3	9	0.85	0.75	0.10	919.4	1030.6
2004	3	10	0.75	0.58	0.17	920.1	1031.2
2004	3	11	0.14	0.47	-0.34	920.3	1031.7
2004	3	12	0.43	1.01	-0.58	920.7	1032.7
2004	3	13	1.30	0.95	0.35	922.0	1033.6
2004	3	14	1.05	1.59	-0.54	923.0	1035.2
2004	3	15	1.20	0.66	0.53	924.2	1035.9
2004	3	16	0.67	0.63	0.03	924.9	1036.5
2004	3	17	1.68	1.61	0.07	926.6	1038.1
2004	3	18	1.04	1.22	-0.18	927.6	1039.3
2004	3	19	1.16	1.89	-0.73	928.8	1041.2
2004	3	20	1.45	1.35	0.10	930.2	1042.6
2004	3	21	1.26	0.97	0.29	931.5	1043.5
2004	3	22	1.55	1.44	0.11	933.0	1045.0
2004	3	23	1.44	1.10	0.34	934.5	1046.1
2004	3	24	1.46	1.60	-0.14	935.9	1047.7
2004	3	25	1.96	1.75	0.21	937.9	1049.4
2004	3	26	0.82	1.26	-0.45	938.7	1050.7
2004	3	27	0.76	0.71	0.05	939.5	1051.4
2004	3	28	1.12	1.18	-0.06	940.6	1052.6
2004	3	29	1.08	0.98	0.10	941.7	1053.6
2004	3	30	1.63	1.36	0.27	943.3	1054.9
2004	3	31	2.44	1.84	0.60	945.7	1056.8
2004	4	1	1.03	0.91	0.12	946.8	1057.7
2004	4	2	1.79	1.60	0.18	948.5	1059.3
2004	4	3	1.84	1.95	-0.11	950.4	1061.2
2004	4	4	1.71	1.15	0.56	952.1	1062.4
2004	4	5	1.59	1.45	0.14	953.7	1063.8
2004	4	6	1.81	2.02	-0.21	955.5	1065.9
2004	4	7	1.80	1.62	0.18	957.3	1067.5
2004	4	8	1.03	1.15	-0.12	958.3	1068.6

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2004	4	9	0.76	1.18	-0.42	959.1	1069.8
2004	4	10	0.95	1.64	-0.68	960.1	1071.4
2004	4	11	0.90	1.00	-0.10	961.0	1072.4
2004	4	12	1.55	1.47	0.08	962.5	1073.9
2004	4	13	0.96	0.45	0.51	963.5	1074.4
2004	4	14	1.44	2.01	-0.57	964.9	1076.4
2004	4	15	1.46	1.93	-0.47	966.4	1078.3
2004	4	16	2.21	2.24	-0.03	968.6	1080.6
2004	4	17	0.83	0.64	0.19	969.4	1081.2
2004	4	18	2.05	1.81	0.23	971.4	1083.0
2004	4	19	2.09	2.22	-0.13	973.5	1085.2
2004	4	20	1.04	1.30	-0.25	974.6	1086.5
2004	4	21	2.36	2.62	-0.26	976.9	1089.1
2004	4	22	2.43	2.43	0.01	979.4	1091.6
2004	4	23	1.78	2.14	-0.36	981.2	1093.7
2004	4	24	3.13	3.75	-0.62	984.3	1097.5
2004	4	25	3.46	3.42	0.05	987.7	1100.9
2004	4	26	1.89	1.83	0.06	989.6	1102.7
2004	4	27	2.14	2.29	-0.15	991.8	1105.0
2004	4	28	1.94	2.81	-0.87	993.7	1107.8
2004	4	29	1.92	2.43	-0.51	995.6	1110.2
2004	4	30	0.88	0.86	0.02	996.5	1111.1
2004	5	1	3.14	3.51	-0.38	999.7	1114.6
2004	5	2	1.94	2.88	-0.94	1001.6	1117.5
2004	5	3	2.65	2.76	-0.11	1004.2	1120.3
2004	5	4	1.93	1.47	0.46	1006.2	1121.7
2004	5	5	1.50	1.77	-0.27	1007.7	1123.5
2004	5	6	2.27	2.38	-0.10	1009.9	1125.9
2004	5	7	2.32	2.16	0.16	1012.3	1128.0
2004	5	8	2.18	3.65	-1.46	1014.5	1131.7
2004	5	9	0.91	1.20	-0.29	1015.4	1132.9
2004	5	10	1.44	1.41	0.04	1016.8	1134.3
2004	5	11	0.84	1.06	-0.21	1017.6	1135.3
2004	5	12	0.65	0.73	-0.08	1018.3	1136.1
2004	5	13	1.54	1.27	0.27	1019.8	1137.3
2004	5	14	1.62	1.90	-0.28	1021.5	1139.2
2004	5	15	3.14	2.96	0.18	1024.6	1142.2
2004	5	16	4.21	3.44	0.77	1028.8	1145.6
2004	5	17	4.10	2.20	1.91	1032.9	1147.8
2004	5	18	3.95	4.86	-0.92	1036.8	1152.7
2004	5	19	1.86	2.17	-0.31	1038.7	1154.9
2004	5	20	2.24	2.01	0.23	1041.0	1156.9
2004	5	21	2.09	2.09	0.01	1043.0	1159.0
2004	5	22	2.94	4.22	-1.28	1046.0	1163.2
2004	5	23	2.83	4.35	-1.52	1048.8	1167.5
2004	5	24	1.66	2.88	-1.22	1050.5	1170.4
2004	5	25	2.69	3.63	-0.95	1053.2	1174.1
2004	5	26	2.78	4.09	-1.32	1055.9	1178.1
2004	5	27	2.29	3.89	-1.60	1058.2	1182.0
2004	5	28	1.23	3.29	-2.06	1059.5	1185.3
2004	5	29	2.20	3.37	-1.17	1061.7	1188.7
2004	5	30	1.43	2.02	-0.60	1063.1	1190.7
2004	5	31	1.31	1.46	-0.15	1064.4	1192.2
2004	6	1	2.54	4.61	-2.07	1066.9	1196.8
2004	6	2	1.41	3.09	-1.67	1068.3	1199.9
2004	6	3	0.96	1.87	-0.92	1069.3	1201.7
2004	6	4	1.24	2.20	-0.97	1070.5	1203.9
2004	6	5	1.32	3.96	-2.65	1071.9	1207.9
2004	6	6	1.63	3.77	-2.14	1073.5	1211.7

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2004	6	7	2.55	3.82	-1.27	1076.0	1215.5
2004	6	8	1.41	3.11	-1.70	1077.5	1218.6
2004	6	9	2.15	3.98	-1.83	1079.6	1222.6
2004	6	10	1.85	3.51	-1.67	1081.4	1226.1
2004	6	11	1.28	2.43	-1.15	1082.7	1228.5
2004	6	12	1.09	2.77	-1.68	1083.8	1231.3
2004	6	13	1.57	3.21	-1.64	1085.4	1234.5
2004	6	14	2.76	6.35	-3.59	1088.1	1240.9
2004	6	15	1.11	2.41	-1.30	1089.3	1243.3
2004	6	16	2.44	6.75	-4.31	1091.7	1250.0
2004	6	17	0.95	2.94	-1.99	1092.6	1253.0
2004	6	18	0.88	2.36	-1.48	1093.5	1255.3
2004	6	19	1.33	3.04	-1.70	1094.9	1258.4
2004	6	20	0.99	2.47	-1.48	1095.8	1260.8
2004	6	21	1.29	1.93	-0.65	1097.1	1262.8
2004	6	22	0.98	1.31	-0.33	1098.1	1264.1
2004	6	23	0.84	1.36	-0.52	1098.9	1265.4
2004	6	24	1.91	3.11	-1.20	1100.9	1268.5
2004	6	25	2.79	4.78	-1.99	1103.7	1273.3
2004	6	26	2.32	4.40	-2.08	1106.0	1277.7
2004	6	27	2.21	3.55	-1.35	1108.2	1281.3
2004	6	28	1.47	2.35	-0.88	1109.6	1283.6
2004	6	29	1.38	2.48	-1.10	1111.0	1286.1
2004	6	30	2.32	3.23	-0.91	1113.4	1289.3
2004	7	1	2.19	3.44	-1.24	1115.5	1292.8
2004	7	2	1.91	2.20	-0.29	1117.5	1295.0
2004	7	3	1.79	2.93	-1.14	1119.2	1297.9
2004	7	4	1.82	2.56	-0.74	1121.1	1300.5
2004	7	5	2.49	2.75	-0.27	1123.6	1303.2
2004	7	6	2.28	2.85	-0.57	1125.8	1306.1
2004	7	7	2.21	3.41	-1.20	1128.0	1309.5
2004	7	8	2.20	2.50	-0.30	1130.3	1312.0
2004	7	9	2.67	3.63	-0.96	1132.9	1315.6
2004	7	10	1.43	2.07	-0.65	1134.3	1317.7
2004	7	11	1.63	2.57	-0.94	1136.0	1320.3
2004	7	12	1.95	2.95	-1.00	1137.9	1323.2
2004	7	13	1.79	2.99	-1.19	1139.7	1326.2
2004	7	14	1.43	1.99	-0.56	1141.2	1328.2
2004	7	15	0.70	1.10	-0.40	1141.9	1329.3
2004	7	16	1.90	2.56	-0.65	1143.8	1331.9
2004	7	17	2.10	3.21	-1.11	1145.9	1335.1
2004	7	18	2.69	2.73	-0.04	1148.5	1337.8
2004	7	19	2.10	3.04	-0.94	1150.7	1340.8
2004	7	20	1.11	2.01	-0.90	1151.8	1342.8
2004	7	21	2.42	2.91	-0.50	1154.2	1345.8
2004	7	22	2.51	4.44	-1.93	1156.7	1350.2
2004	7	23	1.99	2.73	-0.74	1158.7	1352.9
2004	7	24	0.99	2.04	-1.05	1159.7	1355.0
2004	7	25	1.10	1.12	-0.02	1160.8	1356.1
2004	7	26	0.56	0.70	-0.14	1161.3	1356.8
2004	7	27	1.20	2.48	-1.28	1162.5	1359.3
2004	7	28	1.74	2.38	-0.64	1164.3	1361.7
2004	7	29	0.87	1.64	-0.78	1165.1	1363.3
2004	7	30	2.17	3.62	-1.45	1167.3	1366.9
2004	7	31	1.97	3.61	-1.64	1169.3	1370.5
2004	8	1	1.82	4.47	-2.65	1171.1	1375.0
2004	8	2	1.25	3.63	-2.38	1172.3	1378.6
2004	8	3	0.97	1.24	-0.27	1173.3	1379.9
2004	8	4	0.86	2.22	-1.36	1174.2	1382.1

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2004	8	5	1.45	3.21	-1.76	1175.6	1385.3
2004	8	6	1.34	3.03	-1.69	1177.0	1388.3
2004	8	7	1.66	2.80	-1.15	1178.6	1391.1
2004	8	8	0.52	2.11	-1.59	1179.1	1393.3
2004	8	9	1.64	3.30	-1.66	1180.8	1396.5
2004	8	10	1.92	2.44	-0.53	1182.7	1399.0
2004	8	11	1.49	2.10	-0.61	1184.2	1401.1
2004	8	12	2.20	3.14	-0.93	1186.4	1404.2
2004	8	13	1.67	2.34	-0.67	1188.1	1406.6
2004	8	14	1.59	3.83	-2.25	1189.6	1410.4
2004	8	15	1.46	3.50	-2.04	1191.1	1413.9
2004	8	16	1.44	2.17	-0.73	1192.5	1416.1
2004	8	17	1.95	2.57	-0.62	1194.5	1418.6
2004	8	18	1.04	1.80	-0.77	1195.5	1420.4
2004	8	19	1.59	1.42	0.17	1197.1	1421.9
2004	8	20	2.15	3.50	-1.35	1199.3	1425.4
2004	8	21	2.03	2.36	-0.33	1201.3	1427.7
2004	8	22	0.61	0.79	-0.18	1201.9	1428.5
2004	8	23	2.55	1.99	0.55	1204.5	1430.5
2004	8	24	1.80	2.30	-0.50	1206.3	1432.8
2004	8	25	1.51	1.77	-0.26	1207.8	1434.6
2004	8	26	1.80	1.78	0.02	1209.6	1436.4
2004	8	27	2.67	3.28	-0.62	1212.2	1439.6
2004	8	28	2.08	1.89	0.19	1214.3	1441.5
2004	8	29	2.45	2.49	-0.04	1216.8	1444.0
2004	8	30	2.07	2.45	-0.38	1218.8	1446.5
2004	8	31	3.14	3.15	-0.01	1222.0	1449.6
2004	9	1	1.06	1.31	-0.26	1223.0	1450.9
2004	9	2	1.20	1.41	-0.21	1224.2	1452.3
2004	9	3	2.18	1.60	0.58	1226.4	1453.9
2004	9	4	3.10	4.17	-1.07	1229.5	1458.1
2004	9	5	2.16	2.66	-0.50	1231.7	1460.8
2004	9	6	1.08	1.72	-0.64	1232.7	1462.5
2004	9	7	2.80	2.84	-0.05	1235.5	1465.3
2004	9	8	3.16	3.00	0.16	1238.7	1468.3
2004	9	9	2.94	2.69	0.24	1241.6	1471.0
2004	9	10	0.69	0.98	-0.30	1242.3	1472.0
2004	9	11	1.33	1.56	-0.23	1243.6	1473.6
2004	9	12	0.91	0.20	0.71	1244.6	1473.8
2004	9	13	2.10	1.90	0.20	1246.7	1475.7
2004	9	14	1.78	2.51	-0.73	1248.4	1478.2
2004	9	15	2.07	2.22	-0.15	1250.5	1480.4
2004	9	16	0.58	0.98	-0.41	1251.1	1481.4
2004	9	17	1.25	1.39	-0.14	1252.3	1482.8
2004	9	18	2.12	2.23	-0.11	1254.5	1485.0
2004	9	19	1.06	1.10	-0.03	1255.5	1486.1
2004	9	20	1.46	1.25	0.21	1257.0	1487.3
2004	9	21	1.23	1.75	-0.52	1258.2	1489.1
2004	9	22	1.32	1.17	0.15	1259.5	1490.3
2004	9	23	1.41	2.22	-0.81	1260.9	1492.5
2004	9	24	1.34	1.32	0.02	1262.3	1493.8
2004	9	25	0.90	1.12	-0.22	1263.2	1494.9
2004	9	26	0.96	1.55	-0.59	1264.1	1496.5
2004	9	27	0.99	1.20	-0.21	1265.1	1497.7
2004	9	28	0.83	0.54	0.29	1266.0	1498.2
2004	9	29	0.68	0.89	-0.21	1266.6	1499.1
2004	9	30	1.29	1.61	-0.33	1267.9	1500.7
2004	10	1	0.76	1.03	-0.26	1268.7	1501.8
2004	10	2	1.72	1.12	0.60	1270.4	1502.9

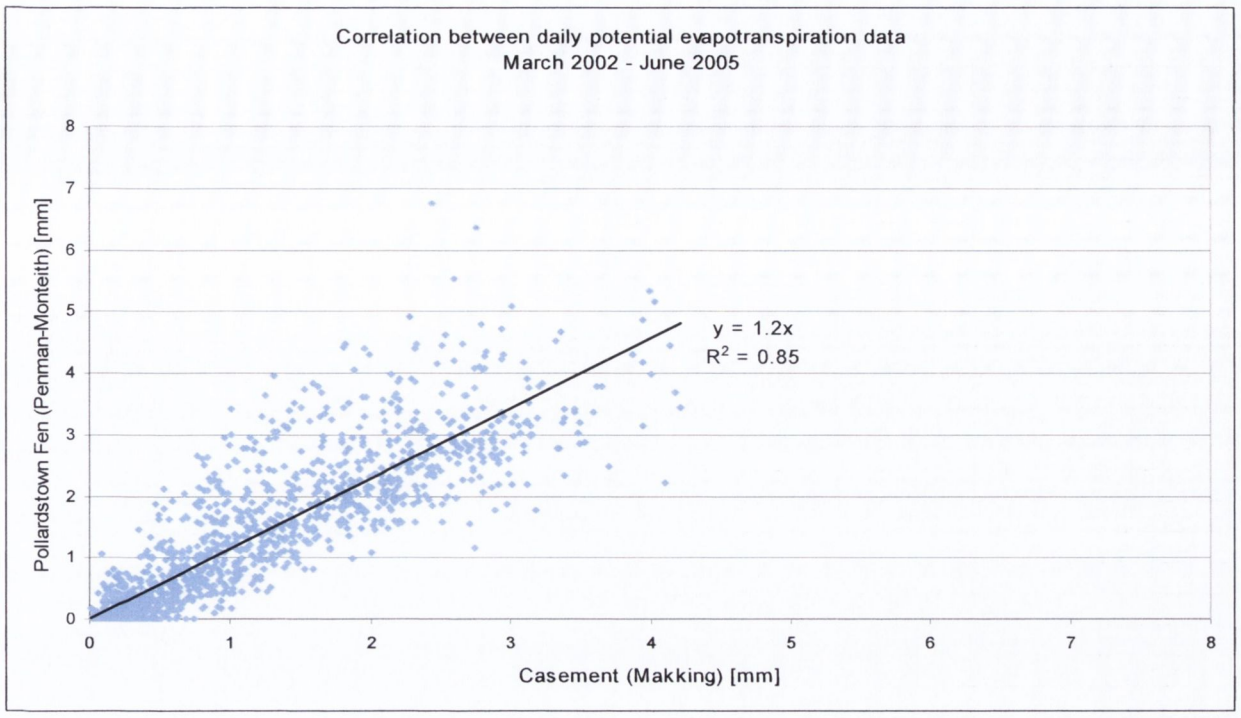
Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2004	10	3	0.39	0.43	-0.04	1270.8	1503.3
2004	10	4	1.53	1.53	0.00	1272.3	1504.8
2004	10	5	1.30	1.05	0.24	1273.6	1505.9
2004	10	6	1.31	1.37	-0.06	1274.9	1507.2
2004	10	7	1.50	1.36	0.14	1276.4	1508.6
2004	10	8	0.61	0.78	-0.16	1277.0	1509.4
2004	10	9	0.97	0.95	0.01	1278.0	1510.3
2004	10	10	0.70	0.86	-0.16	1278.7	1511.2
2004	10	11	0.82	0.57	0.25	1279.5	1511.8
2004	10	12	1.21	0.63	0.59	1280.7	1512.4
2004	10	13	1.10	0.80	0.30	1281.8	1513.2
2004	10	14	0.58	0.35	0.23	1282.4	1513.5
2004	10	15	1.23	0.95	0.27	1283.6	1514.5
2004	10	16	0.52	0.61	-0.09	1284.2	1515.1
2004	10	17	0.72	0.36	0.36	1284.9	1515.5
2004	10	18	1.02	0.58	0.44	1285.9	1516.0
2004	10	19	0.84	0.40	0.44	1286.7	1516.4
2004	10	20	0.20	0.30	-0.10	1286.9	1516.7
2004	10	21	0.92	0.75	0.17	1287.9	1517.5
2004	10	22	0.33	0.00	0.33	1288.2	1517.5
2004	10	23	0.45	0.30	0.15	1288.6	1517.8
2004	10	24	0.99	1.15	-0.15	1289.6	1518.9
2004	10	25	0.66	0.75	-0.09	1290.3	1519.7
2004	10	26	0.77	0.47	0.30	1291.1	1520.2
2004	10	27	0.32	0.05	0.27	1291.4	1520.2
2004	10	28	0.53	0.30	0.23	1291.9	1520.5
2004	10	29	0.22	0.07	0.15	1292.1	1520.6
2004	10	30	0.39	0.30	0.09	1292.5	1520.9
2004	10	31	0.43	0.16	0.26	1292.9	1521.1
2004	11	1	0.42	0.37	0.05	1293.4	1521.4
2004	11	2	0.59	0.41	0.17	1293.9	1521.8
2004	11	3	0.86	0.42	0.43	1294.8	1522.3
2004	11	4	0.62	0.06	0.57	1295.4	1522.3
2004	11	5	0.36	0.26	0.10	1295.8	1522.6
2004	11	6	0.20	0.38	-0.18	1296.0	1523.0
2004	11	7	0.35	0.28	0.07	1296.3	1523.2
2004	11	8	0.30	0.34	-0.03	1296.6	1523.6
2004	11	9	0.50	0.34	0.16	1297.1	1523.9
2004	11	10	0.62	0.30	0.31	1297.8	1524.2
2004	11	11	0.20	0.03	0.16	1298.0	1524.3
2004	11	12	0.41	0.62	-0.21	1298.4	1524.9
2004	11	13	0.56	0.25	0.31	1298.9	1525.1
2004	11	14	0.35	0.27	0.08	1299.3	1525.4
2004	11	15	0.34	0.06	0.28	1299.6	1525.4
2004	11	16	0.25	0.15	0.10	1299.9	1525.6
2004	11	17	0.18	0.08	0.10	1300.0	1525.7
2004	11	18	0.08	0.00	0.08	1300.1	1525.7
2004	11	19	0.38	0.00	0.38	1300.5	1525.7
2004	11	20	0.11	0.02	0.09	1300.6	1525.7
2004	11	21	0.38	0.22	0.17	1301.0	1525.9
2004	11	22	0.36	0.39	-0.03	1301.3	1526.3
2004	11	23	0.27	0.15	0.11	1301.6	1526.4
2004	11	24	0.47	0.29	0.19	1302.1	1526.7
2004	11	25	0.24	0.14	0.10	1302.3	1526.9
2004	11	26	0.39	0.00	0.39	1302.7	1526.9
2004	11	27	0.36	0.00	0.36	1303.1	1526.9
2004	11	28	0.38	0.00	0.38	1303.4	1526.9
2004	11	29	0.42	0.01	0.40	1303.9	1526.9
2004	11	30	0.28	0.00	0.28	1304.1	1526.9

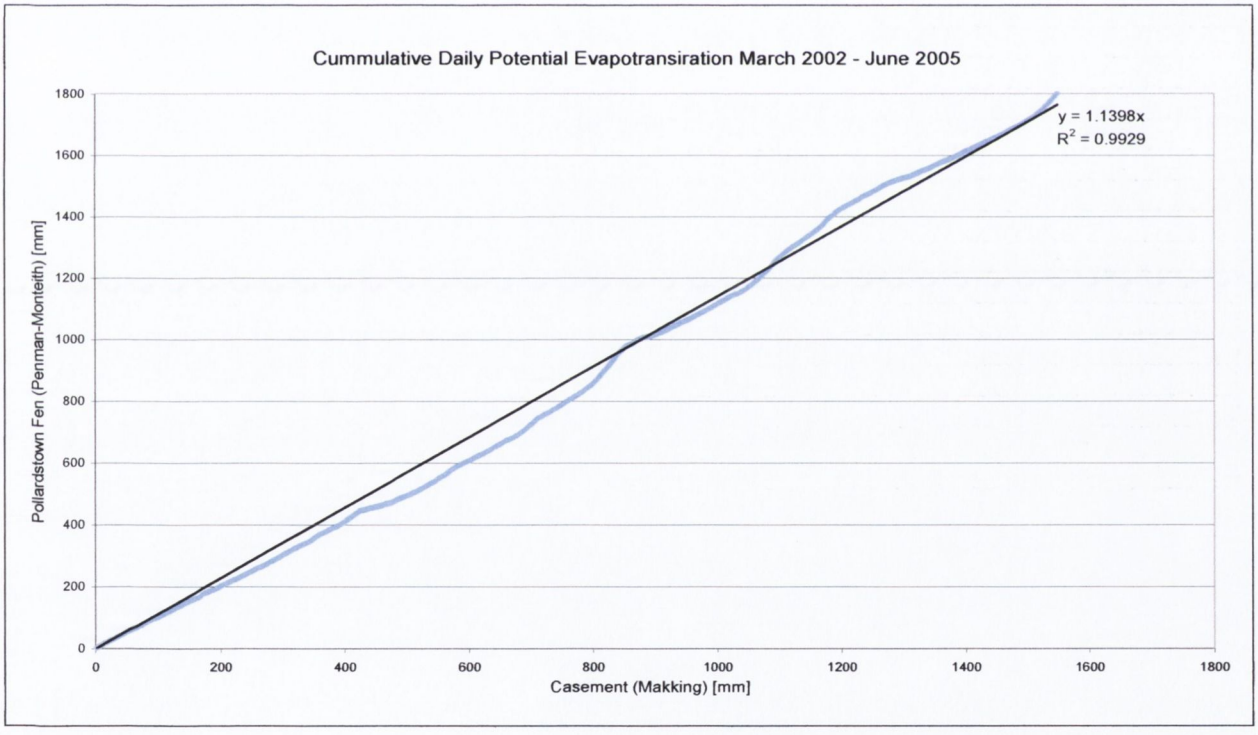
Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2004	12	1	0.13	0.00	0.13	1304.3	1526.9
2004	12	2	0.36	0.00	0.36	1304.6	1526.9
2004	12	3	0.13	0.24	-0.11	1304.7	1527.1
2004	12	4	0.38	0.22	0.16	1305.1	1527.4
2004	12	5	0.29	0.11	0.19	1305.4	1527.5
2004	12	6	0.26	0.20	0.06	1305.7	1527.7
2004	12	7	0.37	0.00	0.37	1306.0	1527.7
2004	12	8	0.25	0.33	-0.08	1306.3	1528.0
2004	12	9	0.20	0.73	-0.53	1306.5	1528.7
2004	12	10	0.17	0.18	-0.01	1306.7	1528.9
2004	12	11	0.14	0.43	-0.29	1306.8	1529.3
2004	12	12	0.05	0.12	-0.07	1306.9	1529.5
2004	12	13	0.06	0.09	-0.03	1306.9	1529.5
2004	12	14	0.11	0.37	-0.26	1307.0	1529.9
2004	12	15	0.42	0.00	0.42	1307.4	1529.9
2004	12	16	0.20	0.13	0.07	1307.7	1530.1
2004	12	17	0.23	0.00	0.23	1307.9	1530.1
2004	12	18	0.10	0.00	0.10	1308.0	1530.1
2004	12	19	0.36	0.00	0.36	1308.3	1530.1
2004	12	20	0.36	0.00	0.36	1308.7	1530.1
2004	12	21	0.37	0.00	0.37	1309.1	1530.1
2004	12	22	0.15	0.06	0.09	1309.2	1530.1
2004	12	23	0.19	0.36	-0.17	1309.4	1530.5
2004	12	24	0.11	0.00	0.11	1309.5	1530.5
2004	12	25	0.16	0.00	0.16	1309.7	1530.5
2004	12	26	0.35	0.00	0.35	1310.0	1530.5
2004	12	27	0.13	0.29	-0.17	1310.2	1530.8
2004	12	28	0.30	0.00	0.30	1310.5	1530.8
2004	12	29	0.20	0.06	0.14	1310.7	1530.8
2004	12	30	0.19	0.14	0.05	1310.8	1531.0
2004	12	31	0.29	0.00	0.29	1311.1	1531.0
2005	1	1	0.17	0.05	0.11	1311.3	1531.0
2005	1	2	0.38	0.04	0.33	1311.7	1531.1
2005	1	3	0.31	0.49	-0.18	1312.0	1531.6
2005	1	4	0.39	0.36	0.03	1312.4	1531.9
2005	1	5	0.20	0.00	0.20	1312.6	1531.9
2005	1	6	0.24	0.56	-0.32	1312.8	1532.5
2005	1	7	0.11	0.23	-0.12	1312.9	1532.7
2005	1	8	0.38	0.33	0.05	1313.3	1533.1
2005	1	9	0.09	0.31	-0.21	1313.4	1533.4
2005	1	10	0.39	0.37	0.01	1313.8	1533.7
2005	1	11	0.32	0.67	-0.35	1314.1	1534.4
2005	1	12	0.34	0.10	0.24	1314.4	1534.5
2005	1	13	0.48	0.00	0.48	1314.9	1534.5
2005	1	14	0.40	0.76	-0.35	1315.3	1535.3
2005	1	15	0.12	0.30	-0.18	1315.4	1535.6
2005	1	16	0.52	0.41	0.11	1316.0	1536.0
2005	1	17	0.25	0.04	0.20	1316.2	1536.0
2005	1	18	0.28	0.21	0.07	1316.5	1536.2
2005	1	19	0.15	0.15	0.00	1316.6	1536.4
2005	1	20	0.12	0.47	-0.35	1316.8	1536.8
2005	1	21	0.20	0.00	0.20	1317.0	1536.8
2005	1	22	0.12	0.04	0.08	1317.1	1536.9
2005	1	23	0.47	0.00	0.47	1317.5	1536.9
2005	1	24	0.33	0.17	0.16	1317.9	1537.1
2005	1	25	0.26	0.00	0.26	1318.1	1537.1
2005	1	26	0.26	0.12	0.14	1318.4	1537.2
2005	1	27	0.20	0.23	-0.04	1318.6	1537.4
2005	1	28	0.28	0.44	-0.16	1318.9	1537.9

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2005	1	29	0.21	0.17	0.04	1319.1	1538.0
2005	1	30	0.32	0.39	-0.07	1319.4	1538.4
2005	1	31	0.36	1.00	-0.64	1319.8	1539.4
2005	2	1	0.23	0.25	-0.02	1320.0	1539.7
2005	2	2	0.47	0.18	0.28	1320.5	1539.8
2005	2	3	0.36	0.13	0.23	1320.8	1540.0
2005	2	4	0.54	0.58	-0.04	1321.4	1540.6
2005	2	5	0.68	0.00	0.68	1322.0	1540.6
2005	2	6	0.20	0.04	0.16	1322.2	1540.6
2005	2	7	0.75	0.50	0.25	1323.0	1541.1
2005	2	8	0.41	0.33	0.08	1323.4	1541.4
2005	2	9	0.42	0.31	0.11	1323.8	1541.7
2005	2	10	0.57	0.51	0.05	1324.4	1542.3
2005	2	11	0.32	0.24	0.08	1324.7	1542.5
2005	2	12	0.65	1.10	-0.45	1325.3	1543.6
2005	2	13	0.57	1.16	-0.59	1325.9	1544.7
2005	2	14	0.49	0.80	-0.31	1326.4	1545.6
2005	2	15	0.53	0.04	0.49	1326.9	1545.6
2005	2	16	0.43	0.28	0.15	1327.4	1545.9
2005	2	17	0.49	0.51	-0.02	1327.9	1546.4
2005	2	18	0.60	0.87	-0.28	1328.4	1547.3
2005	2	19	0.60	0.63	-0.03	1329.0	1547.9
2005	2	20	0.90	0.92	-0.03	1329.9	1548.8
2005	2	21	0.35	0.00	0.35	1330.3	1548.8
2005	2	22	0.46	0.17	0.29	1330.7	1549.0
2005	2	23	0.50	0.00	0.50	1331.2	1549.0
2005	2	24	0.16	0.15	0.01	1331.4	1549.1
2005	2	25	0.62	0.52	0.10	1332.0	1549.6
2005	2	26	0.63	0.73	-0.10	1332.6	1550.4
2005	2	27	0.36	0.00	0.36	1333.0	1550.4
2005	2	28	0.75	0.00	0.75	1333.8	1550.4
2005	3	1	0.90	0.84	0.06	1334.7	1551.2
2005	3	2	0.93	1.08	-0.15	1335.6	1552.3
2005	3	3	0.88	0.53	0.35	1336.5	1552.8
2005	3	4	0.94	1.21	-0.27	1337.4	1554.0
2005	3	5	1.22	1.07	0.15	1338.6	1555.1
2005	3	6	1.23	0.82	0.41	1339.9	1555.9
2005	3	7	0.69	0.62	0.07	1340.5	1556.5
2005	3	8	0.50	0.43	0.07	1341.0	1557.0
2005	3	9	0.49	0.44	0.05	1341.5	1557.4
2005	3	10	1.06	0.90	0.16	1342.6	1558.3
2005	3	11	0.83	1.14	-0.31	1343.4	1559.4
2005	3	12	1.46	1.01	0.45	1344.9	1560.5
2005	3	13	0.84	0.53	0.31	1345.7	1561.0
2005	3	14	0.58	0.58	0.00	1346.3	1561.6
2005	3	15	0.59	0.88	-0.29	1346.9	1562.4
2005	3	16	1.59	2.35	-0.76	1348.5	1564.8
2005	3	17	1.32	1.22	0.10	1349.8	1566.0
2005	3	18	1.23	1.24	-0.02	1351.0	1567.2
2005	3	19	1.90	1.75	0.15	1352.9	1569.0
2005	3	20	1.63	1.66	-0.03	1354.6	1570.7
2005	3	21	0.22	0.27	-0.05	1354.8	1570.9
2005	3	22	1.84	1.47	0.37	1356.6	1572.4
2005	3	23	1.12	1.44	-0.31	1357.7	1573.8
2005	3	24	1.61	1.44	0.17	1359.3	1575.3
2005	3	25	1.35	1.05	0.30	1360.7	1576.3
2005	3	26	1.45	1.79	-0.34	1362.1	1578.1
2005	3	27	0.55	0.13	0.42	1362.7	1578.2
2005	3	28	1.31	0.99	0.32	1364.0	1579.2

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2005	3	29	0.95	0.54	0.41	1365.0	1579.8
2005	3	30	0.89	0.44	0.46	1365.8	1580.2
2005	3	31	0.96	1.08	-0.12	1366.8	1581.3
2005	4	1	1.29	0.99	0.30	1368.1	1582.3
2005	4	2	2.54	1.96	0.58	1370.6	1584.2
2005	4	3	1.45	1.02	0.43	1372.1	1585.3
2005	4	4	2.08	1.54	0.54	1374.2	1586.8
2005	4	5	1.47	1.55	-0.08	1375.6	1588.3
2005	4	6	1.70	1.27	0.42	1377.3	1589.6
2005	4	7	1.44	1.11	0.32	1378.8	1590.7
2005	4	8	1.83	1.90	-0.07	1380.6	1592.6
2005	4	9	1.27	1.27	0.00	1381.9	1593.9
2005	4	10	2.09	2.04	0.04	1383.9	1596.0
2005	4	11	1.63	1.67	-0.04	1385.6	1597.6
2005	4	12	2.13	2.09	0.04	1387.7	1599.7
2005	4	13	2.17	1.90	0.27	1389.9	1601.6
2005	4	14	0.77	0.97	-0.20	1390.7	1602.6
2005	4	15	1.37	1.45	-0.09	1392.0	1604.0
2005	4	16	1.60	1.29	0.31	1393.6	1605.3
2005	4	17	0.41	0.87	-0.46	1394.0	1606.2
2005	4	18	1.23	1.35	-0.12	1395.3	1607.5
2005	4	19	1.69	2.04	-0.35	1396.9	1609.6
2005	4	20	0.63	0.51	0.12	1397.6	1610.1
2005	4	21	2.91	2.54	0.38	1400.5	1612.6
2005	4	22	2.80	2.06	0.74	1403.3	1614.7
2005	4	23	0.73	0.67	0.06	1404.0	1615.4
2005	4	24	2.81	2.55	0.25	1406.8	1617.9
2005	4	25	2.15	2.21	-0.06	1409.0	1620.1
2005	4	26	2.42	2.46	-0.04	1411.4	1622.6
2005	4	27	2.73	2.40	0.33	1414.1	1625.0
2005	4	28	2.86	2.93	-0.07	1417.0	1627.9
2005	4	29	3.19	3.26	-0.07	1420.2	1631.2
2005	4	30	1.24	1.07	0.17	1421.4	1632.2
2005	5	1	2.45	2.31	0.14	1423.9	1634.6
2005	5	2	1.85	1.93	-0.07	1425.7	1636.5
2005	5	3	1.59	1.50	0.09	1427.3	1638.0
2005	5	4	2.89	3.03	-0.13	1430.2	1641.0
2005	5	5	2.14	2.31	-0.17	1432.3	1643.3
2005	5	6	2.22	1.58	0.64	1434.6	1644.9
2005	5	7	2.70	2.82	-0.12	1437.3	1647.7
2005	5	8	2.86	2.14	0.72	1440.1	1649.9
2005	5	9	2.30	1.87	0.43	1442.4	1651.7
2005	5	10	2.92	3.21	-0.29	1445.3	1654.9
2005	5	11	2.09	2.04	0.05	1447.4	1657.0
2005	5	12	3.37	3.20	0.17	1450.8	1660.2
2005	5	13	3.10	3.20	-0.09	1453.9	1663.4
2005	5	14	3.07	3.03	0.04	1457.0	1666.4
2005	5	15	4.17	3.67	0.50	1461.2	1670.1
2005	5	16	1.05	1.22	-0.17	1462.2	1671.3
2005	5	17	3.10	2.82	0.28	1465.3	1674.1
2005	5	18	0.57	1.12	-0.55	1465.9	1675.2
2005	5	19	2.39	3.06	-0.67	1468.3	1678.3
2005	5	20	2.17	2.25	-0.09	1470.4	1680.5
2005	5	21	2.36	2.51	-0.15	1472.8	1683.1
2005	5	22	1.73	2.23	-0.50	1474.5	1685.3
2005	5	23	2.63	2.53	0.10	1477.1	1687.8
2005	5	24	2.24	1.85	0.38	1479.4	1689.7
2005	5	25	1.92	1.81	0.10	1481.3	1691.5
2005	5	26	3.59	3.36	0.23	1484.9	1694.8

Year	Month	Day	Casement Potential Evapotranspiration (Makking)	Pollardstown Fen (Modified Penman-Monteith)	(Casement) - (Pollardstown Fen)	Cumulative Casement	Cumulative Pollardstown Fen
			mm	mm	mm	mm	mm
2005	5	27	1.62	1.83	-0.21	1486.5	1696.7
2005	5	28	2.58	2.87	-0.28	1489.1	1699.5
2005	5	29	2.37	3.13	-0.76	1491.5	1702.7
2005	5	30	1.69	1.69	-0.01	1493.1	1704.4
2005	5	31	1.71	2.47	-0.76	1494.9	1706.8
2005	6	1	1.81	2.01	-0.19	1496.7	1708.8
2005	6	2	1.82	2.35	-0.54	1498.5	1711.2
2005	6	3	2.24	3.01	-0.77	1500.7	1714.2
2005	6	4	2.19	2.27	-0.08	1502.9	1716.5
2005	6	5	2.06	1.94	0.12	1505.0	1718.4
2005	6	6	3.12	3.91	-0.80	1508.1	1722.3
2005	6	7	1.65	2.56	-0.91	1509.7	1724.9
2005	6	8	1.95	3.62	-1.67	1511.7	1728.5
2005	6	9	1.22	1.75	-0.52	1512.9	1730.2
2005	6	10	2.58	3.81	-1.23	1515.5	1734.1
2005	6	11	2.66	4.48	-1.81	1518.1	1738.5
2005	6	12	1.27	2.18	-0.92	1519.4	1740.7
2005	6	13	1.55	2.41	-0.86	1521.0	1743.1
2005	6	14	1.12	1.73	-0.62	1522.1	1744.9
2005	6	15	1.95	3.28	-1.34	1524.0	1748.1
2005	6	16	1.80	4.41	-2.60	1525.8	1752.6
2005	6	17	1.30	3.20	-1.91	1527.1	1755.8
2005	6	18	1.31	3.03	-1.72	1528.4	1758.8
2005	6	19	2.33	4.47	-2.13	1530.8	1763.3
2005	6	20	1.72	3.25	-1.53	1532.5	1766.5
2005	6	21	1.23	2.70	-1.48	1533.7	1769.2
2005	6	22	2.60	5.52	-2.92	1536.3	1774.7
2005	6	23	0.93	2.08	-1.15	1537.2	1776.8
2005	6	24	0.49	1.69	-1.20	1537.7	1778.5
2005	6	25	0.93	1.54	-0.61	1538.7	1780.0
2005	6	26	1.99	4.29	-2.30	1540.6	1784.3
2005	6	27	2.28	4.92	-2.64	1542.9	1789.2
2005	6	28	1.12	2.78	-1.66	1544.0	1792.0
2005	6	29	1.27	2.93	-1.66	1545.3	1795.0
2005	6	30	1.33	2.95	-1.63	1546.6	1797.9
2005	7	1	1.31	1.59	-0.28	1547.9	1799.5
			CORRELATION COEFFICIENT		AVERAGE	CORRELATION COEFFICIENT	
			0.85		-0.21	1.00	

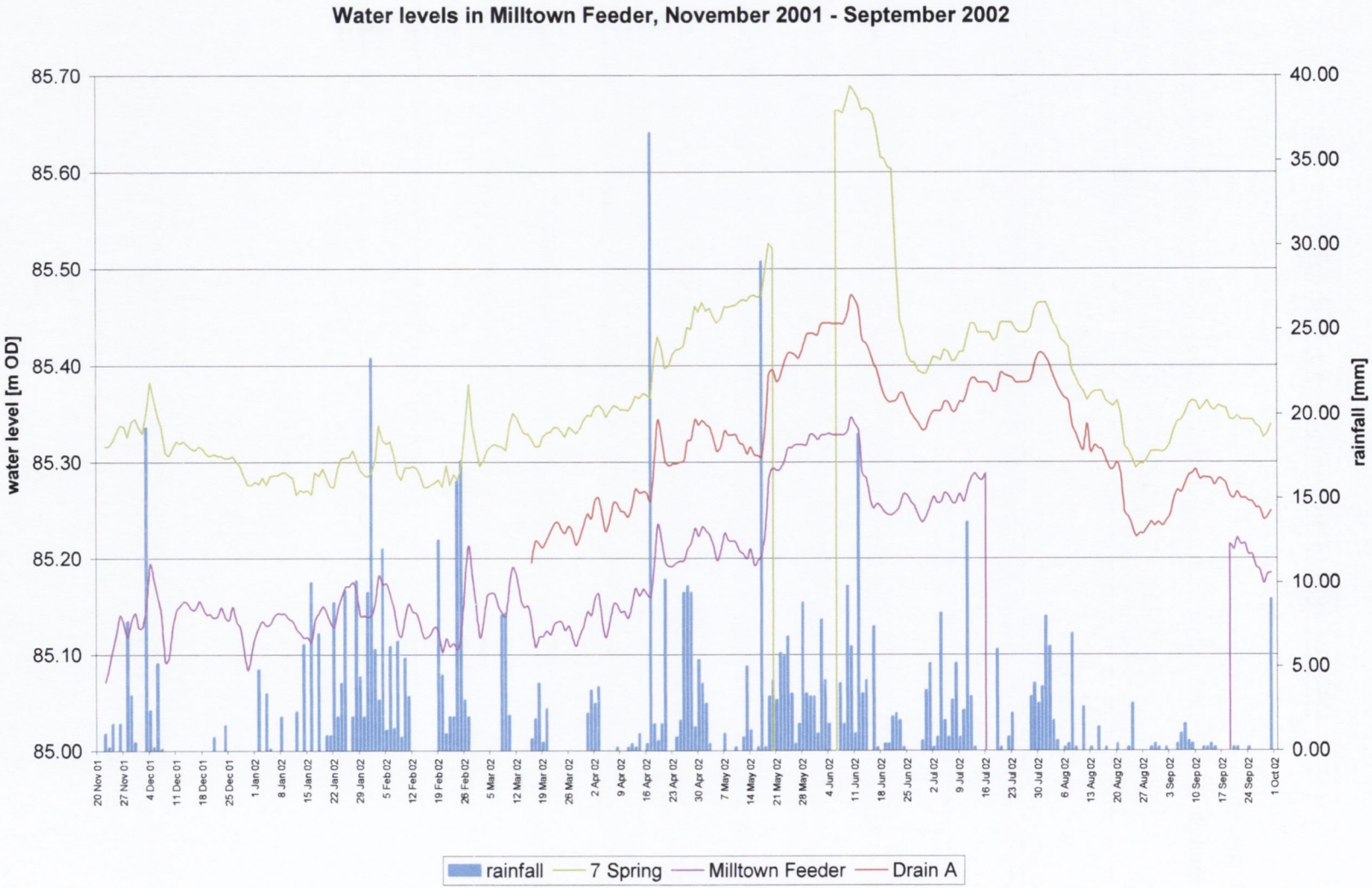

Correlation between daily potential evapotranspiration data
March 2002 - June 2005
Pollardstown Fen (Penman-Monteith) [mm]
Casement (Makking) [mm]
y = 1.2x
R2 = 0.85
0
1
2
3
4
5
6
7
8

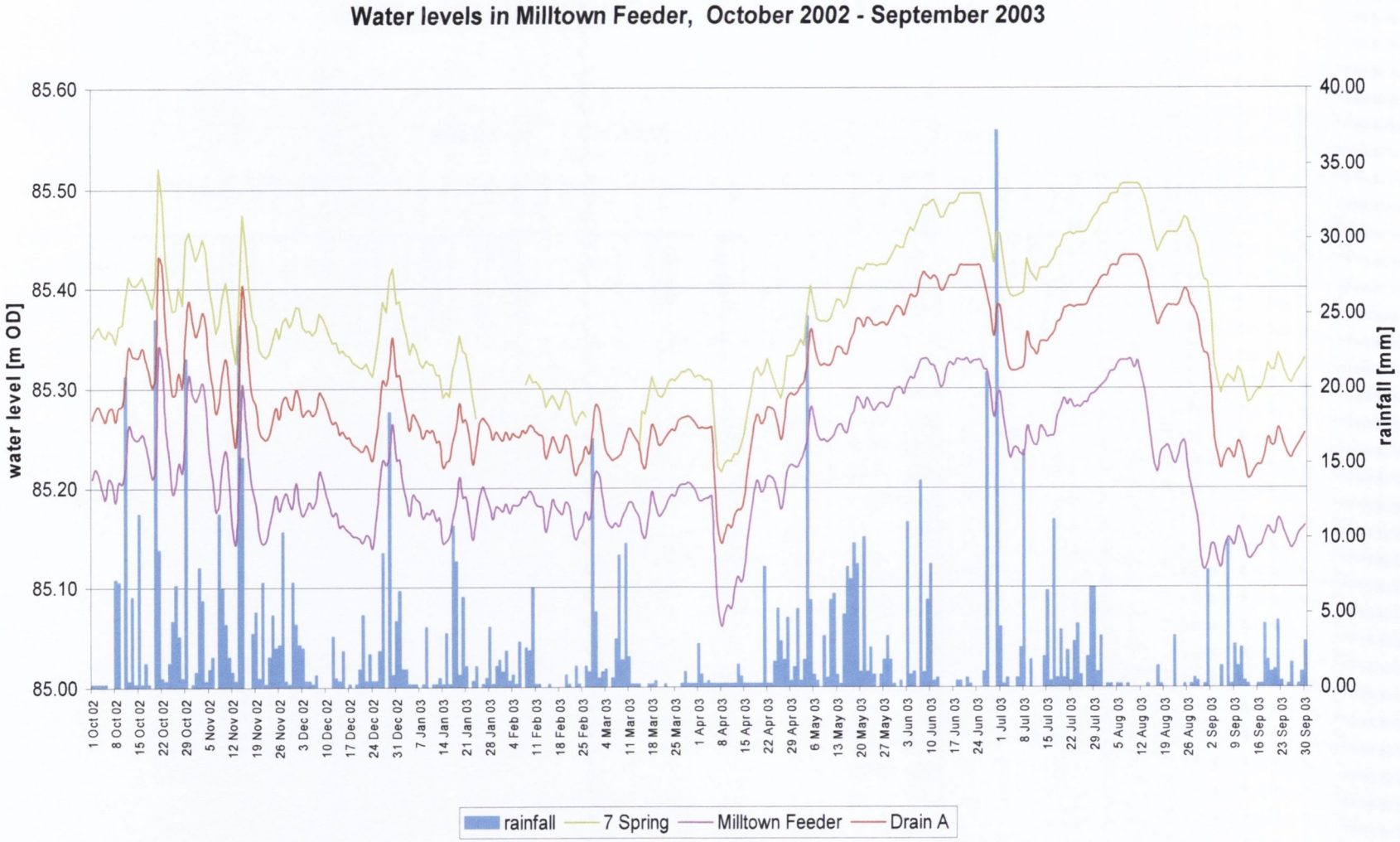

Cummulative Daily Potential Evapotransiration March 2002 - June 2005
Pollardstown Fen (Penman-Monteith) [mm]
Casement (Makking) [mm]
y = 1.1398x
R2 = 0.9929
0
200
400
600
800
1000
1200
1400
1600
1800

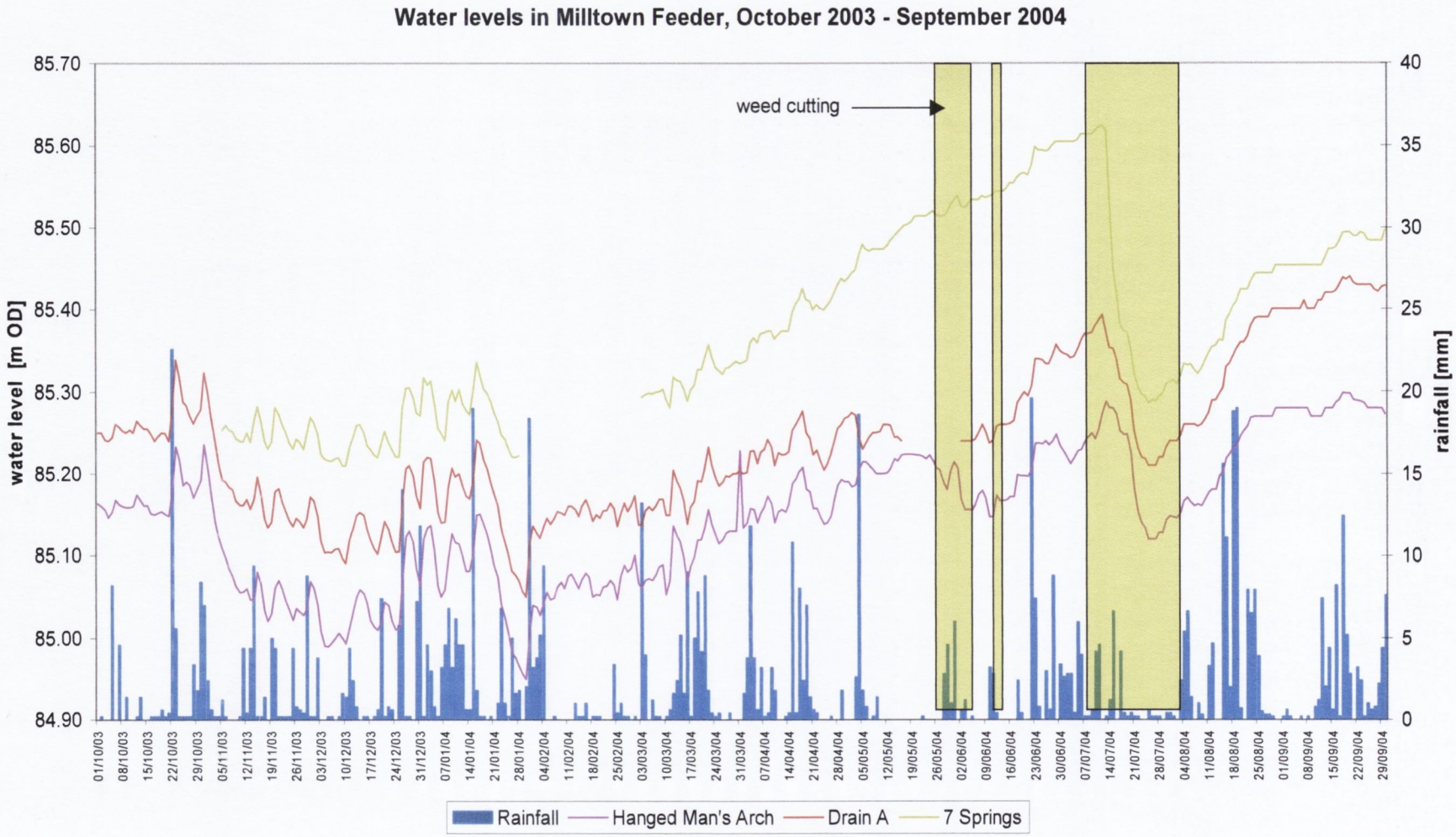
APPENDIX 11

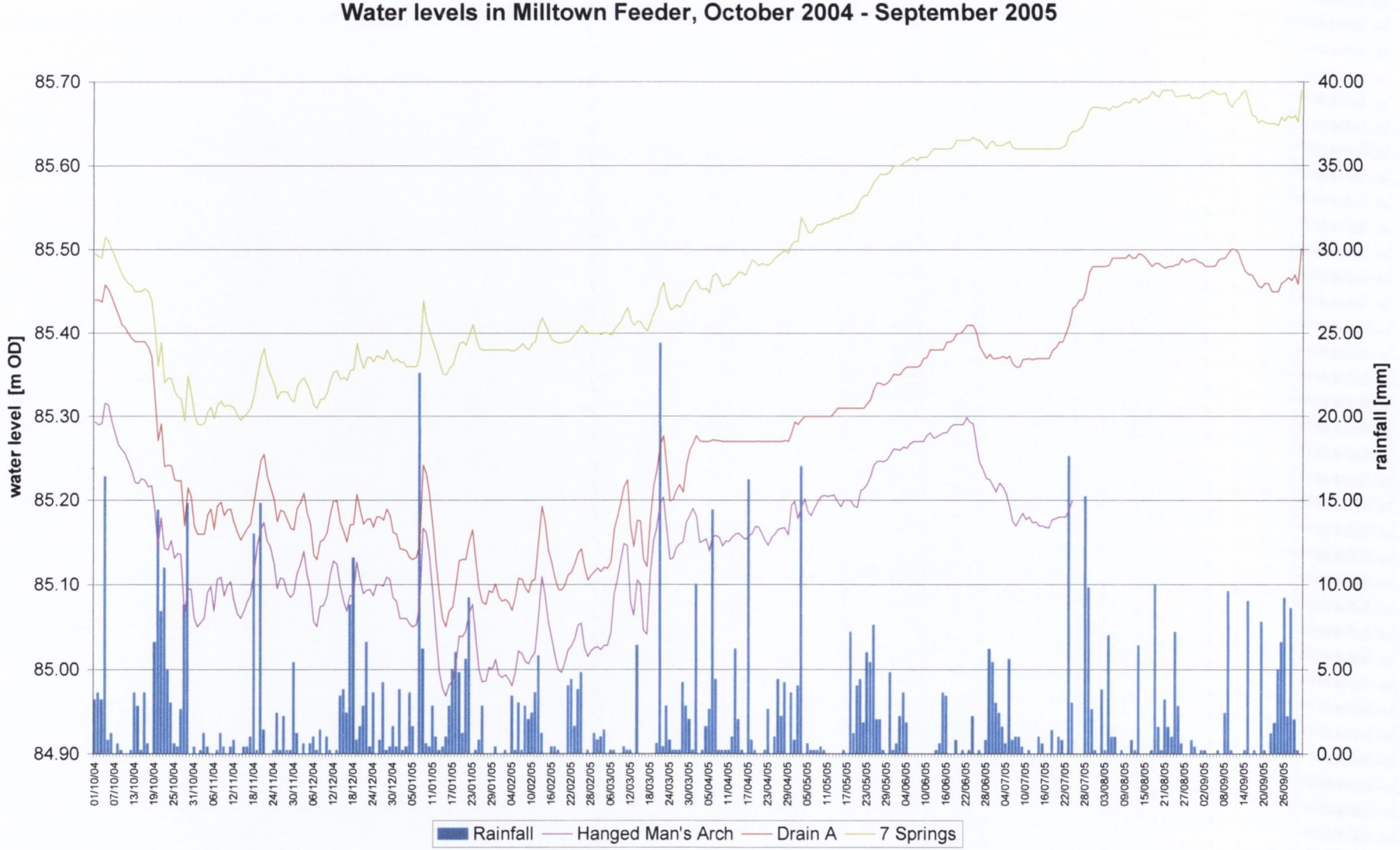
Water level fluctuations in Milltown Feeder

In this appendix, fluctuations of water level in Milltown Feeder are presented. Data were collected on an hourly basis throughout 2001-2005 and were later aggregated into daily records and are presented on a hydrometric year scale.


Water levels in Milltown Feeder, November 2001 - September 2002
water level [m OD]
rainfall [mm]
85.70
85.60
85.50
85.40
85.30
85.20
85.10
85.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
20 Nov 01
27 Nov 01
4 Dec 01
11 Dec 01
18 Dec 01
25 Dec 01
1 Jan 02
8 Jan 02
15 Jan 02
22 Jan 02
29 Jan 02
5 Feb 02
12 Feb 02
19 Feb 02
26 Feb 02
5 Mar 02
12 Mar 02
19 Mar 02
26 Mar 02
2 Apr 02
9 Apr 02
16 Apr 02
23 Apr 02
30 Apr 02
7 May 02
14 May 02
21 May 02
28 May 02
4 Jun 02
11 Jun 02
18 Jun 02
25 Jun 02
2 Jul 02
9 Jul 02
16 Jul 02
23 Jul 02
30 Jul 02
6 Aug 02
13 Aug 02
20 Aug 02
27 Aug 02
3 Sep 02
10 Sep 02
17 Sep 02
24 Sep 02
1 Oct 02
rainfall
7 Spring
Milltown Feeder
Drain A


Water levels in Milltown Feeder, October 2002 - September 2003
water level [m OD]
rainfall [mm]
85.60
85.50
85.40
85.30
85.20
85.10
85.00
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
1 Oct 02
8 Oct 02
15 Oct 02
22 Oct 02
29 Oct 02
5 Nov 02
12 Nov 02
19 Nov 02
26 Nov 02
3 Dec 02
10 Dec 02
17 Dec 02
24 Dec 02
31 Dec 02
7 Jan 03
14 Jan 03
21 Jan 03
28 Jan 03
4 Feb 03
11 Feb 03
18 Feb 03
25 Feb 03
4 Mar 03
11 Mar 03
18 Mar 03
25 Mar 03
1 Apr 03
8 Apr 03
15 Apr 03
22 Apr 03
29 Apr 03
6 May 03
13 May 03
20 May 03
27 May 03
3 Jun 03
10 Jun 03
17 Jun 03
24 Jun 03
1 Jul 03
8 Jul 03
15 Jul 03
22 Jul 03
29 Jul 03
5 Aug 03
12 Aug 03
19 Aug 03
26 Aug 03
2 Sep 03
9 Sep 03
16 Sep 03
23 Sep 03
30 Sep 03
rainfall
7 Spring
Milltown Feeder
Drain A


Water levels in Milltown Feeder, October 2003 - September 2004
weed cutting
water level [m OD]
rainfall [mm]
85.70
85.60
85.50
85.40
85.30
85.20
85.10
85.00
84.90
40
35
30
25
20
15
10
5
0
01/10/03
08/10/03
15/10/03
22/10/03
29/10/03
05/11/03
12/11/03
19/11/03
26/11/03
03/12/03
10/12/03
17/12/03
24/12/03
31/12/03
07/01/04
14/01/04
21/01/04
28/01/04
04/02/04
11/02/04
18/02/04
25/02/04
03/03/04
10/03/04
17/03/04
24/03/04
31/03/04
07/04/04
14/04/04
21/04/04
28/04/04
05/05/04
12/05/04
19/05/04
26/05/04
02/06/04
09/06/04
16/06/04
23/06/04
30/06/04
07/07/04
14/07/04
21/07/04
28/07/04
04/08/04
11/08/04
18/08/04
25/08/04
01/09/04
08/09/04
15/09/04
22/09/04
29/09/04
Rainfall
Hanged Man's Arch
Drain A
7 Springs


Water levels in Milltown Feeder, October 2004 - September 2005
water level [m OD]
rainfall [mm]
85.70
85.60
85.50
85.40
85.30
85.20
85.10
85.00
84.90
40.00
35.00
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/10/04
07/10/04
13/10/04
19/10/04
25/10/04
31/10/04
06/11/04
12/11/04
18/11/04
24/11/04
30/11/04
06/12/04
12/12/04
18/12/04
24/12/04
30/12/04
05/01/05
11/01/05
17/01/05
23/01/05
29/01/05
04/02/05
10/02/05
16/02/05
22/02/05
28/02/05
06/03/05
12/03/05
18/03/05
24/03/05
30/03/05
05/04/05
11/04/05
17/04/05
23/04/05
29/04/05
05/05/05
11/05/05
17/05/05
23/05/05
29/05/05
04/06/05
10/06/05
16/06/05
22/06/05
28/06/05
04/07/05
10/07/05
16/07/05
22/07/05
28/07/05
03/08/05
09/08/05
15/08/05
21/08/05
27/08/05
02/09/05
08/09/05
14/09/05
20/09/05
26/09/05
Rainfall
Hanged Man's Arch
Drain A
7 Springs

APPENDIX 12

Water flow data from Milltown Feeder

These daily data were computed from hourly flow velocities recorded under the Hanged Man's Bridge throughout 2003-2005 using Ultrasonic Doppler Flow Meter.

	WL	Q
	mOD	m3/sec
8-Jul-03	85.23	0.33
9-Jul-03	85.26	0.52
10-Jul-03	85.25	0.36
11-Jul-03	85.24	0.28
12-Jul-03	85.24	0.34
13-Jul-03	85.26	0.42
14-Jul-03	85.26	0.39
15-Jul-03	85.25	0.38
16-Jul-03	85.25	0.36
17-Jul-03	85.25	0.30
18-Jul-03	85.27	0.43
19-Jul-03	85.28	0.51
20-Jul-03	85.29	0.50
21-Jul-03	85.28	0.34
22-Jul-03	85.29	0.35
23-Jul-03	85.28	0.35
24-Jul-03	85.28	0.36
25-Jul-03	85.28	0.29
26-Jul-03	85.29	0.34
27-Jul-03	85.29	0.30
28-Jul-03	85.29	0.32
29-Jul-03	85.29	0.22
30-Jul-03	85.30	0.17
31-Jul-03	85.30	0.23
1-Aug-03	85.31	0.25
2-Aug-03	85.31	0.30
3-Aug-03	85.32	0.29
4-Aug-03	85.32	0.27
5-Aug-03	85.32	0.33
6-Aug-03	85.33	0.25
7-Aug-03	85.33	0.28
8-Aug-03	85.33	0.35
9-Aug-03	85.33	0.24
10-Aug-03	85.32	0.19
11-Aug-03	85.33	0.26
12-Aug-03	85.32	0.31
13-Aug-03	85.30	0.29
14-Aug-03	85.28	0.37
15-Aug-03	85.25	0.37
16-Aug-03	85.22	0.40
17-Aug-03	85.22	0.39
18-Aug-03	85.24	0.24
19-Aug-03	85.24	0.23
20-Aug-03	85.24	0.27
21-Aug-03	85.23	0.25
22-Aug-03	85.22	0.25
23-Aug-03	85.23	0.29
24-Aug-03	85.24	0.34
25-Aug-03	85.25	0.35
26-Aug-03	85.22	0.33
26-Aug-03	85.22	0.33
27-Aug-03	85.20	0.23

	WL	Q
	mOD	m3/sec
28-Aug-03	85.19	0.11
29-Aug-03	85.17	0.10
30-Aug-03	85.13	0.17
31-Aug-03	85.12	0.22
1-Sep-03	85.13	0.24
2-Sep-03	85.14	0.19
3-Sep-03	85.14	0.12
4-Sep-03	85.13	0.33
18-Feb-04	85.05	0.41
19-Feb-04	85.05	0.38
20-Feb-04	85.05	0.37
21-Feb-04	85.06	0.31
22-Feb-04	85.06	0.32
23-Feb-04	85.07	0.23
24-Feb-04	85.06	0.28
25-Feb-04	85.05	0.26
26-Feb-04	85.07	0.36
27-Feb-04	85.09	0.60
28-Feb-04	85.08	0.24
29-Feb-04	85.09	0.38
1-Mar-04	85.10	0.46
2-Mar-04	85.07	0.57
3-Mar-04	85.06	0.44
4-Mar-04	85.07	0.43
5-Mar-04	85.07	0.37
6-Mar-04	85.07	0.38
7-Mar-04	85.08	0.29
8-Mar-04	85.09	0.54
9-Mar-04	85.09	0.57
10-Mar-04	85.05	0.56
11-Mar-04	85.07	0.77
12-Mar-04	85.14	0.48
13-Mar-04	85.12	0.48
14-Mar-04	85.12	0.74
15-Mar-04	85.10	0.44
16-Mar-04	85.07	0.50
17-Mar-04	85.09	0.43
18-Mar-04	85.10	0.58
19-Mar-04	85.12	0.81
20-Mar-04	85.12	1.01
21-Mar-04	85.13	0.96
22-Mar-04	85.16	0.85
23-Mar-04	85.14	0.31
24-Mar-04	85.13	0.24
25-Mar-04	85.12	0.26
26-Mar-04	85.12	0.25
27-Mar-04	85.13	0.35
28-Mar-04	85.13	0.32
29-Mar-04	85.13	0.46
30-Mar-04	85.13	0.55
31-Mar-04	85.23	0.61

	WL	Q
	mOD	m3/sec
1-Apr-04	85.13	0.67
2-Apr-04	85.14	0.59
3-Apr-04	85.16	0.39
4-Apr-04	85.16	0.43
5-Apr-04	85.14	0.90
6-Apr-04	85.15	0.79
7-Apr-04	85.16	0.34
8-Apr-04	85.17	0.26
9-Apr-04	85.16	0.31
10-Apr-04	85.14	0.36
11-Apr-04	85.15	0.40
12-Apr-04	85.16	0.35
13-Apr-04	85.15	0.48
14-Apr-04	85.16	0.57
15-Apr-04	85.19	0.44
16-Apr-04	85.19	0.48
17-Apr-04	85.20	0.46
18-Apr-04	85.21	0.36
19-Apr-04	85.18	0.45
20-Apr-04	85.18	0.73
21-Apr-04	85.16	0.63
22-Apr-04	85.16	0.46
23-Apr-04	85.15	0.70
24-Apr-04	85.14	0.67
25-Apr-04	85.14	0.60
26-Apr-04	85.15	0.38
27-Apr-04	85.17	0.30
28-Apr-04	85.19	0.28
11-May-04	85.20	0.27
12-May-04	85.20	0.29
13-May-04	85.21	0.26
14-May-04	85.22	0.28
15-May-04	85.22	0.33
16-May-04	85.22	0.34
17-May-04	85.22	0.27
18-May-04	85.22	0.27
19-May-04	85.22	0.23
20-May-04	85.22	0.22
21-May-04	85.22	0.28
22-May-04	85.22	0.37
23-May-04	85.22	0.35
24-May-04	85.22	0.31
25-May-04	85.22	0.40
27-May-04	85.21	0.47
28-May-04	85.19	0.48
29-May-04	85.18	0.40
30-May-04	85.20	0.32
31-May-04	85.21	0.42
1-Jun-04	85.21	0.25
2-Jun-04	85.17	0.33
3-Jun-04	85.16	0.28

	WL	Q
	mOD	m3/sec
4-Jun-04	85.16	0.20
5-Jun-04	85.15	0.36
6-Jun-04	85.16	0.32
7-Jun-04	85.17	0.40
8-Jun-04	85.18	0.35
9-Jun-04	85.17	0.30
10-Jun-04	85.15	0.26
11-Jun-04	85.15	0.18
12-Jun-04	85.17	0.14
13-Jun-04	85.17	0.26
14-Jun-04	85.17	0.20
15-Jun-04	85.17	0.16
16-Jun-04	85.17	0.16
17-Jun-04	85.17	0.25
18-Jun-04	85.20	0.12
19-Jun-04	85.20	0.13
20-Jun-04	85.20	0.13
21-Jun-04	85.20	0.22
22-Jun-04	85.21	0.16
23-Jun-04	85.24	0.13
24-Jun-04	85.24	0.10
25-Jun-04	85.24	0.13
26-Jun-04	85.24	0.12
27-Jun-04	85.24	0.15
28-Jun-04	85.24	0.15
29-Jun-04	85.25	0.15
30-Jun-04	85.23	0.14
1-Jul-04	85.23	0.16
2-Jul-04	85.22	0.13
3-Jul-04	85.21	0.12
4-Jul-04	85.22	0.17
5-Jul-04	85.23	0.11
6-Jul-04	85.23	0.15
7-Jul-04	85.24	0.12
8-Jul-04	85.24	0.08
9-Jul-04	85.25	0.11
10-Jul-04	85.24	0.17
11-Jul-04	85.26	0.12
12-Jul-04	85.27	0.16
13-Jul-04	85.29	0.23
14-Jul-04	85.28	0.13
15-Jul-04	85.28	0.16
16-Jul-04	85.27	0.20
17-Jul-04	85.25	0.17
18-Jul-04	85.25	0.28
19-Jul-04	85.25	0.38
20-Jul-04	85.23	0.28
21-Jul-04	85.18	0.12
22-Jul-04	85.15	0.14
23-Jul-04	85.14	0.15
24-Jul-04	85.13	0.11
25-Jul-04	85.12	0.10

	WL	Q
	mOD	m3/sec
26-Jul-04	85.12	0.10
27-Jul-04	85.12	0.10
28-Jul-04	85.13	0.10
29-Jul-04	85.13	0.10
30-Jul-04	85.14	0.11
31-Jul-04	85.15	0.14
1-Aug-04	85.15	0.11
2-Aug-04	85.15	0.11
3-Aug-04	85.15	0.11
4-Aug-04	85.17	0.13
5-Aug-04	85.17	0.18
6-Aug-04	85.16	0.11
7-Aug-04	85.16	0.25
8-Aug-04	85.16	0.13
9-Aug-04	85.16	0.07
10-Aug-04	85.17	0.07
11-Aug-04	85.18	0.17
12-Aug-04	85.18	0.15
13-Aug-04	85.18	0.13
14-Aug-04	85.20	0.13
15-Aug-04	85.20	0.12
16-Aug-04	85.22	0.12
17-Aug-04	85.22	0.12
18-Aug-04	85.23	0.12
19-Aug-04	85.23	0.16
20-Aug-04	85.25	0.16
21-Aug-04	85.25	0.16
22-Aug-04	85.26	0.16
23-Aug-04	85.27	0.16
24-Aug-04	85.27	0.16
25-Aug-04	85.27	0.16
26-Aug-04	85.27	0.16
27-Aug-04	85.27	0.16
28-Aug-04	85.27	0.16
29-Aug-04	85.27	0.16
30-Aug-04	85.28	0.15
31-Aug-04	85.28	0.13
1-Sep-04	85.28	0.13
2-Sep-04	85.28	0.13
3-Sep-04	85.28	0.12
4-Sep-04	85.28	0.11
5-Sep-04	85.28	0.11
6-Sep-04	85.28	0.11
7-Sep-04	85.28	0.11
8-Sep-04	85.28	0.11
9-Sep-04	85.27	0.11
10-Sep-04	85.27	0.11
11-Sep-04	85.27	0.11
12-Sep-04	85.27	0.11
13-Sep-04	85.28	0.11
14-Sep-04	85.28	0.11
15-Sep-04	85.28	0.14

	WL	Q
	mOD	m3/sec
16-Sep-04	85.29	0.11
17-Sep-04	85.29	0.11
18-Sep-04	85.30	0.11
19-Sep-04	85.30	0.12
20-Sep-04	85.30	0.12
21-Sep-04	85.29	0.10
22-Sep-04	85.29	0.09
11-Jan-05	85.09	0.74
12-Jan-05	85.04	0.48
13-Jan-05	85.00	0.35
14-Jan-05	84.98	0.37
15-Jan-05	84.97	0.47
16-Jan-05	84.98	0.30
17-Jan-05	84.99	0.29
18-Jan-05	85.01	0.50
19-Jan-05	85.04	0.45
20-Jan-05	85.04	1.11
21-Jan-05	85.05	0.31
22-Jan-05	85.07	0.35
23-Jan-05	85.08	0.28
24-Jan-05	85.04	0.24
25-Jan-05	85.00	0.23
26-Jan-05	84.99	0.25
27-Jan-05	84.99	0.23
28-Jan-05	85.00	0.24
29-Jan-05	85.00	0.25
30-Jan-05	85.01	0.21
31-Jan-05	84.99	0.36
1-Feb-05	84.99	0.22
2-Feb-05	84.99	0.24
3-Feb-05	84.99	0.36
4-Feb-05	84.98	0.30
5-Feb-05	85.00	0.25
6-Feb-05	85.02	0.28
7-Feb-05	85.02	0.33
8-Feb-05	85.01	0.32
9-Feb-05	85.01	0.25
10-Feb-05	85.02	0.32
11-Feb-05	85.02	0.32
12-Feb-05	85.06	1.25
13-Feb-05	85.11	1.00
14-Feb-05	85.09	0.55
15-Feb-05	85.06	0.35
16-Feb-05	85.04	0.37
17-Feb-05	85.02	0.25
18-Feb-05	85.00	0.37
19-Feb-05	85.00	0.25
20-Feb-05	85.01	0.20
21-Feb-05	85.02	0.26
22-Feb-05	85.03	0.30
23-Feb-05	85.04	0.30

	WL	Q
	mOD	m3/sec
24-Feb-05	85.05	0.27
25-Feb-05	85.05	0.26
26-Feb-05	85.03	0.29
27-Feb-05	85.02	0.28
28-Feb-05	85.02	0.26
1-Mar-05	85.03	0.19
2-Mar-05	85.03	0.23
3-Mar-05	85.02	0.24
4-Mar-05	85.03	0.40
5-Mar-05	85.03	0.28
6-Mar-05	85.04	0.27
7-Mar-05	85.09	0.18
8-Mar-05	85.11	0.18
9-Mar-05	85.13	0.19

APPENDIX 13

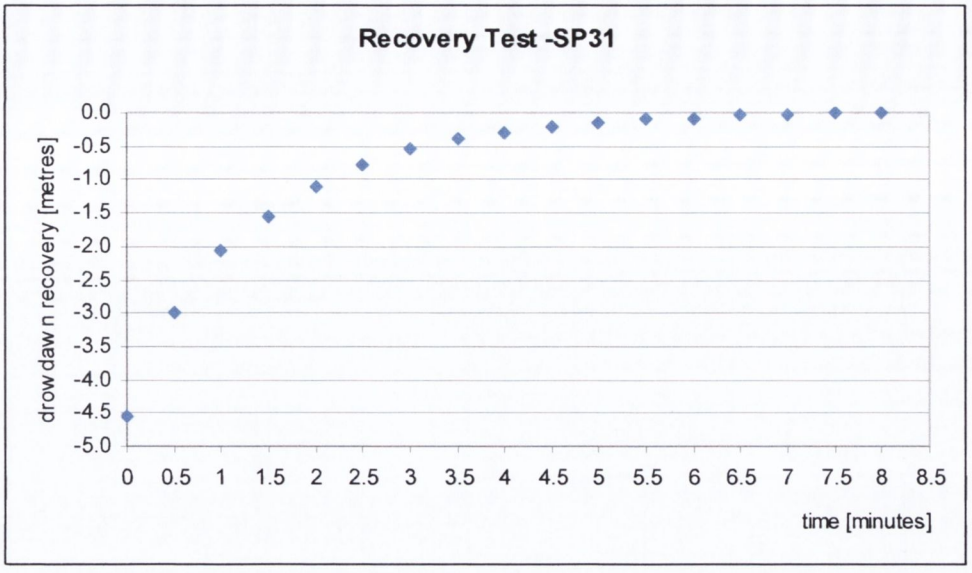
Hydraulic Conductivity Results

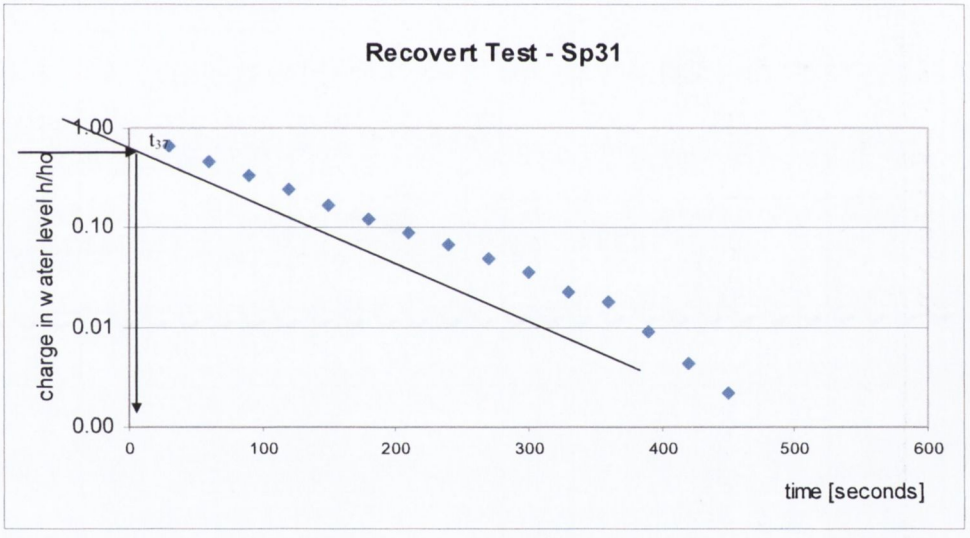
Hydraulic conductivity tests were performed for two standpipes, namely SP31 and S10. First of the investigated piezometers was screened in gravel layer and the second was screened in peat. Data were analysed using Hvorslev formula (Fetter, 2001).

Hvorslev Method

k=((r^2)*ln(Le/R))/2LTo				k=	1.21E-05
r(radius of the well casing in metres)	0.0254	r2	0.000645		
R(radius of the screen in metres)	0.05	Le/R	20		
Le(length of screening in metres)	1	ln(Le/R)	2.995732		
To(time it takes for water level to rise to 37% of initial change in seconds)	80.00	2LeTo	160		

	time		water level				
	minutes	seconds	drawdown	m OD	change in water level		h/ho
water level before the test			0.55	88.98			
water level at the start	0		5.1	84.43	-4.55	ho	1.00
	0.5	30	3.53	86	-2.98		0.65
	1	60	2.62	86.91	-2.07		0.45
	1.5	90	2.1	87.43	-1.55		0.34
	2	120	1.65	87.88	-1.1		0.24
	2.5	150	1.32	88.21	-0.77		0.17
	3	180	1.1	88.43	-0.55		0.12
	3.5	210	0.95	88.58	-0.4		0.09
	4	240	0.85	88.68	-0.3		0.07
	4.5	270	0.77	88.76	-0.22		0.05
	5	300	0.71	88.82	-0.16		0.04
	5.5	330	0.65	88.88	-0.1		0.02
	6	360	0.63	88.9	-0.08		0.02
	6.5	390	0.59	88.94	-0.04		0.01
	7	420	0.57	88.96	-0.02		0.00
	7.5	450	0.56	88.97	-0.01		0.00
water level at the end	8	480	0.55	88.98	0		0.00


Recovery Test -SP31
drow daw n recovery [metres]
0.0
-0.5
-1.0
-1.5
-2.0
-2.5
-3.0
-3.5
-4.0
-4.5
-5.0
0 0.5 1 1.5 2 2.5 3 3.5 4 4.5 5 5.5 6 6.5 7 7.5 8 8.5
time [minutes]

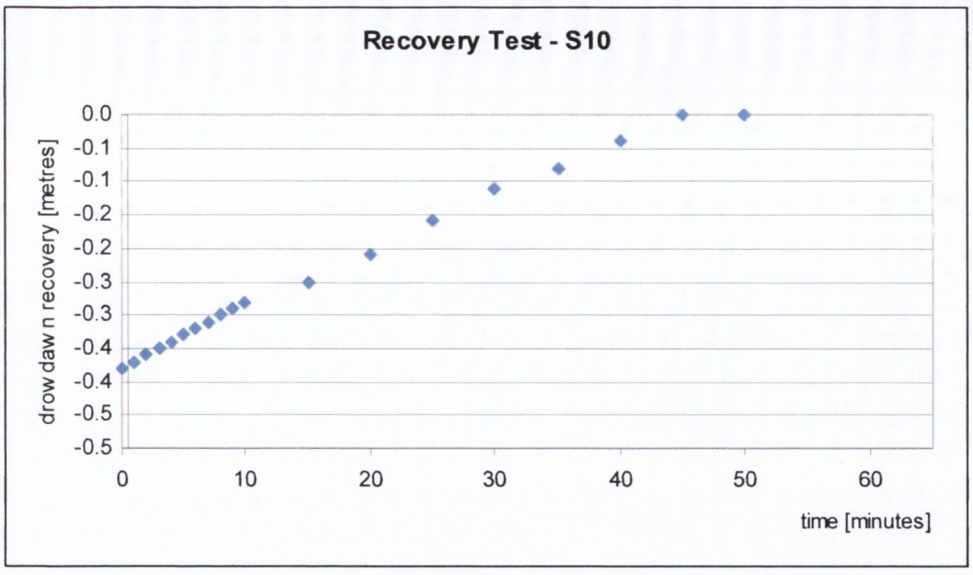

Recovert Test - Sp31
charge in w ater level h/ho
1.00
0.10
0.01
0.00
0 100 200 300 400 500 600
time [seconds]

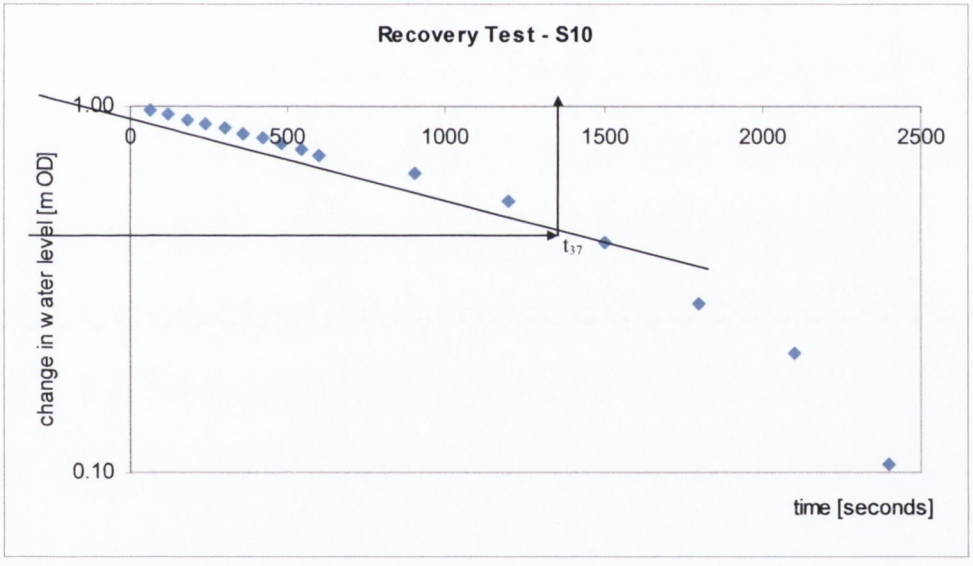
Recovery test - S 10

Hvorslev Method

k=(r^2*ln(Le/R))/2LTo					k=	1.19E-06
r(radius of the well casing in metres)	0.0254		r2	0.000645		
R(radius of the screen in metres)	0.0254		Le/R	19.68504		
Le(length of screening in metres)	0.5		ln(Le/R)	2.979859		
To(time it takes for water level to rise to 37% of initial change in seconds)	1620		2LeTo	1620		

	time		water level				
	minutes	seconds	drawdown	m OD	change in water level		h/ho
water level before the test			0.52	88.27			
water level at the start	0	0	0.9	87.89	-0.38	ho	1.00
	1	60	0.89	87.9	-0.37		0.97
	2	120	0.88	87.91	-0.36		0.95
	3	180	0.87	87.92	-0.35		0.92
	4	240	0.86	87.93	-0.34		0.89
	5	300	0.85	87.94	-0.33		0.87
	6	360	0.84	87.95	-0.32		0.84
	7	420	0.83	87.96	-0.31		0.82
	8	480	0.82	87.97	-0.3		0.79
	9	540	0.81	87.98	-0.29		0.76
	10	600	0.8	87.99	-0.28		0.74
	15	900	0.77	88.02	-0.25		0.66
	20	1200	0.73	88.06	-0.21		0.55
	25	1500	0.68	88.11	-0.16		0.42
	30	1800	0.63	88.16	-0.11		0.29
	35	2100	0.6	88.19	-0.08		0.21
	40	2400	0.56	88.23	-0.04		0.11
	45	2700	0.52	88.27	0		0.00
water level at the end	50	3000	0.52	88.27	0		0.00


Recovery Test - S10
drow daw n recovery [metres]
0.0
-0.1
-0.1
-0.2
-0.2
-0.3
-0.3
-0.4
-0.4
-0.5
-0.5
0
10
20
30
40
50
60
time [minutes]


Recovery Test - S10
change in w ater level [m OD]
1.00
0.10
0
500
1000
1500
2000
2500
t_{37}
time [seconds]

APPENDIX 14

Distribution of water level data from Permanent Quadrats

This appendix presents distribution of water level data from piezometres installed in Permanent Quadrates. Data are presented in form of histograms and as frequency duration curves with respect to the ground surface.

Date	S1B (deep)	S1A (shallow)	S2B (deep)	S2A (shallow)	S3B (deep)	S3A (shallow)	S4B (deep)	S4A (shallow)	S5B (deep)	S5A (shallow)	S6B (deep)	S6A (shallow)	S7B (deep)	S7A (shallow)	S8B (deep)	S8A (shallow)	S9B (deep)	S9A (shallow)	S10 (shallow)
11-Dec-97	86.07				86.83		86.68		85.58						84.94		86.46		
17-Dec-97	86.04				86.77		86.60		85.57		85.60		85.67		84.93		86.45		
2-Jan-98	86.05		85.16		86.85		86.68		85.59		85.58		85.65		84.91		86.53		
8-Jan-98	86.06		85.18		86.87		86.66		85.59		85.60		85.72		84.89		86.56		
15-Jan-98	86.06		85.21		86.86		86.66		85.59		85.54		85.82		84.95		86.54		
21-Jan-98	86.05		85.27		86.84		86.70		85.59		85.55		85.81		84.90		86.52		
29-Jan-98	86.06		85.25		86.77		86.70		85.58		85.49		85.83		84.90		86.43		
4-Feb-98	86.06		85.19		86.77		86.70		85.57		85.47		85.54		84.88		86.42		
11-Feb-98	86.06		85.17		86.79		86.68		85.56		85.53		85.74		84.92		86.46		
18-Feb-98	86.06		85.19		86.76		86.67		85.56		85.53		85.78		84.92		86.45		
25-Feb-98	86.06		85.17		86.78		86.69		85.57		85.53		85.78		84.92		86.45		
11-Mar-98	86.08		85.25		86.78		86.53		85.64		85.54		85.79		84.91		86.45		
19-Mar-98	86.08		85.22		86.79		86.57		85.57		85.53		85.81		84.93		86.49		
25-Mar-98	86.13				86.76		86.70		85.56		85.64		85.76		84.83		86.53		
15-Apr-98	86.05	86.06	85.27	85.38	86.79	86.82	86.17		85.38	85.62	85.63	85.61	85.38	85.76		84.93	86.47	86.47	
21-Apr-98	86.04	86.06	85.25	85.38	86.80	86.84	86.28		85.51	85.65	85.63	85.61	85.54	85.79	84.58	84.90	86.46	86.48	
8-May-98	86.05		85.30	85.41	86.85		86.35		85.55	85.68	85.63	85.62	85.66	85.78	84.66	84.94	86.49	86.54	
19-May-98	86.04	86.06	85.28	85.43	86.71	86.74	86.38	86.43			85.62	85.61	85.71	85.75	84.78	84.92	86.38	86.39	
9-Jun-98	86.06	86.07	85.39	85.50	86.84	86.88	86.63	86.44	85.56	85.67	85.63	85.61	85.79	85.78	84.87	84.93	86.50	86.56	
3-Sep-98	86.05	86.05	85.32	85.44	86.76	86.82	86.64	86.43	85.47	85.47	85.62	85.61	85.79	85.78	84.85	84.94	86.47	86.52	
8-Dec-98	86.06	86.06	85.25	85.36	86.85	86.89	86.62	86.42	85.50	85.67	85.63	85.62	85.81	85.77	84.90	84.93	86.50	86.54	88.47
14-Apr-99	86.07	86.08	85.28	85.39	86.85	86.88	86.63	86.45	85.56	85.68	85.63	85.62	85.83	85.78	84.90	84.94	86.50	86.56	88.50
12-Jun-99	86.06	86.06	85.30	85.49	86.72	86.77	86.68	86.45	85.56	85.56	85.63	85.60	85.79	85.76	84.88	84.92	86.41	86.42	88.48
26-Jun-99	86.06	86.06	85.30	85.52	86.68	86.71	86.67	86.45	85.48	85.57	85.60	85.60	85.74	85.75	84.83	84.92	86.35	86.39	88.48
7-Jul-99	86.06	86.06	85.29	85.48	86.73	86.78	86.66	86.45	85.49	85.57	85.61	85.61	85.74	85.76	84.83	84.92	86.37	86.43	88.48
20-Jul-99	86.06	86.07	85.26	85.36	86.82	86.86	86.65	86.44	85.50	85.64	85.63	85.62	85.74	85.77	84.83	84.93	86.43	86.50	88.49
21-Aug-99	86.06	86.06	85.24	85.43	86.82	86.85	86.65	86.44	85.51	85.65	85.61	85.62	85.74	85.78	84.83	84.93	86.43	86.50	88.48
20-Sep-99	86.07	86.06	85.36	85.46	86.83	86.86	86.61	86.42	85.53	85.67	85.59	85.62	85.76	85.79	84.83	84.95	86.41	86.52	88.47
10-Nov-99	86.07	86.06	85.35	85.45	86.81	86.85	86.66	86.41	85.60	85.65	85.65	85.62	85.84	85.77	84.90	84.93	86.49	86.48	88.45
16-Dec-99	86.07	86.06	85.36	85.46	86.84	86.87	86.67	86.45	85.61	85.67	85.65	85.62	85.84	85.78	84.89	84.93	86.47	86.46	88.46
21-Jan-00	86.06	86.06	85.26	85.36	86.80	86.84	86.68	86.40	85.62	85.64	85.62	85.61	85.83	85.76	84.91	84.94	86.47	86.49	88.47
23-Feb-00	86.06	86.06	85.23	85.36	86.81	86.85	86.61	86.40	85.59	85.66	85.60	85.61	85.80	85.75	84.89	84.93	86.46	86.50	88.49
30-Mar-00	86.07	86.07	85.24	85.36	86.81	86.84	86.04	86.18	85.55	85.63	85.64	85.63	85.82	85.77	84.89	84.95	86.46	86.49	88.51
5-May-00	86.07	86.07	85.27	85.37	86.81	86.84	86.47	86.37	85.32	85.62	85.63	85.62	85.82	85.76	84.89	84.94	86.46	86.48	88.48
12-Jun-00	86.06	86.07	85.27	85.36	86.81	86.84	86.49	86.42	85.35	85.62	85.62	85.62	85.81	85.76	84.89	84.94	86.46	86.48	88.48
22-Jun-00	86.06	86.07	85.26	85.36	86.81	86.84			85.39	85.62	85.62	85.61	85.81	85.76	84.89	84.94	86.46	86.48	88.49
10-Jul-00	86.07	86.07	85.30	85.41	86.74	86.78	86.70	86.42	85.40	85.62	85.63	85.61	85.80	85.76	84.89	84.95	86.45	86.49	88.48
28-Jul-00	86.07	86.06	85.21	85.28	86.58	86.62	86.42	86.39	85.29	85.30	85.62	85.55	85.66	85.76	84.82	84.84	86.16	86.17	88.48
12-Aug-00	86.07	86.07	85.23	85.36	86.70	86.73	86.44	86.42	85.30	85.45	85.62	85.61	85.72	85.76	84.82	84.91	86.39	86.32	88.48
25-Aug-00	86.08	86.07	85.25	85.43	86.70	86.73	86.44	86.42	85.31	85.42	85.62	85.61	85.73	85.78	84.82	84.92	86.35	86.36	
6-Sep-00	86.08	86.10	85.30	85.41	86.81	86.84	86.46	86.46	85.34	85.45	85.63	85.61	85.75	85.79	84.84	84.93	86.39	86.40	88.48
21-Sep-00	86.09	86.09	85.27	85.37	86.81	86.85	86.44	86.43	85.40	85.64	85.61	85.61	85.74	85.78	84.82	84.93	86.46	86.49	88.48
4-Oct-00	86.06	86.07	85.26	85.37	86.82	86.86	86.49	86.43	85.49	85.68	85.64	85.62	85.76	85.79	84.86	84.93	86.47	86.49	88.47
17-Oct-00	86.09	86.06	85.23	85.38	86.84	86.87	86.48	86.42	85.49	85.67	85.64	85.61	85.76	85.78	84.85	84.94	86.47	86.51	88.47
1-Nov-00	86.18	86.07	85.26	85.38	86.84	86.87	86.49	86.42	85.47	85.69	85.60	85.62	85.75	85.78	84.84	84.94	86.46	86.52	88.48
21-Nov-00	86.08	86.07	85.25	85.37	86.82	86.86	86.45	86.42	85.51	85.68	85.58	85.62	85.76	85.77	84.83	84.93	86.46	86.51	88.47
4-Dec-00	86.09	86.08	85.23	85.38	86.86	86.90	86.58	86.43	85.50	85.69	85.60	85.64	85.73	85.79	84.84	84.94	86.49	86.57	88.49
21-Dec-00	86.08	86.07	85.29	85.39	86.87	86.89	86.61	86.43	85.71	85.69	85.61	85.63	85.75	85.78	84.85	84.94	86.49	86.55	88.49
4-Jan-01	86.10	86.08	85.25	85.38	86.84	86.88	86.69	86.43	85.62	85.69	85.63	85.62	85.79	85.78	84.87	84.94	86.51	86.54	88.50
27-Jan-01	86.09	86.07	85.27	85.37	86.82	86.88	86.63	86.43	85.59	85.68	85.61	85.63	85.76	85.78	84.87	84.94	86.45	86.53	88.50
15-Feb-01	86.09	86.07	85.27	85.37	86.82	86.86	86.65	86.43	85.66	85.67	85.63	85.63	85.81	85.77	84.81	84.94	86.48	86.51	88.49
28-Feb-01	86.08	86.07	85.27	85.37	86.83	86.85	86.63	86.43	85.60	85.67	85.65	85.63							88.50

	S1B (deep)	S1A (shallow)	S2B (deep)	S2A (shallow)	S3B (deep)	S3A (shallow)	S4B (deep)	S4A (shallow)	S5B (deep)	S5A (shallow)	S6B (deep)	S6A (shallow)	S7B (deep)	S7A (shallow)	S8B (deep)	S8A (shallow)	S9B (deep)	S9A (shallow)	S10 (shallow)
15-May-01	86.07	86.07	85.23	85.39	86.81	86.84	86.57	86.43	85.55	85.53	85.64	85.63	85.78	85.79	84.80	84.95	86.33	86.51	88.49
30-May-01	86.06	86.07	85.23	85.41	86.83	86.86	86.54	86.44	85.52	85.56	85.64	85.63	85.76	85.77	84.91	84.94	86.47	86.50	88.49
14-Jun-01	86.07	86.05	85.20	85.44	86.73	86.77	86.51	86.44	85.48	85.48	85.63	85.62	85.74	85.78	84.83	84.84	86.45	86.60	88.49
2-Jul-01	86.08	86.06	85.29	85.44	86.76				85.45	85.48	85.63	85.61	85.74	85.77	84.86	84.86	86.45	86.52	88.47
16-Jul-01	86.07	86.08	85.71	85.37	86.71	86.73			85.44	85.47	85.62	85.60	85.77	85.77	84.86	84.91	86.40	86.31	88.48
31-Jul-01	86.07	86.08	85.71	85.37	86.71	86.73			85.44	85.47	85.62	85.60	85.77	85.77	84.86	84.91	86.40	86.31	88.48
15-Aug-01	86.08	86.08	85.23	85.38	86.70	86.75	86.53	86.41	85.46	85.52	85.64	85.63	85.79	85.77	84.84	84.93	86.43	86.31	88.48
30-Aug-01	86.06	86.06	85.25	85.35	86.70	86.74	86.52	86.41	85.82	85.49	85.62	85.61	85.74	85.78	84.85	84.92	86.43	86.31	88.42
26-Sep-01	86.06	86.06	85.14	85.31	86.70	86.73	86.52	86.41	85.48	85.47	85.63	85.63	85.76	85.78	84.85	84.89	86.43	86.31	88.45
10-Oct-01	86.06	86.05	85.23	85.36	86.71	86.76	86.52	86.41	85.54	85.48	85.64	85.63	85.76	85.78	84.86	84.91	86.43	86.31	88.49
26-Oct-01	86.06	86.08	85.19	85.36	86.82	86.84	86.47	86.42	85.51	85.64	85.64	85.64	85.71	85.79	84.86	84.93	86.45	86.50	88.44
12-Dec-01	86.06	86.08	85.24	85.37	86.69	86.75	86.53	86.42	85.54	85.64	85.64	85.64	85.77	85.80	84.94	84.93	86.51	86.56	88.46
4-Jan-02	86.06	86.08	85.25	85.35	86.71	86.74	86.51	86.41	85.57	85.64	85.64	85.60	85.74	85.79	84.88	84.93	86.47	86.49	88.42
16-Jan-02	86.06	86.06	85.22	85.35	86.82	86.87	86.52	86.43	85.53	85.66	85.63	85.63	85.73	85.81	84.85	84.93	86.49	86.51	88.30
31-Jan-02	86.07	86.07	85.20	85.38	86.79	86.84	86.54	86.43	85.55	85.68	85.64	85.64	85.79	85.79	84.89	84.93	86.48	86.50	88.46
14-Feb-02	86.05	86.07	85.20	85.37	86.80	86.86	86.56	86.43	85.58	85.67	85.64	85.63	85.82	85.80	84.91	84.93	86.53	86.54	88.44
6-Mar-02	86.06	86.06	85.21	85.38	86.81	86.87	86.57	86.43	85.56	85.68	85.64	85.65	85.82	85.79	84.85	84.94	86.50	86.53	88.46
26-Mar-02	86.06	86.07	85.27	85.55	86.83	86.85	86.66	86.43	85.60	85.68	85.64	85.65	85.67	85.80	84.94	84.93	86.45	86.49	88.44
10-Apr-02	86.05	86.06	85.28	85.34	86.84	86.87	86.67	86.43	85.54	85.61	85.64	85.63	85.71	85.80	84.85	84.92	86.47	86.53	88.44
24-Apr-02	86.06	86.07	85.28	85.37	86.87	86.80	86.67	86.43	85.54	85.67	85.64	85.65	85.85	85.80	84.91	84.94	86.41	86.50	88.45
7-May-02	86.06	86.06	85.33	85.38	86.86	86.84	86.66	86.43	85.54	85.62			85.71	85.86	84.86	84.93	86.40	86.48	88.44
28-May-02	86.07	86.07	85.33	85.55	86.83	86.82	86.69	86.43	85.53	85.78	85.64	85.63	85.84	85.84	84.82	84.93	86.49	86.54	88.46
15-Jun-02	86.07	86.08	85.40	85.45	86.80	86.81	86.64	86.43	85.54	85.76	85.64	85.63	85.82	85.81	84.80	84.93	86.43	86.50	88.44
26-Jun-02	86.07	86.08	85.38	85.38	86.77	86.80	86.59	86.42	85.56	85.59	85.64	85.64	85.73	85.87	84.81	84.93	86.44	86.45	88.43
25-Jul-02		86.07	85.36	85.38	86.81	86.84	86.57	86.43	85.55	85.68	85.64	85.64	85.77	85.86	84.88	84.94	86.45	86.44	88.44
28-Aug-02	86.09	86.08	85.29	85.30	86.80	86.82	86.57	86.41	85.54	85.92	85.72	85.62	85.77	85.84	84.85	84.91	86.49	86.46	88.37
12-Sep-02	86.08	86.08	85.26	85.30	86.74	86.77	86.61	86.41	85.46	85.48	85.61	85.61	85.76	85.87	84.85	84.91	86.40	86.41	88.33
25-Sep-02	86.08	86.08	85.25	85.31	86.70	86.74	86.58	86.41	85.44	85.39	85.57	85.58	85.77	85.84	84.84	84.88	86.33	86.35	88.30
7-Oct-02	86.08	86.08	85.36	85.36	86.81	86.81	86.60	86.42	85.48	85.68	85.63	85.62	85.78	85.85	84.85	84.94	86.47	86.46	88.47
24-Oct-02	86.08	86.08	85.36	85.44	86.84	86.85	86.63	86.41	85.51	85.67	85.62	85.63	85.74	85.89	84.85	84.94	86.45	86.53	88.45
5-Nov-02	86.09	86.08	85.37	85.38	86.84	86.85	86.67	86.41	85.51	85.67	85.65	85.66	85.80	85.87	84.87	84.94	86.47	86.50	88.40
20-Nov-02	86.08	86.08	85.36	85.38	86.86	86.86	86.65	86.42	85.48	85.69	85.60	85.65	85.80	85.87	84.85	84.94	86.47	86.52	88.45
9-Dec-02	86.08	86.08	85.37	85.38	86.82	86.85	86.70	86.42	85.66	85.66	85.68	85.63	85.83	85.85	84.89	84.94	86.47	86.49	88.46
6-Jan-03	86.08	86.08	85.37	85.38	86.82	86.85	86.68	86.42	85.63	85.66	85.67	85.63	85.83	85.86			86.49	86.55	
21-Jan-03	86.08	86.08	85.33	85.39	86.85	86.88	86.65	86.42	85.57	85.69	85.65	85.64	85.82	85.86			86.47	86.56	
3-Feb-03	86.08	86.08	85.34	85.38					85.62	85.67			85.84	85.85	84.89	84.94	86.49	86.52	88.47
12-Feb-03	86.08	86.08	85.34	85.38	86.85	86.86	86.70	86.44	85.63	85.68	85.66	85.64	85.84	85.85	84.89	84.94	86.49	86.52	88.48
5-Mar-03	86.06	86.08	85.35	85.38			86.68	86.43	85.60	85.66	85.65	85.63	85.81		84.88	84.94	86.48	86.52	88.48
19-Mar-03	86.08	86.08	85.34	85.37	86.80	86.83	86.66	86.39	85.61	85.65	85.65	85.63	85.81		84.89	84.94	86.46	86.49	88.47
3-Apr-03	86.08	86.08	85.35	85.35	86.80	86.84	86.68	86.43	85.55	85.62	85.66	85.64	85.81	85.81	84.82	84.97	86.47	86.50	88.48
15-Apr-03	86.08	86.08	85.28	85.29	86.79	86.83	86.68	86.44	85.51	85.58	85.65	85.63	85.80		84.83	84.93	86.46	86.47	88.47
29-Apr-03	86.08	86.08	85.21	85.38	86.83	86.87	86.69	86.44	85.58	85.67	85.65	85.63	85.82	85.86	84.83	84.95	86.47	86.52	88.48
15-May-03	86.08	86.08	85.36	85.48	86.81	86.89	86.68	86.44	85.60	85.67	85.65	85.63	85.82	85.89	84.89	84.94	86.47	86.48	88.47
27-May-03	86.08	86.08	85.37	85.38	86.82	86.85	86.67	86.44	85.63	85.66	85.65	85.64	85.81	85.87	84.87	84.94	86.46	86.48	88.45
10-Jun-03	86.08	86.08	85.39	85.41	86.83	86.86	86.68	86.44	85.60	85.67	85.64	85.64	85.79	85.87	84.88	84.94	86.46	86.51	88.46
24-Jun-03	86.08	86.08	85.40	85.43	86.63	86.66	86.67	86.43	85.54	85.45	85.62	85.59	85.77	85.86	84.83	84.89	86.23	86.23	88.35
9-Jul-03	86.07	86.08	85.37	85.37	86.71	86.88	86.79	86.41	85.54	85.61	85.64	85.62	85.79	85.87	84.87	84.93	86.38	86.42	88.41
23-Jul-03	86.08	86.08	85.37	85.39	86.72	86.88	86.75	86.37	85.58	85.64	85.63	85.62	85.78	85.86	84.85	84.92	86.41	86.46	88.37
5-Aug-03	86.08	86.08	85.42	85.42	86.71	86.89	86.65	86.28	85.53	85.54	85.63	85.61	85.75	85.87	84.83	84.89	86.34	86.35	88.28
20-Aug-03	86.08	86.08	85.40	85.38	86.62	86.65	86.67	86.42	85.45	85.40	85.51	85.52	85.80	85.89	84.82	84.79	86.13	86.13	88.30
1-Sep-03	86.08	86.08	85.36	85.35	86.63	86.66	86.67	86.42	85.40	85.31	85.46	85.45	85.80	85.86	84.77	84.74	86.07	86.08	88.29
29-Sep-03	86.08	86.08	85.28	85.27	86.64	86.67	86.66	86.42	85.35	85.36	85.50	85.48	85.76	85.85	84.74	84.79	86.20	86.20	88.27
21-Oct-03	86.08	86.08	85.28	85.29	86.71	86.74	86.67	86.42	85.39	85.40	85.54	85.52	85.79	85.86	84.78	84.87	86.28	86.31	88.30

	S1B (deep)	S1A (shallow)	S2B (deep)	S2A (shallow)	S3B (deep)	S3A (shallow)	S4B (deep)	S4A (shallow)	S5B (deep)	S5A (shallow)	S6B (deep)	S6A (shallow)	S7B (deep)	S7A (shallow)	S8B (deep)	S8A (shallow)	S9B (deep)	S9A (shallow)	S10 (shallow)
5-Nov-03	86.07	86.06	85.36	85.36	86.79	86.83			85.56	85.65	85.62	85.61	85.81	85.88	84.77	84.91	86.45	86.47	88.25
18-Nov-03	86.08	86.08	85.31	85.38	86.82	86.86	86.66	86.42	85.60	85.66	85.64	85.62	85.79	85.86	84.87	84.93	86.47	86.50	88.29
4-Dec-03	86.08	86.08	85.38	85.38	86.81	86.85	86.69	86.42	85.61	85.66	85.65	85.62	85.82	85.89	84.88	84.93	86.46	86.48	88.26
16-Dec-03	86.08	86.08	85.38	85.38	86.82	86.86	86.68	86.43	85.60	85.66	85.64	85.63	85.81	85.87	84.86	84.93	86.44	86.49	88.24
8-Jan-04	86.08	86.08			86.83	86.86	86.68	86.42	85.64	85.69	85.63	85.64			84.85	84.95			88.44
23-Jan-04																			88.37
4-Feb-04																			
19-Feb-04	86.08	86.08	85.33	85.36	86.84	86.86	86.68	86.43	85.65	85.63	85.69	85.62	85.82	85.86	84.88	84.93	86.48	86.53	88.40
4-Mar-04	86.08	86.08	85.31	85.37	86.84	86.87	86.68	85.64	85.66	85.64	85.64	85.62	85.81	85.85	84.89	84.94	86.49	86.54	88.44
30-Mar-04					86.80	86.82	86.71	86.45	85.58	85.63	85.63	85.63			84.87	84.93			88.41
7-Apr-04																			
20-Apr-04	86.09	86.08	85.34	85.38	86.84	86.86	86.69	86.44	85.63	85.68	85.62	85.63	85.81	85.89	84.90	84.93	86.47	86.53	88.44
29-Apr-04	86.09	86.08							85.61	85.62									88.39
10-May-04																			88.38
26-May-04					86.73	86.88			85.62	85.64	85.63	85.61	85.81	85.87	84.85	84.90	86.35	86.36	88.33
2-Jun-04																			88.34
6-Jun-04	86.09	86.08	85.35	85.37					85.53	85.55	85.63	85.62					86.31	86.34	88.37
12-Jun-04																			88.35
25-Jun-04																			88.32
6-Jul-04																			88.37
19-Jul-04	86.08	86.08							85.51	85.50	85.62	85.60					86.38	86.40	88.36
4-Aug-04																			88.33
12-Aug-04																			88.28
18-Aug-04	86.09	86.09							85.49	85.59	85.63	85.61					86.50	86.52	88.42
25-Aug-04																			88.27
1-Sep-04																			88.21
4-Sep-04																			88.22
19-Sep-04	86.08	86.09							85.61	85.61	85.62	85.60					86.47	86.52	88.24
22-Sep-04																			
20-Oct-04	86.07	86.08							85.64	85.65	85.63	85.61					86.41	86.48	88.42
17-Nov-04	86.06	86.08							85.61	85.89	85.62	85.61					86.41	86.44	88.15
8-Dec-04	86.07	86.08							85.65	85.65	85.63	85.60					86.46	86.48	88.14
11-Jan-05	86.06	86.09							85.62	85.63	85.63	85.65					86.49	86.52	88.21
10-Feb-05	86.07	86.09							85.67	85.66	85.63	85.61					86.46	86.51	88.28
16-Mar-05	86.06	86.10							85.66	85.67	85.61	85.61					86.44	86.52	88.34
4-Apr-05	86.06	86.09							85.66	85.67	85.61	85.61					86.44	86.52	88.34
19-Apr-05																			88.36
8-Jun-05	86.15	86.08							85.67	85.65	85.2	85.63					86.38	86.4	88.28

S1A
Frequency
S1A
Mean = 86.0738
Std. Dev. = 0.00896
N = 79

S1B
Frequency
S1B
Mean = 86.0751
Std. Dev. = 0.01601
N = 78

S2A
Frequency
S2A
Mean = 85.3771
Std. Dev. = 0.04611
N = 79

S2B
Frequency
S2B
Mean = 85.3037
Std. Dev. = 0.09132
N = 79

S3A
Frequency
S3A
Mean = 86.818
Std. Dev. = 0.06466
N = 79

S3B
Frequency
S3B
Mean = 86.7815
Std. Dev. = 0.06633
N = 77

S4A
Frequency
0
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86.20
86.30
86.40
86.50
S4A
Mean = 86.4166
Std. Dev. = 0.03579
N = 73

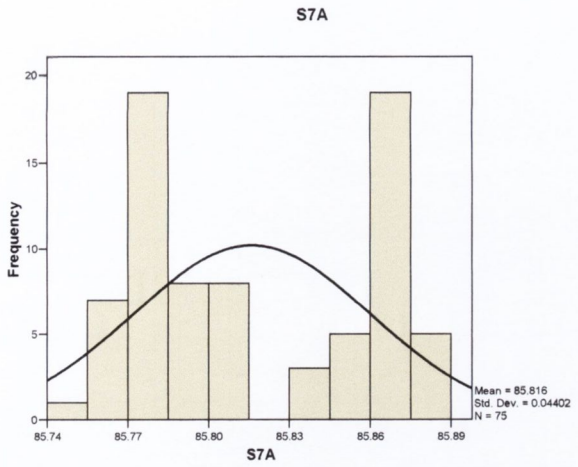
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86.60
86.70
86.80
S4B
Mean = 86.5935
Std. Dev. = 0.10909
N = 73

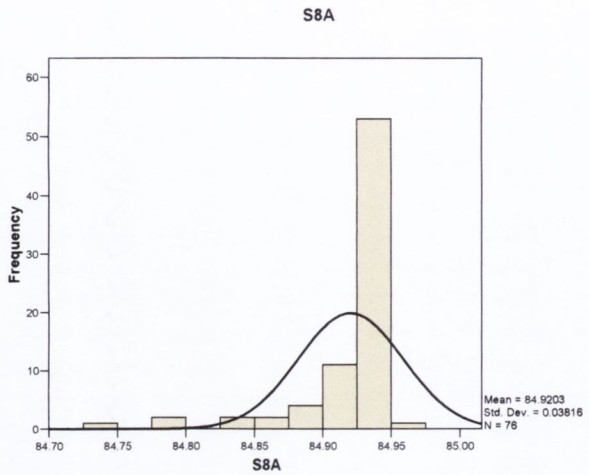
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Frequency
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10
15
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85.30
85.40
85.50
85.60
85.70
85.80
85.90
86.00
S5A
Mean = 85.6052
Std. Dev. = 0.11105
N = 79

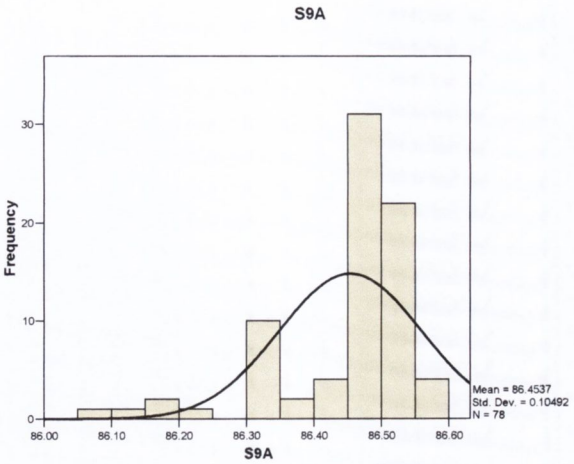
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Frequency
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5
10
15
20
25
85.20
85.30
85.40
85.50
85.60
85.70
85.80
85.90
S5B
Mean = 85.5225
Std. Dev. = 0.09683
N = 79

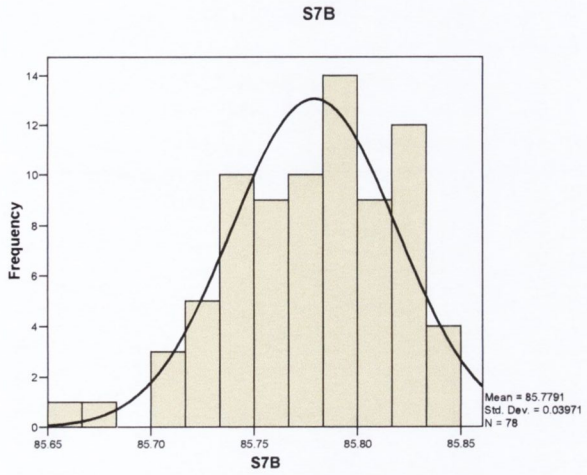
S6B
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20
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40
85.45
85.50
85.55
85.60
85.65
85.70
85.75
S6B
Mean = 85.6266
Std. Dev. = 0.03833
N = 77

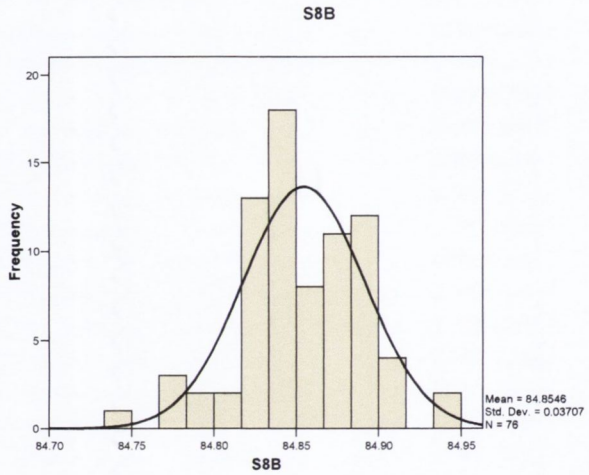
S6A
Frequency
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10
20
30
40
85.45
85.50
85.55
85.60
85.65
85.70
S6A
Mean = 85.617
Std. Dev. = 0.03438
N = 77

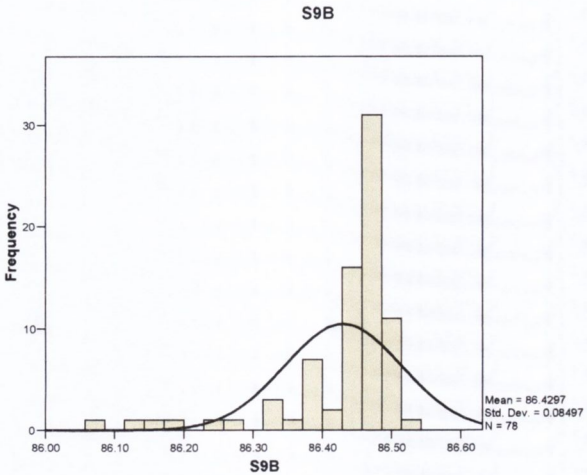

S7A
Frequency
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Std. Dev. = 0.04402
N = 75
S7A

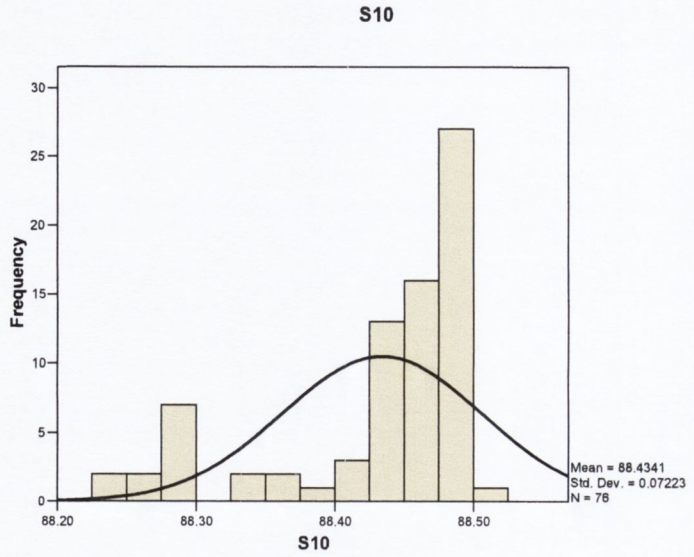

S8A
Frequency
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Std. Dev. = 0.03816
N = 76
S8A

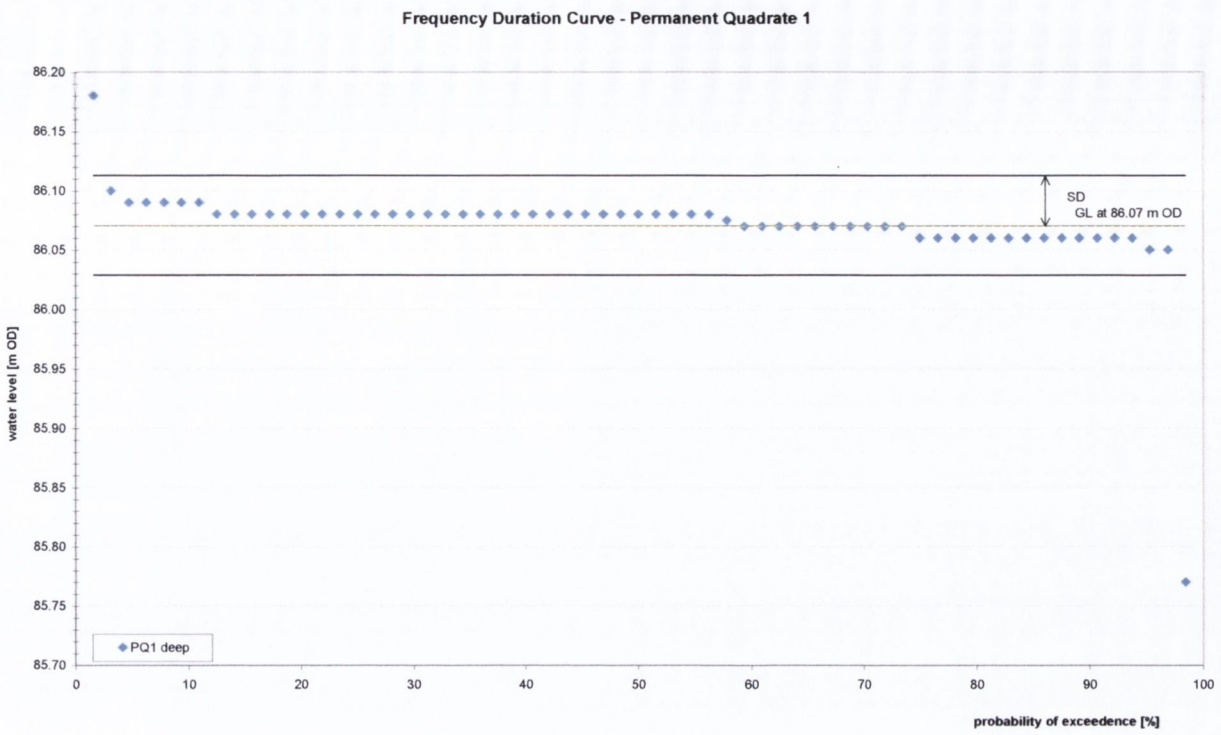

S9A
Frequency
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Std. Dev. = 0.10492
N = 78
S9A

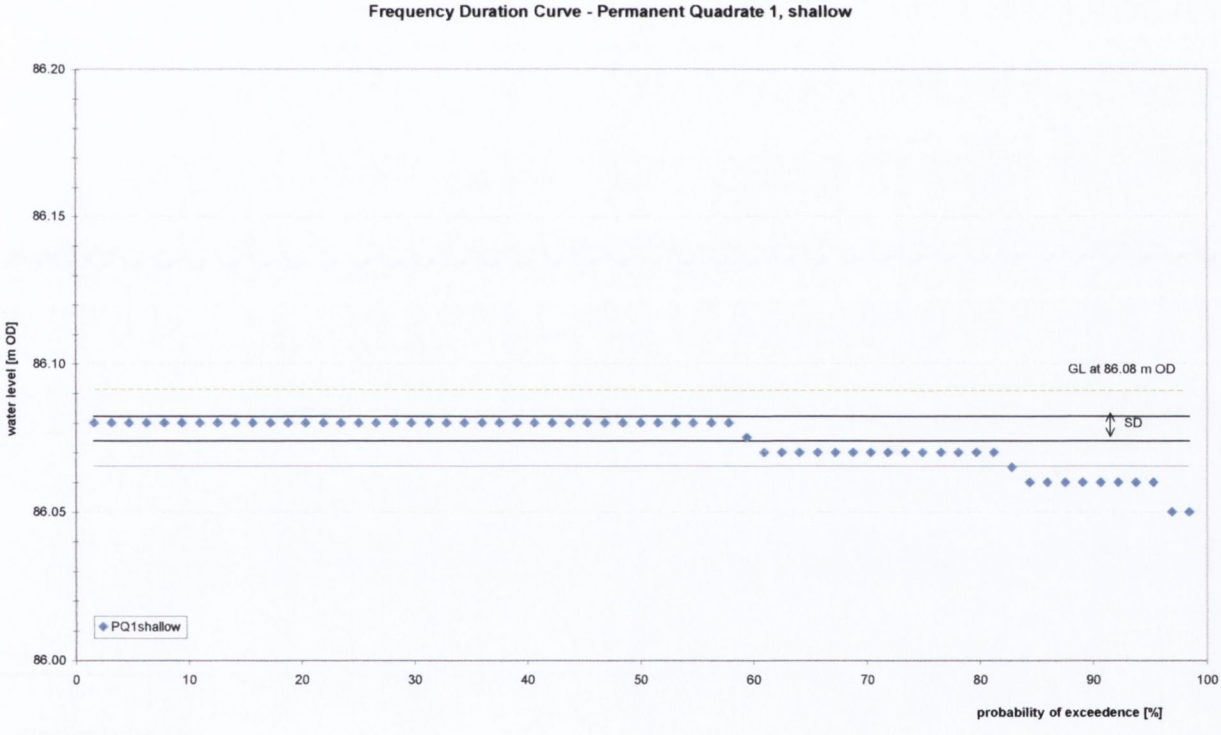

S7B
Frequency
Mean = 85.7791
Std. Dev. = 0.03971
N = 78
S7B

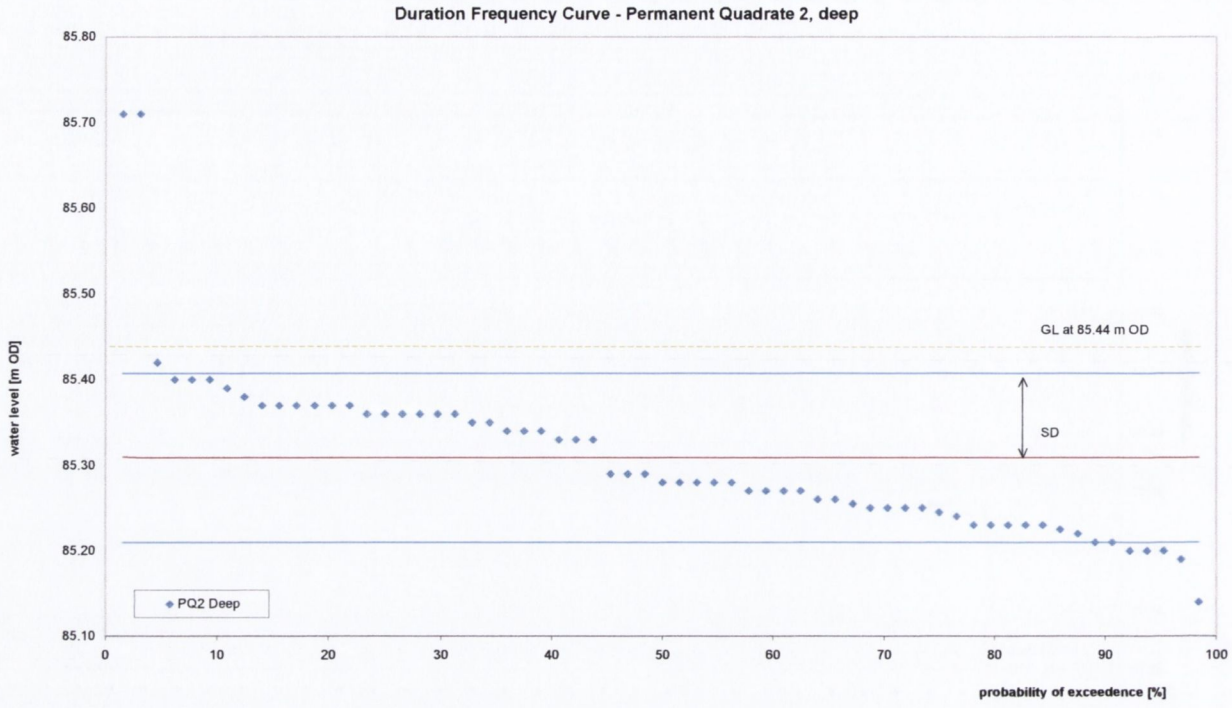

S8B
Frequency
Mean = 84.8546
Std. Dev. = 0.03707
N = 76
S8B

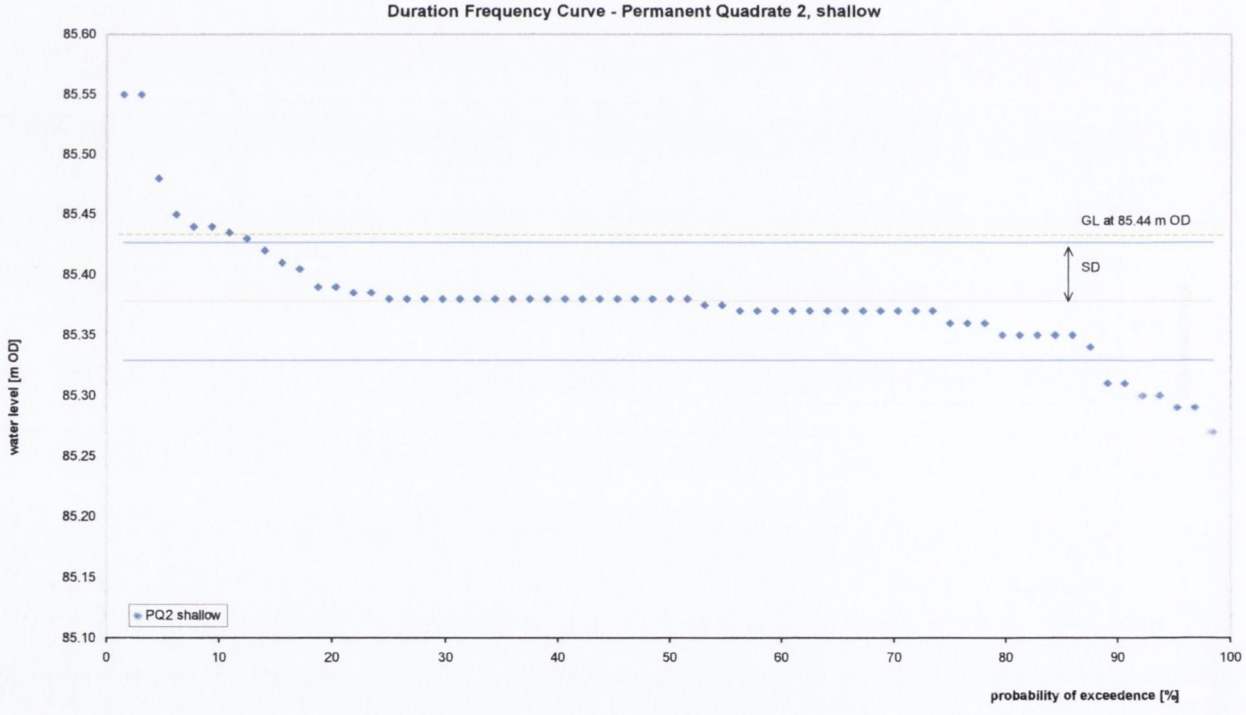

S9B
Frequency
Mean = 86.4297
Std. Dev. = 0.08497
N = 78
S9B

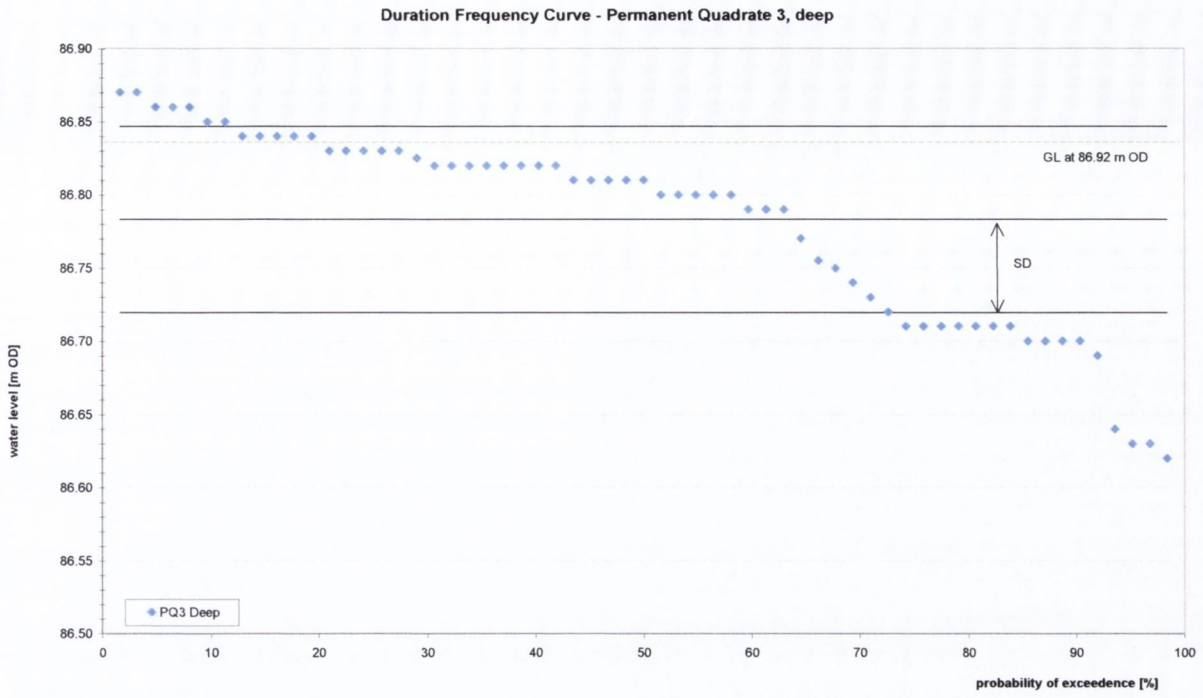

S10
Frequency
30
25
20
15
10
5
0
88.20
88.30
88.40
88.50
S10
Mean = 88.4341
Std. Dev. = 0.07223
N = 76

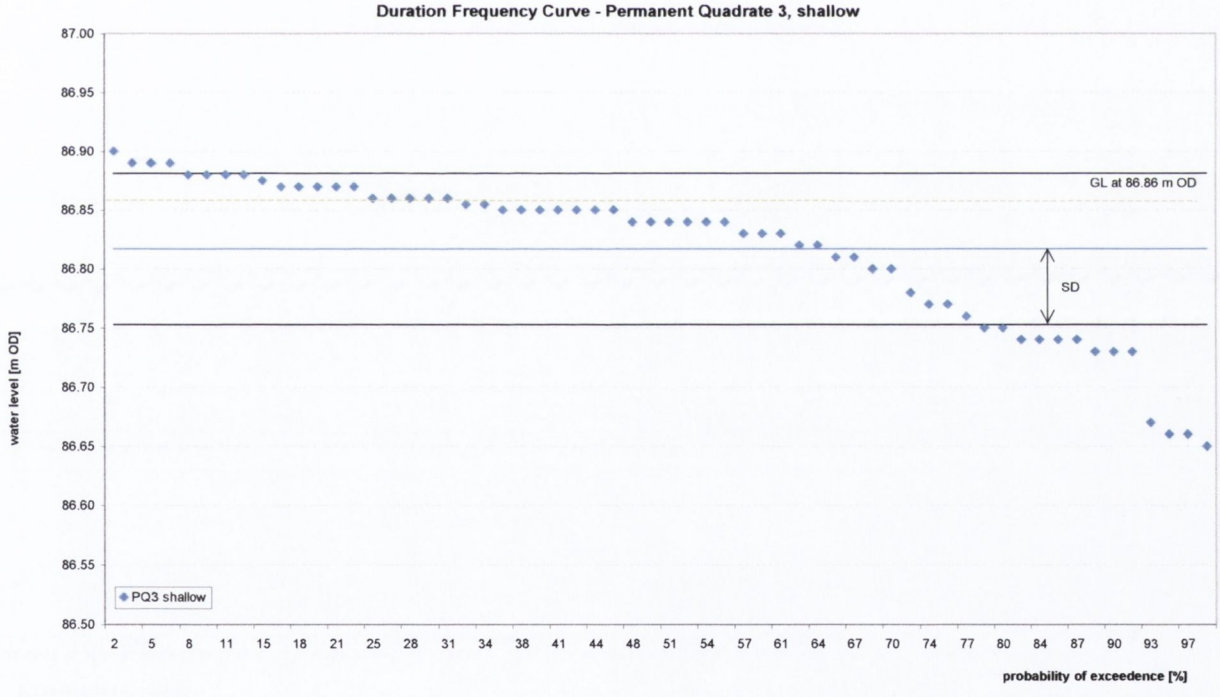

Frequency Duration Curve - Permanent Quadrate 1
water level [m OD]
probability of exceedence [%]
SD
GL at 86.07 m OD
PQ1 deep

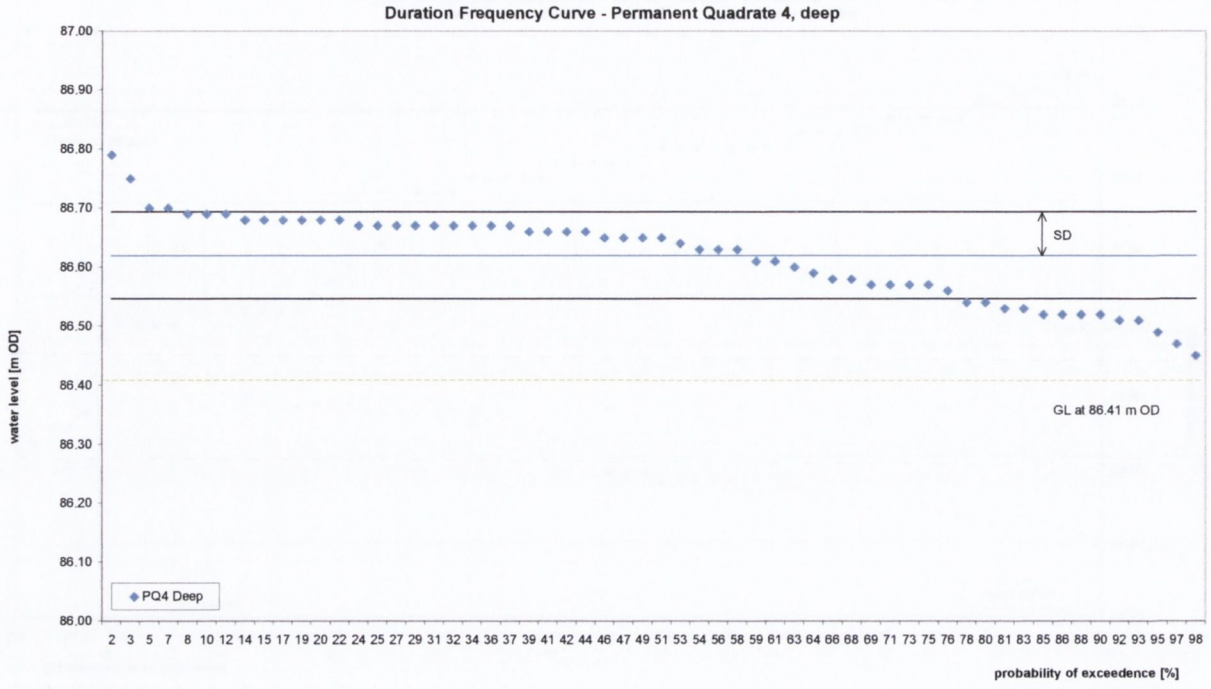

Frequency Duration Curve - Permanent Quadrate 1, shallow
water level [m OD]
probability of exceedence [%]
GL at 86.08 m OD
SD
PQ1shallow

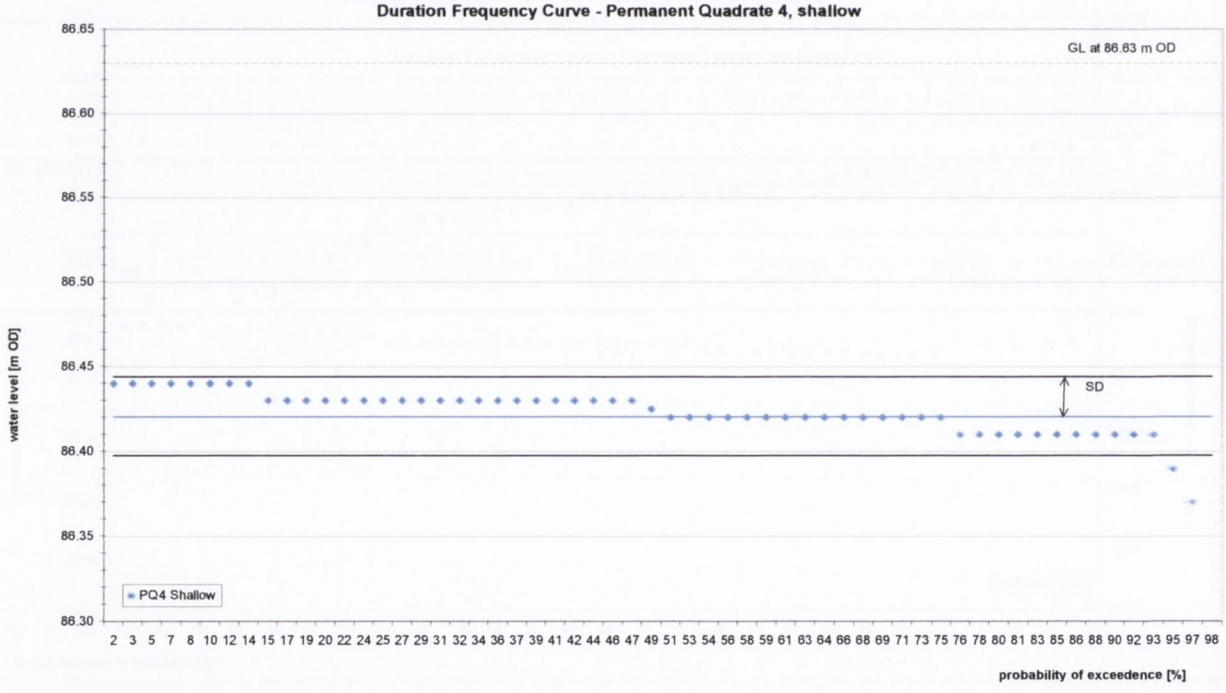

Duration Frequency Curve - Permanent Quadrate 2, deep
water level [m OD]
85.80
85.70
85.60
85.50
85.40
85.30
85.20
85.10
GL at 85.44 m OD
SD
PQ2 Deep
0
10
20
30
40
50
60
70
80
90
100
probability of exceedence [%]

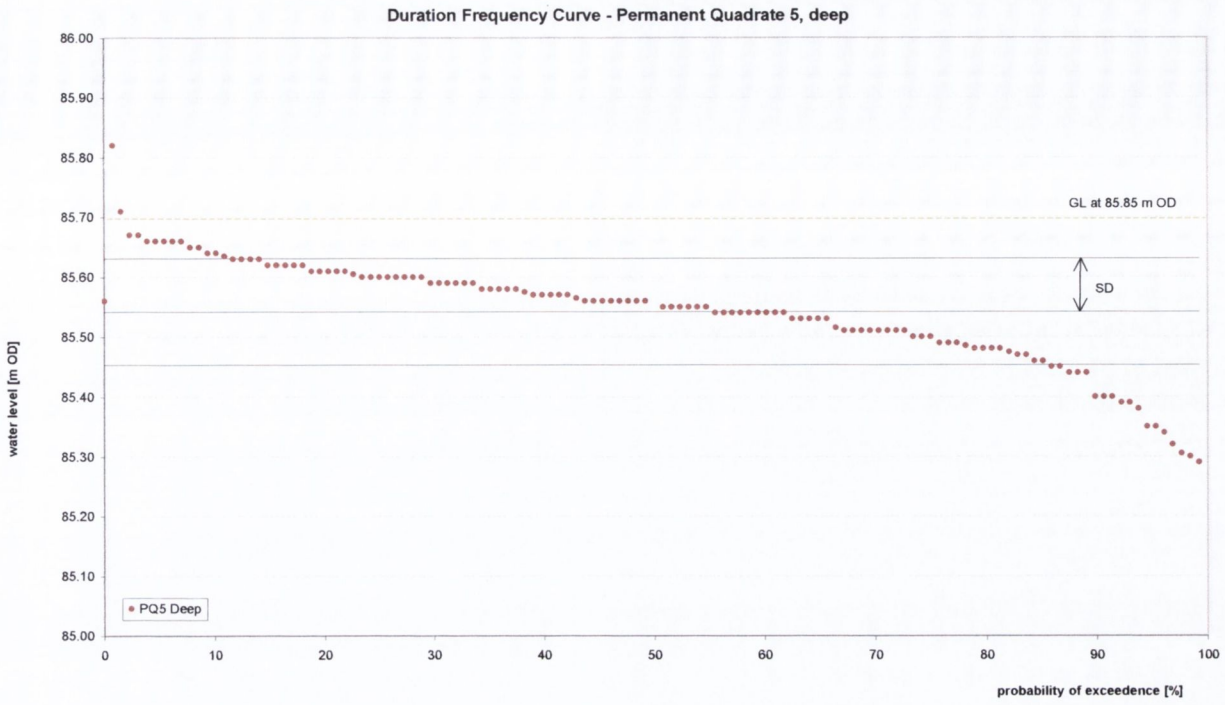

Duration Frequency Curve - Permanent Quadrate 2, shallow
water level [m OD]
85.60
85.55
85.50
85.45
85.40
85.35
85.30
85.25
85.20
85.15
85.10
GL at 85.44 m OD
SD
PQ2 shallow
0
10
20
30
40
50
60
70
80
90
100
probability of exceedence [%]

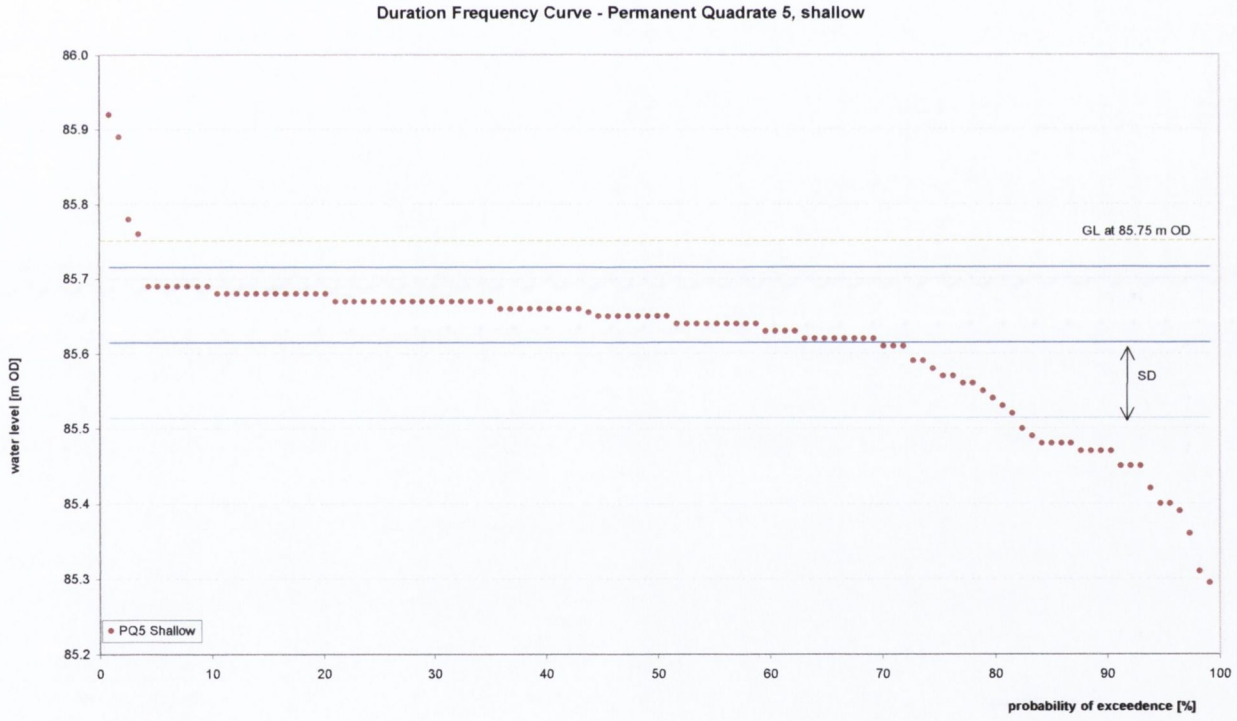

Duration Frequency Curve - Permanent Quadrate 3, deep
water level [m OD]
86.90
86.85
86.80
86.75
86.70
86.65
86.60
86.55
86.50
GL at 86.92 m OD
SD
PQ3 Deep
0
10
20
30
40
50
60
70
80
90
100
probability of exceedence [%]

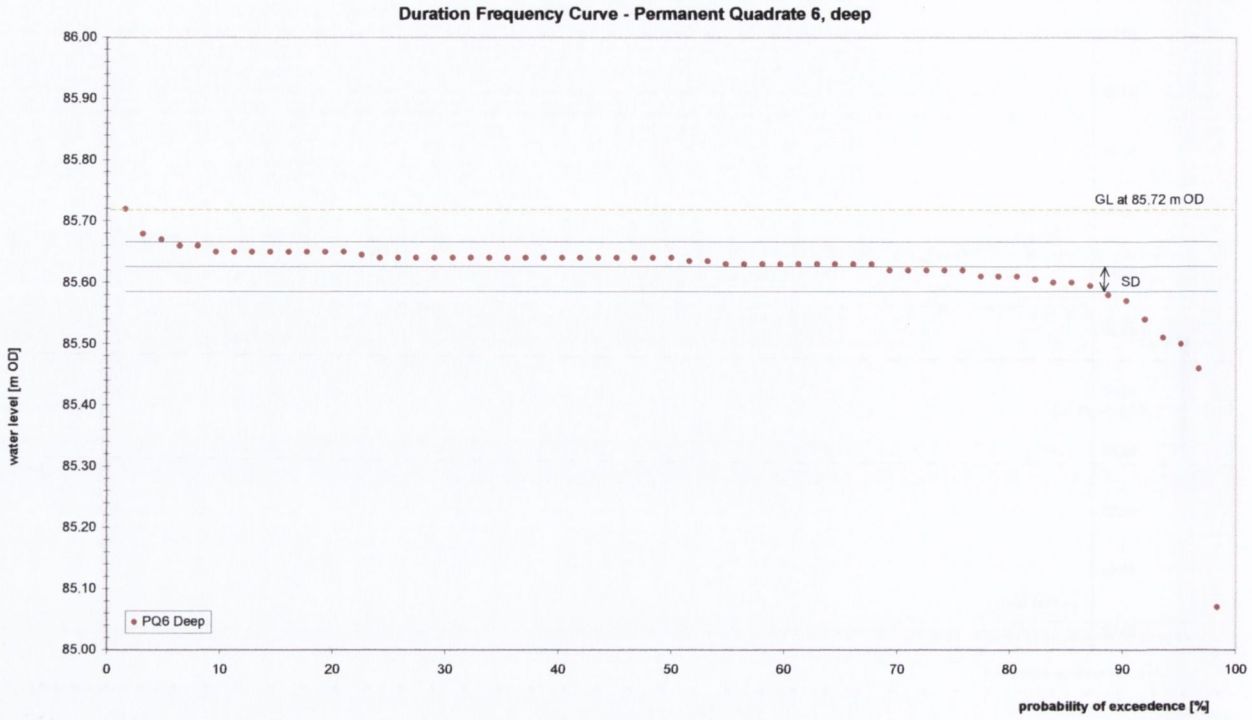

Duration Frequency Curve - Permanent Quadrate 3, shallow
water level [m OD]
87.00
86.95
86.90
86.85
86.80
86.75
86.70
86.65
86.60
86.55
86.50
GL at 86.86 m OD
SD
PQ3 shallow
2
5
8
11
15
18
21
25
28
31
34
38
41
44
48
51
54
57
61
64
67
70
74
77
80
84
87
90
93
97
probability of exceedence [%]

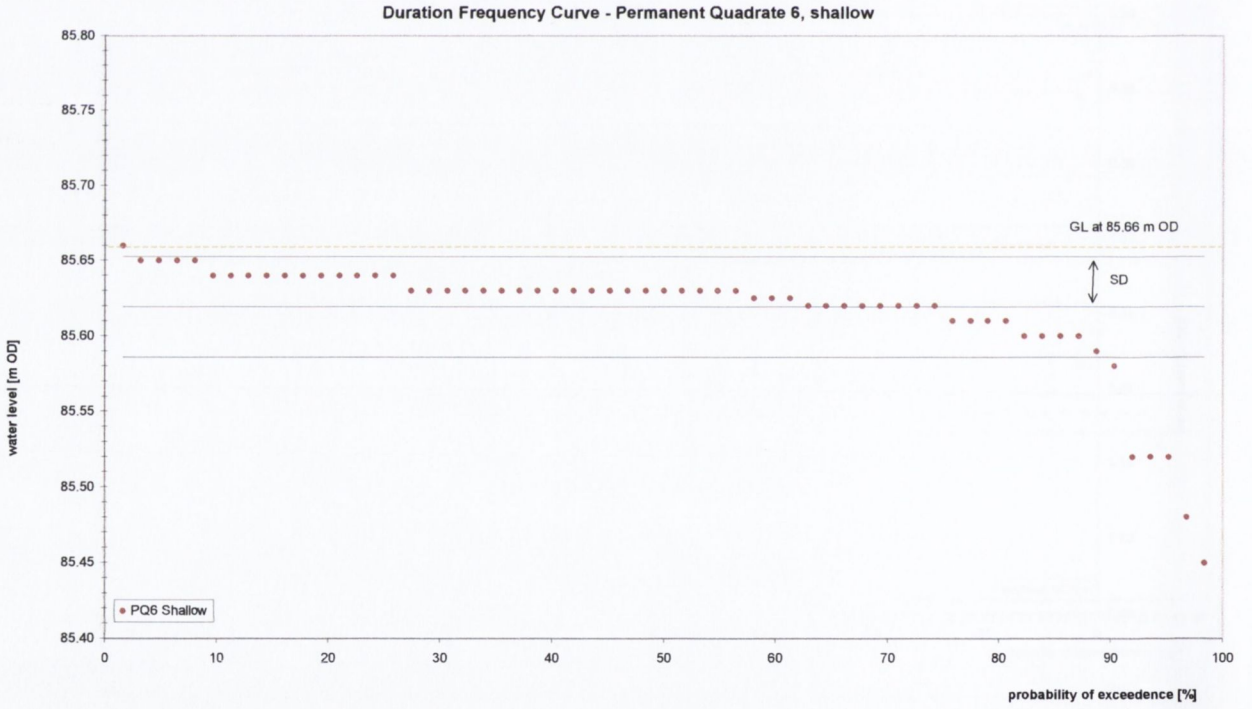

Duration Frequency Curve - Permanent Quadrate 4, deep
water level [m OD]
87.00
86.90
86.80
86.70
86.60
86.50
86.40
86.30
86.20
86.10
86.00
SD
GL at 86.41 m OD
PQ4 Deep
2 3 5 7 8 10 12 14 15 17 19 20 22 24 25 27 29 31 32 34 36 37 39 41 42 44 46 47 49 51 53 54 56 58 59 61 63 64 66 68 69 71 73 75 76 78 80 81 83 85 86 88 90 92 93 95 97 98
probability of exceedence [%]

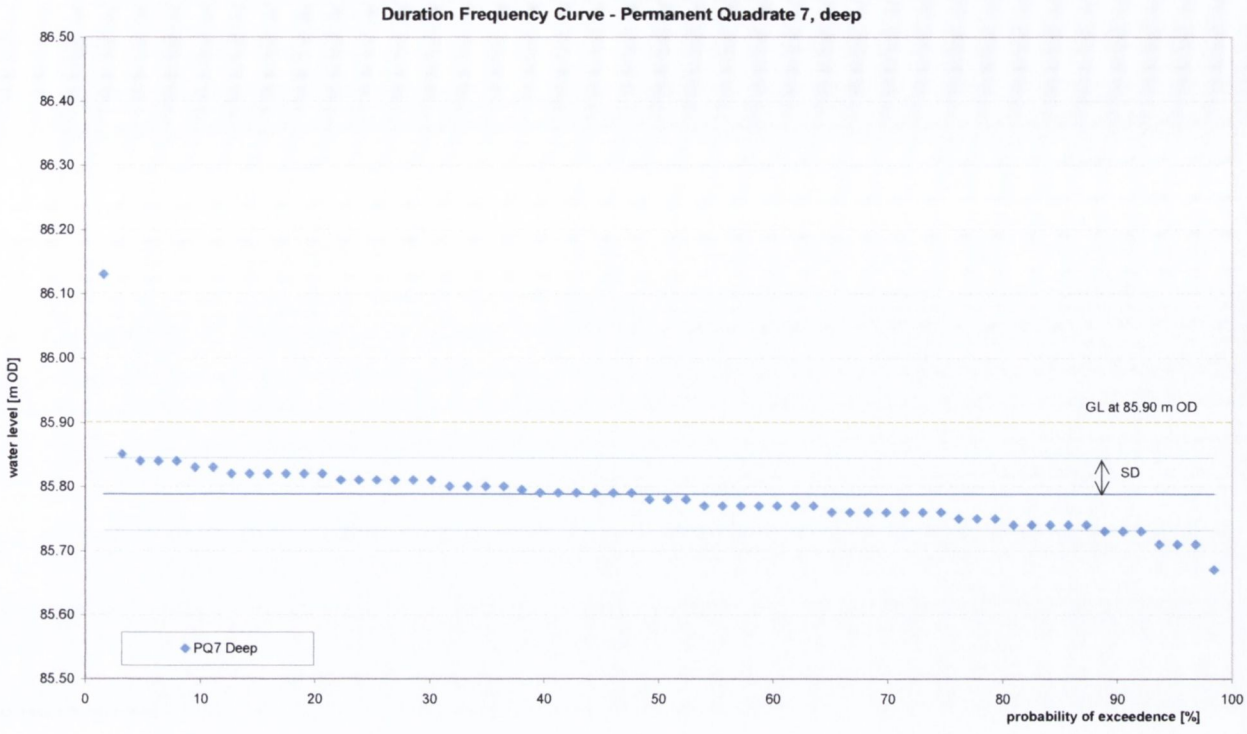

Duration Frequency Curve - Permanent Quadrate 4, shallow
water level [m OD]
86.65
86.60
86.55
86.50
86.45
86.40
86.35
86.30
GL at 86.63 m OD
SD
PQ4 Shallow
2 3 5 7 8 10 12 14 15 17 19 20 22 24 25 27 29 31 32 34 36 37 39 41 42 44 46 47 49 51 53 54 56 58 59 61 63 64 66 68 69 71 73 75 76 78 80 81 83 85 86 88 90 92 93 95 97 98
probability of exceedence [%]

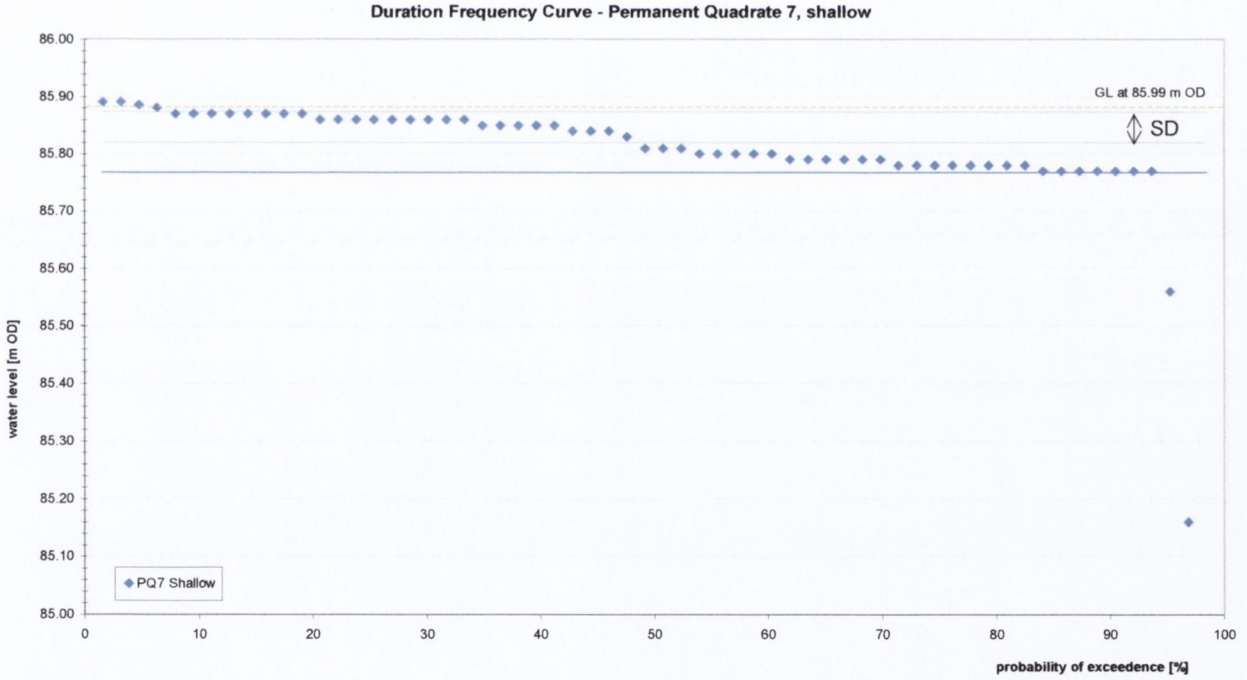

Duration Frequency Curve - Permanent Quadrate 5, deep
water level [m OD]
probability of exceedence [%]
GL at 85.85 m OD
SD
PQ5 Deep
86.00
85.90
85.80
85.70
85.60
85.50
85.40
85.30
85.20
85.10
85.00
0
10
20
30
40
50
60
70
80
90
100

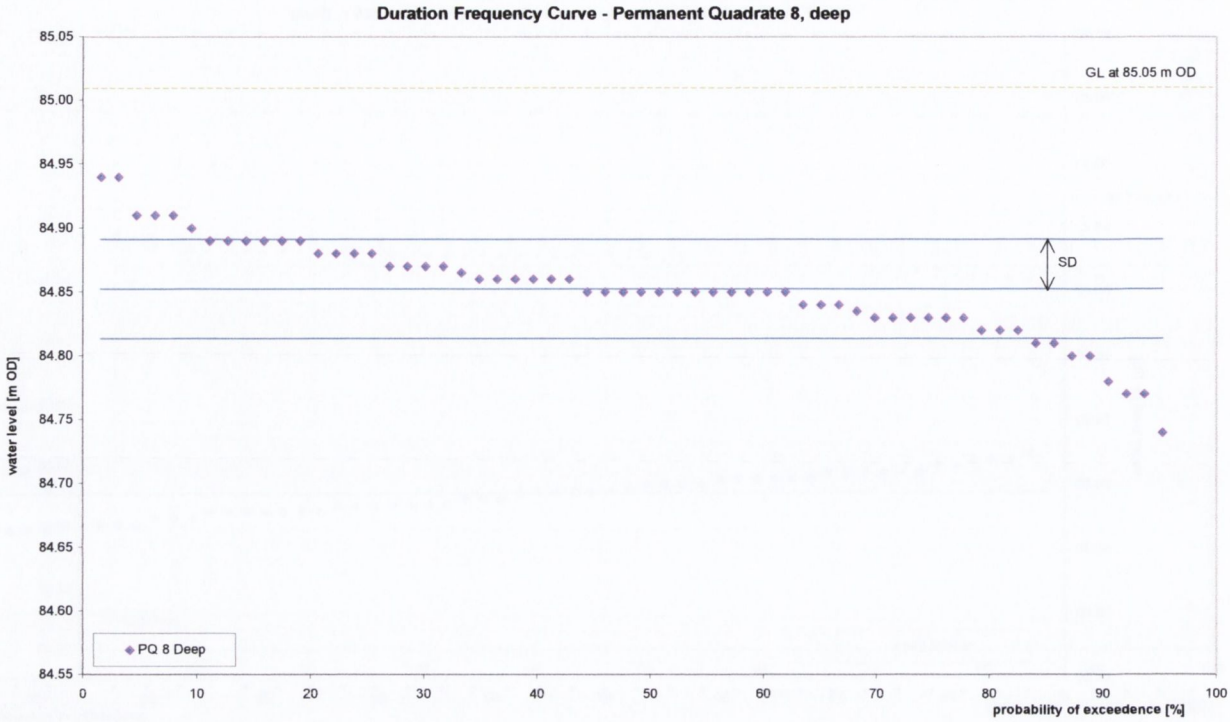

Duration Frequency Curve - Permanent Quadrate 5, shallow
water level [m OD]
probability of exceedence [%]
GL at 85.75 m OD
SD
PQ5 Shallow
86.0
85.9
85.8
85.7
85.6
85.5
85.4
85.3
85.2
0
10
20
30
40
50
60
70
80
90
100

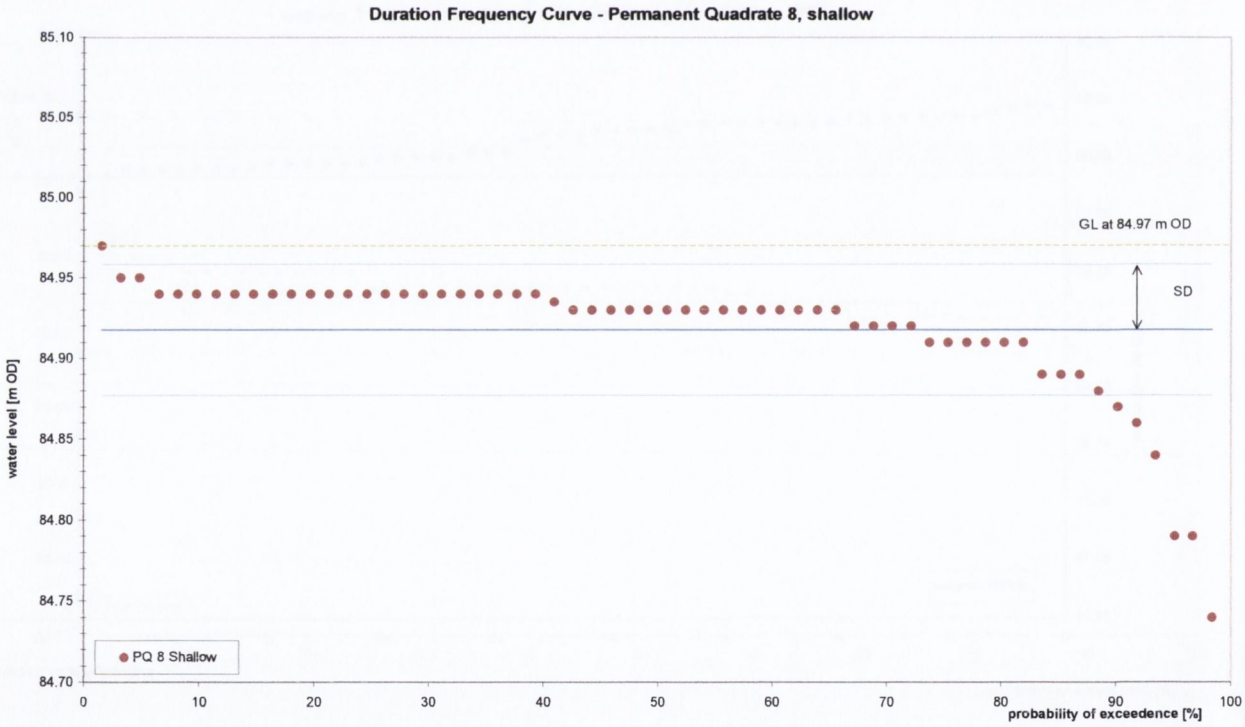

Duration Frequency Curve - Permanent Quadrate 6, deep
water level [m OD]
probability of exceedence [%]
GL at 85.72 m OD
SD
PQ6 Deep
86.00
85.90
85.80
85.70
85.60
85.50
85.40
85.30
85.20
85.10
85.00
0
10
20
30
40
50
60
70
80
90
100

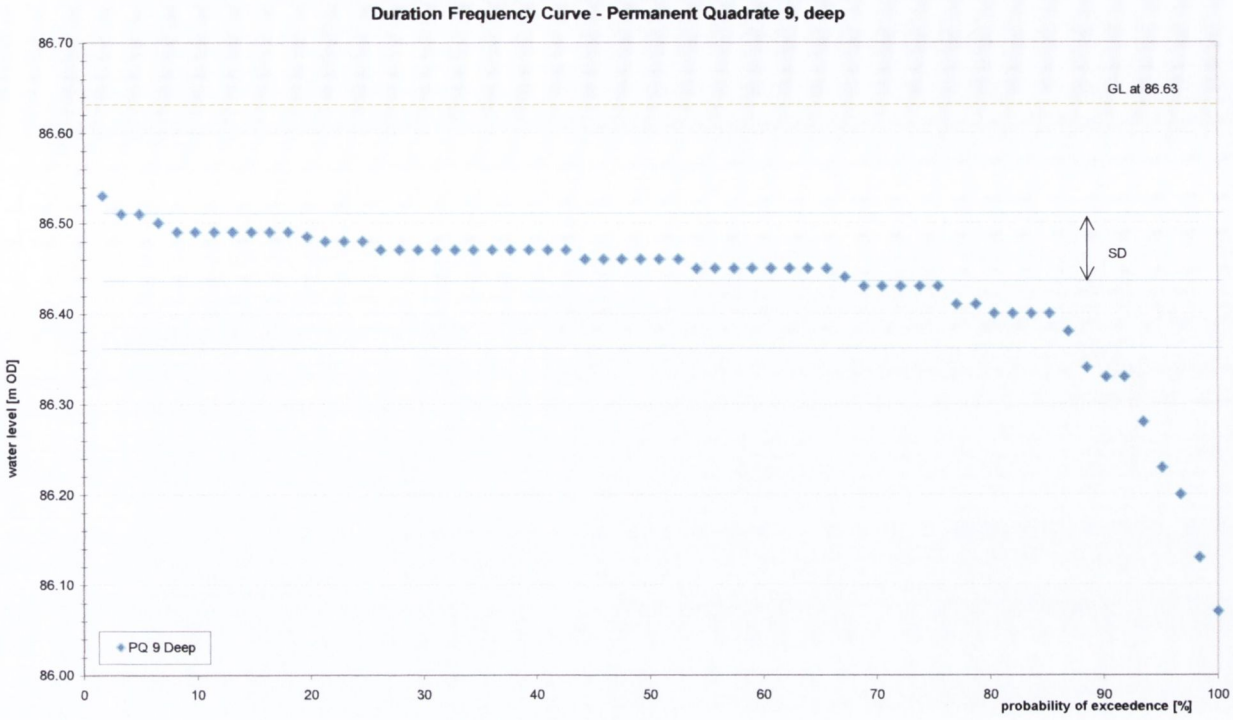

Duration Frequency Curve - Permanent Quadrate 6, shallow
water level [m OD]
probability of exceedence [%]
GL at 85.66 m OD
SD
PQ6 Shallow
85.80
85.75
85.70
85.65
85.60
85.55
85.50
85.45
85.40
0
10
20
30
40
50
60
70
80
90
100

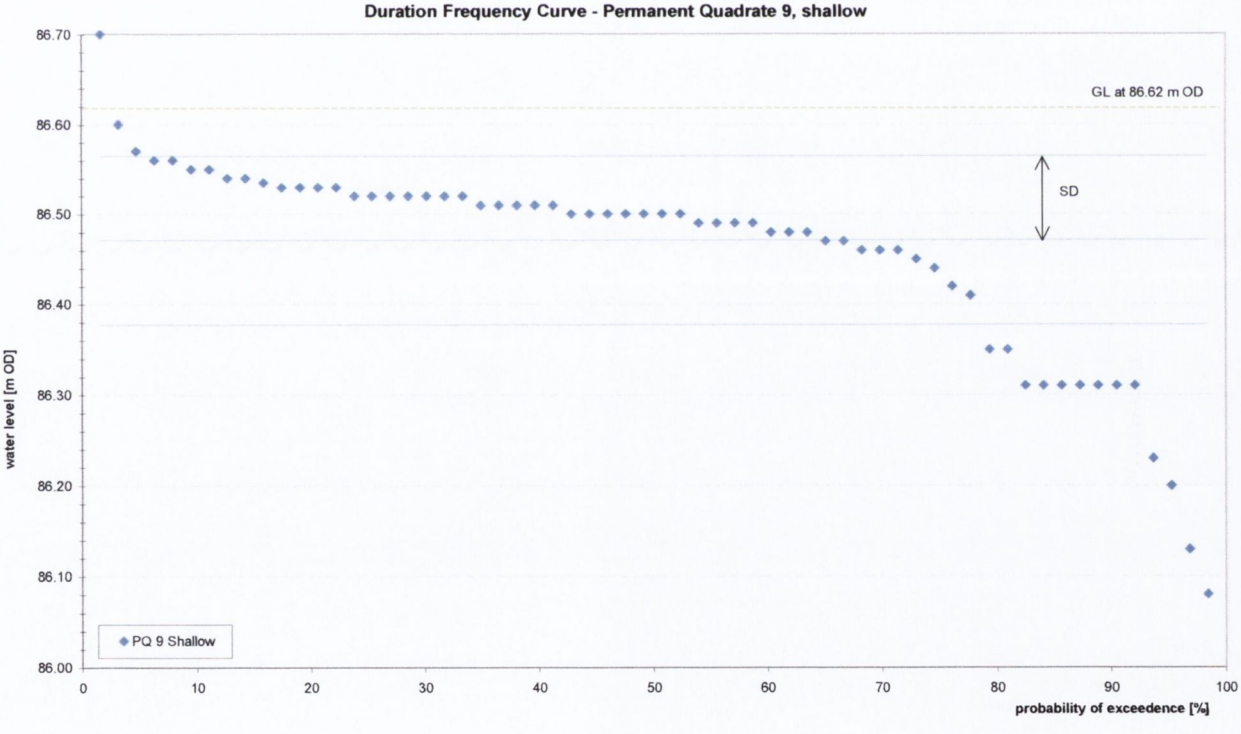

Duration Frequency Curve - Permanent Quadrate 7, deep
water level [m OD]
86.50
86.40
86.30
86.20
86.10
86.00
85.90
85.80
85.70
85.60
85.50
GL at 85.90 m OD
SD
PQ7 Deep
0
10
20
30
40
50
60
70
80
90
100
probability of exceedence [%]

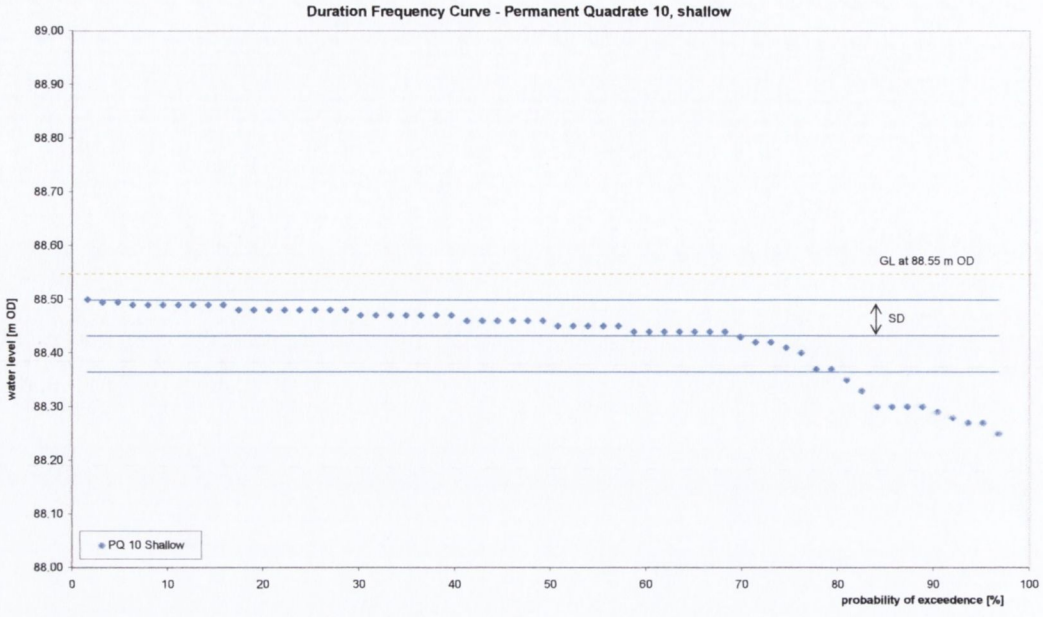

Duration Frequency Curve - Permanent Quadrate 7, shallow
water level [m OD]
86.00
85.90
85.80
85.70
85.60
85.50
85.40
85.30
85.20
85.10
85.00
GL at 85.99 m OD
SD
PQ7 Shallow
0
10
20
30
40
50
60
70
80
90
100
probability of exceedence [%]


Duration Frequency Curve - Permanent Quadrate 8, deep
GL at 85.05 m OD
SD
PQ 8 Deep
water level [m OD]
probability of exceedence [%]
85.05
85.00
84.95
84.90
84.85
84.80
84.75
84.70
84.65
84.60
84.55
0
10
20
30
40
50
60
70
80
90
100


Duration Frequency Curve - Permanent Quadrate 8, shallow
GL at 84.97 m OD
SD
PQ 8 Shallow
water level [m OD]
probability of exceedence [%]
85.10
85.05
85.00
84.95
84.90
84.85
84.80
84.75
84.70
0
10
20
30
40
50
60
70
80
90
100


Duration Frequency Curve - Permanent Quadrate 9, deep
GL at 86.63
SD
PQ 9 Deep
water level [m OD]
probability of exceedence [%]
86.70
86.60
86.50
86.40
86.30
86.20
86.10
86.00
0
10
20
30
40
50
60
70
80
90
100


Duration Frequency Curve - Permanent Quadrate 9, shallow
GL at 86.62 m OD
SD
PQ 9 Shallow
water level [m OD]
probability of exceedence [%]
86.70
86.60
86.50
86.40
86.30
86.20
86.10
86.00
0
10
20
30
40
50
60
70
80
90
100

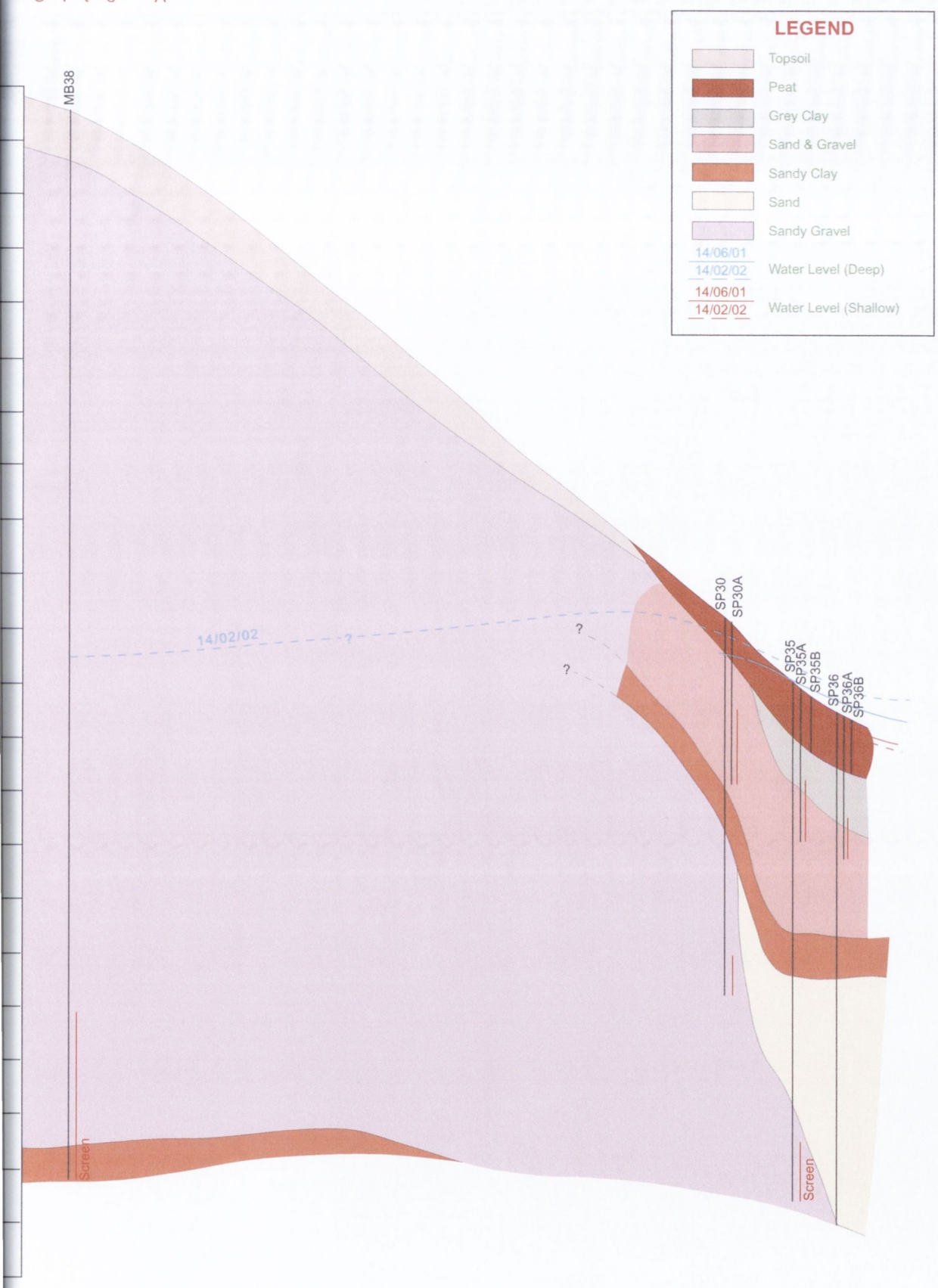

Duration Frequency Curve - Permanent Quadrate 10, shallow
89.00
88.90
88.80
88.70
88.60
88.50
88.40
88.30
88.20
88.10
88.00
water level [m OD]
GL at 88.55 m OD
SD
PQ 10 Shallow
0
10
20
30
40
50
60
70
80
90
100
probability of exceedence [%]

APPENDIX 15

Geological cross-sections and well logs – Intensive Quadrate A

This appendix presents geological profiles across Intensive Quadrate A based on well logs drilled on site by K.T. Cullen Ltd., as described in Chapter III-2. These maps and diagrams were produced by WYG Ltd. and are presented with their permission.

Site A



Vertical Scale: 1:100
Horizontal Scale: 1:250

Pollardstown Fen
Transect - Site A
MB38/SP30/SP30A/SP35/SP35A/SP35B/SP36/SP36A/SP36B

Job No. 2779
Date: September 2002

Figure No.

White Young Green

GS/101

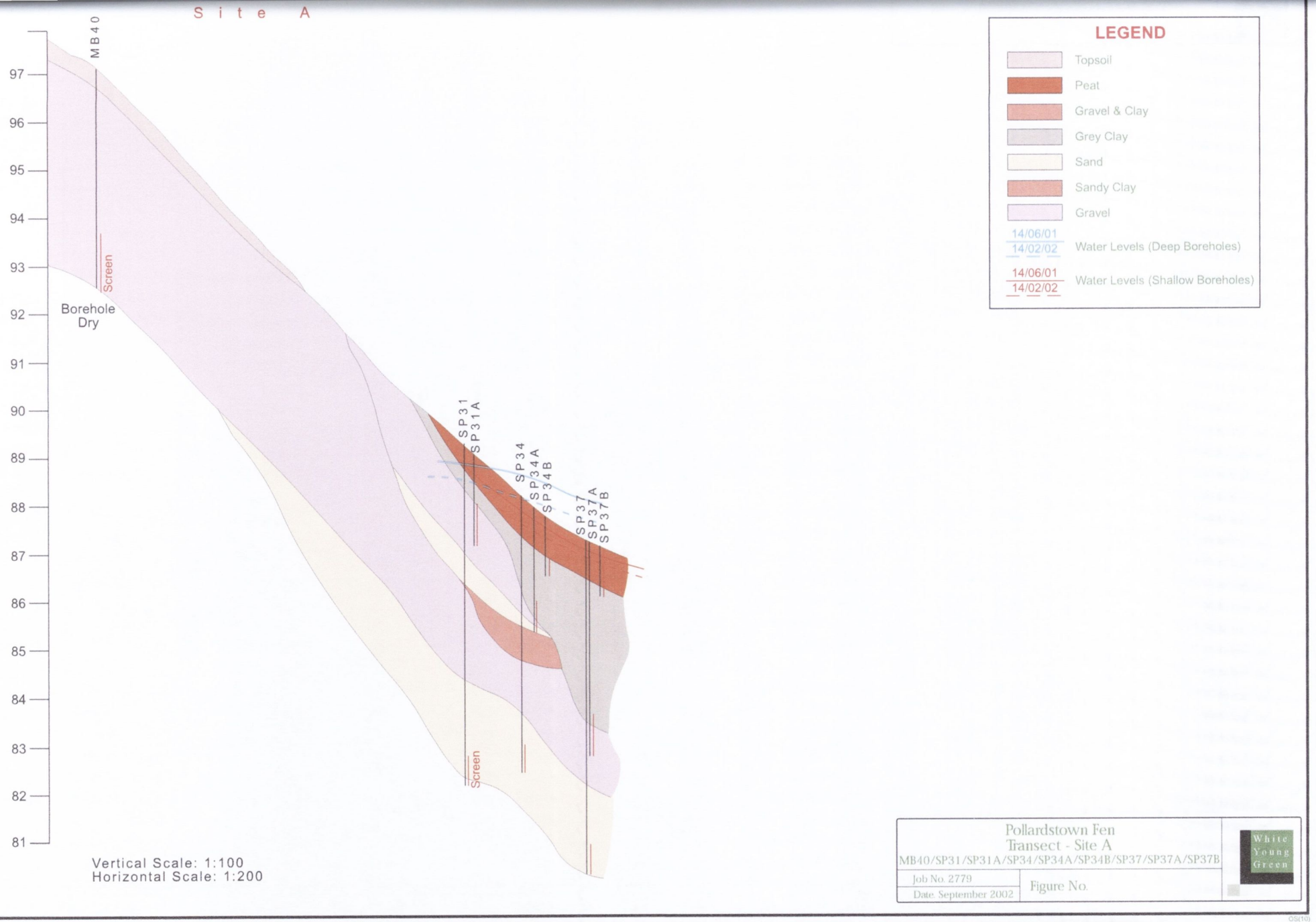
Site A



Pollardstown Fen
Site A, Boreholes SP30/SP31 & SP32

Job No. 2779

White Young Green



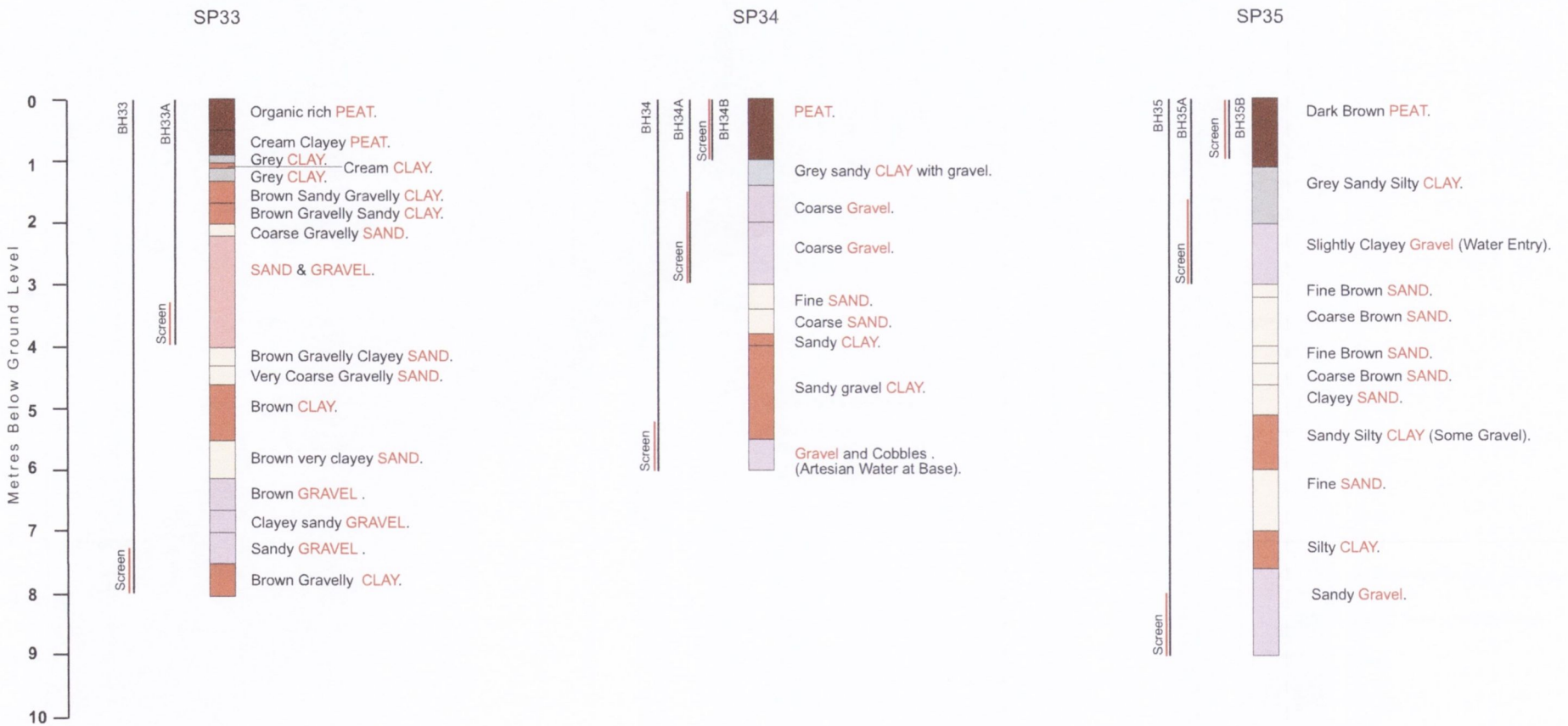
Pollardstown Fen
Transect - Site A
MB40/SP31/SP31A/SP34/SP34A/SP34B/SP37/SP37A/SP37B

Job No. 2779
Date. September 2002

Figure No.

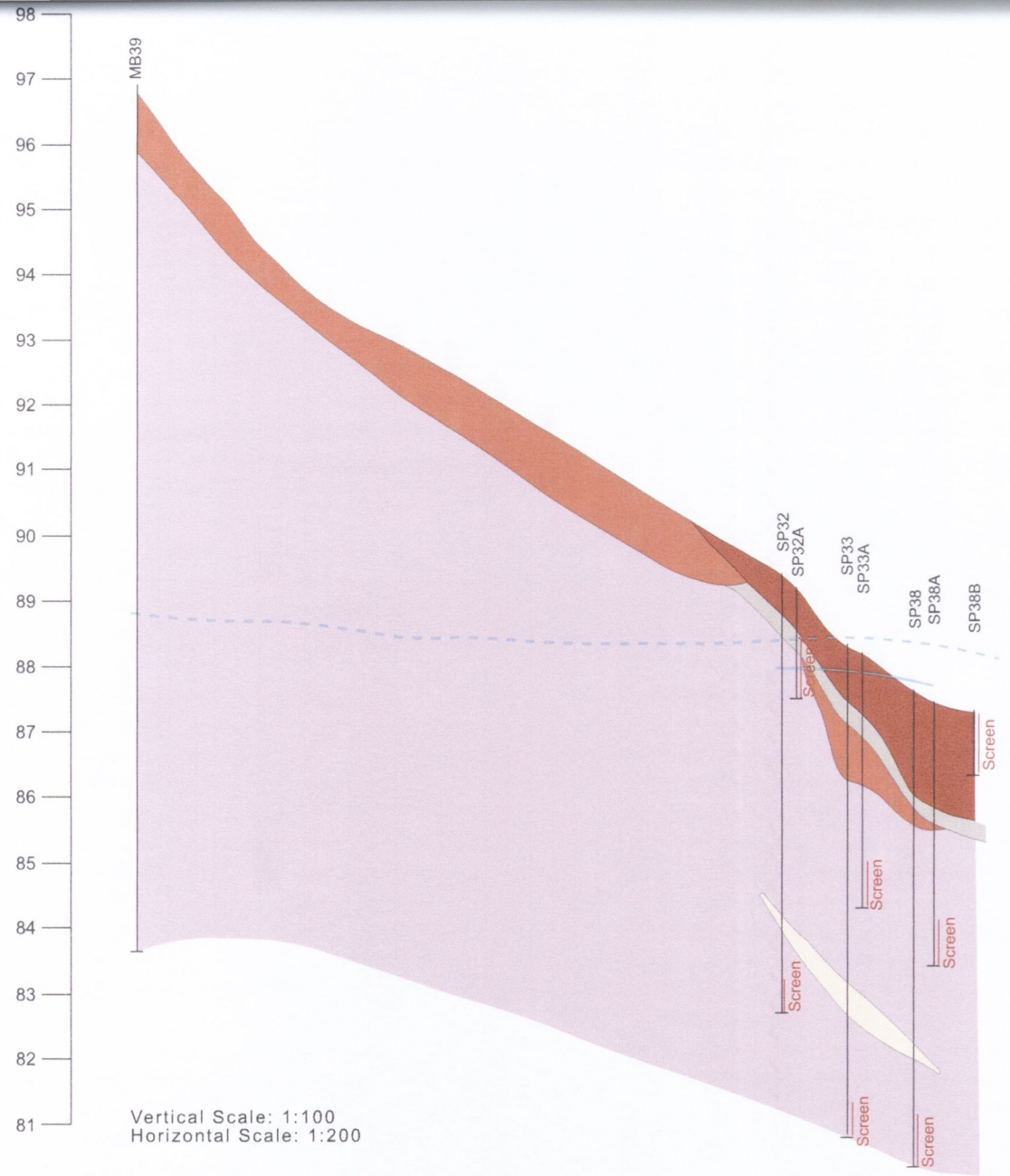
White Young Green

S i t e A



Pollardstown Fen
Site A, Boreholes SP33/SP34 & SP35

White Young Green



LEGEND

- Peat
- Grey Clay
- Brown Clay
- Sand
- Gravel
- 14/06/01 / 15/06/01 — Water Level (Deep)
- 14/06/01 / 15/06/01 — Water Level (Shallow)

Pollardstown Fen
Transect - Site A
MB39/SP32/SP32A/SP33/SP33A/SP38/SP38A/SP38B

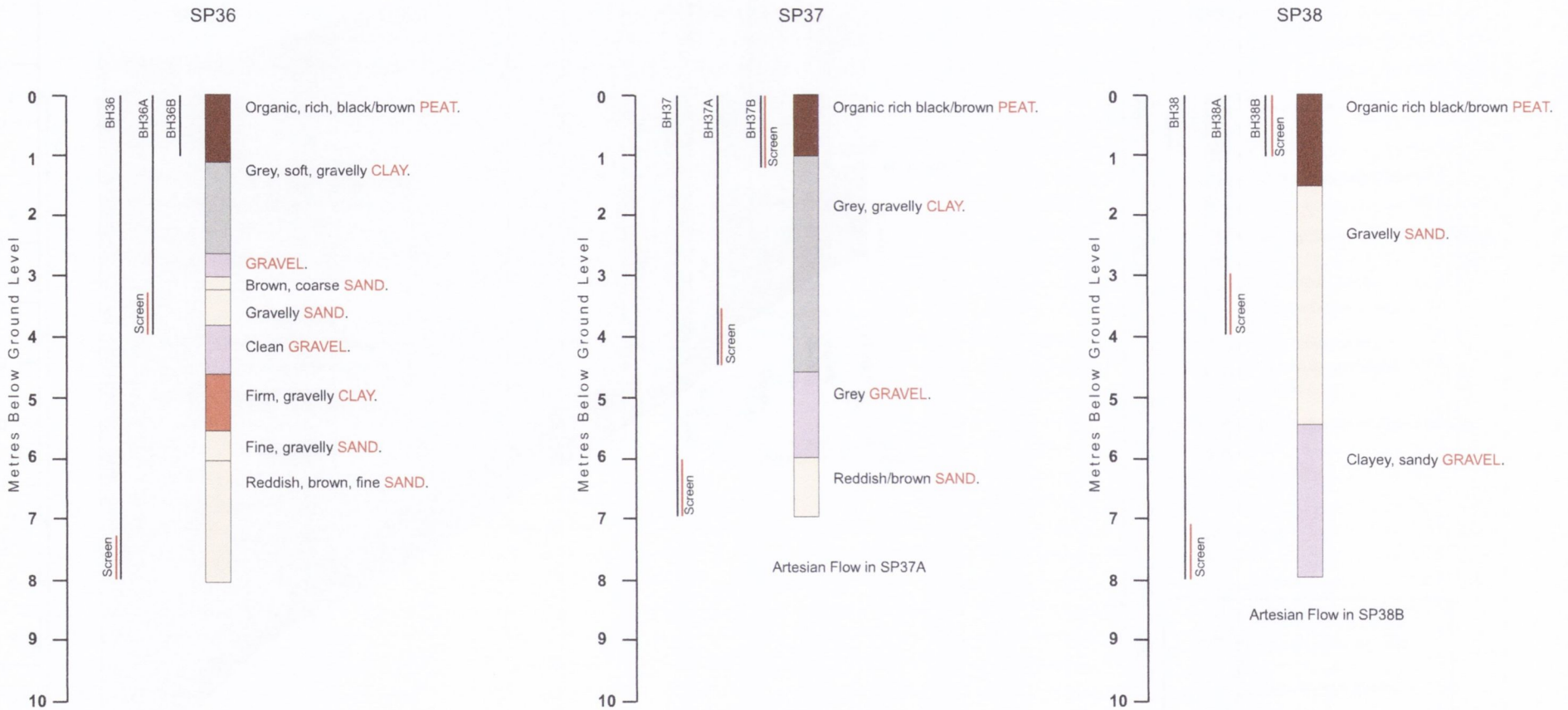
Job No. 2779
Date. September 2002

Figure No.

White Young Green

O5(10)

Site A



Pollardstown Fen
Site A, Boreholes SP36/SP37 & SP38

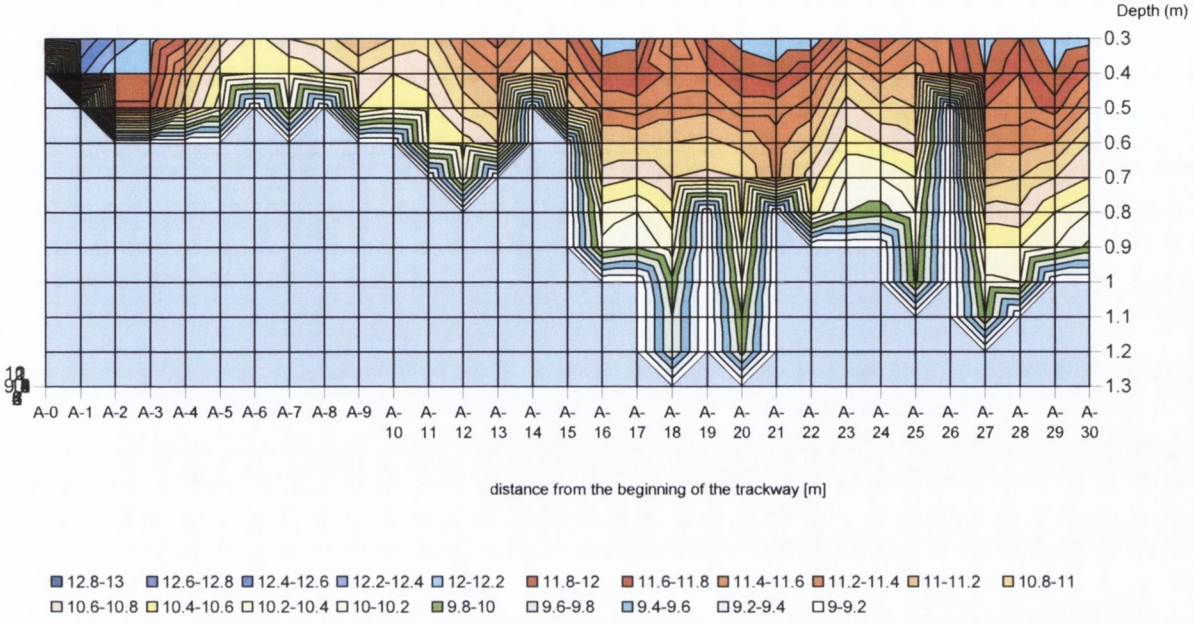
White Young Green

APPENDIX 16

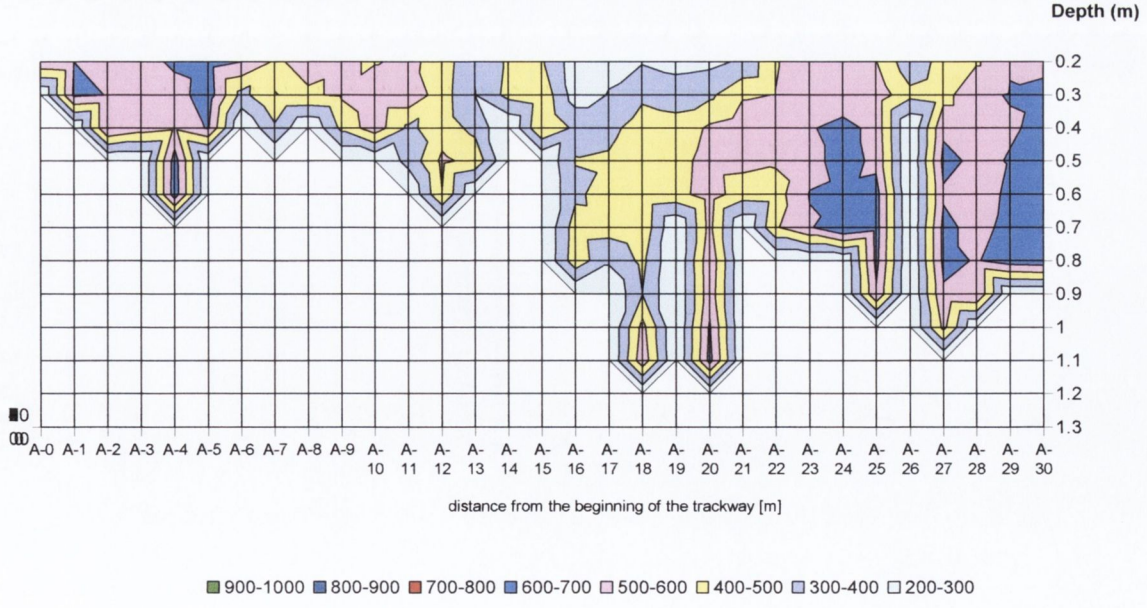
Prickstocking profiles

This appendix presents field Electric Conductivity and Temperature data from the prickstocking survey, which aimed to determine seepage locations and velocities of water moving through the peat substrate at the fen's margin. The methodology is based on soil temperature gradients and is explained in Volume I.

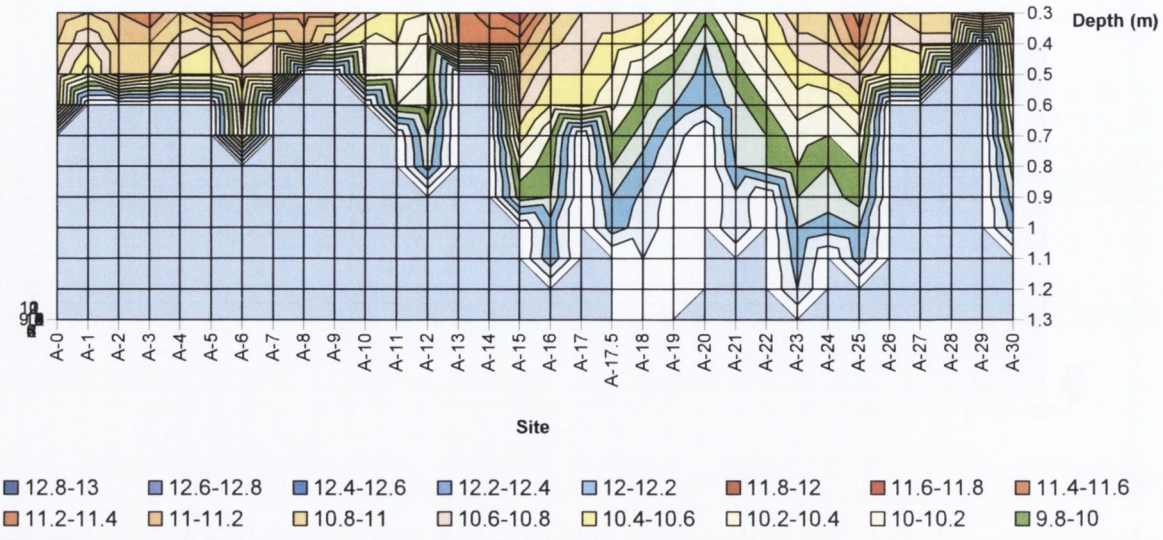
Temperature (°C) Pollardstown Fen Pollardstown Fen, Site A-middle, 6 June 2002



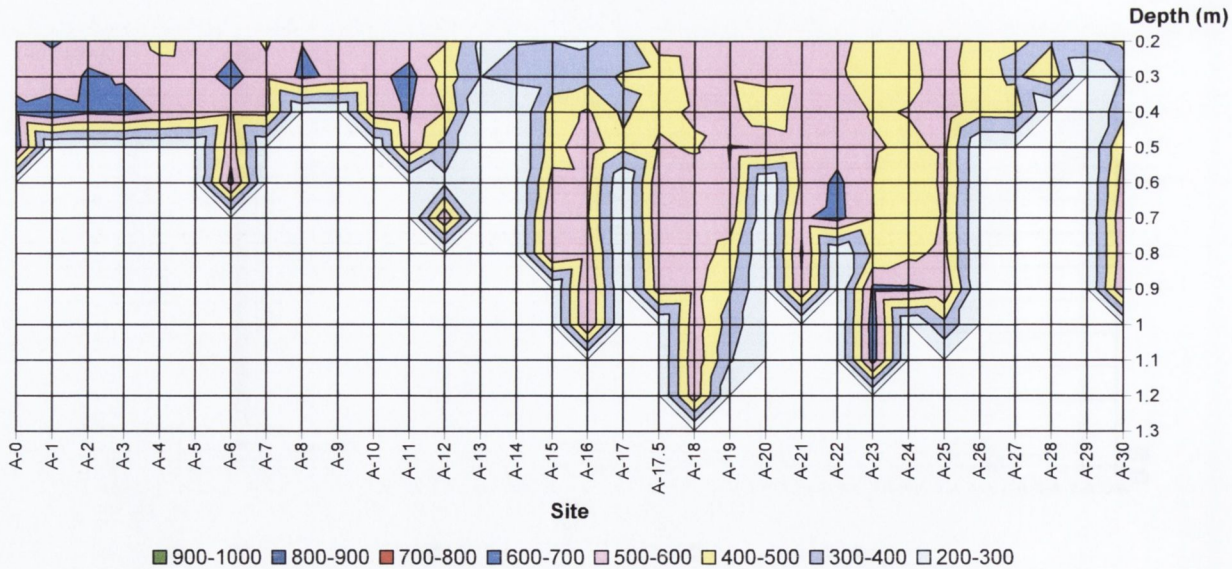
EC (25 °C, uS/cm) Pollardstown Fen, Site A-middle, 6 June 2002



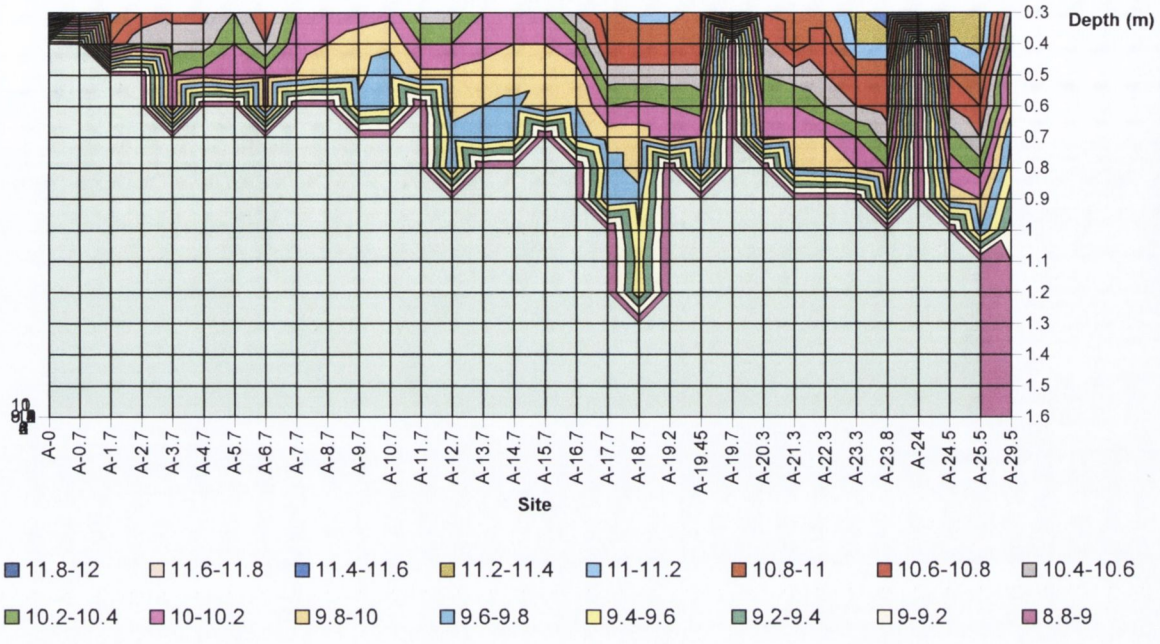
Temperature (°C) Pollardstown Fen Pollardstown Fen, Site A-right, 6 June 2002



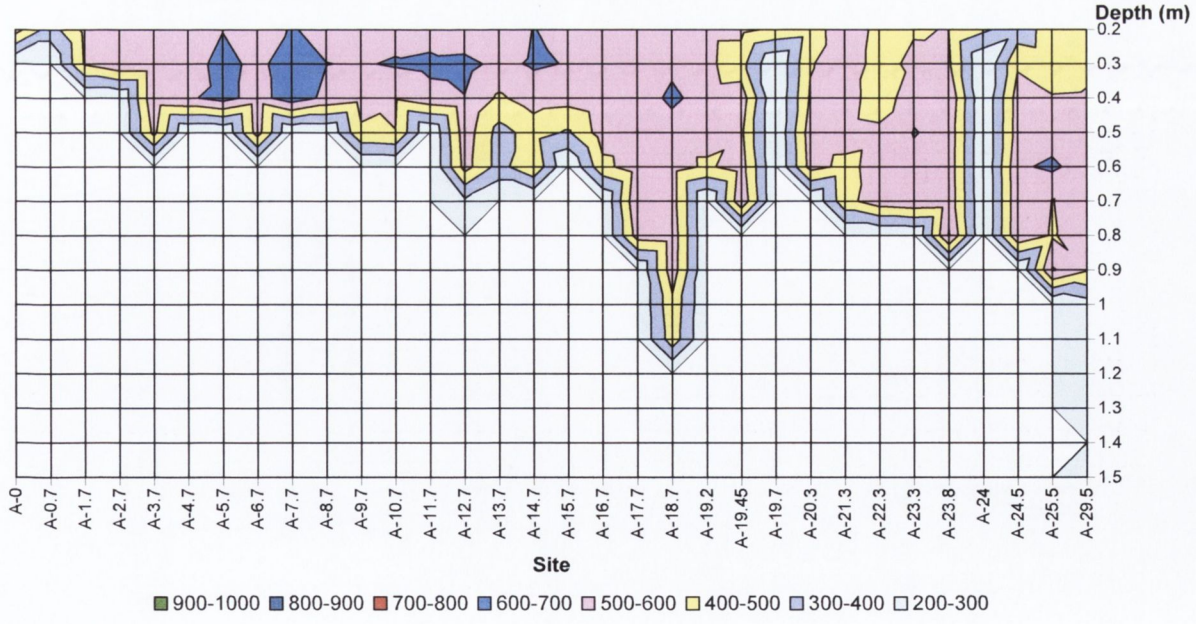
EC (25 °C, uS/cm) Pollardstown Fen, Site A-right, 6 June 2002



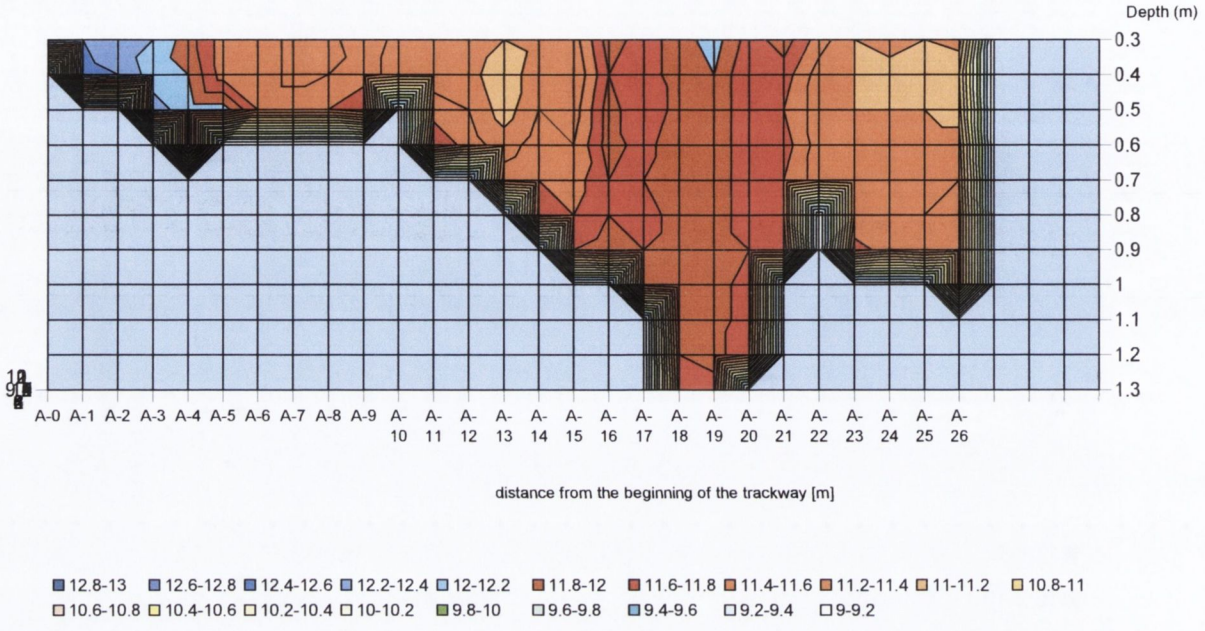
Temperature (°C) Pollardstown Fen Pollardstown Fen, Site A-left, 6 June 2002



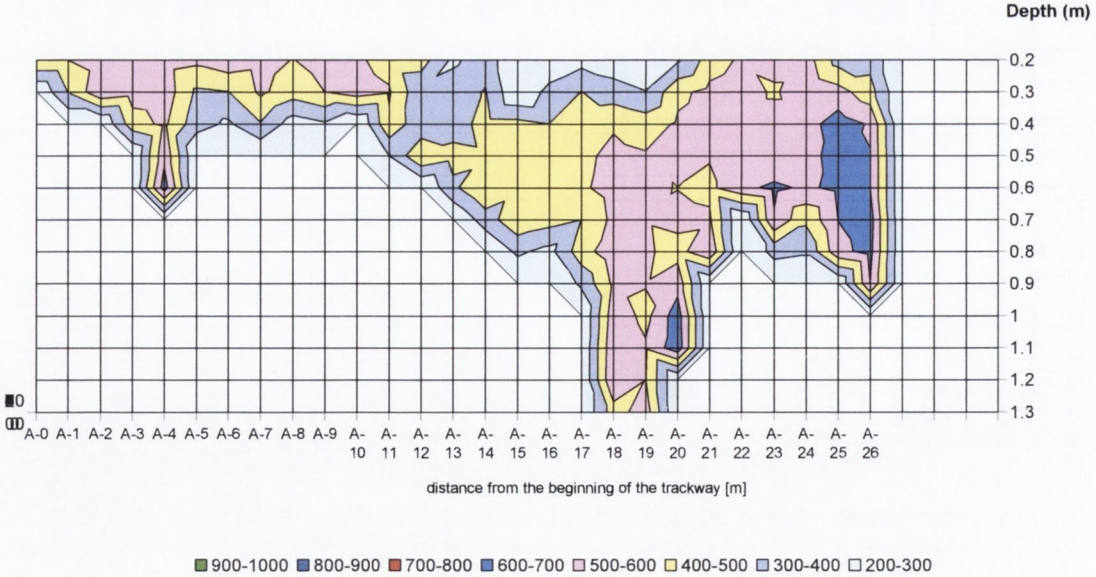
EC (25 °C, uS/cm) Pollardstown Fen, Site A-left, 6 June 2002



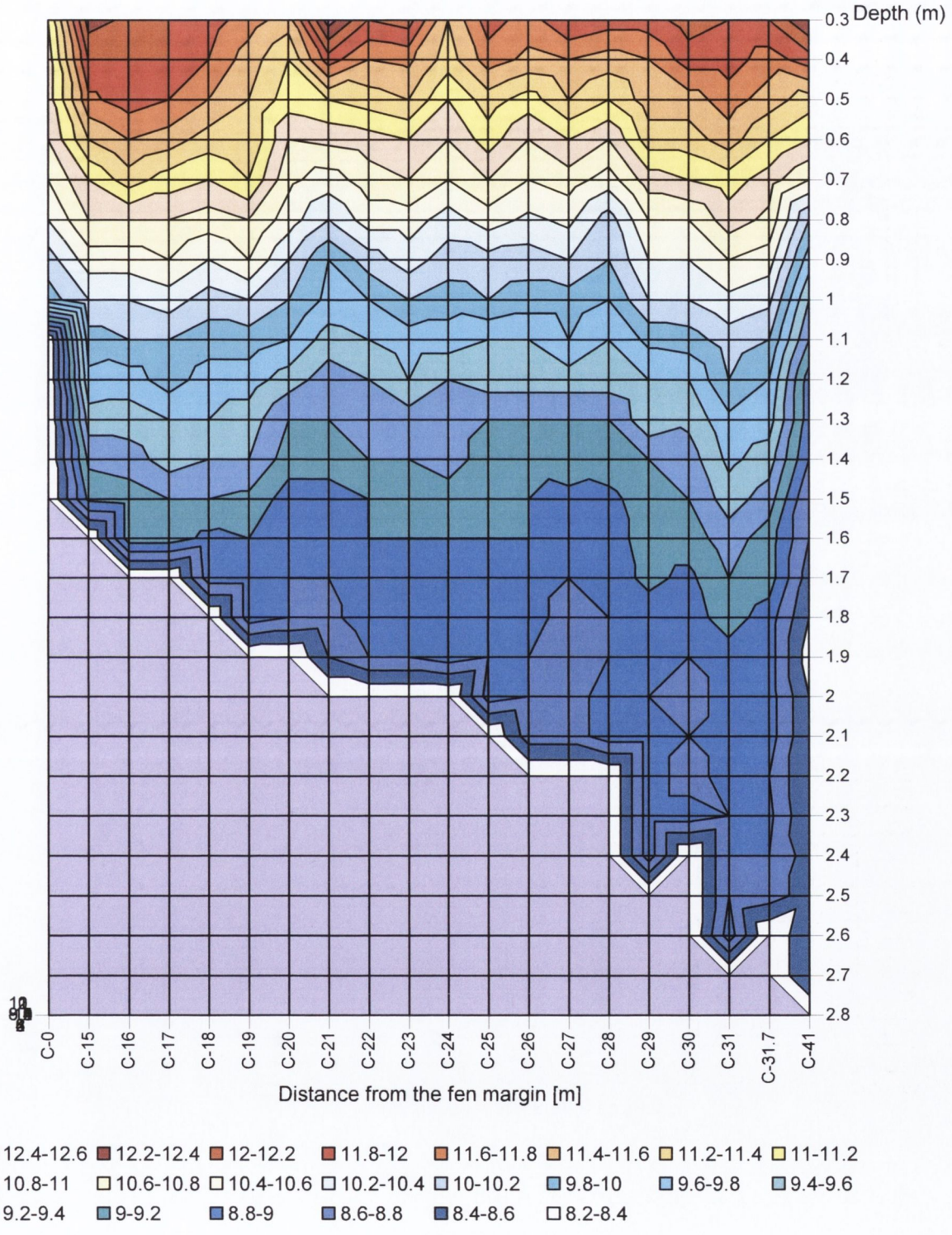
Temperature (°C) Pollardstown Fen Pollardstown Fen, Site A-middle, 8 October 2003



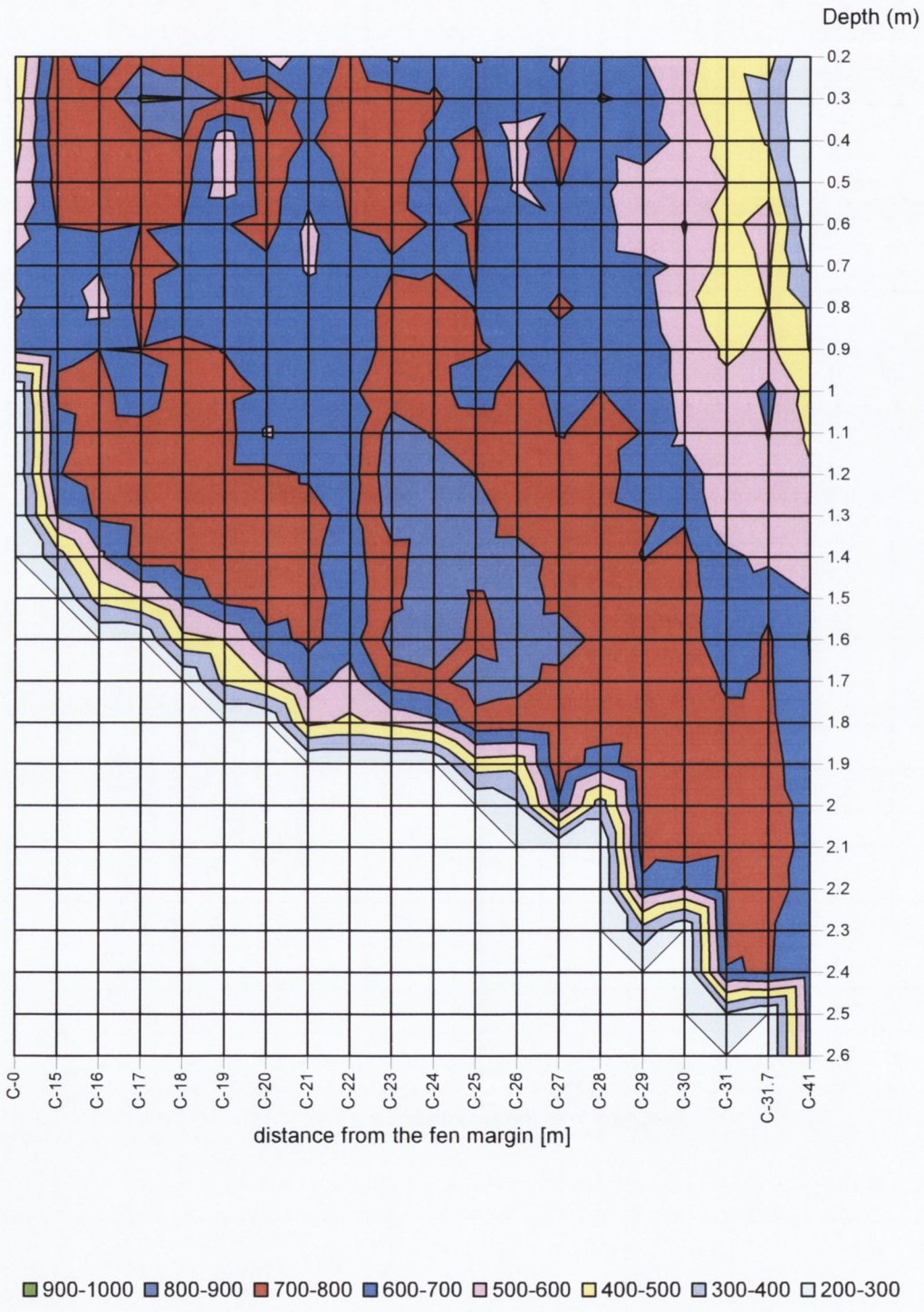
EC (25 °C, uS/cm) Pollardstown Fen, Site A-middle, 8 October 2003



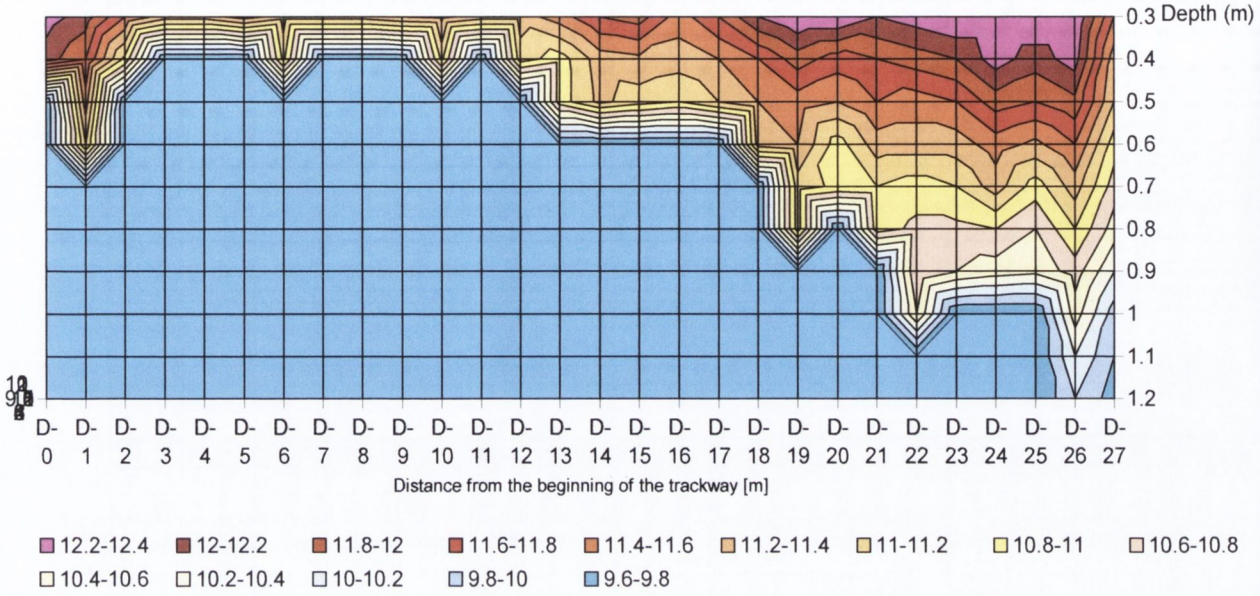
Temperature (°C) Pollardstown Fen Pollardstown Fen, Site C, 13 June 2002



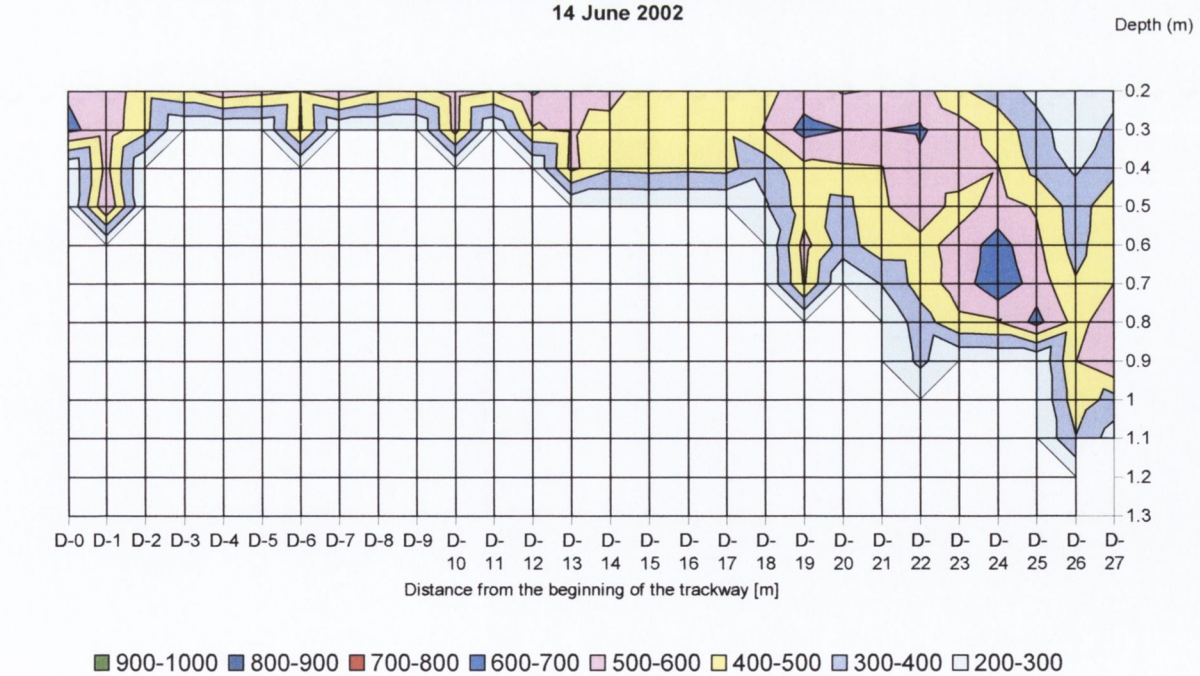
EC (25 °C, uS/cm) Pollardstown Fen, Site C, 13 June 2002



Temperature (°C) Pollardstown Fen Pollardstown Fen, Site D, 14 June 2002



EC (25 °C, uS/cm) Pollardstown Fen, Site D, 14 June 2002



Electric Conductivity [uS/cm]											
Profile: Site A - middle											
Prick	Date	Depth below ground level (m)									
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1
A-0	06/06/2002	583.2									
A-1	06/06/2002	600	619.2								
A-2	06/06/2002	580.4	597.6	600.4							
A-3	06/06/2002	556.4	520.8	546.4							
A-4	06/06/2002	620	554.8	520.4	646	655.2					
A-5	06/06/2002	646	655.2	609.2							
A-6	06/06/2002	599.6	367.2								
A-7	06/06/2002	486.4	501.6	381.6							
A-8	06/06/2002	530.4	488.4								
A-9	06/06/2002	512.8	513.2	426.4							
A-10	06/06/2002	491.2	576.8	559.2							
A-11	06/06/2002	526.8	577.2	379.6	330						
A-12	06/06/2002	455.6	445.6	452	521.2	497.2					
A-13	06/06/2002	307.6	297.6	372.4	468.4						
A-14	06/06/2002	417.2	431.6								
A-15	06/06/2002	412	472	498.8							
A-16	06/06/2002	245.6	252	379.6	403.2	379.6	447.2	461.2			
A-17	06/06/2002	277.2	304.4	376.4	410.8	447.2	438.8	315.6			
A-18	06/06/2002	292	384	438.8	466.8	487.2	474	424.8	398	535.2	568
A-19	06/06/2002	258.4	366	428	460	464					
A-20	06/06/2002	275.6	377.6	516.4	540	548.4	530.8	576	565.2	611.6	632
A-21	06/06/2002	313.6	489.6	551.6	530.4	445.2					
A-22	06/06/2002	490.4	502	558.8	512.4	456	490				
A-23	06/06/2002	580	578.8	588.8	565.6	604.8	588.8				
A-24	06/06/2002	562	518.8	640	641.6	621.6	697.2				
A-25	06/06/2002	504	563.2	563.2	577.6	636	638.4	625.6	587.2		
A-26	06/06/2002	332.8	426.4								
A-27	06/06/2002	438.4	460	583.2	625.2	588.4	624.4	623.6	586.4	525.2	
A-28	06/06/2002	486	587.6	589.6	580.4	551.6	568.8	593.2	600.4		
A-29	06/06/2002	595.2	603.6	592.8	604.4	620	627.6	650			
A-30	06/06/2002	591.6	608.4	613.6	632	617.2	648	662.4			
A-30	31/10/2003	492.4	598	601.2	612	612.4	628	652			

Temperature [deg C]											
Profile: Site A - middle											
Prick	Date	Depth below ground level (m)									
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2
A-0	06/06/2002	12.5									
A-1	06/06/2002	12.8	12.45								
A-2	06/06/2002	12.4	12	11.75							
A-3	06/06/2002	12.1	12	11.75							
A-4	06/06/2002	11.7	11.1	10.9							
A-5	06/06/2002	10.9	10.5	10.3							
A-6	06/06/2002	10.5	10.4								
A-7	06/06/2002	10.8	10.4	10.2							
A-8	06/06/2002	10.9	10.6								
A-9	06/06/2002	11.2	10.8	10.6							
A-10	06/06/2002	11	10.6	10.4							
A-11	06/06/2002	10.9	10.7	10.5	10.4						
A-12	06/06/2002	11.4	11.1	10.9	10.5	10.3					
A-13	06/06/2002	11.7	11.35	11.1	10.8						
A-14	06/06/2002	11.3	11								
A-15	06/06/2002	11.6	11.3	10.9							
A-16	06/06/2002	12.2	11.8	11.4	11	10.7	10.3	10.15			
A-17	06/06/2002	12.1	11.8	11.5	11	10.6	10.2	10			
A-18	06/06/2002	11.19	11.55	11.3	11	10.8	10.5	10.3	9.95	9.8	9.8
A-19	06/06/2002	11.85	11.55	11.25	10.95	10.75					
A-20	06/06/2002	12.1	11.8	11.5	11.05	10.8	10.65	10.4	10.2	10	9.9
A-21	06/06/2002	12.2	11.9	11.5	11.3	11.25					
A-22	06/06/2002	12.2	11.6	11.3	11	10.7	10.5				
A-23	06/06/2002	11.55	11	10.7	10.5	10.2	10				
A-24	06/06/2002	11.8	11.3	10.95	10.6	10.2	9.9				
A-25	06/06/2002	11.4	11.1	11	10.75	10.4	10.2	10.1	10.05		
A-26	06/06/2002	11.6	11.5								
A-27	06/06/2002	12.1	12	11.6	11.3	11.1	10.7	10.4	10.15	10	
A-28	06/06/2002	11.8	11.6	11.5	11.3	11	10.75	10.4	10.2		
A-29	06/06/2002	12.2	12	11.7	11.2	10.8	10.4	10.2			
A-30	06/06/2002	12.1	11.6	11.2	10.8	10.6	10.2	9.95			
A-30	30/10/2002	8.7	8.8	8.9	9.2	9.4	9.7	10.2			

Electic conductivity [uS/cm]																
Profile: Site A - left																
	Date	Depth below ground level (m)														
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6
A-0	06/06/2002	542.8														
A-0.7	06/06/2002	347.2														
A-1.7	06/06/2002	523.2	507.2													
A-2.7	06/06/2002	560	576.8													
A-3.7	06/06/2002	548.4	574.8	574.8	526.4											
A-4.7	06/06/2002	548	532.8	585.6												
A-5.7	06/06/2002	595.2	648.4	634.8												
A-6.7	06/06/2002	537.6	560.8	560	541.6											
A-7.7	06/06/2002	609.2	682	656												
A-8.7	06/06/2002	562.4	602	576.8												
A-9.7	06/06/2002	572.8	592	538.8	484											
A-10.7	06/06/2002	564.4	609.6	512.8	498.4											
A-11.7	06/06/2002	552.4	624.4	566.4												
A-12.7	06/06/2002	522.4	631.2	596	554	536.4	277.2									
A-13.7	06/06/2002	534.8	573.6	484	362.8	363.2										
A-14.7	06/06/2002	602	612	547.2	442.8	484.8										
A-15.7	06/06/2002	582	595.6	539.2	386.8											
A-16.7	06/06/2002	522.8	533.6	572.8	548	472										
A-17.7	06/06/2002	539.6	592	532	561.6	553.6	590	544.8								
A-18.7	06/06/2002	556.8	572	626.4	540	542.8	545.6	558.4	555.6	475.2	456.4					
A-19.2	06/06/2002	531.2	526.8	544.4	540.8	484										
A-19.45	06/06/2002	528.4	436	560.4	517.2	545.6	577.6									
A-19.7	06/06/2002	478.8														
A-20.3	06/06/2002	454	492	511.6	549.6	536.8										
A-21.3	06/06/2002	555.6	554.4	557.6	543.2	474.4	469.2									
A-22.3	06/06/2002	475.2	464	432	527.2	534.4	553.6									
A-23.3	06/06/2002	490.4	522	573.6	604.8	576.8	578.8									
A-23.8	06/06/2002	504	520.8	591.2	571.2	561.2	568.8	608								
A-24	06/06/2002	422.4														
A-24.5	06/06/2002	339.2	484.8	549.2	551.2	585.6	577.6	583.2								
A-25.5	06/06/2002	450.8	455.2	505.6	553.6	618.8	497.2	490	610.8							
A-29.5	06/06/2002	481.2	478.4	508.8	546	548	562.4	569.6	513.2	254.8	201.6	237.2	218.8	199.2	211.2	202.4

Temperature [deg C]																
Profile: Site A - left																
	Date	Depth below ground level (m)														
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7
A-0	06/06/2002	12														
A-0.7	06/06/2002	11.3														
A-1.7	06/06/2002	11.1	10.8													
A-2.7	06/06/2002	10.8	10.4													
A-3.7	06/06/2002	10.65	10.5	10.2	10.2											
A-4.7	06/06/2002	10.65	10.5	10.1												
A-5.7	06/06/2002	10.4	10.2	10.2												
A-6.7	06/06/2002	10.8	10.6	10.1	10.1											
A-7.7	06/06/2002	10.2	10.05	10												
A-8.7	06/06/2002	10.15	10	9.9												
A-9.7	06/06/2002	10.1	9.9	9.85	9.75											
A-10.7	06/06/2002	10.05	9.85	9.65	9.7											
A-11.7	06/06/2002	10.5	10.2	9.95												
A-12.7	06/06/2002	10.5	10.2	9.95	9.9	9.7	9.8									
A-13.7	06/06/2002	10.2	10.1	9.9	9.8	9.8										
A-14.7	06/06/2002	10.1	10	9.9	9.75	9.7										
A-15.7	06/06/2002	10.2	10	9.85	10											
A-16.7	06/06/2002	10.6	10.2	9.9	9.8	9.7										
A-17.7	06/06/2002	10.95	10.8	10.5	10.2	9.9	9.7	9.8								
A-18.7	06/06/2002	11.1	10.8	10.5	10.15	9.9	9.9	9.7	9.6	9.5	9.55					
A-19.2	06/06/2002	11.1	10.8	10.5	10.2	10.2										
A-19.45	06/06/2002	10.9	10.8	10.5	10.3	10	9.9									
A-19.7	06/06/2002	11.5														
A-20.3	06/06/2002	10.8	10.55	10.4	10.2	10.1										
A-21.3	06/06/2002	10.9	10.9	10.5	10.2	10	9.85									
A-22.3	06/06/2002	10.9	10.7	10.6	10.4	10	9.9									
A-23.3	06/06/2002	11.3	11.2	10.8	10.6	10.2	10									
A-23.8	06/06/2002	11.6	11.2	10.8	10.7	10.5	10.2	10								
A-24	06/06/2002	11.6														
A-24.5	06/06/2002	11.4	11.15	10.8	10.6	10.3	10.1	9.9								
A-25.5	06/06/2002	11.4	11.3	11	10.8	10.6	10.3	10	9.8							
A-29.5	06/06/2002	10.4	10.2	9.9	9.9	9.6	9.5	9.3	9.1	9	9	8.9	8.95	8.9	8.9	9.1

Electric Conductivity [uS/cm]													
Profile: Site A - right													
Prick	Date	Depth below ground level (m)											
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3
A-0	06/06/2002	554.4	565.2	630.4	659.2								
A-1	06/06/2002	618.4	524	677.6									
A-2	06/06/2002	553.2	615.6	628									
A-3	06/06/2002	560.4	591.2	637.2									
A-4	06/06/2002	471.2	545.2	591.6									
A-5	06/06/2002	532.4	539.6	566.4									
A-6	06/06/2002	551.6	646.4	522.8	564	634.4							
A-7	06/06/2002	489.2	524.8	534									
A-8	06/06/2002	596.8	620.8										
A-9	06/06/2002	584	579.2										
A-10	06/06/2002	567.6	568	562.4									
A-11	06/06/2002	545.6	637.2	609.6	583.2								
A-12	06/06/2002	504.8	461.6	499.2	359.2	278	584.4						
A-13	06/06/2002	273.2	298.8										
A-14	06/06/2002	296.4	329.6										
A-15	06/06/2002	299.6	348	452	457.6	530.8	590.8	597.2					
A-16	06/06/2002	285.2	363.2	514.4	567.6	526	507.2	555.6	601.6	600.4			
A-17	06/06/2002	336.4	410.8	377.2	425.6								
A-17.5	06/06/2002	550.8	423.2	475.2	516.8	578.8	577.6	559.2	546				
A-18	06/06/2002	554.4	537.6	514.8	485.2	563.2	577.6	556.8	533.6	557.6	569.2	562.4	
A-19	06/06/2002	513.6	509.2	531.2	607.2	591.6	557.2	456	408.8	355.6	309.6		
A-20	06/06/2002	552.8	527.2	431.6	596.8								
A-21	06/06/2002	587.6	525.2	546.8	554	529.6	589.2	609.2	592				
A-22	06/06/2002	541.2	516.4	570.4	559.6	623.2	630.8						
A-23	06/06/2002	439.6	452	489.6	513.6	499.6	501.6	418	623.6	648	646		
A-24	06/06/2002	475.2	464.8	505.2	478	418	437.2	477.2	617.2				
A-25	06/06/2002	586.8	558	568.4	517.6	520.8	510	522.4	588.4	370.8			
A-26	06/06/2002	412.8	419.6	433.2									
A-27	06/06/2002	405.2	389.2	440.4									
A-28	06/06/2002	390.8	460.8										
A-29	06/06/2002	384											
A-30	06/06/2002	426.4	314.4	369.2	501.6	544.4	584	569.6	597.6				

Temperature [deg C]												
Profile: Site A - right												
Prick	Date	Depth below ground level (m)										
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3
A-0	06/06/2002	11.15	11	10.8	10.7							
A-1	06/06/2002	11	10.6	10.3								
A-2	06/06/2002	11.2	11	11								
A-3	06/06/2002	11.4	11	10.8								
A-4	06/06/2002	11	10.7	10.5								
A-5	06/06/2002	11.5	10.6	10.5								
A-6	06/06/2002	11.5	11	10.75	10.5	10.4						
A-7	06/06/2002	11.3	10.8	10.8								
A-8	06/06/2002	11.3	11.1									
A-9	06/06/2002	11.3	10.6									
A-10	06/06/2002	10.7	10.35	10.25								
A-11	06/06/2002	10.5	10.4	10.2	10							
A-12	06/06/2002	10.4	10.1	10	10.1	9.8	9.7					
A-13	06/06/2002	11.3	11.2									
A-14	06/06/2002	11.5	11.3									
A-15	06/06/2002	11.8	11.3	11	10.8	10.5	10.1	9.9				
A-16	06/06/2002	11.1	10.85	10.6	10.4	10	9.9	9.8	9.5	9.55		
A-17	06/06/2002	10.8	10.7	10.6	10.5							
A-17.5	06/06/2002	10.8	10.5	10.4	10.25	10	9.8	9.6	9.5			
A-18	06/06/2002	10.7	10.4	10	9.9	9.7	9.5	9.35	9.3	9.2	9.2	9.1
A-19	06/06/2002	10.4	10.1	9.8	9.6	9.3	9.2	9.1	9.1	9.1	9.2	
A-20	06/06/2002	9.9	9.6	9.5	9.4							
A-21	06/06/2002	10.4	10.1	9.9	9.7	9.7	9.6	9.35	9.4			
A-22	06/06/2002	10.5	10.4	10.2	10	9.8	9.8					
A-23	06/06/2002	11	10.7	10.5	10.3	10.1	10	9.8	9.6	9.5	9.4	
A-24	06/06/2002	11	10.8	10.6	10.2	10	9.8	9.7	9.5			
A-25	06/06/2002	11.5	11.3	10.8	10.5	10.2	10	9.9	9.6	9.5		
A-26	06/06/2002	10.8	10.6	10.4								
A-27	06/06/2002	11	10.7	10.4								
A-28	06/06/2002	11	10.7									
A-29	06/06/2002	11.3										
A-30	06/06/2002	11.1	10.8	10.6	10.4	10.2	9.9	9.7	9.5			

Electric Conductivity [uS/cm]																										
Profile: Site C																										
Prick	Date	Depth below ground level (m)																								
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6
C-0	06/06/2002	416.4	438.8	467.2	505.6	572.4	611.6	587.2	635.2																	
C-15	06/06/2002	738.4	789.6	767.6	738.8	705.6	648	698.8	681.6	715.6	677.2	695.2	610	352.4												
C-16	06/06/2002	610	737.6	784.4	786.8	722	607.6	565.6	699.6	729.6	736.8	741.6	717.6	579.6	444											
C-17	06/06/2002	768.4	912	767.2	743.2	700.4	730.4	734.8	704.8	648.8	730	764.4	738.8	752	500.4											
C-18	06/06/2002	710.4	904	797.2	745.2	700	697.6	636	729.2	749.2	770.8	739.6	746	755.2	631.6	471.6										
C-19	06/06/2002	713.2	796	536	540.8	692.4	679.6	688.4	696	733.6	743.2	735.6	745.2	780.4	733.6	504	424.8									
C-20	06/06/2002	577.6	844	779.2	764.4	749.2	673.6	682.8	645.2	689.6	586.4	736	736.4	755.2	766.8	664.4	507.6									
C-21	06/06/2002	614.8	645.6	688.8	628.8	583.2	589.2	632.8	676	677.2	677.6	689.2	733.2	715.6	736	724	648.8	523.2								
C-22	06/06/2002	730.4	784	765.6	729.2	706.8	648.8	650.8	650.8	685.2	644.4	653.2	670.8	663.6	654	652	555.2	483.2								
C-23	06/06/2002	584.4	752.4	770.4	722.4	722	692.4	731.2	730	755.2	848	872	848	767.2	773.6	844	748	525.6								
C-24	06/06/2002	663.2	714.8	683.2	664	696	684.8	777.6	739.6	745.2	791.2	848	844	856	888	880	770.4	582								
C-25	06/06/2002	592	650.4	726.4	750	704.8	702.8	698	713.2	638.4	787.2	798	872	860	785.6	769.2	856	763.2	453.6							
C-26	06/06/2002	670.8	649.2	562.4	580	651.2	608	635.2	679.6	764	784.4	792	738.4	860	840	836	828	756.4	438	283.2						
C-27	06/06/2002	585.2	620.8	756.8	708.8	610.4	656	723.6	640.4	668	693.2	782.8	759.2	762	778.4	840	775.2	786.8	778.8	682.4						
C-28	06/06/2002	653.2	707.2	620.4	622.8	650.4	645.2	656	604.4	700.8	738.8	746.4	727.6	778.8	784.8	777.2	779.6	760	651.2	348.8						
C-29	06/06/2002	603.2	682	647.6	564.4	521.6	628	645.2	663.6	675.6	696.4	645.6	707.2	697.2	726.4	754.8	735.2	748	766	749.2	748	672	356			
C-30	06/06/2002	542	522.8	574.8	555.2	606	582.8	516	566	565.2	578.8	650.4	688	734	741.2	735.6	775.6	783.6	760.8	768.4	765.2	592.8				
C-31	06/06/2002	422	439.2	464.8	500.4	468.8	458.4	474.4	484.8	524	550	534.4	535.6	621.6	643.2	648.4	687.2	720.4	732.4	722	726	738	723.6	695.2	286.8	
C-31.7	06/06/2002	437.6	369.2	390.4	463.6	548.4	516	501.2	520.8	628.4	603.2	588	590	576	682.8	711.6	714	719.6	734.8	740.8	739.6	741.2	708	705.6		
C-41	06/06/2002	175.6	172.4	195.6	201.6	228	281.6	387.2	394.8	450.4	483.6	509.2	508.4	516	607.6	596	603.6	626.4	640	671.2	675.2	658.8	656.8	654	642.4	645.6
C-31.7	30/10/2002	403.2	426	442	546	568.4	537.2	552.4	540	632.4	654.8	615.6	658	676.4	713.6	724	741.2	731.6	732.8	733.6	729.6	716	708.4			

Temperature [deg C]

Profile: Site C																										
Prick	Date	Depth below ground level (m)																								
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5	2.6	2.7
C-0	06/06/2002	11	10.9	10.9	10.8	10.6	10.4	10.1	9.9																	
C-15	06/06/2002	12.3	12	11.75	11.4	11	10.8	10.5	10.2	9.9	9.75	9.5	9.25	9.05												
C-16	06/06/2002	12.15	12	11.9	11.6	11.3	10.8	10.5	10.2	10	9.7	9.5	9.3	9.1	9.1											
C-17	06/06/2002	12	12	11.8	11.5	11.1	10.8	10.6	10.3	10	9.9	9.6	9.5	9.2	9.1											
C-18	06/06/2002	11.9	11.8	11.6	11.3	11	10.7	10.4	10.1	9.9	9.7	9.6	9.4	9.2	8.95	8.9										
C-19	06/06/2002	11.7	11.5	11.4	11.4	11.2	10.8	10.6	10.2	9.9	9.7	9.5	9.4	9.15	9	8.9	8.9									
C-20	06/06/2002	11.5	11.2	11.1	10.8	10.65	10.5	10.2	10	9.8	9.5	9.2	9.1	8.9	8.9	8.8	8.8									
C-21	06/06/2002	12.5	11.9	11.2	10.85	10.5	10.2	9.8	9.75	9.5	9.3	9.2	9.1	8.9	8.9	8.8	8.75	8.6								
C-22	06/06/2002	12	11.6	11.3	10.9	10.7	10.5	10.1	9.8	9.6	9.4	9.3	9.2	9	9	8.9	8.9	8.8								
C-23	06/06/2002	12.1	11.65	11.4	11	10.8	10.5	10.3	10	9.7	9.6	9.3	9.2	9.1	9	8.9	8.8	8.8								
C-24	06/06/2002	11.4	11.3	11	10.8	10.6	10.3	10.1	9.9	9.7	9.4	9.3	9.3	9.1	9	8.9	8.9	8.9								
C-25	06/06/2002	11.9	11.7	11.3	11.1	10.8	10.5	10.12	10	9.6	9.5	9.2	9.1	9	9	8.9	8.9	8.8	8.9							
C-26	06/06/2002	11.7	11.55	11.1	10.8	10.6	10.35	10.1	9.9	9.6	9.5	9.2	9.1	9	9	8.9	8.9	8.8	8.8	8.7						
C-27	06/06/2002	12	11.6	11.4	11	10.7	10.45	10.2	9.9	9.8	9.5	9.2	9.2	8.9	8.9	8.8	8.7	8.7	8.7	8.7						
C-28	06/06/2002	11.9	11.5	11.2	10.8	10.5	10.1	10	9.8	9.6	9.5	9.2	9.1	8.95	8.9	8.9	8.8	8.8	8.9	8.9						
C-29	06/06/2002	11.9	11.6	11.5	11.3	10.9	10.6	10.4	10.2	9.85	9.6	9.55	9.2	9.1	9.1	9.05	8.9	8.9	8.8	8.9	8.9	8.9	8.9			
C-30	06/06/2002	12.1	11.9	11.5	11.3	11	10.6	10.4	10.2	9.9	9.6	9.45	9.3	9.2	9.1	8.95	8.9	8.8	8.7	8.8	8.7	8.9				
C-31	06/06/2002	12	11.9	11.7	11.5	11.1	10.9	10.6	10.35	10.1	10	9.75	9.65	9.5	9.3	9.2	9.1	8.9	8.9	8.9	8.9	8.8	8.8	8.8	8.9	
C-31.7	06/06/2002	12	11.7	11.5	11.2	10.9	10.75	10.5	10.25	10	9.8	9.7	9.5	9.3	9.1	9.1	8.9	8.9	8.9	8.9	8.8	8.85	8.8	8.7		
C-41	06/06/2002	12.4	11.9	11.3	11	10.6	10	9.7	9.4	9.2	8.9	8.9	8.8	8.6	8.6	8.5	8.4	8.3	8.4	8.4	8.4	8.4	8.5	8.5	8.6	8.6
C-31.7	30/10/2002	8.7	8.9	9.1	9.3	9.5	9.7	9.9	10	10.2	10.35	10.5	10.6	10.6	10.6	10.6	10.6	10.6	10.5	10.45	10.35	10.2	10.1			

Electric Conductivity [uS/cm]											
Profile: Site D											
Prick	Date	Depth below ground level (m)									
		0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1
D-0	06/06/2002	589.2	622.4								
D-1	06/06/2002	562.8	558	530	592.4						
D-2	06/06/2002	442.8	427.6								
D-3	06/06/2002	477.6									
D-4	06/06/2002	560.8									
D-5	06/06/2002	528.8									
D-6	06/06/2002	500.8	512.4								
D-7	06/06/2002	583.2									
D-8	06/06/2002	500									
D-9	06/06/2002	448.4									
D-10	06/06/2002	543.2	536								
D-11	06/06/2002	496									
D-12	06/06/2002	614.4	490								
D-13	06/06/2002	542.4	514.8	524							
D-14	06/06/2002	548.8	452.4	416.4							
D-15	06/06/2002	427.2	432.4	428							
D-16	06/06/2002	482.8	485.6	420.8							
D-17	06/06/2002	447.6	413.6	429.6							
D-18	06/06/2002	471.2	506.4	336.4	286.8						
D-19	06/06/2002	550.4	634.8	470.8	454.8	534.8	509.2				
D-20	06/06/2002	493.2	601.2	486.8	366.8	353.2					
D-21	06/06/2002	506.4	600	494.8	481.2	458.4	304				
D-22	06/06/2002	548.8	612.4	580.8	573.2	461.6	444.8	349.6	323.2		
D-23	06/06/2002	413.2	551.2	563.6	457.6	544.8	548.8	480.8			
D-24	06/06/2002	358.4	456.4	506	542	642.4	676	494.4			
D-25	06/06/2002	267.2	349.2	371.6	490.4	522.4	556.4	631.2			
D-26	06/06/2002	217.6	223.2	284.4	353.6	360.4	410.4	467.2	498	457.2	395.2
D-27	06/06/2002	260	331.6	371.6	464.4	489.2	500.4	557.6	601.2	363.2	245.2
D-27	30/10/2002	332.4	357.2	432.4	447.2	441.6	453.2	539.6	573.6	427.6	252.8

Temperature [deg C]											
Profile: Site D											
Prick	Date	Depth below ground level (m)									
		0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2
D-0	06/06/2002	12.3	12.1								
D-1	06/06/2002	12.1	11.8	11.5	11.2						
D-2	06/06/2002	11.6	10.95								
D-3	06/06/2002	11.3									
D-4	06/06/2002	11.3									
D-5	06/06/2002	11.5									
D-6	06/06/2002	11.3	11.05								
D-7	06/06/2002	11.3									
D-8	06/06/2002	11.3									
D-9	06/06/2002	11.4									
D-10	06/06/2002	11.45	11.05								
D-11	06/06/2002	11.3									
D-12	06/06/2002	11.3	11.1								
D-13	06/06/2002	11.5	10.9	10.9							
D-14	06/06/2002	11.8	11.3	11.25							
D-15	06/06/2002	11.9	11.35	11.1							
D-16	06/06/2002	11.5	11.3	11							
D-17	06/06/2002	11.8	11.4	11.2							
D-18	06/06/2002	12.2	11.6	11.4	11.3						
D-19	06/06/2002	12.7	11.9	11.5	11.4	11.1	11.1				
D-20	06/06/2002	12.4	11.7	11.4	10.9	10.95					
D-21	06/06/2002	12.2	11.8	11.6	11.3	11	10.9				
D-22	06/06/2002	12.3	11.9	11.5	11.3	10.9	10.75	10.8	10.6		
D-23	06/06/2002	12.7	12	11.6	11.3	11	10.75	10.6			
D-24	06/06/2002	12.7	12.3	11.9	11.5	11.3	10.8	10.5			
D-25	06/06/2002	12.7	12.1	11.8	11.35	10.9	10.6	10.45			
D-26	06/06/2002	12.7	12.3	11.95	11.6	11.3	11	10.7	10.5	10.2	10
D-27	06/06/2002	11.6	11.3	11.2	10.9	10.7	10.5	10.2	9.9	9.8	9.7
D-27	30/10/2002	8.6	8.8	8.95	9.25	9.5	9.6	9.9	10.1	10.3	10.5

APPENDIX 17

Water level data - Intensive Quadrate A

In this appendix, water level data from Intensive Quadrate A are presented in a tabular form. Data were collected from top of the casing, which was surveyed using the GPS technology. Data are presented with regard to the Poolbeg datum.

	Sp30	Sp30A	Sp31	Sp31A	Sp32	Sp32A	Sp33	Sp33A	Sp34	Sp34A	Sp34B	Sp35	Sp35A	Sp35B	Sp36	Sp36A	Sp36B	Sp37	Sp37A	Sp37B	Sp38	Sp38A	Sp38B
GL mOD	**89.23**	**89.21**	**89.08**	**89.04**	**89.28**	**89.32**	**88.16**	**88.18**	**88.03**	**88.02**	**87.99**	**87.99**	**88.07**	**88.06**	**87.42**	**87.40**	**87.44**	**87.10**	**86.99**	**87.07**	**87.35**		**87.36**
TOC mOD	**89.83**	**89.72**	**89.53**	**89.69**	**89.71**	**89.32**	**89.20**	**88.55**	**89.10**	**88.46**	**88.72**	**89.17**	**88.48**	**88.71**	**89.52**	**87.81**	**87.99**	**89.10**	**87.11**	**87.47**	**88.32**	**88.24**	**88.35**
15-Feb-01	89.16	89.15	89.19	89.01	89.26	88.24	89.18	88.48	89.05	88.20	88.05	89.01	88.13	88.00	89.02	87.59	87.49	89.10	87.11	87.47	88.32		88.35
28-Feb-01	89.16	89.15	89.20	88.98	89.28	88.24	89.19	88.49	89.06	88.19	88.05	89.02	88.11	88.01	89.03	87.60	87.49	89.10	87.11	87.47	88.32		88.35
15-May-01	89.02	89.00	89.05	88.87	89.12	88.09	89.02	88.40	88.91	88.15	88.06	88.87	88.08	88.09	88.87	87.55	87.48	89.10	87.11	87.47	88.32		88.35
30-May-01	88.97	88.95	89.02	88.82	89.08	88.06	88.86	88.38	88.87	88.13	88.04	88.83	88.05	87.98	88.83	87.53	87.45	88.72	86.50	86.95	87.85		88.14
14-Jun-01	89.03	88.83	89.00	88.81	89.06	88.02	88.85	88.36	88.85	88.11	88.05	88.75	88.04	88.08	88.81	87.51	87.48	88.71		86.95	87.80		
2-Jul-01	88.91	88.88	88.94	88.77	88.76	87.98	88.87	88.33	88.74	88.08	88.05		88.02	88.09	88.66	87.45	87.48	88.56		86.94			
17-Jul-01	88.86	88.84	88.93	88.78	88.96	87.93	88.81	88.20	88.67	88.07	88.08	88.70	87.99	87.94	88.72	87.47	87.41	88.48		86.95			
31-Jul-01	88.82	88.81	88.85	88.72	88.91	87.89	88.75	88.26	88.67	88.06	87.94	88.63	87.91	87.84	88.66	87.44	87.34	88.44	86.52	86.93			87.29
13-Aug-01	88.82	89.01	88.82	88.68	88.89	87.85	88.72	88.26	88.67	88.06	88.00	88.61	88.01	88.00	88.64	87.45	87.46	88.43	86.40	86.96			87.27
30-Aug-01	88.75	88.73	88.81	88.64	89.19	88.44	88.42	87.98	88.63	87.99	87.91	88.69	88.15		88.59	87.47	87.60	88.46	86.46	86.94			87.37
13-Sep-01	88.74	88.76	88.83	88.66	89.15	88.39	88.60	88.13	88.57	88.01	88.08	88.63	88.13		88.60	87.33	87.47	88.38		86.98			87.36
26-Sep-01	88.67	88.66	88.69	88.58	88.74	87.72	88.58	88.07	88.49	87.98	88.08	88.60	88.11		88.50	87.45	87.48	88.41	86.50	86.99			
9-Oct-01	88.73	88.71	88.80	88.67	89.20	87.78	88.58	88.07	88.66	88.02	88.01	88.67	88.03	87.97	88.63	87.50	87.47	88.42		86.97			87.34
23-Oct-01	88.82	89.05	88.65	88.57	88.60	88.01	88.56	88.15	88.47	87.99	87.99	88.55	87.99	87.94	88.18	87.45	87.49	88.30	86.47	86.98			87.37
7-Nov-01	88.77		88.63	88.49	88.59	88.07	88.53	88.13	88.44	87.99	88.04	88.37	87.97	88.05	88.41	87.45	87.48	88.77		86.97			87.41
26-Nov-01	88.73	88.96	88.59	88.50	88.51	88.01	88.47	88.10	88.36	87.95	87.95	88.28	87.95	88.01	88.36	87.27	87.58	89.10		86.97			87.39
11-Dec-01	88.54	88.58	88.66	88.56	88.62		88.47	88.13	88.40	88.00	88.05	88.33	87.98	88.04	88.36	87.49	87.48	88.25		86.98			87.42
4-Jan-02	88.75		88.62	88.51	88.59		88.46	88.12	88.37	87.99	88.00	88.30	88.01	88.08	88.31	87.43	87.47	88.30		86.98			87.36
16-Jan-02	88.49	88.48	88.50	88.44	88.56		88.42	88.06	88.34	87.92	87.95	88.43	87.88		88.31	87.39	87.45	88.37		86.94			87.38
31-Jan-02	88.52	88.56	88.51	88.52	88.58		88.42	88.12	88.36	87.99	88.05	88.29	87.78	88.20	88.32	87.43	87.47	88.22		86.98			87.37
14-Feb-02	88.62	88.66	88.66	88.58	88.70		88.52	88.15	88.34	87.92	87.98	88.41	87.98		88.40	87.44	87.46	88.31		86.95			87.54
6-Mar-02	88.75	88.77	88.72	88.72	88.81		88.68	88.22	88.61	88.05	88.01	88.42	87.99		88.51	87.46	87.48	88.38		86.94			87.53
27-Mar-02	88.77	88.77	88.82	88.69	88.86		88.74	88.25	88.64	88.05	87.98	88.40	88.00		88.60	87.47	87.44	88.52		86.92			87.56
10-Apr-02	88.78	88.77	88.83	88.68	88.86		88.74	88.24	88.63	88.04	88.00	88.38	87.99		88.60	87.45	87.41	88.52		86.93			87.57
24-Apr-02	88.76	88.77	88.74	88.69	88.85		88.73	88.24	88.63	88.05	87.98	88.41	87.97		88.59	87.48	87.46	88.51		86.94			87.62
7-May-02	88.76	88.77	88.76	88.72	88.84		88.71	88.24	88.62	88.06	88.00	88.45	87.98		88.57	87.49	87.48	88.49		86.93			87.61
25-May-02	88.75	88.75	88.80	88.65	88.83		88.70	88.25	88.62	88.06	88.03	88.43	88.00		88.55	87.36	87.47	88.47		86.93			87.62
10-Jun-02	88.74	88.71			88.82		88.69	88.23	88.60	88.04	87.98	88.40	88.00		88.55	87.47	87.45	88.49		86.94			87.60
25-Jun-02	88.71	88.71	88.78	88.63	88.65		88.66	88.21	88.58	88.01	87.96	88.35	87.98		88.53	87.45	87.40	88.45		86.93			87.58
12-Jul-02	88.68	88.70	88.75	88.61	88.66	89.32	88.65	88.18	88.60	88.01	87.95	88.37	87.96	88.71	88.52	87.41	87.37	88.44		86.93			87.57
25-Jul-02	88.66	88.67	88.71	88.67	88.74		88.61	88.19	88.53	88.02	88.00	88.41	87.96		88.49	87.46	87.47	88.41		87.13			87.53
28-Aug-02	88.62	88.61	88.67	88.54	88.70		88.55	88.14	88.48	87.96	87.89	88.22	87.83		88.43	87.38	87.32	88.36	87.10	86.91			87.52
11-Sep-02	88.57	88.57	88.62	88.50	88.65		88.52	88.11	88.44	87.94	87.90	88.28	87.87		88.40	87.38	87.38	88.32	87.09	86.92			87.51
25-Sep-02	88.53	88.52	88.57	88.46	88.60		88.47	88.08	88.39	87.89	87.85	88.17	87.77		88.35	87.34	87.27	88.28	87.05	86.92			87.47
9-Oct-02	88.51	88.51		88.49	88.58		88.43	88.12		87.89	87.99	88.47	87.96		88.33	87.34	87.47	88.26	87.10	86.97			87.51
22-Oct-02	88.55	88.63	88.59	88.61	88.61		88.43	88.06	88.38	87.99	88.00	88.42	87.99		88.33	87.44	87.47	88.26	87.10	86.99			87.34

	Sp30	Sp30A	Sp31	Sp31A	Sp32	Sp32A	Sp33	Sp33A	Sp34	Sp34A	Sp34B	Sp35	Sp35A	Sp35B	Sp36	Sp36A	Sp36B	Sp37	Sp37A	Sp37B	Sp38	Sp38A	Sp38B
GL mOD	89.23	89.21	89.08	89.04	89.28	89.32	88.16	88.18	88.03	88.02	87.99	87.99	88.07	88.06	87.42	87.40	87.44	87.10	86.99	87.07	87.35		87.36
TOC mOD	89.83	89.72	89.53	89.69	89.71	89.32	89.20	88.55	89.10	88.46	88.72	89.17	88.48	88.71	89.52	87.81	87.99	89.10	87.11	87.47	88.32	88.24	88.35
5-Nov-02	88.57	88.62	88.60	88.54	88.63		88.45	88.13	88.40	87.98	87.97	88.41	88.00		88.35	87.45	87.47	88.27		86.95			87.25
20-Nov-02	88.73	88.78	88.77	88.70	88.80		88.60	88.23	88.55	88.04	88.01	88.43	88.00		88.49	87.48	87.48	88.41		86.95			87.32
9-Dec-02	88.85	88.86	88.89	88.76	88.93		88.79	88.30	88.70	88.08	88.00	88.42	88.03		88.66	87.51	87.48	88.56		86.95			87.33
3-Feb-03	89.01	89.00	89.05	88.87	89.09		88.97	88.40	88.78	88.23	88.03	88.45	88.07		88.74	87.54	87.48	88.58		87.00			87.35
12-Feb-03	89.00	89.00	89.04	88.89	89.08		88.97	88.39	88.78	88.23	88.03	88.45	88.07		88.82	87.60	87.48	88.58		87.10			87.35
4-Mar-03	88.98	88.99	89.04	88.89	89.09		88.96	88.39	88.78	88.21	88.02	88.42	88.03		88.82	87.53	87.47	88.57		87.09			87.36
19-Mar-03	88.94	88.94	88.99	88.83	89.03		88.90	88.36	88.76	88.17	88.01	88.45	88.04		88.78	87.52	87.47	88.53		86.95			87.29
3-Apr-03	88.95	88.93	88.99	88.83	89.03		88.90	88.36	88.77	88.16	88.03	88.46	88.06		88.77	87.52	87.49	88.59		87.04			87.32
16-Apr-03	88.89	88.89	88.94	88.77	88.97		88.85	88.30	88.72	88.11	87.98	88.41	88.03		88.70	87.49	87.45	88.56		86.99			87.26
29-Apr-03	88.86	88.86	88.90	88.77	88.94		88.80	88.31	88.72	88.09	88.02	88.46	88.04		88.68	87.50	87.48	88.59		86.95			87.31
15-May-03	88.81	88.81	88.86	88.73	88.91		88.76	88.28	88.66	88.08	88.00	88.44	88.03		88.64	87.49	87.47	88.54		86.94			87.29
26-May-03	88.78	88.79	88.83	88.69	88.86		88.72	88.25	88.63	88.05	87.96	88.41	88.00		88.59	87.47	87.45	88.51		86.93			87.24
10-Jun-03	88.73	88.74	88.78	88.69	88.81		88.66	88.24	88.59	88.05	88.01	88.43	88.00		88.55	87.48	87.48	88.46		86.94			87.28
25-Jun-03	88.69	88.66	88.73	88.57	88.75		88.62	88.16	88.53	87.93	87.82		87.79		88.47	87.36	87.24	88.41	87.10	86.91			87.13
8-Jul-03	88.65	88.66	88.69	88.59	88.73		88.58	88.17	88.50	87.99	88.04	88.34	87.92		88.35	87.42	87.42	88.26		86.92			87.22
24-Jul-03	88.62	88.62	88.66	88.55	88.69		88.52	88.14	88.47	87.96	87.91	88.38	87.93		88.33	87.41	87.42	88.23		86.92			87.20
5-Aug-03	88.59	88.57	88.64	88.49	88.66		88.49	88.10	88.45	87.89	87.80	88.39	87.79	87.74	88.30	87.35	87.32	88.20		86.91			87.14
20-Aug-03	88.58	88.56	88.61	88.48	88.64	89.32	88.46	88.10	88.42	87.88	87.75	88.36	87.72	87.64		87.33	87.20		87.11	86.91	88.32		87.09
1-Sep-03	88.64	88.44	88.59	88.46	88.60	89.32	88.34	88.08	88.40	87.87	87.80	88.34	87.71	87.64	88.26	87.32	87.20	88.17		86.91	88.32		87.09
18-Sep-03	88.62	88.42	88.56	88.44	88.60	89.32	88.31	88.07	88.38	87.87	87.80	88.31	87.74	87.68	88.23	87.34	87.26	88.15		86.91			87.09
28-Sep-03	88.62	88.40	88.55	88.45	88.58	89.32	88.31	88.13	88.36	87.90	87.86	88.30	87.79	87.74	88.22	87.35	87.32	88.13		87.02	88.32		87.13
21/10/03	88.58	88.37	88.52	88.42	88.55	89.32	88.36	88.06	88.33	87.89	87.86	88.27	87.79	87.75	88.19	87.35	87.34	88.10		86.92	88.32		87.12
4-Nov-03		88.36	88.51	88.47	88.54	89.32	88.36	88.07	88.32	87.93	87.95	88.26	87.94	87.93	88.17	87.41	87.46	88.09		86.94	88.32		87.18
18-Nov-03	88.58	88.24	88.49	88.41	88.52	89.32	88.29	88.05	88.30	87.91	87.93	88.23	87.92	87.91	88.15	87.39	87.46	88.07		86.92	88.32		87.17
4-Dec-03	88.56	88.33	88.47	88.40	88.50		88.29	88.05	88.28	87.90	87.90	88.21	87.91	87.88	88.13	87.37	87.45	88.05		86.95		87.35	87.16
16-Dec-03	88.55	88.31	88.46	88.39	88.49		88.29	88.02	88.26	87.89	87.89	88.20	87.91	87.88	88.12	87.37	87.45	88.04		86.94		87.34	87.15
8-Jan-04	88.64	88.37		88.67	88.54		88.33	88.09	88.30	87.97	88.04	88.23	87.94	87.99	88.15	87.44	87.48	87.35		86.95		87.38	87.30
23/01/04	88.69	88.45	88.59	88.51			88.31	88.11		87.96	88.00	88.31	87.95	87.93	88.23	87.41	87.47			86.93		87.39	87.20
4-Feb-04	88.70	88.57	88.64	88.54			88.39	88.15	88.30	87.97	87.99	88.38	87.94	87.91	88.29	87.41	87.46			86.93		87.41	87.19
19-Feb-04	88.71	88.66	88.69	88.59			88.54	88.17	88.50	87.98	87.95	88.44	87.93	87.89	88.35	87.42	87.44			86.93		87.43	87.18
4-Mar-04	88.69	88.70	88.74	88.67	88.76		88.59	88.21	88.54	88.04	88.01	88.49	88.03	87.96	88.40	87.47	87.47			86.95		87.49	87.25
30-Mar-04	88.70	88.70	88.73	88.61			88.60	88.20	88.55	88.01	87.96	88.49	87.95	87.91	88.40	87.44	87.44			86.93		87.48	87.18
7-Apr-04	88.69	88.70	88.73	88.63	88.77		88.59	88.20	88.54	88.02	87.97	88.48	87.99	87.94	88.40	87.45	87.45			86.93		87.49	87.20
20-Apr-04	88.69	88.71	88.73	88.66	88.81		88.58	88.21	88.54	88.04	88.01	88.48	88.00			87.47	87.47			86.95		87.49	87.24

	Sp30	Sp30A	Sp31	Sp31A	Sp32	Sp32A	Sp33	Sp33A	Sp34	Sp34A	Sp34B	Sp35	Sp35A	Sp35B	Sp36	Sp36A	Sp36B	Sp37	Sp37A	Sp37B	Sp38	Sp38A	Sp38B
GL mOD	**89.23**	**89.21**	**89.08**	**89.04**	**89.28**	**89.32**	**88.16**	**88.18**	**88.03**	**88.02**	**87.99**	**87.99**	**88.07**	**88.06**	**87.42**	**87.40**	**87.44**	**87.10**	**86.99**	**87.07**	**87.35**		**87.36**
TOC mOD	**89.83**	**89.72**	**89.53**	**89.69**	**89.71**	**89.32**	**89.20**	**88.55**	**89.10**	**88.46**	**88.72**	**89.17**	**88.48**	**88.71**	**89.52**	**87.81**	**87.99**	**89.10**	**87.11**	**87.47**	**88.32**	**88.24**	**88.35**
10-May-04			88.68	88.58					88.49	87.99	87.94												
26-May-04			88.65	88.52																			
2-Jun-04			88.64	88.52					88.46	87.95	87.90												
12-Jun-04			88.64	88.52						87.93	87.88												
25-Jun-04			88.62	88.51					88.46	87.94	87.85												
6-Jul-04			88.61	88.52					88.41	87.96	87.94												
19-Jul-04			88.56	88.45					88.35	87.90	87.85												
4-Aug-04	88.49	88.50	88.54	88.46		89.32		88.07	88.33	88.00	87.91	88.28	87.70	87.75		87.37	87.35			86.91		87.36	87.21
18-Aug-04			88.53	88.51					88.30	88.05	88.01												
25-Aug-04			88.50	88.43					88.30	87.99	87.90												
19-Sep-04			88.45	88.38						87.81	87.97												
5-Oct-04			88.42	88.41		89.32		88.55	88.21	87.82	88.00									87.47		88.24	88.35
12-Oct-04			88.42	88.32					88.21	87.75	87.93							Art	Art	87.47	Art	88.24	88.35
20-Oct-04			88.40	88.41					88.19	87.80	87.99							Art	Art	87.47	Art	88.24	88.35
28-Oct-04			88.42	88.56					88.19	87.87	88.06							Art	Art	87.47	Art	88.24	88.35
4-Nov-04			88.38	88.33					88.17	87.76	88.02							Art	Art	87.47	Art	88.24	88.35
17-Nov-04			88.37	88.29					88.15	87.73	87.90							Art	Art	87.47	Art	88.24	88.35
8-Dec-04			88.35	88.30					88.14	87.74	87.93							Art	Art	87.47	Art	88.24	88.35
10-Jan-05			88.40	88.37					88.15	87.80	87.96							Art	Art	87.47	Art	88.24	88.35
11-Jan-05			88.42	88.39					88.20	87.81	87.98							Art	Art	87.47	Art	88.24	88.35
31-Jan-05			88.48	88.39					88.24	87.80	87.99							Art	Art	87.47	Art	88.24	88.35
10-Feb-05			88.49	88.42					88.21	87.83	87.94												
27-Feb-05			88.52	88.45					88.31	87.85	87.91												
16-Mar-05			88.55	88.48					88.42	87.65	87.96												
31-Mar-05			88.54	88.46					88.35	87.85	87.93												
4-Apr-05			88.56	88.48					88.44	87.78	87.98												
19-Apr-05			88.57	88.51					88.35	87.76	87.92												
9-May-05			88.57	88.46					88.36	87.84	87.85												
24-May-05			88.57	88.52					88.36	87.89	87.98												
8-Jun-05			88.61	88.45					88.34	87.81	87.81												
10-Jun-05			88.55	88.43								88.31	87.76	87.64		87.33	87.28						
15-Jun-05	88.52	88.51										88.31	87.77	87.63		87.34	87.28						
21-Jun-05	88.51	88.48	88.55	88.40					88.33	87.74	87.72	88.30	87.68	87.71		87.30	87.18						
18-Jul-05	88.47	88.45	88.51	88.39					88.31	87.75	87.74	88.26	87.75	87.66		87.30	87.18						
5-Aug-05	88.45	88.45	88.49	88.42					88.26	87.84	87.92	88.24	87.90	87.89		87.39	87.46						
19-Aug-05	88.43	88.42	88.46	88.40					88.26	87.83	87.93	88.21	87.90	87.83		87.39	87.44						
25-Aug-05			88.49	88.41					88.41	87.71	87.96	89.17	88.48			87.81	87.99						

	Sp30	Sp30A	Sp31	Sp31A	Sp32	Sp32A	Sp33	Sp33A	Sp34	Sp34A	Sp34B	Sp35	Sp35A	Sp35B	Sp36	Sp36A	Sp36B	Sp37	Sp37A	Sp37B	Sp38	Sp38A	Sp38B
GL mOD	89.23	89.21	89.08	89.04	89.28	89.32	88.16	88.18	88.03	88.02	87.99	87.99	88.07	88.06	87.42	87.40	87.44	87.10	86.99	87.07	87.35		87.36
TOC mOD	89.83	89.72	89.53	89.69	89.71	89.32	89.20	88.55	89.10	88.46	88.72	89.17	88.48	88.71	89.52	87.81	87.99	89.10	87.11	87.47	88.32	88.24	88.35
1-Sep-05			88.46	88.34					88.33	87.68	87.80	89.17	88.48			87.81	87.99						
15-Sep-05	88.37	88.37	88.41	88.36					88.19	87.83	87.94	88.18	87.84	87.81		87.36	87.42						

APPENDIX 18

Groundwater flow analysis within Intensive Quadrate A

This appendix contains numerical results of the groundwater flow analysis within site A. The methodology and summary of the results are presented in Volume I.

Deep screens																				
hydraulic conductivity	k (gravel) =	1.21E-05	[m/s]																	
distance:	Sp32Sp33	35.10			Sp31Sp34	32.50			Sp30Sp35	27.11			Sp34Sp37	21.70			Sp35Sp36	24.11		
depth of standpipe	5	8			7	6			7.00	9			6	7			9	8		
elevation	89.282	88.163			89.077	88.031			89.23	87.99			88.031	87.095			87.99	87.418		
	Sp32	Sp33	gradient	Specific discharge	Sp31	Sp34	gradient	Specific discharge	Sp30	Sp35	gradient	Specific discharge	Sp34	Sp37	gradient	Specific discharge	Sp35	Sp36	gradient	Specific discharge
October-01	88.90	88.57	0.009	0.00000011	88.724	88.566	0.005	0.00000006	88.78	88.61	0.01	0.0000001	88.57	88.36	0.010	0.00000012	88.61	88.40	0.008	0.0000001
November-01	88.55	88.50	0.001	0.00000002	88.609	88.401	0.006	0.00000008	88.75	88.32	0.02	0.0000002	88.40				88.32	88.38	-0.003	0.0000000
December-01	88.62	88.47	0.004	0.00000005	88.66	88.40	0.008	0.00000010	88.54	88.33	0.01	0.0000001	88.40	88.25	0.007	0.00000009	88.33	88.36	-0.001	0.0000000
January-02	88.58	88.44	0.004	0.00000005	88.56	88.36	0.006	0.00000008	88.62	88.36	0.01	0.0000001	88.36	88.33	0.001	0.00000001	88.36	88.31	0.002	0.0000000
February-02	88.64	88.47	0.005	0.00000006	88.58	88.35	0.007	0.00000009	88.57	88.35	0.01	0.0000001	88.35	88.26	0.004	0.00000005	88.35	88.36	0.000	0.0000000
March-02	88.84	88.71	0.004	0.00000004	88.77	88.63	0.004	0.00000005	88.76	88.41	0.01	0.0000002	88.63	88.45	0.008	0.00000010	88.41	88.55	-0.006	-0.0000001
April-02	88.86	88.74	0.003	0.00000004	88.78	88.63	0.005	0.00000006	88.77	88.39	0.01	0.0000002	88.63	88.51	0.006	0.00000007	88.39	88.59	-0.008	-0.0000001
May-02	88.84	88.71	0.004	0.00000005	88.78	88.62	0.005	0.00000006	88.76	88.44	0.01	0.0000001	88.62	88.48	0.007	0.00000008	88.44	88.56	-0.005	-0.0000001
June-02	88.74	88.68	0.002	0.00000002	88.78	88.59	0.006	0.00000007	88.73	88.37	0.01	0.0000002	88.59	88.47	0.006	0.00000007	88.37	88.54	-0.007	-0.0000001
July-02	88.70	88.63	0.002	0.00000002	88.73	88.57	0.005	0.00000006	88.67	88.39	0.01	0.0000001	88.57	88.42	0.007	0.00000008	88.39	88.50	-0.005	-0.0000001
August-02	88.70	88.55	0.004	0.00000005	88.67	88.48	0.006	0.00000007	88.62	88.22	0.01	0.0000002	88.48	88.36	0.006	0.00000007	88.22	88.43	-0.009	-0.0000001
September-02	88.63	88.50	0.004	0.00000005	88.59	88.42	0.005	0.00000007	88.55	88.22	0.01	0.0000001	88.42	88.30	0.006	0.00000007	88.22	88.37	-0.006	-0.0000001
October-02	88.60	88.43	0.005	0.00000006	88.59	88.38	0.006	0.00000008	88.53	88.44	0.00	0.0000000	88.38	88.26	0.006	0.00000007	88.44	88.33	0.005	0.0000001
November-02	88.72	88.53	0.005	0.00000007	88.68	88.48	0.006	0.00000008	88.65	88.42	0.01	0.0000001	88.48	88.34	0.006	0.00000008	88.42	88.42	0.000	0.0000000
December-02	88.93	88.79	0.004	0.00000005	88.89	88.70	0.006	0.00000007	88.85	88.42	0.02	0.0000002	88.70	88.56	0.007	0.00000008	88.42	88.66	-0.010	-0.0000001
January-03	88.99	88.88	0.003	0.00000004	88.97	88.74	0.007	0.00000009	88.93	88.43	0.02	0.0000002	88.74	88.57	0.008	0.00000009	88.43	88.72	-0.012	-0.0000001
February-03	89.09	88.97	0.003	0.00000004	89.04	88.78	0.008	0.00000010	89.01	88.45	0.02	0.0000003	88.78	88.58	0.009	0.00000011	88.45	88.78	-0.014	-0.0000002
March-03	89.06	88.93	0.004	0.00000005	89.01	88.77	0.007	0.00000009	88.96	88.43	0.02	0.0000002	88.77	88.55	0.010	0.00000013	88.43	88.80	-0.015	-0.0000002
April-03	88.98	88.85	0.004	0.00000005	88.94	88.74	0.006	0.00000008	88.90	88.44	0.02	0.0000002	88.74	88.58	0.007	0.00000009	88.44	88.71	-0.011	-0.0000001
May-03	88.89	88.74	0.004	0.00000005	88.84	88.65	0.006	0.00000007	88.80	88.42	0.01	0.0000002	88.65	88.52	0.006	0.00000007	88.42	88.61	-0.008	-0.0000001
June-03	88.78	88.64	0.004	0.00000005	88.75	88.56	0.006	0.00000007	88.71	88.43	0.01	0.0000001	88.56	88.43	0.006	0.00000007	88.43	88.51	-0.003	0.0000000
July-03	88.71	88.55	0.005	0.00000006	88.67	88.49	0.006	0.00000007	88.64	88.36	0.01	0.0000001	88.49	88.25	0.011	0.00000013	88.36	88.34	0.001	0.0000000
August-03	88.65	88.48	0.005	0.00000006	88.62	88.44	0.006	0.00000007	88.59	88.37	0.01	0.0000001	88.44	88.20	0.011	0.00000013	88.37	88.30	0.003	0.0000000
September-03	88.59	88.32	0.008	0.00000009	88.57	88.38	0.006	0.00000007	88.63	88.31	0.01	0.0000001	88.38	88.15	0.011	0.00000013	88.31	88.24	0.003	0.0000000
October-03	88.55	88.36	0.005	0.00000007	88.52	88.33	0.006	0.00000007	88.58	88.27	0.01	0.0000001	88.33	88.10	0.011	0.00000013	88.27	88.19	0.003	0.0000000
November-03	88.53	88.33	0.006	0.00000007	88.50	88.31	0.006	0.00000007	88.58	88.24	0.01	0.0000002	88.31	88.08	0.011	0.00000013	88.24	88.16	0.003	0.0000000
December-03	88.50	88.29	0.006	0.00000007	88.46	88.27	0.006	0.00000007	88.56	88.20	0.01	0.0000002	88.27	88.04	0.011	0.00000013	88.20	88.12	0.003	0.0000000
January-04	88.54	88.32	0.006	0.00000008	88.59	88.30	0.009	0.00000011	88.67	88.27	0.01	0.0000002	88.30	87.35	0.044	0.00000053	88.27	88.19	0.003	0.0000000
February-04		88.47			88.66	88.40	0.008	0.00000010	88.71	88.41	0.01	0.0000001	88.40				88.41	88.32	0.004	0.0000000
March-04	88.76	88.59	0.005	0.00000006	88.73	88.55	0.006	0.00000007	88.70	88.49	0.01	0.0000001	88.55				88.49	88.40	0.004	0.0000000
April-04	88.79	88.59	0.006	0.00000007	88.73	88.54	0.006	0.00000007	88.69	88.48	0.01	0.0000001	88.54				88.48	88.40	0.003	0.0000000
May-04					88.66	88.49	0.005	0.00000006					88.49							
June-04					88.63	88.46	0.005	0.00000006					88.46							
July-04					88.58	88.38	0.006	0.00000008					88.38							
August-04					88.52	88.31	0.007	0.00000008	88.49	88.28	0.01	0.0000001	88.31				88.28			
September-04					88.45	88.20	0.008	0.00000009		88.20							88.20			
October-04					88.42	88.20	0.007	0.00000008					88.20							
November-04					88.37	88.16	0.007	0.00000008					88.16							
December-04					88.35	88.14	0.006	0.00000008		88.07			88.14				88.07			
January-05					88.43	88.20	0.007	0.00000009		88.15			88.20				88.15			
February-05					88.50															
March-05					88.54	88.39	0.005	0.00000006					88.39							
April-05					88.56	88.396	0.005	0.00000006					88.40							
May-05					88.57	88.361	0.006	0.00000008					88.36							
June-05					88.57	88.336	0.007	0.00000009		88.30			88.34				88.30			
July-05					88.51	88.311	0.006	0.00000007		88.26			88.31				88.26			
August-05					88.48	88.311	0.005	0.00000006		88.22			88.31				88.22			
September-05					88.43	88.261	0.005	0.00000006		88.18			88.26				88.18			
max	89.09	88.97	0.00943020	0.00000011	89.04	88.78	0.00886154	0.00000011	89.01	88.61	0.02069347	0.00000025	88.78	88.58	0.04382488	0.00000053	88.607	88.798	0.00846122	0.00000010
min	88.50	88.29	0.00145299	0.00000002	88.35	88.14	0.00440000	0.00000005	88.49	88.20	0.00335669	0.00000004	88.27	87.35	0.00119816	0.00000001	88.200	88.123	-0.01518042	-0.00000018
average	88.74	88.58	0.00447871	0.00000005	88.64	88.44	0.00616050	0.00000007	88.70	88.37	0.01197974	0.00000014	88.50	88.32	0.00893952	0.00000011	88.368	88.437	-0.00251647	-0.00000003
			[m/year]	1.709			[m/year]	2.351			[m/year]	4.571			[m/year]	3.411			[m/year]	-0.960
			[m/month]	0.140			[m/month]	0.193			[m/month]	0.376			[m/month]	0.280			[m/month]	-0.079
			[m/day]	0.005			[m/day]	0.006			[m/day]	0.013			[m/day]	0.009			[m/day]	-0.003

Middle screens																
hydraulic conductivity	k (gravel) =	1.21E-05	[m/s]													
distance	Sp33Sp38	31.91			Sp31Sp34	32.50			Sp30Sp35	27.11			Sp35Sp36	24.11		
depth of standpipe	4	3			2	3			3	3			3	4		
Surface elevation	88.181	88.35			98.036	88.022			89.21	87.395			87.395	87.395		
	Sp33A	38A	gradient	Specific discharge	Sp31A	Sp34A	gradient	Specific discharge	Sp30A	Sp35A	gradient	Specific discharge	Sp35A	Sp36A	gradient	Specific discharge
October-01	88.1	87.4	0.021	0.00000025	88.62	88.01	0.019	0.00000023	88.88	88.01	0.032	0.00000039	88.01	87.48	0.022	0.00000027
November-01	88.1	87.4	0.022	0.00000026	88.50	87.97	0.016	0.00000020	88.96	87.96	0.037	0.00000044	87.96	87.36	0.025	0.00000030
December-01	88.1	87.4	0.023	0.00000028	88.56	88.00	0.017	0.00000021	88.58	87.98	0.022	0.00000027	87.98	87.49	0.020	0.00000025
January-02	88.1	87.4	0.023	0.00000028	88.48	87.97	0.016	0.00000019	88.48	87.95	0.020	0.00000024	87.95	87.41	0.022	0.00000027
February-02	88.1	87.1	0.032	0.00000038	88.55	87.92	0.019	0.00000023	88.61	87.88	0.027	0.00000032	87.88	87.44	0.018	0.00000022
March-02	88.2	87.2	0.032	0.00000039	88.71	88.05	0.020	0.00000024	88.77	88.00	0.028	0.00000034	88.00	87.47	0.022	0.00000027
April-02	88.2	87.2	0.032	0.00000038	88.69	88.05	0.020	0.00000024	88.77	87.98	0.029	0.00000035	87.98	87.47	0.021	0.00000026
May-02	88.2	87.2	0.032	0.00000039	88.69	88.06	0.019	0.00000023	88.76	87.99	0.028	0.00000034	87.99	87.43	0.023	0.00000028
June-02	88.2	87.3	0.030	0.00000036	88.63	88.03	0.019	0.00000023	88.71	87.99	0.026	0.00000032	87.99	87.46	0.022	0.00000027
July-02	88.2	87.3	0.030	0.00000036	88.64	88.03	0.019	0.00000023	88.68	87.96	0.027	0.00000032	87.96	87.44	0.022	0.00000026
August-02	88.1	87.2	0.031	0.00000037	88.54	87.96	0.018	0.00000022	88.61	87.83	0.029	0.00000035	87.83	87.38	0.019	0.00000023
September-02	88.1	87.1	0.031	0.00000038	88.48	87.92	0.017	0.00000021	88.54	87.82	0.027	0.00000032	87.82	87.36	0.019	0.00000023
October-02	88.1	87.3	0.024	0.00000029	88.55	87.94	0.019	0.00000023	88.57	87.98	0.022	0.00000026	87.98	87.39	0.024	0.00000029
November-02	88.2	87.4	0.025	0.00000030	88.62	88.01	0.019	0.00000023	88.70	88.00	0.026	0.00000031	88.00	87.47	0.022	0.00000027
December-02	88.3				88.76	88.08	0.021	0.00000025	88.86	88.03	0.031	0.00000037	88.03	87.51	0.022	0.00000026
January-03					88.82	88.16	0.020	0.00000025	88.88	88.05	0.031	0.00000037	88.05	87.54	0.021	0.00000026
February-03	88.4				88.88	88.23	0.020	0.00000024	89.00	88.07	0.034	0.00000041	88.07	87.57	0.021	0.00000025
March-03	88.4	87.4	0.031	0.00000037	88.86	88.19	0.021	0.00000025	88.96	88.04	0.034	0.00000041	88.04	87.53	0.021	0.00000026
April-03	88.3	87.4	0.028	0.00000034	88.79	88.12	0.021	0.00000025	88.89	88.05	0.031	0.00000038	88.05	87.51	0.022	0.00000027
May-03	88.3	87.4	0.028	0.00000033	88.71	88.07	0.020	0.00000024	88.80	88.02	0.029	0.00000035	88.02	87.48	0.022	0.00000027
June-03	88.2	87.4	0.025	0.00000030	88.63	87.99	0.020	0.00000024	88.70	87.90	0.030	0.00000036	87.90	87.42	0.020	0.00000024
July-03	88.2		2.763	0.00003343	88.57	87.98	0.018	0.00000022	88.64	87.93	0.026	0.00000032	87.93	87.42	0.021	0.00000026
August-03	88.1	87.4	0.022	0.00000027	88.49	87.89	0.018	0.00000022	88.56	87.76	0.030	0.00000036	87.76	87.34	0.017	0.00000021
September-03	88.1	87.4	0.022	0.00000027	88.45	87.88	0.018	0.00000021	88.42	87.75	0.025	0.00000030	87.75	87.34	0.017	0.00000021
October-03	88.1	87.4	0.022	0.00000026	88.42	87.89	0.016	0.00000020	88.37	87.79	0.021	0.00000026	87.79	87.35	0.018	0.00000022
November-03	88.1	87.4	0.021	0.00000026	88.44	87.92	0.016	0.00000019	88.30	87.93	0.014	0.00000016	87.93	87.40	0.022	0.00000027
December-03	88.0	87.3	0.021	0.00000026	88.40	87.90	0.015	0.00000019	88.32	87.91	0.015	0.00000018	87.91	87.37	0.022	0.00000027
January-04	88.1	87.4	0.022	0.00000027	88.59	87.97	0.019	0.00000023	88.41	87.95	0.017	0.00000021	87.95	87.43	0.022	0.00000026
February-04	88.2	87.4	0.023	0.00000028	88.57	87.98	0.018	0.00000022	88.61	87.94	0.025	0.00000030	87.94	87.42	0.022	0.00000026
March-04	88.2	87.5	0.022	0.00000027	88.64	88.03	0.019	0.00000023	88.70	87.99	0.026	0.00000032	87.99	87.46	0.022	0.00000027
April-04	88.2	87.5	0.022	0.00000027	88.65	88.03	0.019	0.00000023	88.70	88.00	0.026	0.00000032	88.00	87.46	0.022	0.00000027
May-04					88.55	87.99	0.017	0.00000021								
June-04					88.52	87.94	0.018	0.00000022								
July-04					88.49	87.93	0.017	0.00000021								
August-04	88.066	87.36	0.022	0.00000027	88.47	88.00	0.014	0.00000017	88.50	87.70	0.029	0.00000036	87.70	87.37	0.014	0.00000017
September-04					88.38	87.89	0.015	0.00000018								
October-04					88.43	87.81	0.019	0.00000023								
November-04					88.31	87.75	0.017	0.00000021								
December-04					88.30	87.74	0.017	0.00000021		87.78			87.78			
January-05					88.38	87.80	0.018	0.00000022		88.09			88.09			
February-05					88.44											
March-05					88.47	87.85	0.019	0.00000023								
April-05					88.50	87.77	0.022	0.00000027								
May-05					88.49	87.87	0.019	0.00000023								
June-05					88.43	87.78	0.020	0.00000024	88.49	87.74	0.028	0.00000034	87.74	87.33	0.017	0.00000021
July-05					88.39	87.75	0.020	0.00000024	88.45	87.75	0.026	0.00000031	87.75	87.30	0.019	0.00000023
August-05					88.41	87.80	0.019	0.00000023	88.43	87.90	0.020	0.00000024	87.90	87.39	0.021	0.00000026
September-05					88.35	87.76	0.018	0.00000022	88.37	87.84	0.019	0.00000024	87.84	87.36	0.020	0.00000024
max	88.39	87.49	2.7625666	0.0000334	88.88	88.23	0.0222769	0.0000003	89.00	88.09	0.0367761	0.0000004	88.09	87.57	0.0248445	0.0000003
min	88.03	87.10	0.0207145	0.0000003	88.30	87.74	0.0143692	0.0000002	88.30	87.70	0.0135374	0.0000002	87.70	87.30	0.0136458	0.0000002
average	88.17	87.34	0.1200879	0.0000015	88.55	87.95	0.0184548	0.0000002	88.64	87.93	0.0262477	0.0000003	87.93	87.43	0.0207306	0.0000003
			[m/year]	45.824			[m/year]	7.042			[m/year]	10.016			[m/year]	7.910
			[m/month]	3.766			[m/month]	0.579			[m/month]	0.823			[m/month]	0.650
			[m/day]	0.126			[m/day]	0.019			[m/day]	0.027			[m/day]	0.022

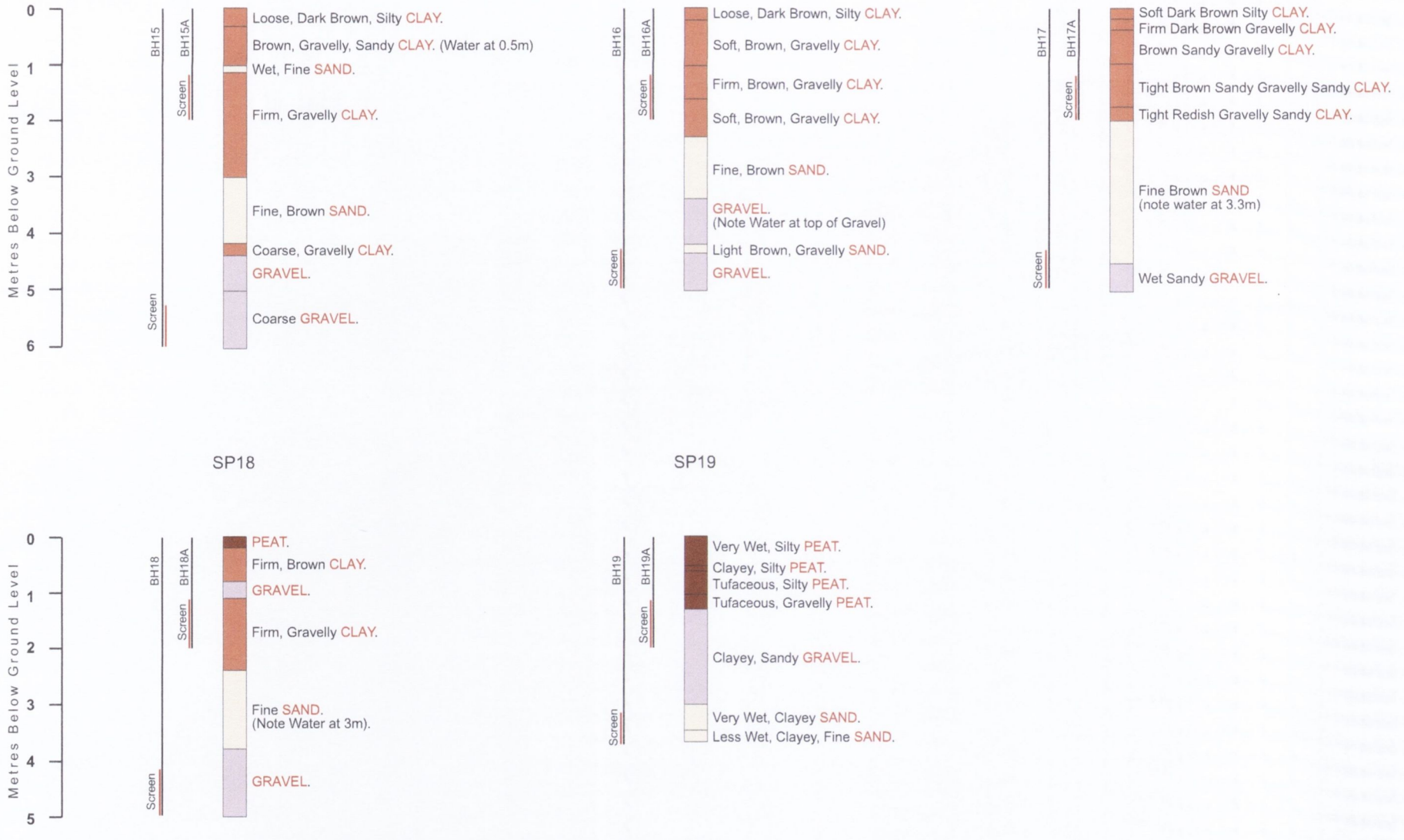
Phreatic level												
hydraulic conductivity	k	1.19E-06	m/sec									
distance	S10Sp34	22.2			Sp35Sp36 =	24.11			Sp34Sp37 =	21.7		
depth of standpipe	0.90	1			1	1			1	1		
elevation	88.55	87.989			88.055	87.435			87.989	87.071		
	s10	Sp34B	gradient	flow per unit width	Sp35B	Sp36B	gradient	flow per unit width	Sp34B	Sp37B	gradient	flow per unit width
October-01	88.47	88.00	0.02081	0.000000031	87.96	87.48	0.020	0.000000031	88.00	86.97	0.048	0.000000084
November-01					88.03	87.53	0.021	0.000000035	88.00	86.97	0.048	0.000000084
December-01	88.46	88.05	0.01833	0.000000028	88.04	87.48	0.024	0.000000038	88.05	86.98	0.050	0.000000089
January-02	88.39	87.98	0.01871	0.000000027	88.08	87.46	0.026	0.000000042	87.98	86.96	0.047	0.000000082
February-02	88.44	88.02	0.01901	0.000000028	88.20	87.46	0.031	0.000000052	88.02	86.96	0.049	0.000000086
March-02	88.45	88.00	0.02036	0.000000030		87.46			88.00	86.93	0.049	0.000000086
April-02	88.45	87.99	0.02036	0.000000030		87.43			87.99	86.93	0.049	0.000000085
May-02	88.45	88.02	0.01946	0.000000029		87.47			88.02	86.93	0.050	0.000000088
June-02	88.44	87.97	0.02081	0.000000030		87.42			87.97	86.93	0.048	0.000000083
July-02	88.44	87.98	0.02081	0.000000030		87.42			87.98	87.03	0.044	0.000000078
August-02	88.37	87.89	0.02149	0.000000029		87.32			87.89	86.91	0.045	0.000000076
September-02	88.32	87.88	0.01968	0.000000026		87.32			87.88	86.92	0.044	0.000000074
October-02	88.46	88.00	0.02081	0.000000031		87.47			88.00	86.98	0.047	0.000000083
November-02	88.43	87.99	0.01946	0.000000028		87.47			87.99	86.95	0.048	0.000000084
December-02	88.46	88.00	0.02059	0.000000030		87.48			88.00	86.95	0.049	0.000000085
January-03						88.47			88.02	87.00	0.047	0.000000084
February-03	88.48	88.03	0.01991	0.000000030		87.48			88.03	87.05	0.045	0.000000083
March-03	88.48	88.02	0.02059	0.000000031		87.47			88.02	87.02	0.046	0.000000083
April-03	88.48	88.01	0.02089	0.000000031		87.47			88.01	86.99	0.047	0.000000084
May-03	88.46	87.98	0.02149	0.000000031		87.46			87.98	86.93	0.048	0.000000084
June-03	88.41	87.92	0.02194	0.000000031		87.36			87.92	86.92	0.046	0.000000078
July-03	88.39	87.98	0.01856	0.000000026		87.42			87.98	86.92	0.049	0.000000084
August-03	88.29	87.78	0.02306	0.000000029	87.69	87.26	0.018	0.000000023	87.78	86.91	0.040	0.000000064
September-03	88.28	87.82	0.02059	0.000000026	87.69	87.26	0.018	0.000000023	87.82	86.94	0.041	0.000000067
October-03	88.30	87.86	0.01968	0.000000026	87.75	87.34	0.017	0.000000024	87.86	86.92	0.044	0.000000072
November-03	88.27	87.94	0.01473	0.000000020	87.92	87.46	0.019	0.000000030	87.94	86.93	0.047	0.000000080
December-03	88.25	87.90	0.01586	0.000000020	87.88	87.45	0.018	0.000000027	87.90	86.94	0.044	0.000000074
January-04	88.41	88.02	0.01721	0.000000025	87.96	87.47	0.020	0.000000032	88.02	86.94	0.050	0.000000088
February-04	88.40	87.97	0.01923	0.000000027	87.90	87.45	0.019	0.000000029	87.97	86.93	0.048	0.000000083
March-04	88.43	87.99	0.01968	0.000000028	87.94	87.45	0.020	0.000000031	87.99	86.94	0.048	0.000000084
April-04	88.42	87.99	0.01901	0.000000027	87.94	87.46	0.020	0.000000031	87.99	86.94	0.049	0.000000085
May-04	88.36	87.94	0.01856	0.000000026					87.94			
June-04	88.35	87.88	0.02096	0.000000028					87.88			
July-04	88.37	87.90	0.02104	0.000000029					87.90			
August-04	88.33	87.94	0.01730	0.000000024	87.75	87.35	0.017	0.000000023	87.94	86.91	0.048	0.000000081
September-04	88.23	87.97	0.01171	0.000000015					87.97			
October-04		88.00							88.00			
November-04	88.15	87.96	0.00849	0.000000011					87.96			
December-04	88.14	87.93	0.00932	0.000000012	87.70				87.93			
January-05	88.21	87.98	0.01038	0.000000014					87.98			
February-05	88.28											
March-05	88.34	87.95	0.01766	0.000000024					87.95			
April-05	88.34	87.95	0.01743	0.000000024					87.95			
May-05	88.36	87.92	0.01991	0.000000027					87.92			
June-05	88.28	87.77	0.02306	0.000000028	87.66	87.24	0.017	0.000000022	87.77			
July-05		87.74			87.66	87.18	0.020	0.000000024	87.74			
August-05		87.94			87.84	87.46	0.016	0.000000023	87.94			
September-05		87.87			87.81	87.42	0.016	0.000000024	87.87			
max	88.48	88.05	0.02306306	0.00000003	88.20	88.47	0.03077561	0.00000005	88.05	87.05	0.0503226	0.0000001
min	88.14	87.74	0.00849099	0.00000001	87.66	87.18	0.01567814	0.00000002	87.74	86.91	0.0401843	0.0000001
average	88.37	87.95	0.01875430	0.00000003	87.87	87.44	0.01988801	0.00000003	87.95	86.95	0.0469614	0.0000001
			[m2/year]	0.828			[m2/year]	0.936			[m2/year]	2.572
			[m2/month]	0.068			[m2/month]	0.077			[m2/month]	0.211
			[m2/day]	0.002			[m2/day]	0.003			[m2/day]	0.007

VERTICAL												
hydraulic conductivity	k (mean) =	4.71E-07	[m/s]	k (mean) =	5.44E-07	[m/s]	k (mean) =	3.00E-07	[m/s]	k (mean) =	2.82E-07	[m/s]
depth of sp	7	0.90		3	1		3	1		4	1	
elevation	89.077	88.55		88.02	87.99		87.395	88.06		87.395	87.44	
	Sp31	s10	Specifc discharge	Sp34A	Sp34B	Specifc discharge	Sp35A	Sp35B	Specifc discharge	Sp36A	Sp36B	Specifc discharge
October-01	88.724	88.47	2.00E-08	88.01	88.00	5.44E-10	88.01	87.96	7.94E-09	87.48	87.48	9.39E-11
November-01	88.609			87.97	88.00	-7.62E-09	87.96	88.03	-1.08E-08	87.36	87.53	-1.54E-08
December-01	88.659	88.46	1.54E-08	88.00	88.05	-1.44E-08	87.98	88.04	-9.29E-09	87.49	87.48	1.50E-09
January-02	88.559	88.39	1.28E-08	87.97	88.00	-9.89E-09	87.95	88.08	-2.05E-08	87.41	87.46	-4.13E-09
February-02	88.584	88.44	1.11E-08	87.92	87.98	-1.72E-08	87.88	88.20	-4.82E-08	87.44	87.46	-2.25E-09
March-02	88.769	88.45	2.47E-08	88.05	88.00	1.42E-08	88.00			87.47	87.46	1.03E-09
April-02	88.784	88.45	2.62E-08	88.05	87.99	1.42E-08	87.98			87.47	87.43	3.38E-09
May-02	88.779	88.45	2.54E-08	88.06	88.02	1.14E-08	87.99			87.43	87.47	-4.13E-09
June-02	88.779	88.44	2.66E-08	88.03	87.97	1.42E-08	87.99			87.46	87.42	3.85E-09
July-02	88.729	88.44	2.23E-08	88.03	87.97	1.42E-08	87.96			87.44	87.42	1.97E-09
August-02	88.669	88.37	2.31E-08	87.96	87.89	1.82E-08	87.83			87.38	87.32	6.20E-09
September-02	88.594	88.32	2.16E-08	87.92	87.88	1.01E-08	87.82			87.36	87.32	3.85E-09
October-02	88.589	88.46	9.97E-09	87.94	88.00	-1.58E-08	87.98			87.39	87.47	-6.95E-09
November-02	88.684	88.43	2.00E-08	88.01	87.99	4.63E-09	88.00			87.47	87.47	-3.76E-10
December-02	88.889	88.46	3.32E-08	88.08	88.00	2.10E-08	88.03			87.51	87.48	3.38E-09
January-03	88.97						88.05			87.54	88.47	-8.73E-08
February-03	89.04	88.48	4.40E-08	88.23	88.03	5.36E-08	88.07			87.57	87.48	9.02E-09
March-03	89.01	88.48	4.17E-08	88.19	88.02	4.68E-08	88.04			87.53	87.47	5.73E-09
April-03	88.94	88.48	3.60E-08	88.12	88.01	2.91E-08	88.05			87.51	87.47	3.38E-09
May-03	88.84	88.46	2.97E-08	88.07	87.98	2.23E-08	88.02			87.48	87.46	2.44E-09
June-03	88.75	88.41	2.70E-08	87.99	87.92	1.96E-08	87.90			87.42	87.36	6.20E-09
July-03	88.67	88.39	2.19E-08	87.98	87.98	-8.17E-10	87.93			87.42	87.42	9.39E-11
August-03	88.62	88.29	2.58E-08	87.89	87.78	2.91E-08	87.76	87.69	9.44E-09	87.34	87.26	8.08E-09
September-03	88.57	88.28	2.21E-08	87.88	87.82	1.55E-08	87.75	87.69	8.69E-09	87.34	87.26	7.76E-09
October-03	88.52	88.30	1.69E-08	87.89	87.86	7.35E-09	87.79	87.75	5.69E-09	87.35	87.34	1.50E-09
November-03	88.50	88.27	1.77E-08	87.92	87.94	-6.26E-09	87.93	87.92	1.20E-09	87.40	87.46	-5.07E-09
December-03	88.46	88.25	1.65E-08	87.90	87.90	-8.17E-10	87.91	87.88	4.57E-09	87.37	87.45	-6.95E-09
January-04	88.59	88.41	1.42E-08	87.97	88.02	-1.58E-08	87.95	87.96	-2.55E-09	87.43	87.47	-4.13E-09
February-04	88.66	88.40	2.04E-08	87.98	87.97	5.44E-10	87.94	87.90	4.94E-09	87.42	87.45	-2.72E-09
March-04	88.73	88.43	2.39E-08	88.03	87.99	1.01E-08	87.99	87.94	7.94E-09	87.46	87.45	5.63E-10
April-04	88.73	88.42	2.43E-08	88.03	87.99	1.01E-08	88.00	87.94	7.94E-09	87.46	87.46	5.63E-10
May-04	88.66	88.36	2.39E-08	87.99	87.94	1.28E-08						
June-04	88.63	88.35	2.22E-08	87.94	87.88	1.64E-08						
July-04	88.58	88.37	1.70E-08	87.93	87.90	8.71E-09						
August-04	88.52	88.33	1.53E-08	88.00	87.91	2.37E-08		87.75			87.35	
September-04	88.45	88.23	1.70E-08	87.89	88.00	-2.77E-08						
October-04	88.45	88.23	1.70E-08	87.81	88.00	-5.07E-08						
November-04	88.42			87.75	87.96	-5.89E-08						
December-04	88.37	88.15	1.73E-08	87.74	87.93	-5.25E-08	87.78	87.70	1.23E-08			
January-05	88.35	88.14	1.62E-08	87.80	87.98	-4.80E-08						
February-05	88.43	88.21	1.72E-08									
March-05	88.50	88.28	1.73E-08	87.85	87.95	-2.67E-08						
April-05	88.54	88.34	1.58E-08	87.77	87.95	-4.93E-08						
May-05	88.56	88.34	1.73E-08	87.87	87.92	-1.39E-08						
June-05	88.57	88.36	1.62E-08	87.78	87.77	2.45E-09	87.74	87.66	1.18E-08	87.33	87.24	7.76E-09
July-05	88.57	88.28	2.23E-08	87.75	87.74	2.45E-09	87.75	87.66	1.38E-08	87.30	87.18	1.18E-08
August-05	88.51			87.80	87.94	-3.93E-08	87.90	87.84	1.00E-08	87.39	87.46	-6.01E-09
September-05	88.48			87.76	87.87	-3.16E-08	87.84	87.81	4.79E-09	87.36	87.42	-5.07E-09
max	89.04	88.48	0.00000004	88.23	88.05	0.0000001	88.07	88.20	0.00000001	87.57	88.47	0.00000001
min	88.35	88.14	0.00000001	87.74	87.74	-0.0000001	87.74	87.66	-0.00000005	87.30	87.18	-0.00000009
average	88.64	88.36	0.00000002	87.94	87.95	-0.000000001	87.93	87.87	0.000000001	87.43	87.44	-0.000000002
		[m/year]	0.679		[m/year]	-0.037		[m/year]	0.0326		[m/year]	-0.0544
		[m/month]	0.056		[m/month]	-0.003		[m/month]	0.0027		[m/month]	-0.0045
		[m/day]	0.002		[m/day]	-0.0001		[m/day]	0.0001		[m/day]	-0.0001

APPENDIX 19

Geological cross-sections and well logs – Intensive Quadrate B

This appendix presents geological profiles across Intensive Quadrate B based on borehole logs drilled on site by K.T. Cullen Ltd. as described in chapter III-2. These maps and diagrams were produced by WYG Ltd. and are presented with their permission.



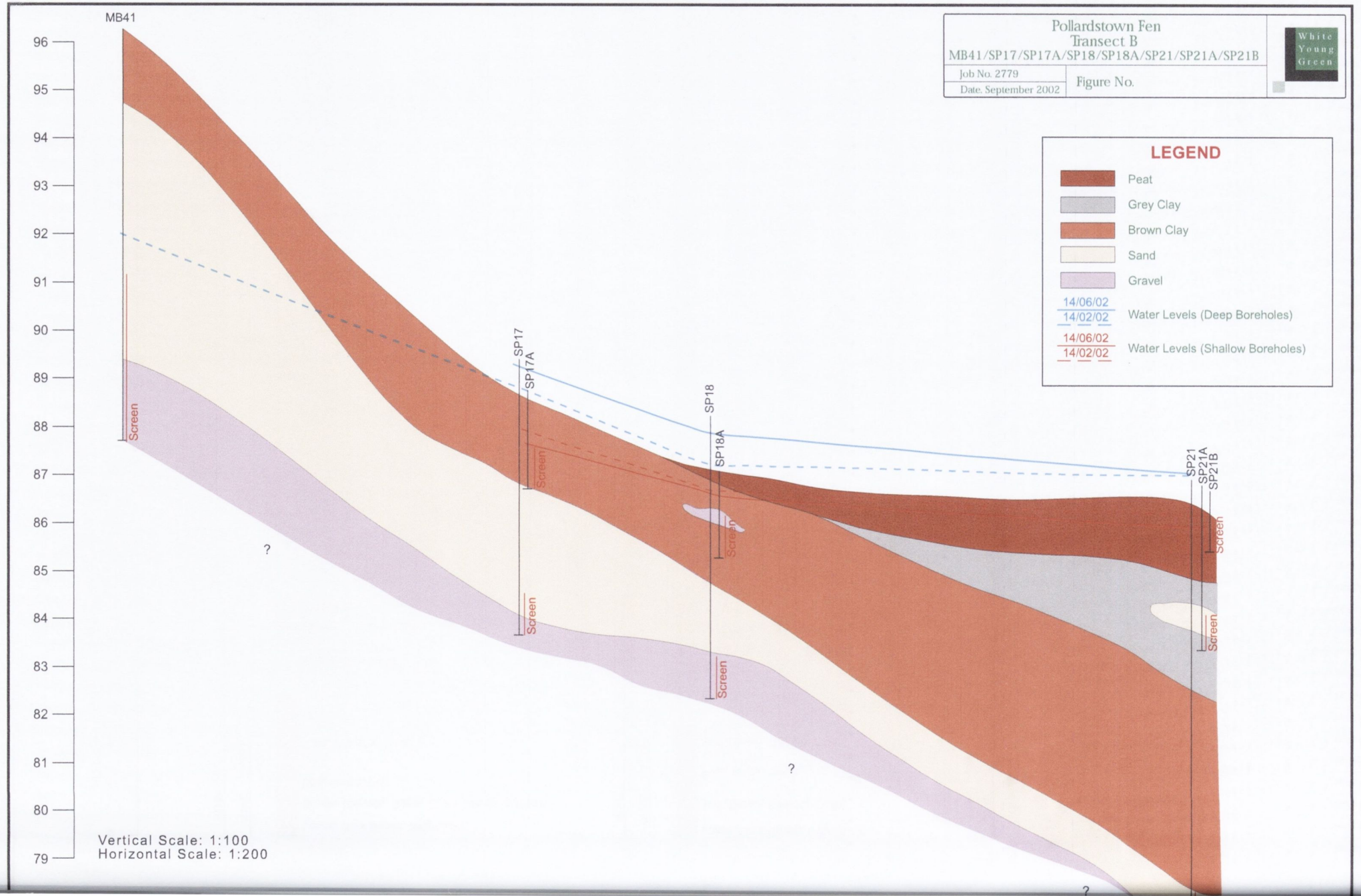
Pollardstown Fen
Site B, Boreholes SP15/SP16/SP17/SP18 & SP19

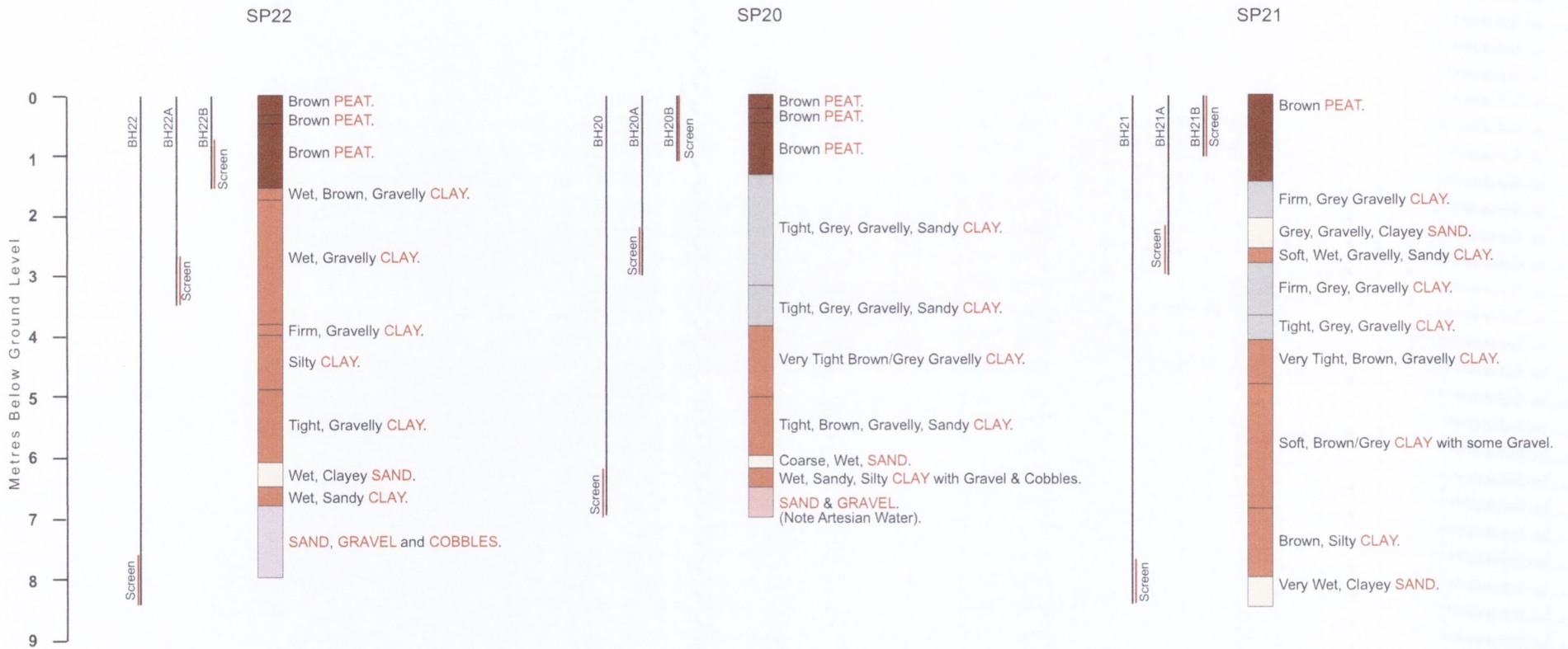
Job No. 2779
Date. September 2002

Figure No.

White Young Green

JF(8)


Pollardstown Fen
Transect B
MB41/SP17/SP17A/SP18/SP18A/SP21/SP21A/SP21B
Job No. 2779
Date. September 2002
Figure No.
White Young Green
LEGEND
Peat
Grey Clay
Brown Clay
Sand
Gravel
14/06/02
14/02/02
Water Levels (Deep Boreholes)
14/06/02
14/02/02
Water Levels (Shallow Boreholes)
MB41
SP17
SP17A
SP18
SP18A
SP21
SP21A
SP21B
Screen
?
96
95
94
93
92
91
90
89
88
87
86
85
84
83
82
81
80
79
Vertical Scale: 1:100
Horizontal Scale: 1:200



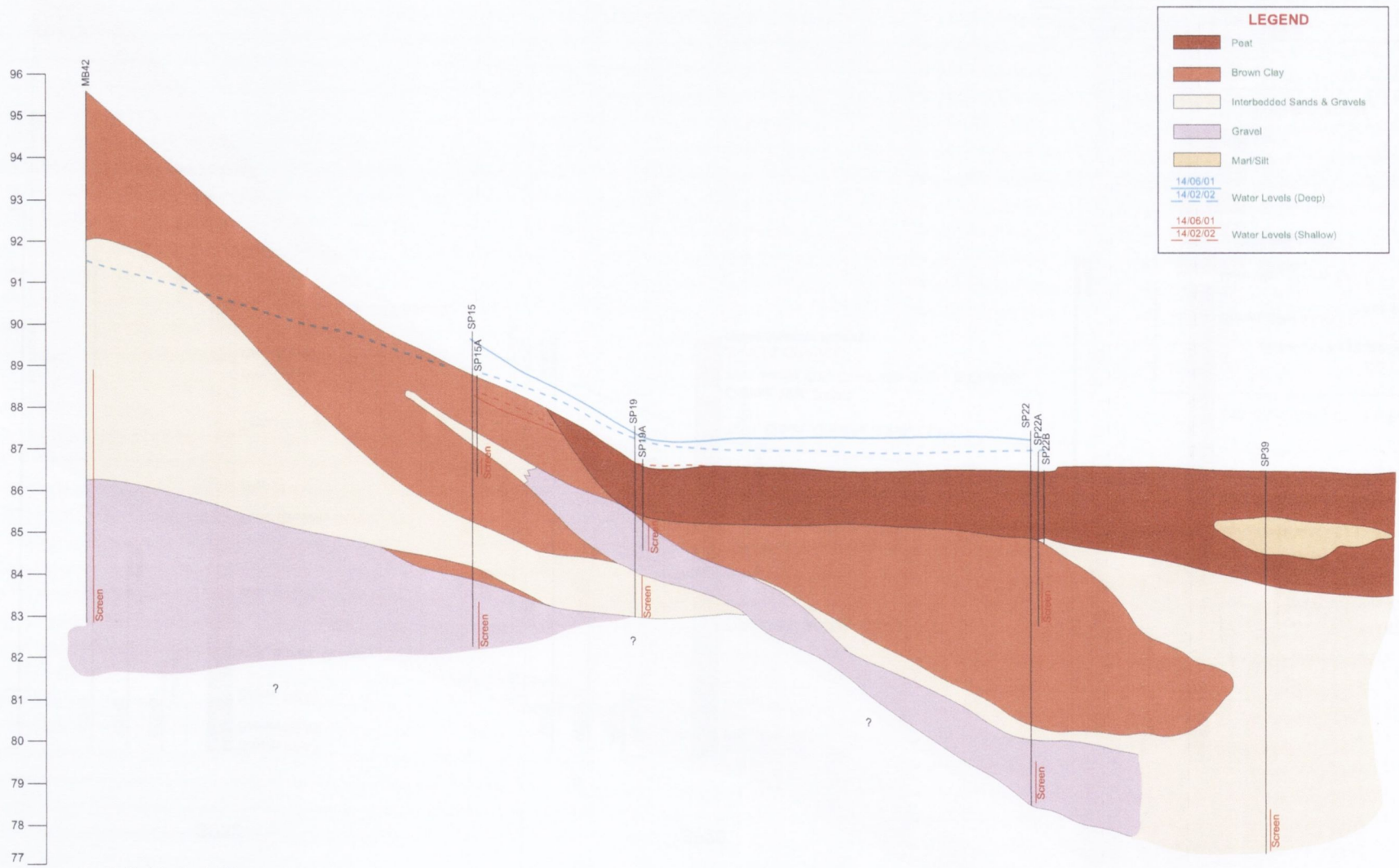
Pollardstown Fen
Site B, Boreholes SP20/SP21 & SP22

Job No. 2779
Date. September 2002

Figure No.

White Young Green

JF(8)



Pollardstown Fen

APPENDIX 20

Water level data – Intensive Quadrate B

In this appendix, water level data from Intensive Quadrate B are presented in a tabular form. Data were collected from to top of the casing, which was surveyed using the GPS technology. Data are presented with regard to the Poolbeg datum.

	Sp15	Sp16	Sp16A	Sp17	Sp17A	Sp18	Sp18A	Sp19	Sp19A	Sp20	Sp20A	Sp20B	Sp21	Sp21A	Sp21B	Sp22	Sp22A	Sp22B
GL mOD	88.76	88.57	88.63	88.64	88.63	87.22	87.21	86.79	86.50	86.42	86.36	86.44	86.41	86.38	86.08	86.71	86.88	86.81
ToC mOD	88.97	89.17	88.90	89.49	88.77	88.63	88.34	87.76	86.96	87.91	87.27	87.39	87.58	86.86	86.70	88.38	87.41	87.31
Date																		
20/11/2000	88.855	87.634	88.065	88.465	88.409	87.4	87.025	87.361	86.64	87.167	84.607	86.87	87.548	85.993	85.722	87.414	86.585	86.36
04/12/2000	88.895	87.654	88.655	88.655	88.419	87.39	87.115	87.381	86.65	87.162	85.967	86.25	87.558	86.113	85.842	87.444	86.55	86.51
21/12/2000		87.714	88.255	88.615	88.529	87.41	87.055	87.421	86.655	87.217	86.117	86.27	87.573	86.083	85.812	87.484	86.67	86.48
04/01/2001		87.754	88.185	88.585	88.584	87.475	87.045	87.456	86.66	87.227	86.087	86.21		86.023	85.752	87.514	86.585	86.45
24/01/2001		87.774	88.225	88.555	88.604	87.485	87.075	87.461	86.66	87.237	86.137	86.2		86.073	85.812	87.529	86.585	86.52
15/02/2001		87.754	87.975	88.465	88.624	87.49	87.005	87.466	86.65	87.242	86.167	86.13		85.983	85.712	87.524	86.61	86.405
28/02/2001		87.784	87.935	88.475	88.624	87.485	87.005	87.471	86.655	87.242	86.082	86.16		86.003	85.732	87.534	86.6	86.38
15/05/2001		87.744	87.675	88.225	88.544	87.49	87.005	87.441	86.65	87.217	85.987	86.07	87.558	85.933	85.662	87.484	86.6	86.39
30/05/2001		87.729	87.66	88.275	88.519	87.47	87	87.441	86.645	87.217	85.977	86.07		85.913	85.652	87.479	86.58	86.405
14/06/2001		87.724	87.645	88.155	88.489	87.46	86.915	-	-	87.207	85.967	86		85.848	85.572	87.464	86.53	86.35
02/07/2001		87.704	87.675	88.275	88.464	87.48	86.955	87.411	86.64	87.207	85.957	86.08		85.923	85.152	87.469	86.51	86.37
17/07/2001		87.684	87.63	88.225	88.434	87.46	86.925	87.381	86.635	87.187	85.967	86.01		85.903	85.612	87.444	86.54	86.35
01/08/2001		87.674	87.565	88.065	88.414	86.51	86.405	87.381	86.61	87.167	85.867	85.79		85.643	85.352	87.414	86.39	86.21
17/08/2001		87.684	88.025	88.495	88.374	87.46	86.925	87.381	86.635	87.187	85.967	86.01		86.018	85.792	87.444	86.54	86.35
28/08/2001		87.724	87.915	88.195	88.364	87.45	86.945	87.361	86.63	87.187	85.947	85.98	87.558	85.853	85.492	87.414	86.52	86.35
11/09/2001		87.724	87.885	88.165	88.374	87.46	86.945	87.341	86.63	87.152	85.907	86.02	87.538	85.793	85.562	87.404	86.53	86.32
26/09/2001		87.594	87.595	88.115	88.204	-	-	87.231	86.62	87.137	85.887	86.11	87.568	85.813	85.682	87.374	86.5	86.37
09/10/2001		87.594	88.165	88.475	88.294	-	87.225	87.321	86.6	87.137	86.147	86.17		86.163	85.752	87.374	86.67	86.44
23/10/2001		87.594	87.895	88.345	88.274	87.51	86.715	87.301	86.62	87.127	86.107	86.12		86.123	85.672	87.354	87.41	86.36
07/11/2001		87.564	87.905	87.825	88.254	87.59	86.755	87.301	86.61	87.117	86.047	86.08		86.103	85.722	87.344	86.55	86.37
26/11/2001		87.534	87.845	87.925	87.614	87.58	86.635	87.301	86.59	87.087	86.067	86.14		86.083	85.692	87.324	86.57	86.34
12/12/2001		87.514	87.785	88.105	88.204	87.57	86.635	87.301	86.58	87.087	86.087	86.13		86.063	85.672	87.384	86.56	86.32
04/01/2002		87.494	87.695	88.295	88.184	87.54	86.665	87.251	86.58	87.087	86.087	86.12		86.033	85.692	87.284	86.58	86.37
16/01/2002		87.494	87.785	88.395	88.174	87.57	86.675	87.251	86.56	87.047	86.067	86.18		86.003	85.732	87.294	86.56	86.38
31/01/2002		87.494	87.725	88.415	88.204	87.53	86.755	87.251	86.58	87.027	86.127	86.22	86.698	86.013	85.822	87.304	86.62	86.49
14/02/2002		87.554	88.055	88.365	88.244	-	-	87.351	86.48	87.047	86.227	86.13	86.748	86.493	85.692	87.324	86.57	86.4
06/03/2002		87.604	88.365	88.325	88.354	87.55	86.775	87.331	86.61	87.147	86.097	86.17		86.003	85.732	87.404	86.65	86.41
26/03/2002		87.644	87.785	87.775	88.364	87.63	86.665	87.341	86.6	87.157	86.047	86.14		86.043	85.832	87.394	86.59	86.37
10/04/2002		87.644	87.695	88.245	88.374	87.87	87.295	87.311	86.55	87.157	86.027	86.11	87.578	86.053	85.852	87.404	86.58	86.34
24/04/2002		87.604	88.025	88.235	88.364	87.6	86.585	87.351	86.61	87.157	86.077	86.1	87.558	85.973	85.672	87.414	86.59	86.37
08/05/2002		87.654	87.795	88.235	88.364	87.61	86.595	87.341	86.56	87.157	86.007	86.05		85.913	85.652	87.414	86.56	86.36
25/05/2002		87.664	87.915	88.255	88.364	87.61	86.755	87.351	86.61	87.157	86.057	86.12		85.943	85.722	87.414	86.61	86.39
13/06/2002		87.644	87.985	88.305	88.354	87.54	86.595	87.351	86.61	87.187	86.087	86.13		85.943	85.682	87.414	86.58	86.36
25/06/2002		87.644	87.725	88.185	88.344	87.57	86.595	87.361	86.61	87.167	85.937	86.14	87.578	85.943	85.622	87.414	86.54	86.33
12/07/2002	-	87.644	87.885	88.165	88.324	87.54	86.595	87.341	86.61	87.157	85.967	86.12	87.558	85.943	85.602	87.414	86.52	86.31
25/07/2002	-	87.614	87.885	88.295	88.294	87.57	86.735	87.341	86.6	87.157	86.037	86.13		85.993	85.702	87.364	86.61	86.39

	Sp15	Sp16	Sp16A	Sp17	Sp17A	Sp18	Sp18A	Sp19	Sp19A	Sp20	Sp20A	Sp20B	Sp21	Sp21A	Sp21B	Sp22	Sp22A	Sp22B
GL mOD	88.76	88.57	88.63	88.64	88.63	87.22	87.21	86.79	86.50	86.42	86.36	86.44	86.41	86.38	86.08	86.71	86.88	86.81
ToC mOD	88.97	89.17	88.90	89.49	88.77	88.63	88.34	87.76	86.96	87.91	87.27	87.39	87.58	86.86	86.70	88.38	87.41	87.31
27/08/2002	-	87.584	87.595	88.015	88.254	87.57	86.675	87.311	86.64	87.107	85.867	86.01	87.568	85.893	85.582	87.354	86.45	86.39
10/09/2002	-	87.584	87.585	88.065	88.244	87.57	86.775	87.311	86.6	87.037	85.957	86.07	87.558	85.913	85.642	87.354	86.57	86.36
25/09/2002	-	87.564	87.525	87.965	88.224	87.53	86.565	87.301	86.57	87.117	85.857	85.93	87.568	85.753	85.492	87.334	86.46	86.31
08/10/2002	-	87.664	87.595	88.405	88.224	87.56	86.715	87.321	86.56	87.127	86.037	86.11	87.568	86.053	85.702	87.344	86.6	86.39
23/10/2002	-	87.564	88.225	88.485	88.244	87.58	86.735	87.301	86.6	87.127	86.117	86.19		86.053	85.782	87.354	86.68	86.46
05/11/2002	-	87.594	88.195	88.515	88.264	87.58	86.695	87.311	86.59	87.147	86.117	86.16		86.013	85.732	87.364	86.67	86.38
20/11/2002	88.548	87.644	88.385	88.505	88.344	87.61	86.665	87.361	86.58	87.157	86.157	86.15		86.023	85.752	87.414	86.58	86.4
09/12/2002	88.688	87.704	88.395	88.505	88.454	87.57	86.725	87.381	86.58	87.207	86.057	86.14		85.973	85.782	87.384	86.59	86.4
07/01/2003		88.194	88.485	88.375	88.514	87.61	86.675	87.441	86.6	87.247	86.127	86.13		85.983	85.702	87.474	86.61	86.43
20/01/2003		87.774	88.515	88.555	88.534	87.71	86.855	87.451	86.58	87.247	86.177	86.26		86.063	85.812	87.524	86.71	86.52
12/02/2003		87.774	88.125	88.495	88.524	87.7	86.725	87.451	86.61	87.247	86.187	86.23		86.003	85.722	87.494	86.63	86.44
05/03/2003		87.774	88.125	88.505	88.504	87.72	86.735	87.441	86.59		86.137	86.22		85.983	85.722	87.504	86.63	86.44
21/03/2003		87.754	87.785	88.345	88.484	87.71	86.715	87.441	86.59	87.237	86.137	86.15		85.963	85.682	87.294	86.61	86.43
03/04/2003	88.748	87.734	87.695	88.295	88.454	87.69	86.705	87.441	86.59	87.227	86.057	86.14		85.963	85.682	87.484	86.61	86.41
16/04/2003	88.708	87.724	87.665	88.255	88.424	87.68	86.615	87.421	86.58	87.217	86.047	86.08		85.943	85.662	87.454	86.58	86.4
29/04/2003	88.668	87.714	87.695	88.395	88.414	87.68	86.665	87.441	86.61	87.217	86.097	86.19		85.993	85.722	87.464	86.64	86.44
15/05/2003	88.628	87.694	87.905	88.335	88.384	87.67	86.665	87.381	86.58	87.197	86.057	86.12		85.933	85.652	87.444	86.59	86.36
27/05/2003	88.588	87.684	87.905	88.345	88.364	87.66	86.705	87.401	86.6	87.197	86.047	86.11		85.963	85.682	87.444	86.61	86.38
10/06/2003	88.548	87.664	88.045	88.385	88.334	87.73	86.735	87.401	86.58	87.187	86.077	86.19		85.993	85.712	87.424	86.62	86.43
25/06/2003	88.528	87.654	87.645	88.065	88.324	87.63	86.395	87.391	86.56	87.177	85.697	85.74		85.623	85.462	87.274	86.43	86.27
08/07/2003	88.498	87.644	88.125	88.305	88.314	87.64	86.715	87.431	86.56	87.167	86.107	86.17		86.033	85.752	87.414	86.63	86.45
24/07/2003	88.478	87.634	87.815	88.245	88.294	87.62	86.745	87.411	86.55	87.167	85.987	86.09		85.933	85.662	87.394	86.6	86.41
05/08/2003	88.458	87.624	87.775	88.205	88.274	87.61	86.495	87.406	86.53	87.157	85.947	85.98		85.843	85.562	87.384	86.52	86.33
20/08/2003	88.428	87.664	87.575	87.955	88.254	87.69	87.305	87.371	86.53	87.147	85.607	85.68		85.603	85.332	87.194	86.39	86.19
01/09/2003	88.408	87.604	87.505	87.925	88.244	87.6	86.485	87.401	86.52	87.137	85.597	85.68		85.483	85.312	87.184	86.38	86.19
18/09/2003	88.358	87.574	87.475	87.945	88.214	87.58	86.415	87.391	86.51	87.127	85.837	85.86		85.753	85.482	87.334	86.44	86.27
29/09/2003	88.338	87.574	87.465	87.975	88.204	87.57	86.595	87.411	86.5	87.117	85.887	86.04		85.893	85.622	87.334	86.5	86.31
21/10/03	88.298	87.554	87.485	88.035	88.174	87.63	86.695	87.381	86.48	87.097	85.927	86.08		85.923	85.652	87.319	86.53	86.32
04/11/2003	88.288	87.544	88.175	88.365	88.174	87.57	86.735	87.391	86.48	87.107	85.997	86.17		85.993	85.722	87.324	86.6	86.4
18/11/2003	88.258	87.534	88.175	88.345	88.144	87.55	87.174	87.381	86.47	87.027	86.277					87.304	86.61	86.39
04/12/2003	88.248	87.514	88.105	88.295	88.134	87.55	86.685	87.341	86.46	87.077	86.017	86.1		85.973	85.702	87.294	86.6	86.38
16/12/2003	88.248	87.514	88.135	88.315	88.124	87.55	86.665	87.351	86.46	87.077	85.997	86.16		85.973	85.702	87.294	86.62	86.34
07/01/2004	88.278	87.544	88.205	88.365	88.154	87.56	86.735	87.341	86.45	87.097	86.007	86.17		85.993	85.722	87.314	86.61	86.38
23/01/04	88.348	87.574	88.105	88.325	88.204	87.59	86.645	87.341	86.5	87.117	85.997	86.15		85.973	85.702	87.344	86.6	86.39
04/02/2004	88.388	87.594	88.585	88.585	88.234	87.61	86.835	87.371	86.51	87.127	86.077	86.22		86.103	85.832	87.364	86.63	86.5
19/02/2004	88.448	87.624	87.775	88.21	88.264	87.61	86.695	87.371	86.54	87.147	86.007	86.11		85.943	85.672	87.384	86.58	86.35
04/03/2004	88.478	87.634	88.135	88.305	88.284	87.63	86.695	87.391	86.55	87.147	86.047	86.19		86.043	85.762	87.394	86.64	86.43

	Sp15	Sp16	Sp16A	Sp17	Sp17A	Sp18	Sp18A	Sp19	Sp19A	Sp20	Sp20A	Sp20B	Sp21	Sp21A	Sp21B	Sp22	Sp22A	Sp22B
GL mOD	88.76	88.57	88.63	88.64	88.63	87.22	87.21	86.79	86.50	86.42	86.36	86.44	86.41	86.38	86.08	86.71	86.88	86.81
ToC mOD	88.97	89.17	88.90	89.49	88.77	88.63	88.34	87.76	86.96	87.91	87.27	87.39	87.58	86.86	86.70	88.38	87.41	87.31
30/03/2004	88.478	87.644	87.865	88.265	88.284	87.63	86.695	87.381	86.56	87.167	85.997	86.14		85.953	85.672	87.404	86.6	86.36
07/04/2004	88.468	87.644	88.055	88.325	88.284	87.64	86.675	87.391	86.56	87.157	85.997	86.16		85.983	85.712	87.404	86.59	86.4
20/04/2004	88.448	87.624	88.185	88.375	88.274	87.64	86.745	87.391	86.55	87.157	86.007	86.17		86.003	85.712	87.394	86.6	86.38
28/04/2004	88.448	87.634	87.745		88.264	87.63	86.575	87.381	86.55	87.157	85.967	86.12		85.923	85.662	87.394	86.58	86.35
26/05/2004		87.634	88.764			87.6	86.395			87.167	85.677	85.9		85.553	85.502	87.374	86.46	86.28
12/06/2004		87.594	87.495							87.117	85.757	85.89						
21/06/2004		87.614	87.455							87.147	85.547	85.73						
06/07/2004		87.604	87.455							87.127	85.957	86.1						
20/07/2004		87.594	87.485							87.127	85.927	86.1						
17/08/2004		87.634	87.415							87.107	85.857	86.09						
21/09/2004		87.534	87.575							87.087	85.987	86.13						
05/10/2004		87.534	88.155							87.237	86.187	86.31						
20/10/2004		87.524	88.305								85.987	86.55						
04/11/2004																		
10/01/2005		87.494	88.145							87.037	86.057	86.11						
11/01/2005		87.39	88.14							87.057	86.047	86.12						
31/01/2005		87.51	87.99							87.067	85.987	86.08						
10/02/2005		87.54	87.97							87.077	86.017	86.11						
27/02/2005		87.55	88.13							87.087	86.017	86.1						
31/03/2005		87.55	88.02							87.087	85.977	86.09						
04/04/2005		87.57	88.04							87.087	85.997	86.15						
24/05/2005		87.59	87.60							87.107	85.967	86.11						
08/06/2005		87.88	87.35							87.117	85.887	86.06						
21/06/2005		87.59	87.50							87.107	85.687	85.75						
08/07/2005		87.62	87.52							87.117	85.947	86.08						
18/07/2005		87.57	87.44							87.097	85.637	85.71						
19/08/2005		87.57	87.50							87.057	85.947	86.09						
25/08/2005		87.59	87.54							87.087	85.967	86.14						
01/09/2005		87.57	87.54							87.077	85.917	86.07						
15/09/2005		87.57	87.50							86.83	85.91	86.05						

APPENDIX 21

Groundwater flow analysis within Intensive Quadrate B

This appendix contains numerical results of the groundwater flow analysis within site B. The methodology and summary of the results are presented in volume I.

Deep screens																				
hydraulic conductivity	k =	1.21E-05	[m/s]																	
distance	SP15SP19	24.2			Sp17Sp18=	24.72			SP19SP20=	27.00			SP16SP21	50			SP15SP22	50.72		
depth of sp	6	4			5	5			7	7			5	8			5	8.5		
Surface elevation	88.76	86.79			88.64	87.22			86.79	86.42			88.57	86.41			87.22	86.71		
	Sp15	Sp19	gradient	Specific discharge	Sp17	Sp18	gradient	Specific discharge	Sp19	Sp20	gradient	Specific discharge	Sp16	Sp21	gradient	Specific discharge	Sp18	Sp22	gradient	Specific discharge
October-01		87.311			88.41	87.51	0.036	0.0000004	87.31	87.13	0.007	0.00000008	87.59				87.51	87.36	0.003	0.00000003
November-01		87.301			87.88	87.59	0.012	0.0000001	87.30	87.10	0.007	0.00000009	87.55				87.59	87.33	0.005	0.00000006
December-01		87.301			88.11	87.57	0.022	0.0000003	87.30	87.09	0.008	0.00000010	87.51				87.57	87.38	0.004	0.00000004
January-02		87.251			88.37	87.55	0.033	0.0000004	87.25	87.05	0.007	0.00000009	87.49	86.70	0.016	0.00000019	87.55	87.29	0.005	0.00000006
February-02	88.97	87.351	0.067	0.000001	88.37				87.35	87.05	0.011	0.00000014	87.55	86.75	0.016	0.00000020		87.32		
March-02		87.336			88.05	87.59	0.019	0.0000002	87.34	87.15	0.007	0.00000008	87.62				87.59	87.40	0.004	0.00000005
April-02		87.331			88.24	87.74	0.020	0.0000002	87.33	87.16	0.006	0.00000008	87.62	87.57	0.001	0.00000001	87.74	87.41	0.006	0.00000008
May-02		87.346			88.25	87.61	0.026	0.0000003	87.35	87.16	0.007	0.00000008	87.66				87.61	87.41	0.004	0.00000005
June-02		87.356			88.25	87.56	0.028	0.0000003	87.36	87.18	0.007	0.00000008	87.64	87.58	0.001	0.00000002	87.56	87.41	0.003	0.00000003
July-02		87.341			88.23	87.56	0.027	0.0000003	87.34	87.16	0.007	0.00000008	87.63	87.56	0.001	0.00000002	87.56	87.39	0.003	0.00000004
August-02		87.311			88.02	87.57	0.018	0.0000002	87.31	87.11	0.008	0.00000009	87.58	87.57	0.000	0.00000000	87.57	87.35	0.004	0.00000005
September-02		87.306			88.02	87.55	0.019	0.0000002	87.31	87.08	0.008	0.00000010	87.57	87.56	0.000	0.00000000	87.55	87.34	0.004	0.00000005
October-02		87.311			88.45	87.57	0.035	0.0000004	87.31	87.13	0.007	0.00000008	87.61	87.57	0.001	0.00000001	87.57	87.35	0.004	0.00000005
November-02	88.55	87.336	0.050	0.000001	88.51	87.60	0.037	0.0000004	87.34	87.15	0.007	0.00000008	87.62				87.60	87.39	0.004	0.00000005
December-02	88.69	87.381	0.054	0.000001	88.51	87.57	0.038	0.0000005	87.38	87.21	0.006	0.00000008	87.70				87.57	87.38	0.004	0.00000004
January-03		87.45			88.47	87.66	0.033	0.0000004	87.45	87.25	0.007	0.00000009	87.98				87.66	87.50	0.003	0.00000004
February-03		87.45			88.50	87.70	0.032	0.0000004	87.45	87.25	0.008	0.00000009	87.77				87.70	87.49	0.004	0.00000005
March-03		87.44			88.43	87.72	0.029	0.0000003	87.44	87.24	0.008	0.00000009	87.76				87.72	87.40	0.006	0.00000008
April-03	88.71	87.43	0.053	0.000001	88.32	87.68	0.026	0.0000003	87.43	87.22	0.008	0.00000010	87.72				87.68	87.47	0.004	0.00000005
May-03	88.61	87.39	0.050	0.000001	88.34	87.67	0.027	0.0000003	87.39	87.20	0.007	0.00000009	87.69				87.67	87.44	0.004	0.00000005
June-03	88.54	87.40	0.047	0.000001	88.23	87.68	0.022	0.0000003	87.40	87.18	0.008	0.00000010	87.66				87.68	87.35	0.007	0.00000008
July-03	88.49	87.42	0.044	0.000001	88.28	87.63	0.026	0.0000003	87.42	87.17	0.009	0.00000011	87.64				87.63	87.40	0.004	0.00000005
August-03	88.44	87.39	0.044	0.000001	88.08	87.65	0.017	0.0000002	87.39	87.15	0.009	0.00000011	87.64				87.65	87.29	0.007	0.00000009
September-03	88.37	87.40	0.040	0.000000	87.95	87.58	0.015	0.0000002	87.40	87.13	0.010	0.00000012	87.58				87.58	87.28	0.006	0.00000007
October-03	88.30	87.38	0.038	0.000000	88.04				87.38	87.10	0.011	0.00000013	87.55					87.32		
November-03	88.27	87.39	0.037	0.000000	88.36	87.56	0.032	0.0000004	87.39	87.07	0.012	0.00000014	87.54				87.56	87.31	0.005	0.00000006
December-03	88.25	87.35	0.037	0.000000	88.31	87.55	0.031	0.0000004	87.35	87.08	0.010	0.00000012	87.51				87.55	87.29	0.005	0.00000006
January-04	88.31	87.34	0.040	0.000000	88.35	87.58	0.031	0.0000004	87.34	87.11	0.009	0.00000010	87.56				87.58	87.33	0.005	0.00000006
February-04	88.42	87.37	0.043	0.000001	88.40	87.61	0.032		87.37	87.14	0.009	0.00000010	87.61				87.61	87.37	0.005	0.00000006
March-04	88.48	87.39	0.045	0.000001	88.29	87.63	0.026	0.0000003	87.39	87.16	0.008	0.00000010	87.64				87.63	87.40	0.005	0.00000006
April-04	88.45	87.39	0.044	0.000001	88.35	87.64	0.029	0.0000003	87.39	87.16	0.009	0.00000010	87.63				87.64	87.40	0.005	0.00000006
May-04						87.60				87.17			87.63				87.60	87.37	0.004	0.00000005
June-04										87.13			87.60							
July-04										87.13			87.60							
August-04										87.11			87.63							
September-04										87.09			87.53							
October-04										87.24			87.53							
November-04																				
December-04																				
January-05										87.05			87.47							
February-05										87.08			87.55							
March-05										87.09			87.55							
April-05										87.09			87.57							
May-05										87.11			87.59							
June-05										87.11			87.74							
July-05										87.11			87.60							
August-05										87.07			87.58							
September-05										86.95			87.57							
max	88.97	87.45	0.0666942	0.0000008	88.51	87.74	0.0378236	0.0000005	87.45	87.25	0.0118148	0.0000001	87.98	87.58	0.0161200	0.0000002	87.74	87.50	0.00711751	0.00000009
min	88.25	87.25	0.0366529	0.0000004	87.88	87.51	0.0117314	0.0000001	87.25	86.95	0.0064444	0.0000001	87.47	86.70	0.0002200	0.0000000	87.51	87.28	0.00277997	0.00000003
average	88.49	87.36	0.0458114	0.0000006	88.27	87.61	0.0268164	0.0000003	87.36	87.13	0.0080902	0.0000001	87.61	87.36	0.0046700	0.0000001	87.61	87.37	0.00454018	0.00000005
			[m/year]	17.481			[m/year]	10.164			[m/year]	3.087			[m/year]	1.78			[m/year]	1.73
			[m/month]	1.437			[m/month]	0.835			[m/month]	0.254			[m/month]	0.15			[m/month]	0.14
			[m/day]	0.048			[m/day]	0.028			[m/day]	0.008			[m/day]	0.005			[m/day]	0.005

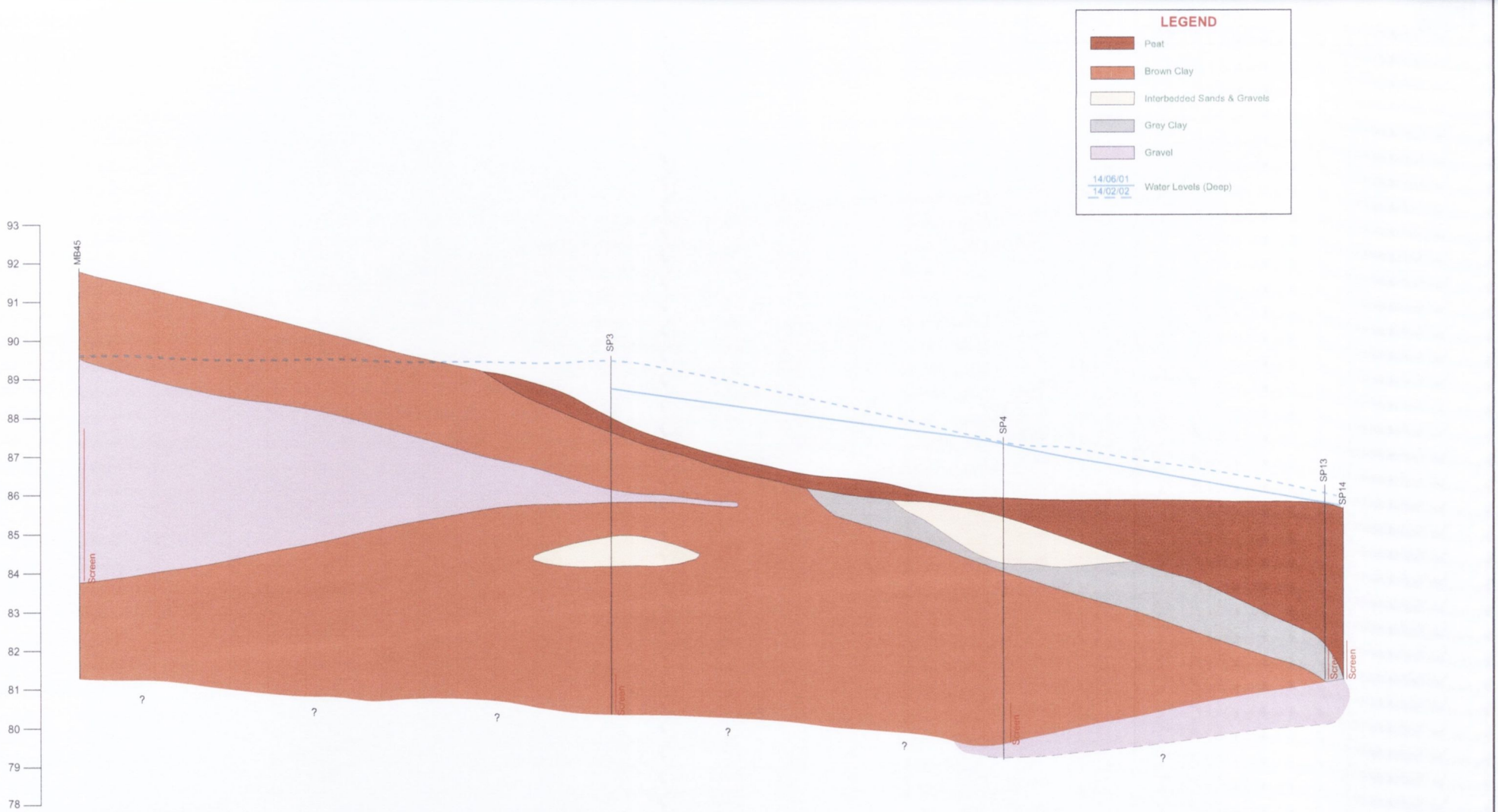
Middle screens																
hydraulic conductivity	k=	1.21E-05	[m/s]													
distance	Sp17Sp18=	24.72			SP19SP20=	27.00			SP16SP21	50.00			SP15SP22	50.72		
depth of standpipes	2	2			2	3			2	3			2	3.5		
Surface elevation	88.63	87.21			86.50	86.36			88.63	86.38			87.21	86.88		
	Sp17A	Sp18A	gradient	Specific discharge	Sp19A	Sp20A	gradient	Specific discharge	Sp16A	Sp21A	gradient	Specific discharge	Sp18A	Sp22A	gradient	Specific discharge
October-01	88.28	86.97	0.053	0.000001	86.61	86.13	0.018	0.00000022	88.03	86.14	0.038	0.00000046				
November-01	87.93	86.70	0.050	0.000001	86.60	86.06	0.020	0.00000024	87.88	86.09	0.036	0.00000043	86.70	86.56	0.003	0.00000003
December-01	88.20	86.64	0.063	0.000001	86.58	86.09	0.018	0.00000022	87.79	86.06	0.034	0.00000042	86.64	86.56	0.001	0.00000002
January-02	88.19	86.70	0.060	0.000001	86.57	86.09	0.018	0.00000021	87.74	86.02	0.034	0.00000042	86.70	86.59	0.002	0.00000003
February-02	88.24				86.48	86.23	0.009	0.00000011	88.06	86.49	0.031	0.00000038		86.57		
March-02	88.36	86.72	0.066	0.000001	86.61	86.07	0.020	0.00000024	88.08	86.02	0.041	0.00000050	86.72	86.62	0.002	0.00000002
April-02	88.37	86.94	0.058	0.000001	86.58	86.05	0.020	0.00000024	87.86	86.01	0.037	0.00000045	86.94	86.59	0.007	0.00000008
May-02	88.36	86.68	0.068	0.000001	86.59	86.03	0.020	0.00000025	87.86	85.93	0.039	0.00000047	86.68	86.59	0.002	0.00000002
June-02	88.35	86.60	0.071	0.000001	86.61	86.01	0.022	0.00000027	87.86	85.94	0.038	0.00000046	86.60	86.56	0.001	0.00000001
July-02	88.31	86.67	0.067	0.000001	86.61	86.00	0.022	0.00000027	87.89	85.97	0.038	0.00000046	86.67	86.57	0.002	0.00000002
August-02	88.25	86.68	0.064	0.000001	86.64	85.87	0.029	0.00000035	87.60	85.89	0.034	0.00000041	86.68	86.45	0.004	0.00000005
September-02	88.23	86.67	0.063	0.000001	86.59	85.91	0.025	0.00000030	87.56	85.83	0.034	0.00000042	86.67	86.52	0.003	0.00000004
October-02	88.23	86.73	0.061	0.000001	86.58	86.08	0.019	0.00000023	87.91	86.05	0.037	0.00000045	86.73	86.64	0.002	0.00000002
November-02	88.30	86.68	0.066	0.000001	86.59	86.14	0.017	0.00000020	88.29	86.02	0.045	0.00000055	86.68	86.63	0.001	0.00000001
December-02	88.45	86.73	0.070	0.000001	86.58	86.06	0.019	0.00000023	88.40	85.97	0.048	0.00000059	86.73	86.59	0.003	0.00000003
January-03	88.52	86.77	0.071	0.000001	86.59	86.15	0.016	0.00000020	88.50	86.02	0.050	0.00000060	86.77	86.66	0.002	0.00000003
February-03	88.52	86.73	0.073	0.000001	86.61	86.19	0.016	0.00000019	88.13	86.00	0.042	0.00000051	86.73	86.63	0.002	0.00000002
March-03	88.49	86.73	0.072	0.000001	86.59	86.14	0.017	0.00000020	87.96	85.97	0.040	0.00000048	86.73	86.62	0.002	0.00000003
April-03	88.43	86.66	0.072	0.000001	86.59	86.07	0.019	0.00000024	87.69	85.97	0.034	0.00000042	86.66	86.61	0.001	0.00000001
May-03	88.37	86.69	0.068	0.000001	86.59	86.05	0.020	0.00000024	87.91	85.95	0.039	0.00000047	86.69	86.60	0.002	0.00000002
June-03	88.33	86.57	0.071	0.000001	86.57	85.89	0.025	0.00000031	87.85	85.81	0.041	0.00000049	86.57	86.53	0.001	0.00000001
July-03	88.30	86.73	0.064	0.000001	86.56	86.05	0.019	0.00000023	87.97	85.98	0.040	0.00000048	86.73	86.62	0.002	0.00000003
August-03	88.26	86.90	0.055	0.000001	86.53	85.78	0.028	0.00000034	87.68	85.72	0.039	0.00000047	86.90	86.46	0.009	0.00000011
September-03	88.22	86.50	0.070	0.000001	86.51	85.77	0.027	0.00000033	87.48	85.71	0.035	0.00000043	86.50	86.44	0.001	0.00000001
October-03	88.17	86.70	0.060	0.000001	86.48	85.93	0.020	0.00000025	87.49	85.92	0.031	0.00000038	86.70	86.53	0.003	0.00000004
November-03	88.16	86.95	0.049	0.000001	86.48	86.14	0.013	0.00000015	88.18	85.99	0.044	0.00000053	86.95	86.61	0.007	0.00000008
December-03	88.13	86.68	0.059	0.000001	86.46	86.01	0.017	0.00000020	88.12	85.97	0.043	0.00000052	86.68	86.61	0.001	0.00000002
January-04	88.18	86.69	0.060	0.000001	86.48	86.00	0.018	0.00000021	88.16	85.98	0.043	0.00000053	86.69	86.61	0.002	0.00000002
February-04	88.25	86.77	0.060	0.000001	86.53	86.04	0.018	0.00000022	88.18	86.02	0.043	0.00000052	86.77	86.61	0.003	0.00000004
March-04	88.28	86.70	0.064	0.000001	86.56	86.02	0.020	0.00000024	88.00	86.00	0.040	0.00000048	86.70	86.62	0.001	0.00000002
April-04	88.27	86.67	0.065	0.000001	86.55	85.99	0.021	0.00000025	88.00	85.97	0.041	0.00000049	86.67	86.59	0.001	0.00000002
May-04		86.40				85.68			88.76	85.55	0.064	0.00000078				
June-04						85.65			87.48							
July-04						85.94			87.47							
August-04						85.86			87.42							
September-04						85.99			87.58							
October-04						86.09			88.23							
November-04																
December-04																
January-05						86.03			88.09							
February-05						86.02			88.05							
March-05						85.98			88.02							
April-05						86.00			88.04							
May-05						85.97			87.60							
June-05						85.79			87.42							
July-05						85.79			87.48							
August-05						85.957			87.52							
September-05						85.912			87.52							
max	88.52	86.97	0.0727751	0.0000009	86.64	86.23	0.0286296	0.0000003	88.76	86.49	0.0642200	0.0000008	86.95	86.66	0.00877366	0.00000011
min	87.93	86.40	0.0487257	0.0000006	86.46	85.65	0.0093704	0.0000001	87.42	85.55	0.0312400	0.0000004	86.50	86.44	0.00069006	0.00000001
average	88.29	86.71	0.0637660	0.0000008	86.56	85.99	0.0196491	0.0000002	87.88	85.97	0.0398529	0.0000005	86.71	86.58	0.00253669	0.00000003
			[m/year]	24.332			[m/year]	7.498			[m/year]	15.207			[m/year]	0.968
			[m/month]	2.000			[m/month]	0.616			[m/month]	1.250			[m/month]	0.080
			[m/day]	0.067			[m/day]	0.021			[m/day]	0.042			[m/day]	0.003

Vertical									
hydraulic conductivity	k	1.73E-07	m/s	k	2.89E-07	m/s	k	1.80E-07	m/s
depth of standpipes	3	1		3	1		3.5	1.5	
Surface elevation	86.36	86.44		86.38	86.08		86.88	86.81	
	Sp20A	Sp20B	Specific discharge	Sp21A	Sp21B	Specific discharge	Sp22A	Sp22B	Specific discharge
October-01	86.13	86.15	-1.55E-09	86.14	85.71	6.22E-08	87.04	86.40	5.76E-08
November-01	86.06	86.11	-4.58E-09	86.09	85.71	5.57E-08	86.56	86.36	1.85E-08
December-01	86.09	86.13	-3.71E-09	86.06	85.67	5.64E-08	86.56	86.32	2.16E-08
January-02	86.09	86.17	-6.88E-09	86.02	85.75	3.86E-08	86.59	86.41	1.56E-08
February-02	86.23	86.13	8.38E-09	86.49	85.69	1.16E-07	86.57	86.40	1.53E-08
March-02	86.07	86.16	-7.17E-09	86.02	85.78	3.48E-08	86.62	86.39	2.07E-08
April-02	86.05	86.11	-4.58E-09	86.01	85.76	3.62E-08	86.59	86.36	2.07E-08
May-02	86.03	86.09	-4.58E-09	85.93	85.69	3.48E-08	86.59	86.38	1.89E-08
June-02	86.01	86.14	-1.06E-08	85.94	85.65	4.20E-08	86.56	86.35	1.94E-08
July-02	86.00	86.13	-1.06E-08	85.97	85.65	4.56E-08		86.35	1.94E-08
August-02	85.87	86.01	-1.23E-08	85.89	85.58	4.49E-08	86.45	86.39	5.40E-09
September-02	85.91	86.00	-8.03E-09	85.83	85.57	3.84E-08	86.52	86.34	1.62E-08
October-02	86.08	86.15	-6.30E-09	86.05	85.74	4.49E-08	86.64	86.43	1.94E-08
November-02	86.14	86.16	-1.55E-09	86.02	85.74	3.98E-08	86.63	86.39	2.12E-08
December-02	86.06	86.14	-7.17E-09	85.97	85.78	2.76E-08	86.59	86.40	1.71E-08
January-03	86.15	86.20	-3.71E-09	86.02	85.76	3.84E-08	86.66	86.48	1.67E-08
February-03	86.19	86.23	-3.71E-09	86.00	85.72	4.06E-08	86.63	86.44	1.71E-08
March-03	86.14	86.19	-4.14E-09	85.97	85.70	3.91E-08	86.62	86.44	1.67E-08
April-03	86.07	86.14	-6.02E-09	85.97	85.69	4.01E-08	86.61	86.42	1.74E-08
May-03	86.05	86.12	-5.44E-09	85.95	85.67	4.06E-08	86.60	86.37	2.07E-08
June-03	85.89	85.97	-6.73E-09	85.81	85.59	3.19E-08	86.53	86.35	1.58E-08
July-03	86.05	86.13	-7.17E-09	85.98	85.71	3.98E-08	86.62	86.43	1.67E-08
August-03	85.78	85.83	-4.58E-09	85.72	85.45	3.98E-08	86.46	86.26	1.76E-08
September-03	85.77	85.86	-7.45E-09	85.71	85.47	3.43E-08	86.44	86.26	1.65E-08
October-03	85.93	86.08	-1.32E-08	85.92	85.65	3.91E-08	86.53	86.32	1.89E-08
November-03	86.14	86.17	-2.85E-09	85.99	85.72	3.91E-08	86.61	86.40	1.89E-08
December-03	86.01	86.13	-1.06E-08	85.97	85.70	3.91E-08	86.61	86.36	2.25E-08
January-04	86.00	86.16	-1.36E-08	85.98	85.71	3.91E-08	86.61	86.39	1.98E-08
February-04	86.04	86.17	-1.06E-08	86.02	85.75	3.91E-08	86.61	86.43	1.62E-08
March-04	86.02	86.17	-1.23E-08	86.00	85.72	4.06E-08	86.62	86.40	2.03E-08
April-04	85.99	86.15	-1.38E-08	85.97	85.70	3.96E-08	86.59	86.38	1.92E-08
May-04	85.68	85.90	-1.93E-08	85.55	85.50	7.36E-09	86.46	86.28	1.62E-08
June-04	85.65	85.81	-1.36E-08						
July-04	85.94	86.10	-1.36E-08						
August-04	85.86	86.09	-2.01E-08						
September-04	85.99	86.13	-1.23E-08						
October-04	86.09	86.43	-2.96E-08						
November-04									
December-04									
January-05	86.03	86.10	-6.30E-09						
February-05	86.02	86.11	-7.60E-09						
March-05	85.98	86.09	-9.76E-09						
April-05	86.00	86.15	-1.32E-08						
May-05	85.97	86.11	-1.23E-08						
June-05	85.79	85.91	-1.02E-08						
July-05	85.79	85.90	-8.89E-09						
August-05	85.96	86.12	-1.36E-08						
September-05	85.91	86.06	-1.28E-08						
max	86.23	86.43	0.00000001	86.493	85.782	0.00000012	87.040	86.475	0.00000006
min	85.65	85.81	-0.00000003	85.553	85.447	0.00000001	86.440	86.257	0.00000001
average	85.99	86.10	-0.00000001	85.969	85.678	0.00000004	86.588	86.375	0.00000002
		[m/year]	-0.282		[m/year]	1.326		[m/year]	0.605
		[m/month]	-0.023		[m/month]	0.109		[m/month]	0.050
		[m/day]	-0.001		[m/day]	0.004		[m/day]	0.002

APPENDIX 22

Geological cross-sections and well logs – Intensive Quadrate C

This appendix presents geological profiles across Intensive Quadrate C based on borehole logs drilled on site by K.T. Cullen Ltd. as described in chapter III-2. These maps and diagrams were produced by WYG Ltd. and are presented with their permission.



Vertical Scale: 1:100
Horizontal Scale: 1:200

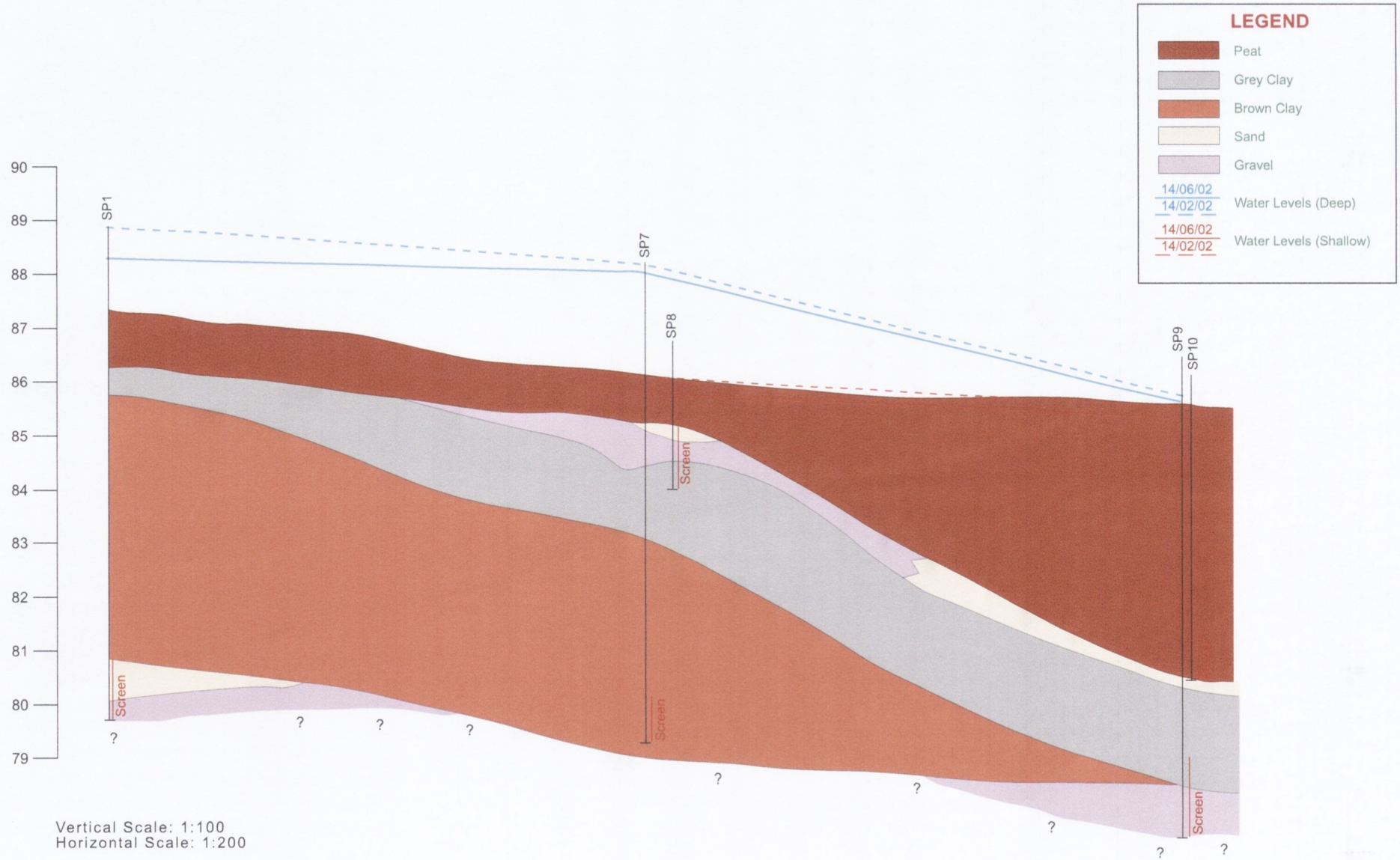
Pollardstown Fen
Transect C
MB45/SP3/SP4/SP13/SP14

Job No. 2779

Date. September 2002

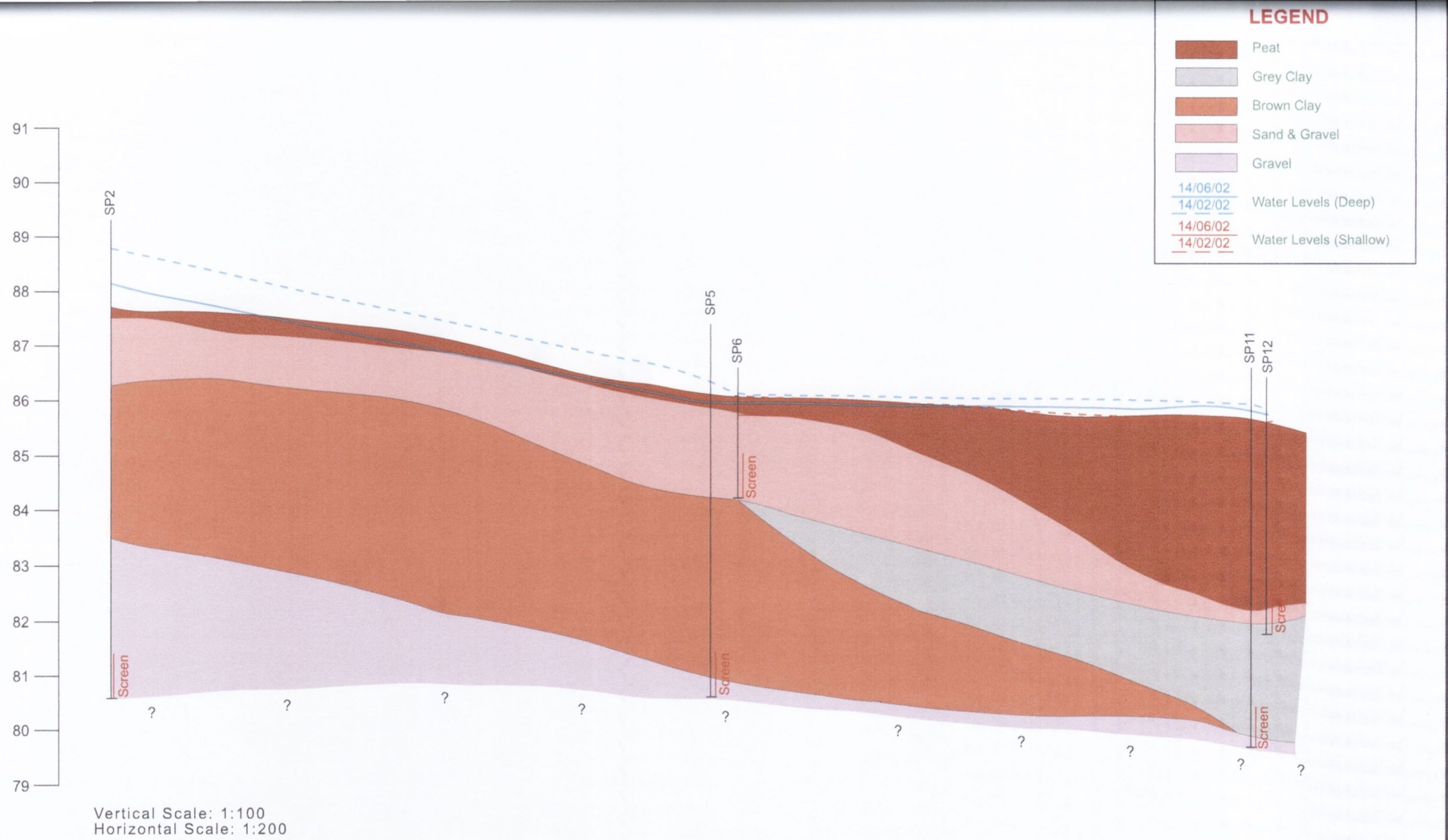
Figure No.

White Young Green



Pollardstown Fen
Transect C
SP1/SP7/SP8/SP9/SP10

White Young Green



Vertical Scale: 1:100
Horizontal Scale: 1:200

Pollardstown Fen
Transect C
SP2/SP5/SP6/SP11/SP12

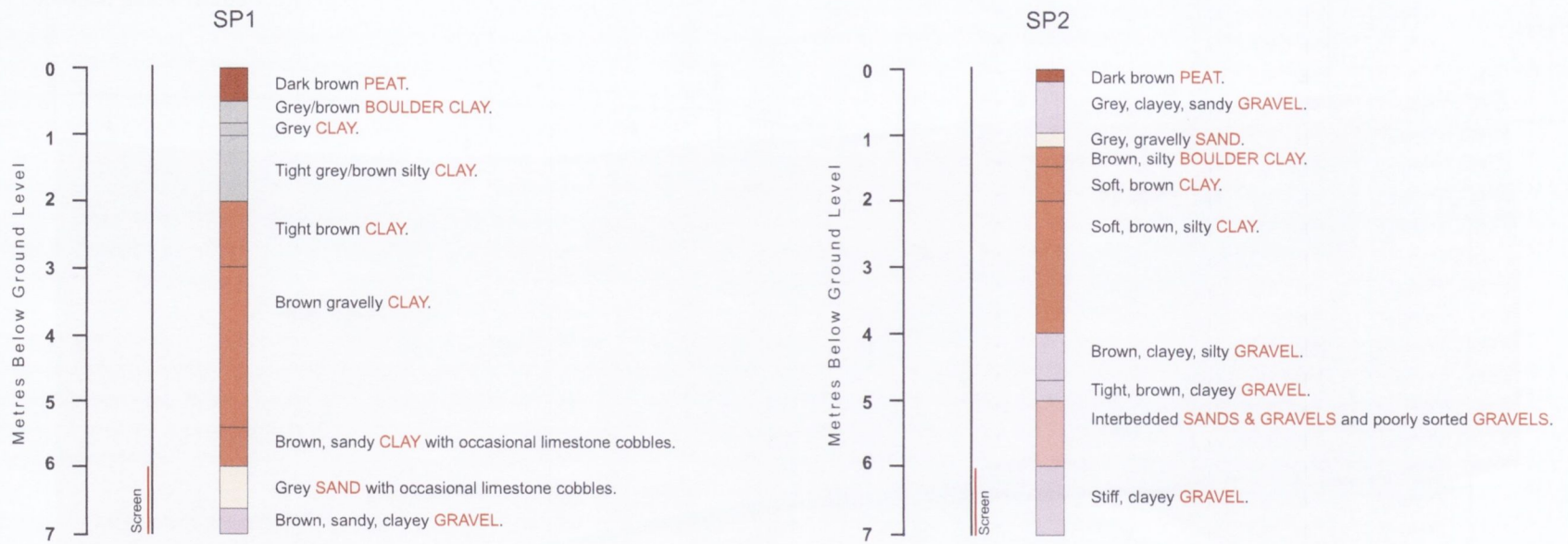
Job No. 2779
Date. June 2002

Figure No.

White Young Green

OS(10)

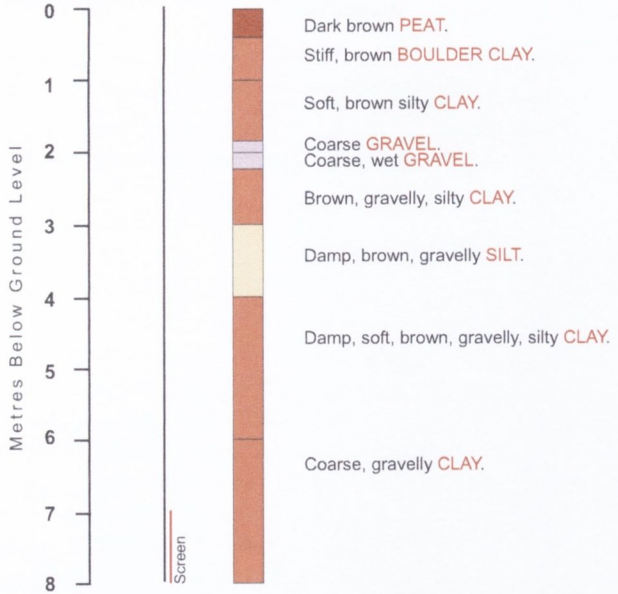
S i t e C .



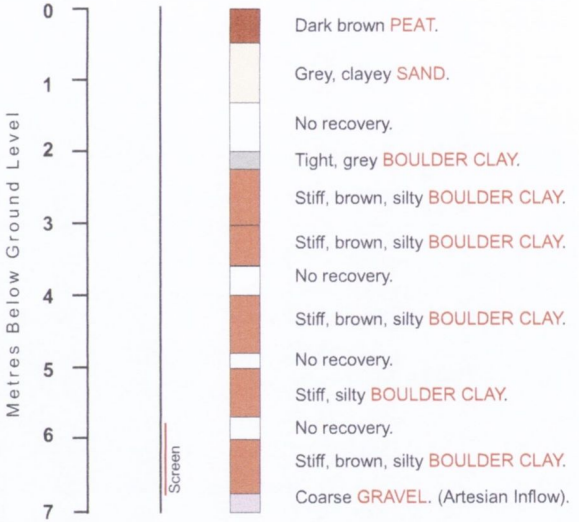
Pollardstown Fen
Site C, Boreholes SP1 & SP2

White Young

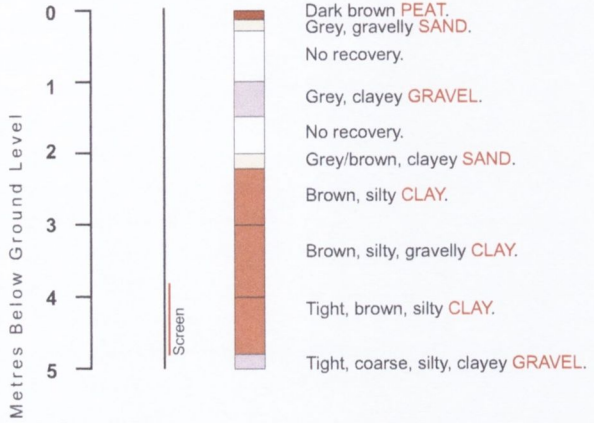
SP3



SP4



SP5



Pollardstown Fen
Site C, Boreholes SP3/SP4 & SP5

Job No. 2779
Date. September 2002

Figure No.

White Young Green

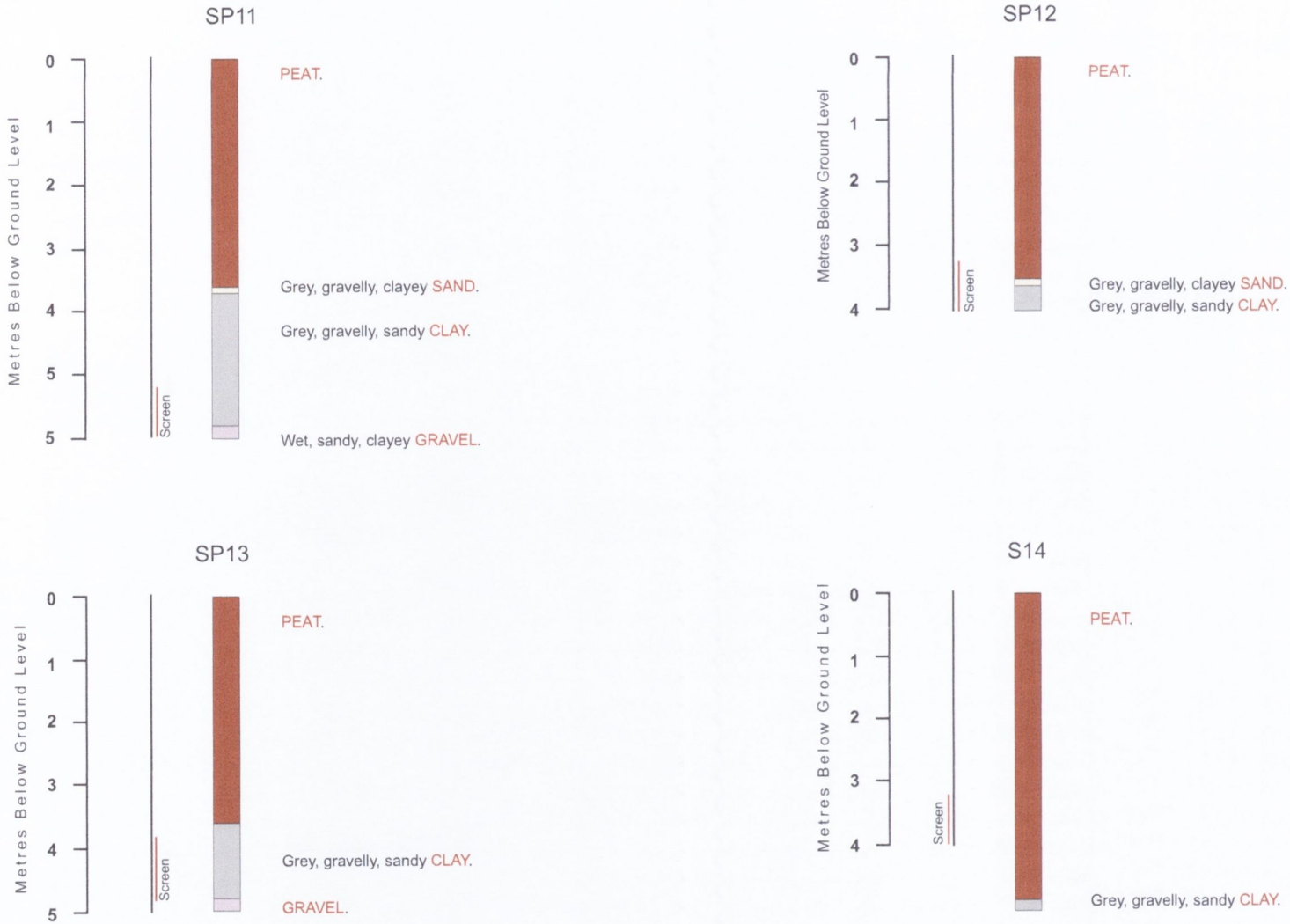
OS(10)

S i t e C .



Pollardstown Fen
Site C. Boreholes SP6/SP7/SP8/SP9 & SP10

White Young



Pollardstown Fen
Site C, Boreholes SP11/SP12/SP13 & SP14

Job No. 2779
Date. September 2002

Figure No.

White Young Green

OS(10)

APPENDIX 23

Water level data – Intensive Quadrate C

In this appendix, water level data from Intensive Quadrate C are presented in a tabular form. Data were collected from top of the casing, which was surveyed using the GPS technology. Data are presented with regard to the Poolbeg datum.

	Sp1	Sp2	Sp3	Sp4	Sp5	Sp6	Sp7	Sp8	Sp9	Sp10	Sp11	Sp12	Sp13	Sp14
GL's mOD GPS	87.22	87.48	87.85	85.93	85.94	85.95	86.13	86.06	85.73	85.75	85.72	85.73	85.66	85.71
TOC's	88.77	89.27	89.33	87.76	87.35	86.47	88.04	86.67	86.39	86.04	86.45	86.31	85.87	86.23
9-Oct-00	87.96	87.90	89.33	87.18	86.22	85.82	87.96	85.74	85.67	85.63	85.65	85.61	85.46	85.98
17-Oct-00	87.91	87.97	88.46	87.21	86.23	85.84	87.94	85.83	85.69	85.63	85.75	85.64	85.51	85.99
1-Nov-00	88.33	88.39	88.92	87.54	86.27	85.81	88.02	85.81	85.71	85.61	85.75	85.63	85.50	86.01
4-Dec-00		88.81	89.33	87.76	86.37	85.86	88.04	85.78	85.73	85.63	85.78	85.64	85.55	85.98
21-Dec-00		89.17		87.76	86.45	85.49		85.86	85.74	85.66	85.82	85.67	85.59	86.01
4-Jan-01		89.03		87.75	86.46	85.88		85.80	85.74	85.66	85.82	85.67	85.58	86.02
24-Jan-01		88.84	89.33	87.25	86.40	85.85		85.83	85.76	85.65	85.80	85.63	85.57	86.00
15-Feb-01		88.87		87.21	86.41	85.86		85.76	85.72	85.65	85.81	85.67	85.57	86.01
28-Feb-01	88.69	88.77	89.20	87.19	86.40	85.85		85.80	85.74	85.63	85.79	85.65	85.56	86.00
15-May-01	88.26	88.30	88.80	87.41	86.22	85.77		85.71	85.69	85.63	85.72	85.62	85.47	86.00
30-May-01	88.16	88.22	88.69	87.33	86.21	85.77		85.70	85.70	85.61	85.72	85.61	85.47	85.98
14-Jun-01	88.07	88.09	88.60	87.23	86.12	85.67		85.58	85.66	85.61	85.65	85.57	85.42	86.01
2-Jul-01	87.98	88.01	88.53	87.23		85.79		85.68	85.66	85.58	85.69	85.55	85.47	85.97
16-Jul-01	87.90	87.94	88.44	87.11		85.61	88.02	85.57	85.62	85.59	85.59	85.56	85.38	85.90
31-Jul-01	87.81	87.89	88.41	86.99	86.30		88.02	85.50	85.55	85.58	85.46	85.52	85.22	85.81
15-Aug-01	87.83	87.87	88.89	87.16	86.20	85.86	87.89	85.69	85.70	85.63	85.73	85.61	85.45	86.01
30-Aug-01	87.75	87.81	88.29	87.04	86.25	85.76	87.87	85.69	85.63	85.62	85.64	85.58	85.41	85.92
11-Sep-01	87.69	87.76	88.24	87.04	85.97	85.61	87.80	85.58	85.60	85.60	85.59	85.56	85.33	85.90
23-Oct-01	87.77	87.74	87.80	87.09	86.19	85.61	87.76	85.65	85.69	85.62	85.73	85.63	85.24	85.84
9-Nov-01	87.80	87.84	88.32	87.09	86.18	85.87	87.83	85.76	85.70	85.63	85.73	85.62	85.50	86.01
26-Nov-01	87.79	87.80	88.35	87.08	86.21	85.86	87.82	85.75	85.68	85.62	85.72	85.62	85.35	85.86
12-Dec-01	87.81	87.82	88.37	87.09	86.20	85.87	87.84	85.76	85.70	85.62	85.73	85.62	85.50	86.01
4-Jan-02	87.85	87.94	88.37	87.11	86.18	85.84	88.00	85.74	85.70	85.64	85.73	85.63	85.51	86.02
18-Jan-02	87.85	87.88	88.40	87.14	86.29	85.80	87.99	85.77	85.69	85.65	85.73	85.59	85.50	85.99
31-Jan-02	88.07	88.10	88.66	87.27	86.22	85.83	88.01	85.80	85.71	85.65	85.75	85.62	85.51	85.99
14-Feb-02	88.70	88.69	89.22	87.64	86.90	85.86		85.99	85.72	85.65	85.78	85.65	85.64	85.92
6-Mar-02	88.74	88.84	89.26	87.70	86.42	85.58		85.78	85.73	85.63	85.78	85.64	85.66	86.02
25-Mar-02	88.53	88.57	89.03	87.55	86.29	85.52		85.74	85.72	85.63	85.73	85.62	85.04	86.03
10-Apr-02	88.36	88.41	88.87	87.45	86.30	85.52		85.72	85.76	85.61	85.73	85.63	85.03	86.01
24-Apr-02	88.33	88.33	88.87	87.46	86.27	85.53		85.73	85.73	85.62	85.73	85.62	85.04	86.00
9-May-02	88.36	88.40	88.88	87.46	86.26	85.52		85.63	85.75	85.68	85.72	85.65	85.06	
27-May-02	88.34	88.42	88.89	87.46	86.28	85.52		85.67	85.76	85.65	85.73	85.67	85.07	85.99
15-Jun-02	88.32	88.43	88.87	87.46	86.30	85.52		85.70	85.74	85.63	85.72	85.66	85.09	85.98
27-May-02	88.34	88.42	88.89	87.46	86.28	85.52		85.67	85.76	85.65	85.73	85.67	85.07	85.99
12-Jul-02	88.33	88.40	88.87	87.45	86.27	85.51		85.65	85.75	85.64	85.72	85.65	85.06	85.97
25-Jul-02	88.04	88.05	88.56	87.20	86.10	85.72	87.96	85.57	85.68	85.24	85.64	85.51	84.95	85.95
26-Aug-02	87.84	87.86	88.38	87.06	85.98	85.66	87.92	85.60	85.60	85.27	85.60	85.56	85.35	85.91
12-Sep-02	87.78	87.83	88.30		86.04	85.59	87.84	85.50	85.61	85.27	85.56	85.55	85.32	85.87
25-Sep-02	87.70	87.74	88.23	86.79	85.79	85.45	87.75	85.49	85.69	85.19	85.63	85.31	85.16	85.77
11-Oct-02	87.67	87.68	88.21	87.00	86.11	85.72	87.75	85.77	85.60	85.31	85.66	85.62	85.38	85.97
23-Oct-02	88.04	88.09	88.61	87.28	86.20	85.86		85.77	85.98	85.36	85.72	85.65	85.51	85.97
5-Nov-02	88.41	88.44	89.00	87.48	86.26	85.89		85.73	85.86	85.39	85.79	85.57	85.55	85.96
21-Nov-02		88.98		87.76	86.36	85.96		85.85	85.90	85.40	85.81	85.67	85.59	86.00
10-Dec-02		88.99		87.76	86.34	85.88		85.80	85.99	85.41	85.81	85.65	85.60	86.02
7-Jan-03				87.26	86.34	85.86			85.82	85.41	85.77	85.66	85.59	86.02
20-Jan-03		88.92		87.76	86.36	85.89		85.83	86.01	85.41	85.78	85.66	85.58	86.04
12-Feb-03	88.71	88.78	89.28	87.71	86.31	85.87		85.81	86.01	85.40	85.79	85.66	85.59	85.99
6-Mar-03	88.57	88.63	89.11	87.60	86.28	85.84		85.79	86.01	85.37	85.75	85.65	85.53	86.00

	Sp1	Sp2	Sp3	Sp4	Sp5	Sp6	Sp7	Sp8	Sp9	Sp10	Sp11	Sp12	Sp13	Sp14
GL's mOD GPS	87.22	87.48	87.85	85.93	85.94	85.95	86.13	86.06	85.73	85.75	85.72	85.73	85.66	85.71
TOC's	88.77	89.27	89.33	87.76	87.35	86.47	88.04	86.67	86.39	86.04	86.45	86.31	85.87	86.23
19-Mar-03	88.60	88.62	89.10	87.59	86.26	85.84		85.78	86.01	85.38	85.76	85.64	85.54	85.99
4-Apr-03	88.45	88.46	88.96	87.50	86.25	85.84		85.77	85.84	85.40	85.75	85.65	85.54	85.98
15-Apr-03	88.35	88.37	88.75	87.42	86.22	85.82		85.75	86.00	85.38	85.72	85.63	85.52	85.99
29-Apr-03	88.25	88.26	88.76	87.38	86.22	85.85		85.78	85.83	85.40	85.80	85.60	85.54	86.09
14-May-03	88.17	88.19	88.68	87.33	86.21	85.85		85.77	85.74	85.39	85.79	85.61	85.54	86.00
27-May-03	88.21	88.23	88.75	87.37	86.21	85.84		85.77	85.83	85.39	85.78		85.53	85.99
10-Jun-03	88.17	88.18	88.70	87.35	86.21	85.86		85.78	85.85	85.39	85.75	85.66	85.54	86.00
24-Jun-03	88.03	88.07	88.56	87.15	85.89	85.51		85.43	85.75	85.26	85.68	85.40	85.31	85.85
8-Jul-03	88.13	88.14	88.57	87.23	86.13	85.80		85.71	85.88	85.36	85.68	85.61	85.47	85.96
24-Jul-03	88.10	88.04	88.53	87.21	86.14	85.82		85.76	85.87	85.35	85.70	85.62	85.47	85.98
5-Aug-03	88.02	87.97	88.46	87.13	86.05	85.72		85.54	85.85	85.33	85.72	85.50	85.45	85.93
11-Aug-03	87.97	87.92	88.50	87.06	85.88	85.55		85.65	85.92	85.26	85.68	85.44	85.34	85.85
20-Aug-03	87.92	87.87	88.36	86.97	85.72	85.39		85.53	85.83	85.15	85.61	85.32	85.37	85.53
1-Sep-03	87.85	87.81	88.30	86.89	85.61	85.38		85.32	85.77	85.09	85.54	85.20	85.29	85.44
18-Sep-03	87.79	87.74	88.24	86.88	85.71	85.38		85.41	85.87	85.10	85.55	85.23	85.28	85.52
29-Sep-03	87.75	87.70	88.19	86.87	85.75	85.45		85.47	85.80	85.16	85.58	85.29	85.33	85.60
22-Oct-07	87.66	87.62	88.12	86.86	85.86	85.56		85.57	85.91	85.23	85.65	85.39	85.37	85.65
4-Nov-03	87.69	87.66	88.15	86.96	86.10	85.83		85.79	85.88	85.34	85.80	85.62	85.49	85.98
18-Nov-03	87.65	87.67	88.17	86.98	86.11	85.84		85.78	85.89	85.34	85.77	85.57	85.49	85.96
4-Dec-03	87.84	87.79	88.29	87.05	86.13	85.84		85.76	85.99	85.34	85.77	85.58	85.51	85.97
16-Dec-03	87.95	87.91	88.40	87.13	86.15	85.84		85.76	85.99	85.36	85.76	85.58	85.51	85.96
7-Jan-04	88.38	88.35	88.83	87.42	86.23	85.87		85.82	86.01	85.38	85.80	85.61	85.58	85.90
24-Jan-08		88.58	89.07	87.59	86.25	85.86		85.79	86.00	85.39	85.77	85.65	85.62	85.92
4-Feb-04		88.59	89.08	87.58	86.25	85.85		85.76	86.00	85.40	85.77	85.64	85.62	85.91
19-Feb-04		88.60	89.08	87.57	86.24	85.83		85.73	85.99	85.40	85.76	85.62	85.63	85.90
10-Mar-04		88.35	88.84	87.42	86.21	85.80		85.78	85.99	85.37	85.75	85.62	85.62	85.89
30-Mar-04		88.35	88.84	87.42	86.21	85.83		85.78	85.99	85.38	85.75	85.62	85.60	85.89
7-Apr-04		88.34	88.79	87.39	86.21	85.85		85.76	86.00	85.40	85.75	85.63	85.59	85.90
20-Apr-04		88.27	88.76	87.38	86.21	85.86		85.82	86.01	85.41	85.75	85.65	85.58	85.90
28-Apr-04		88.224	88.71	87.33	86.17	85.86		85.75	85.99	85.36	85.71	85.61	85.60	85.85
26-May-04				87.13	86.01	85.67		85.70			85.70	85.41		
2-Jun-04				87.06	85.93	85.65					85.70	85.37		
12-Jun-04				86.99	85.83	85.62					85.66	85.32		
25-Jun-04				87.02	86.03	85.70					85.70	85.41		
6-Jul-04				87.01	86.03	85.76					85.71	85.42		
20-Jul-04				86.94	85.99	85.70					85.69	85.38		
17-Aug-04				86.91	86.02	85.76					85.68	85.39		
19-Aug-04				86.86	86.01	85.72					85.69			
21-Sep-04				86.86	86.03	85.77					85.72	85.48		
5-Oct-04				86.86	86.04	85.82								
12-Oct-04											85.82			
20-Oct-04				86.86	86.06	85.81					85.68	85.60		
4-Nov-04				86.94	86.07	85.76					85.68	85.58		
8-Dec-04				87.00	86.08	85.78					85.68	85.58		
10-Jan-05				87.32	86.17	85.82					85.72	85.60		
11-Jan-05				87.35	86.20	85.85					85.68	85.63		
31-Jan-05				87.41	86.20	85.80					85.73	85.60		
10-Feb-05				87.37	86.20	85.84					85.74	85.62		

	Sp1	Sp2	Sp3	Sp4	Sp5	Sp6	Sp7	Sp8	Sp9	Sp10	Sp11	Sp12	Sp13	Sp14
GL's mOD GPS	87.22	87.48	87.85	85.93	85.94	85.95	86.13	86.06	85.73	85.75	85.72	85.73	85.66	85.71
TOC's	88.77	89.27	89.33	87.76	87.35	86.47	88.04	86.67	86.39	86.04	86.45	86.31	85.87	86.23
27-Feb-05				87.32	86.19	85.84					85.73	85.61		
16-Mar-05				87.28	86.18	85.83					85.77	85.59		
31-Mar-05				87.22	86.16	85.80					85.74	85.61		
4-Apr-05				87.29	86.19	85.85					85.74	85.63		
9-May-05				87.24	86.14	85.76					85.69	85.59		
24-May-05				87.21	86.14	85.83					85.69	85.61		
8-Jun-05				87.09	86.07						85.66	85.59		
23-Jun-05				86.92	85.84	85.46					85.43	85.48		
5-Aug-05				86.91	86.02	85.71					85.55	85.53		
19/08/2005				86.85	85.95	85.71					85.56	85.51		
01/09/2005				86.78	85.87	85.57					85.53	85.50		
15/09/2005				86.79	85.90	85.62					85.52	85.48		

APPENDIX 24

Groundwater flow analysis within Intensive Quadrate C

This appendix contains numerical results of the groundwater flow analysis within site C. The methodology and summary of the results are presented in Volume I.

Deep layer																				
hydraulic conductivity	k =	1.21E-05	[m/s]																	
distance:	Sp3Sp4 =	39.8		Sp2Sp5 =	39.8		Sp1Sp7	31.75	Sp7Sp9	55.11			Sp5Sp11	44.83			28.65	30.50		
depth of standpipes	8.00	7			7	5			7	8			5	11			7.00	5		
elevation	87.85	85.93			87.48	85.94			86.13	85.73			85.94	85.72			89.23	87.99		
	Sp3	Sp4	gradient	Specific discharge	Sp2	Sp5	gradient	Specific discharge	Sp7	Sp9	gradient	Specific discharge	Sp5	Sp11	gradient	Specific discharge	Sp4	Sp13	gradient	Specific discharge
October-97	87.80	87.09	0.018	0.000000	87.74	86.19	0.039	0.000000	87.76	85.69	0.038	0.00000045	86.19	85.73	0.010	0.00000013	87.09	85.24	0.06	0.0000007
November-97	88.33	87.08	0.031	0.000000	87.82	86.20	0.041	0.000000	87.82	85.69	0.039	0.00000047	86.20	85.72	0.011	0.00000013	87.08	85.42	0.05	0.0000007
December-97	88.37	87.09	0.032	0.000000	87.82	86.20	0.041	0.000000	87.84	85.70	0.039	0.00000047	86.20	85.73	0.011	0.00000013	87.09	85.50	0.05	0.0000006
January-98	88.47	87.17	0.033	0.000000	87.98	86.23	0.044	0.000001	88.00	85.70	0.042	0.00000050	86.23	85.73	0.011	0.00000013	87.17	85.50	0.05	0.0000007
February-98	89.22	87.64	0.040	0.000000	88.69	86.90	0.045	0.000001		85.72			86.90	85.78	0.025	0.00000030	87.64	85.64	0.07	0.0000008
March-98	89.14	87.62	0.038	0.000000	88.71	86.36	0.059	0.000001		85.72			86.36	85.75	0.014	0.00000016	87.62	85.35	0.07	0.0000009
April-98	88.87	87.45	0.036	0.000000	88.37	86.29	0.052	0.000001		85.74			86.29	85.73	0.013	0.00000015	87.45	85.03	0.08	0.0000010
May-98	88.88	87.46	0.036	0.000000	88.41	86.27	0.054	0.000001		85.75			86.27	85.72	0.012	0.00000015	87.46	85.06	0.08	0.0000009
June-98	88.88	87.46	0.036	0.000000	88.43	86.29	0.054	0.000001		85.75			86.29	85.72	0.013	0.00000015	87.46	85.08	0.08	0.0000009
July-98	88.71	87.32	0.035	0.000000	88.23	86.19	0.051	0.000001	87.96	85.71	0.041	0.00000049	86.19	85.68	0.011	0.00000014	87.32	85.00	0.08	0.0000009
August-98	88.38	87.06	0.033	0.000000	87.86	85.98	0.047	0.000001	87.92	85.60	0.042	0.00000051	85.98	85.60	0.009	0.00000010	87.06	85.35	0.06	0.0000007
September-98	88.26	86.79	0.037	0.000000	87.79	85.92	0.047	0.000001	87.79	85.65	0.039	0.00000047	85.92	85.59	0.007	0.00000009	86.79	85.24	0.05	0.0000006
October-98	88.41	87.135	0.032	0.000000	87.89	86.16	0.044	0.000001	87.75	85.79	0.036	0.00000043	86.16	85.69	0.011	0.00000013	87.14	85.44	0.06	0.0000007
November-98	89.00	87.615	0.035	0.000000	88.71	86.31	0.060	0.000001		85.88			86.31	85.80	0.012	0.00000014	87.62	85.57	0.07	0.0000008
December-98		87.755			88.99	86.34	0.067	0.000001		85.99			86.34	85.81	0.012	0.00000014	87.76	85.60	0.07	0.0000009
January-99		87.51			88.92	86.35	0.065	0.000001		85.91			86.35	85.77	0.013	0.00000016	87.51	85.58	0.06	0.0000008
February-99	89.28	87.71	0.039	0.000000	88.78	86.31	0.062	0.000001		86.01			86.31	85.79	0.012	0.00000014	87.71	85.59	0.07	0.0000008
March-99	89.10	87.59	0.038	0.000000	88.63	86.27	0.059	0.000001		86.01			86.27	85.75	0.012	0.00000014	87.59	85.53	0.07	0.0000008
April-99	88.82	87.43	0.035	0.000000	88.37	86.23	0.054	0.000001		85.89			86.23	85.75	0.011	0.00000013	87.43	85.53	0.06	0.0000008
May-99	88.71	87.35	0.034	0.000000	88.21	86.21	0.050	0.000001		85.78			86.21	85.78	0.010	0.00000012	87.35	85.53	0.06	0.0000007
June-99	88.63	87.25	0.035	0.000000	88.13	86.05	0.052	0.000001		85.80			86.05	85.71	0.008	0.00000009	87.25	85.42	0.06	0.0000007
July-99	88.55	87.22	0.034	0.000000	88.09	86.13	0.049	0.000001		85.87			86.13	85.69	0.010	0.00000012	87.22	85.47	0.06	0.0000007
August-99	88.43	87.01	0.036	0.000000	87.90	85.80	0.053	0.000001		85.87			85.80	85.64	0.004	0.00000004	87.01	85.35	0.05	0.0000007
September-99	88.24	86.88	0.034	0.000000	87.75	85.69	0.052	0.000001		85.81			85.69	85.55	0.003	0.00000004	86.88	85.30	0.05	0.0000006
October-99	88.12	86.86	0.032	0.000000	87.62	85.86	0.044	0.000001		85.91			85.86	85.65	0.005	0.00000006	86.86	85.37	0.05	0.0000006
November-99	88.16	86.97	0.030	0.000000	87.67	86.11	0.039	0.000000		85.88			86.11	85.78	0.007	0.00000009	86.97	85.49	0.05	0.0000006
December-99	88.34	87.09	0.032	0.000000	87.85	86.14	0.043	0.000001		85.99			86.14	85.76	0.008	0.00000010	87.09	85.51	0.05	0.0000006
January-00	88.95	87.50	0.036	0.000000	88.47	86.24	0.056	0.000001		86.00			86.24	85.78	0.010	0.00000012	87.50	85.60	0.06	0.0000008
February-00	89.08	87.57	0.038	0.000000	88.60	86.25	0.059	0.000001		85.99			86.25	85.76	0.011	0.00000013	87.57	85.62	0.06	0.0000008
March-00	88.84	87.42	0.036	0.000000	88.35	86.21	0.054	0.000001		85.99			86.21	85.75	0.010	0.00000013	87.42	85.61	0.06	0.0000007
April-00	88.75	87.36	0.035	0.000000	88.28	86.20	0.052	0.000001		86.00			86.20	85.73	0.010	0.00000013	87.36	85.59	0.06	0.0000007
May-00		87.13				86.01							86.01	85.70	0.007	0.00000009	87.13			
June-00		87.02				85.93							85.93	85.68	0.006	0.00000007	87.02			
July-00		86.97				86.01							86.01	85.70	0.007	0.00000009	86.97			
August-00		86.91				86.02							86.02	85.68	0.008	0.00000009	86.91			
September-00		86.86				86.02							86.02	85.70	0.007	0.00000009	86.86			
October-00		86.86																		
November-00		86.94																		
December-00		87.00																		
January-01		87.36																		
February-01		87.37																		
March-01		87.25																		
April-01		87.29																		
May-01		87.22																		
June-01		87.00																		
July-01																				
August-01		86.85																		
September-01		86.78																		
max	89.28	87.76	0.0397487	0.0000005	88.99	86.90	0.0666332	0.0000008	88.00	86.01	0.0420976	0.0000005	86.90	85.81	0.0251	0.00000030	87.76	85.64	0.079246	0.000001
min	87.80	86.78	0.0178894	0.0000002	87.62	85.69	0.0389950	0.0000005	87.75	85.60	0.0355652	0.0000004	85.69	85.55	0.0031	0.00000004	86.79	85.00	0.048426	0.000001
average	88.64	87.22	0.0342955	0.0000004	88.23	86.16	0.0512313	0.0000006	87.85	85.83	0.0392737	0.0000005	86.16	85.72	0.0099	0.00000012	87.26	85.42	0.061613	0.000001
			[m/year]	13.087			[m/year]	19.549			[m/year]	14.986			[m/year]	3.796			[m/year]	23.511
			[m/month]	1.076			[m/month]	1.607			[m/month]	1.232			[m/month]	0.312			[m/month]	1.932
			[m/day]	0.036			[m/day]	0.054			[m/day]	0.041			[m/day]	0.010			[m/day]	0.064

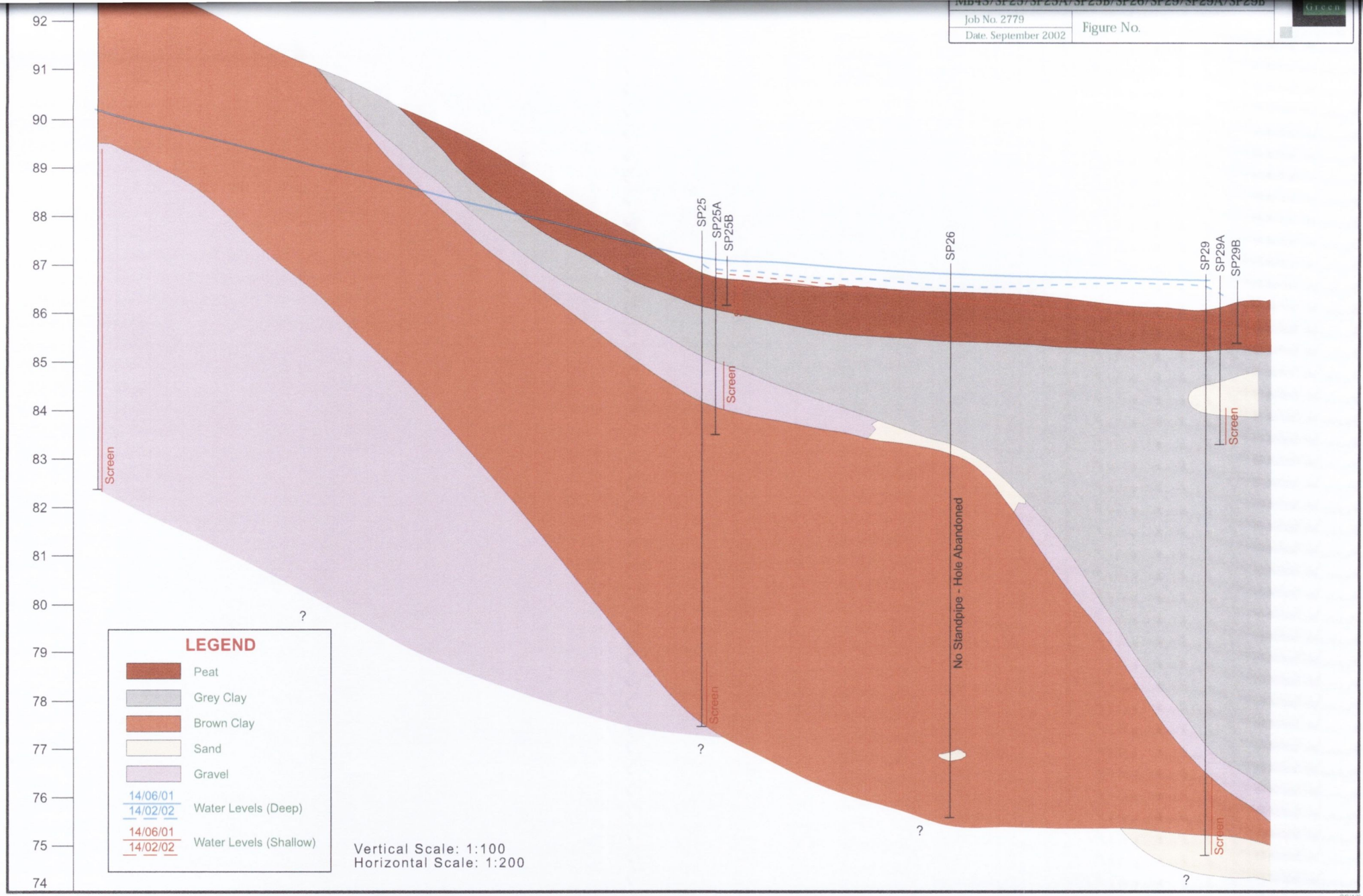
Phreatic level								
hydraulic conductivity	k =	1.19E-06	[m/s]					
distance	Sp6Sp12 =	45.75			Sp8Sp10 =	58.48		
depth of standpipes	2.00	4			2	5		
elevation	85.95	85.73			86.06	85.75		
	Sp6	Sp12	gradient	flow per unit width	Sp8	Sp10	gradient	flow per unit width
October-01	85.61	85.63	-0.00044	-0.000000002	85.65	85.62	0.001	0.000000004
November-01	85.86	85.62	0.00536	0.000000026	85.76	85.62	0.002	0.000000014
December-01	85.87	85.62	0.00546	0.000000026	85.76	85.62	0.003	0.000000015
January-02	85.82	85.61	0.00459	0.000000022	85.77	85.64	0.002	0.000000013
February-02	85.86	85.65	0.00459	0.000000022	85.99	85.65	0.006	0.000000036
March-02	85.55	85.63	-0.00175	-0.000000008	85.76	85.63	0.002	0.000000014
April-02	85.52	85.62	-0.00219	-0.000000010	85.73	85.61	0.002	0.000000012
May-02	85.52	85.66	-0.00306	-0.000000014	85.65	85.66	0.000	-0.000000001
June-02	85.52	85.66	-0.00317	-0.000000015	85.69	85.64	0.001	0.000000005
July-02	85.61	85.58	0.00077	0.000000004	85.61	85.44	0.003	0.000000017
August-02	85.66	85.56	0.00219	0.000000010	85.60	85.27	0.006	0.000000032
September-02	85.52	85.43	0.00197	0.000000009	85.50	85.23	0.005	0.000000026
October-02	85.79	85.63	0.00339	0.000000016	85.77	85.33	0.008	0.000000043
November-02	85.92	85.62	0.00667	0.000000032	85.79	85.39	0.007	0.000000040
December-02	85.88	85.65	0.00503	0.000000024	85.80	85.41	0.007	0.000000039
January-03	85.87	85.66	0.00470	0.000000023	85.83	85.41	0.007	0.000000042
February-03	85.87	85.66	0.00459	0.000000022	85.81	85.40	0.007	0.000000041
March-03	85.84	85.64	0.00426	0.000000020	85.79	85.37	0.007	0.000000041
April-03	85.83	85.62	0.00459	0.000000022	85.77	85.39	0.007	0.000000037
May-03	85.84	85.61	0.00514	0.000000024	85.77	85.39	0.007	0.000000038
June-03	85.68	85.53	0.00339	0.000000016	85.61	85.32	0.005	0.000000028
July-03	85.81	85.61	0.00426	0.000000020	85.74	85.35	0.007	0.000000038
August-03	85.47	85.38	0.00197	0.000000009	85.59	85.20	0.007	0.000000037
September-03	85.40	85.24	0.00361	0.000000015	85.40	85.11	0.005	0.000000027
October-03	85.56	85.39	0.00372	0.000000017	85.57	85.23	0.006	0.000000033
November-03	85.83	85.59	0.00525	0.000000025	85.79	85.34	0.008	0.000000044
December-03	85.84	85.58	0.00568	0.000000027	85.76	85.35	0.007	0.000000041
January-04	85.86	85.63	0.00514	0.000000025	85.81	85.38	0.007	0.000000042
February-04	85.84	85.63	0.00459	0.000000022	85.75	85.40	0.006	0.000000035
March-04	85.81	85.62	0.00426	0.000000020	85.78	85.37	0.007	0.000000041
April-04	85.85	85.63	0.00495	0.000000024	85.78	85.39	0.007	0.000000039
May-04	85.67	85.41	0.00568	0.000000026	85.70			
June-04	85.65	85.36	0.00634	0.000000029				
July-04	85.73	85.40	0.00721	0.000000033				
August-04	85.76	85.39	0.00809	0.000000037				
September-04	85.74	85.48	0.00579	0.000000027				
October-04	85.81	85.60	0.00470	0.000000022				
November-04	85.76	85.58	0.00393	0.000000018				
December-04	85.78	85.58	0.00437	0.000000021				
January-05	85.82	85.61	0.00466	0.000000022				
February-05	85.84	85.62	0.00481	0.000000023				
March-05	85.81	85.60	0.00470	0.000000022				
April-05	85.85	85.63	0.00481	0.000000023				
May-05	85.79	85.60	0.00426	0.000000020				
June-05	85.46	85.53	-0.00164	-0.000000007				
July-05								
August-05	85.71	85.51	0.00437	0.000000020				
September-05	85.59	85.49	0.00230	0.000000010				
max	85.92	85.66	0.0080874	0.00000004	85.99	85.66	0.00774624	0.00000004
min	85.40	85.24	-0.0031694	-0.00000001	85.40	85.11	-0.00011970	0.00000000
average	85.73	85.56	0.0036996	0.00000002	85.72	85.42	0.00514977	0.00000003
			[m2/year]	0.548			[m2/year]	0.929
			[m2/month]	0.045			[m2/month]	0.076
			[m2/day]	0.002			[m2/day]	0.003

Verical												
hydraulic conductivity	k	1.77E-07		k	2.81E-07		k	3.05E-07		k	3.13E-07	
depth of sp	5	2.00		6	4		8	5		5	4	
elevation	85.94	85.95		85.72	85.73		85.73	85.75		87.99	85.71	
	Sp5	Sp6	Specific discharge	Sp11	Sp12	Specific discharge	Sp9	Sp10	Specific discharge	Sp13	Sp14	Specific discharge
October-97	86.19	85.61	3.46E-08	85.73	85.63	0.0000000139	85.69	85.62	0.0000000053	85.24	85.84	-0.0000001884
November-97	86.20	85.86	1.98E-08	85.72	85.62	0.0000000146	85.69	85.62	0.0000000050	85.42	85.93	-0.0000001602
December-97	86.20	85.87	1.98E-08	85.73	85.62	0.0000000153	85.70	85.62	0.0000000061	85.50	86.01	-0.0000001602
January-98	86.23	85.82	2.43E-08	85.73	85.61	0.0000000172	85.70	85.64	0.0000000041	85.50	86.00	-0.0000001550
February-98	86.90	85.86	6.18E-08	85.78	85.65	0.0000000182	85.72	85.65	0.0000000053	85.64	85.92	-0.0000000881
March-98	86.36	85.55	4.79E-08	85.75	85.63	0.0000000175	85.72	85.63	0.0000000072	85.35	86.02	-0.0000002119
April-98	86.29	85.52	4.52E-08	85.73	85.62	0.0000000146	85.74	85.61	0.0000000099	85.03	86.00	-0.0000003044
May-98	86.27	85.52	4.46E-08	85.72	85.66	0.0000000090	85.75	85.66	0.0000000069	85.06	85.99	-0.0000002903
June-98	86.29	85.52	4.58E-08	85.72	85.66	0.0000000083	85.75	85.64	0.0000000084	85.08	85.98	-0.0000002840
July-98	86.19	85.61	3.40E-08	85.68	85.58	0.0000000139	85.71	85.44	0.0000000210	85.00	85.96	-0.0000002997
August-98	85.98	85.66	1.92E-08	85.60	85.56	0.0000000055	85.60	85.27	0.0000000252	85.35	85.91	-0.0000001759
September-98	85.92	85.52	2.36E-08	85.59	85.43	0.0000000231	85.65	85.23	0.0000000320	85.24	85.82	-0.0000001821
October-98	86.16	85.79	2.19E-08	85.69	85.63	0.0000000076	85.79	85.33	0.0000000347	85.44	85.97	-0.0000001649
November-98	86.31	85.92	2.31E-08	85.80	85.62	0.0000000252	85.88	85.39	0.0000000370	85.57	85.98	-0.0000001288
December-98	86.34	85.88	2.75E-08	85.81	85.65	0.0000000224	85.99	85.41	0.0000000443	85.60	86.02	-0.0000001320
January-99	86.35	85.87	2.84E-08	85.77	85.66	0.0000000160	85.91	85.41	0.0000000385	85.58	86.03	-0.0000001398
February-99	86.31	85.87	2.63E-08	85.79	85.66	0.0000000182	86.01	85.40	0.0000000465	85.59	85.99	-0.0000001257
March-99	86.27	85.84	2.57E-08	85.75	85.64	0.0000000153	86.01	85.37	0.0000000485	85.53	85.99	-0.0000001445
April-99	86.23	85.83	2.35E-08	85.75	85.62	0.0000000182	85.89	85.39	0.0000000379	85.53	86.02	-0.0000001529
May-99	86.21	85.84	2.19E-08	85.78	85.61	0.0000000245	85.78	85.39	0.0000000301	85.53	85.99	-0.0000001445
June-99	86.05	85.68	2.19E-08	85.71	85.53	0.0000000259	85.80	85.32	0.0000000362	85.42	85.92	-0.0000001570
July-99	86.13	85.81	1.94E-08	85.69	85.61	0.0000000104	85.87	85.35	0.0000000397	85.47	85.97	-0.0000001570
August-99	85.80	85.47	1.98E-08	85.64	85.38	0.0000000372	85.87	85.20	0.0000000511	85.35	85.69	-0.0000001053
September-99	85.69	85.40	1.71E-08	85.55	85.24	0.0000000444	85.81	85.11	0.0000000532	85.30	85.52	-0.0000000693
October-99	85.86	85.56	1.80E-08	85.65	85.39	0.0000000365	85.91	85.23	0.0000000519	85.37	85.65	-0.0000000881
November-99	86.11	85.83	1.63E-08	85.78	85.59	0.0000000266	85.88	85.34	0.0000000416	85.49	85.97	-0.0000001508
December-99	86.14	85.84	1.80E-08	85.76	85.58	0.0000000259	85.99	85.35	0.0000000488	85.51	85.96	-0.0000001429
January-00	86.24	85.86	2.25E-08	85.78	85.63	0.0000000217	86.00	85.38	0.0000000473	85.60	85.91	-0.0000000975
February-00	86.25	85.84	2.42E-08	85.76	85.63	0.0000000189	85.99	85.40	0.0000000454	85.62	85.90	-0.0000000881
March-00	86.21	85.81	2.36E-08	85.75	85.62	0.0000000182	85.99	85.37	0.0000000469	85.61	85.89	-0.0000000881
April-00	86.20	85.85	2.04E-08	85.73	85.63	0.0000000149	86.00	85.39	0.0000000465	85.59	85.88	-0.0000000923
May-00	86.01	85.67	2.04E-08	85.70	85.41	0.0000000407						
June-00	85.93	85.65	1.65E-08	85.68	85.36	0.0000000449						
July-00	86.01	85.73	1.68E-08	85.70	85.40	0.0000000421						
August-00	86.02	85.76	1.57E-08	85.68	85.39	0.0000000407						
September-00	86.02	85.74	1.66E-08	85.70	85.48	0.0000000315						
October-00	86.05	85.81	1.42E-08	85.75	85.60	0.0000000210						
November-00	86.07	85.76	1.86E-08	85.68	85.58	0.0000000139						
December-00	86.08	85.78	1.80E-08	85.68	85.58	0.0000000139						
January-01	86.19	85.82	2.20E-08	85.71	85.61	0.0000000139						
February-01	86.20	85.84	2.16E-08	85.74	85.62	0.0000000167						
March-01	86.17	85.81	2.13E-08	85.75	85.60	0.0000000217						
April-01	86.19	85.85	2.04E-08	85.74	85.63	0.0000000153						
May-01	86.14	85.79	2.07E-08	85.69	85.60	0.0000000125						
June-01	85.96	85.46	2.96E-08	85.54	85.53	0.0000000013						
July-01												
August-01	85.95	85.71	1.45E-08	85.56	85.51	0.0000000069						
September-01	85.89	85.59	1.74E-08	85.52	85.49	0.0000000048						
max	86.90	85.92	0.00000006	85.81	85.66	0.00000004	86.005	85.660	0.00000005	85.638	86.029	-0.00000007
min	85.69	85.40	0.00000001	85.52	85.24	0.00000000	85.595	85.112	0.00000000	85.003	85.519	-0.00000030
average	86.14	85.73	0.00000002	85.71	85.56	0.00000002	85.829	85.422	0.00000003	85.423	85.924	-0.00000016
		[m/year]	0.768		[m/year]	0.631		[m/year]	0.979		[m/year]	-4.954
		[m/month]	0.063		[m/month]	0.052		[m/month]	0.080		[m/month]	-0.407
		[m/day]	0.002		[m/day]	0.002		[m/day]	0.003		[m/day]	-0.014

APPENDIX 25

Geological cross-sections and well logs – Intensive Quadrate D

This appendix presents geological profiles across Intensive Quadrate D based on borehole logs drilled on site by K.T.Cullen Ltd. as described in Chapter III-2. These maps and diagrams were produced by WYG Ltd. and are presented with their permission.


MB43/SP25/SP25A/SP25B/SP26/SP29/SP29A/SP29B
Job No. 2779
Date. September 2002
Figure No.
92
91
90
89
88
87
86
85
84
83
82
81
80
79
78
77
76
75
74
SP25
SP25A
SP25B
SP26
SP29
SP29A
SP29B
Screen
Screen
Screen
Screen
Screen
No Standpipe - Hole Abandoned
?
?
?
?
LEGEND
Peat
Grey Clay
Brown Clay
Sand
Gravel
14/06/01
14/02/02
Water Levels (Deep)
14/06/01
14/02/02
Water Levels (Shallow)
Vertical Scale: 1:100
Horizontal Scale: 1:200

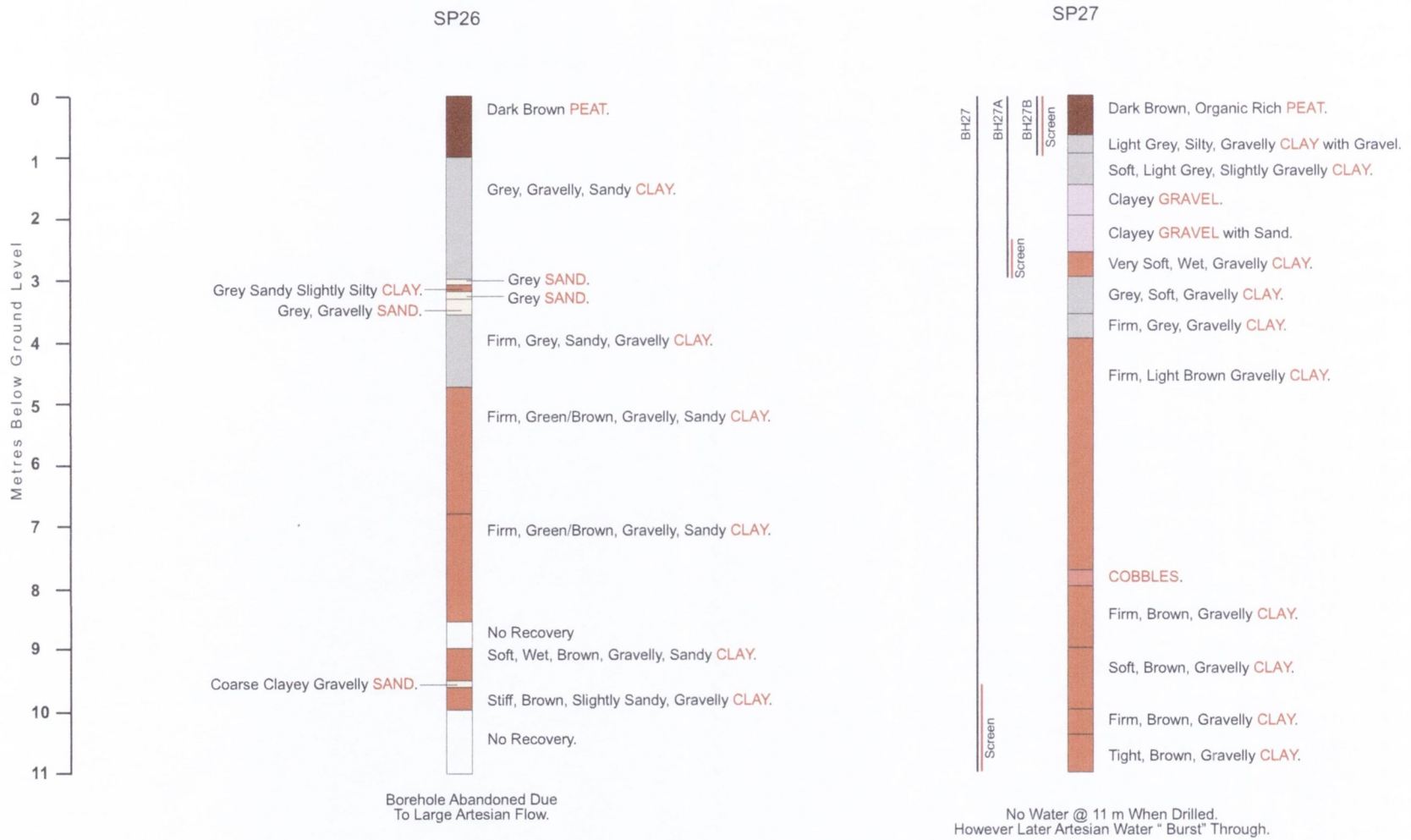
Site D.



Pollardstown Fen
Site D, Boreholes SP23/SP24 & SP25

White Young Green

Site D.



Pollardstown Fen
Site D, Boreholes SP26 & SP27

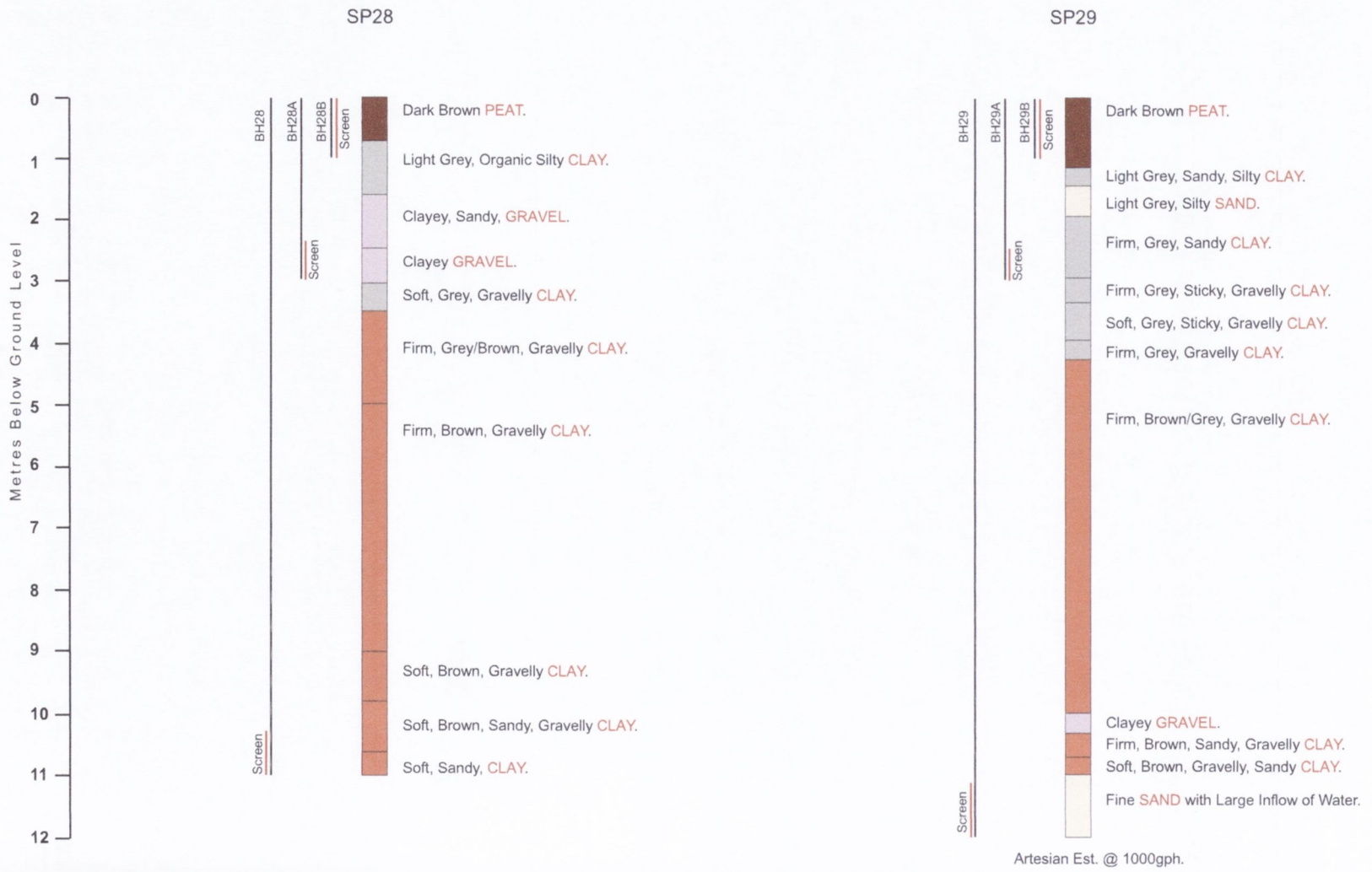
Job No. 2779
Date. September 2002

Figure No.

White Young Green

JF(8)

Site D.



Artesian Est. @ 1000gph.

Pollardstown Fen
Site D, Boreholes SP28 & SP29

White Young Green

APPENDIX 26

Water level data – Intensive Quadrate D

In this appendix, water level data from Intensive Quadrate D are presented in a tabular form. Data were collected from top of the casing, which was surveyed using the GPS technology. Data are presented with regard to the Poolbeg datum.

	Sp23	Sp23A	Sp23B	Sp24	Sp24A	Sp24B	Sp25	Sp25A	Sp25B	Sp27	Sp27A	Sp27B	Sp28	Sp28A	Sp28B	Sp29	Sp29A	Sp29B
GL mOD	**86.68**	**86.62**	**86.67**	**86.72**	**86.71**	**86.73**	**86.79**	**86.77**	**86.82**	**85.83**	**85.71**	**85.75**	**85.67**	**85.63**	**85.66**	**85.61**	**86.171**	**86.189**
ToC mOD	**87.82**	**86.78**	**87.29**	**87.05**	**87.26**	**87.57**	**87.91**	**87.09**	**87.52**	**86.57**	**86.44**	**86.28**	**85.71**	**86.51**	**86.03**	**86.12**	**86.681**	**86.499**
24/01/2001		86.67	86.64		86.92	86.70	87.23	87.09	86.77		85.87	85.35	85.68	85.48	85.59		86.241	85.979
15/02/2001		86.64	86.64		86.90	86.71	87.22	87.06	86.75		85.85	85.39	85.69	85.50	85.58		86.271	85.949
28/02/2001		86.63	86.64		86.86	87.01	87.22	87.02	86.76		85.77	85.44	85.69	85.47	85.58		86.271	85.989
15/05/2000	87.79	86.55	86.47		86.75	86.57	87.20	86.88	86.67		85.77	85.33	85.71	85.43	85.57		86.251	85.969
30/05/2001	87.72	86.51	86.38		86.69	86.42	87.19	86.82	86.58		85.74	85.32	85.68	85.40	85.56		86.221	85.909
14/06/2001	87.67	86.46	86.21		86.64	87.24	87.16	86.74	86.46		85.39	85.47	85.66	85.38	85.56		86.221	85.919
02/07/2001	87.61	86.47	86.38		86.63	86.45	87.18	86.75	86.53		85.40	85.54	85.68	85.50	85.54		86.231	85.879
16/07/2001	87.51	86.41	86.22		86.58	86.42	87.18	86.69	86.46		85.39	85.48	85.67	85.44	85.54		86.221	85.864
31/07/2001	87.43	86.36	85.92		86.52	86.20	87.18	86.63	86.50		85.20	85.27	85.68	85.42	85.49		86.181	85.619
15/08/2001	87.43	86.40	86.61		86.56	86.72	87.24	86.64	86.47		85.27	85.72		85.23	85.58		86.236	85.979
30/08/2001	87.37	86.41	86.30		86.55	86.41	80.79	86.65	86.50		85.55	85.63	85.68	85.40	85.54		86.091	86.039
11/09/2001	87.35	86.38	86.22		86.63	86.61	80.78	86.63	86.45		85.48	85.65	85.68	85.38	85.54		86.111	86.039
23/10/2001	87.39	86.50	86.46		86.62	86.69	80.78	86.74	86.68		85.58	85.60	85.68	85.36	85.57		86.141	86.039
09/11/2001	87.39	86.50	86.46		86.64	86.70	80.80	86.74	86.67		85.59	85.71	85.68	85.39	85.56		86.141	86.079
26/11/2001	87.37	86.47	86.19		86.61	86.67	80.80	86.72	86.55		85.56	85.69	85.68	85.35	85.56		86.161	86.049
12/12/2001	87.39	86.50	86.33		86.62	86.68	80.80	86.70	86.49		85.57	85.64	85.68	85.35	85.56		86.141	86.039
04/01/2002	87.40	86.48	86.38		86.63	86.58	80.86	86.70	86.47		85.60	85.68	85.69	85.35	85.57		86.141	86.039
18/01/2002	87.50	86.53	86.43		86.68	86.66	80.84	86.80	86.69		85.90	85.82	85.69	85.29	85.56		85.831	86.019
31/01/2002	87.71	86.56	86.61		86.79	86.69	80.84	86.31	-		85.56	85.81	85.67	85.31	85.57		86.161	86.079
14/02/2002		86.62	86.65		86.87	86.71	80.88	86.23	86.73		85.60	85.70	85.69	85.34	85.56		86.141	86.069
06/03/2002		86.67	86.64		86.89	86.69	80.90	87.05	86.77		85.57	85.72	85.69	85.29	85.57		86.161	86.049
25/03/2002		86.60	86.55		86.80	86.59	80.91	86.94	86.67		85.57	85.66	85.68	85.30	85.77		86.121	86.049
10/04/2002		86.49	86.56		86.75	86.73	80.92	86.88	86.63		85.54	85.61	85.68	85.29	85.56		86.201	85.999
24/04/2002		86.58	86.55		86.78	86.63	80.93	86.92	86.68		85.52	85.68	85.68	85.30	85.58		86.151	86.019
08/05/2002		86.60	86.57		86.78	86.61	80.95	86.90	86.65		85.54	85.66	85.68	85.37	85.57		86.131	86.039
28/05/2002		86.59	86.61		86.78	86.58	80.98	86.91	86.66		85.49	85.70	85.67	85.42	85.57		86.121	86.049
15/06/2002		86.56	86.54		86.75	86.71	81.03	86.88	86.67		85.59	85.67	85.68	85.44	85.57		86.121	86.049
25/06/2002		86.48	86.33		86.68	86.35	80.93	86.80	86.52		85.44	85.52	85.69	85.42	85.52		86.081	86.039
12/07/2002		86.46	86.51		86.64	86.45	80.89	86.76	86.66		85.39	85.47	85.68	85.42	85.51		86.081	86.029
25/07/2002		86.45	86.26		87.12	86.60	81.04	86.73	86.49		85.46	85.40	85.69	85.37	85.55		86.081	86.019
27/08/2002	87.64	86.41	86.27		86.57	86.72	80.08	86.67	86.48		85.34	85.49	85.70	85.33	85.54		86.061	86.019
12/09/2002	87.60	86.39	86.12		86.55	86.27	81.02	86.64	86.42		85.33	85.45	85.68	85.35	85.53		86.061	86.039
25/09/2002	87.54	86.35	86.12		86.51	86.19	81.10	86.60	86.35		85.28	85.36	85.69	85.47	85.51		86.051	86.039
09/10/2002	87.52	86.46	86.40		86.61	86.72	81.11	86.71	86.77		85.37	85.72	85.70	85.45	85.58		86.171	86.059
23/10/2002		86.60	86.61		86.79	86.69	81.11	86.92	86.71		85.60	85.70	85.70	85.45	85.56		86.141	86.049
05/11/2002		86.63	86.62		86.85	86.70	81.13	87.00	86.71		85.61	85.70	85.70	85.43	85.56		86.131	86.059
06/11/2002		86.73	86.64		87.02	86.71	81.14		86.78		85.59	85.73	85.70	85.49	85.59		86.171	86.109
10/12/2002		86.68	86.62		86.95	86.70	81.13	87.09	86.73		85.63	85.80	85.69	85.54	85.58		86.121	86.079
07/01/2003		86.68	86.62		86.92	86.74	81.13	87.08	86.74		85.61	85.70	85.70	85.53	85.57		86.311	85.939
20/01/2002		86.68	86.63		86.98	86.72	81.14		86.79		85.60	85.73	85.70	85.51	85.59		86.271	85.979
03/02/2003		86.67	86.69		86.91	86.71	81.14	87.08	86.75		85.61	85.72	85.70	85.51	85.57		86.131	86.079
12/02/2003		86.67	86.63		86.89	86.71	81.15	87.05	86.76		85.61	85.72	85.70	85.50	85.57		86.141	86.099
06/03/2003		86.62	86.61		86.85	86.70	81.15	87.00	86.82		85.60	85.70	85.70	85.45	85.62		86.261	85.939
21/03/2003		86.63	86.70		86.85	86.71	81.15	87.00	86.70		85.61	85.66	85.69	85.46	85.57		85.491	85.959
04/04/2003		86.60	86.55		86.80	86.75	81.16	86.95	86.67		85.57	85.65	85.69	85.40	85.57		86.261	85.939
15/04/2003		86.56	86.52	87.92	86.75	86.69	81.15	86.89	86.62	88.04	85.54	85.69	85.69	85.35	85.56		86.221	85.969
29/04/2003		86.62	86.64	87.85	86.76	86.67	81.15	86.89	86.71	87.97	85.58	85.71	85.69	85.32	85.57		86.201	85.959
27/05/2003		86.58	86.56	87.88	86.76	86.63	81.15	86.92	86.68	87.98	85.55	85.68	85.69	85.32	85.57		86.241	85.909
10/06/2003		86.57	86.60	87.82	86.75	86.69	81.20	86.88	86.72	87.94	85.58	85.76	85.60	85.47	85.57		86.241	85.959
24/06/2003	*87.81*	*86.42*	*86.13*	*87.72*	*86.61*		*81.20*	*86.74*	*86.34*	*87.84*	*85.33*	*85.33*	*85.60*	*85.48*	*85.52*		*86.171*	*85.799*
08/07/2003	87.87	86.51	86.43	87.87	86.68	86.53	81.13	86.88	86.58	87.86	85.41	85.60	*85.80*	85.48	85.55	87.93	86.241	85.909
23/07/2003	87.83	86.50	86.47	87.83	86.66	86.60	81.21	86.78	86.63	87.82	85.51	85.64	*85.66*	85.43	85.56	87.9	86.221	85.939

	Sp23	Sp23A	Sp23B	Sp24	Sp24A	Sp24B	Sp25	Sp25A	Sp25B	Sp27	Sp27A	Sp27B	Sp28	Sp28A	Sp28B	Sp29	Sp29A	Sp29B
GL mOD	**86.68**	**86.62**	**86.67**	**86.72**	**86.71**	**86.73**	**86.79**	**86.77**	**86.82**	**85.83**	**85.71**	**85.75**	**85.67**	**85.63**	**85.66**	**85.61**	**86.171**	**86.189**
ToC mOD	**87.82**	**86.78**	**87.29**	**87.05**	**87.26**	**87.57**	**87.91**	**87.09**	**87.52**	**86.57**	**86.44**	**86.28**	**85.71**	**86.51**	**86.03**	**86.12**	**86.681**	**86.499**
05/08/2003	87.78	86.44	86.25	87.77	86.60	86.32	81.21	86.72	86.39	87.77	85.44	85.52	*85.66*	85.41	85.54	87.85	86.221	85.819
11/08/2003	87.74	86.40	86.14	87.73	86.57	86.20	81.21	86.68	86.33	87.73	85.30	85.38	*85.67*	85.44	85.52	87.83	86.301	85.809
20/08/2003	87.69	86.39	86.14	87.69	86.56	86.18	81.21	86.67	86.40	87.68	85.17	85.29	*85.67*	85.44	85.48	87.765	86.141	85.849
01/09/2003	87.64	86.33	86.05	87.63	86.49	86.17	81.21	86.61	86.31	87.63	85.14	85.21	*85.67*	85.43	85.42	87.71	86.111	85.729
18/09/2003	87.58	86.13	86.15	87.58	86.49	86.20	81.13	86.59	86.32	87.57	85.26	85.33	*85.65*	85.39	85.46		86.181	85.809
29/09/2003	87.54	86.37	86.20	87.54	86.51	86.22	81.13	86.61	86.39	87.53	85.32	85.41	*85.66*	85.41	86.03	86.47	86.681	86.499
21/10/03	87.46	86.38	86.26	87.48	86.51	86.33	81.25	86.60	86.43	87.47	85.37	85.50	*85.64*	85.43	85.52	87.56	86.231	85.889
04/11/2003	87.49	86.46	86.54	87.49	86.59	86.62	81.29	86.69	86.59	87.48	85.55	85.66	*85.71*	85.39	85.56	86.47	86.311	86.019
18/11/2003	87.50	86.46	86.57	87.50	86.60	86.65	81.29	86.69	86.61	86.82	85.43	85.82	*85.71*	86.03	85.65	86.47	86.681	86.499
04/12/2003	87.60	86.48	86.58	87.60	86.64	86.66	81.30	86.76	86.63	87.58	85.55	85.70	*85.67*	85.52	85.56	86.47	86.321	86.019
16/12/2003	87.66	86.48	86.58	87.71	86.67	86.65	81.30	86.79	86.64	87.63	85.64	85.74		85.50	85.56	87.76	86.311	86.019
07/01/2004	88.09	86.67	86.63	88.08	86.89	86.70	81.32	87.03	86.76	88.00	85.56	85.70		85.51	85.58	88.12	86.301	85.989
23/01/04	88.24	86.68	86.63	88.23	86.87	86.71	81.34	87.02	86.74		85.59	85.70		85.55	85.57		86.261	85.959
04/02/2004		86.65	86.63		86.86	86.71	81.35	87.00	86.72		85.57	85.67		85.55	85.56		86.271	85.939
19/02/2004		86.64	86.64		86.85	86.71	81.36	86.98	86.69	88.14	85.55	85.64		85.56	85.56	88.29	86.281	85.929
10/03/2004		86.60	86.64		86.79	86.71	81.36	86.92	86.68	87.96	85.60	85.68		85.56	85.56	88.1	86.251	85.929
30/03/2004		86.59	86.65		86.80	86.71	81.36	86.93	86.67	88.00	85.59	85.68		85.47	85.56	88.13	86.251	85.919
07/04/2004		86.60	86.64		86.80	86.71	81.37	86.92	86.69	87.94	85.59	85.70		85.51	85.56	88.07	86.261	85.929
20/04/2004		86.63	86.65		86.81	86.73	81.40	86.93	86.75	87.91	85.55	85.72		85.49	85.57	88.05	86.231	85.959
21/04/2004		86.56	86.64		86.75	86.55	81.40	86.88	86.63	87.80	85.54	85.65		85.51	85.55	88.03	86.241	85.899
26/05/2004		86.48	86.63											85.45	85.54			
02/06/2004		86.46	86.62											85.36	85.47			
12/06/2004		86.43	86.62											85.37	85.48			
25/06/2004		86.48	86.61											85.47	85.47			
06/07/2004		86.45	86.63											85.51	85.55			
20/07/2004		86.41	86.62											85.50	85.54			
17/08/2004		86.43	86.63											85.51	85.58			
19/09/2004		86.41	86.52											85.49	85.54			
21/09/2004		86.39	86.52											85.51	85.55			
05/10/2004		86.44	86.60										85.68	85.48	85.56			
20/10/2004		86.42	86.56										85.68	85.51	85.55			
04/11/2004			86.66										85.22	85.51	85.29			
08/12/2004		86.48	86.62										85.68	85.46	85.53			
10/01/2005		86.66	86.64										85.70	85.47	85.55			
11/01/2005		86.62	86.66										85.70	85.50	85.56			
31/01/2005		86.68	86.64										85.70	85.51	85.53			
10/02/2005		86.47	86.61										85.69	85.50	85.55			
27/02/2005		86.63	86.61										85.69	85.48	85.47			
31/03/2005		86.56	86.60		86.77	86.40							85.69	85.48	85.52			
04/04/2005		86.58	86.61										85.69	85.53	85.58			
09/05/2005		86.53	86.48		86.74	86.23							85.68	85.49	85.52			
24/05/2005		86.53	86.57										85.69	85.50	85.62			
08/06/2005		86.45	86.29										85.69	85.52	85.60			
23/06/2005		86.34	86.09										85.69	85.44	85.51			
05/08/2005		86.35	86.39										85.69	85.47	85.48			
19/08/2005		86.36	86.42										85.71	85.48	85.48			
01/09/2005		86.32	86.19										85.69	85.46	85.53			
15/09/2005		86.34	86.35										85.67	85.48	85.49			

APPENDIX 27

Groundwater flow rates within Intensive Quadrate D

This appendix contains numerical results of the groundwater flow within site D. The methodology and summary of the results are presented in Volume I.

Middle screens								
hydraulic conductivity	k =	1.21E-05	[m/s]					
distance	Sp24Sp29	44.83			Sp23Sp28	52.00		
depth of standpipes	3	3			3	3		
Surface elevation	88.63	87.21			86.50	86.36		
	Sp24A	Sp29A	gradient	Specific discharge	Sp23A	Sp28A	gradient	Specific discharge
October-01	86.62	86.14	0.011	0.000000	86.50	85.36	0.022	0.00000027
November-01	86.63	86.15	0.011	0.000000	86.49	85.37	0.022	0.00000026
December-01	86.62	86.14	0.011	0.000000	86.50	85.35	0.022	0.00000027
January-02	86.70	86.04	0.015	0.000000	86.53	85.32	0.023	0.00000028
February-02	86.87	86.14	0.016	0.000000	86.62	85.34	0.025	0.00000030
March-02	86.85	86.14	0.016	0.000000	86.64	85.30	0.026	0.00000031
April-02	86.77	86.18	0.013	0.000000	86.54	85.30	0.024	0.00000029
May-02	86.78	86.13	0.015	0.000000	86.60	85.40	0.023	0.00000028
June-02	86.72	86.10	0.014	0.000000	86.52	85.43	0.021	0.00000025
July-02	86.88	86.08	0.018	0.000000	86.46	85.40	0.020	0.00000025
August-02	86.57	86.06	0.011	0.000000	86.41	85.33	0.021	0.00000025
September-02	86.53	86.06	0.011	0.000000	86.37	85.41	0.019	0.00000022
October-02	86.70	86.16	0.012	0.000000	86.53	85.45	0.021	0.00000025
November-02	86.94	86.15	0.018	0.000000	86.68	85.46	0.024	0.00000028
December-02	86.95	86.12	0.019	0.000000	86.68	85.54	0.022	0.00000027
January-03	86.95	86.29	0.015	0.000000	86.68	85.52	0.022	0.00000027
February-03	86.90	86.14	0.017	0.000000	86.67	85.51	0.022	0.00000027
March-03	86.85	85.88	0.022	0.000000	86.63	85.46	0.023	0.00000027
April-03	86.77	86.23	0.012	0.000000	86.60	85.36	0.024	0.00000029
May-03	86.76	86.24	0.012	0.000000	86.58	85.32	0.024	0.00000029
June-03	86.68	86.21	0.011	0.000000	86.50	85.48	0.020	0.00000024
July-03	86.67	86.23	0.010	0.000000	86.51	85.46	0.020	0.00000025
August-03	86.58	86.22	0.008	0.000000	86.41	85.43	0.019	0.00000023
September-03	86.50	86.32	0.004	0.000000	86.28	85.41	0.017	0.00000020
October-03	86.51	86.23	0.006	0.000000	86.38	85.43	0.018	0.00000022
November-03	86.60	86.50	0.002	0.000000	86.46	85.71	0.015	0.00000018
December-03	86.66	86.32	0.008	0.000000	86.48	85.51	0.019	0.00000023
January-04	86.88	86.28	0.013	0.000000	86.68	85.53	0.022	0.00000027
February-04	86.86	86.28	0.013	0.000000	86.65	85.56	0.021	0.00000025
March-04	86.80	86.25	0.012	0.000000	86.60	85.52	0.021	0.00000025
April-04	86.79	86.24	0.012	0.000000	86.60	85.50	0.021	0.00000026
May-04					86.48	85.45	0.020	0.00000024
June-04					86.46	85.40	0.020	0.00000025
July-04					86.43	85.51	0.018	0.00000022
August-04					86.43	85.51	0.018	0.00000022
September-04					86.40	85.50	0.017	0.00000021
October-04					86.43	85.50	0.018	0.00000022
November-04						85.51		
December-04					86.48	85.46	0.020	0.00000024
January-05					86.66	85.49	0.022	0.00000027
February-05					86.55	85.49	0.020	0.00000025
March-05					86.56	85.48	0.021	0.00000025
April-05					86.58	85.53	0.020	0.00000025
May-05					86.53	85.49	0.020	0.00000024
June-05					86.40	85.48	0.018	0.00000021
July-05								
August-05					86.36	85.48	0.017	0.00000021
September-05					86.33	85.47	0.017	0.00000020
max	86.95	86.50	0.02174883	0.00000026	86.68	85.71	0.0258462	0.0000003
min	86.50	85.88	0.00223065	0.00000003	86.28	85.30	0.0145000	0.0000002
average	86.74	86.18	0.01239689	0.00000015	86.52	85.45	0.0206117	0.0000002
			[m/year]	4.730			[m/year]	7.865
			[m/month]	0.389			[m/month]	0.646
			[m/day]	0.013			[m/day]	0.022

Deep screens								
hydraulic conductivity	k =	1.21E-05	[m/s]					
distance	Sp24Sp29	44.83			Sp23Sp28	52.00		
depth of standpipes	9	11			9	11		
Surface elevation	86.72	85.61			86.68	85.67		
	Sp24	Sp29	gradient	Specific discharge	Sp23	Sp28	gradient	Specific discharge
October-01					86.50	85.68	0.016	0.00000019
November-01					86.49	85.68	0.015	0.00000019
December-01					86.50	85.68	0.016	0.00000019
January-02					86.53	85.69	0.016	0.00000020
February-02					86.62	85.69	0.018	0.00000022
March-02					86.64	85.69	0.018	0.00000022
April-02					86.54	85.68	0.016	0.00000020
May-02					86.60	85.68	0.018	0.00000021
June-02					86.52	85.69	0.016	0.00000019
July-02					86.46	85.69	0.015	0.00000018
August-02					86.41	85.70	0.014	0.00000017
September-02					86.37	85.69	0.013	0.00000016
October-02					86.53	85.70	0.016	0.00000019
November-02					86.68	85.70	0.019	0.00000023
December-02					86.68	85.69	0.019	0.00000023
January-03					86.68	85.70	0.019	0.00000023
February-03					86.67	85.70	0.019	0.00000023
March-03					86.63	85.70	0.018	0.00000022
April-03	87.88				86.60	85.69	0.017	0.00000021
May-03	87.88				86.58	85.69	0.017	0.00000021
June-03	87.77				86.50	85.60	0.017	0.00000021
July-03	87.85	87.92	-0.002	0.000000	86.51	85.73	0.015	0.00000018
August-03	87.73	87.82	-0.002	0.000000	86.41	85.67	0.014	0.00000017
September-03	87.58	87.09	0.011	0.000000	86.28	85.66	0.012	0.00000014
October-03	87.48	87.56	-0.002	0.000000	86.38			
November-03	87.49	86.47	0.023	0.000000	86.46	85.71	0.014	0.00000017
December-03	87.65	87.12	0.012	0.000000	86.48	85.67	0.016	0.00000019
January-04	88.16	88.12	0.001	0.000000	86.68			
February-04		88.29			86.65			
March-04		88.12			86.60			
April-04		88.05			86.60			
May-04					86.48			
June-04					86.46			
July-04					86.43			
August-04					86.43			
September-04					86.40			
October-04					86.43	85.68	0.014	0.00000018
November-04						85.22		
December-04					86.48	85.68	0.015	0.00000019
January-05					86.66	85.70	0.018	0.00000022
February-05					86.55	85.69	0.017	0.00000020
March-05					86.56	85.69	0.017	0.00000020
April-05					86.58	85.69	0.017	0.00000021
May-05					86.53	85.68	0.016	0.00000020
June-05					86.40	85.69	0.014	0.00000016
July-05								
August-05					86.36	85.71	0.013	0.00000015
September-05					86.33	85.68	0.013	0.00000015
max	88.16	88.29	0.02280839	0.00000028	86.68	85.73	0.0190577	0.0000002
min	87.48	86.47	-0.00193323	-0.00000002	86.28	85.22	0.0118782	0.0000001
average	87.75	87.65	0.00590060	0.00000007	86.52	85.68	0.0160360	0.0000002
			[m/year]	2.252			[m/year]	6.119
			[m/month]	0.185			[m/month]	0.503
			[m/day]	0.006			[m/day]	0.017

Phreatic level								
hydraulic conductivity	k =	1.19E-06	[m/s]					
distance	Sp23Sp28	52.00			Sp24Sp29	44.83		
depth of standpipe	1	1			1	1		
Surface elevation	86.67	85.66			86.73	86.19		
	Sp23B	Sp28B	gradient	flow per unit width	Sp24B	Sp29B	gradient	flow per unit width
October-01	86.46	85.57	0.01992	0.00000003	86.69	86.04	0.01252	0.00000002
November-01	86.32	85.56	0.01713	0.00000002	86.69	86.06	0.01194	0.00000002
December-01	86.33	85.56	0.01724	0.00000002	86.68	86.04	0.01233	0.00000002
January-02	86.47	85.56	0.02029	0.00000003	86.64	86.05	0.01149	0.00000002
February-02	86.65	85.56	0.02438	0.00000004	86.71	86.07	0.01233	0.00000002
March-02	86.59	85.67	0.02070	0.00000003	86.64	86.05	0.01137	0.00000002
April-02	86.55	85.57	0.02204	0.00000003	86.68	86.01	0.01290	0.00000002
May-02	86.59	85.57	0.02282	0.00000003	86.60	86.04	0.01060	0.00000002
June-02	86.43	85.54	0.01992	0.00000003	86.53	86.04	0.00935	0.00000001
July-02	86.38	85.53	0.01914	0.00000003	86.53	86.02	0.00963	0.00000001
August-02	86.27	85.54	0.01635	0.00000002	86.72	86.02	0.01348	0.00000002
September-02	86.12	85.52	0.01345	0.00000002	86.23	86.04	0.00367	0.00000000
October-02	86.50	85.57	0.02092	0.00000003	86.71	86.05	0.01252	0.00000002
November-02	86.63	85.57	0.02360	0.00000003	86.71	86.08	0.01194	0.00000002
December-02	86.62	85.58	0.02327	0.00000003	86.70	86.08	0.01194	0.00000002
January-03	86.62	85.58	0.02338	0.00000003	86.73	85.96	0.01483	0.00000002
February-03	86.66	85.57	0.02438	0.00000004	86.71	86.09	0.01194	0.00000002
March-03	86.65	85.59	0.02371	0.00000004	86.71	85.95	0.01454	0.00000002
April-03	86.57	85.56	0.02245	0.00000003	86.70	85.96	0.01438	0.00000002
May-03	86.56	85.57	0.02215	0.00000003	86.63	85.91	0.01387	0.00000002
June-03	86.36	85.54	0.01836	0.00000002	86.69	85.88	0.01560	0.00000002
July-03	86.45	85.55	0.01998	0.00000003	86.57	85.92	0.01233	0.00000002
August-03	86.17	85.51	0.01486	0.00000002	86.23	85.83	0.00784	0.00000001
September-03	86.13	85.63	0.01115	0.00000001	86.20	86.01	0.00354	0.00000000
October-03	86.26	85.52	0.01657	0.00000002	86.33	85.89	0.00848	0.00000001
November-03	86.55	85.60	0.02126	0.00000003	86.64	86.26	0.00723	0.00000001
December-03	86.58	85.56	0.02282	0.00000003	86.66	86.02	0.01223	0.00000002
January-04	86.63	85.57	0.02360	0.00000003	86.70	85.97	0.01401	0.00000002
February-04	86.63	85.56	0.02405	0.00000004	86.71	85.93	0.01492	0.00000002
March-04	86.64	85.56	0.02427	0.00000004	86.71	85.92	0.01512	0.00000002
April-04	86.64	85.56	0.02420	0.00000004	86.66	85.93	0.01412	0.00000002
May-04	86.63	85.54	0.02438	0.00000004				
June-04	86.61	85.47	0.02557	0.00000004				
July-04	86.62	85.54	0.02416	0.00000004				
August-04	86.63	85.58	0.02349	0.00000003				
September-04	86.52	85.54	0.02182	0.00000003				
October-04	86.58	85.55	0.02293	0.00000003				
November-04	86.66	85.29	0.03063	0.00000004				
December-04	86.62	85.53	0.02438	0.00000004				
January-05	86.64	85.54	0.02460	0.00000004				
February-05	86.61	85.51	0.02460	0.00000004				
March-05	86.60	85.52	0.02416	0.00000003				
April-05	86.61	85.58	0.02304	0.00000003				
May-05	86.48	85.52	0.02148	0.00000003				
June-05	86.19	85.55	0.01423	0.00000002				
July-05								
August-05	86.40	85.48	0.02070	0.00000003				
September-05	86.27	85.51	0.01702	0.00000002				
max	86.66	85.67	0.030627	0.00000004	86.73	86.26	0.01559615	0.00000002
min	86.12	85.29	0.011146	0.00000001	86.20	85.83	0.00354487	0.00000000
average	86.50	85.54	0.021395	0.00000003	86.61	86.00	0.01170916	0.00000002
			[m2/year]	0.952			[m2/year]	0.577
			[m2/month]	0.078			[m2/month]	0.047
			[m2/day]	0.003			[m2/day]	0.002

Vertical																		
Hydraulic Conductivity	k	1.96E-07		k	3.43E-07		k	2.12E-07		k	2.42E-07		k	3.38E-07		k	2.19E-07	
depth of standpipe	3	1		3	1		3	1		3	1		3	1		3	1	
Surface elevation	86.68	86.62		86.71	86.73		86.77	86.82		85.71	85.75		85.67	85.63		86.17	86.19	
	Sp23A	Sp23B	Seepage velocity	Sp24A	Sp24B	Seepage velocity	Sp25A	Sp25B	Seepage velocity	Sp27A	Sp27B	Seepage velocity	Sp28A	Sp28B	Seepage velocity	Sp29A	Sp29B	Seepage velocity
October-01	86.50	86.46	4.52E-09	86.62	86.69	-1.18E-08	86.74	86.68	6.90E-09	85.58	85.60	-2.05E-09	85.36	85.57	-3.46E-08	86.14	86.04	1.12E-08
November-01	86.49	86.32	1.63E-08	86.63	86.69	-1.01E-08	86.73	86.61	1.33E-08	85.58	85.70	-1.47E-08	85.37	85.56	-3.12E-08	86.15	86.06	9.53E-09
December-01	86.50	86.33	1.73E-08	86.62	86.68	-1.01E-08	86.70	86.49	2.28E-08	85.57	85.64	-8.10E-09	85.35	85.56	-3.46E-08	86.14	86.04	1.12E-08
January-02	86.53	86.47	5.50E-09	86.70	86.64	9.90E-09	86.61	86.58	3.01E-09	85.69	85.77	-9.71E-09	85.32	85.56	-4.14E-08	86.04	86.05	-1.46E-10
February-02	86.62	86.65	-2.36E-09	86.87	86.71	2.76E-08	86.23	86.73	-5.25E-08	85.60	85.70	-1.17E-08	85.34	85.56	-3.63E-08	86.14	86.07	7.89E-09
March-02	86.64	86.59	4.52E-09	86.85	86.64	3.54E-08	87.00	86.72	2.97E-08	85.57	85.69	-1.41E-08	85.30	85.67	-6.25E-08	86.14	86.05	1.01E-08
April-02	86.54	86.55	-1.38E-09	86.77	86.68	1.48E-08	86.90	86.65	2.65E-08	85.53	85.65	-1.35E-08	85.30	85.57	-4.56E-08	86.18	86.01	1.83E-08
May-02	86.60	86.59	1.08E-09	86.78	86.60	3.19E-08	86.91	86.65	2.71E-08	85.52	85.68	-1.96E-08	85.40	85.57	-2.87E-08	86.13	86.04	8.98E-09
June-02	86.52	86.43	8.94E-09	86.72	86.53	3.19E-08	86.84	86.59	2.65E-08	85.52	85.60	-9.30E-09	85.43	85.54	-1.86E-08	86.10	86.04	6.24E-09
July-02	86.46	86.38	7.47E-09	86.88	86.53	6.11E-08	86.75	86.57	1.86E-08	85.43	85.44	-8.46E-10	85.40	85.53	-2.19E-08	86.08	86.02	6.24E-09
August-02	86.41	86.27	1.43E-08	86.57	86.72	-2.56E-08	86.67	86.48	2.07E-08	85.34	85.49	-1.78E-08	85.33	85.54	-3.46E-08	86.06	86.02	4.60E-09
September-02	86.37	86.12	2.52E-08	86.53	86.23	5.17E-08	86.62	86.38	2.55E-08	85.31	85.41	-1.17E-08	85.41	85.52	-1.77E-08	86.06	86.04	1.86E-09
October-02	86.53	86.50	3.05E-09	86.70	86.71	-6.87E-10	86.82	86.74	8.49E-09	85.49	85.71	-2.68E-08	85.45	85.57	-1.94E-08	86.16	86.05	1.12E-08
November-02	86.68	86.63	5.50E-09	86.94	86.71	3.97E-08	87.00	86.74	2.76E-08	85.60	85.72	-1.35E-08	85.46	85.57	-1.86E-08	86.15	86.08	7.34E-09
December-02	86.68	86.62	6.48E-09	86.95	86.70	4.31E-08	87.09	86.73	3.87E-08	85.63	85.80	-2.02E-08	85.54	85.58	-5.91E-09	86.12	86.08	4.60E-09
January-03	86.68	86.62	5.99E-09	86.95	86.73	3.80E-08	87.08	86.76	3.39E-08	85.61	85.72	-1.29E-08	85.52	85.58	-9.28E-09	86.29	85.96	3.64E-08
February-03	86.67	86.66	1.57E-09	86.90	86.71	3.28E-08	87.07	86.75	3.34E-08	85.61	85.72	-1.29E-08	85.51	85.57	-1.01E-08	86.14	86.09	5.15E-09
March-03	86.63	86.65	-2.36E-09	86.85	86.71	2.51E-08	87.00	86.76	2.60E-08	85.61	85.68	-8.70E-09	85.46	85.59	-2.28E-08	85.88	85.95	-8.00E-09
April-03	86.60	86.57	2.88E-09	86.77	86.70	1.16E-08	86.91	86.67	2.63E-08	85.57	85.68	-1.41E-08	85.36	85.56	-3.46E-08	86.23	85.96	2.98E-08
May-03	86.58	86.56	2.55E-09	86.76	86.63	2.25E-08	86.92	86.68	2.60E-08	85.55	85.68	-1.53E-08	85.32	85.57	-4.14E-08	86.24	85.91	3.64E-08
June-03	86.50	86.36	1.34E-08	86.68	86.69	-1.55E-09	86.81	86.53	3.02E-08	85.46	85.55	-1.05E-08	85.48	85.54	-1.10E-08	86.21	85.88	3.58E-08
July-03	86.51	86.45	5.99E-09	86.67	86.57	1.82E-08	86.83	86.60	2.44E-08	85.46	85.62	-1.90E-08	85.46	85.55	-1.65E-08	86.23	85.92	3.36E-08
August-03	86.41	86.17	2.35E-08	86.58	86.23	5.91E-08	86.69	86.37	3.41E-08	85.31	85.40	-1.09E-08	85.43	85.51	-1.32E-08	86.22	85.83	4.33E-08
September-03	86.28	86.13	1.47E-08	86.50	86.20	5.17E-08	86.61	86.34	2.85E-08	85.24	85.32	-8.90E-09	85.41	85.63	-3.74E-08	86.32	86.01	3.42E-08
October-03	86.38	86.26	1.24E-08	86.51	86.33	3.11E-08	86.60	86.43	1.86E-08	85.37	85.50	-1.53E-08	85.43	85.52	-1.43E-08	86.23	85.89	3.75E-08
November-03	86.46	86.55	-8.74E-09	86.60	86.64	-6.70E-09	86.69	86.60	1.01E-08	85.49	85.74	-2.98E-08	85.71	85.60	1.86E-08	86.50	86.26	2.60E-08
December-03	86.48	86.58	-9.48E-09	86.66	86.66	1.72E-10	86.78	86.63	1.54E-08	85.60	85.72	-1.47E-08	85.51	85.56	-7.60E-09	86.32	86.02	3.25E-08
January-04	86.68	86.63	5.01E-09	86.88	86.70	3.07E-08	87.03	86.75	2.97E-08	85.58	85.70	-1.47E-08	85.53	85.57	-6.75E-09	86.28	85.97	3.36E-08
February-04	86.65	86.63	1.57E-09	86.86	86.71	2.51E-08	86.99	86.70	3.08E-08	85.56	85.66	-1.11E-08	85.56	85.56	0.00E+00	86.28	85.93	3.75E-08
March-04	86.60	86.64	-4.32E-09	86.80	86.71	1.48E-08	86.93	86.67	2.71E-08	85.60	85.68	-9.91E-09	85.52	85.56	-6.75E-09	86.25	85.92	3.58E-08
April-04	86.60	86.64	-4.00E-09	86.79	86.66	2.14E-08	86.91	86.69	2.39E-08	85.56	85.69	-1.53E-08	85.50	85.56	-9.28E-09	86.24	85.93	3.45E-08
May-04	86.48	86.63	-1.41E-08										85.45	85.54	-1.43E-08			
June-04	86.46	86.61	-1.51E-08										85.40	85.47	-1.15E-08			
July-04	86.43	86.62	-1.86E-08										85.51	85.54	-5.91E-09			
August-04	86.43	86.63	-1.91E-08										85.51	85.58	-1.10E-08			
September-04	86.40	86.52	-1.12E-08										85.50	85.54	-6.75E-09			
October-04	86.43	86.58	-1.41E-08										85.50	85.55	-9.28E-09			
November-04		86.66											85.51	85.29	3.80E-08			
December-04	86.48	86.62	-1.32E-08										85.46	85.53	-1.10E-08			
January-05	86.66	86.64	1.24E-09										85.49	85.54	-8.16E-09			
February-05	86.55	86.61	-5.31E-09										85.49	85.51	-2.53E-09			
March-05	86.56	86.60	-3.34E-09										85.48	85.52	-5.91E-09			
April-05	86.58	86.61	-2.36E-09										85.53	85.58	-7.60E-09			
May-05	86.53	86.48	5.50E-09										85.49	85.52	-4.22E-09			
June-05	86.40	86.19	2.07E-08										85.48	85.55	-1.18E-08			
July-05																		
August-05	86.36	86.40	-4.32E-09										85.48	85.48	0.00E+00			
September-05	86.33	86.27	6.48E-09										85.47	85.51	-5.91E-09			
max	86.68	86.66	0.000000025	86.951	86.730	0.00000006	87.094	86.764	0.00000004	85.691	85.801	0.00000000	85.710	85.665	0.00000004	86.496	86.259	0.00000004
min	86.28	86.12	-0.000000019	86.498	86.197	-0.00000003	86.234	86.339	-0.00000005	85.244	85.318	-0.00000003	85.295	85.285	-0.00000006	85.876	85.826	-0.00000001
average	86.52	86.50	0.000000002	86.738	86.613	0.00000002	86.824	86.623	0.00000002	85.522	85.634	-0.00000001	85.450	85.545	-0.00000002	86.182	86.004	0.00000002
		[m/year]	0.0619		[m/year]	0.6741		[m/year]	0.6725		[m/year]	-0.4254		[m/year]	-0.5045		[m/year]	0.6135
		[m/month]	0.0051		[m/month]	0.0554		[m/month]	0.0553		[m/month]	-0.0350		[m/month]	-0.0415		[m/month]	0.0504
		[m/day]	0.0002		[m/day]	0.0018		[m/day]	0.0018		[m/day]	-0.0012		[m/day]	-0.0014		[m/day]	0.0017

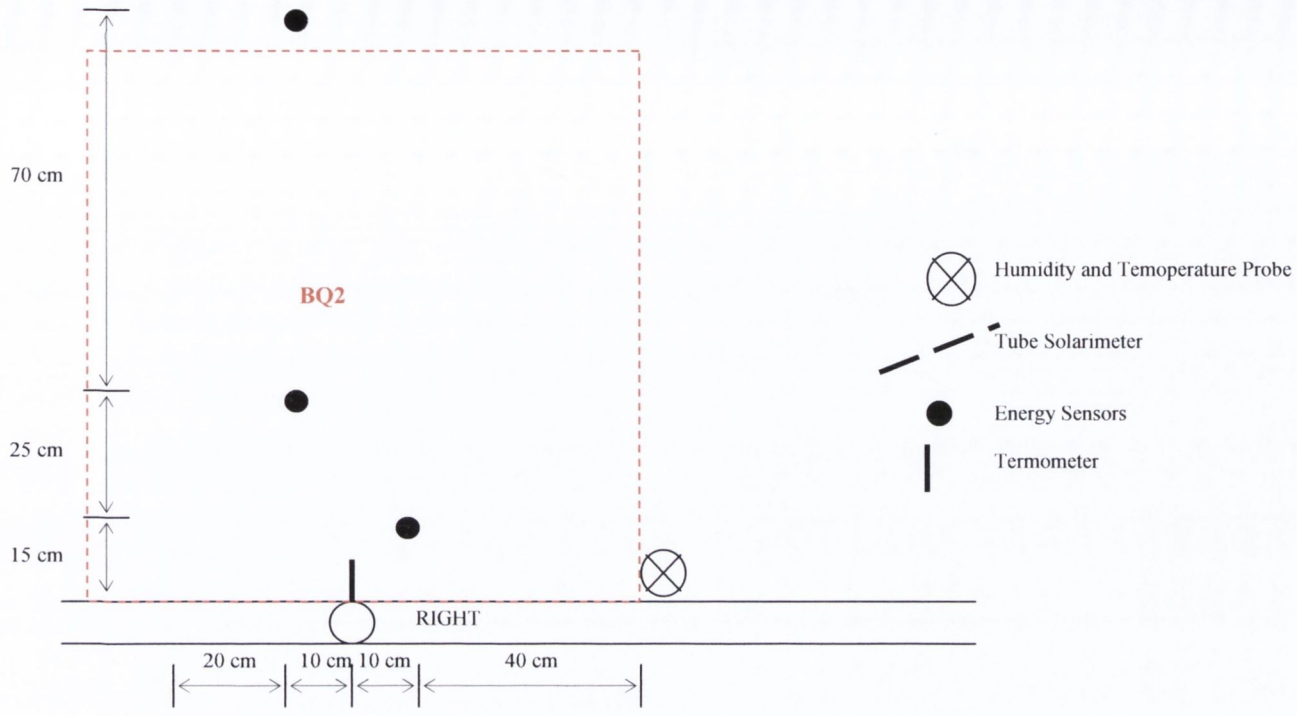
APPENDIX 28

Micrometeorological Investigation – sensors locations

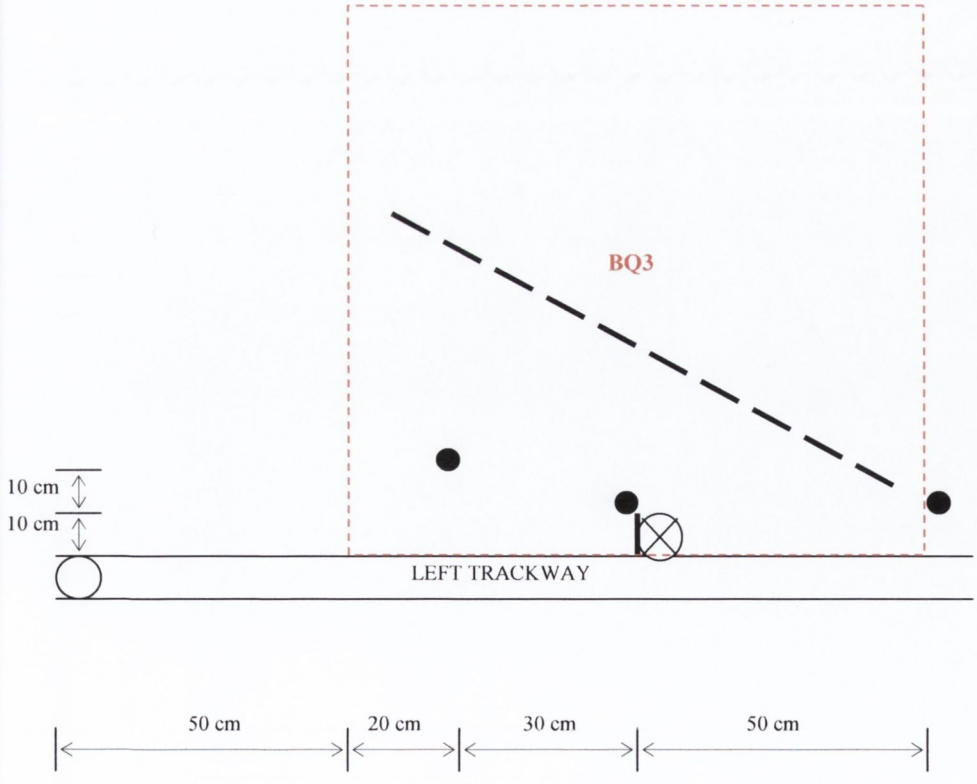
This appendix contains maps of exact locations where meteorological sensors were placed to investigate the micrometeorological regime of the fen's margin. All instruments used in this study were described in Chapters II and IV. These maps are based on sketches prepared during the field work and are related to the trackways and/or Permanent Quadrat's poles.

SITE A

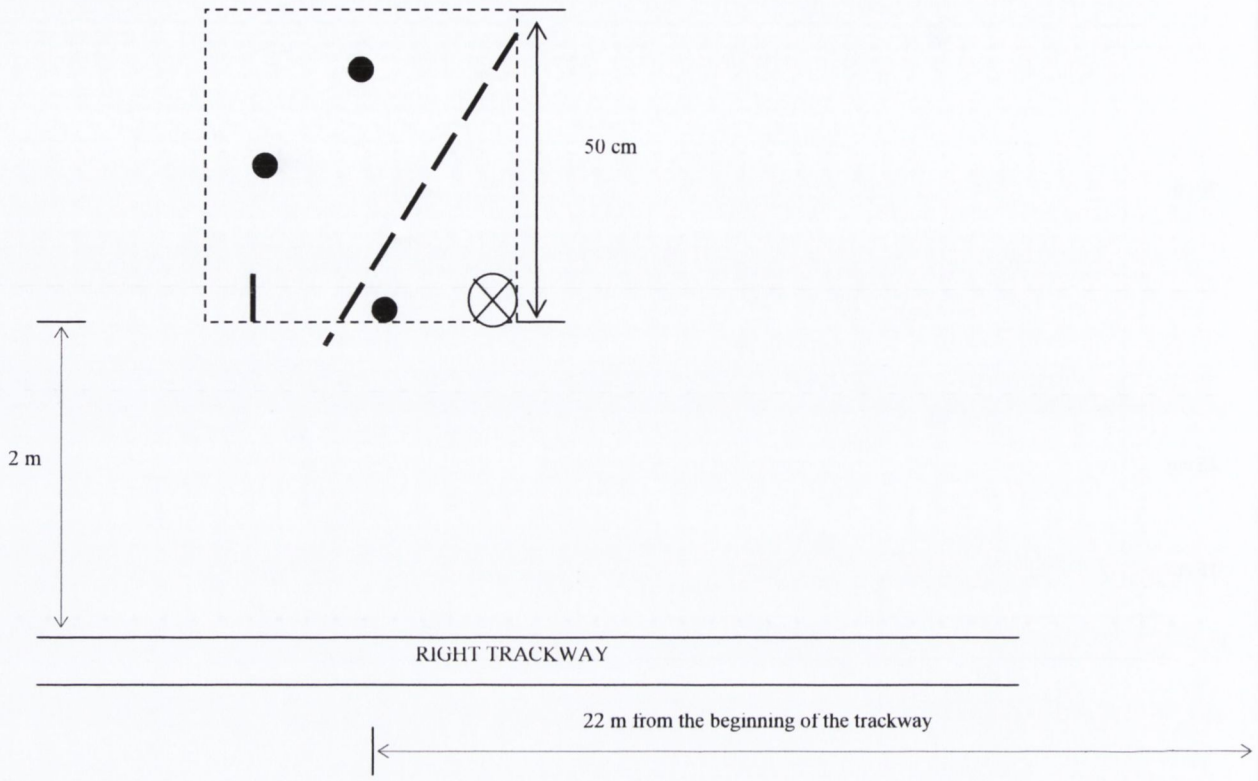
1ST LOCATION FROM 27TH OF MAY TO THE 11TH OF JULY 2002



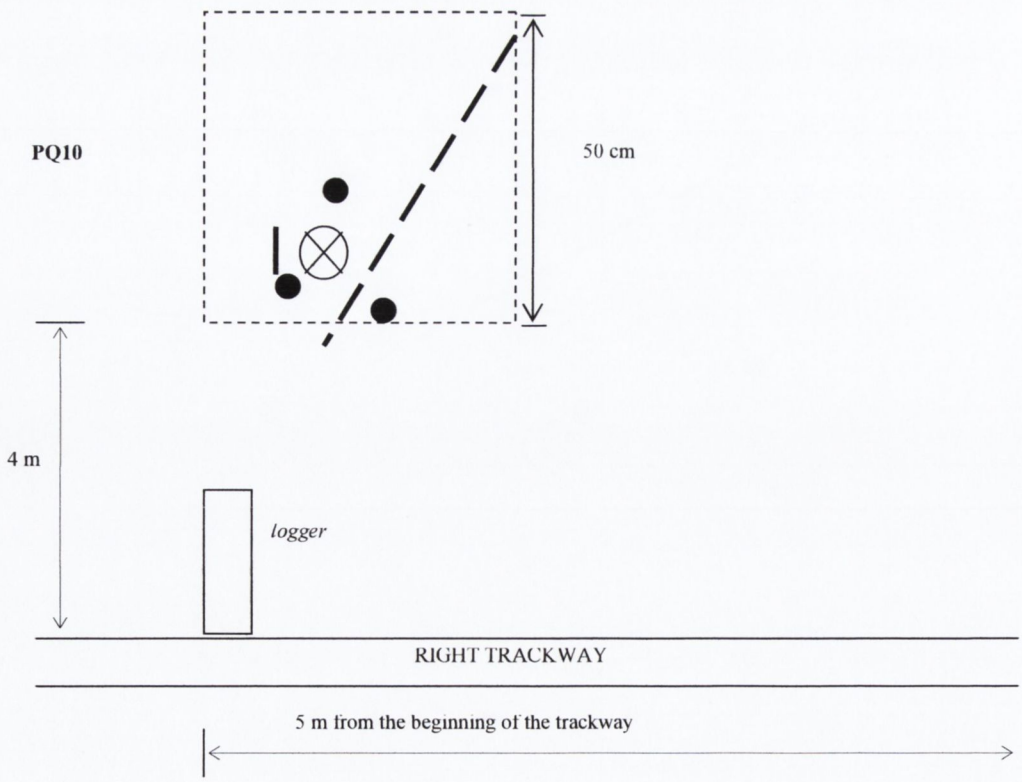
2ND LOCATION FROM 11TH OF JULY 2002 TO 16TH JULY 2002



3RD LOCATION FROM 16TH JULY 2002UNTIL THE 18TH OF JULY 2002

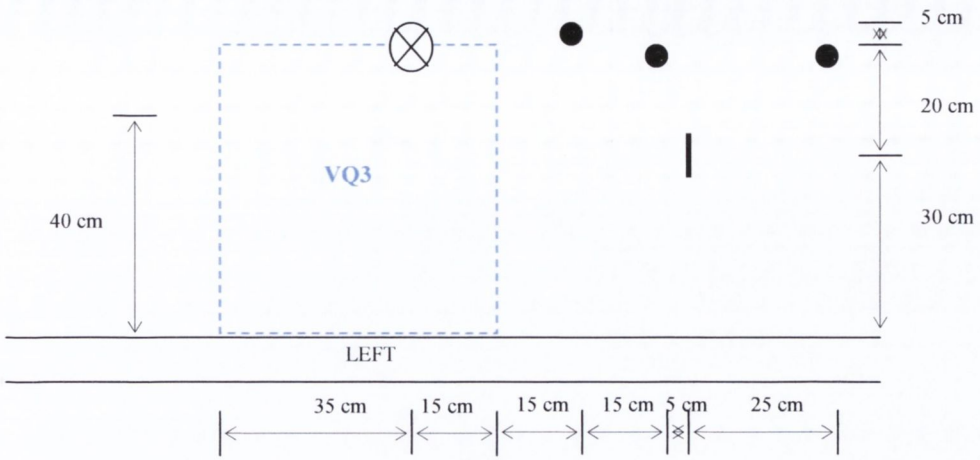


4TH LOCATION FROM 18TH OF JULY 2002 UNTIL 21ST JULY 2002

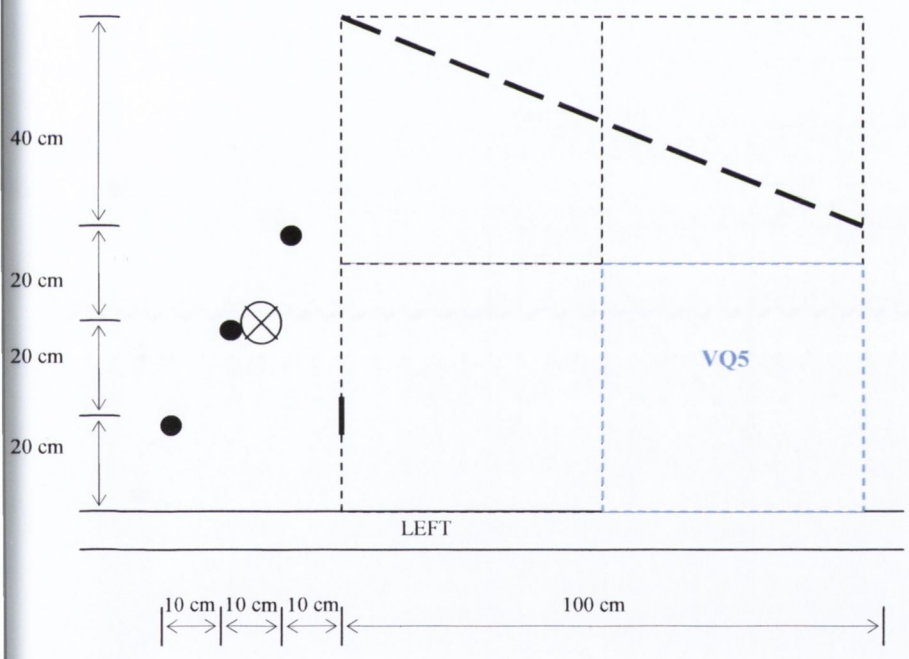


SITE C

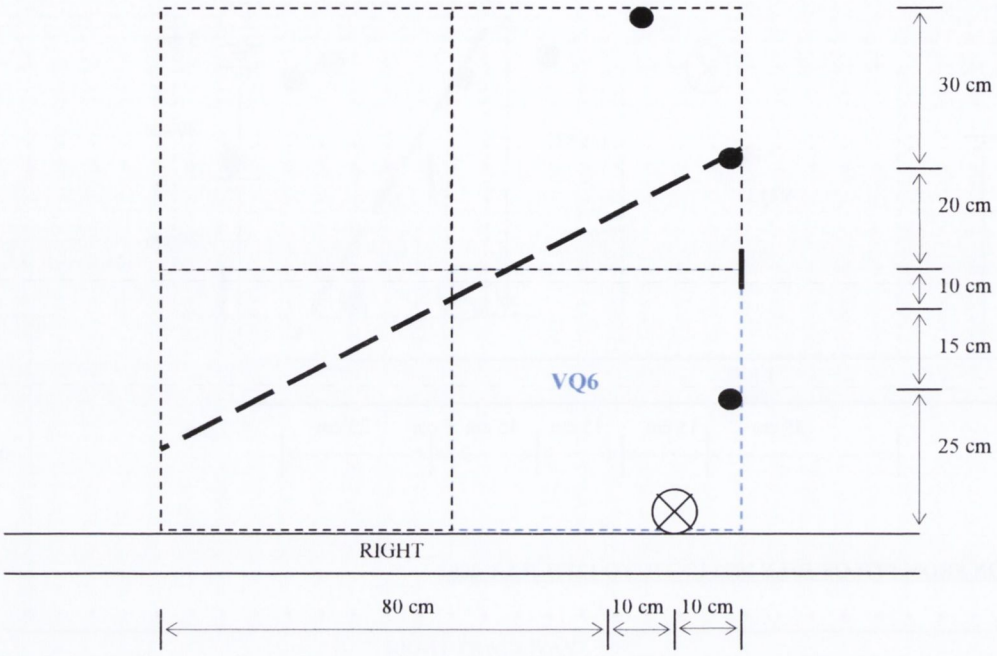
1ST LOCATION FROM 27TH OF MAY 2002 TO THE 9TH OF JULY 2002



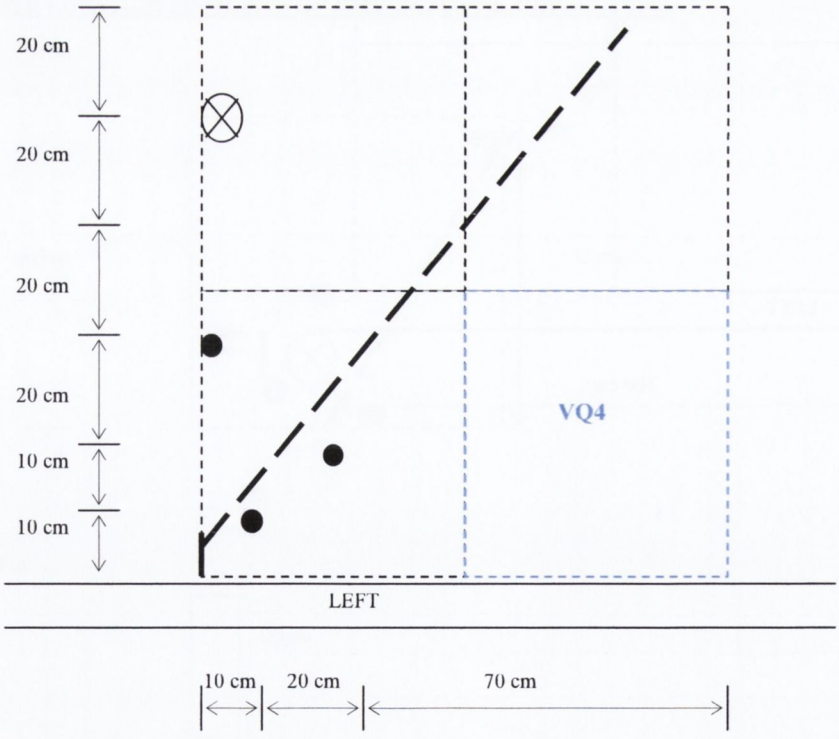
2ND LOCATION FROM 9TH OF JULY 2002 UNTIL TO 12TH JULY 2002



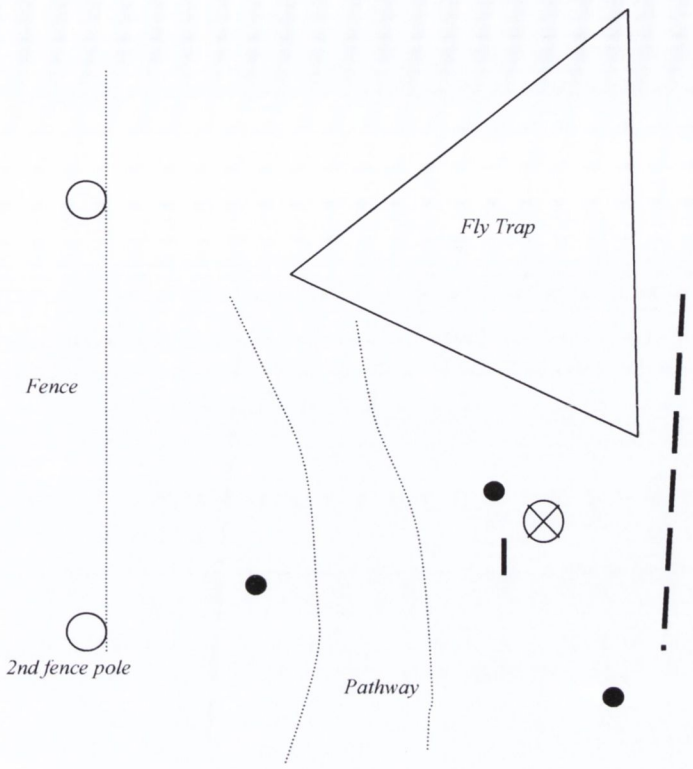
3RD LOCATION FROM 12TH OF JULY 2002 UNTIL THE 16TH OF JULY 2002



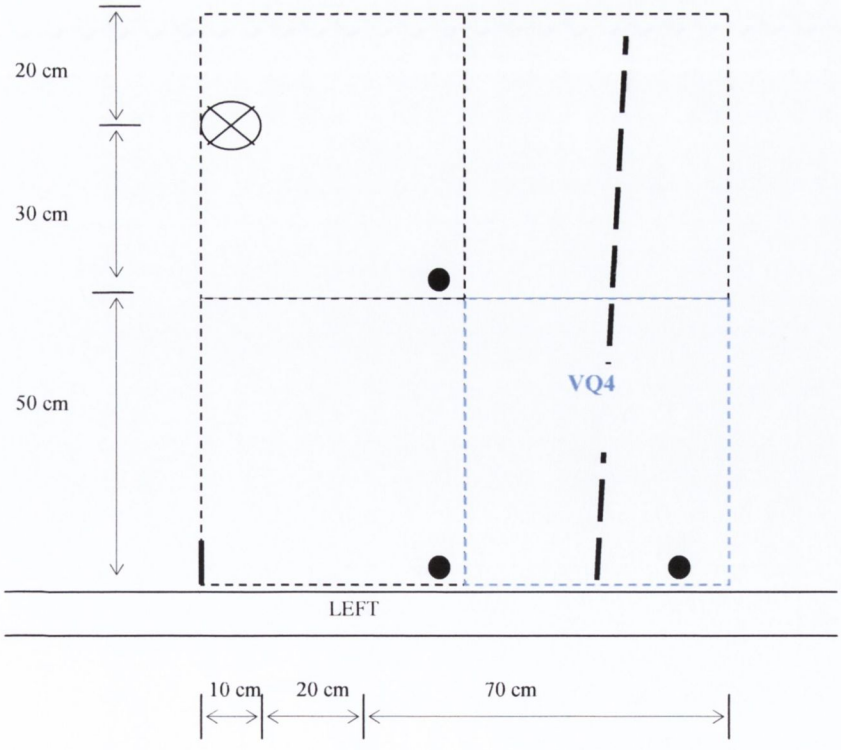
4TH LOCATION FROM 16TH OF JULY 2002 UNTIL 18TH OF JULY 2002



5TH LOCATION FROM 18TH OF JULY 2002 UNTIL 25TH OF JULY 2002

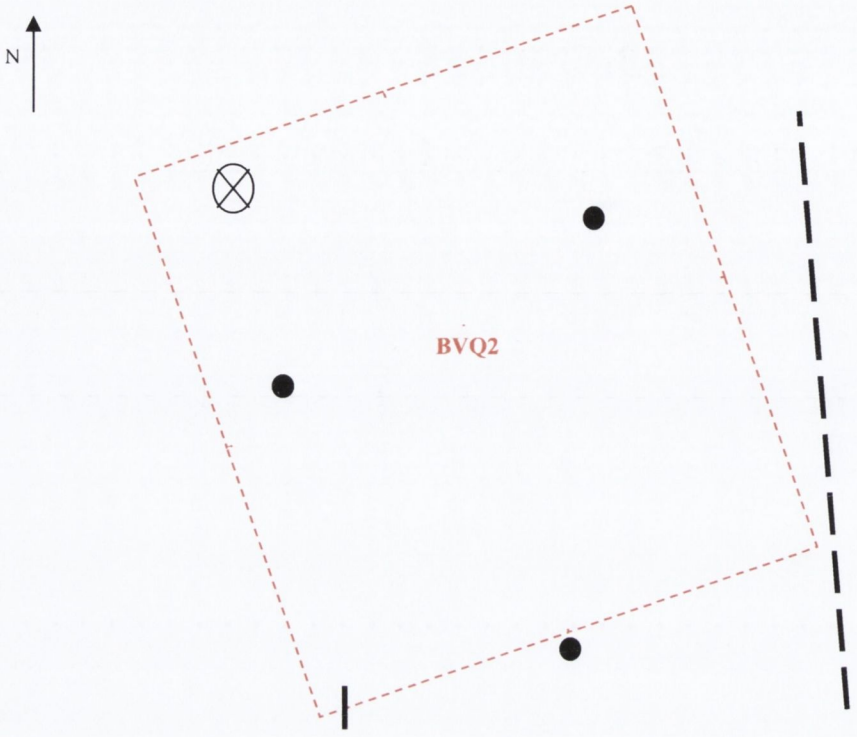


6TH LOCATION FROM 24TH OF SEPTEMBER 2002 UNTIL 13TH OF MAY 2003



SITE E

LOCATION FROM 22ND OF JULY 2002 UNTIL 14TH OF MAY 2003



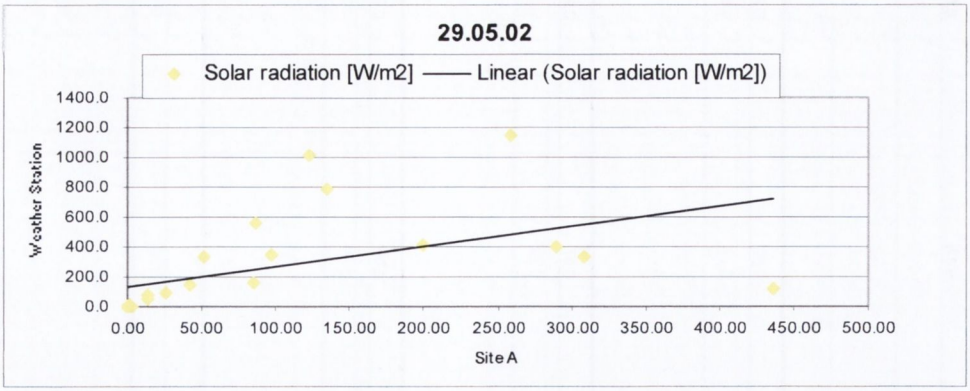
APPENDIX 29

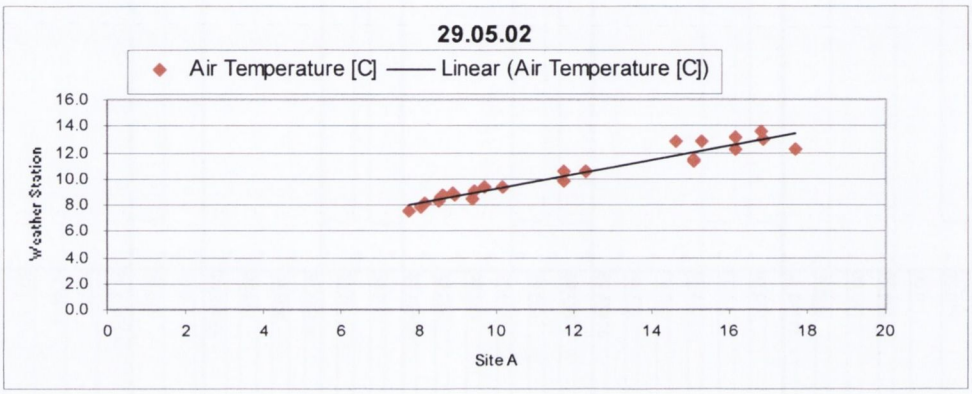
Results of the micrometeorological investigation

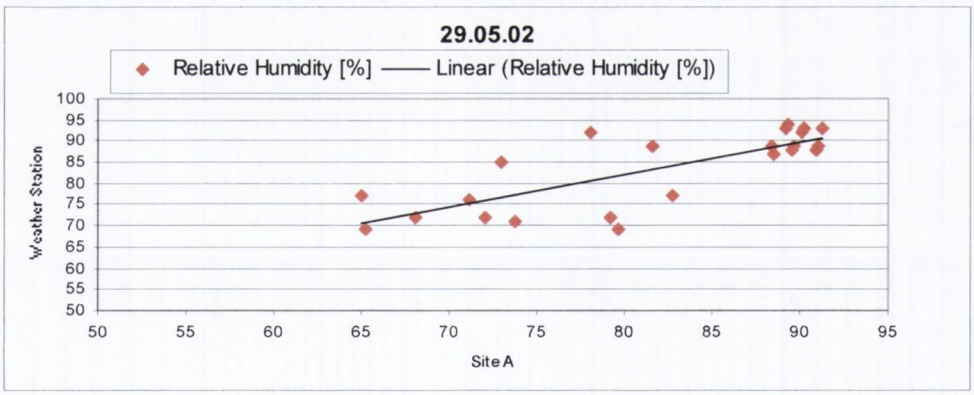
This appendix presents comparison of the micrometeorological data from selected locations around the fen margin (Sites A, C and E) *vs.* weather station data and also between the two sides of the fen. This comparison was based on 24-hour datasets chosen randomly. The methodology for the comparison and results are outlined in Chapter IV, Volume I.

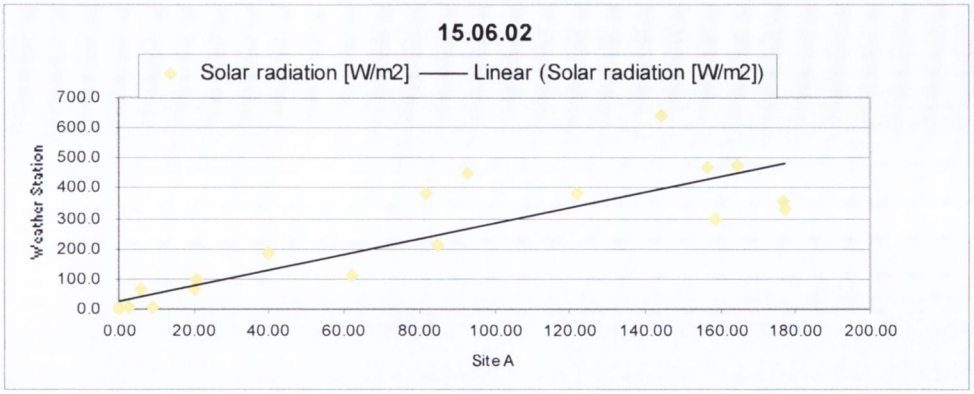
		Site A			Weather Station			correlation coefficient between weather station and the site		
		Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation
29.05.02	max	17.71	91.20	436.23	13.60	94.00	1145.30	0.97	0.78	0.50
	min	7.76	65.00	0.01	7.50	69.00	0.00			
	median	10.93	85.55	34.30	9.55	88.00	111.00			
	range	9.95	26.20	436.23	6.10	25.00	1145.30			
	SD	3.46	9.10	122.08	1.97	8.93	330.04			
	Variance	12.00	82.73	14902.75	3.89	79.83	108927.15			
15.06.02	max	18.35	92.00	177.00	16.40	94.00	639.20	0.98	0.89	0.89
	min	11.13	72.90	0.00	11.00	70.00	0.00			
	median	13.87	86.40	30.27	13.15	85.00	115.40			
	range	7.22	19.10	177.00	5.40	24.00	639.20			
	SD	2.33	7.24	68.43	1.72	8.41	200.56			
	Variance	5.41	52.37	4683.33	2.94	70.78	40222.44			
28.06.02	max	19.57	92.90	285.83	16.00	96.00	1029.80	0.97	0.96	0.83
	min	2.52	52.34	0.03	3.60	56.00	0.00			
	median	14.48	68.99	34.95	12.60	76.00	250.80			
	range	17.05	40.56	285.81	12.40	40.00	1029.80			
	SD	6.16	14.23	99.30	4.11	14.93	335.03			
	Variance	37.89	202.37	9859.75	16.90	222.89	112244.94			
13.07.02	max	23.56	91.70	221.63	19.00	100.00	958.80	0.95	0.88	0.95
	min	6.04	52.09	0.01	5.60	63.00	0.00			
	median	15.31	82.80	36.11	14.45	85.00	182.00			
	range	17.52	39.61	221.63	13.40	37.00	958.80			
	SD	6.59	14.68	71.65	4.81	13.36	323.01			
	Variance	43.42	215.44	5134.26	23.09	178.46	104333.03			
15.07.02	max	23.26	93.20	99.69	18.80	99.00	479.40	0.97	0.11	0.88
	min	11.64	73.30	0.01	12.50	81.00	0.00			
	median	18.31	82.40	30.84	16.50	85.00	119.85			
	range	11.62	19.90	99.68	6.30	18.00	479.40			
	SD	3.84	6.21	33.34	2.34	4.66	129.83			
	Variance	14.72	38.55	1111.60	5.49	21.73	16855.81			

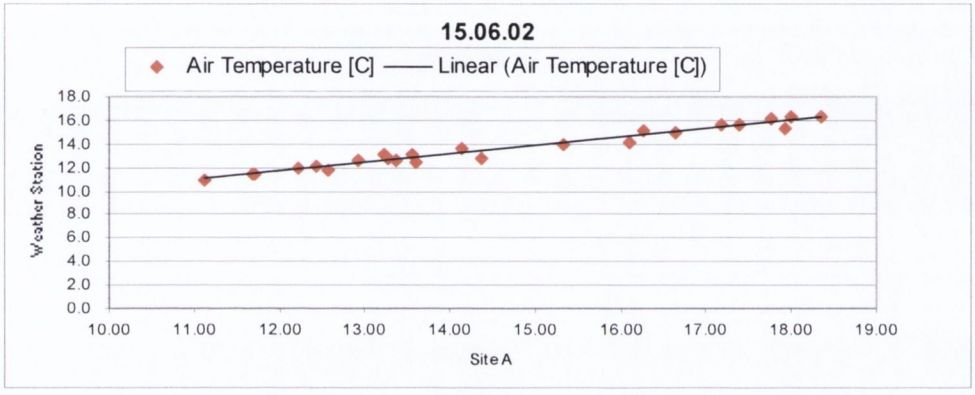
17.07.02	max	21.64	89.80	167.00	16.60	95.00	865.60	0.97	0.91	0.83
	min	9.08	49.69	0.00	10.40	54.00	0.00			
	median	15.24	75.80	32.05	13.35	78.00	137.60			
	range	12.56	40.11	167.00	6.20	41.00	865.60			
	SD	3.78	13.42	55.36	2.21	12.81	240.28			
	Variance	14.30	180.08	3065.21	4.90	164.06	57733.91			
19.07.02	max	21.32	92.20	167.97	16.70	99.00	710.20	0.95	0.17	0.89
	min	10.89	71.00	0.02	10.20	69.00	0.00			
	median	15.11	88.40	24.86	13.75	90.00	106.55			
	range	10.43	21.20	167.95	6.50	30.00	710.20			
	SD	3.46	5.22	49.87	2.12	6.51	176.40			
	Variance	11.95	27.23	2487.30	4.50	42.33	31118.40			
20.07.02	max	19.30	93.30	154.77	15.90	99.00	590.40	0.98	0.80	0.73
	min	7.75	68.35	0.01	7.80	67.00	0.00			
	median	13.89	89.05	35.47	12.80	80.50	113.20			
	range	11.55	24.95	154.75	8.10	32.00	590.40			
	SD	3.47	8.55	52.78	2.55	11.49	177.44			
	Variance	12.06	73.07	2785.57	6.52	132.00	31485.28			
27.07.02	max	24.28	93.90	328.67	20.30	97.00	827.90	0.98	0.87	0.97
	min	12.14	68.27	0.00	12.20	72.00	0.00			
	median	16.89	86.25	25.48	15.60	84.00	103.45			
	range	12.14	25.63	328.67	8.10	25.00	827.90			
	SD	3.95	8.51	86.31	2.77	6.50	247.84			
	Variance	15.57	72.36	7449.39	7.65	42.25	61424.78			
22.08.02	max	24.33	94.70	153.80	20.00	96.00	539.80	0.99	0.60	0.98
	min	6.68	60.17	0.00	7.30	73.00	0.00			
	median	16.17	86.55	10.67	14.90	92.00	195.75			
	range	17.65	34.53	153.79	12.70	23.00	539.80			
	SD	5.66	11.17	43.63	4.45	6.70	183.59			
	Variance	32.07	124.70	1903.83	19.84	44.82	33707.07			

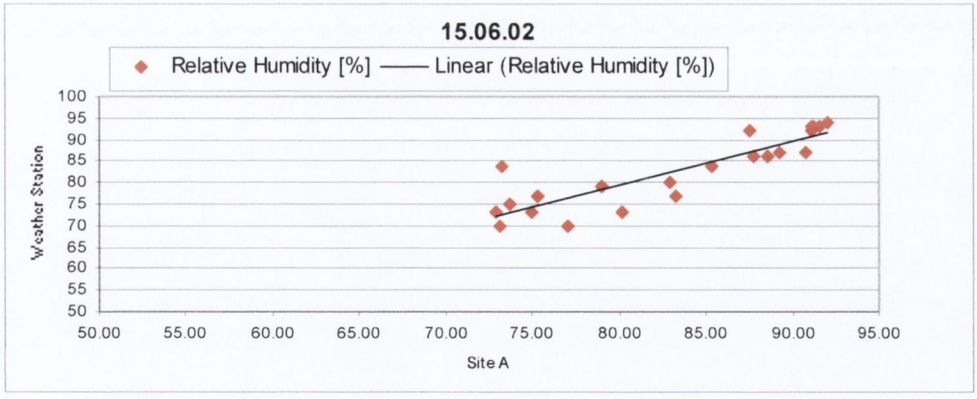

29.05.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
Site A
1400.0
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
0.00
50.00
100.00
150.00
200.00
250.00
300.00
350.00
400.00
450.00
500.00

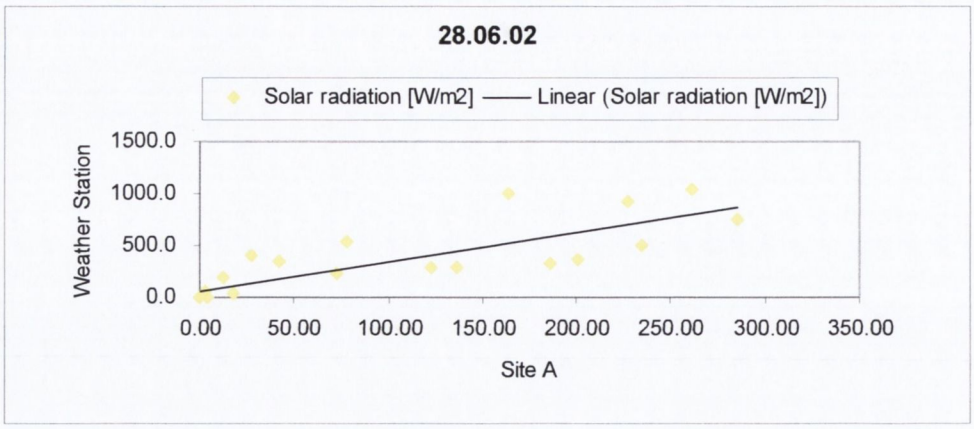

29.05.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
Site A
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
0
2
4
6
8
10
12
14
16
18
20

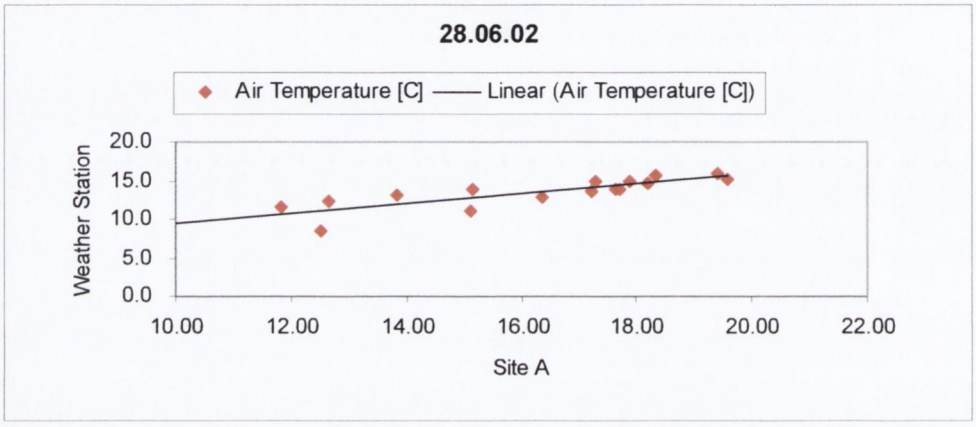

29.05.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
Site A
100
95
90
85
80
75
70
65
60
55
50
50
55
60
65
70
75
80
85
90
95

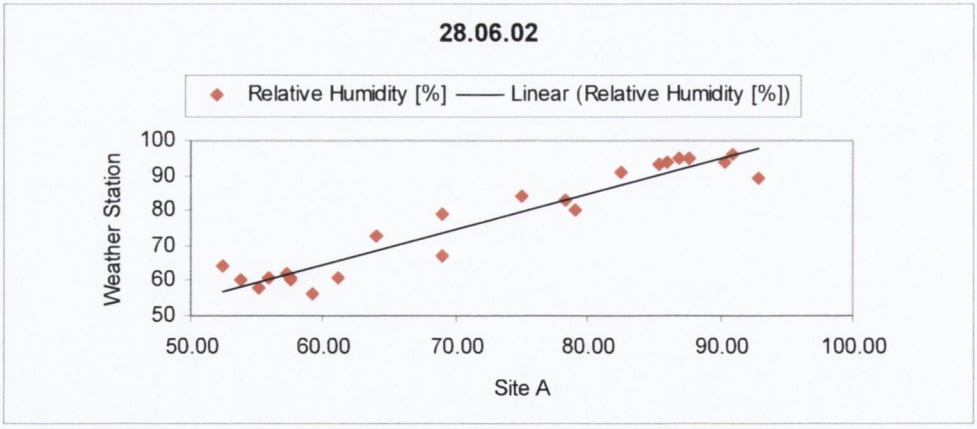

15.06.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
Site A
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
0.00
20.00
40.00
60.00
80.00
100.00
120.00
140.00
160.00
180.00
200.00

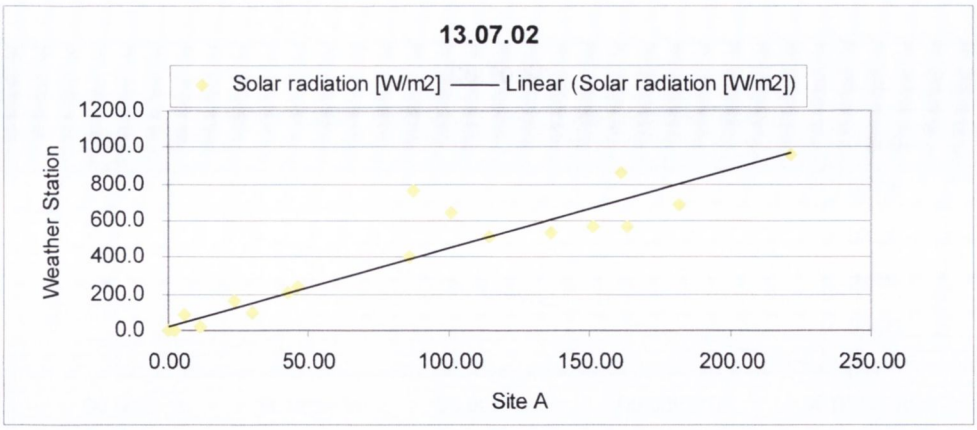

15.06.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
Site A
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
10.00
11.00
12.00
13.00
14.00
15.00
16.00
17.00
18.00
19.00

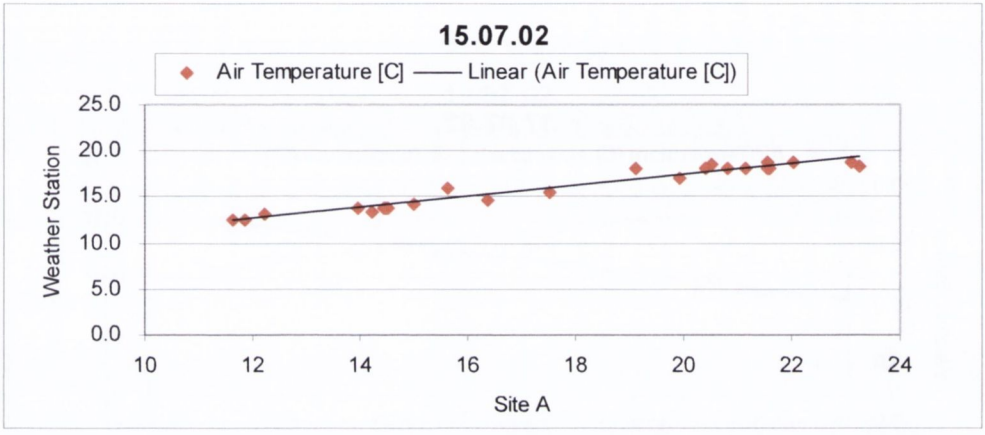

15.06.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
Site A
100
95
90
85
80
75
70
65
60
55
50
50.00
55.00
60.00
65.00
70.00
75.00
80.00
85.00
90.00
95.00

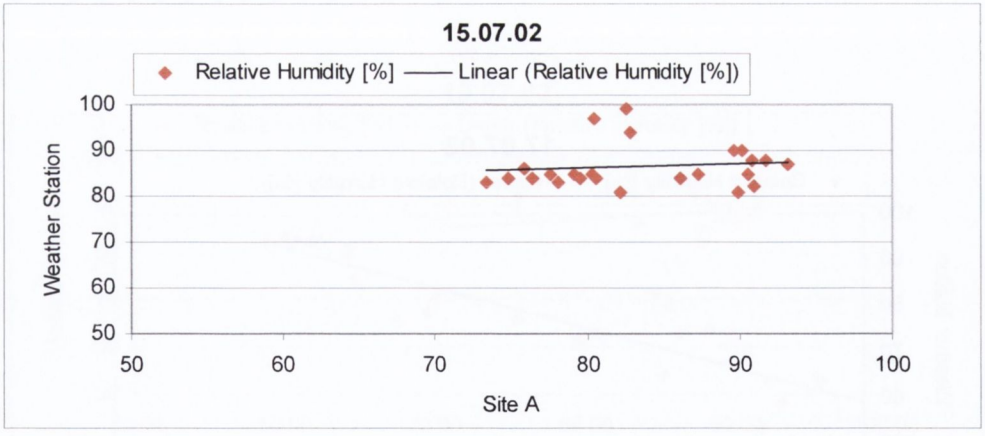

28.06.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
1500.0
1000.0
500.0
0.0
0.00
50.00
100.00
150.00
200.00
250.00
300.00
350.00
Site A

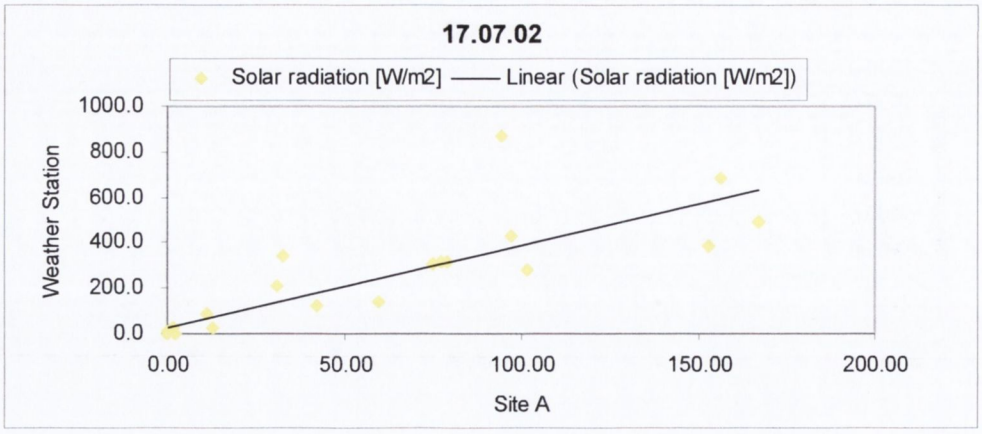

28.06.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
20.0
15.0
10.0
5.0
0.0
10.00
12.00
14.00
16.00
18.00
20.00
22.00
Site A

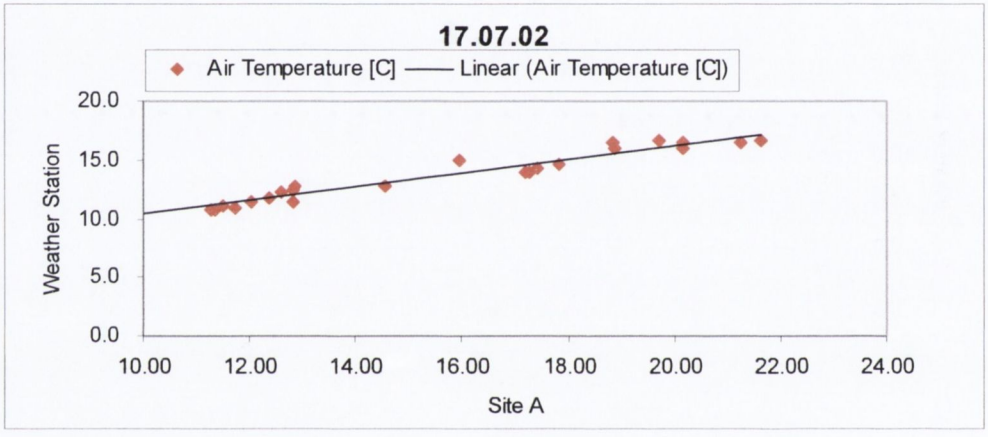

28.06.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50.00
60.00
70.00
80.00
90.00
100.00
Site A

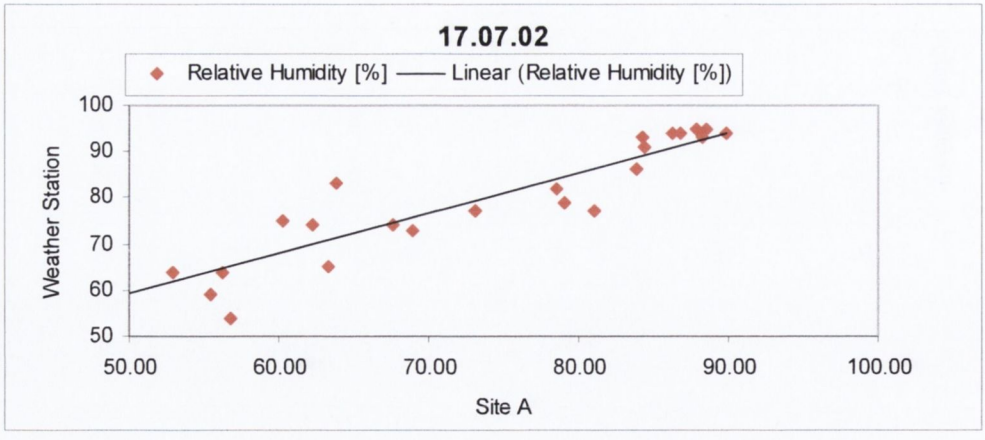

13.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
1200.0
1000.0
800.0
600.0
400.0
200.0
0.0
0.00
50.00
100.00
150.00
200.00
250.00
Site A

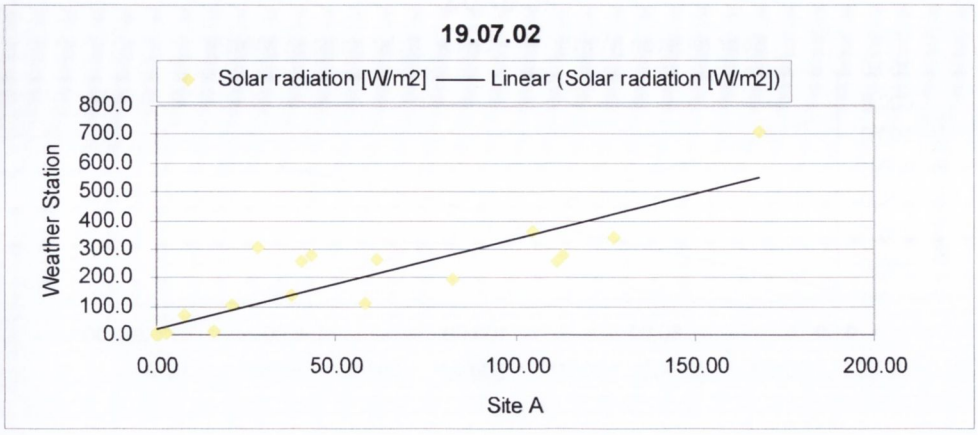

15.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
25.0
20.0
15.0
10.0
5.0
0.0
10
12
14
16
18
20
22
24
Site A

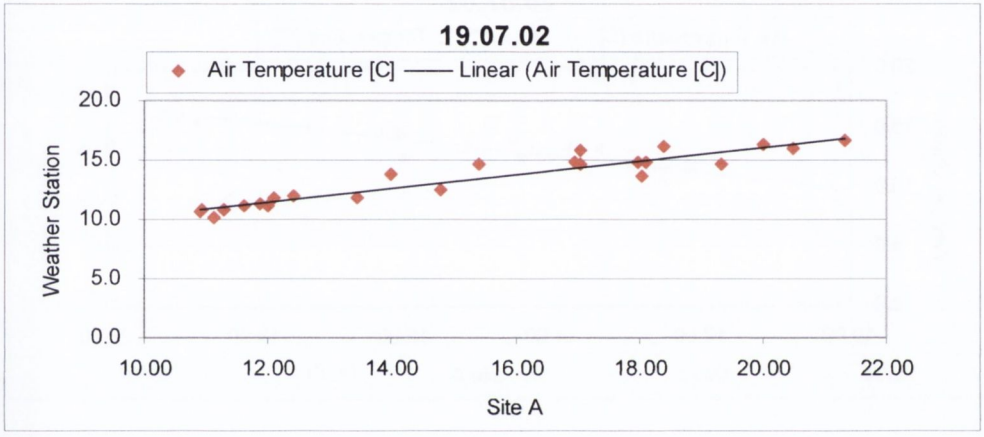

15.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50
60
70
80
90
100
Site A

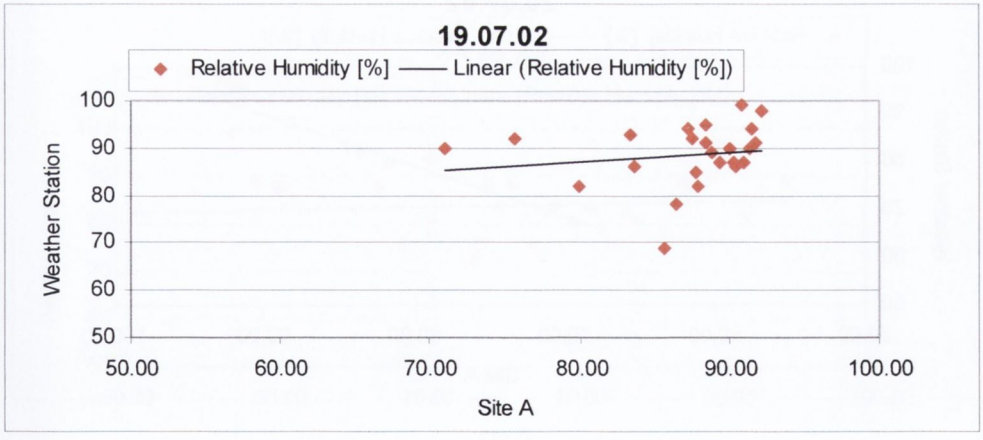

17.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
1000.0
800.0
600.0
400.0
200.0
0.0
0.00
50.00
100.00
150.00
200.00
Site A

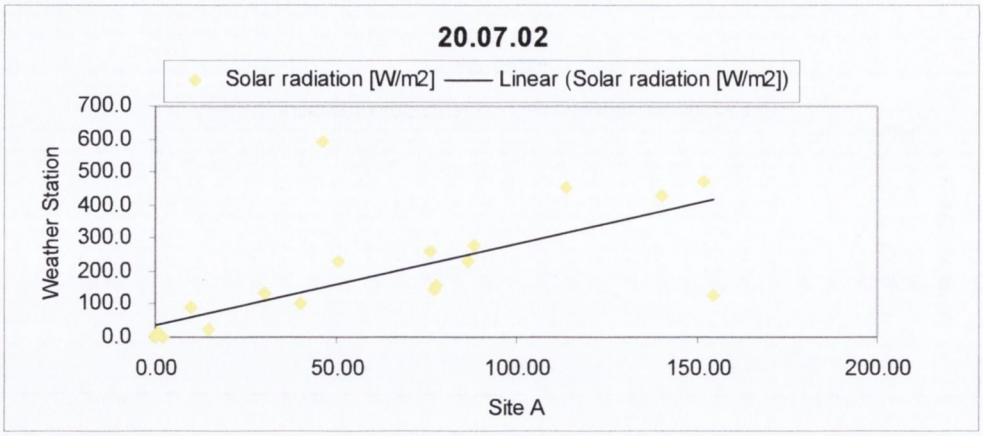

17.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
20.0
15.0
10.0
5.0
0.0
10.00
12.00
14.00
16.00
18.00
20.00
22.00
24.00
Site A

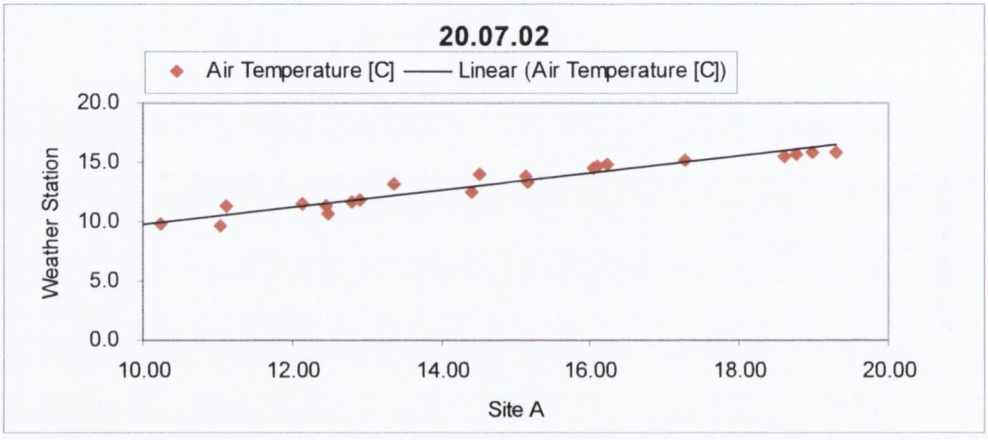

17.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50.00
60.00
70.00
80.00
90.00
100.00
Site A

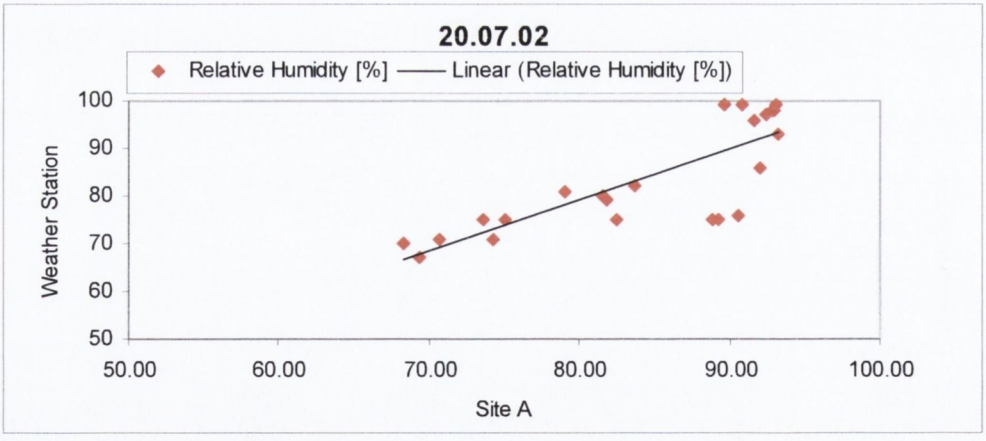

19.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
800.0
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
0.00
50.00
100.00
150.00
200.00
Site A

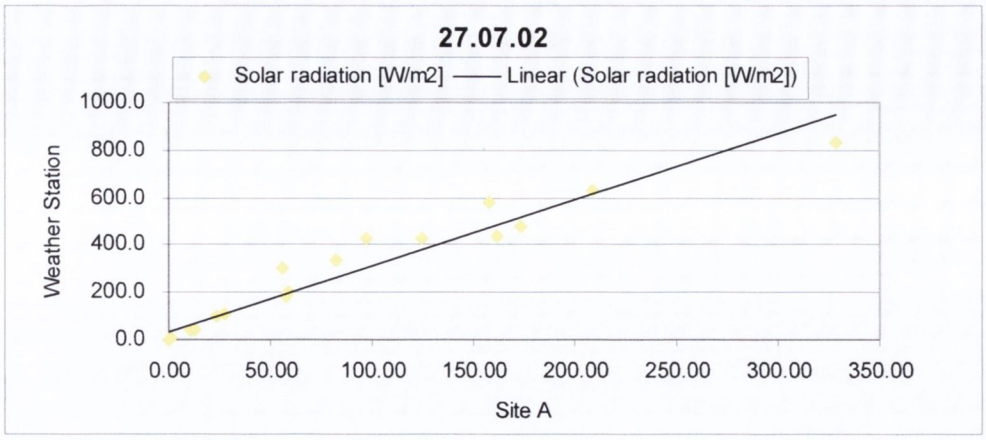

19.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
20.0
15.0
10.0
5.0
0.0
10.00
12.00
14.00
16.00
18.00
20.00
22.00
Site A

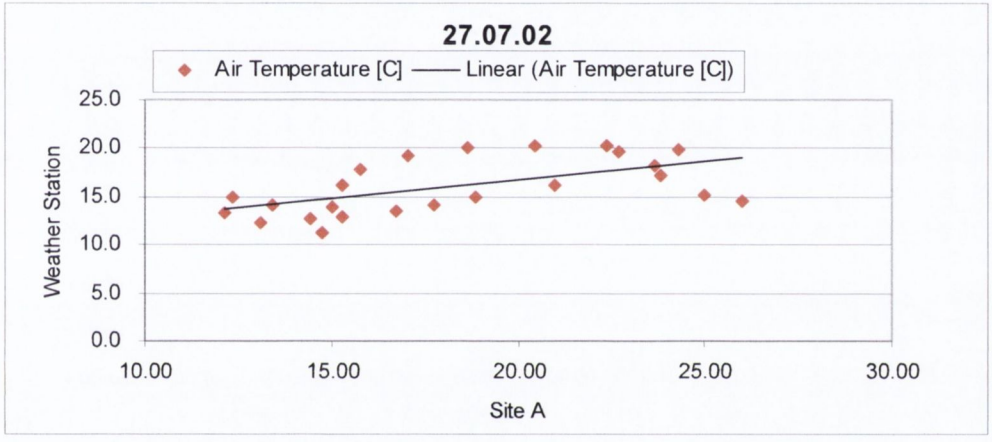

19.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50.00
60.00
70.00
80.00
90.00
100.00
Site A

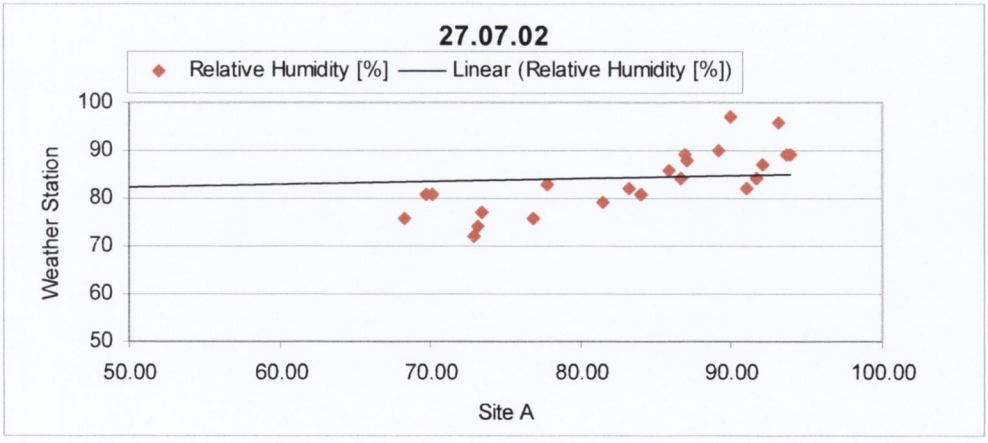

20.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
0.00
50.00
100.00
150.00
200.00
Site A

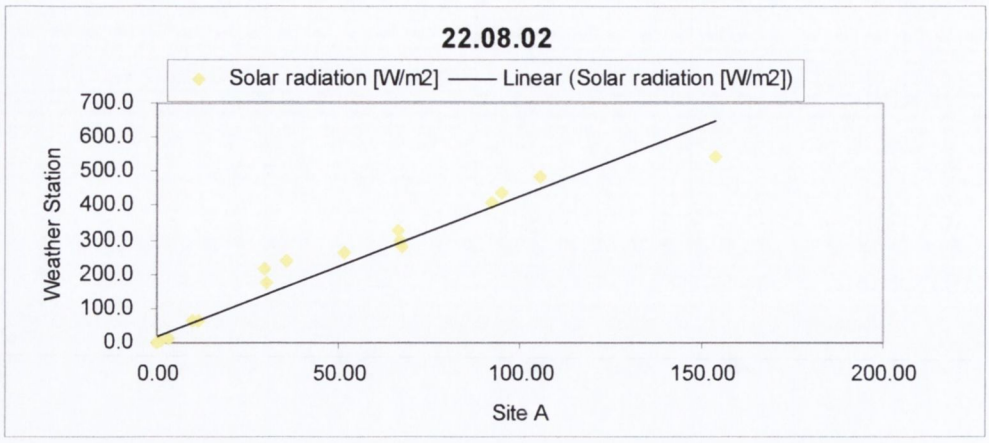

20.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
20.0
15.0
10.0
5.0
0.0
10.00
12.00
14.00
16.00
18.00
20.00
Site A

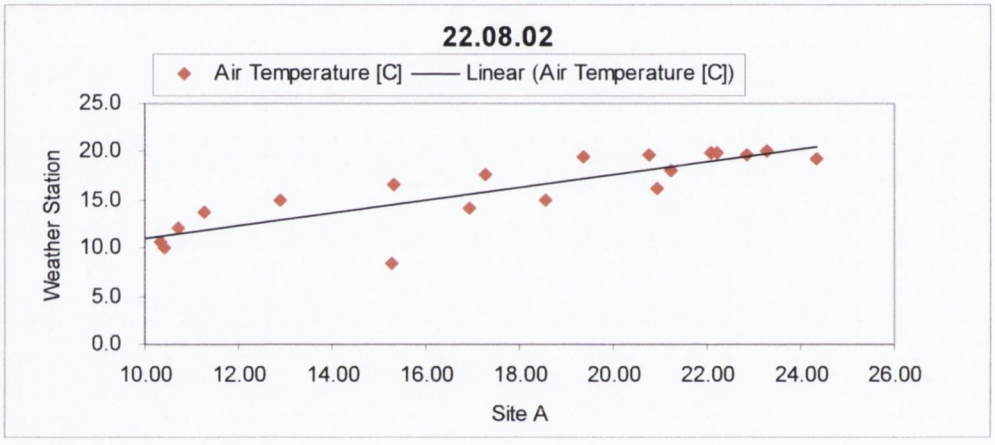

20.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50.00
60.00
70.00
80.00
90.00
100.00
Site A

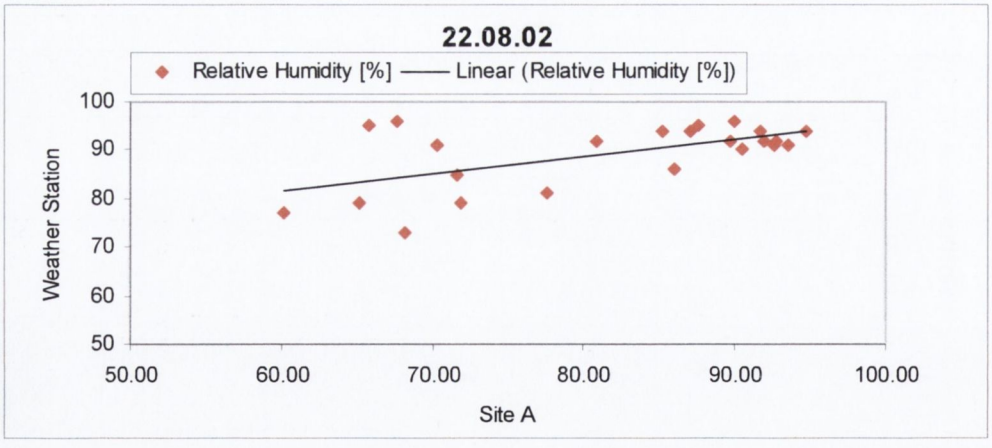

27.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
1000.0
800.0
600.0
400.0
200.0
0.0
0.00
50.00
100.00
150.00
200.00
250.00
300.00
350.00
Site A


27.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
25.0
20.0
15.0
10.0
5.0
0.0
10.00
15.00
20.00
25.00
30.00
Site A


27.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50.00
60.00
70.00
80.00
90.00
100.00
Site A

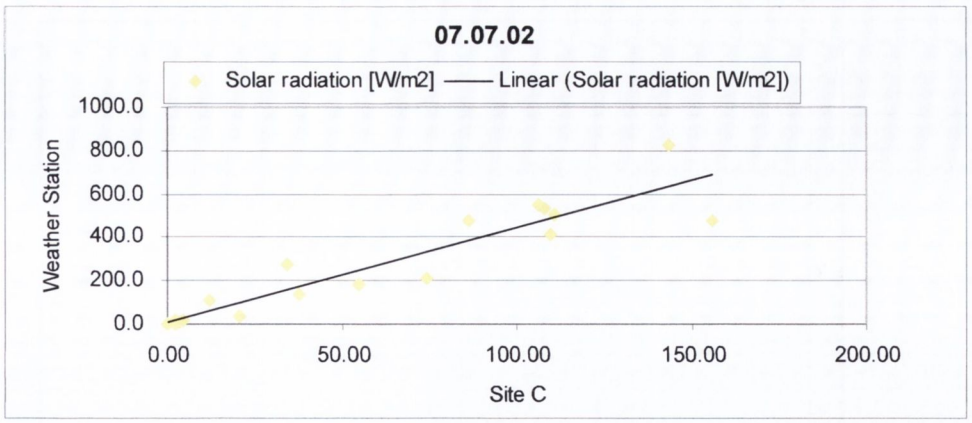

22.08.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
700.0
600.0
500.0
400.0
300.0
200.0
100.0
0.0
0.00
50.00
100.00
150.00
200.00
Site A

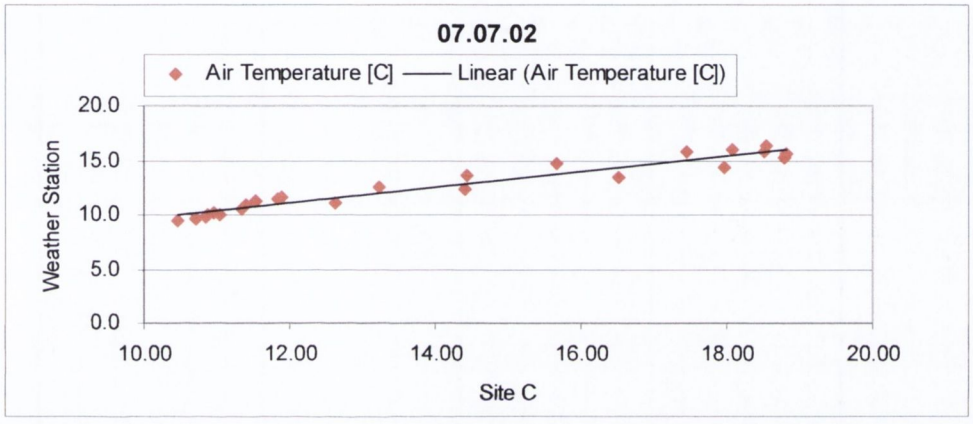

22.08.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
25.0
20.0
15.0
10.0
5.0
0.0
10.00
12.00
14.00
16.00
18.00
20.00
22.00
24.00
26.00
Site A

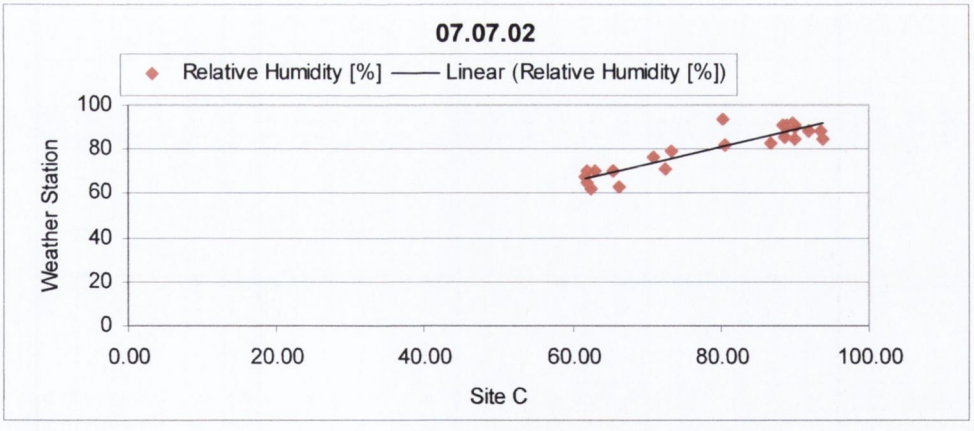

22.08.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
90
80
70
60
50
50.00
60.00
70.00
80.00
90.00
100.00
Site A

		Site C			Weather Station			correlation coefficant between weather station and the site		
		Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation
07.07.02	max	18.81	93.90	156.28	16.40	94.00	821.20	0.97	0.91	0.95
	min	10.47	61.66	0.00	9.50	62.00	0.00			
	median	12.94	83.75	16.34	12.00	84.00	73.25			
	range	8.34	32.24	156.28	6.90	32.00	821.20			
	SD	3.18	12.18	52.74	2.38	10.42	243.99			
	Variance	10.12	148.47	2781.99	5.68	108.61	59530.40			
10.07.02	max	17.24	92.90	269.47	15.80	95.00	816.80	0.99	0.77	0.70
	min	8.36	71.80	0.00	7.60	75.00	0.00			
	median	13.74	85.35	53.42	12.45	86.50	135.40			
	range	8.88	21.10	269.47	8.20	20.00	816.80			
	SD	2.90	6.69	72.07	2.59	7.18	219.02			
	Variance	8.42	44.77	5194.50	6.71	51.54	47969.65			
13.07.02	max	22.38	92.80	253.17	19.00	100.00	958.80	0.96	0.86	0.92
	min	7.48	54.16	0.00	5.60	63.00	0.00			
	median	15.36	81.80	41.53	14.45	85.00	182.00			
	range	14.90	38.64	253.17	13.40	37.00	958.80			
	SD	5.44	13.93	91.49	4.81	13.36	323.01			
	Variance	29.56	194.13	8370.83	23.09	178.46	104333.03			
17.07.02	max	22.63	93.30	225.77	16.60	95.00	865.60	0.90	0.90	0.85
	min	11.43	56.56	0.00	10.40	54.00	0.00			
	median	15.60	79.95	36.72	13.35	78.00	137.60			
	range	11.20	36.74	225.77	6.20	41.00	865.60			
	SD	3.46	12.13	73.70	2.21	12.81	240.28			
	Variance	11.97	147.15	5431.83	4.90	164.06	57733.91			
23.07.02	max	21.76	96.90	84.02	17.90	98.00	603.70	0.97	0.93	0.90
	min	13.36	75.40	0.00	13.50	69.00	0.00			
	median	15.67	86.30	16.57	15.10	83.50	86.55			
	range	8.40	21.50	84.02	4.40	29.00	603.70			
	SD	2.09	8.19	25.94	1.28	9.91	190.90			
	Variance	4.36	67.10	673.05	1.63	98.13	36441.88			
29.05.02	max	17.99	93.00	514.03	13.60	94.00	1145.30	0.94	0.79	0.70
	min	7.87	60.58	0.00	7.50	69.00	0.00			
	median	11.12	85.50	33.41	9.55	88.00	111.00			
	range	10.12	32.42	514.03	6.10	25.00	1145.30			

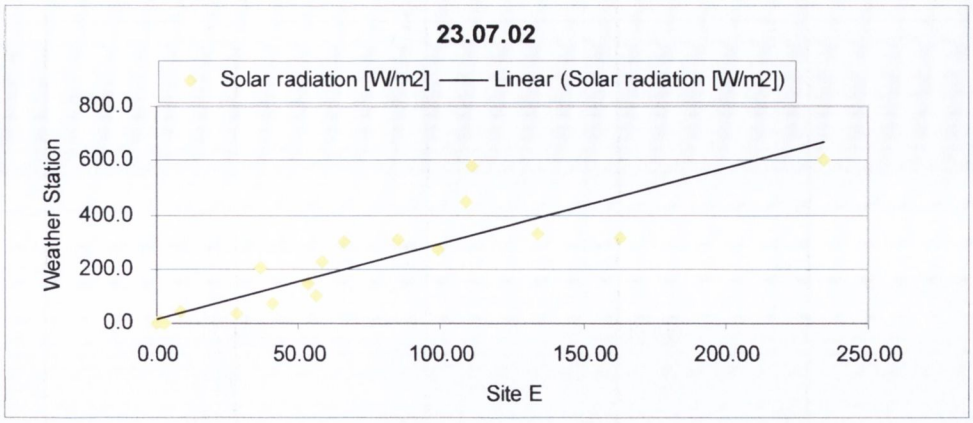
	SD	3.73	12.03	161.26	1.98	8.93	330.04				
	Variance	13.91	144.69	26003.99	3.91	79.83	108927.15				
15.06.02	max	18.53	93.20	168.87	16.40	94.00	639.20	0.99	0.91	0.87	
	min	11.21	63.74	0.00	11.00	70.00	0.00				
	median	13.88	84.15	25.04	13.15	85.00	115.40				
	range	7.32	29.46	168.87	5.40	24.00	639.20				
	SD	2.38	10.62	58.29	1.72	8.41	200.56				
	Variance	5.68	112.81	3397.35	2.94	70.78	40222.44				
11.07.02	max	18.20	94.30	399.07	15.70	96.00	1100.90	0.97	0.63	0.50	
	min	10.41	74.00	0.00	9.70	64.00	0.00				
	median	12.02	89.55	22.65	11.05	90.00	99.85				
	range	7.79	20.30	399.07	6.00	32.00	1100.90				
	SD	2.56	6.32	102.31	2.17	10.57	324.00				
	Variance	6.56	39.95	10466.58	4.71	111.72	104976.60				
20.07.02	max	18.18	97.10	73.78	15.90	99.00	590.40	0.98	0.85	0.77	
	min	7.26	70.60	0.00	7.80	67.00	0.00				
	median	13.44	88.20	15.76	12.80	80.50	113.20				
	range	10.92	26.50	73.78	8.10	32.00	590.40				
	SD	3.28	9.25	25.04	2.55	11.49	177.44				
	Variance	10.74	85.58	627.18	6.52	132.00	31485.28				
15.07.02	max	21.44	95.10	112.27	18.80	99.00	479.40	0.97	0.09	0.88	
	min	11.72	78.00	0.00	12.50	81.00	0.00				
	median	17.70	84.80	35.16	16.50	85.00	119.85				
	range	9.72	17.10	112.27	6.30	18.00	479.40				
	SD	3.04	4.56	37.63	2.34	4.66	129.83				
	Variance	9.23	20.82	1415.99	5.49	21.73	16855.81				

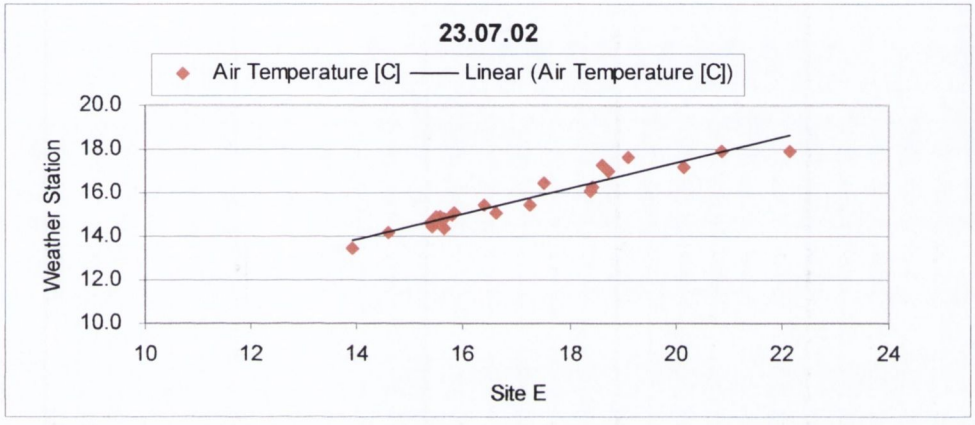

07.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
1000.0
800.0
600.0
400.0
200.0
0.0
0.00
50.00
100.00
150.00
200.00
Site C

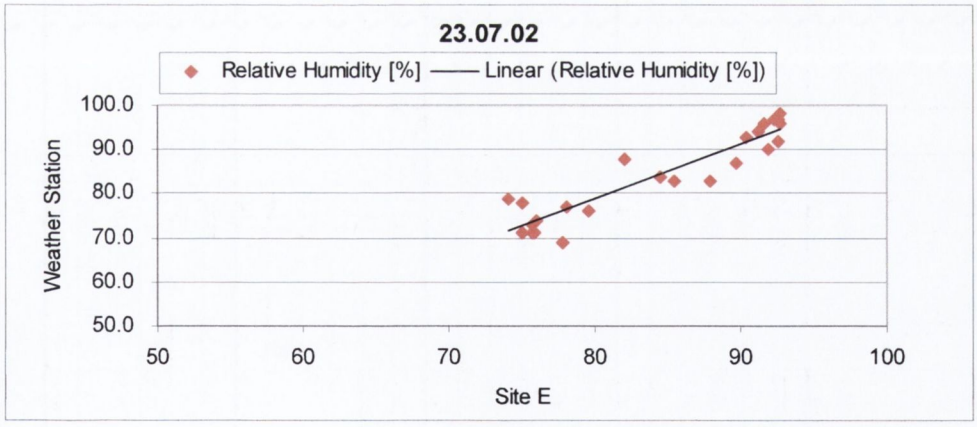

07.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
20.0
15.0
10.0
5.0
0.0
10.00
12.00
14.00
16.00
18.00
20.00
Site C


07.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100
80
60
40
20
0
0.00
20.00
40.00
60.00
80.00
100.00
Site C

		Site E			Weather Station			correlation coefficient between weather station and the site		
		Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation
23.07.02	max	22.16	92.80	234.37	17.90	98.00	603.70	0.96	0.93	0.90
	min	13.93	74.10	0.00	13.50	69.00	0.00			
	median	16.11	85.00	38.74	15.10	83.50	86.55			
	range	8.23	18.70	234.37	4.40	29.00	603.70			
	SD	2.10	7.39	62.34	1.28	9.91	190.90			
	Variance	4.43	54.54	3885.77	1.63	98.13	36441.88			
27.07.02	max	26.41	96.50	236.23	20.30	97.00	827.90	0.98	0.84	0.99
	min	11.40	70.30	0.00	12.20	72.00	0.00			
	median	17.44	88.35	29.70	15.60	84.00	103.45			
	range	15.01	26.20	236.23	8.10	25.00	827.90			
	SD	4.78	8.16	76.92	2.77	6.50	247.84			
	Variance	22.81	66.54	5916.83	7.65	42.25	61424.78			
22.08.02	max	24.55	99.30	144.60	20.00	96.00	539.80	0.98	0.63	0.99
	min	6.67	72.70	0.00	7.30	73.00	0.00			
	median	16.36	90.40	13.81	14.90	92.00	195.75			
	range	17.88	26.60	144.60	12.70	23.00	539.80			
	SD	5.84	6.91	46.19	4.45	6.70	183.59			
	Variance	34.07	47.69	2133.64	19.84	44.82	33707.07			
26.08.02	max	26.27	98.70	207.50	19.30	100.00	629.40	0.97	0.82	0.81
	min	5.04	61.75	0.02	3.70	70.00	0.00			
	median	11.67	88.60	13.10	11.60	92.50	176.90			
	range	21.23	36.95	207.48	15.60	30.00	629.40			
	SD	7.66	10.97	62.27	6.05	11.45	249.99			
	Variance	58.74	120.29	3878.14	36.56	131.03	62496.16			
01.09.02	max	24.43	99.70	180.37	18.80	95.00	733.80	0.97	0.57	0.88
	min	2.03	64.89	0.01	1.20	56.00	1.50			
	median	11.01	88.70	10.61	12.00	83.00	130.90			
	range	22.40	34.81	180.35	17.60	39.00	732.30			
	SD	8.01	9.42	54.85	6.81	14.65	274.52			
	Variance	64.18	88.66	3008.57	46.41	214.69	75362.55			

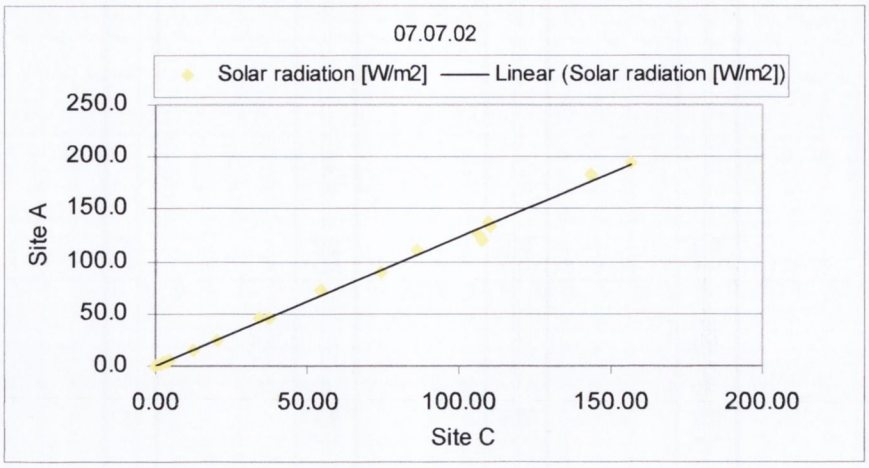

23.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
Weather Station
800.0
600.0
400.0
200.0
0.0
0.00
50.00
100.00
150.00
200.00
250.00
Site E

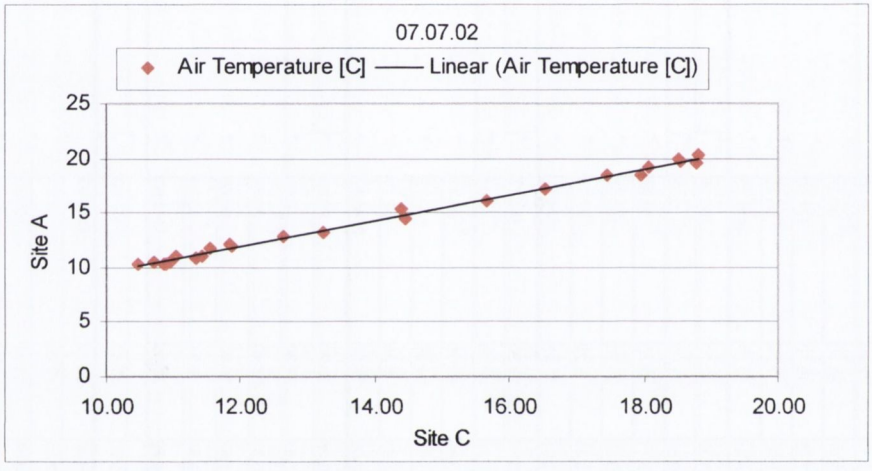

23.07.02
Air Temperature [C]
Linear (Air Temperature [C])
Weather Station
20.0
18.0
16.0
14.0
12.0
10.0
10
12
14
16
18
20
22
24
Site E

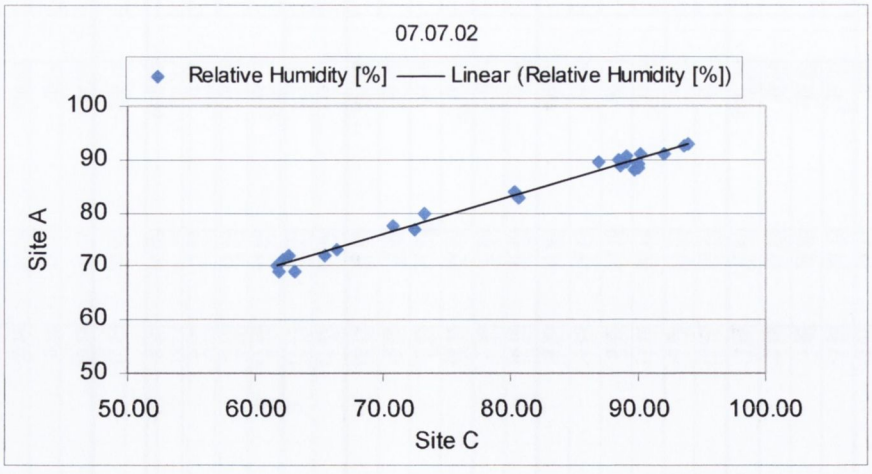

23.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
Weather Station
100.0
90.0
80.0
70.0
60.0
50.0
50
60
70
80
90
100
Site E

		Site C			Site A			correlation coefficient between Site C and Site A		
		Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation	Air Temperature	Humidity	Solar radiation
07.07.02	max	18.81	93.90	156.28	20.30	93.00	194.30	1.00	0.99	1.00
	min	10.47	61.66	0.00	10.34	69.09	0.00			
	median	12.94	83.75	16.34	13.06	86.05	20.25			
	range	8.34	32.24	156.28	9.96	23.91	194.30			
	SD	3.18	12.18	52.74	3.77	8.69	64.99			
	Variance	10.12	148.47	2781.99	14.20	75.55	4223.22			
10.07.02	max	17.24	92.90	269.47	17.80	92.40	229.93	0.98	0.96	0.96
	min	8.36	71.80	0.00	7.72	73.20	0.00			
	median	13.74	85.35	53.42	14.19	86.80	38.55			
	range	8.88	21.10	269.47	10.08	19.20	229.93			
	SD	2.90	6.69	72.07	3.39	5.31	72.16			
	Variance	8.42	44.77	5194.50	11.51	28.23	5207.36			
13.07.02	max	22.38	92.80	253.17	23.56	91.70	221.63	0.99	0.98	0.99
	min	7.48	54.16	0.00	6.04	52.09	0.01			
	median	15.36	81.80	41.53	15.31	82.80	36.11			
	range	14.90	38.64	253.17	17.52	39.61	221.63			
	SD	5.44	13.93	91.49	6.59	14.68	71.65			
	Variance	29.56	194.13	8370.83	43.42	215.44	5134.26			
17.07.02	max	22.63	93.30	225.77	21.64	89.80	167.00	0.96	0.96	0.98
	min	11.43	56.56	0.00	10.40	49.69	0.00			
	median	15.60	79.95	36.72	15.24	73.10	32.05			
	range	11.20	36.74	225.77	11.24	40.11	167.00			
	SD	3.46	12.13	73.70	3.69	13.60	55.36			
	Variance	11.97	147.15	5431.83	13.64	185.07	3065.21			
23.07.02	max	21.76	96.90	84.02	22.15	93.60	204.23	1.00	1.00	0.86
	min	13.36	75.40	0.00	13.64	71.00	0.00			
	median	15.67	86.30	16.57	15.99	83.90	33.85			
	range	8.40	21.50	84.02	8.51	22.60	204.23			
	SD	2.09	8.19	25.94	2.18	8.51	55.09			
	Variance	4.36	67.10	673.05	4.76	72.37	3034.83			

29.05.02	max	17.71	91.20	436.23		17.71	91.20	436.23	1.00	1.00	1.00
	min	7.76	65.00	0.01		7.76	65.00	0.01			
	median	10.93	85.55	34.30		10.93	85.55	34.30			
	range	9.95	26.20	436.23		9.95	26.20	436.23			
	SD	3.46	9.10	122.08		3.46	9.10	122.08			
	Variance	12.00	82.73	14902.75		12.00	82.73	14902.75			
15.06.02	max	18.53	93.20	168.87		18.35	92.00	177.00	0.99	0.99	0.99
	min	11.21	63.74	0.00		11.13	72.90	0.00			
	median	13.88	84.15	25.04		13.87	86.40	30.27			
	range	7.32	29.46	168.87		7.22	19.10	177.00			
	SD	2.38	10.62	58.29		2.33	7.24	68.43			
	Variance	5.68	112.81	3397.35		5.41	52.37	4683.33			
19.07.02	max	19.62	95.30	82.71		21.32	92.20	160.05	0.99	0.97	1.00
	min	10.96	72.20	0.00		10.89	71.00	0.03			
	median	14.44	90.75	13.29		15.11	88.40	23.88			
	range	8.66	23.10	82.71		10.43	21.20	160.02			
	SD	2.88	6.13	25.03		3.46	5.22	47.74			
	Variance	8.30	37.63	626.57		11.95	27.23	2279.17			
20.07.02	max	18.18	97.10	73.78		19.30	93.30	154.77	1.00	0.98	0.99
	min	7.26	70.60	0.00		7.75	68.35	0.01			
	median	13.44	88.20	15.76		13.89	89.05	35.47			
	range	10.92	26.50	73.78		11.55	24.95	154.75			
	SD	3.28	9.25	25.04		3.47	8.55	52.78			
	Variance	10.74	85.58	627.18		12.06	73.07	2785.57			
15.07.02	max	21.44	95.10	112.27		23.26	93.20	99.69	0.99	0.97	1.00
	min	11.72	78.00	0.00		11.64	73.30	0.01			
	median	17.70	84.80	35.16		18.31	82.40	30.84			
	range	9.72	17.10	112.27		11.62	19.90	99.68			
	SD	3.04	4.56	37.63		3.84	6.21	33.34			
	Variance	9.23	20.82	1415.99		14.72	38.55	1111.60			


07.07.02
Solar radiation [W/m2]
Linear (Solar radiation [W/m2])
250.0
200.0
150.0
100.0
50.0
0.0
Site A
0.00
50.00
100.00
150.00
200.00
Site C


07.07.02
Air Temperature [C]
Linear (Air Temperature [C])
25
20
15
10
5
0
Site A
10.00
12.00
14.00
16.00
18.00
20.00
Site C


07.07.02
Relative Humidity [%]
Linear (Relative Humidity [%])
100
90
80
70
60
50
Site A
50.00
60.00
70.00
80.00
90.00
100.00
Site C

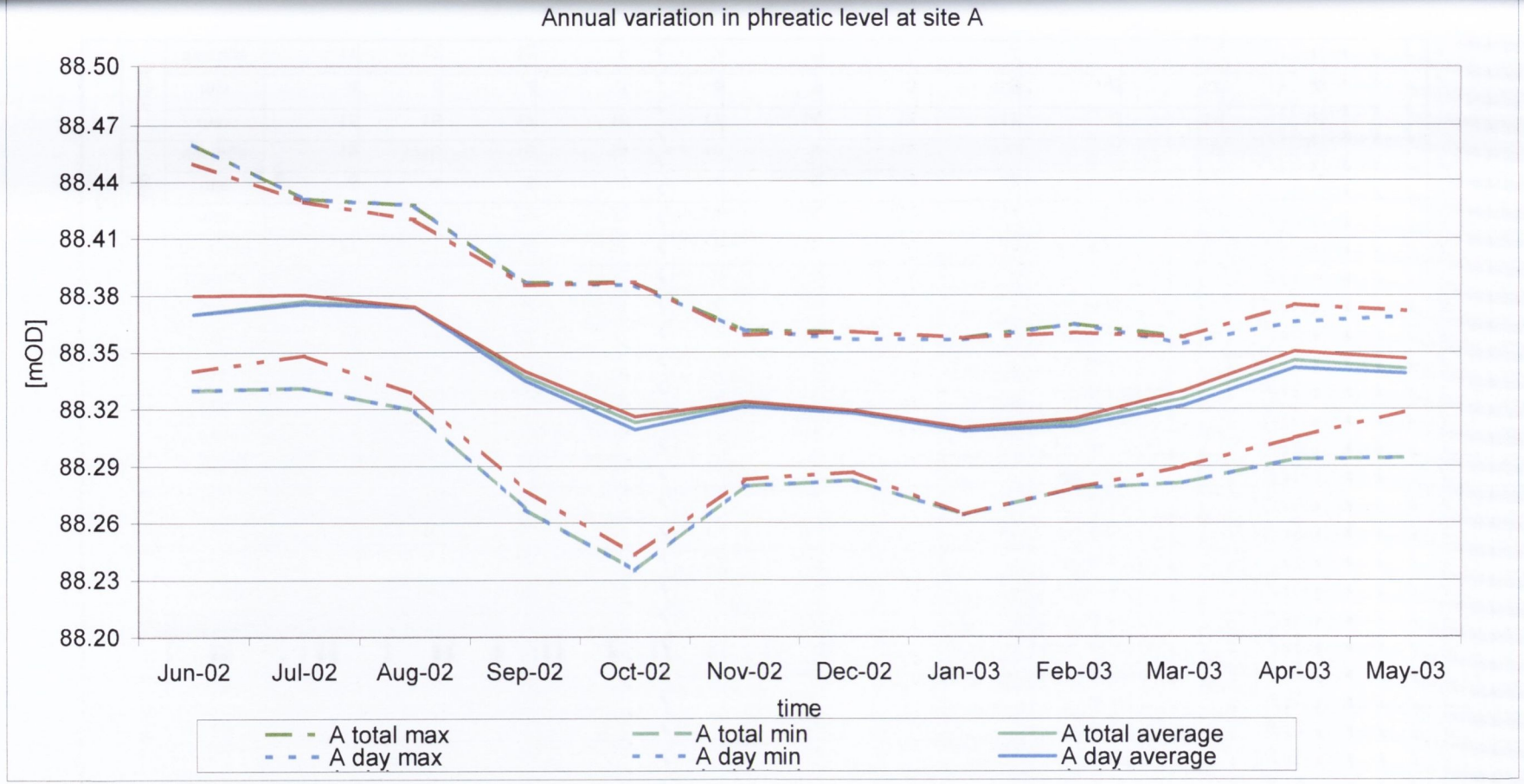
APPENDIX 30

Annual micrometeorological regime of the fen margin

In this appendix, the annual micrometeorological regime of the *Vertigo geyeri* habitat is outlined. All data were collected on hourly basis and were later aggregated into daily and monthly values. Hourly and daily data are too lengthy to present here but is available on request. This work is summarised in Chapter IV, Volume I.

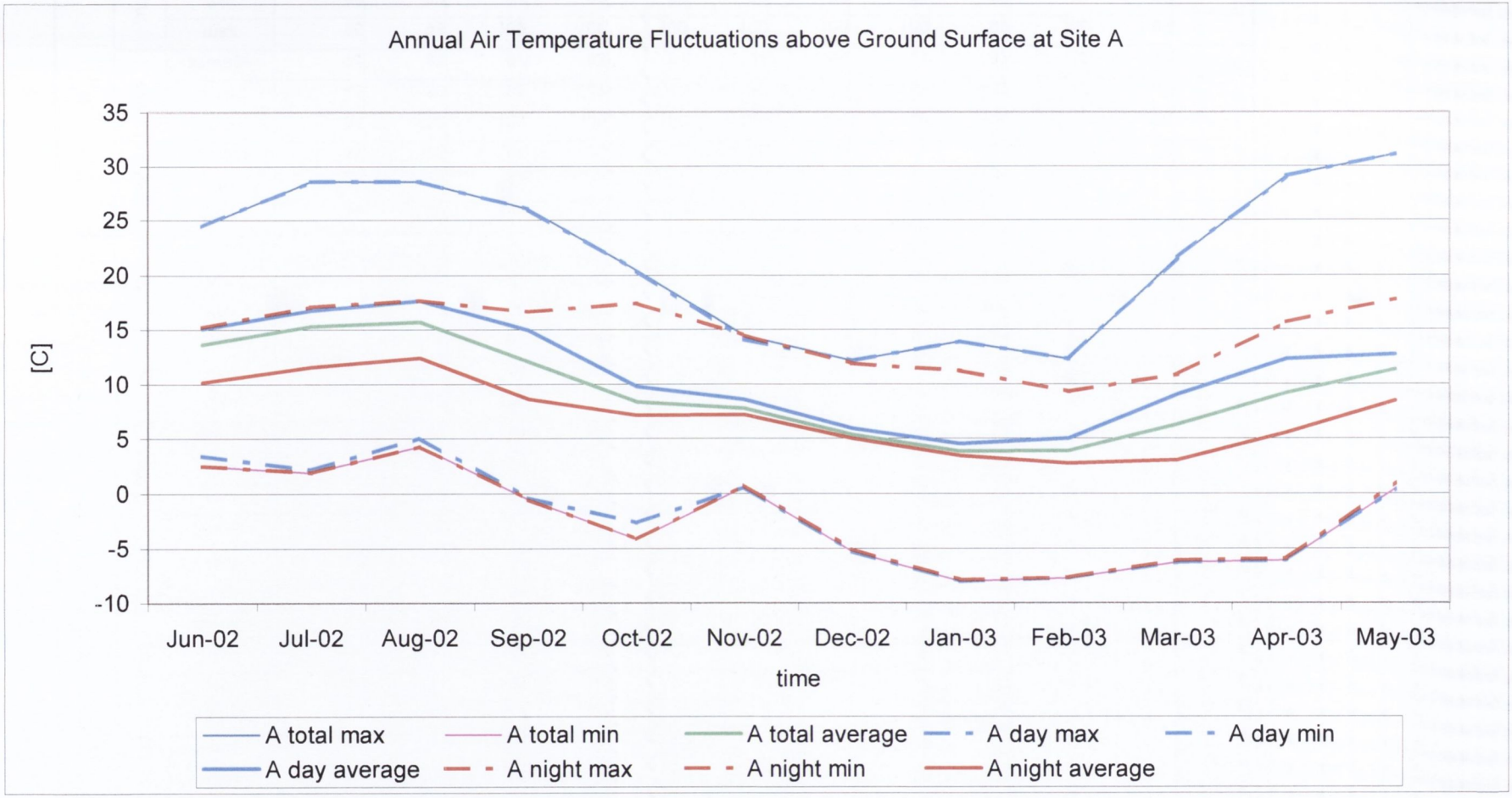
Phreatic level within IQABQ1

			Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03
A	total	max	88.46	88.43	88.43	88.39	88.39	88.36	88.36	88.36	88.36	88.36	88.38	88.37
		min	88.33	88.33	88.32	88.27	88.23	88.28	88.28	88.26	88.28	88.28	88.29	88.29
		average	88.37	88.38	88.37	88.34	88.31	88.32	88.32	88.31	88.31	88.33	88.35	88.34
		max-min	0.13	0.10	0.11	0.12	0.15	0.08	0.08	0.09	0.09	0.08	0.08	0.08
	day	max	88.46	88.43	88.43	88.39	88.39	88.36	88.36	88.36	88.36	88.35	88.37	88.37
		min	88.33	88.33	88.32	88.27	88.23	88.28	88.28	88.26	88.28	88.28	88.29	88.29
		average	88.37	88.38	88.37	88.34	88.31	88.32	88.32	88.31	88.31	88.32	88.34	88.34
	night	max	88.45	88.43	88.42	88.39	88.39	88.36	88.36	88.36	88.36	88.36	88.38	88.37
		min	88.34	88.35	88.33	88.28	88.24	88.28	88.29	88.26	88.28	88.29	88.30	88.32
		average	88.38	88.38	88.37	88.34	88.32	88.32	88.32	88.31	88.31	88.33	88.35	88.35
E	total	max		86.34	86.33	86.30	86.30	86.29	86.29	86.29	86.29	86.29	86.32	86.30
		min		86.29	86.25	86.20	86.20	86.22	86.20	86.19	86.21	86.22	86.22	86.25
		average		86.31	86.29	86.27	86.25	86.25	86.24	86.24	86.24	86.26	86.28	86.28
		max-min		0.05	0.08	0.10	0.11	0.06	0.09	0.10	0.09	0.07	0.09	0.04
	day	max		86.34	86.33	86.30	86.30	86.29	86.29	86.29	86.29	86.29	86.31	86.29
		min		86.29	86.25	86.20	86.20	86.22	86.20	86.19	86.21	86.22	86.22	86.25
		average		86.31	86.29	86.26	86.24	86.25	86.24	86.24	86.24	86.26	86.27	86.27
	night	max		86.34	86.33	86.30	86.30	86.29	86.29	86.29	86.29	86.29	86.32	86.30
		min		86.30	86.26	86.21	86.20	86.22	86.20	86.19	86.21	86.22	86.24	86.27
		average		86.31	86.30	86.27	86.25	86.25	86.24	86.24	86.24	86.26	86.28	86.28
C	total	max	85.76	85.83		85.79	85.80	85.78	85.79	85.79	85.79	85.80	85.80	85.80
		min	85.73	85.72		85.74	85.75	85.76	85.75	85.75	85.76	85.76	85.77	85.78
		average	85.74	85.76		85.77	85.78	85.77	85.77	85.77	85.77	85.78	85.79	85.79
		max-min	0.03	0.11		0.05	0.05	0.02	0.04	0.05	0.04	0.03	0.04	0.01
	day	max	85.76	85.83		85.79	85.80	85.78	85.79	85.79	85.79	85.80	85.80	85.80
		min	85.73	85.72		85.74	85.75	85.76	85.75	85.75	85.76	85.76	85.77	85.78
		average	85.74	85.76		85.77	85.78	85.77	85.77	85.77	85.77	85.78	85.79	85.79
	night	max	85.76	85.83		85.79	85.80	85.78	85.79	85.79	85.79	85.80	85.80	85.80
		min	85.73	85.74		85.75	85.75	85.76	85.75	85.75	85.76	85.76	85.77	85.78
		average	85.74	85.76		85.77	85.78	85.77	85.77	85.77	85.77	85.78	85.79	85.79


Annual variation in phreatic level at site A
88.50
88.47
88.44
88.41
88.38
88.35
88.32
88.29
88.26
88.23
88.20
[mOD]
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
time
A total max
A total min
A total average
A day max
A day min
A day average

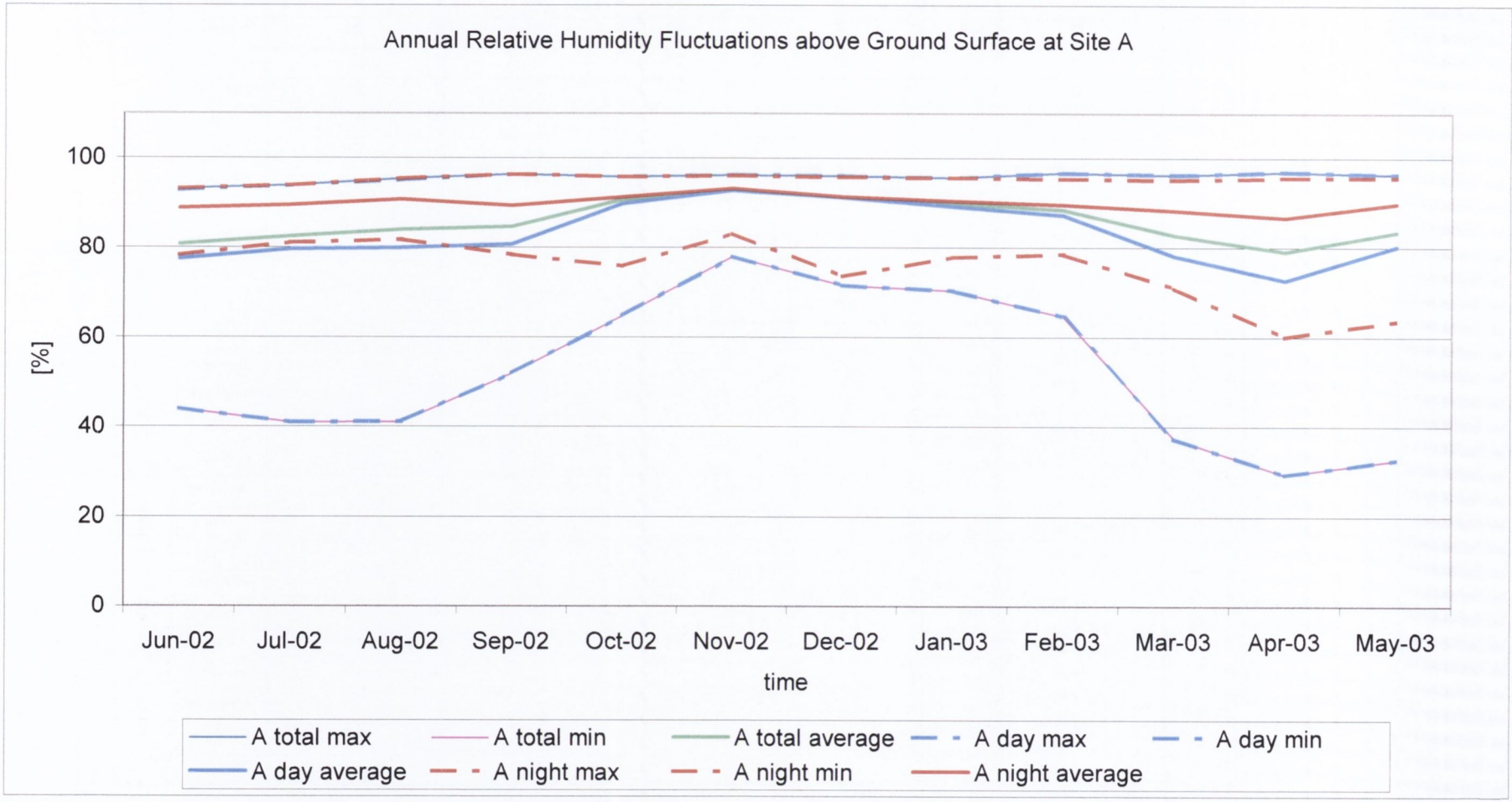
Air Temperature within IQABQ1

			Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03
A	total	max	24	29	29	26	20	14	12	14	12	22	29	31
		min	3	2	4	-1	-4	1	-5	-8	-8	-6	-6	0
		average	14	15	16	12	8	8	5	4	4	6	9	11
		max-min	22	27	24	27	25	14	17	22	20	28	35	31
	day	max	24	29	29	26	20	14	12	14	12	22	29	31
		min	3	2	5	0	-3	1	-5	-8	-8	-6	-6	0
		average	15	17	18	15	10	9	6	5	5	9	12	13
	night	max	15	17	18	17	17	14	12	11	9	11	16	18
		min	3	2	4	-1	-4	1	-5	-8	-8	-6	-6	1
		average	10	12	12	9	7	7	5	3	3	3	6	8
E	total	max		26	30	28	19	14	12	13	13	22	27	
		min		11	5	0	-2	2	-3	-5	-5	-4	-3	
		average		17	16	12	9	8	5	4	4	7	10	
		max-min	0	15	25	28	22	12	14	18	17	25	30	
	day	max		26	30	28	19	14	12	13	13	22	27	
		min		12	7	0	-2	2	-3	-5	-5	-4	-3	
		average		18	18	15	10	9	6	4	5	9	12	
	night	max		17	18	16	17	14	12	10	9	11	15	
		min		11	5	0	-2	2	-3	-5	-4	-3	-3	
		average		14	13	9	7	7	5	4	3	4	6	
C	total	max	24	24	22	27	24	14	12	14	14	20	25	
		min	3	4	4	-1	-4	1	-4	-6	-6	-4	-4	
		average	14	15	14	12	9	8	5	4	4	7	9	
		max-min	21	21	18	28	28	13	16	20	20	24	29	
	day	max	24	24	22	27	24	14	12	14	14	20	25	
		min	3	4	5	-1	-4	1	-4	-6	-6	-4	-4	
		average	15	16	16	14	10	9	6	5	5	9	12	
	night	max	15	16	17	15	17	14	12	11	9	11	16	
		min	4	4	4	-1	-4	1	-3	-6	-6	-4	-4	
		average	11	12	12	9	7	7	5	4	3	4	6	


Annual Air Temperature Fluctuations above Ground Surface at Site A
35
30
25
20
15
10
5
0
-5
-10
[C]
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
time
A total max
A total min
A total average
A day max
A day min
A day average
A night max
A night min
A night average

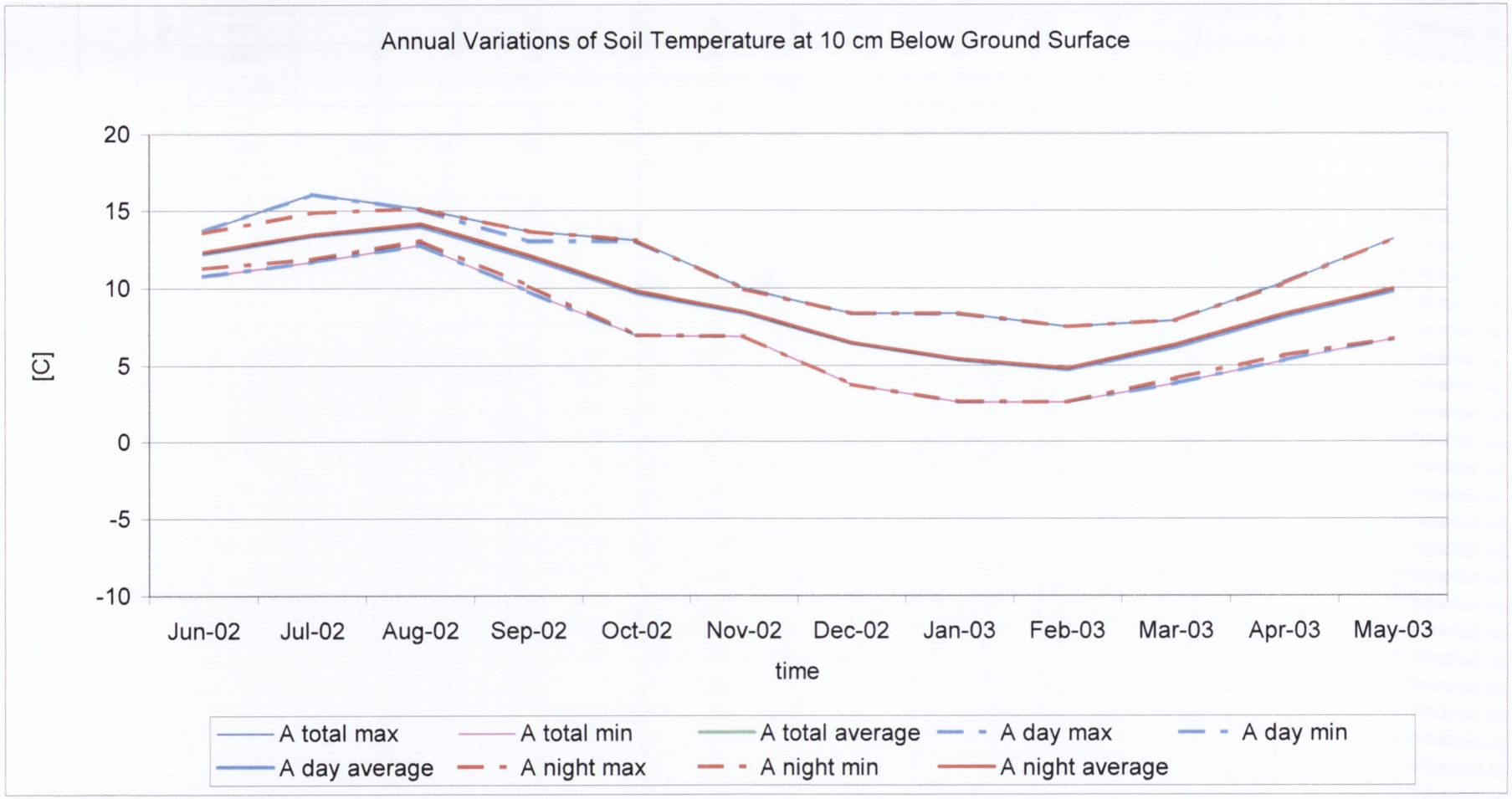
Air Humidity within IQABQ1

			Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03
A	total	max	93	94	95	96	96	96	96	96	97	96	97	96
		min	44	41	41	52	65	78	72	70	65	37	29	33
		average	81	82	84	85	91	93	91	90	89	83	79	83
	day	max	93	94	95	96	96	96	96	96	97	96	97	96
		min	44	41	41	52	65	78	72	70	65	37	29	33
		average	77	80	80	81	90	93	91	89	87	78	73	80
	night	max	93	94	95	96	96	96	96	96	95	95	96	96
		min	78	81	82	78	76	83	74	78	79	71	60	64
		average	89	90	91	89	91	93	92	91	90	88	87	90
E	total	max		99	100	100	100	100	100	100	100	100	100	
		min		63	54	57	79	95	89	83	73	52	45	
		average		87	91	90	97	99	98	97	95	90	86	
	day	max		98	100	100	100	100	100	100	100	100	100	
		min		63	54	57	79	95	89	83	73	52	45	
		average		85	89	88	97	99	98	97	94	88	83	
	night	max		99	100	100	100	100	100	100	100	100	100	
		min		82	87	80	86	95	89	84	85	81	73	
		average		92	96	93	97	99	98	97	95	93	91	
C	total	max	95	100	100	100	100	100	100	100	100	100	100	
		min	45	50	82	47	63	72	75	69	52	43	42	
		average	81	86	96	93	93	95	95	93	89	86	82	
	day	max	95	100	100	100	100	100	100	100	100	100	100	
		min	45	50	82	47	63	72	75	69	52	43	42	
		average	78	83	97	93	91	94	94	91	87	82	78	
	night	max	95	98	100	100	100	100	100	100	99	100	98	
		min	82	82	84	80	79	79	82	76	69	71	63	
		average	90	92	95	93	95	96	95	93	90	89	88	


Annual Relative Humidity Fluctuations above Ground Surface at Site A
100
80
60
40
20
0
[%]
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
time
A total max
A total min
A total average
A day max
A day min
A day average
A night max
A night min
A night average

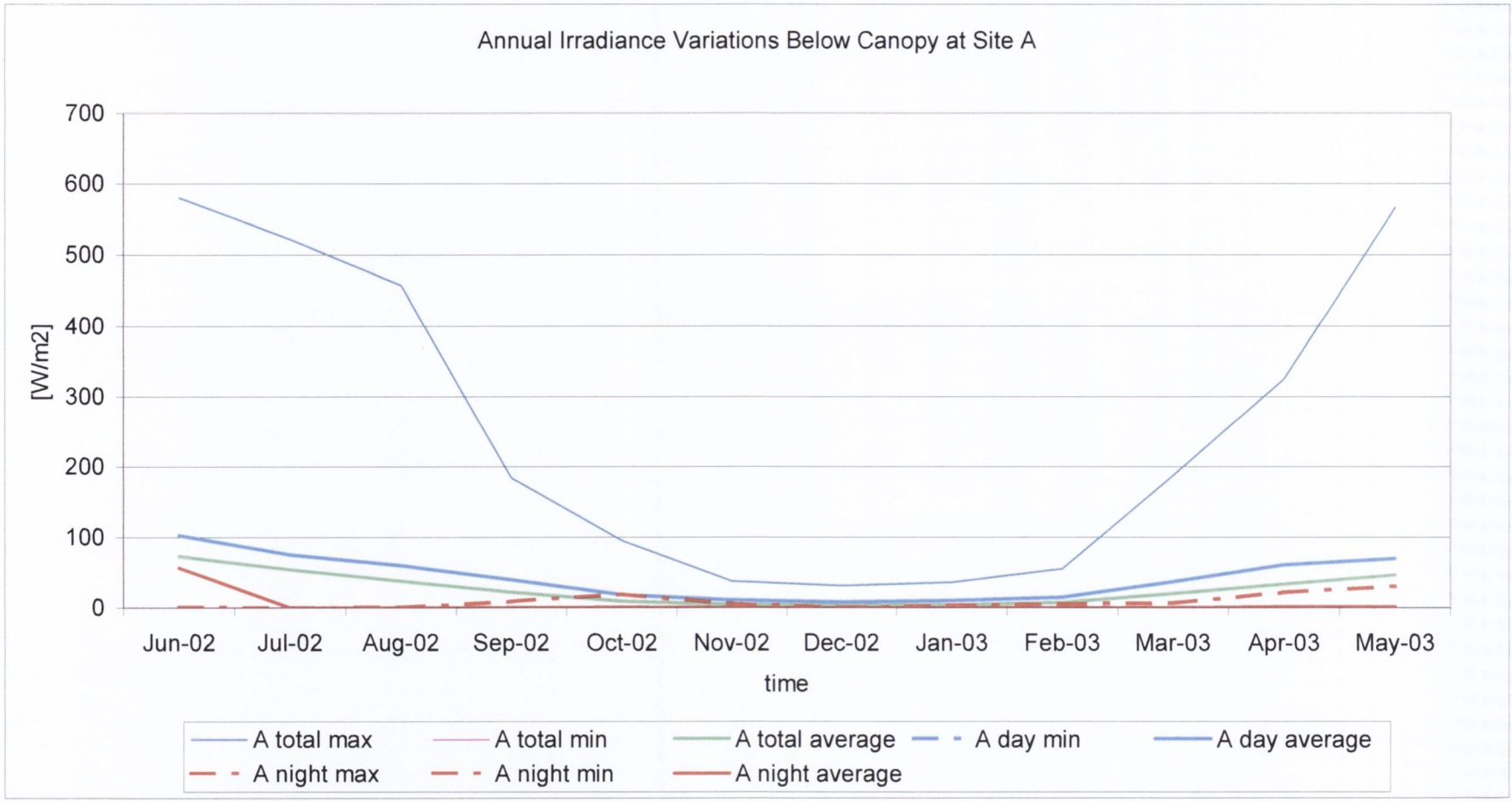
Soil Temperature at 10 cm depth within IQABQ1

			Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03
A	total	max	14	16	15	14	13	10	8	8	8	8	10	13
		min	11	12	13	10	7	7	4	3	3	4	5	7
		average	12	13	14	12	10	8	6	5	5	6	8	10
		max-min	3	4	2	4	6	3	5	6	5	4	5	6
	day	max	14	16	15	13	13	10	8	8	8	8	10	13
		min	11	12	13	10	7	7	4	3	3	4	5	7
		average	12	13	14	12	10	8	6	5	5	6	8	10
	night	max	14	15	15	14	13	10	8	8	8	8	10	13
		min	11	12	13	10	7	7	4	3	3	4	6	7
		average	12	13	14	12	10	8	6	5	5	6	8	10
E	total	max		16	16	14	13	9	8	8	7	8	10	
		min		14	13	9	6	6	4	2	3	4	6	
		average		15	15	12	9	8	6	5	4	6	8	
		max-min	0	2	3	5	7	3	4	5	4	3	4	
	day	max		16	16	14	13	9	8	8	7	7	10	
		min		14	13	9	6	6	4	2	3	4	6	
		average		15	15	12	9	8	6	5	4	6	8	
	night	max		16	16	14	13	9	8	8	7	8	10	
		min		14	13	10	6	6	4	2	3	4	6	
		average		15	15	12	9	8	6	5	4	6	8	
C	total	max	10	15	15	13	14	3	2	2	1	2	5	
		min	5	7	11	8	0	0	-3	-4	-4	-2	0	
		average	8	9	13	11	6	2	0	-1	-2	0	3	
		max-min	5	8	4	5	14	3	4	6	4	4	5	
	day	max	10	15	15	13	14	3	2	2	1	2	5	
		min	5	7	11	8	0	0	-3	-4	-4	-2	0	
		average	8	9	13	11	5	2	0	-1	-2	0	2	
	night	max	10	14	15	13	14	3	2	2	1	2	5	
		min	6	7	11	8	0	0	-3	-4	-4	-2	0	
		average	8	9	13	11	6	2	0	-1	-2	0	3	


Annual Variations of Soil Temperature at 10 cm Below Ground Surface
20
15
10
5
0
-5
-10
[C]
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
time
A total max
A total min
A total average
A day max
A day min
A day average
A night max
A night min
A night average

Incoming Radiation level within IQABQ1

			Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03
A	total	max	580	522	457	184	95	37	32	36	55	187	326	566
		min	0	0	0	0	0	0	0	0	0	0	0	0
		average	73	54	37	22	9	5	3	4	8	20	33	47
	day	max	580	522	457	184	95	37	32	36	55	187	326	566
		min	1	0	0	0	0	0	0	0	0	0	0	0
		average	103	75	60	40	18	11	8	10	15	37	60	69
	night	max	0	0	0	9	19	6	0	4	6	7	22	31
		min	0	0	0	0	0	0	0	0	0	0	0	0
		average	57	0	0	0	1	0	0	0	0	0	1	1
E	total	max		252	352	196	92	58	56	65	108	250	370	
		min		0	0	0	0	0	0	0	0	0	0	
		average		50	40	27	12	8	6	7	13	38	56	
	day	max		252	352	196	92	58	56	65	108	250	370	
		min		0	0	0	0	0	0	0	0	0	0	
		average		70	64	50	26	18	15	17	26	69	102	
	night	max		0	1	11	28	10	1	7	10	11	34	
		min		0	0	0	0	0	0	0	0	0	0	
		average		0	0	0	1	0	0	0	0	0	2	
C	total	max	594	489	114	303	467	82	42	116	276	391	468	
		min	0	0	0	0	0	0	0	0	0	0	0	
		average	65	44	24	19	17	6	3	5	15	30	37	
	day	max	594	489	114	303	467	82	42	116	276	391	468	
		min	1	0	0	0	0	0	0	0	0	0	0	
		average	92	62	38	35	37	15	9	13	30	56	67	
	night	max	0	0	0	8	26	7	0	5	5	6	44	
		min	0	0	0	0	0	0	0	0	0	0	4	
		average	0	0	0	0	1	0	0	0	0	0	18	


Annual Irradiance Variations Below Canopy at Site A
700
600
500
400
300
200
100
0
[W/m2]
Jun-02
Jul-02
Aug-02
Sep-02
Oct-02
Nov-02
Dec-02
Jan-03
Feb-03
Mar-03
Apr-03
May-03
time
A total max
A total min
A total average
A day min
A day average
A night max
A night min
A night average

APPENDIX 31

Effective rainfall data for the Curragh aquifer catchment

This appendix presents daily effective rainfall data for period 1998 – 2005 based on rainfall data from the Naas CBS station and climatic data from the Casement Aerodrome synoptic station. Actual evapotranspiration was calculated by applying a water stress factor to Penman-Monteith Potential Evapotranspiration. Data available courtesy of Dr. Les Brown.

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
01-10-1998	0.0	0.7	0.7	0.0	0.0
02-10-1998	0.0	0.8	0.8	-0.7	0.0
03-10-1998	0.0	1.0	1.0	-1.5	0.0
04-10-1998	6.7	0.5	0.5	-2.5	3.7
05-10-1998	5.1	0.5	0.5	0.0	4.6
06-10-1998	0.1	0.8	0.8	0.0	0.0
07-10-1998	0.0	1.0	1.0	-0.7	0.0
08-10-1998	0.0	1.3	1.3	-1.7	0.0
09-10-1998	4.2	1.2	1.2	-3.0	0.1
10-10-1998	1.6	0.7	0.7	0.0	0.9
11-10-1998	0.0	1.5	1.5	0.0	0.0
12-10-1998	0.4	1.0	1.0	-1.5	0.0
13-10-1998	11.4	0.5	0.5	-2.2	8.8
14-10-1998	0.0	1.7	1.7	0.0	0.0
15-10-1998	7.6	1.4	1.4	-1.7	4.5
16-10-1998	0.5	1.3	1.3	0.0	0.0
17-10-1998	0.0	0.9	0.9	-0.8	0.0
18-10-1998	0.0	1.0	1.0	-1.7	0.0
19-10-1998	1.4	1.1	1.1	-2.7	0.0
20-10-1998	15.5	0.7	0.7	-2.4	12.4
21-10-1998	5.0	1.0	1.0	0.0	4.0
22-10-1998	0.5	1.5	1.5	0.0	0.0
23-10-1998	9.8	0.7	0.7	-1.0	8.1
24-10-1998	5.7	1.2	1.2	0.0	4.5
25-10-1998	1.1	1.1	1.1	0.0	0.0
26-10-1998	12.9	1.3	1.3	0.0	11.5
27-10-1998	5.1	1.0	1.0	0.0	4.1
28-10-1998	3.0	1.4	1.4	0.0	1.6
29-10-1998	0.8	0.9	0.9	0.0	0.0
30-10-1998	2.2	0.8	0.8	-0.1	1.2
31-10-1998	0.9	0.0	0.0	0.0	0.9
01-11-1998	9.1	0.6	0.6	0.0	8.5
02-11-1998	13.5	0.8	0.8	0.0	12.7
03-11-1998	0.0	0.0	0.0	0.0	0.0
04-11-1998	0.1	0.5	0.5	0.0	0.0
05-11-1998	0.0	1.0	1.0	-0.4	0.0
06-11-1998	0.0	0.7	0.7	-1.4	0.0
07-11-1998	8.8	1.6	1.6	-2.1	5.1
08-11-1998	7.1	1.4	1.4	0.0	5.7
09-11-1998	7.6	2.0	2.0	0.0	5.6
10-11-1998	0.0	0.9	0.9	0.0	0.0
11-11-1998	6.5	0.8	0.8	-0.9	4.7
12-11-1998	0.3	0.4	0.4	0.0	0.0
13-11-1998	5.4	0.5	0.5	-0.1	4.7
14-11-1998	0.0	0.3	0.3	0.0	0.0
15-11-1998	0.0	0.4	0.4	-0.3	0.0
16-11-1998	0.6	0.0	0.0	-0.7	0.0
17-11-1998	6.2	0.0	0.0	-0.1	6.1
18-11-1998	0.0	0.0	0.0	0.0	0.0
19-11-1998	0.9	0.0	0.0	0.0	0.9
20-11-1998	0.0	0.1	0.1	0.0	0.0
21-11-1998	8.0	1.3	1.3	-0.1	6.6
22-11-1998	0.2	0.0	0.0	0.0	0.2
23-11-1998	8.0	0.6	0.6	0.0	7.4
24-11-1998	0.2	0.3	0.3	0.0	0.0
25-11-1998	0.2	0.5	0.5	-0.1	0.0
26-11-1998	2.5	0.1	0.1	-0.4	2.0
27-11-1998	5.7	0.1	0.1	0.0	5.6
28-11-1998	0.0	1.0	1.0	0.0	0.0
29-11-1998	0.3	0.1	0.1	-1.0	0.0
30-11-1998	0.1	0.0	0.0	-0.8	0.0
01-12-1998	0.6	0.0	0.0	-0.7	0.0
02-12-1998	0.7	0.0	0.0	-0.1	0.6
03-12-1998	1.1	0.0	0.0	0.0	1.1
04-12-1998	0.0	0.0	0.0	0.0	0.0
05-12-1998	0.3	0.0	0.0	0.0	0.3
06-12-1998	0.0	0.0	0.0	0.0	0.0
07-12-1998	3.6	0.8	0.8	0.0	2.8
08-12-1998	1.0	0.2	0.2	0.0	0.8
09-12-1998	11.4	0.8	0.8	0.0	10.6
10-12-1998	1.4	0.4	0.4	0.0	1.0
11-12-1998	4.4	0.6	0.6	0.0	3.8
12-12-1998	1.8	0.4	0.4	0.0	1.4
13-12-1998	9.4	1.2	1.2	0.0	8.2
14-12-1998	4.2	0.5	0.5	0.0	3.7
15-12-1998	0.0	0.5	0.5	0.0	0.0
16-12-1998	0.0	1.2	1.2	-0.5	0.0
17-12-1998	4.6	0.3	0.3	-1.7	2.7
18-12-1998	2.4	0.5	0.5	0.0	1.9
19-12-1998	0.0	0.0	0.0	0.0	0.0
20-12-1998	0.0	0.0	0.0	0.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
21-12-1998	2.2	0.1	0.1	0.0	2.1
22-12-1998	2.7	0.4	0.4	0.0	2.3
23-12-1998	2.1	0.4	0.4	0.0	1.7
24-12-1998	4.5	0.4	0.4	0.0	4.1
25-12-1998	2.4	0.5	0.5	0.0	1.9
26-12-1998	14.9	1.9	1.9	0.0	13.0
27-12-1998	1.3	0.6	0.6	0.0	0.7
28-12-1998	0.3	0.4	0.4	0.0	0.0
29-12-1998	13.9	0.5	0.5	-0.1	13.2
30-12-1998	1.2	1.1	1.1	0.0	0.1
31-12-1998	4.4	0.4	0.4	0.0	4.0
01-01-1999	5.8	0.6	0.6	0.0	5.2
02-01-1999	10.4	1.1	1.1	0.0	9.3
03-01-1999	7.4	1.1	1.1	0.0	6.3
04-01-1999	8.9	1.6	1.6	0.0	7.3
05-01-1999	0.8	0.0	0.0	0.0	0.8
06-01-1999	0.4	0.1	0.1	0.0	0.3
07-01-1999	5.1	0.3	0.3	0.0	4.8
08-01-1999	0.0	0.0	0.0	0.0	0.0
09-01-1999	0.0	0.0	0.0	0.0	0.0
10-01-1999	0.0	0.0	0.0	0.0	0.0
11-01-1999	13.5	0.1	0.1	0.0	13.4
12-01-1999	4.3	0.2	0.2	0.0	4.1
13-01-1999	0.9	0.8	0.8	0.0	0.1
14-01-1999	7.1	0.6	0.6	0.0	6.5
15-01-1999	15.2	0.8	0.8	0.0	14.4
16-01-1999	0.0	0.7	0.7	0.0	0.0
17-01-1999	0.4	0.8	0.8	-0.7	0.0
18-01-1999	3.9	1.0	1.0	-1.2	1.7
19-01-1999	5.3	0.7	0.7	0.0	4.6
20-01-1999	0.0	0.5	0.5	0.0	0.0
21-01-1999	0.0	0.5	0.5	-0.5	0.0
22-01-1999	0.6	0.8	0.8	-1.0	0.0
23-01-1999	0.8	0.9	0.9	-1.2	0.0
24-01-1999	1.3	0.9	0.9	-1.2	0.0
25-01-1999	3.3	1.3	1.3	-0.9	1.1
26-01-1999	2.4	0.3	0.3	0.0	2.1
27-01-1999	3.2	0.3	0.3	0.0	2.9
28-01-1999	3.2	0.0	0.0	0.0	3.2
29-01-1999	0.9	0.0	0.0	0.0	0.9
30-01-1999	0.2	0.0	0.0	0.0	0.2
31-01-1999	0.0	0.0	0.0	0.0	0.0
01-02-1999	0.0	0.5	0.5	0.0	0.0
02-02-1999	0.0	0.4	0.4	-0.5	0.0
03-02-1999	0.2	0.6	0.6	-0.9	0.0
04-02-1999	0.1	0.9	0.9	-1.3	0.0
05-02-1999	0.3	0.9	0.9	-2.1	0.0
06-02-1999	5.1	0.3	0.3	-2.7	2.1
07-02-1999	5.4	0.4	0.4	0.0	5.0
08-02-1999	0.6	0.1	0.1	0.0	0.5
09-02-1999	0.0	0.3	0.3	0.0	0.0
10-02-1999	0.0	0.0	0.0	-0.3	0.0
11-02-1999	0.0	0.6	0.6	-0.3	0.0
12-02-1999	0.3	0.1	0.1	-0.9	0.0
13-02-1999	0.7	0.6	0.6	-0.7	0.0
14-02-1999	0.8	0.1	0.1	-0.6	0.1
15-02-1999	0.1	0.5	0.5	0.0	0.0
16-02-1999	0.6	0.7	0.7	-0.4	0.0
17-02-1999	0.7	0.3	0.3	-0.4	0.0
18-02-1999	1.9	0.4	0.4	0.0	1.5
19-02-1999	0.0	0.6	0.6	0.0	0.0
20-02-1999	5.0	0.9	0.9	-0.6	3.5
21-02-1999	4.0	0.5	0.5	0.0	3.5
22-02-1999	0.0	1.3	1.3	0.0	0.0
23-02-1999	4.4	0.4	0.4	-1.3	2.7
24-02-1999	0.0	0.1	0.1	0.0	0.0
25-02-1999	0.9	1.0	1.0	-0.1	0.0
26-02-1999	1.0	1.1	1.1	-0.3	0.0
27-02-1999	0.3	1.3	1.3	-0.3	0.0
28-02-1999	8.7	0.9	0.9	-1.3	6.5
01-03-1999	12.0	0.5	0.5	0.0	11.5
02-03-1999	11.7	0.4	0.4	0.0	11.3
03-03-1999	4.7	0.7	0.7	0.0	4.0
04-03-1999	0.0	0.8	0.8	0.0	0.0
05-03-1999	0.8	1.2	1.2	-0.8	0.0
06-03-1999	0.3	0.8	0.8	-1.1	0.0
07-03-1999	0.0	0.4	0.4	-1.7	0.0
08-03-1999	0.2	0.7	0.7	-2.0	0.0
09-03-1999	0.1	0.6	0.6	-2.5	0.0
10-03-1999	0.0	0.5	0.5	-3.0	0.0
11-03-1999	1.5	0.2	0.2	-3.6	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
12-03-1999	1.0	0.8	0.8	-2.3	0.0
13-03-1999	0.0	1.9	1.9	-2.1	0.0
14-03-1999	0.0	1.4	1.4	-3.9	0.0
15-03-1999	0.0	1.8	1.8	-5.4	0.0
16-03-1999	0.0	1.9	1.9	-7.1	0.0
17-03-1999	0.1	2.1	2.1	-9.1	0.0
18-03-1999	0.0	1.4	1.4	-11.1	0.0
19-03-1999	0.0	1.3	1.3	-12.5	0.0
20-03-1999	3.8	1.0	1.0	-13.9	0.0
21-03-1999	0.0	1.8	1.8	-11.1	0.0
22-03-1999	1.6	0.5	0.5	-12.9	0.0
23-03-1999	0.6	1.3	1.3	-11.8	0.0
24-03-1999	0.0	1.1	1.1	-12.4	0.0
25-03-1999	0.0	0.9	0.9	-13.6	0.0
26-03-1999	0.0	1.7	1.7	-14.5	0.0
27-03-1999	0.2	1.0	1.0	-16.1	0.0
28-03-1999	16.2	0.8	0.8	-17.0	0.0
29-03-1999	0.0	2.4	2.4	-1.5	0.0
30-03-1999	0.0	2.4	2.4	-3.9	0.0
31-03-1999	0.0	1.6	1.6	-6.3	0.0
01-04-1999	2.0	3.4	3.4	-7.9	0.0
02-04-1999	0.0	1.4	1.4	-9.2	0.0
03-04-1999	0.0	1.0	1.0	-10.7	0.0
04-04-1999	0.1	1.7	1.7	-11.7	0.0
05-04-1999	3.0	1.7	1.7	-13.4	0.0
06-04-1999	6.3	1.7	1.7	-12.0	0.0
07-04-1999	1.7	1.4	1.4	-7.4	0.0
08-04-1999	0.0	1.0	1.0	-7.1	0.0
09-04-1999	0.2	2.9	2.9	-8.1	0.0
10-04-1999	0.1	1.9	1.9	-10.8	0.0
11-04-1999	8.9	1.4	1.4	-12.6	0.0
12-04-1999	1.1	2.0	2.0	-5.1	0.0
13-04-1999	11.9	1.6	1.6	-6.1	4.2
14-04-1999	1.8	1.1	1.1	0.0	0.7
15-04-1999	0.4	1.7	1.7	0.0	0.0
16-04-1999	0.2	1.4	1.4	-1.3	0.0
17-04-1999	0.9	1.9	1.9	-2.4	0.0
18-04-1999	1.2	2.4	2.4	-3.5	0.0
19-04-1999	2.9	1.9	1.9	-4.7	0.0
20-04-1999	4.5	2.1	2.1	-3.7	0.0
21-04-1999	3.7	1.8	1.8	-1.3	0.6
22-04-1999	1.6	2.7	2.7	0.0	0.0
23-04-1999	1.9	1.9	1.9	-1.1	0.0
24-04-1999	0.2	2.9	2.9	-1.1	0.0
25-04-1999	4.5	1.0	1.0	-3.8	0.0
26-04-1999	0.0	0.9	0.9	-0.3	0.0
27-04-1999	0.0	2.8	2.8	-1.2	0.0
28-04-1999	0.0	3.4	3.4	-4.1	0.0
29-04-1999	0.0	2.9	2.9	-7.5	0.0
30-04-1999	0.0	1.5	1.5	-10.4	0.0
01-05-1999	0.0	2.4	2.4	-11.9	0.0
02-05-1999	0.0	1.0	1.0	-14.3	0.0
03-05-1999	0.0	3.1	3.1	-15.4	0.0
04-05-1999	0.0	2.7	2.7	-18.4	0.0
05-05-1999	0.5	1.4	1.4	-21.2	0.0
06-05-1999	0.4	1.4	1.4	-22.1	0.0
07-05-1999	0.0	2.1	2.1	-23.1	0.0
08-05-1999	1.4	2.1	2.1	-25.2	0.0
09-05-1999	5.3	2.0	2.0	-25.9	0.0
10-05-1999	0.7	2.8	2.8	-22.6	0.0
11-05-1999	10.3	3.4	3.4	-24.8	0.0
12-05-1999	9.7	2.2	2.2	-17.8	0.0
13-05-1999	11.2	1.7	1.7	-10.3	0.0
14-05-1999	5.6	1.2	1.2	-0.8	3.5
15-05-1999	0.0	1.7	1.7	0.0	0.0
16-05-1999	0.0	1.7	1.7	-1.7	0.0
17-05-1999	0.0	2.3	2.3	-3.4	0.0
18-05-1999	0.0	3.7	3.7	-5.7	0.0
19-05-1999	0.0	2.7	2.7	-9.4	0.0
20-05-1999	1.5	3.8	3.8	-12.1	0.0
21-05-1999	1.4	2.7	2.7	-14.4	0.0
22-05-1999	0.0	2.4	2.4	-15.7	0.0
23-05-1999	2.2	2.5	2.5	-18.1	0.0
24-05-1999	1.2	2.7	2.7	-18.5	0.0
25-05-1999	0.0	2.7	2.7	-20.0	0.0
26-05-1999	0.0	3.1	3.1	-22.7	0.0
27-05-1999	19.1	2.6	2.6	-25.8	0.0
28-05-1999	3.1	1.6	1.6	-9.3	0.0
29-05-1999	0.0	2.1	2.1	-7.8	0.0
30-05-1999	0.0	1.1	1.1	-9.8	0.0
31-05-1999	0.0	1.5	1.5	-10.9	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
01-06-1999	0.3	2.0	2.0	-12.4	0.0
02-06-1999	13.0	0.7	0.7	-14.1	0.0
03-06-1999	2.1	1.9	1.9	-1.8	0.0
04-06-1999	5.0	2.1	2.1	-1.6	1.3
05-06-1999	1.1	3.3	3.3	0.0	0.0
06-06-1999	0.3	1.5	1.5	-2.2	0.0
07-06-1999	0.0	2.2	2.2	-3.4	0.0
08-06-1999	0.0	3.0	3.0	-5.6	0.0
09-06-1999	0.0	2.1	2.1	-8.6	0.0
10-06-1999	0.0	1.9	1.9	-10.7	0.0
11-06-1999	0.0	1.5	1.5	-12.6	0.0
12-06-1999	0.0	2.5	2.5	-14.1	0.0
13-06-1999	2.6	1.5	1.5	-16.6	0.0
14-06-1999	0.0	3.3	3.3	-15.5	0.0
15-06-1999	0.0	2.0	2.0	-18.8	0.0
16-06-1999	0.5	4.1	4.1	-20.8	0.0
17-06-1999	0.0	3.7	3.7	-24.4	0.0
18-06-1999	0.0	1.8	1.8	-28.1	0.0
19-06-1999	6.0	1.7	1.7	-29.9	0.0
20-06-1999	0.5	3.1	3.1	-25.6	0.0
21-06-1999	0.0	3.2	3.2	-28.2	0.0
22-06-1999	1.1	1.8	1.8	-31.4	0.0
23-06-1999	0.0	1.9	1.8	-32.1	0.0
24-06-1999	0.0	3.9	3.4	-33.8	0.0
25-06-1999	0.0	5.2	3.9	-37.2	0.0
26-06-1999	4.2	2.0	1.3	-41.1	0.0
27-06-1999	2.1	2.4	1.8	-38.2	0.0
28-06-1999	4.3	2.5	1.9	-37.9	0.0
29-06-1999	0.0	2.8	2.3	-35.4	0.0
30-06-1999	12.0	2.6	1.9	-37.7	0.0
01-07-1999	4.2	1.2	1.2	-27.6	0.0
02-07-1999	0.0	2.6	2.6	-24.6	0.0
03-07-1999	0.0	3.3	3.3	-27.2	0.0
04-07-1999	0.0	3.6	3.5	-30.5	0.0
05-07-1999	2.4	2.2	1.9	-34.1	0.0
06-07-1999	0.0	1.9	1.7	-33.6	0.0
07-07-1999	0.0	2.0	1.6	-35.2	0.0
08-07-1999	0.0	4.5	3.5	-36.9	0.0
09-07-1999	0.0	4.9	3.2	-40.3	0.0
10-07-1999	0.0	2.3	1.3	-43.5	0.0
11-07-1999	0.0	3.8	1.9	-44.8	0.0
12-07-1999	1.1	4.5	2.0	-46.7	0.0
13-07-1999	0.4	2.9	1.2	-47.6	0.0
14-07-1999	0.0	4.0	1.5	-48.4	0.0
15-07-1999	0.1	3.6	1.2	-49.9	0.0
16-07-1999	0.0	2.9	0.9	-51.0	0.0
17-07-1999	16.2	2.3	0.6	-51.9	0.0
18-07-1999	1.1	1.4	1.1	-36.3	0.0
19-07-1999	6.5	1.5	1.2	-36.3	0.0
20-07-1999	0.0	1.8	1.8	-31.0	0.0
21-07-1999	0.0	2.7	2.5	-32.8	0.0
22-07-1999	0.0	3.5	2.9	-35.3	0.0
23-07-1999	0.0	2.2	1.6	-38.2	0.0
24-07-1999	0.0	4.2	2.8	-39.8	0.0
25-07-1999	0.0	1.8	1.0	-42.6	0.0
26-07-1999	0.0	3.9	2.1	-43.6	0.0
27-07-1999	0.0	3.4	1.6	-45.8	0.0
28-07-1999	0.0	3.7	1.6	-47.4	0.0
29-07-1999	0.0	4.1	1.5	-49.0	0.0
30-07-1999	0.0	3.7	1.2	-50.5	0.0
31-07-1999	0.0	3.9	1.1	-51.6	0.0
01-08-1999	1.3	3.7	0.9	-52.7	0.0
02-08-1999	1.5	1.9	0.5	-52.3	0.0
03-08-1999	0.0	2.4	0.7	-51.3	0.0
04-08-1999	25.5	1.6	0.4	-52.0	0.0
05-08-1999	0.1	2.2	2.2	-26.9	0.0
06-08-1999	7.3	2.1	2.1	-29.0	0.0
07-08-1999	0.1	2.4	2.4	-23.8	0.0
08-08-1999	1.7	1.0	1.0	-26.1	0.0
09-08-1999	0.4	1.1	1.1	-25.4	0.0
10-08-1999	0.0	3.4	3.4	-26.1	0.0
11-08-1999	0.0	1.9	1.9	-29.5	0.0
12-08-1999	0.9	2.4	2.3	-31.4	0.0
13-08-1999	1.7	1.6	1.5	-32.8	0.0
14-08-1999	2.9	2.5	2.3	-32.6	0.0
15-08-1999	0.0	3.3	3.1	-32.0	0.0
16-08-1999	6.3	2.9	2.4	-35.0	0.0
17-08-1999	4.4	2.5	2.4	-31.2	0.0
18-08-1999	5.0	1.3	1.3	-29.2	0.0
19-08-1999	0.0	2.2	2.2	-25.5	0.0
20-08-1999	0.0	2.3	2.3	-27.7	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
21-08-1999	0.0	3.3	3.3	-30.0	0.0
22-08-1999	1.6	2.0	1.8	-33.3	0.0
23-08-1999	1.7	1.4	1.2	-33.5	0.0
24-08-1999	7.2	1.4	1.2	-33.1	0.0
25-08-1999	0.0	1.9	1.9	-27.1	0.0
26-08-1999	2.9	1.6	1.6	-29.0	0.0
27-08-1999	0.0	2.4	2.4	-27.7	0.0
28-08-1999	0.0	2.1	2.1	-30.1	0.0
29-08-1999	2.4	1.6	1.5	-32.2	0.0
30-08-1999	0.0	1.3	1.3	-31.3	0.0
31-08-1999	0.0	1.5	1.4	-32.5	0.0
01-09-1999	0.1	1.5	1.3	-33.9	0.0
02-09-1999	0.0	1.1	0.9	-35.1	0.0
03-09-1999	0.0	2.4	1.9	-36.0	0.0
04-09-1999	0.0	1.2	0.9	-37.9	0.0
05-09-1999	0.1	2.4	1.7	-38.8	0.0
06-09-1999	16.9	1.3	0.9	-40.4	0.0
07-09-1999	0.8	2.7	2.7	-24.4	0.0
08-09-1999	14.9	2.4	2.4	-26.4	0.0
09-09-1999	0.0	3.3	3.3	-13.9	0.0
10-09-1999	23.1	2.6	2.6	-17.2	3.3
11-09-1999	8.9	0.8	0.8	0.0	8.1
12-09-1999	3.8	1.2	1.2	0.0	2.6
13-09-1999	0.4	2.0	2.0	0.0	0.0
14-09-1999	0.0	2.3	2.3	-1.6	0.0
15-09-1999	7.6	1.0	1.0	-3.8	2.8
16-09-1999	7.1	2.1	2.1	0.0	5.0
17-09-1999	0.9	2.6	2.6	0.0	0.0
18-09-1999	11.5	1.8	1.8	-1.7	8.1
19-09-1999	0.2	1.2	1.2	0.0	0.0
20-09-1999	62.9	0.2	0.2	-1.0	61.8
21-09-1999	0.0	2.3	2.3	0.0	0.0
22-09-1999	4.1	0.6	0.6	-2.3	1.1
23-09-1999	1.1	2.1	2.1	0.0	0.0
24-09-1999	0.2	1.6	1.6	-1.0	0.0
25-09-1999	2.4	0.3	0.3	-2.5	0.0
26-09-1999	0.5	0.9	0.9	-0.3	0.0
27-09-1999	3.2	0.3	0.3	-0.8	2.1
28-09-1999	0.9	0.5	0.5	0.0	0.4
29-09-1999	1.3	1.7	1.7	0.0	0.0
30-09-1999	5.3	0.6	0.6	-0.4	4.4
01-10-1999	15.3	0.6	0.6	0.0	14.7
02-10-1999	1.6	1.6	1.6	0.0	0.0
03-10-1999	0.0	1.6	1.6	0.0	0.0
04-10-1999	0.0	1.5	1.5	-1.6	0.0
05-10-1999	0.0	1.0	1.0	-3.1	0.0
06-10-1999	1.6	1.3	1.3	-4.1	0.0
07-10-1999	5.4	0.4	0.4	-3.8	1.3
08-10-1999	0.0	0.6	0.6	0.0	0.0
09-10-1999	2.3	0.7	0.7	-0.6	1.0
10-10-1999	0.3	0.4	0.4	0.0	0.0
11-10-1999	0.0	1.3	1.3	-0.1	0.0
12-10-1999	0.0	1.2	1.2	-1.4	0.0
13-10-1999	0.0	0.9	0.9	-2.7	0.0
14-10-1999	0.0	1.0	1.0	-3.5	0.0
15-10-1999	0.3	0.7	0.7	-4.5	0.0
16-10-1999	0.0	0.3	0.3	-4.9	0.0
17-10-1999	0.0	0.7	0.7	-5.2	0.0
18-10-1999	0.0	1.5	1.5	-5.9	0.0
19-10-1999	0.0	1.5	1.5	-7.5	0.0
20-10-1999	0.0	1.3	1.3	-9.0	0.0
21-10-1999	1.2	0.4	0.4	-10.3	0.0
22-10-1999	6.9	0.8	0.8	-9.6	0.0
23-10-1999	1.3	0.5	0.5	-3.4	0.0
24-10-1999	0.0	0.1	0.1	-2.7	0.0
25-10-1999	0.0	0.3	0.3	-2.8	0.0
26-10-1999	0.0	0.3	0.3	-3.1	0.0
27-10-1999	0.0	1.3	1.3	-3.4	0.0
28-10-1999	0.0	0.8	0.8	-4.7	0.0
29-10-1999	0.6	0.4	0.4	-5.5	0.0
30-10-1999	7.8	1.4	1.4	-5.4	1.0
31-10-1999	7.3	1.4	1.4	0.0	5.9
01-11-1999	3.5	0.7	0.7	0.0	2.8
02-11-1999	0.8	0.9	0.9	0.0	0.0
03-11-1999	0.1	0.7	0.7	-0.1	0.0
04-11-1999	20.5	1.1	1.1	-0.7	18.7
05-11-1999	3.5	0.3	0.3	0.0	3.2
06-11-1999	0.0	0.8	0.8	0.0	0.0
07-11-1999	0.8	0.3	0.3	-0.8	0.0
08-11-1999	0.6	0.2	0.2	-0.3	0.1
09-11-1999	0.0	0.0	0.0	0.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
10-11-1999	0.0	0.0	0.0	0.0	0.0
11-11-1999	0.0	0.0	0.0	0.0	0.0
12-11-1999	1.2	0.0	0.0	0.0	1.2
13-11-1999	0.1	0.0	0.0	0.0	0.1
14-11-1999	0.0	0.0	0.0	0.0	0.0
15-11-1999	0.8	0.0	0.0	0.0	0.8
16-11-1999	0.2	0.4	0.4	0.0	0.0
17-11-1999	7.5	0.2	0.2	-0.2	7.1
18-11-1999	0.0	0.1	0.1	0.0	0.0
19-11-1999	0.0	0.2	0.2	-0.1	0.0
20-11-1999	0.0	0.1	0.1	-0.3	0.0
21-11-1999	0.7	0.1	0.1	-0.4	0.2
22-11-1999	0.5	0.0	0.0	0.0	0.5
23-11-1999	5.0	0.5	0.5	0.0	4.5
24-11-1999	0.0	0.2	0.2	0.0	0.0
25-11-1999	1.2	0.6	0.6	-0.2	0.4
26-11-1999	9.1	1.0	1.0	0.0	8.1
27-11-1999	6.7	1.2	1.2	0.0	5.5
28-11-1999	2.1	0.5	0.5	0.0	1.6
29-11-1999	0.1	0.6	0.6	0.0	0.0
30-11-1999	2.4	0.2	0.2	-0.5	1.7
01-12-1999	0.0	0.5	0.5	0.0	0.0
02-12-1999	5.8	0.4	0.4	-0.5	4.9
03-12-1999	0.0	1.1	1.1	0.0	0.0
04-12-1999	0.0	0.4	0.4	-1.1	0.0
05-12-1999	1.1	0.5	0.5	-1.5	0.0
06-12-1999	6.1	0.1	0.1	-1.0	5.0
07-12-1999	4.8	0.5	0.5	0.0	4.3
08-12-1999	3.1	1.2	1.2	0.0	1.9
09-12-1999	1.5	0.3	0.3	0.0	1.2
10-12-1999	10.9	0.6	0.6	0.0	10.3
11-12-1999	0.8	0.0	0.0	0.0	0.8
12-12-1999	0.0	0.3	0.3	0.0	0.0
13-12-1999	0.0	0.0	0.0	-0.3	0.0
14-12-1999	0.0	0.3	0.3	-0.3	0.0
15-12-1999	0.0	0.0	0.0	-0.6	0.0
16-12-1999	7.8	0.5	0.5	-0.6	6.7
17-12-1999	1.0	0.3	0.3	0.0	0.7
18-12-1999	0.3	0.0	0.0	0.0	0.3
19-12-1999	0.0	0.0	0.0	0.0	0.0
20-12-1999	5.6	0.5	0.5	0.0	5.1
21-12-1999	3.3	0.4	0.4	0.0	2.9
22-12-1999	5.6	0.3	0.3	0.0	5.3
23-12-1999	7.0	1.0	1.0	0.0	6.0
24-12-1999	11.6	1.1	1.1	0.0	10.5
25-12-1999	1.9	0.4	0.4	0.0	1.5
26-12-1999	0.1	0.3	0.3	0.0	0.0
27-12-1999	0.0	0.0	0.0	-0.2	0.0
28-12-1999	0.0	0.1	0.1	-0.2	0.0
29-12-1999	12.9	0.1	0.1	-0.3	12.5
30-12-1999	1.8	0.0	0.0	0.0	1.8
31-12-1999	0.2	0.0	0.0	0.0	0.2
01-01-2000	0.0	0.2	0.2	0.0	0.0
02-01-2000	0.9	0.5	0.5	-0.2	0.1
03-01-2000	4.7	0.7	0.7	0.0	4.0
04-01-2000	0.3	0.8	0.8	0.0	0.0
05-01-2000	1.6	0.8	0.8	-0.5	0.3
06-01-2000	0.0	0.6	0.6	0.0	0.0
07-01-2000	2.1	0.6	0.6	-0.6	0.9
08-01-2000	0.2	0.6	0.6	0.0	0.0
09-01-2000	0.0	0.3	0.3	-0.4	0.0
10-01-2000	2.6	0.3	0.3	-0.7	1.6
11-01-2000	22.6	0.0	0.0	0.0	22.6
12-01-2000	7.4	0.0	0.0	0.0	7.4
13-01-2000	0.0	0.2	0.2	0.0	0.0
14-01-2000	0.0	0.1	0.1	-0.2	0.0
15-01-2000	0.0	0.0	0.0	-0.2	0.0
16-01-2000	0.0	0.0	0.0	-0.2	0.0
17-01-2000	0.0	0.0	0.0	-0.2	0.0
18-01-2000	0.0	0.0	0.0	-0.2	0.0
19-01-2000	0.0	0.0	0.0	-0.2	0.0
20-01-2000	0.0	0.0	0.0	-0.2	0.0
21-01-2000	1.3	0.0	0.0	-0.2	1.1
22-01-2000	0.0	0.5	0.5	0.0	0.0
23-01-2000	0.0	0.1	0.1	-0.5	0.0
24-01-2000	0.0	0.0	0.0	-0.6	0.0
25-01-2000	0.2	0.0	0.0	-0.6	0.0
26-01-2000	0.0	0.0	0.0	-0.4	0.0
27-01-2000	1.3	0.0	0.0	-0.4	0.9
28-01-2000	1.1	0.4	0.4	0.0	0.7
29-01-2000	3.6	0.5	0.5	0.0	3.1

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
30-01-2000	1.5	0.4	0.4	0.0	1.1
31-01-2000	2.2	0.6	0.6	0.0	1.6
01-02-2000	1.6	0.1	0.1	0.0	1.5
02-02-2000	0.0	0.8	0.8	0.0	0.0
03-02-2000	3.8	0.4	0.4	-0.8	2.6
04-02-2000	0.0	1.2	1.2	0.0	0.0
05-02-2000	2.2	0.6	0.6	-1.2	0.4
06-02-2000	4.4	0.9	0.9	0.0	3.5
07-02-2000	1.9	1.4	1.4	0.0	0.5
08-02-2000	2.5	1.4	1.4	0.0	1.1
09-02-2000	7.7	1.3	1.3	0.0	6.4
10-02-2000	0.0	1.6	1.6	0.0	0.0
11-02-2000	5.5	1.1	1.1	-1.6	2.8
12-02-2000	1.7	0.7	0.7	0.0	1.0
13-02-2000	5.5	0.8	0.8	0.0	4.7
14-02-2000	5.7	0.7	0.7	0.0	5.0
15-02-2000	5.7	0.4	0.4	0.0	5.3
16-02-2000	0.0	0.6	0.6	0.0	0.0
17-02-2000	2.3	0.6	0.6	-0.6	1.1
18-02-2000	1.1	0.7	0.7	0.0	0.4
19-02-2000	0.0	0.6	0.6	0.0	0.0
20-02-2000	4.2	0.6	0.6	-0.6	3.0
21-02-2000	0.0	1.0	1.0	0.0	0.0
22-02-2000	0.1	0.9	0.9	-1.0	0.0
23-02-2000	0.4	0.7	0.7	-1.8	0.0
24-02-2000	0.7	1.0	1.0	-2.1	0.0
25-02-2000	0.0	1.2	1.2	-2.4	0.0
26-02-2000	11.8	1.2	1.2	-3.6	7.0
27-02-2000	2.6	0.7	0.7	0.0	1.9
28-02-2000	0.2	1.5	1.5	0.0	0.0
29-02-2000	3.6	0.6	0.6	-1.3	1.7
01-03-2000	0.5	1.2	1.2	0.0	0.0
02-03-2000	7.9	0.5	0.5	-0.7	6.7
03-03-2000	0.0	1.2	1.2	0.0	0.0
04-03-2000	0.0	0.9	0.9	-1.2	0.0
05-03-2000	0.0	1.0	1.0	-2.1	0.0
06-03-2000	1.5	1.7	1.7	-3.0	0.0
07-03-2000	5.4	0.6	0.6	-3.3	1.5
08-03-2000	0.0	0.6	0.6	0.0	0.0
09-03-2000	0.0	0.9	0.9	-0.6	0.0
10-03-2000	0.0	0.9	0.9	-1.5	0.0
11-03-2000	0.0	1.1	1.1	-2.3	0.0
12-03-2000	0.3	0.5	0.5	-3.4	0.0
13-03-2000	0.6	1.3	1.3	-3.6	0.0
14-03-2000	0.0	0.9	0.9	-4.3	0.0
15-03-2000	0.0	0.6	0.6	-5.2	0.0
16-03-2000	0.0	0.4	0.4	-5.8	0.0
17-03-2000	0.0	0.5	0.5	-6.2	0.0
18-03-2000	0.6	0.5	0.5	-6.7	0.0
19-03-2000	0.0	1.0	1.0	-6.6	0.0
20-03-2000	0.0	0.5	0.5	-7.6	0.0
21-03-2000	0.0	0.5	0.5	-8.1	0.0
22-03-2000	0.2	0.4	0.4	-8.6	0.0
23-03-2000	1.4	0.9	0.9	-8.8	0.0
24-03-2000	0.3	1.6	1.6	-8.3	0.0
25-03-2000	2.5	1.4	1.4	-9.6	0.0
26-03-2000	2.7	1.1	1.1	-8.5	0.0
27-03-2000	0.0	1.7	1.7	-7.0	0.0
28-03-2000	0.0	0.9	0.9	-8.7	0.0
29-03-2000	0.0	1.6	1.6	-9.6	0.0
30-03-2000	1.3	0.8	0.8	-11.2	0.0
31-03-2000	0.3	0.4	0.4	-10.7	0.0
01-04-2000	4.4	0.4	0.4	-10.8	0.0
02-04-2000	6.4	1.2	1.2	-6.8	0.0
03-04-2000	0.0	1.9	1.9	-1.6	0.0
04-04-2000	0.0	2.2	2.2	-3.5	0.0
05-04-2000	0.0	1.8	1.8	-5.8	0.0
06-04-2000	0.0	2.5	2.5	-7.6	0.0
07-04-2000	0.0	1.8	1.8	-10.1	0.0
08-04-2000	0.0	0.9	0.9	-11.9	0.0
09-04-2000	0.0	1.8	1.8	-12.8	0.0
10-04-2000	4.7	1.3	1.3	-14.6	0.0
11-04-2000	2.2	1.5	1.5	-11.2	0.0
12-04-2000	4.4	0.6	0.6	-10.5	0.0
13-04-2000	1.4	1.3	1.3	-6.7	0.0
14-04-2000	0.0	1.7	1.7	-6.6	0.0
15-04-2000	3.1	1.8	1.8	-8.3	0.0
16-04-2000	2.3	1.2	1.2	-6.9	0.0
17-04-2000	0.1	0.7	0.7	-5.8	0.0
18-04-2000	0.0	1.3	1.3	-6.5	0.0
19-04-2000	0.6	1.5	1.5	-7.7	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
20-04-2000	1.9	3.0	3.0	-8.7	0.0
21-04-2000	0.6	2.9	2.9	-9.8	0.0
22-04-2000	1.2	2.2	2.2	-12.1	0.0
23-04-2000	1.9	3.0	3.0	-13.1	0.0
24-04-2000	7.6	2.1	2.1	-14.2	0.0
25-04-2000	9.0	0.6	0.6	-8.7	0.0
26-04-2000	6.8	0.6	0.6	-0.3	5.9
27-04-2000	0.0	0.6	0.6	0.0	0.0
28-04-2000	5.0	2.0	2.0	-0.6	2.4
29-04-2000	1.4	1.6	1.6	0.0	0.0
30-04-2000	0.0	2.9	2.9	-0.2	0.0
01-05-2000	0.0	3.5	3.5	-3.1	0.0
02-05-2000	0.0	3.7	3.7	-6.6	0.0
03-05-2000	0.0	3.1	3.1	-10.3	0.0
04-05-2000	0.0	2.5	2.5	-13.4	0.0
05-05-2000	0.0	2.1	2.1	-15.9	0.0
06-05-2000	0.0	3.1	3.1	-18.0	0.0
07-05-2000	0.0	3.3	3.3	-21.1	0.0
08-05-2000	0.0	4.2	4.2	-24.4	0.0
09-05-2000	0.0	3.6	3.6	-28.6	0.0
10-05-2000	0.0	3.1	2.9	-32.2	0.0
11-05-2000	0.0	1.7	1.4	-35.1	0.0
12-05-2000	0.0	1.5	1.2	-36.5	0.0
13-05-2000	0.0	3.5	2.6	-37.7	0.0
14-05-2000	0.0	3.5	2.3	-40.3	0.0
15-05-2000	15.7	4.2	2.5	-42.5	0.0
16-05-2000	52.4	1.1	1.1	-29.3	22.0
17-05-2000	5.6	1.8	1.8	0.0	3.8
18-05-2000	0.4	1.9	1.9	0.0	0.0
19-05-2000	2.1	3.3	3.3	-1.5	0.0
20-05-2000	0.5	1.5	1.5	-2.6	0.0
21-05-2000	0.2	2.8	2.8	-3.6	0.0
22-05-2000	3.1	3.2	3.2	-6.2	0.0
23-05-2000	0.3	2.0	2.0	-6.2	0.0
24-05-2000	4.4	2.9	2.9	-7.9	0.0
25-05-2000	2.8	2.7	2.7	-6.4	0.0
26-05-2000	0.5	2.5	2.5	-6.4	0.0
27-05-2000	0.5	2.6	2.6	-8.4	0.0
28-05-2000	2.3	2.5	2.5	-10.5	0.0
29-05-2000	1.5	3.2	3.2	-10.7	0.0
30-05-2000	0.0	3.7	3.7	-12.5	0.0
31-05-2000	2.1	2.1	2.1	-16.2	0.0
01-06-2000	1.7	2.4	2.4	-16.1	0.0
02-06-2000	22.9	1.4	1.4	-16.8	4.7
03-06-2000	2.1	1.1	1.1	0.0	1.0
04-06-2000	0.0	1.3	1.3	0.0	0.0
05-06-2000	5.1	1.9	1.9	-1.3	2.0
06-06-2000	0.0	3.3	3.3	0.0	0.0
07-06-2000	3.6	2.1	2.1	-3.3	0.0
08-06-2000	0.4	1.6	1.6	-1.9	0.0
09-06-2000	0.5	1.5	1.5	-3.0	0.0
10-06-2000	0.7	3.3	3.3	-4.1	0.0
11-06-2000	0.0	2.3	2.3	-6.6	0.0
12-06-2000	0.3	3.9	3.9	-8.9	0.0
13-06-2000	3.7	4.4	4.4	-12.4	0.0
14-06-2000	0.5	1.3	1.3	-13.1	0.0
15-06-2000	0.0	1.8	1.8	-13.9	0.0
16-06-2000	0.0	5.0	5.0	-15.7	0.0
17-06-2000	0.0	3.2	3.2	-20.7	0.0
18-06-2000	0.0	5.6	5.6	-23.9	0.0
19-06-2000	0.0	4.0	4.0	-29.4	0.0
20-06-2000	1.4	3.6	3.2	-33.4	0.0
21-06-2000	3.3	2.8	2.3	-35.2	0.0
22-06-2000	1.2	2.6	2.3	-34.3	0.0
23-06-2000	0.0	2.6	2.1	-35.3	0.0
24-06-2000	0.0	2.4	1.8	-37.5	0.0
25-06-2000	0.0	1.1	0.7	-39.3	0.0
26-06-2000	0.0	3.5	2.3	-40.0	0.0
27-06-2000	0.0	4.0	2.3	-42.3	0.0
28-06-2000	0.0	3.1	1.6	-44.6	0.0
29-06-2000	0.0	4.0	1.8	-46.2	0.0
30-06-2000	2.1	2.2	0.9	-48.1	0.0
01-07-2000	7.8	1.1	0.5	-46.8	0.0
02-07-2000	27.8	1.6	1.1	-39.5	0.0
03-07-2000	0.5	2.8	2.8	-12.8	0.0
04-07-2000	0.0	2.6	2.6	-15.1	0.0
05-07-2000	7.6	2.1	2.1	-17.7	0.0
06-07-2000	0.0	2.0	2.0	-12.2	0.0
07-07-2000	0.0	2.9	2.9	-14.1	0.0
08-07-2000	2.3	1.2	1.2	-17.0	0.0
09-07-2000	1.5	2.2	2.2	-15.9	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
10-07-2000	0.4	2.7	2.7	-16.6	0.0
11-07-2000	0.9	3.5	3.5	-19.0	0.0
12-07-2000	2.6	2.0	2.0	-21.6	0.0
13-07-2000	0.0	1.8	1.8	-21.0	0.0
14-07-2000	0.1	1.6	1.6	-22.7	0.0
15-07-2000	0.0	2.1	2.1	-24.2	0.0
16-07-2000	0.0	3.6	3.6	-26.4	0.0
17-07-2000	0.0	4.1	4.1	-30.0	0.0
18-07-2000	0.0	2.5	2.1	-34.1	0.0
19-07-2000	0.0	4.0	3.2	-36.3	0.0
20-07-2000	0.0	2.9	2.0	-39.4	0.0
21-07-2000	0.0	4.1	2.5	-41.4	0.0
22-07-2000	0.0	4.2	2.3	-43.9	0.0
23-07-2000	0.0	1.3	0.6	-46.2	0.0
24-07-2000	0.0	1.6	0.7	-46.8	0.0
25-07-2000	0.0	2.1	0.9	-47.5	0.0
26-07-2000	0.0	1.9	0.7	-48.4	0.0
27-07-2000	0.0	2.6	0.9	-49.1	0.0
28-07-2000	0.0	2.7	0.9	-50.1	0.0
29-07-2000	0.0	2.0	0.6	-51.0	0.0
30-07-2000	11.1	1.8	0.5	-51.6	0.0
31-07-2000	1.1	3.3	2.1	-41.0	0.0
01-08-2000	15.2	4.0	2.4	-42.0	0.0
02-08-2000	7.1	2.0	2.0	-29.2	0.0
03-08-2000	0.0	1.8	1.8	-24.1	0.0
04-08-2000	0.0	1.6	1.6	-25.9	0.0
05-08-2000	0.3	1.4	1.4	-27.5	0.0
06-08-2000	0.0	2.1	2.1	-28.6	0.0
07-08-2000	5.3	1.7	1.7	-30.7	0.0
08-08-2000	1.4	2.6	2.6	-27.1	0.0
09-08-2000	0.6	2.4	2.4	-28.3	0.0
10-08-2000	0.0	1.8	1.8	-30.1	0.0
11-08-2000	0.0	3.4	3.2	-31.9	0.0
12-08-2000	0.1	2.0	1.6	-35.0	0.0
13-08-2000	7.1	1.4	1.1	-36.6	0.0
14-08-2000	1.2	1.5	1.5	-30.5	0.0
15-08-2000	5.0	2.4	2.3	-30.9	0.0
16-08-2000	11.8	3.4	3.4	-28.2	0.0
17-08-2000	5.4	2.8	2.8	-19.8	0.0
18-08-2000	4.5	2.8	2.8	-17.2	0.0
19-08-2000	0.0	2.4	2.4	-15.5	0.0
20-08-2000	0.5	1.8	1.8	-17.9	0.0
21-08-2000	0.0	2.6	2.6	-19.2	0.0
22-08-2000	0.0	2.9	2.9	-21.7	0.0
23-08-2000	0.0	3.1	3.1	-24.6	0.0
24-08-2000	0.0	3.4	3.4	-27.8	0.0
25-08-2000	14.0	2.0	1.9	-31.1	0.0
26-08-2000	2.6	1.4	1.4	-19.0	0.0
27-08-2000	0.2	2.1	2.1	-17.8	0.0
28-08-2000	0.0	2.1	2.1	-19.7	0.0
29-08-2000	0.0	3.1	3.1	-21.8	0.0
30-08-2000	2.9	2.1	2.1	-24.9	0.0
31-08-2000	3.8	2.6	2.6	-24.1	0.0
01-09-2000	1.2	1.6	1.6	-22.9	0.0
02-09-2000	0.0	1.9	1.9	-23.4	0.0
03-09-2000	0.0	2.3	2.3	-25.2	0.0
04-09-2000	3.9	1.2	1.2	-27.5	0.0
05-09-2000	2.4	2.1	2.1	-24.9	0.0
06-09-2000	0.4	2.9	2.9	-24.6	0.0
07-09-2000	1.0	2.1	2.1	-27.1	0.0
08-09-2000	0.4	1.9	1.9	-28.2	0.0
09-09-2000	7.7	0.8	0.8	-29.7	0.0
10-09-2000	0.0	1.2	1.2	-22.8	0.0
11-09-2000	0.6	2.1	2.1	-24.0	0.0
12-09-2000	0.0	0.5	0.5	-25.5	0.0
13-09-2000	7.3	1.2	1.2	-26.0	0.0
14-09-2000	1.3	0.8	0.8	-19.9	0.0
15-09-2000	0.3	0.6	0.6	-19.4	0.0
16-09-2000	1.5	0.7	0.7	-19.7	0.0
17-09-2000	11.8	0.5	0.5	-18.9	0.0
18-09-2000	0.0	2.2	2.2	-7.6	0.0
19-09-2000	0.1	0.9	0.9	-9.7	0.0
20-09-2000	1.0	1.4	1.4	-10.6	0.0
21-09-2000	5.0	1.7	1.7	-11.0	0.0
22-09-2000	0.8	1.9	1.9	-7.7	0.0
23-09-2000	5.2	1.9	1.9	-8.8	0.0
24-09-2000	0.0	1.0	1.0	-5.5	0.0
25-09-2000	0.0	1.3	1.3	-6.5	0.0
26-09-2000	1.6	0.3	0.3	-7.8	0.0
27-09-2000	11.5	0.9	0.9	-6.5	4.2
28-09-2000	1.8	1.6	1.6	0.0	0.2

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
29-09-2000	4.8	0.2	0.2	0.0	4.6
30-09-2000	0.0	0.7	0.7	0.0	0.0
01-10-2000	8.3	0.5	0.5	-0.7	7.1
02-10-2000	0.5	1.8	1.8	0.0	0.0
03-10-2000	2.8	0.9	0.9	-1.3	0.5
04-10-2000	4.5	1.4	1.4	0.0	3.1
05-10-2000	0.3	1.5	1.5	0.0	0.0
06-10-2000	0.0	0.6	0.6	-1.2	0.0
07-10-2000	0.6	0.6	0.6	-1.8	0.0
08-10-2000	8.0	1.5	1.5	-1.8	4.7
09-10-2000	2.1	0.9	0.9	0.0	1.2
10-10-2000	2.2	1.2	1.2	0.0	1.0
11-10-2000	7.6	0.2	0.2	0.0	7.4
12-10-2000	0.1	0.6	0.6	0.0	0.0
13-10-2000	3.4	0.7	0.7	-0.5	2.2
14-10-2000	0.0	1.0	1.0	0.0	0.0
15-10-2000	11.6	1.4	1.4	-1.0	9.2
16-10-2000	0.0	0.8	0.8	0.0	0.0
17-10-2000	8.8	0.9	0.9	-0.8	7.1
18-10-2000	0.0	1.5	1.5	0.0	0.0
19-10-2000	2.8	1.5	1.5	-1.5	0.0
20-10-2000	0.0	1.0	1.0	-0.2	0.0
21-10-2000	0.0	0.9	0.9	-1.1	0.0
22-10-2000	3.6	0.7	0.7	-2.1	0.9
23-10-2000	0.1	1.1	1.1	0.0	0.0
24-10-2000	11.6	0.6	0.6	-1.0	10.0
25-10-2000	0.1	1.0	1.0	0.0	0.0
26-10-2000	15.8	0.7	0.7	-0.9	14.3
27-10-2000	0.3	0.8	0.8	0.0	0.0
28-10-2000	6.0	1.6	1.6	-0.5	3.9
29-10-2000	4.2	0.4	0.4	0.0	3.8
30-10-2000	9.9	0.3	0.3	0.0	9.6
31-10-2000	3.5	0.7	0.7	0.0	2.8
01-11-2000	7.8	1.0	1.0	0.0	6.8
02-11-2000	6.7	0.0	0.0	0.0	6.7
03-11-2000	0.0	0.6	0.6	0.0	0.0
04-11-2000	0.0	0.4	0.4	-0.6	0.0
05-11-2000	42.0	0.0	0.0	-1.0	41.0
06-11-2000	16.3	0.3	0.3	0.0	16.0
07-11-2000	1.0	0.4	0.4	0.0	0.6
08-11-2000	0.0	0.5	0.5	0.0	0.0
09-11-2000	0.0	0.7	0.7	-0.5	0.0
10-11-2000	4.0	0.3	0.3	-1.2	2.5
11-11-2000	0.0	0.8	0.8	0.0	0.0
12-11-2000	0.4	0.6	0.6	-0.8	0.0
13-11-2000	0.5	0.1	0.1	-1.1	0.0
14-11-2000	0.0	0.1	0.1	-0.6	0.0
15-11-2000	6.5	0.2	0.2	-0.7	5.5
16-11-2000	0.6	0.5	0.5	0.0	0.1
17-11-2000	0.3	0.4	0.4	0.0	0.0
18-11-2000	5.7	0.0	0.0	-0.1	5.6
19-11-2000	0.7	0.4	0.4	0.0	0.3
20-11-2000	0.0	0.2	0.2	0.0	0.0
21-11-2000	6.1	0.0	0.0	-0.2	5.9
22-11-2000	0.0	0.0	0.0	0.0	0.0
23-11-2000	0.0	0.1	0.1	0.0	0.0
24-11-2000	6.5	0.2	0.2	-0.1	6.2
25-11-2000	5.5	1.0	1.0	0.0	4.5
26-11-2000	0.6	1.0	1.0	0.0	0.0
27-11-2000	4.2	0.6	0.6	-0.4	3.2
28-11-2000	7.4	0.7	0.7	0.0	6.7
29-11-2000	0.4	0.9	0.9	0.0	0.0
30-11-2000	6.3	0.6	0.6	-0.5	5.2
01-12-2000	1.1	1.0	1.0	0.0	0.1
02-12-2000	0.0	0.7	0.7	0.0	0.0
03-12-2000	16.6	0.8	0.8	-0.7	15.2
04-12-2000	4.8	0.6	0.6	0.0	4.2
05-12-2000	1.0	0.8	0.8	0.0	0.2
06-12-2000	0.0	0.5	0.5	0.0	0.0
07-12-2000	18.1	0.0	0.0	-0.5	17.6
08-12-2000	3.0	0.1	0.1	0.0	2.9
09-12-2000	1.6	0.6	0.6	0.0	1.0
10-12-2000	5.0	1.1	1.1	0.0	3.9
11-12-2000	4.5	0.2	0.2	0.0	4.3
12-12-2000	7.2	0.3	0.3	0.0	6.9
13-12-2000	4.3	0.4	0.4	0.0	3.9
14-12-2000	0.0	0.0	0.0	0.0	0.0
15-12-2000	3.9	0.1	0.1	0.0	3.8
16-12-2000	0.0	0.0	0.0	0.0	0.0
17-12-2000	1.8	0.0	0.0	0.0	1.8
18-12-2000	0.1	0.0	0.0	0.0	0.1

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
19-12-2000	19.4	0.1	0.1	0.0	19.3
20-12-2000	4.2	0.0	0.0	0.0	4.2
21-12-2000	0.0	0.1	0.1	0.0	0.0
22-12-2000	0.0	0.0	0.0	-0.1	0.0
23-12-2000	0.0	0.0	0.0	-0.1	0.0
24-12-2000	4.5	0.3	0.3	-0.1	4.1
25-12-2000	0.5	0.7	0.7	0.0	0.0
26-12-2000	0.0	0.4	0.4	-0.2	0.0
27-12-2000	0.2	0.2	0.2	-0.6	0.0
28-12-2000	2.6	0.0	0.0	-0.6	2.0
29-12-2000	0.0	0.0	0.0	0.0	0.0
30-12-2000	1.6	0.0	0.0	0.0	1.6
31-12-2000	6.3	0.3	0.3	0.0	6.0
01-01-2001	3.3	0.6	0.6	0.0	2.7
02-01-2001	0.8	0.0	0.0	0.0	0.8
03-01-2001	4.3	0.4	0.4	0.0	3.9
04-01-2001	0.1	0.0	0.0	0.0	0.1
05-01-2001	0.0	0.0	0.0	0.0	0.0
06-01-2001	0.0	0.3	0.3	0.0	0.0
07-01-2001	0.0	0.3	0.3	-0.3	0.0
08-01-2001	0.0	0.2	0.2	-0.6	0.0
09-01-2001	0.0	0.0	0.0	-0.9	0.0
10-01-2001	2.7	0.5	0.5	-0.9	1.3
11-01-2001	0.0	1.3	1.3	0.0	0.0
12-01-2001	0.0	0.6	0.6	-1.3	0.0
13-01-2001	0.0	0.6	0.6	-1.9	0.0
14-01-2001	0.0	0.5	0.5	-2.5	0.0
15-01-2001	0.0	0.1	0.1	-3.0	0.0
16-01-2001	0.0	0.0	0.0	-3.1	0.0
17-01-2001	0.0	0.5	0.5	-3.1	0.0
18-01-2001	0.0	0.0	0.0	-3.6	0.0
19-01-2001	0.0	0.0	0.0	-3.6	0.0
20-01-2001	3.1	0.2	0.2	-3.6	0.0
21-01-2001	4.7	0.4	0.4	-0.7	3.6
22-01-2001	2.0	0.7	0.7	0.0	1.3
23-01-2001	10.8	0.9	0.9	0.0	9.9
24-01-2001	0.0	1.0	1.0	0.0	0.0
25-01-2001	2.8	0.8	0.8	-1.0	1.0
26-01-2001	0.0	0.7	0.7	0.0	0.0
27-01-2001	0.0	0.2	0.2	-0.7	0.0
28-01-2001	0.0	0.0	0.0	-0.9	0.0
29-01-2001	5.5	0.3	0.3	-1.0	4.2
30-01-2001	0.4	0.0	0.0	0.0	0.4
31-01-2001	0.1	0.0	0.0	0.0	0.1
01-02-2001	1.4	0.3	0.3	0.0	1.1
02-02-2001	4.5	0.2	0.2	0.0	4.3
03-02-2001	5.8	0.4	0.4	0.0	5.4
04-02-2001	2.8	0.0	0.0	0.0	2.8
05-02-2001	10.2	0.2	0.2	0.0	10.0
06-02-2001	3.5	1.2	1.2	0.0	2.3
07-02-2001	1.1	0.2	0.2	0.0	0.9
08-02-2001	0.0	0.5	0.5	0.0	0.0
09-02-2001	0.8	0.6	0.6	-0.5	0.0
10-02-2001	6.0	0.7	0.7	-0.3	5.0
11-02-2001	1.8	1.1	1.1	0.0	0.7
12-02-2001	0.0	0.6	0.6	0.0	0.0
13-02-2001	0.0	0.9	0.9	-0.6	0.0
14-02-2001	0.0	0.9	0.9	-1.5	0.0
15-02-2001	0.0	0.0	0.0	-2.4	0.0
16-02-2001	0.0	0.4	0.4	-2.4	0.0
17-02-2001	0.0	0.6	0.6	-2.8	0.0
18-02-2001	0.9	0.8	0.8	-3.4	0.0
19-02-2001	0.5	0.0	0.0	-3.3	0.0
20-02-2001	1.1	0.0	0.0	-2.8	0.0
21-02-2001	0.4	0.1	0.1	-1.7	0.0
22-02-2001	0.2	0.3	0.3	-1.4	0.0
23-02-2001	0.0	0.6	0.6	-1.5	0.0
24-02-2001	0.0	0.7	0.7	-2.1	0.0
25-02-2001	2.1	0.7	0.7	-2.8	0.0
26-02-2001	3.4	0.2	0.2	-1.4	1.8
27-02-2001	0.0	0.1	0.1	0.0	0.0
28-02-2001	0.0	0.6	0.6	-0.1	0.0
01-03-2001	0.0	0.5	0.5	-0.6	0.0
02-03-2001	0.0	0.7	0.7	-1.1	0.0
03-03-2001	0.0	1.1	1.1	-1.8	0.0
04-03-2001	0.0	1.0	1.0	-2.9	0.0
05-03-2001	0.0	1.6	1.6	-3.9	0.0
06-03-2001	5.0	1.2	1.2	-5.6	0.0
07-03-2001	0.2	2.1	2.1	-1.8	0.0
08-03-2001	0.5	1.7	1.7	-3.7	0.0
09-03-2001	1.3	0.7	0.7	-4.9	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
10-03-2001	0.6	0.8	0.8	-4.3	0.0
11-03-2001	4.4	0.9	0.9	-4.5	0.0
12-03-2001	0.2	1.4	1.4	-1.0	0.0
13-03-2001	1.4	0.9	0.9	-2.2	0.0
14-03-2001	0.0	1.2	1.2	-1.7	0.0
15-03-2001	1.5	0.6	0.6	-2.9	0.0
16-03-2001	1.2	0.4	0.4	-2.0	0.0
17-03-2001	0.0	0.7	0.7	-1.2	0.0
18-03-2001	0.0	1.2	1.2	-1.9	0.0
19-03-2001	0.0	0.9	0.9	-3.1	0.0
20-03-2001	1.2	1.7	1.7	-4.0	0.0
21-03-2001	1.7	0.3	0.3	-4.6	0.0
22-03-2001	0.9	0.4	0.4	-3.1	0.0
23-03-2001	0.0	0.3	0.3	-2.6	0.0
24-03-2001	0.0	0.3	0.3	-2.8	0.0
25-03-2001	0.0	1.3	1.3	-3.1	0.0
26-03-2001	5.3	1.1	1.1	-4.5	0.0
27-03-2001	4.6	0.4	0.4	-0.2	4.0
28-03-2001	3.4	1.1	1.1	0.0	2.3
29-03-2001	0.0	1.3	1.3	0.0	0.0
30-03-2001	2.3	1.4	1.4	-1.3	0.0
31-03-2001	0.1	2.3	2.3	-0.4	0.0
01-04-2001	0.9	1.7	1.7	-2.6	0.0
02-04-2001	0.0	2.3	2.3	-3.4	0.0
03-04-2001	3.0	2.1	2.1	-5.7	0.0
04-04-2001	6.6	2.0	2.0	-4.8	0.0
05-04-2001	7.6	1.0	1.0	-0.1	6.5
06-04-2001	5.4	1.5	1.5	0.0	3.9
07-04-2001	0.1	1.2	1.2	0.0	0.0
08-04-2001	7.6	0.6	0.6	-1.1	5.9
09-04-2001	3.3	1.7	1.7	0.0	1.6
10-04-2001	0.0	1.2	1.2	0.0	0.0
11-04-2001	0.2	1.9	1.9	-1.2	0.0
12-04-2001	2.4	0.7	0.7	-2.9	0.0
13-04-2001	0.0	0.5	0.5	-1.2	0.0
14-04-2001	3.1	1.4	1.4	-1.7	0.0
15-04-2001	0.0	1.6	1.6	0.0	0.0
16-04-2001	0.0	2.0	2.0	-1.7	0.0
17-04-2001	3.9	1.2	1.2	-3.7	0.0
18-04-2001	0.0	1.9	1.9	-1.0	0.0
19-04-2001	0.0	2.4	2.4	-2.9	0.0
20-04-2001	0.2	2.2	2.2	-5.3	0.0
21-04-2001	9.6	1.0	1.0	-7.4	1.2
22-04-2001	0.9	1.5	1.5	0.0	0.0
23-04-2001	0.4	2.4	2.4	-0.6	0.0
24-04-2001	2.9	0.8	0.8	-2.6	0.0
25-04-2001	1.8	1.1	1.1	-0.4	0.3
26-04-2001	0.0	2.1	2.1	0.0	0.0
27-04-2001	2.6	0.9	0.9	-2.1	0.0
28-04-2001	2.2	2.0	2.0	-0.4	0.0
29-04-2001	0.8	1.7	1.7	-0.3	0.0
30-04-2001	0.0	2.1	2.1	-1.2	0.0
01-05-2001	0.0	3.1	3.1	-3.3	0.0
02-05-2001	1.2	3.1	3.1	-6.3	0.0
03-05-2001	0.0	2.5	2.5	-8.3	0.0
04-05-2001	0.0	1.7	1.7	-10.8	0.0
05-05-2001	0.0	1.9	1.9	-12.5	0.0
06-05-2001	0.0	2.1	2.1	-14.4	0.0
07-05-2001	0.0	3.3	3.3	-16.5	0.0
08-05-2001	0.0	3.4	3.4	-19.8	0.0
09-05-2001	0.0	2.7	2.7	-23.2	0.0
10-05-2001	0.0	2.5	2.5	-26.0	0.0
11-05-2001	0.2	1.4	1.4	-28.5	0.0
12-05-2001	0.0	3.7	3.7	-29.7	0.0
13-05-2001	1.1	2.8	2.5	-33.4	0.0
14-05-2001	2.2	3.5	3.0	-34.8	0.0
15-05-2001	6.2	0.9	0.7	-35.6	0.0
16-05-2001	10.2	1.0	1.0	-30.1	0.0
17-05-2001	0.3	1.6	1.6	-20.9	0.0
18-05-2001	0.0	2.1	2.1	-22.2	0.0
19-05-2001	0.0	1.5	1.5	-24.3	0.0
20-05-2001	0.0	1.4	1.4	-25.9	0.0
21-05-2001	0.0	3.7	3.7	-27.3	0.0
22-05-2001	0.0	4.2	4.1	-31.0	0.0
23-05-2001	0.0	4.2	3.5	-35.0	0.0
24-05-2001	0.0	4.4	3.1	-38.5	0.0
25-05-2001	5.5	2.0	1.2	-41.7	0.0
26-05-2001	2.1	2.4	1.8	-37.4	0.0
27-05-2001	6.4	2.2	1.7	-37.1	0.0
28-05-2001	0.0	4.2	3.9	-32.4	0.0
29-05-2001	0.0	3.5	2.8	-36.3	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
30-05-2001	2.0	2.8	1.9	-39.1	0.0
31-05-2001	0.7	2.3	1.6	-39.0	0.0
01-06-2001	0.9	2.7	1.8	-39.9	0.0
02-06-2001	0.0	2.6	1.7	-40.8	0.0
03-06-2001	0.0	2.4	1.4	-42.5	0.0
04-06-2001	0.0	2.3	1.2	-43.9	0.0
05-06-2001	1.5	2.7	1.4	-45.1	0.0
06-06-2001	11.3	1.3	0.7	-45.0	0.0
07-06-2001	0.0	3.1	2.7	-34.3	0.0
08-06-2001	1.0	3.2	2.5	-37.0	0.0
09-06-2001	0.9	2.8		-38.4	0.0
10-06-2001	0.0	3.6	2.4	-39.5	0.0
11-06-2001	0.0	1.7	1.0	-42.0	0.0
12-06-2001	0.0	1.5	0.9	-43.0	0.0
13-06-2001	0.0	1.8	1.0	-43.8	0.0
14-06-2001	6.1	1.5	0.8	-44.8	0.0
15-06-2001	2.1	2.7	1.8	-39.5	0.0
16-06-2001	0.0	0.9	0.7	-39.2	0.0
17-06-2001	0.0	1.3	0.9	-39.9	0.0
18-06-2001	5.8	1.4	0.9	-40.8	0.0
19-06-2001	1.8	3.6	2.9	-35.9	0.0
20-06-2001	0.0	3.6	2.8	-37.0	0.0
21-06-2001	0.0	2.0	1.3	-39.8	0.0
22-06-2001	0.0	3.3	2.1	-41.1	0.0
23-06-2001	0.0	2.4	1.3	-43.2	0.0
24-06-2001	0.0	4.7	2.4	-44.5	0.0
25-06-2001	6.9	3.3	1.4	-47.0	0.0
26-06-2001	1.6	1.5	0.9	-41.5	0.0
27-06-2001	4.7	2.2	1.4	-40.8	0.0
28-06-2001	3.3	1.8	1.3	-37.5	0.0
29-06-2001	1.0	4.2	3.4	-35.6	0.0
30-06-2001	0.0	3.8	2.8	-38.0	0.0
01-07-2001	0.0	2.5	1.6	-40.8	0.0
02-07-2001	0.0	4.9	2.9	-42.4	0.0
03-07-2001	0.7	1.9	0.9	-45.3	0.0
04-07-2001	0.0	1.5	0.7	-45.5	0.0
05-07-2001	0.0	2.7	1.2	-46.2	0.0
06-07-2001	0.1	1.7	0.7	-47.4	0.0
07-07-2001	0.2	1.4	0.6	-48.0	0.0
08-07-2001	0.0	1.9	0.7	-48.4	0.0
09-07-2001	0.3	3.1	1.1	-49.1	0.0
10-07-2001	6.9	2.8	0.9	-50.0	0.0
11-07-2001	1.6	3.5	1.8	-44.0	0.0
12-07-2001	2.8	3.1	1.6	-44.2	0.0
13-07-2001	26.6	1.5	0.8	-43.0	0.0
14-07-2001	3.0	1.6	1.6	-17.3	0.0
15-07-2001	0.0	2.5	2.5	-15.9	0.0
16-07-2001	0.7	2.9	2.9	-18.4	0.0
17-07-2001	8.4	1.5	1.5	-20.6	0.0
18-07-2001	0.0	3.1	3.1	-13.6	0.0
19-07-2001	0.0	2.8	2.8	-16.7	0.0
20-07-2001	4.4	1.9	1.9	-19.5	0.0
21-07-2001	1.5	1.8	1.8	-17.0	0.0
22-07-2001	0.0	2.8	2.8	-17.2	0.0
23-07-2001	0.9	2.5	2.5	-20.1	0.0
24-07-2001	0.0	2.2	2.2	-21.7	0.0
25-07-2001	0.0	1.6	1.6	-23.9	0.0
26-07-2001	0.0	3.5	3.5	-25.5	0.0
27-07-2001	0.0	2.5	2.5	-28.9	0.0
28-07-2001	0.0	4.0	3.8	-31.5	0.0
29-07-2001	0.0	2.9	2.4	-35.3	0.0
30-07-2001	0.2	3.9	2.9	-37.6	0.0
31-07-2001	0.0	1.6	1.0	-40.3	0.0
01-08-2001	1.9	3.9	2.4	-41.4	0.0
02-08-2001	5.8	2.1	1.3	-41.9	0.0
03-08-2001	0.0	2.5	1.8	-37.4	0.0
04-08-2001	3.5	2.8	1.9	-39.2	0.0
05-08-2001	7.2	3.3	2.5	-37.7	0.0
06-08-2001	4.2	1.9	1.7	-32.9	0.0
07-08-2001	2.1	1.3	1.3	-30.5	0.0
08-08-2001	7.2	2.0	2.0	-29.6	0.0
09-08-2001	0.0	2.6	2.6	-24.4	0.0
10-08-2001	0.7	2.7	2.7	-27.1	0.0
11-08-2001	2.7	1.9	1.9	-29.1	0.0
12-08-2001	1.8	1.1	1.1	-28.3	0.0
13-08-2001	0.0	3.5	3.5	-27.6	0.0
14-08-2001	11.0	2.4	2.3	-31.0	0.0
15-08-2001	0.0	1.4	1.4	-22.3	0.0
16-08-2001	8.4	1.9	1.9	-23.7	0.0
17-08-2001	1.0	1.6	1.6	-17.2	0.0
18-08-2001	2.7	0.8	0.8	-17.7	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
19-08-2001	1.5	2.1	2.1	-15.8	0.0
20-08-2001	0.0	3.4	3.4	-16.4	0.0
21-08-2001	0.0	2.2	2.2	-19.8	0.0
22-08-2001	0.0	3.4	3.4	-22.0	0.0
23-08-2001	0.0	2.5	2.5	-25.4	0.0
24-08-2001	0.0	1.4	1.4	-27.9	0.0
25-08-2001	1.2	2.2	2.2	-29.3	0.0
26-08-2001	0.0	3.4	3.4	-30.3	0.0
27-08-2001	0.0	2.9	2.6	-33.7	0.0
28-08-2001	0.0	3.2	2.5	-36.3	0.0
29-08-2001	2.9	2.2	1.5	-38.8	0.0
30-08-2001	0.0	2.3	1.8	-37.4	0.0
31-08-2001	1.5	2.3	1.6	-39.1	0.0
01-09-2001	0.8	1.4	0.9	-39.3	0.0
02-09-2001	0.0	1.5	1.0	-39.4	0.0
03-09-2001	0.0	1.1	0.7	-40.5	0.0
04-09-2001	0.0	3.0	1.9	-41.2	0.0
05-09-2001	1.8	0.8	0.4	-43.1	0.0
06-09-2001	0.4	2.6	1.6	-41.7	0.0
07-09-2001	0.0	2.2	1.2	-42.9	0.0
08-09-2001	0.0	1.9	1.0	-44.1	0.0
09-09-2001	0.0	2.0	1.0	-45.1	0.0
10-09-2001	0.0	1.6	0.7	-46.1	0.0
11-09-2001	0.2	1.3	0.6	-46.8	0.0
12-09-2001	2.9	1.2	0.5	-47.2	0.0
13-09-2001	0.0	1.6	0.8	-44.8	0.0
14-09-2001	0.0	1.2	0.6	-45.6	0.0
15-09-2001	0.0	1.7	0.8	-46.2	0.0
16-09-2001	0.0	1.5	0.7	-47.0	0.0
17-09-2001	0.0	1.8	0.7	-47.7	0.0
18-09-2001	0.0	1.5	0.6	-48.4	0.0
19-09-2001	0.0	1.6	0.6	-49.0	0.0
20-09-2001	0.0	0.8	0.3	-49.5	0.0
21-09-2001	0.0	0.9	0.3	-49.8	0.0
22-09-2001	0.0	0.4	0.1	-50.1	0.0
23-09-2001	0.0	1.4	0.5	-50.3	0.0
24-09-2001	4.0	0.8	0.2	-50.7	0.0
25-09-2001	1.6	1.1	0.5	-47.0	0.0
26-09-2001	6.2	0.4	0.2	-45.8	0.0
27-09-2001	1.1	0.8	0.5	-39.8	0.0
28-09-2001	0.5	1.5	1.0	-39.3	0.0
29-09-2001	1.7	2.2	1.5	-39.8	0.0
30-09-2001	1.5	2.3	1.6	-39.5	0.0
01-10-2001	0.6	3.3	2.2	-39.6	0.0
02-10-2001	1.0	2.6	1.6	-41.2	0.0
03-10-2001	0.4	1.5	0.9	-41.8	0.0
04-10-2001	1.0	1.2	0.7	-42.4	0.0
05-10-2001	2.4	0.9	0.5	-42.1	0.0
06-10-2001	0.0	2.2	1.4	-40.2	0.0
07-10-2001	25.1	0.8	0.5	-41.6	0.0
08-10-2001	1.0	1.4	1.4	-17.0	0.0
09-10-2001	0.0	1.2	1.2	-17.4	0.0
10-10-2001	0.0	1.0	1.0	-18.6	0.0
11-10-2001	0.0	2.1	2.1	-19.6	0.0
12-10-2001	0.0	1.4	1.4	-21.7	0.0
13-10-2001	4.6	0.6	0.6	-23.1	0.0
14-10-2001	9.2	0.1	0.1	-19.1	0.0
15-10-2001	2.0	1.3	1.3	-9.9	0.0
16-10-2001	1.0	1.2	1.2	-9.2	0.0
17-10-2001	7.6	1.4	1.4	-9.4	0.0
18-10-2001	0.6	1.3	1.3	-3.2	0.0
19-10-2001	5.2	0.6	0.6	-3.8	0.8
20-10-2001	0.2	0.6	0.6	0.0	0.0
21-10-2001	0.0	0.0	0.0	-0.4	0.0
22-10-2001	1.7	0.2	0.2	-0.4	1.1
23-10-2001	0.7	1.0	1.0	0.0	0.0
24-10-2001	1.8	1.2	1.2	-0.3	0.3
25-10-2001	3.0	1.2	1.2	0.0	1.8
26-10-2001	1.3	1.3	1.3	0.0	0.0
27-10-2001	0.0	0.8	0.8	0.0	0.0
28-10-2001	0.0	0.6	0.6	-0.8	0.0
29-10-2001	0.0	1.1	1.1	-1.4	0.0
30-10-2001	1.7	0.9	0.9	-2.5	0.0
31-10-2001	0.0	1.1	1.1	-1.7	0.0
01-11-2001	0.0	0.6	0.6	-2.8	0.0
02-11-2001	0.0	1.2	1.2	-3.4	0.0
03-11-2001	0.0	0.0	0.0	-4.6	0.0
04-11-2001	0.4	0.4	0.4	-4.6	0.0
05-11-2001	0.2	0.2	0.2	-4.6	0.0
06-11-2001	3.6	0.1	0.1	-4.6	0.0
07-11-2001	4.2	0.0	0.0	-1.2	3.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
08-11-2001	0.0	0.7	0.7	0.0	0.0
09-11-2001	0.2	0.0	0.0	-0.7	0.0
10-11-2001	0.0	0.3	0.3	-0.5	0.0
11-11-2001	1.1	0.4	0.4	-0.8	0.0
12-11-2001	0.2	0.2	0.2	-0.1	0.0
13-11-2001	0.3	0.4	0.4	-0.1	0.0
14-11-2001	0.0	0.0	0.0	-0.3	0.0
15-11-2001	0.2	0.0	0.0	-0.3	0.0
16-11-2001	0.0	0.0	0.0	-0.1	0.0
17-11-2001	0.0	0.0	0.0	-0.1	0.0
18-11-2001	0.0	0.0	0.0	-0.1	0.0
19-11-2001	0.2	0.0	0.0	-0.1	0.1
20-11-2001	0.5	0.2	0.2	0.0	0.3
21-11-2001	1.2	0.2	0.2	0.0	1.0
22-11-2001	0.1	0.0	0.0	0.0	0.1
23-11-2001	0.0	0.0	0.0	0.0	0.0
24-11-2001	0.6	0.2	0.2	0.0	0.4
25-11-2001	0.0	0.9	0.9	0.0	0.0
26-11-2001	0.5	0.3	0.3	-0.9	0.0
27-11-2001	0.0	0.7	0.7	-0.7	0.0
28-11-2001	5.3	0.4	0.4	-1.4	3.5
29-11-2001	1.7	0.0	0.0	0.0	1.7
30-11-2001	0.0	0.2	0.2	0.0	0.0
01-12-2001	0.0	0.6	0.6	-0.2	0.0
02-12-2001	0.0	0.7	0.7	-0.9	0.0
03-12-2001	6.2	0.9	0.9	-1.6	3.7
04-12-2001	1.2	0.5	0.5	0.0	0.7
05-12-2001	0.0	0.6	0.6	0.0	0.0
06-12-2001	4.2	0.2	0.2	-0.6	3.4
07-12-2001	0.0	0.3	0.3	0.0	0.0
08-12-2001	0.0	0.0	0.0	-0.3	0.0
09-12-2001	0.0	0.1	0.1	-0.3	0.0
10-12-2001	0.0	0.9	0.9	-0.4	0.0
11-12-2001	0.0	0.5	0.5	-1.3	0.0
12-12-2001	0.0	0.0	0.0	-1.7	0.0
13-12-2001	0.0	0.0	0.0	-1.7	0.0
14-12-2001	0.0	0.2	0.2	-1.7	0.0
15-12-2001	0.0	0.0	0.0	-2.0	0.0
16-12-2001	0.0	0.5	0.5	-2.0	0.0
17-12-2001	0.0	0.0	0.0	-2.5	0.0
18-12-2001	0.0	0.0	0.0	-2.5	0.0
19-12-2001	0.0	0.0	0.0	-2.5	0.0
20-12-2001	0.4	0.1	0.1	-2.5	0.0
21-12-2001	0.4	0.1	0.1	-2.2	0.0
22-12-2001	0.0	0.0	0.0	-1.9	0.0
23-12-2001	0.9	0.2	0.2	-1.9	0.0
24-12-2001	0.6	0.2	0.2	-1.3	0.0
25-12-2001	0.0	0.2	0.2	-0.8	0.0
26-12-2001	0.1	0.2	0.2	-1.1	0.0
27-12-2001	0.0	0.2	0.2	-1.2	0.0
28-12-2001	0.0	1.0	1.0	-1.4	0.0
29-12-2001	0.0	0.1	0.1	-2.4	0.0
30-12-2001	0.0	0.0	0.0	-2.4	0.0
31-12-2001	0.0	0.0	0.0	-2.5	0.0
01-01-2002	0.0	0.1	0.1	-2.5	0.0
02-01-2002	0.0	0.8	0.8	-2.6	0.0
03-01-2002	0.0	0.5	0.5	-3.3	0.0
04-01-2002	1.4	0.4	0.4	-3.9	0.0
05-01-2002	0.0	0.1	0.1	-2.9	0.0
06-01-2002	0.0	0.0	0.0	-3.0	0.0
07-01-2002	1.4	0.0	0.0	-3.0	0.0
08-01-2002	0.0	0.0	0.0	-1.6	0.0
09-01-2002	0.0	0.0	0.0	-1.6	0.0
10-01-2002	0.0	0.0	0.0	-1.6	0.0
11-01-2002	0.0	0.4	0.4	-1.6	0.0
12-01-2002	0.2	1.0	1.0	-1.9	0.0
13-01-2002	0.0	0.3	0.3	-2.7	0.0
14-01-2002	2.1	0.6	0.6	-3.0	0.0
15-01-2002	0.0	0.5	0.5	-1.5	0.0
16-01-2002	7.4	0.3	0.3	-2.0	5.1
17-01-2002	4.5	0.4	0.4	0.0	4.1
18-01-2002	1.5	0.5	0.5	0.0	1.0
19-01-2002	0.0	1.0	1.0	0.0	0.0
20-01-2002	0.1	1.2	1.2	-1.0	0.0
21-01-2002	0.2	0.5	0.5	-2.1	0.0
22-01-2002	1.5	0.9	0.9	-2.3	0.0
23-01-2002	1.6	0.3	0.3	-1.7	0.0
24-01-2002	2.4	0.4	0.4	-0.4	1.6
25-01-2002	2.1	0.4	0.4	0.0	1.7
26-01-2002	0.0	1.0	1.0	0.0	0.0
27-01-2002	1.8	1.1	1.1	-1.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
28-01-2002	4.0	1.1	1.1	-0.3	2.6
29-01-2002	1.2	1.0	1.0	0.0	0.2
30-01-2002	0.5	0.3	0.3	0.0	0.2
31-01-2002	1.5	1.0	1.0	0.0	0.5
01-02-2002	23.3	1.2	1.2	0.0	22.1
02-02-2002	6.0	1.5	1.5	0.0	4.5
03-02-2002	3.0	0.5	0.5	0.0	2.5
04-02-2002	12.0	0.7	0.7	0.0	11.3
05-02-2002	1.2	0.8	0.8	0.0	0.4
06-02-2002	6.2	0.8	0.8	0.0	5.4
07-02-2002	1.3	1.0	1.0	0.0	0.3
08-02-2002	6.5	0.6	0.6	0.0	5.9
09-02-2002	0.8	1.3	1.3	0.0	0.0
10-02-2002	5.5	0.6	0.6	-0.5	4.3
11-02-2002	3.2	1.0	1.0	0.0	2.2
12-02-2002	0.0	1.1	1.1	0.0	0.0
13-02-2002	0.0	0.3	0.3	-1.1	0.0
14-02-2002	0.0	0.6	0.6	-1.5	0.0
15-02-2002	0.0	0.5	0.5	-2.0	0.0
16-02-2002	0.0	0.6	0.6	-2.5	0.0
17-02-2002	0.0	0.5	0.5	-3.1	0.0
18-02-2002	0.0	0.9	0.9	-3.6	0.0
19-02-2002	12.5	0.4	0.4	-4.5	7.6
20-02-2002	4.5	1.1	1.1	0.0	3.4
21-02-2002	1.0	0.4	0.4	0.0	0.6
22-02-2002	2.0	1.5	1.5	0.0	0.5
23-02-2002	2.0	1.0	1.0	0.0	1.0
24-02-2002	16.0	0.3	0.3	0.0	15.7
25-02-2002	17.2	0.6	0.6	0.0	16.6
26-02-2002	3.0	1.1	1.1	0.0	1.9
27-02-2002	2.0	1.1	1.1	0.0	0.9
28-02-2002	0.0	0.9	0.9	0.0	0.0
01-03-2002	0.0	0.8	0.8	-0.9	0.0
02-03-2002	0.0	0.4	0.4	-1.6	0.0
03-03-2002	0.0	0.4	0.4	-2.0	0.0
04-03-2002	0.0	0.5	0.5	-2.5	0.0
05-03-2002	0.0	1.0	1.0	-3.0	0.0
06-03-2002	0.0	0.7	0.7	-4.0	0.0
07-03-2002	0.0	1.5	1.5	-4.6	0.0
08-03-2002	8.1	0.8	0.8	-6.1	1.2
09-03-2002	8.2	0.8	0.8	0.0	7.4
10-03-2002	2.1	1.5	1.5	0.0	0.6
11-03-2002	0.0	2.0	2.0	0.0	0.0
12-03-2002	0.0	1.0	1.0	-2.0	0.0
13-03-2002	0.0	1.8	1.8	-2.9	0.0
14-03-2002	0.0	1.8	1.8	-4.7	0.0
15-03-2002	0.0	0.5	0.5	-6.5	0.0
16-03-2002	0.7	2.0	2.0	-7.0	0.0
17-03-2002	1.9	0.8	0.8	-8.3	0.0
18-03-2002	4.0	0.5	0.5	-7.2	0.0
19-03-2002	0.5	0.7	0.7	-3.7	0.0
20-03-2002	2.5	0.7	0.7	-3.9	0.0
21-03-2002	0.0	1.9	1.9	-2.1	0.0
22-03-2002	0.0	0.8	0.8	-4.1	0.0
23-03-2002	0.0	0.6	0.6	-4.8	0.0
24-03-2002	0.0	0.9	0.9	-5.4	0.0
25-03-2002	0.0	0.7	0.7	-6.3	0.0
26-03-2002	0.0	1.8	1.8	-7.0	0.0
27-03-2002	0.0	2.0	2.0	-8.8	0.0
28-03-2002	0.0	2.0	2.0	-10.8	0.0
29-03-2002	0.0	2.1	2.1	-12.8	0.0
30-03-2002	0.0	1.2	1.2	-15.0	0.0
31-03-2002	2.2	1.3	1.3	-16.2	0.0
01-04-2002	2.5	1.4	1.4	-15.3	0.0
02-04-2002	2.5	1.1	1.1	-14.2	0.0
03-04-2002	0.0	1.5	1.5	-12.7	0.0
04-04-2002	0.0	1.2	1.2	-14.2	0.0
05-04-2002	0.0	1.2	1.2	-15.5	0.0
06-04-2002	0.0	2.6	2.6	-16.7	0.0
07-04-2002	0.0	2.6	2.6	-19.2	0.0
08-04-2002	0.0	1.4	1.4	-21.8	0.0
09-04-2002	0.0	1.6	1.6	-23.2	0.0
10-04-2002	0.0	1.7	1.7	-24.8	0.0
11-04-2002	0.1	0.8	0.8	-26.4	0.0
12-04-2002	0.1	1.2	1.2	-27.2	0.0
13-04-2002	0.8	1.8	1.8	-28.2	0.0
14-04-2002	0.0	1.3	1.3	-29.2	0.0
15-04-2002	0.0	2.5	2.4	-30.5	0.0
16-04-2002	16.3	2.7	2.4	-33.0	0.0
17-04-2002	24.0	0.6	0.6	-19.1	4.3
18-04-2002	0.0	1.4	1.4	0.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
19-04-2002	0.0	2.5	2.5	-1.4	0.0
20-04-2002	6.0	1.6	1.6	-3.8	0.6
21-04-2002	3.0	1.7	1.7	0.0	1.3
22-04-2002	0.0	2.3	2.3	0.0	0.0
23-04-2002	0.0	2.9	2.9	-2.3	0.0
24-04-2002	0.8	2.6	2.6	-5.1	0.0
25-04-2002	9.5	1.8	1.8	-6.9	0.7
26-04-2002	0.2	2.4	2.4	0.0	0.0
27-04-2002	13.5	1.3	1.3	-2.2	10.0
28-04-2002	4.0	2.1	2.1	0.0	1.9
29-04-2002	6.4	2.5	2.5	0.0	3.9
30-04-2002	1.6	2.6	2.6	0.0	0.0
01-05-2002	2.5	2.0	2.0	-1.0	0.0
02-05-2002	4.5	2.2	2.2	-0.5	1.7
03-05-2002	0.0	2.1	2.1	0.0	0.0
04-05-2002	0.0	2.0	2.0	-2.1	0.0
05-05-2002	0.0	3.2	3.2	-4.1	0.0
06-05-2002	0.0	2.1	2.1	-7.3	0.0
07-05-2002	0.7	1.7	1.7	-9.4	0.0
08-05-2002	0.0	1.5	1.5	-10.4	0.0
09-05-2002	0.0	2.5	2.5	-11.9	0.0
10-05-2002	0.0	1.7	1.7	-14.4	0.0
11-05-2002	0.0	3.3	3.3	-16.1	0.0
12-05-2002	1.5	2.4	2.4	-19.4	0.0
13-05-2002	4.5	2.4	2.4	-20.3	0.0
14-05-2002	0.5	3.1	3.1	-18.2	0.0
15-05-2002	0.0	2.6	2.6	-20.8	0.0
16-05-2002	0.8	2.5	2.5	-23.4	0.0
17-05-2002	22.3	1.3	1.3	-25.1	0.0
18-05-2002	0.3	2.5	2.5	-4.1	0.0
19-05-2002	5.3	2.3	2.3	-6.3	0.0
20-05-2002	1.1	2.3	2.3	-3.2	0.0
21-05-2002	2.7	1.6	1.6	-4.4	0.0
22-05-2002	14.0	2.7	2.7	-3.4	8.0
23-05-2002	6.0	2.4	2.4	0.0	3.6
24-05-2002	2.6	2.4	2.4	0.0	0.2
25-05-2002	3.3	2.3	2.3	0.0	1.0
26-05-2002	0.8	2.6	2.6	0.0	0.0
27-05-2002	7.1	2.5	2.5	-1.8	2.8
28-05-2002	5.5	2.4	2.4	0.0	3.1
29-05-2002	3.5	2.8	2.8	0.0	0.7
30-05-2002	1.5	3.2	3.2	0.0	0.0
31-05-2002	0.2	2.4	2.4	-1.7	0.0
01-06-2002	9.5	2.4	2.4	-4.0	3.1
02-06-2002	3.3	1.8	1.8	0.0	1.5
03-06-2002	3.0	3.0	3.0	0.0	0.0
04-06-2002	0.3	2.0	2.0	0.0	0.0
05-06-2002	0.0	3.1	3.1	-1.7	0.0
06-06-2002	3.0	1.2	1.2	-4.7	0.0
07-06-2002	2.0	1.2	1.2	-2.9	0.0
08-06-2002	5.2	1.2	1.2	-2.1	1.9
09-06-2002	7.0	2.9	2.9	0.0	4.1
10-06-2002	4.5	3.1	3.1	0.0	1.4
11-06-2002	4.7	2.8	2.8	0.0	1.9
12-06-2002	0.2	2.5	2.5	0.0	0.0
13-06-2002	4.5	1.3	1.3	-2.3	0.9
14-06-2002	20.6	1.9	1.9	0.0	18.7
15-06-2002	0.0	2.2	2.2	0.0	0.0
16-06-2002	6.0	1.5	1.5	-2.2	2.3
17-06-2002	0.0	3.9	3.9	0.0	0.0
18-06-2002	0.0	3.6	3.6	-3.9	0.0
19-06-2002	0.2	3.3	3.3	-7.5	0.0
20-06-2002	2.5	3.8	3.8	-10.5	0.0
21-06-2002	0.1	3.5	3.5	-11.9	0.0
22-06-2002	0.8	3.6	3.6	-15.2	0.0
23-06-2002	3.7	3.1	3.1	-18.1	0.0
24-06-2002	0.0	1.9	1.9	-17.5	0.0
25-06-2002	0.0	2.9	2.9	-19.4	0.0
26-06-2002	0.7	2.1	2.1	-22.2	0.0
27-06-2002	0.0	3.5	3.5	-23.7	0.0
28-06-2002	0.0	2.9	2.9	-27.2	0.0
29-06-2002	1.3	2.3	2.3	-30.1	0.0
30-06-2002	3.0	1.2	1.1	-31.1	0.0
01-07-2002	5.3	1.9	1.9	-29.2	0.0
02-07-2002	0.0	2.2	2.2	-25.9	0.0
03-07-2002	1.0	2.6	2.6	-28.0	0.0
04-07-2002	8.7	1.2	1.2	-29.6	0.0
05-07-2002	0.9	2.7	2.7	-22.1	0.0
06-07-2002	0.0	1.8	1.8	-24.0	0.0
07-07-2002	2.7	2.0	2.0	-25.7	0.0
08-07-2002	0.3	2.5	2.5	-25.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
09-07-2002	3.3	1.9	1.9	-27.2	0.0
10-07-2002	8.4	2.3	2.3	-25.8	0.0
11-07-2002	8.3	2.6	2.6	-19.6	0.0
12-07-2002	3.0	2.8	2.8	-13.9	0.0
13-07-2002	0.1	2.5	2.5	-13.8	0.0
14-07-2002	0.0	3.6	3.6	-16.2	0.0
15-07-2002	0.1	1.8	1.8	-19.8	0.0
16-07-2002	0.0	1.6	1.6	-21.5	0.0
17-07-2002	0.0	2.0	2.0	-23.1	0.0
18-07-2002	0.6	2.7	2.7	-25.1	0.0
19-07-2002	4.9	1.3	1.3	-27.2	0.0
20-07-2002	0.0	1.3	1.3	-23.6	0.0
21-07-2002	0.0	3.0	3.0	-24.8	0.0
22-07-2002	2.5	2.7	2.7	-27.8	0.0
23-07-2002	0.0	2.0	2.0	-28.0	0.0
24-07-2002	0.0	1.7	1.7	-29.9	0.0
25-07-2002	0.0	2.9	2.7	-31.6	0.0
26-07-2002	0.0	2.7	2.3	-34.4	0.0
27-07-2002	0.0	3.0	2.3	-36.7	0.0
28-07-2002	6.9	1.7	1.2	-39.0	0.0
29-07-2002	4.0	1.4	1.3	-33.3	0.0
30-07-2002	0.1	1.3	1.3	-30.6	0.0
31-07-2002	6.3	1.1	1.0	-31.8	0.0
01-08-2002	12.2	1.2	1.2	-26.5	0.0
02-08-2002	6.4	1.0	1.0	-15.5	0.0
03-08-2002	3.0	1.1	1.1	-10.1	0.0
04-08-2002	0.0	2.9	2.9	-8.2	0.0
05-08-2002	0.0	3.5	3.5	-11.1	0.0
06-08-2002	7.2	1.1	1.1	-14.6	0.0
07-08-2002	0.4	1.2	1.2	-8.5	0.0
08-08-2002	6.3	0.7	0.7	-9.3	0.0
09-08-2002	0.0	2.5	2.5	-3.7	0.0
10-08-2002	1.3	2.8	2.8	-6.2	0.0
11-08-2002	0.1	2.5	2.5	-7.7	0.0
12-08-2002	1.6	2.2	2.2	-10.2	0.0
13-08-2002	8.0	2.4	2.4	-10.8	0.0
14-08-2002	3.0	1.8	1.8	-5.1	0.0
15-08-2002	0.0	3.6	3.6	-3.9	0.0
16-08-2002	0.0	3.2	3.2	-7.5	0.0
17-08-2002	0.0	3.5	3.5	-10.7	0.0
18-08-2002	0.0	1.4	1.4	-14.2	0.0
19-08-2002	0.9	1.0	1.0	-15.6	0.0
20-08-2002	0.0	1.6	1.6	-15.7	0.0
21-08-2002	0.0	2.9	2.9	-17.3	0.0
22-08-2002	7.3	1.4	1.4	-20.2	0.0
23-08-2002	2.5	2.4	2.4	-14.3	0.0
24-08-2002	0.0	1.6	1.6	-14.1	0.0
25-08-2002	0.0	2.8	2.8	-15.7	0.0
26-08-2002	0.0	3.0	3.0	-18.5	0.0
27-08-2002	0.8	0.8	0.8	-21.5	0.0
28-08-2002	1.8	1.7	1.7	-21.5	0.0
29-08-2002	0.3	1.5	1.5	-21.4	0.0
30-08-2002	2.6	1.2	1.2	-22.6	0.0
31-08-2002	0.0	1.8	1.8	-21.2	0.0
01-09-2002	0.0	2.7	2.7	-23.0	0.0
02-09-2002	0.0	2.9	2.9	-25.7	0.0
03-09-2002	0.0	2.3	2.3	-28.6	0.0
04-09-2002	0.3	1.0	0.9	-30.9	0.0
05-09-2002	4.3	0.8	0.8	-31.6	0.0
06-09-2002	4.8	1.8	1.8	-28.0	0.0
07-09-2002	0.6	1.6	1.6	-25.0	0.0
08-09-2002	0.0	0.9	0.9	-26.0	0.0
09-09-2002	1.4	0.9	0.9	-26.9	0.0
10-09-2002	0.1	2.2	2.2	-26.5	0.0
11-09-2002	0.0	2.2	2.2	-28.5	0.0
12-09-2002	0.0	0.8	0.8	-30.8	0.0
13-09-2002	0.0	2.3	2.2	-31.6	0.0
14-09-2002	0.0	0.8	0.7	-33.8	0.0
15-09-2002	0.0	0.7	0.6	-34.5	0.0
16-09-2002	0.0	0.6	0.5	-35.1	0.0
17-09-2002	0.0	0.6	0.5	-35.5	0.0
18-09-2002	0.0	0.7	0.6	-36.0	0.0
19-09-2002	0.0	0.6	0.4	-36.6	0.0
20-09-2002	0.0	1.4	1.1	-37.0	0.0
21-09-2002	0.0	1.4	1.0	-38.1	0.0
22-09-2002	0.0	0.5	0.3	-39.1	0.0
23-09-2002	0.0	1.4	1.0	-39.5	0.0
24-09-2002	0.0	1.8	1.2	-40.4	0.0
25-09-2002	0.0	1.3	0.8	-41.6	0.0
26-09-2002	0.0	0.8	0.4	-42.4	0.0
27-09-2002	0.0	1.0	0.5	-42.9	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
28-09-2002	0.0	0.9	0.5	-43.4	0.0
29-09-2002	2.9	1.9	1.0	-43.9	0.0
30-09-2002	4.0	1.5	0.9	-42.0	0.0
01-10-2002	0.5	1.0	0.7	-38.9	0.0
02-10-2002	6.4	0.5	0.4	-39.1	0.0
03-10-2002	0.0	1.7	1.6	-33.1	0.0
04-10-2002	0.0	1.5	1.3	-34.6	0.0
05-10-2002	0.0	1.5	1.2	-35.9	0.0
06-10-2002	0.0	0.5	0.4	-37.2	0.0
07-10-2002	0.1	1.1	0.8	-37.5	0.0
08-10-2002	15.9	0.9	0.7	-38.2	0.0
09-10-2002	0.2	0.7	0.7	-23.0	0.0
10-10-2002	8.7	1.1	1.1	-23.5	0.0
11-10-2002	24.2	0.1	0.1	-15.9	8.2
12-10-2002	8.0	1.5	1.5	0.0	6.5
13-10-2002	0.0	0.0	0.0	0.0	0.0
14-10-2002	4.6	0.5	0.5	0.0	4.1
15-10-2002	7.6	0.3	0.3	0.0	7.3
16-10-2002	0.0	0.6	0.6	0.0	0.0
17-10-2002	0.6	0.2	0.2	-0.6	0.0
18-10-2002	0.0	0.9	0.9	-0.2	0.0
19-10-2002	0.7	0.7	0.7	-1.1	0.0
20-10-2002	39.5	0.2	0.2	-1.1	38.2
21-10-2002	13.4	0.2	0.2	0.0	13.2
22-10-2002	0.4	0.2	0.2	0.0	0.2
23-10-2002	0.1	1.0	1.0	0.0	0.0
24-10-2002	3.3	0.5	0.5	-0.9	1.9
25-10-2002	4.5	1.1	1.1	0.0	3.4
26-10-2002	7.1	1.4	1.4	0.0	5.7
27-10-2002	0.8	1.4	1.4	0.0	0.0
28-10-2002	17.7	0.6	0.6	-0.6	16.5
29-10-2002	4.0	0.0	0.0	0.0	4.0
30-10-2002	3.7	0.1	0.1	0.0	3.6
31-10-2002	0.4	0.0	0.0	0.0	0.4
01-11-2002	7.2	0.0	0.0	0.0	7.2
02-11-2002	4.3	0.5	0.5	0.0	3.8
03-11-2002	8.2	1.0	1.0	0.0	7.2
04-11-2002	0.4	0.8	0.8	0.0	0.0
05-11-2002	4.1	0.1	0.1	-0.4	3.7
06-11-2002	1.0	1.0	1.0	0.0	0.0
07-11-2002	2.8	0.4	0.4	0.0	2.4
08-11-2002	4.7	0.0	0.0	0.0	4.7
09-11-2002	8.5	0.0	0.0	0.0	8.5
10-11-2002	0.7	0.9	0.9	0.0	0.0
11-11-2002	2.4	1.0	1.0	-0.2	1.3
12-11-2002	0.4	0.9	0.9	0.0	0.0
13-11-2002	18.2	0.3	0.3	-0.5	17.4
14-11-2002	38.2	0.0	0.0	0.0	38.2
15-11-2002	3.8	0.0	0.0	0.0	3.8
16-11-2002	0.0	0.1	0.1	0.0	0.0
17-11-2002	0.4	0.0	0.0	-0.1	0.3
18-11-2002	2.5	0.3	0.3	0.0	2.2
19-11-2002	0.4	0.1	0.1	0.0	0.3
20-11-2002	6.7	0.3	0.3	0.0	6.4
21-11-2002	3.2	0.5	0.5	0.0	2.7
22-11-2002	0.7	0.7	0.7	0.0	0.0
23-11-2002	4.5	0.4	0.4	0.0	4.0
24-11-2002	0.0	0.3	0.3	0.0	0.0
25-11-2002	2.7	0.3	0.3	-0.3	2.1
26-11-2002	11.0	0.6	0.6	0.0	10.4
27-11-2002	10.0	0.8	0.8	0.0	9.2
28-11-2002	0.2	0.4	0.4	0.0	0.0
29-11-2002	1.2	0.1	0.1	-0.2	0.9
30-11-2002	0.3	0.2	0.2	0.0	0.1
01-12-2002	7.5	1.0	1.0	0.0	6.5
02-12-2002	1.7	0.6	0.6	0.0	1.1
03-12-2002	2.7	0.3	0.3	0.0	2.4
04-12-2002	0.0	0.4	0.4	0.0	0.0
05-12-2002	0.0	0.0	0.0	-0.4	0.0
06-12-2002	0.0	0.0	0.0	-0.4	0.0
07-12-2002	1.8	0.0	0.0	-0.4	1.4
08-12-2002	0.1	0.4	0.4	0.0	0.0
09-12-2002	0.0	0.8	0.8	-0.3	0.0
10-12-2002	0.0	1.3	1.3	-1.2	0.0
11-12-2002	0.0	0.6	0.6	-2.5	0.0
12-12-2002	4.1	0.0	0.0	-3.1	1.0
13-12-2002	0.2	0.0	0.0	0.0	0.2
14-12-2002	4.7	0.0	0.0	0.0	4.7
15-12-2002	1.1	0.0	0.0	0.0	1.1
16-12-2002	0.0	0.0	0.0	0.0	0.0
17-12-2002	0.0	0.0	0.0	0.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
18-12-2002	0.0	0.4	0.4	0.0	0.0
19-12-2002	0.0	0.5	0.5	-0.4	0.0
20-12-2002	3.5	0.0	0.0	-0.9	2.6
21-12-2002	5.5	0.0	0.0	0.0	5.5
22-12-2002	1.5	0.0	0.0	0.0	1.5
23-12-2002	2.5	0.6	0.6	0.0	1.9
24-12-2002	1.6	0.6	0.6	0.0	1.0
25-12-2002	3.4	0.1	0.1	0.0	3.3
26-12-2002	10.3	0.0	0.0	0.0	10.3
27-12-2002	1.1	0.0	0.0	0.0	1.1
28-12-2002	10.4	0.0	0.0	0.0	10.4
29-12-2002	14.0	0.0	0.0	0.0	14.0
30-12-2002	1.3	0.0	0.0	0.0	1.3
31-12-2002	8.7	0.1	0.1	0.0	8.6
01-01-2003	0.5	0.0	0.0	0.0	0.5
02-01-2003	6.6	0.0	0.0	0.0	6.6
03-01-2003	0.0	0.0	0.0	0.0	0.0
04-01-2003	0.0	0.0	0.0	0.0	0.0
05-01-2003	0.0	0.0	0.0	0.0	0.0
06-01-2003	0.0	0.2	0.2	0.0	0.0
07-01-2003	0.0	0.9	0.9	-0.2	0.0
08-01-2003	5.1	0.4	0.4	-1.2	3.5
09-01-2003	0.0	0.3	0.3	0.0	0.0
10-01-2003	0.0	0.0	0.0	-0.3	0.0
11-01-2003	0.0	0.1	0.1	-0.3	0.0
12-01-2003	0.8	0.5	0.5	-0.3	0.0
13-01-2003	0.1	0.1	0.1	0.0	0.0
14-01-2003	3.1	0.8	0.8	0.0	2.3
15-01-2003	0.1	0.8	0.8	0.0	0.0
16-01-2003	13.1	1.0	1.0	-0.7	11.4
17-01-2003	0.4	1.0	1.0	0.0	0.0
18-01-2003	5.5	0.5	0.5	-0.6	4.4
19-01-2003	5.4	0.5	0.5	0.0	4.9
20-01-2003	0.8	0.7	0.7	0.0	0.1
21-01-2003	0.2	0.0	0.0	0.0	0.2
22-01-2003	0.0	0.4	0.4	0.0	0.0
23-01-2003	0.0	0.6	0.6	-0.4	0.0
24-01-2003	9.1	0.9	0.9	-1.0	7.1
25-01-2003	0.1	0.7	0.7	0.0	0.0
26-01-2003	0.0	0.4	0.4	-0.6	0.0
27-01-2003	0.8	0.2	0.2	-1.0	0.0
28-01-2003	2.4	0.8	0.8	-0.4	1.2
29-01-2003	2.7	0.5	0.5	0.0	2.2
30-01-2003	0.0	0.5	0.5	0.0	0.0
31-01-2003	2.5	0.2	0.2	-0.5	1.8
01-02-2003	1.1	0.7	0.7	0.0	0.4
02-02-2003	3.1	0.3	0.3	0.0	2.8
03-02-2003	0.4	0.4	0.4	0.0	0.0
04-02-2003	0.0	0.5	0.5	0.0	0.0
05-02-2003	1.0	0.6	0.6	-0.5	0.0
06-02-2003	1.2	0.3	0.3	-0.1	0.7
07-02-2003	0.2	0.5	0.5	0.0	0.0
08-02-2003	4.7	0.3	0.3	-0.3	4.0
09-02-2003	0.6	0.7	0.7	0.0	0.0
10-02-2003	10.5	0.6	0.6	-0.1	9.7
11-02-2003	0.0	0.5	0.5	0.0	0.0
12-02-2003	0.0	0.6	0.6	-0.5	0.0
13-02-2003	0.1	0.4	0.4	-1.1	0.0
14-02-2003	0.0	0.0	0.0	-1.4	0.0
15-02-2003	0.0	1.0	1.0	-1.4	0.0
16-02-2003	0.0	0.7	0.7	-2.4	0.0
17-02-2003	0.0	0.9	0.9	-3.1	0.0
18-02-2003	0.0	1.2	1.2	-4.0	0.0
19-02-2003	0.0	1.1	1.1	-5.3	0.0
20-02-2003	1.5	0.1	0.1	-6.4	0.0
21-02-2003	0.0	1.2	1.2	-4.9	0.0
22-02-2003	1.3	1.6	1.6	-6.2	0.0
23-02-2003	0.0	1.6	1.6	-6.4	0.0
24-02-2003	0.0	0.3	0.3	-8.0	0.0
25-02-2003	0.4	1.0	1.0	-8.3	0.0
26-02-2003	1.6	0.6	0.6	-8.9	0.0
27-02-2003	1.6	0.6	0.6	-7.9	0.0
28-02-2003	8.9	0.5	0.5	-6.9	1.4
01-03-2003	5.1	0.7	0.7	0.0	4.4
02-03-2003	0.8	1.4	1.4	0.0	0.0
03-03-2003	1.8	0.6	0.6	-0.6	0.5
04-03-2003	0.7	0.5	0.5	0.0	0.2
05-03-2003	0.0	1.6	1.6	0.0	0.0
06-03-2003	2.5	1.7	1.7	-1.6	0.0
07-03-2003	1.5	1.1	1.1	-0.8	0.0
08-03-2003	10.0	0.4	0.4	-0.3	9.2

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
09-03-2003	4.3	1.4	1.4	0.0	2.9
10-03-2003	9.6	1.3	1.3	0.0	8.3
11-03-2003	1.5	1.2	1.2	0.0	0.3
12-03-2003	0.0	1.3	1.3	0.0	0.0
13-03-2003	0.0	1.1	1.1	-1.3	0.0
14-03-2003	0.0	1.6	1.6	-2.4	0.0
15-03-2003	0.0	1.7	1.7	-4.0	0.0
16-03-2003	0.0	2.0	2.0	-5.8	0.0
17-03-2003	0.0	1.9	1.9	-7.8	0.0
18-03-2003	0.0	1.2	1.2	-9.6	0.0
19-03-2003	0.0	1.1	1.1	-10.9	0.0
20-03-2003	0.0	0.6	0.6	-12.0	0.0
21-03-2003	0.0	1.5	1.5	-12.6	0.0
22-03-2003	0.0	1.5	1.5	-14.1	0.0
23-03-2003	0.0	2.1	2.1	-15.6	0.0
24-03-2003	0.0	1.7	1.7	-17.7	0.0
25-03-2003	0.0	1.5	1.5	-19.4	0.0
26-03-2003	0.0	1.7	1.7	-20.9	0.0
27-03-2003	0.0	2.1	2.1	-22.6	0.0
28-03-2003	0.0	0.4	0.4	-24.7	0.0
29-03-2003	0.2	1.8	1.8	-25.2	0.0
30-03-2003	0.0	1.2	1.2	-26.8	0.0
31-03-2003	4.2	2.0	2.0	-28.0	0.0
01-04-2003	0.2	1.6	1.6	-25.8	0.0
02-04-2003	0.0	2.0	2.0	-27.2	0.0
03-04-2003	0.0	0.6	0.6	-29.1	0.0
04-04-2003	0.0	2.3	2.3	-29.8	0.0
05-04-2003	0.0	1.6	1.5	-32.1	0.0
06-04-2003	0.0	0.6	0.5	-33.6	0.0
07-04-2003	0.0	0.8	0.7	-34.2	0.0
08-04-2003	0.0	2.4	2.0	-34.8	0.0
09-04-2003	0.0	2.2	1.7	-36.9	0.0
10-04-2003	0.0	1.9	1.4	-38.5	0.0
11-04-2003	0.0	0.9	0.6	-39.9	0.0
12-04-2003	0.0	1.5	1.0	-40.5	0.0
13-04-2003	1.3	0.9	0.6	-41.4	0.0
14-04-2003	0.0	2.6	1.7	-40.7	0.0
15-04-2003	0.0	3.5	2.1	-42.4	0.0
16-04-2003	0.0	4.0	2.1	-44.5	0.0
17-04-2003	0.0	4.2	1.9	-46.5	0.0
18-04-2003	0.0	3.1	1.2	-48.4	0.0
19-04-2003	0.0	3.1	1.1	-49.6	0.0
20-04-2003	0.0	1.9	0.6	-50.7	0.0
21-04-2003	14.5	0.8	0.2	-51.3	0.0
22-04-2003	0.0	2.2	1.7	-37.0	0.0
23-04-2003	0.0	2.7	1.9	-38.7	0.0
24-04-2003	4.1	2.1	1.4	-40.6	0.0
25-04-2003	3.0	2.7	2.0	-37.9	0.0
26-04-2003	1.3	2.9	2.2	-36.9	0.0
27-04-2003	7.0	3.1	2.3	-37.8	0.0
28-04-2003	0.3	0.9	0.8	-33.1	0.0
29-04-2003	3.1	2.8	2.5	-33.6	0.0
30-04-2003	2.2	2.3	2.1	-33.0	0.0
01-05-2003	13.2	1.5	1.4	-32.9	0.0
02-05-2003	0.1	1.7	1.7	-21.0	0.0
03-05-2003	10.3	1.3	1.3	-22.6	0.0
04-05-2003	4.2	1.1	1.1	-13.6	0.0
05-05-2003	18.1	2.9	2.9	-10.6	4.7
06-05-2003	1.6	2.5	2.5	0.0	0.0
07-05-2003	0.0	1.9	1.9	-0.9	0.0
08-05-2003	0.0	2.8	2.8	-2.8	0.0
09-05-2003	3.7	2.9	2.9	-5.6	0.0
10-05-2003	2.8	3.2	3.2	-4.8	0.0
11-05-2003	4.5	2.7	2.7	-5.2	0.0
12-05-2003	1.8	2.5	2.5	-3.4	0.0
13-05-2003	0.5	3.2	3.2	-4.1	0.0
14-05-2003	0.0	2.7	2.7	-6.8	0.0
15-05-2003	9.0	1.9	1.9	-9.5	0.0
16-05-2003	4.3	1.6	1.6	-2.3	0.4
17-05-2003	5.4	2.0	2.0	0.0	3.4
18-05-2003	12.0	2.3	2.3	0.0	9.7
19-05-2003	7.6	2.0	2.0	0.0	5.6
20-05-2003	8.5	1.8	1.8	0.0	6.7
21-05-2003	0.0	1.1	1.1	0.0	0.0
22-05-2003	0.0	2.6	2.6	-1.1	0.0
23-05-2003	1.7	2.7	2.7	-3.7	0.0
24-05-2003	2.2	2.0	2.0	-4.7	0.0
25-05-2003	0.1	2.1	2.1	-4.5	0.0
26-05-2003	1.9	1.2	1.2	-6.5	0.0
27-05-2003	2.0	1.5	1.5	-5.8	0.0
28-05-2003	3.8	1.6	1.6	-5.3	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
29-05-2003	0.1	1.8	1.8	-3.1	0.0
30-05-2003	0.0	4.3	4.3	-4.9	0.0
31-05-2003	0.0	3.5	3.5	-9.2	0.0
01-06-2003	1.0	2.3	2.3	-12.7	0.0
02-06-2003	0.3	4.4	4.4	-14.0	0.0
03-06-2003	8.2	1.7	1.7	-18.1	0.0
04-06-2003	0.1	2.1	2.1	-11.6	0.0
05-06-2003	0.8	2.8	2.8	-13.6	0.0
06-06-2003	0.0	3.9	3.9	-15.6	0.0
07-06-2003	3.5	3.3	3.3	-19.5	0.0
08-06-2003	4.4	3.6	3.6	-19.2	0.0
09-06-2003	3.2	1.8	1.8	-18.4	0.0
10-06-2003	2.7	3.3	3.3	-17.0	0.0
11-06-2003	0.6	3.2	3.2	-17.6	0.0
12-06-2003	0.0	3.6	3.6	-20.2	0.0
13-06-2003	0.0	2.7	2.7	-23.9	0.0
14-06-2003	0.0	4.5	4.5	-26.5	0.0
15-06-2003	0.0	2.3	2.3	-31.0	0.0
16-06-2003	0.0	3.2	2.9	-33.3	0.0
17-06-2003	0.1	2.9	2.3	-36.2	0.0
18-06-2003	0.0	3.1	2.2	-38.4	0.0
19-06-2003	0.0	3.4	2.2	-40.6	0.0
20-06-2003	0.0	3.0	1.7	-42.8	0.0
21-06-2003	0.7	2.1	1.1	-44.5	0.0
22-06-2003	0.0	1.9	0.9	-44.9	0.0
23-06-2003	0.0	2.7	1.3	-45.8	0.0
24-06-2003	0.0	4.5	1.9	-47.1	0.0
25-06-2003	0.0	4.9	1.8	-49.0	0.0
26-06-2003	10.0	2.5	0.8	-50.8	0.0
27-06-2003	18.2	1.1	0.7	-41.6	0.0
28-06-2003	0.0	2.1	2.1	-24.0	0.0
29-06-2003	16.0	2.9	2.9	-26.1	0.0
30-06-2003	13.2	1.1	1.1	-13.0	0.0
01-07-2003	13.2	2.1	2.1	-1.0	10.1
02-07-2003	5.3	3.3	3.3	0.0	2.0
03-07-2003	0.2	2.1	2.1	0.0	0.0
04-07-2003	0.0	1.3	1.3	-1.9	0.0
05-07-2003	0.0	1.3	1.3	-3.3	0.0
06-07-2003	0.5	2.8	2.8	-4.6	0.0
07-07-2003	1.0	3.0	3.0	-6.9	0.0
08-07-2003	23.7	2.5	2.5	-8.9	12.3
09-07-2003	0.1	2.3	2.3	0.0	0.0
10-07-2003	0.6	3.0	3.0	-2.2	0.0
11-07-2003	0.0	2.9	2.9	-4.6	0.0
12-07-2003	0.0	4.1	4.1	-7.5	0.0
13-07-2003	0.4	4.5	4.5	-11.6	0.0
14-07-2003	1.3	3.1	3.1	-15.6	0.0
15-07-2003	5.5	1.7	1.7	-17.4	0.0
16-07-2003	0.8	2.8	2.8	-13.6	0.0
17-07-2003	17.7	1.0	1.0	-15.6	1.1
18-07-2003	2.0	3.8	3.8	0.0	0.0
19-07-2003	1.2	4.3	4.3	-1.8	0.0
20-07-2003	5.6	3.6	3.6	-4.8	0.0
21-07-2003	2.8	3.4	3.4	-2.9	0.0
22-07-2003	2.5	1.6	1.6	-3.4	0.0
23-07-2003	0.7	2.7	2.7	-2.6	0.0
24-07-2003	2.5	2.3	2.3	-4.6	0.0
25-07-2003	1.4	3.0	3.0	-4.4	0.0
26-07-2003	0.0	2.3	2.3	-6.0	0.0
27-07-2003	0.0	2.6	2.6	-8.3	0.0
28-07-2003	9.0	1.7	1.7	-10.9	0.0
29-07-2003	3.3	1.8	1.8	-3.6	0.0
30-07-2003	2.7	2.7	2.7	-2.1	0.0
31-07-2003	1.1	2.5	2.5	-2.0	0.0
01-08-2003	0.0	1.9	1.9	-3.4	0.0
02-08-2003	0.0	3.0	3.0	-5.3	0.0
03-08-2003	0.0	2.1	2.1	-8.3	0.0
04-08-2003	0.0	3.4	3.4	-10.4	0.0
05-08-2003	1.5	4.2	4.2	-13.8	0.0
06-08-2003	0.0	1.7	1.7	-16.5	0.0
07-08-2003	0.0	4.5	4.5	-18.2	0.0
08-08-2003	0.0	3.5	3.5	-22.7	0.0
09-08-2003	0.0	2.9	2.9	-26.2	0.0
10-08-2003	0.0	3.4	3.4	-29.1	0.0
11-08-2003	0.0	3.2	2.9	-32.5	0.0
12-08-2003	0.0	2.8	2.3	-35.5	0.0
13-08-2003	0.0	3.9	2.9	-37.8	0.0
14-08-2003	0.0	3.2	2.1	-40.7	0.0
15-08-2003	0.0	2.4	1.4	-42.8	0.0
16-08-2003	0.0	3.4	1.8	-44.1	0.0
17-08-2003	2.1	2.3	1.1	-46.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
18-08-2003	0.0	3.2	1.6	-44.9	0.0
19-08-2003	0.0	2.7	1.2	-46.5	0.0
20-08-2003	0.0	2.3	0.9	-47.7	0.0
21-08-2003	2.9	2.9	1.1	-48.7	0.0
22-08-2003	0.2	1.0	0.4	-46.9	0.0
23-08-2003	0.0	3.1	1.3	-47.1	0.0
24-08-2003	0.0	3.1	1.2	-48.4	0.0
25-08-2003	0.0	2.5	0.9	-49.6	0.0
26-08-2003	0.0	1.9	0.6	-50.4	0.0
27-08-2003	0.0	2.7	0.8	-51.0	0.0
28-08-2003	2.9	1.1	0.3	-51.9	0.0
29-08-2003	3.6	2.2	0.8	-49.3	0.0
30-08-2003	0.0	2.4	1.1	-46.5	0.0
31-08-2003	0.0	1.3	0.5	-47.6	0.0
01-09-2003	0.0	1.6	0.6	-48.1	0.0
02-09-2003	0.0	1.2	0.4	-48.7	0.0
03-09-2003	0.0	1.4	0.5	-49.2	0.0
04-09-2003	0.0	2.6	0.9	-49.7	0.0
05-09-2003	0.6	1.4	0.4	-50.6	0.0
06-09-2003	0.0	2.8	0.9	-50.4	0.0
07-09-2003	8.1	1.0	0.3	-51.3	0.0
08-09-2003	0.0	2.3	1.2	-43.5	0.0
09-09-2003	0.0	1.4	0.7	-44.7	0.0
10-09-2003	5.6	1.6	0.8	-45.4	0.0
11-09-2003	0.6	2.4	1.5	-40.6	0.0
12-09-2003	0.1	1.8	1.1	-41.5	0.0
13-09-2003	0.0	3.0	1.8	-42.5	0.0
14-09-2003	0.0	3.2	1.7	-44.3	0.0
15-09-2003	0.0	2.0	0.9	-45.9	0.0
16-09-2003	0.0	2.8	1.2	-46.9	0.0
17-09-2003	0.0	4.2	1.7	-48.1	0.0
18-09-2003	6.2	1.4	0.5	-49.8	0.0
19-09-2003	1.8	0.6	0.3	-44.1	0.0
20-09-2003	0.8	0.3	0.2	-42.6	0.0
21-09-2003	7.0	1.7	1.0	-42.0	0.0
22-09-2003	0.1	1.7	1.3	-36.1	0.0
23-09-2003	0.0	1.4	1.0	-37.3	0.0
24-09-2003	0.0	1.8	1.3	-38.3	0.0
25-09-2003	1.4	1.9	1.3	-39.6	0.0
26-09-2003	0.0	1.3	0.9	-39.5	0.0
27-09-2003	0.0	1.0	0.7	-40.4	0.0
28-09-2003	0.5	1.5	0.9	-41.1	0.0
29-09-2003	3.4	0.7	0.4	-41.5	0.0
30-09-2003	2.6	0.3	0.2	-38.6	0.0
01-10-2003	0.0	1.0	0.8	-36.2	0.0
02-10-2003	0.0	1.1	0.8	-37.0	0.0
03-10-2003	0.0	1.1	0.8	-37.9	0.0
04-10-2003	0.8	1.0	0.7	-38.7	0.0
05-10-2003	5.8	0.5	0.4	-38.6	0.0
06-10-2003	2.5	1.7	1.5	-33.2	0.0
07-10-2003	3.4	0.8	0.8	-32.2	0.0
08-10-2003	0.1	0.9	0.9	-29.6	0.0
09-10-2003	0.6	1.5	1.5	-30.4	0.0
10-10-2003	0.0	0.9	0.8	-31.3	0.0
11-10-2003	0.0	0.5	0.5	-32.1	0.0
12-10-2003	2.5	0.8	0.7	-32.6	0.0
13-10-2003	0.0	0.3	0.3	-30.8	0.0
14-10-2003	0.0	0.2	0.2	-31.1	0.0
15-10-2003	0.0	1.0	0.9	-31.3	0.0
16-10-2003	0.0	1.6	1.4	-32.2	0.0
17-10-2003	0.0	1.4	1.2	-33.7	0.0
18-10-2003	0.0	0.4	0.3	-34.9	0.0
19-10-2003	3.1	0.8	0.6	-35.2	0.0
20-10-2003	0.2	0.9	0.8	-32.7	0.0
21-10-2003	19.3	0.6	0.6	-33.3	0.0
22-10-2003	55.7	0.1	0.1	-14.6	41.0
23-10-2003	0.7	0.6	0.6	0.0	0.1
24-10-2003	0.0	0.6	0.6	0.0	0.0
25-10-2003	0.9	0.4	0.4	-0.6	0.0
26-10-2003	0.0	0.5	0.5	0.0	0.0
27-10-2003	0.4	0.9	0.9	-0.5	0.0
28-10-2003	5.8	0.0	0.0	-0.9	4.9
29-10-2003	0.6	0.3	0.3	0.0	0.3
30-10-2003	17.6	0.1	0.1	0.0	17.5
31-10-2003	0.0	0.3	0.3	0.0	0.0
01-11-2003	0.0	0.9	0.9	-0.3	0.0
02-11-2003	8.8	1.4	1.4	-1.2	6.2
03-11-2003	0.2	1.2	1.2	0.0	0.0
04-11-2003	0.0	0.8	0.8	-1.0	0.0
05-11-2003	1.3	1.6	1.6	-1.8	0.0
06-11-2003	0.0	0.5	0.5	-2.1	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
07-11-2003	0.0	1.2	1.2	-2.6	0.0
08-11-2003	0.0	0.9	0.9	-3.8	0.0
09-11-2003	0.0	1.1	1.1	-4.8	0.0
10-11-2003	0.5	0.6	0.6	-5.9	0.0
11-11-2003	4.5	0.1	0.1	-6.0	0.0
12-11-2003	0.5	0.7	0.7	-1.6	0.0
13-11-2003	10.0	0.4	0.4	-1.8	7.8
14-11-2003	0.5	0.7	0.7	0.0	0.0
15-11-2003	0.0	0.3	0.3	-0.2	0.0
16-11-2003	0.6	0.4	0.4	-0.4	0.0
17-11-2003	0.8	0.0	0.0	-0.2	0.6
18-11-2003	1.5	0.6	0.6	0.0	0.9
19-11-2003	15.7	0.2	0.2	0.0	15.5
20-11-2003	0.2	0.2	0.2	0.0	0.0
21-11-2003	0.0	0.4	0.4	0.0	0.0
22-11-2003	0.0	0.3	0.3	-0.4	0.0
23-11-2003	0.1	0.2	0.2	-0.7	0.0
24-11-2003	2.5	0.3	0.3	-0.8	1.4
25-11-2003	4.0	0.5	0.5	0.0	3.5
26-11-2003	0.0	0.4	0.4	0.0	0.0
27-11-2003	0.0	0.5	0.5	-0.4	0.0
28-11-2003	12.4	0.2	0.2	-0.8	11.3
29-11-2003	1.8	0.4	0.4	0.0	1.4
30-11-2003	0.0	0.0	0.0	0.0	0.0
01-12-2003	11.5	0.0	0.0	0.0	11.5
02-12-2003	0.7	0.0	0.0	0.0	0.7
03-12-2003	0.0	0.0	0.0	0.0	0.0
04-12-2003	0.0	0.0	0.0	0.0	0.0
05-12-2003	0.2	0.0	0.0	0.0	0.2
06-12-2003	0.0	0.2	0.2	0.0	0.0
07-12-2003	0.0	0.3	0.3	-0.2	0.0
08-12-2003	1.6	0.3	0.3	-0.5	0.8
09-12-2003	0.0	0.2	0.2	0.0	0.0
10-12-2003	0.0	0.7	0.7	-0.2	0.0
11-12-2003	12.0	0.0	0.0	-0.9	11.1
12-12-2003	4.2	0.0	0.0	0.0	4.2
13-12-2003	2.6	0.3	0.3	0.0	2.3
14-12-2003	0.0	0.5	0.5	0.0	0.0
15-12-2003	0.0	0.0	0.0	-0.5	0.0
16-12-2003	0.0	0.1	0.1	-0.5	0.0
17-12-2003	0.0	0.0	0.0	-0.5	0.0
18-12-2003	0.4	0.0	0.0	-0.5	0.0
19-12-2003	7.0	0.0	0.0	-0.1	6.9
20-12-2003	0.8	0.1	0.1	0.0	0.7
21-12-2003	0.0	0.0	0.0	0.0	0.0
22-12-2003	1.7	0.3	0.3	0.0	1.4
23-12-2003	0.0	0.0	0.0	0.0	0.0
24-12-2003	0.5	0.3	0.3	0.0	0.2
25-12-2003	16.2	0.3	0.3	0.0	15.9
26-12-2003	2.2	0.1	0.1	0.0	2.1
27-12-2003	0.0	0.1	0.1	0.0	0.0
28-12-2003	0.0	0.2	0.2	-0.1	0.0
29-12-2003	6.4	0.0	0.0	-0.2	6.2
30-12-2003	0.2	0.0	0.0	0.0	0.2
31-12-2003	13.6	0.1	0.1	0.0	13.5
01-01-2004	0.0	0.4	0.4	0.0	0.0
02-01-2004	8.6	0.0	0.0	-0.4	8.2
03-01-2004	0.2	0.0	0.0	0.0	0.2
04-01-2004	0.8	0.0	0.0	0.0	0.8
05-01-2004	3.7	0.2	0.2	0.0	3.5
06-01-2004	0.5	0.7	0.7	0.0	0.0
07-01-2004	15.7	0.8	0.8	-0.2	14.7
08-01-2004	2.3	0.4	0.4	0.0	1.9
09-01-2004	1.1	0.6	0.6	0.0	0.5
10-01-2004	14.7	0.8	0.8	0.0	13.9
11-01-2004	0.2	1.2	1.2	0.0	0.0
12-01-2004	4.1	0.8	0.8	-1.0	2.3
13-01-2004	0.4	0.6	0.6	0.0	0.0
14-01-2004	3.1	0.2	0.2	-0.2	2.7
15-01-2004	19.7	0.5	0.5	0.0	19.2
16-01-2004	0.2	0.3	0.3	0.0	0.0
17-01-2004	0.0	0.0	0.0	-0.1	0.0
18-01-2004	0.0	0.1	0.1	-0.1	0.0
19-01-2004	0.1	0.2	0.2	-0.2	0.0
20-01-2004	0.0	0.1	0.1	-0.3	0.0
21-01-2004	1.2	0.4	0.4	-0.4	0.3
22-01-2004	0.6	0.0	0.0	0.0	0.6
23-01-2004	5.5	0.0	0.0	0.0	5.5
24-01-2004	0.0	0.7	0.7	0.0	0.0
25-01-2004	0.2	0.2	0.2	-0.7	0.0
26-01-2004	7.5	0.0	0.0	-0.7	6.8

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
27-01-2004	0.6	0.0	0.0	0.0	0.6
28-01-2004	0.0	0.3	0.3	0.0	0.0
29-01-2004	0.7	0.6	0.6	-0.3	0.0
30-01-2004	13.9	0.5	0.5	-0.2	13.2
31-01-2004	3.6	0.4	0.4	0.0	3.2
01-02-2004	3.9	0.7	0.7	0.0	3.2
02-02-2004	8.9	0.4	0.4	0.0	8.5
03-02-2004	6.0	0.5	0.5	0.0	5.5
04-02-2004	3.8	0.5	0.5	0.0	3.3
05-02-2004	0.0	1.6	1.6	0.0	0.0
06-02-2004	0.0	0.9	0.9	-1.6	0.0
07-02-2004	0.0	1.2	1.2	-2.4	0.0
08-02-2004	0.0	0.6	0.6	-3.7	0.0
09-02-2004	0.0	0.4	0.4	-4.3	0.0
10-02-2004	0.0	0.7	0.7	-4.7	0.0
11-02-2004	0.0	0.4	0.4	-5.4	0.0
12-02-2004	1.3	0.5	0.5	-5.8	0.0
13-02-2004	0.0	0.2	0.2	-5.0	0.0
14-02-2004	0.2	0.3	0.3	-5.3	0.0
15-02-2004	0.6	0.4	0.4	-5.4	0.0
16-02-2004	0.5	0.3	0.3	-5.2	0.0
17-02-2004	0.0	0.4	0.4	-4.9	0.0
18-02-2004	0.0	0.6	0.6	-5.3	0.0
19-02-2004	0.0	0.3	0.3	-5.9	0.0
20-02-2004	0.0	1.5	1.5	-6.3	0.0
21-02-2004	0.0	1.1	1.1	-7.8	0.0
22-02-2004	0.0	1.1	1.1	-8.9	0.0
23-02-2004	1.9	0.7	0.7	-10.0	0.0
24-02-2004	0.8	0.3	0.3	-8.8	0.0
25-02-2004	0.0	0.6	0.6	-8.2	0.0
26-02-2004	0.0	0.7	0.7	-8.8	0.0
27-02-2004	0.0	1.0	1.0	-9.5	0.0
28-02-2004	0.0	1.1	1.1	-10.4	0.0
29-02-2004	0.0	0.9	0.9	-11.5	0.0
01-03-2004	0.0	1.3	1.3	-12.4	0.0
02-03-2004	11.0	0.6	0.6	-13.7	0.0
03-03-2004	4.5	0.7	0.7	-3.3	0.5
04-03-2004	1.3	1.3	1.3	0.0	0.0
05-03-2004	0.0	0.7	0.7	0.0	0.0
06-03-2004	0.9	1.0	1.0	-0.7	0.0
07-03-2004	0.0	1.3	1.3	-0.8	0.0
08-03-2004	0.0	1.3	1.3	-2.1	0.0
09-03-2004	0.0	0.7	0.7	-3.4	0.0
10-03-2004	0.4	0.9	0.9	-4.1	0.0
11-03-2004	1.7	0.7	0.7	-4.6	0.0
12-03-2004	0.5	0.6	0.6	-3.6	0.0
13-03-2004	9.8	1.2	1.2	-3.7	4.9
14-03-2004	2.0	1.3	1.3	0.0	0.7
15-03-2004	1.5	1.4	1.4	0.0	0.1
16-03-2004	2.6	0.9	0.9	0.0	1.7
17-03-2004	0.3	2.2	2.2	0.0	0.0
18-03-2004	9.0	1.4	1.4	-1.9	5.7
19-03-2004	2.9	1.7	1.7	0.0	1.2
20-03-2004	5.6	1.2	1.2	0.0	4.4
21-03-2004	1.1	1.4	1.4	0.0	0.0
22-03-2004	1.3	1.5	1.5	-0.3	0.0
23-03-2004	0.5	1.5	1.5	-0.5	0.0
24-03-2004	1.0	1.3	1.3	-1.6	0.0
25-03-2004	0.0	1.8	1.8	-1.8	0.0
26-03-2004	0.5	0.5	0.5	-3.7	0.0
27-03-2004	0.0	0.5	0.5	-3.7	0.0
28-03-2004	0.0	1.0	1.0	-4.2	0.0
29-03-2004	0.0	0.6	0.6	-5.2	0.0
30-03-2004	0.0	1.1	1.1	-5.8	0.0
31-03-2004	0.0	1.9	1.9	-6.9	0.0
01-04-2004	2.5	1.1	1.1	-8.8	0.0
02-04-2004	11.1	1.7	1.7	-7.4	2.0
03-04-2004	1.8	1.7	1.7	0.0	0.1
04-04-2004	2.1	1.5	1.5	0.0	0.6
05-04-2004	1.6	1.6	1.6	0.0	0.0
06-04-2004	0.8	1.8	1.8	0.0	0.0
07-04-2004	0.0	2.0	2.0	-1.0	0.0
08-04-2004	4.5	0.8	0.8	-3.1	0.6
09-04-2004	1.7	0.7	0.7	0.0	1.0
10-04-2004	0.0	0.7	0.7	0.0	0.0
11-04-2004	0.0	0.6	0.6	-0.7	0.0
12-04-2004	0.0	1.1	1.1	-1.3	0.0
13-04-2004	0.2	0.6	0.6	-2.3	0.0
14-04-2004	11.5	1.9	1.9	-2.7	6.9
15-04-2004	2.7	1.5	1.5	0.0	1.2
16-04-2004	0.5	2.0	2.0	0.0	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
17-04-2004	7.8	0.9	0.9	-1.5	5.5
18-04-2004	1.1	1.9	1.9	0.0	0.0
19-04-2004	4.0	2.3	2.3	-0.8	1.0
20-04-2004	1.0	1.2	1.2	0.0	0.0
21-04-2004	2.2	2.9	2.9	-0.2	0.0
22-04-2004	0.0	2.6	2.6	-0.9	0.0
23-04-2004	0.0	2.1	2.1	-3.5	0.0
24-04-2004	0.0	3.0	3.0	-5.5	0.0
25-04-2004	0.0	3.2	3.2	-8.5	0.0
26-04-2004	0.0	1.7	1.7	-11.8	0.0
27-04-2004	2.7	2.6	2.6	-13.4	0.0
28-04-2004	0.0	2.4	2.4	-13.3	0.0
29-04-2004	0.2	2.3	2.3	-15.7	0.0
30-04-2004	0.0	1.1	1.1	-17.8	0.0
01-05-2004	0.0	2.9	2.9	-18.9	0.0
02-05-2004	0.0	1.7	1.7	-21.9	0.0
03-05-2004	12.1	2.4	2.4	-23.6	0.0
04-05-2004	14.5	2.0	2.0	-13.9	0.0
05-05-2004	2.4	1.6	1.6	-1.4	0.0
06-05-2004	0.5	2.0	2.0	-0.6	0.0
07-05-2004	0.0	2.2	2.2	-2.1	0.0
08-05-2004	0.0	1.9	1.9	-4.3	0.0
09-05-2004	0.1	0.9	0.9	-6.2	0.0
10-05-2004	0.0	1.3	1.3	-7.0	0.0
11-05-2004	0.0	1.0	1.0	-8.3	0.0
12-05-2004	0.0	0.8	0.8	-9.3	0.0
13-05-2004	0.0	1.0	1.0	-10.1	0.0
14-05-2004	0.0	1.4	1.4	-11.1	0.0
15-05-2004	0.0	2.8	2.8	-12.4	0.0
16-05-2004	0.0	4.0	4.0	-15.2	0.0
17-05-2004	0.0	3.5	3.5	-19.2	0.0
18-05-2004	0.0	4.2	4.2	-22.7	0.0
19-05-2004	0.0	2.1	2.1	-26.9	0.0
20-05-2004	0.0	2.2	2.2	-29.0	0.0
21-05-2004	0.0	2.7	2.6	-31.2	0.0
22-05-2004	0.0	3.5	3.0	-33.8	0.0
23-05-2004	0.0	3.7	2.8	-36.9	0.0
24-05-2004	0.0	1.9	1.3	-39.7	0.0
25-05-2004	0.0	3.4	2.1	-41.0	0.0
26-05-2004	0.0	3.6	2.0	-43.1	0.0
27-05-2004	2.0	3.1	1.5	-45.2	0.0
28-05-2004	0.0	2.9	1.5	-44.7	0.0
29-05-2004	0.0	3.9	1.8	-46.2	0.0
30-05-2004	2.0	2.4	1.0	-48.0	0.0
31-05-2004	2.8	2.0	0.9	-47.0	0.0
01-06-2004	0.0	4.4	2.2	-45.0	0.0
02-06-2004	0.2	1.7	0.7	-47.2	0.0
03-06-2004	2.1	1.7	0.7	-47.7	0.0
04-06-2004	0.1	2.0	0.9	-46.3	0.0
05-06-2004	0.0	2.6	1.1	-47.1	0.0
06-06-2004	0.0	2.8	1.1	-48.2	0.0
07-06-2004	0.0	3.4	1.2	-49.3	0.0
08-06-2004	0.0	2.3	0.7	-50.5	0.0
09-06-2004	0.1	4.6	1.3	-51.3	0.0
10-06-2004	7.4	4.2	1.1	-52.5	0.0
11-06-2004	2.2	2.9	1.3	-46.2	0.0
12-06-2004	0.0	1.9	0.9	-45.3	0.0
13-06-2004	0.0	3.1	1.4	-46.2	0.0
14-06-2004	0.0	6.2	2.5	-47.7	0.0
15-06-2004	0.0	2.1	0.7	-50.2	0.0
16-06-2004	0.0	5.8	1.8	-50.9	0.0
17-06-2004	0.0	2.5	0.6	-52.6	0.0
18-06-2004	4.3	1.8	0.4	-53.2	0.0
19-06-2004	0.1	2.6	0.9	-49.4	0.0
20-06-2004	5.8	1.9	0.6	-50.2	0.0
21-06-2004	0.2	2.4	1.2	-45.0	0.0
22-06-2004	11.2	2.0	0.9	-46.0	0.0
23-06-2004	4.7	1.3	1.0	-35.7	0.0
24-06-2004	1.1	2.9	2.7	-32.1	0.0
25-06-2004	1.3	4.4	3.9	-33.6	0.0
26-06-2004	0.3	4.9	3.9	-36.2	0.0
27-06-2004	0.4	3.8	2.6	-39.8	0.0
28-06-2004	6.7	2.8	1.7	-42.0	0.0
29-06-2004	0.5	2.2	1.7	-37.0	0.0
30-06-2004	1.5	2.8	2.1	-38.2	0.0
01-07-2004	6.0	3.3	2.3	-38.7	0.0
02-07-2004	2.4	2.3	1.9	-35.1	0.0
03-07-2004	3.0	2.7	2.3	-34.6	0.0
04-07-2004	1.3	1.7	1.5	-33.9	0.0
05-07-2004	5.5	3.4	2.9	-34.1	0.0
06-07-2004	0.8	2.1	2.0	-31.5	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
07-07-2004	0.5	2.8	2.6	-32.7	0.0
08-07-2004	0.0	2.9	2.4	-34.8	0.0
09-07-2004	0.2	3.7	2.8	-37.2	0.0
10-07-2004	3.1	1.6	1.1	-39.8	0.0
11-07-2004	3.4	2.5	1.8	-37.8	0.0
12-07-2004	0.0	2.5	2.0	-36.2	0.0
13-07-2004	1.5	2.4	1.7	-38.2	0.0
14-07-2004	1.8	1.7	1.2	-38.4	0.0
15-07-2004	6.2	1.1	0.8	-37.8	0.0
16-07-2004	2.5	2.0	1.9	-32.5	0.0
17-07-2004	0.0	2.6	2.5	-31.8	0.0
18-07-2004	0.0	2.9	2.5	-34.3	0.0
19-07-2004	0.1	2.2	1.7	-36.8	0.0
20-07-2004	1.4	2.0	1.5	-38.4	0.0
21-07-2004	0.2	3.6	2.5	-38.5	0.0
22-07-2004	0.0	4.2	2.7	-40.9	0.0
23-07-2004	0.0	3.5	1.9	-43.5	0.0
24-07-2004	0.1	2.0	1.0	-45.4	0.0
25-07-2004	1.7	1.3	0.6	-46.3	0.0
26-07-2004	0.3	1.0	0.5	-45.2	0.0
27-07-2004	0.0	1.5	0.8	-45.4	0.0
28-07-2004	0.0	2.4	1.1	-46.2	0.0
29-07-2004	2.5	1.8	0.8	-47.3	0.0
30-07-2004	0.0	3.2	1.5	-45.5	0.0
31-07-2004	0.0	3.6	1.5	-47.1	0.0
01-08-2004	0.0	3.2	1.2	-48.6	0.0
02-08-2004	0.0	2.7	0.9	-49.8	0.0
03-08-2004	9.3	1.3	0.4	-50.7	0.0
04-08-2004	0.0	1.2	0.7	-41.8	0.0
05-08-2004	4.8	2.4	1.4	-42.6	0.0
06-08-2004	0.0	2.3	1.6	-39.2	0.0
07-08-2004	0.5	3.0	1.9	-40.8	0.0
08-08-2004	0.0	2.2	1.3	-42.2	0.0
09-08-2004	0.0	2.7	1.5	-43.5	0.0
10-08-2004	0.0	2.8	1.4	-45.0	0.0
11-08-2004	1.3	2.6	1.2	-46.4	0.0
12-08-2004	1.2	3.4	1.6	-46.3	0.0
13-08-2004	2.2	2.2	1.0	-46.6	0.0
14-08-2004	0.0	2.7	1.3	-45.4	0.0
15-08-2004	16.0	3.0	1.3	-46.7	0.0
16-08-2004	1.2	1.8	1.6	-32.1	0.0
17-08-2004	21.5	2.2	2.0	-32.5	0.0
18-08-2004	13.8	1.3	1.3	-13.0	0.0
19-08-2004	11.6	1.4	1.4	-0.5	9.6
20-08-2004	0.0	2.4	2.4	0.0	0.0
21-08-2004	4.6	1.9	1.9	-2.4	0.3
22-08-2004	13.3	1.0	1.0	0.0	12.3
23-08-2004	7.6	2.5	2.5	0.0	5.1
24-08-2004	1.5	1.1	1.1	0.0	0.4
25-08-2004	0.7	1.5	1.5	0.0	0.0
26-08-2004	1.5	1.7	1.7	-0.8	0.0
27-08-2004	0.0	2.6	2.6	-1.0	0.0
28-08-2004	1.0	1.7	1.7	-3.6	0.0
29-08-2004	0.0	2.7	2.7	-4.3	0.0
30-08-2004	0.0	2.1	2.1	-7.0	0.0
31-08-2004	0.0	2.9	2.9	-9.1	0.0
01-09-2004	0.4	1.3	1.3	-11.9	0.0
02-09-2004	0.0	0.9	0.9	-12.9	0.0
03-09-2004	0.0	2.3	2.3	-13.8	0.0
04-09-2004	0.0	2.9	2.9	-16.1	0.0
05-09-2004	0.0	1.7	1.7	-19.0	0.0
06-09-2004	0.0	0.9	0.9	-20.8	0.0
07-09-2004	0.0	2.0	2.0	-21.6	0.0
08-09-2004	0.0	3.2	3.2	-23.7	0.0
09-09-2004	0.0	3.1	3.1	-26.9	0.0
10-09-2004	0.4	0.7	0.7	-30.0	0.0
11-09-2004	1.0	1.7	1.7	-30.3	0.0
12-09-2004	7.5	1.2	1.2	-31.0	0.0
13-09-2004	2.0	2.5	2.5	-24.7	0.0
14-09-2004	0.0	1.8	1.8	-25.2	0.0
15-09-2004	0.8	2.0	2.0	-27.0	0.0
16-09-2004	7.8	1.1	1.1	-28.2	0.0
17-09-2004	6.3	1.8	1.8	-21.5	0.0
18-09-2004	0.1	1.9	1.9	-17.0	0.0
19-09-2004	6.1	1.4	1.4	-18.8	0.0
20-09-2004	0.0	1.7	1.7	-14.1	0.0
21-09-2004	2.1	2.0	2.0	-15.8	0.0
22-09-2004	1.6	0.7	0.7	-15.7	0.0
23-09-2004	0.0	0.9	0.9	-14.8	0.0
24-09-2004	0.8	0.9	0.9	-15.7	0.0
25-09-2004	0.3	0.8	0.8	-15.9	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
26-09-2004	0.5	1.1	1.1	-16.4	0.0
27-09-2004	0.5	0.9	0.9	-17.0	0.0
28-09-2004	2.5	0.5	0.5	-17.5	0.0
29-09-2004	15.4	0.7	0.7	-15.5	0.0
30-09-2004	0.0	0.8	0.8	-0.8	0.0
01-10-2004	0.0	1.4	1.4	-1.6	0.0
02-10-2004	0.8	2.0	2.0	-3.0	0.0
03-10-2004	1.0	1.1	1.1	-4.2	0.0
04-10-2004	0.0	1.7	1.7	-4.3	0.0
05-10-2004	0.0	1.9	1.9	-6.0	0.0
06-10-2004	0.0	1.4	1.4	-7.9	0.0
07-10-2004	1.0	1.2	1.2	-9.4	0.0
08-10-2004	0.9	0.2	0.2	-9.6	0.0
09-10-2004	0.5	0.6	0.6	-8.8	0.0
10-10-2004	0.6	0.7	0.7	-8.9	0.0
11-10-2004	0.4	0.2	0.2	-9.1	0.0
12-10-2004	0.2	0.5	0.5	-8.8	0.0
13-10-2004	0.0	0.6	0.6	-9.1	0.0
14-10-2004	0.2	0.1	0.1	-9.7	0.0
15-10-2004	0.8	1.1	1.1	-9.6	0.0
16-10-2004	0.4	0.2	0.2	-9.9	0.0
17-10-2004	6.0	0.5	0.5	-9.7	0.0
18-10-2004	10.8	0.9	0.9	-4.3	5.6
19-10-2004	6.0	0.6	0.6	0.0	5.4
20-10-2004	8.6	0.0	0.0	0.0	8.6
21-10-2004	1.0	1.3	1.3	0.0	0.0
22-10-2004	0.0	0.3	0.3	-0.3	0.0
23-10-2004	0.0	0.0	0.0	-0.6	0.0
24-10-2004	0.0	1.2	1.2	-0.6	0.0
25-10-2004	1.2	0.7	0.7	-1.8	0.0
26-10-2004	0.0	0.5	0.5	-1.3	0.0
27-10-2004	1.8	0.7	0.7	-1.8	0.0
28-10-2004	0.0	0.5	0.5	-0.7	0.0
29-10-2004	0.0	0.0	0.0	-1.3	0.0
30-10-2004	0.0	0.0	0.0	-1.3	0.0
31-10-2004	0.0	0.0	0.0	-1.3	0.0
01-11-2004	0.0	0.0	0.0	-1.3	0.0
02-11-2004	0.8	0.2	0.2	-1.3	0.0
03-11-2004	1.0	0.4	0.4	-0.7	0.0
04-11-2004	0.0	0.8	0.8	-0.2	0.0
05-11-2004	0.0	0.3	0.3	-0.9	0.0
06-11-2004	0.0	0.3	0.3	-1.3	0.0
07-11-2004	1.0	0.0	0.0	-1.5	0.0
08-11-2004	0.9	0.0	0.0	-0.5	0.3
09-11-2004	0.5	0.4	0.4	0.0	0.1
10-11-2004	0.6	0.6	0.6	0.0	0.0
11-11-2004	0.4	0.0	0.0	0.0	0.4
12-11-2004	0.2	0.1	0.1	0.0	0.1
13-11-2004	0.0	0.3	0.3	0.0	0.0
14-11-2004	0.2	0.3	0.3	-0.3	0.0
15-11-2004	0.8	0.2	0.2	-0.5	0.1
16-11-2004	0.4	0.1	0.1	0.0	0.3
17-11-2004	6.0	0.0	0.0	0.0	6.0
18-11-2004	10.8	0.0	0.0	0.0	10.8
19-11-2004	6.0	0.0	0.0	0.0	6.0
20-11-2004	8.6	0.0	0.0	0.0	8.6
21-11-2004	1.0	0.0	0.0	0.0	1.0
22-11-2004	0.0	0.4	0.4	0.0	0.0
23-11-2004	0.0	0.0	0.0	-0.4	0.0
24-11-2004	0.0	0.2	0.2	-0.4	0.0
25-11-2004	1.2	0.3	0.3	-0.6	0.3
26-11-2004	0.0	0.0	0.0	0.0	0.0
27-11-2004	1.8	0.3	0.3	0.0	1.5
28-11-2004	0.0	0.0	0.0	0.0	0.0
29-11-2004	0.0	0.1	0.1	0.0	0.0
30-11-2004	0.0	0.4	0.4	-0.1	0.0
01-12-2004	4.0	0.0	0.0	-0.4	3.6
02-12-2004	0.7	0.0	0.0	0.0	0.7
03-12-2004	0.2	0.0	0.0	0.0	0.2
04-12-2004	0.3	0.3	0.3	0.0	0.0
05-12-2004	0.1	0.0	0.0	0.0	0.1
06-12-2004	0.7	0.4	0.4	0.0	0.3
07-12-2004	0.6	0.0	0.0	0.0	0.6
08-12-2004	0.0	0.4	0.4	0.0	0.0
09-12-2004	0.0	0.3	0.3	-0.4	0.0
10-12-2004	0.8	0.0	0.0	-0.7	0.1
11-12-2004	0.0	0.0	0.0	0.0	0.0
12-12-2004	0.0	0.0	0.0	0.0	0.0
13-12-2004	1.7	0.2	0.2	0.0	1.5
14-12-2004	4.7	0.7	0.7	0.0	4.0
15-12-2004	0.7	0.4	0.4	0.0	0.3

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
16-12-2004	10.6	0.7	0.7	0.0	9.9
17-12-2004	1.7	0.1	0.1	0.0	1.6
18-12-2004	1.5	0.2	0.2	0.0	1.3
19-12-2004	0.0	0.6	0.6	0.0	0.0
20-12-2004	0.0	0.5	0.5	-0.6	0.0
21-12-2004	9.1	0.0	0.0	-1.1	8.0
22-12-2004	2.0	0.0	0.0	0.0	2.0
23-12-2004	0.8	0.5	0.5	0.0	0.3
24-12-2004	3.4	0.2	0.2	0.0	3.2
25-12-2004	2.1	0.1	0.1	0.0	2.0
26-12-2004	0.2	0.3	0.3	0.0	0.0
27-12-2004	4.1	0.2	0.2	-0.1	3.8
28-12-2004	0.1	0.5	0.5	0.0	0.0
29-12-2004	0.2	0.2	0.2	-0.4	0.0
30-12-2004	2.5	0.6	0.6	-0.3	1.5
31-12-2004	0.5	0.3	0.3	0.0	0.2
01-01-2005	3.3	0.8	0.8	0.0	2.5
02-01-2005	0.2	0.8	0.8	0.0	0.0
03-01-2005	3.4	0.7	0.7	-0.6	2.1
04-01-2005	0.1	1.0	1.0	0.0	0.0
05-01-2005	1.9	0.8	0.8	-0.9	0.2
06-01-2005	0.7	0.9	0.9	0.0	0.0
07-01-2005	31.3	0.5	0.5	-0.2	30.6
08-01-2005	0.3	1.6	1.6	0.0	0.0
09-01-2005	0.0	0.9	0.9	-1.3	0.0
10-01-2005	0.1	1.3	1.3	-2.3	0.0
11-01-2005	1.1	1.3	1.3	-3.5	0.0
12-01-2005	0.0	1.0	1.0	-3.6	0.0
13-01-2005	0.0	0.4	0.4	-4.6	0.0
14-01-2005	2.1	0.5	0.5	-5.1	0.0
15-01-2005	1.8	0.4	0.4	-3.5	0.0
16-01-2005	1.3	0.9	0.9	-2.2	0.0
17-01-2005	4.8	0.4	0.4	-1.7	2.7
18-01-2005	4.3	0.6	0.6	0.0	3.7
19-01-2005	4.8	0.3	0.3	0.0	4.5
20-01-2005	1.8	0.2	0.2	0.0	1.6
21-01-2005	6.7	0.0	0.0	0.0	6.7
22-01-2005	0.0	0.1	0.1	0.0	0.0
23-01-2005	0.0	0.2	0.2	-0.1	0.0
24-01-2005	2.4	0.0	0.0	-0.3	2.1
25-01-2005	2.3	0.0	0.0	0.0	2.3
26-01-2005	0.0	0.0	0.0	0.0	0.0
27-01-2005	1.0	0.0	0.0	0.0	1.0
28-01-2005	0.0	0.2	0.2	0.0	0.0
29-01-2005	0.5	0.0	0.0	-0.2	0.3
30-01-2005	0.1	0.2	0.2	0.0	0.0
31-01-2005	0.0	0.3	0.3	-0.1	0.0
01-02-2005	0.0	0.2	0.2	-0.4	0.0
02-02-2005	0.0	0.0	0.0	-0.6	0.0
03-02-2005	0.0	0.2	0.2	-0.6	0.0
04-02-2005	2.6	0.9	0.9	-0.8	0.8
05-02-2005	0.5	0.3	0.3	0.0	0.2
06-02-2005	7.0	0.0	0.0	0.0	7.0
07-02-2005	0.2	0.6	0.6	0.0	0.0
08-02-2005	2.7	0.8	0.8	-0.4	1.5
09-02-2005	5.2	0.6	0.6	0.0	4.6
10-02-2005	0.2	0.4	0.4	0.0	0.0
11-02-2005	7.8	0.3	0.3	-0.2	7.3
12-02-2005	4.0	1.2	1.2	0.0	2.8
13-02-2005	0.3	1.0	1.0	0.0	0.0
14-02-2005	0.0	0.5	0.5	-0.7	0.0
15-02-2005	0.0	0.0	0.0	-1.2	0.0
16-02-2005	1.4	0.1	0.1	-1.2	0.1
17-02-2005	0.1	0.0	0.0	0.0	0.1
18-02-2005	0.4	0.9	0.9	0.0	0.0
19-02-2005	0.0	0.6	0.6	-0.5	0.0
20-02-2005	1.2	1.1	1.1	-1.1	0.0
21-02-2005	10.7	0.2	0.2	-0.9	9.5
22-02-2005	7.0	0.7	0.7	0.0	6.3
23-02-2005	5.8	0.4	0.4	0.0	5.4
24-02-2005	7.0	0.4	0.4	0.0	6.6
25-02-2005	3.8	0.9	0.9	0.0	2.9
26-02-2005	0.5	0.5	0.5	0.0	0.0
27-02-2005	0.1	0.3	0.3	0.0	0.0
28-02-2005	1.2	0.6	0.6	-0.3	0.3
01-03-2005	0.3	0.8	0.8	0.0	0.0
02-03-2005	0.4	1.0	1.0	-0.5	0.0
03-03-2005	2.6	0.6	0.6	-1.1	0.9
04-03-2005	0.0	1.2	1.2	0.0	0.0
05-03-2005	0.0	1.3	1.3	-1.2	0.0
06-03-2005	0.0	0.9	0.9	-2.5	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
07-03-2005	0.0	0.4	0.4	-3.5	0.0
08-03-2005	0.0	0.4	0.4	-3.9	0.0
09-03-2005	0.2	0.3	0.3	-4.3	0.0
10-03-2005	0.0	1.0	1.0	-4.4	0.0
11-03-2005	0.1	1.4	1.4	-5.4	0.0
12-03-2005	0.0	1.3	1.3	-6.7	0.0
13-03-2005	0.0	0.5	0.5	-8.1	0.0
14-03-2005	5.5	0.8	0.8	-8.6	0.0
15-03-2005	0.1	1.4	1.4	-3.8	0.0
16-03-2005	0.0	2.7	2.7	-5.1	0.0
17-03-2005	0.0	1.9	1.9	-7.8	0.0
18-03-2005	0.0	1.0	1.0	-9.6	0.0
19-03-2005	0.0	1.3	1.3	-10.6	0.0
20-03-2005	7.4	1.4	1.4	-12.0	0.0
21-03-2005	9.0	0.7	0.7	-6.0	2.3
22-03-2005	0.1	1.9	1.9	0.0	0.0
23-03-2005	1.5	2.0	2.0	-1.8	0.0
24-03-2005	0.5	1.8	1.8	-2.3	0.0
25-03-2005	0.1	0.9	0.9	-3.6	0.0
26-03-2005	0.0	0.6	0.6	-4.4	0.0
27-03-2005	0.1	0.6	0.6	-5.0	0.0
28-03-2005	4.0	0.9	0.9	-5.5	0.0
29-03-2005	3.6	0.6	0.6	-2.4	0.6
30-03-2005	1.3	0.6	0.6	0.0	0.7
31-03-2005	7.7	0.8	0.8	0.0	6.9
01-04-2005	7.7	1.4	1.4	0.0	6.3
02-04-2005	0.0	2.3	2.3	0.0	0.0
03-04-2005	0.1	1.5	1.5	-2.3	0.0
04-04-2005	0.6	2.1	2.1	-3.7	0.0
05-04-2005	13.5	1.7	1.7	-5.2	6.6
06-04-2005	5.0	1.5	1.5	0.0	3.5
07-04-2005	1.0	1.6	1.6	0.0	0.0
08-04-2005	0.0	2.1	2.1	-0.6	0.0
09-04-2005	0.5	1.3	1.3	-2.6	0.0
10-04-2005	0.1	1.9	1.9	-3.5	0.0
11-04-2005	0.1	1.8	1.8	-5.3	0.0
12-04-2005	0.2	1.7	1.7	-7.0	0.0
13-04-2005	1.8	2.2	2.2	-8.5	0.0
14-04-2005	4.4	0.6	0.6	-8.8	0.0
15-04-2005	0.7	1.7	1.7	-5.0	0.0
16-04-2005	1.4	1.1	1.1	-6.0	0.0
17-04-2005	8.6	1.1	1.1	-5.7	1.8
18-04-2005	1.5	1.1	1.1	0.0	0.4
19-04-2005	0.2	1.6	1.6	0.0	0.0
20-04-2005	0.0	0.6	0.6	-1.4	0.0
21-04-2005	0.0	2.8	2.8	-1.9	0.0
22-04-2005	5.4	2.7	2.7	-4.7	0.0
23-04-2005	0.9	0.8	0.8	-2.0	0.0
24-04-2005	0.0	2.2	2.2	-1.9	0.0
25-04-2005	0.0	1.7	1.7	-4.2	0.0
26-04-2005	13.7	2.7	2.7	-5.8	5.2
27-04-2005	6.8	2.8	2.8	0.0	4.0
28-04-2005	0.2	3.2	3.2	0.0	0.0
29-04-2005	1.5	3.1	3.1	-3.0	0.0
30-04-2005	1.0	1.3	1.3	-4.6	0.0
01-05-2005	0.7	2.7	2.7	-4.9	0.0
02-05-2005	22.0	2.3	2.3	-6.9	12.8
03-05-2005	5.1	1.3	1.3	0.0	3.8
04-05-2005	0.0	2.9	2.9	0.0	0.0
05-05-2005	0.8	2.1	2.1	-2.9	0.0
06-05-2005	0.2	1.9	1.9	-4.2	0.0
07-05-2005	0.4	3.0	3.0	-5.9	0.0
08-05-2005	1.5	2.8	2.8	-8.5	0.0
09-05-2005	0.5	2.5	2.5	-9.8	0.0
10-05-2005	0.0	2.7	2.7	-11.8	0.0
11-05-2005	0.0	1.9	1.9	-14.5	0.0
12-05-2005	0.0	3.1	3.1	-16.4	0.0
13-05-2005	0.0	3.3	3.3	-19.6	0.0
14-05-2005	0.0	3.2	3.2	-22.9	0.0
15-05-2005	0.0	3.3	3.3	-26.0	0.0
16-05-2005	0.3	1.3	1.3	-29.3	0.0
17-05-2005	0.0	2.9	2.9	-30.3	0.0
18-05-2005	3.5	1.6	1.4	-33.2	0.0
19-05-2005	1.0	3.1	3.0	-31.1	0.0
20-05-2005	5.5	2.3	2.0	-33.1	0.0
21-05-2005	10.5	3.0	3.0	-29.6	0.0
22-05-2005	5.0	2.3	2.3	-22.2	0.0
23-05-2005	7.4	3.0	3.0	-19.5	0.0
24-05-2005	6.2	2.2	2.2	-15.1	0.0
25-05-2005	4.5	2.0	2.0	-11.1	0.0
26-05-2005	1.3	3.6	3.6	-8.6	0.0

DATE	RF	PE	AE	SMD	Eff RF
	mm	mm	mm	mm	mm
27-05-2005	0.2	1.5	1.5	-11.0	0.0
28-05-2005	0.0	2.8	2.8	-12.3	0.0
29-05-2005	0.0	3.2	3.2	-15.1	0.0
30-05-2005	2.1	1.3	1.3	-18.3	0.0
31-05-2005	0.2	1.5	1.5	-17.5	0.0
01-06-2005	2.0	2.0	2.0	-18.8	0.0
02-06-2005	0.7	2.1	2.1	-18.8	0.0
03-06-2005	2.5	3.0	3.0	-20.2	0.0
04-06-2005	1.5	2.7	2.7	-20.7	0.0
05-06-2005	0.0	1.8	1.8	-21.9	0.0
06-06-2005	0.0	3.6	3.6	-23.7	0.0
07-06-2005	0.0	2.3	2.3	-27.3	0.0
08-06-2005	0.0	2.4	2.4	-29.6	0.0
09-06-2005	0.0	1.7	1.6	-32.0	0.0
10-06-2005	0.0	3.8	3.3	-33.6	0.0
11-06-2005	0.0	4.1	3.1	-36.9	0.0
12-06-2005	0.0	2.3	1.5	-40.0	0.0
13-06-2005	0.0	3.0	1.9	-41.5	0.0
14-06-2005	2.2	2.3	1.3	-43.4	0.0
15-06-2005	2.2	3.6	2.1	-42.5	0.0
16-06-2005	2.0	4.4	2.6	-42.4	0.0
17-06-2005	0.0	3.2	1.8	-42.9	0.0
18-06-2005	0.0	2.5	1.3	-44.8	0.0
19-06-2005	0.0	3.9	1.8	-46.0	0.0
20-06-2005	0.0	3.5	1.4	-47.9	0.0
21-06-2005	0.0	2.6	0.9	-49.3	0.0
22-06-2005	0.0	6.0	1.9	-50.2	0.0
23-06-2005	2.8	2.8	0.7	-52.2	0.0
24-06-2005	0.6	1.3	0.4	-50.1	0.0
25-06-2005	0.0	1.4	0.5	-49.9	0.0
26-06-2005	0.0	3.5	1.1	-50.4	0.0
27-06-2005	0.0	4.7	1.3	-51.5	0.0
28-06-2005	3.3	2.5	0.6	-52.8	0.0
29-06-2005	3.4	2.5	0.8	-50.1	0.0
30-06-2005	2.2	2.6	1.1	-47.6	0.0
01-07-2005	2.8	1.6	0.7	-46.5	0.0
02-07-2005	0.2	3.3	1.7	-44.4	0.0
03-07-2005	8.2	2.9	1.4	-45.9	0.0
04-07-2005	1.5	3.8	2.6	-39.1	0.0
05-07-2005	6.0	2.6	1.7	-40.2	0.0
06-07-2005	1.5	1.8	1.5	-35.9	0.0
07-07-2005	0.8	1.4	1.2	-35.9	0.0
08-07-2005	1.5	1.5	1.2	-36.2	0.0
09-07-2005	0.3	1.3	1.1	-36.0	0.0
10-07-2005	0.0	4.6	3.6	-36.7	0.0
11-07-2005	0.0	5.5	3.6	-40.3	0.0
12-07-2005	0.0	5.3	2.8	-43.9	0.0
13-07-2005	0.0	3.9	1.7	-46.8	0.0
14-07-2005	0.0	2.5	0.9	-48.5	0.0
15-07-2005	0.0	3.6	1.3	-49.4	0.0
16-07-2005	0.0	3.7	1.1	-50.7	0.0
17-07-2005	0.0	3.4	0.9	-51.8	0.0
18-07-2005	1.7	3.3	0.8	-52.8	0.0
19-07-2005	0.1	3.1	0.8	-51.8	0.0
20-07-2005	0.0	3.6	0.9	-52.6	0.0
21-07-2005	0.0	3.5	0.8	-53.5	0.0
22-07-2005	0.0	1.6	0.3	-54.2	0.0
23-07-2005	0.0	1.5	0.3	-54.6	0.0
24-07-2005	0.0	1.4	0.2	-54.8	0.0
25-07-2005	0.0	2.5	0.4	-55.1	0.0
26-07-2005	0.1	3.1	0.5	-55.5	0.0
27-07-2005	0.6	4.1	0.6	-55.8	0.0
28-07-2005	16.7	1.1	0.1	-55.8	0.0
29-07-2005	11.8	0.8	0.6	-39.3	0.0
30-07-2005	9.2	1.1	1.1	-28.0	0.0
31-07-2005	2.8	1.2	1.2	-19.9	0.0
01-08-2005	0.0	2.3	2.3	-18.4	0.0
02-08-2005	0.0	2.4	2.4	-20.7	0.0
03-08-2005	0.0	4.6	4.6	-23.1	0.0
04-08-2005	7.5	1.8	1.8	-27.7	0.0
05-08-2005	0.4	3.7	3.7	-22.0	0.0
06-08-2005	0.2	1.3	1.3	-25.3	0.0
07-08-2005	0.0	3.4	3.4	-26.4	0.0
08-08-2005	0.0	3.3	3.3	-29.8	0.0
09-08-2005	0.0	1.5	1.3	-33.1	0.0
10-08-2005	0.0	2.7	2.3	-34.4	0.0
11-08-2005	0.0	1.7	1.4	-36.7	0.0
12-08-2005	3.1	1.4	1.0	-38.0	0.0
13-08-2005	4.9	2.3	1.8	-36.0	0.0
14-08-2005	0.0	1.6	1.4	-32.9	0.0
15-08-2005	0.0	1.3	1.1	-34.4	0.0
16-08-2005	0.0	2.7	2.2	-35.5	0.0
17-08-2005	3.5	1.8	1.4	-37.7	0.0
18-08-2005	3.8	1.4	1.1	-35.5	0.0
19-08-2005	0.0	2.5	2.3	-32.8	0.0
20-08-2005	0.0	3.4	2.8	-35.1	0.0
21-08-2005	4.0	1.7	1.2	-37.9	0.0
22-08-2005	0.0	3.6	3.0	-35.1	0.0
23-08-2005	7.2	1.5	1.1	-38.1	0.0
24-08-2005	0.7	2.6	2.4	-32.0	0.0
25-08-2005	5.3	2.7	2.4	-33.8	0.0
26-08-2005	0.5	1.8	1.8	-30.8	0.0
27-08-2005	0.0	1.7	1.5	-32.1	0.0
28-08-2005	1.1	2.7	2.4	-33.6	0.0
29-08-2005	0.0	3.1	2.6	-34.9	0.0
30-08-2005	0.2	2.3	1.7	-37.5	0.0
31-08-2005	0.5	1.6	1.1	-39.0	0.0
01-09-2005	0.0	2.4	1.7	-39.6	0.0
02-09-2005	0.0	3.2	2.0	-41.2	0.0
03-09-2005	0.0	3.6	2.0	-43.2	0.0
04-09-2005	0.0	1.6	0.8	-45.2	0.0
05-09-2005	0.0	2.7	1.3	-46.0	0.0
06-09-2005	0.0	3.1	1.3	-47.3	0.0
07-09-2005	1.0	2.3	0.9	-48.6	0.0
08-09-2005	4.8	1.3	0.5	-48.5	0.0
09-09-2005	9.0	0.6	0.3	-44.2	0.0
10-09-2005	0.0	0.7	0.5	-35.5	0.0
11-09-2005	0.0	1.7	1.3	-36.0	0.0
12-09-2005	0.0	2.6	2.0	-37.3	0.0
13-09-2005	0.0	3.0	2.1	-39.3	0.0
14-09-2005	6.0	1.6	1.0	-41.4	0.0
15-09-2005	3.5	0.3	0.2	-36.4	0.0
16-09-2005	0.0	1.1	1.0	-33.1	0.0
17-09-2005	0.0	1.4	1.2	-34.1	0.0
18-09-2005	0.0	2.4	2.0	-35.4	0.0
19-09-2005	3.8	0.9	0.7	-37.3	0.0
20-09-2005	0.0	1.3	1.1	-34.3	0.0
21-09-2005	0.0	2.0	1.7	-35.4	0.0
22-09-2005	2.5	2.4	1.9	-37.0	0.0
23-09-2005	0.7	1.7	1.3	-36.4	0.0
24-09-2005	6.2	1.2	0.9	-37.0	0.0
25-09-2005	1.0	1.8	1.7	-31.7	0.0
26-09-2005	8.2	1.7	1.5	-32.4	0.0
27-09-2005	0.4	2.2	2.2	-25.7	0.0
28-09-2005	15.0	1.4	1.4	-27.5	0.0
29-09-2005	2.1	1.4	1.4	-14.0	0.0
30-09-2005	0.3	1.3	1.3	-13.2	0.0

APPENDIX 32

Water Level data from Monitoring Boreholes MB6, MB29 and MB30

1998-2005 and *'indicative flow'* computations.

This appendix presents water level data from MB6, MB29 and MB30 which were used for *'indicative flow'* analysis in Chapter V, Volume I. Data were collected on approximately bi-weekly basis and cover a period from 01/10/1998 and 30/09/2005; however data for MB29 finish in 2004. Therefore, these were extrapolated using linear regression (analysis in Chapter V) based on MB6 records. Water level data were collected and supplied by WYG Ltd and Trinity College.

	MB29	MB30	MB6
	m OD	m OD	m OD
11/06/1998	92.04		89.41
17/07/1998	92.41		89.56
21/07/1998	92.3		89.44
27/07/1998	92.24		89.41
11/08/1998	92.13		89.36
20/08/1998	92.06		89.34
03/09/1998	91.93	92.12	
22/09/1998	91.75	91.95	89.23
12/10/1998	91.6	91.78	89.15
10/11/1998	91.69	91.88	89.12
26/11/1998	91.8	92.00	
15/12/1998	91.89	92.09	89.26
11/01/1999	92.54	92.73	
03/02/1999	92.84	93.05	89.70
18/02/1999	92.86	93.08	89.73
08/03/1999	92.93	93.14	89.71
24/03/1999	92.9	93.10	89.70
08/04/1999	92.78	92.99	89.64
21/04/1999	92.73	92.94	89.62
28/04/1999	92.61	92.83	89.59
20/05/1999	92.45	92.65	89.50
08/06/1999	92.27	92.48	89.43
23/06/1999	92.15	92.36	89.36
06/07/1999	92.02	92.22	89.31
23/07/1999	91.88	92.09	89.21
11/08/1999	91.68	91.89	89.16
27/08/1999	91.54	91.76	89.11
15/09/1999	91.39	91.63	89.06
29/09/1999	91.6	91.81	89.08
12/10/1999	91.55	91.76	89.10
04/11/1999	91.48	91.70	89.11
15/11/1999	91.48	91.69	89.09
03/12/1999	91.44	91.66	89.08
13/12/1999	91.47	91.67	89.10
18/01/2000	91.98	92.18	89.30
07/02/2000	92.05	92.25	89.33
21/02/2000	92.1	92.31	89.35
15/03/2000	92.11	92.33	89.31
31/03/2000	92.14	92.35	89.36
13/04/2000	92.1	92.31	89.31
27/04/2000	91.97	92.19	89.29
18/05/2000	92.29	92.50	89.29
06/06/2000	92.21	92.43	89.32
20/06/2000	92.17	92.38	89.37
06/07/2000	92.09	92.30	89.30
20/07/2000	92.09	92.12	89.33
04/08/2000	92.01	92.04	89.27
24/08/2000	91.84	91.86	89.21
09/09/2000	91.7	91.72	89.15
20/09/2000	91.6	91.64	
04/10/2000	91.52	91.55	89.07
20/10/2000	91.4	91.42	89.02

	MB29	MB30	MB6
	m OD	m OD	m OD
08/11/2000	91.66	91.69	89.04
21/11/2000	91.84	91.88	89.18
30/11/2000	91.91	91.94	89.22
20/12/2000	92.22	92.27	89.52
08/01/2001	92.76	92.82	89.64
19/01/2001	92.83	92.86	89.65
07/02/2001	92.88	92.92	89.67
15/02/2001			
23/02/2001	92.96	93.00	89.68
28/02/2001			
11/05/2001	92.59	92.60	89.49
15/05/2001			
30/05/2001			
31/05/2001	92.41	92.44	89.38
14/06/2001			
15/06/2001	92.29	92.33	89.35
02/07/2001			
04/07/2001		92.23	89.32
16/07/2001	92.01	92.05	89.27
17/07/2001			
31/07/2001			
01/08/2001	91.82	91.86	89.15
14/08/2001	91.65	91.77	89.14
30/08/2001	91.61	91.61	89.10
12/09/2001	91.46	91.50	
13/09/2001			
25/09/2001	91.34	91.37	88.99
26/09/2001			
08/10/2001	91.2	91.23	88.92
09/10/2001			
23/10/2001			
24/10/2001	91.13	91.15	88.92
07/11/2001	91.07	91.08	88.89
25/11/2001	91.03	91.06	
26/11/2001			
11/12/2001			
14/12/2001	91.08	90.99	89.01
03/01/2002	90.9	90.94	
04/01/2002			
16/01/2002	90.97	90.90	88.76
31/01/2002	90.98	90.91	88.77
14/02/2002	91.22		88.94
06/03/2002	91.58	91.60	89.09
25/03/2002	91.68	91.70	89.18
27/03/2002			
09/04/2002	91.66	91.68	89.15
10/04/2002			
23/04/2002	91.6	91.83	89.13
24/04/2002			
07/05/2002	91.65	91.63	89.10
25/05/2002	91.56	91.64	89.09
10/06/2002	91.52	91.57	89.07

	MB29	MB30	MB6
	m OD	m OD	m OD
24/06/2002	91.48	91.61	89.06
25/06/2002			
10/07/2002	91.43	91.05	89.08
12/07/2002			
25/07/2002	91.35	91.67	89.01
13/08/2002		91.25	88.94
24/08/2002	91	91.25	88.94
28/08/2002			
10/09/2002	91.07	91.05	88.88
11/09/2002			
25/09/2002	90.93	90.97	88.88
09/10/2002	90.86	90.86	88.78
24/10/2002	90.8	90.81	88.78
05/11/2002	90.94	90.97	88.82
19/11/2002	91.45	91.51	88.99
20/11/2002			
09/12/2002	91.86	91.92	89.20
06/01/2003	92.09	92.13	89.37
20/01/2003	92.31	92.24	89.41
03/02/2003			
07/02/2003			89.44
12/02/2003	92.26	92.31	89.43
05/03/2003	92.14	92.26	89.42
19/03/2003	92.14	92.16	89.38
02/04/2003	92.02	92.06	89.35
03/04/2003			
16/04/2003	91.84	91.91	89.30
24/04/2003	91.74	91.78	
29/04/2003	91.69	91.72	89.23
09/05/2003	91.56	91.60	
15/05/2003	91.51	91.53	89.18
22/05/2003	91.43	91.46	
27/05/2003	91.39	91.41	89.13
10/06/2003	91.27	91.31	89.06
19/06/2003	91.2	91.22	
23/06/2003	91.17	91.19	89.00
25/06/2003			
04/07/2003	91.11	91.13	
07/07/2003	91.09	91.12	88.96
18/07/2003	91.08	91.11	
23/07/2003	91.08	91.11	88.92
04/08/2003	91.04	91.05	88.90
05/08/2003			
19/08/2003	90.98	90.99	88.86
01/09/2003	90.92	90.94	88.86
17/09/2003	90.87	90.89	88.82
18/09/2003			
28/09/2003			
29/09/2003	90.82	90.85	88.78
21/10/2003			88.73
24/10/2003	90.72	90.74	
04/11/2003	90.68	90.70	88.71

	MB29	MB30	MB6
	m OD	m OD	m OD
18/11/2003	90.64	90.66	88.68
04/12/2003	90.59	90.61	88.67
16/12/2003	90.59	90.61	88.65
07/01/2004	90.6		88.67
23/01/2004	*90.79**	91.02	88.78
04/02/2004	90.99		88.87
19/02/2004	91.34	91.36	88.97
04/03/2004	91.36	91.38	89.01
29/03/2004	*91.36*	91.36	89.03
06/04/2004	*91.32*	91.35	89.01
19/04/2004	*91.27*	91.35	88.99
28/04/2004	91.29	91.31	
10/05/2004			
25/05/2004	91.18	91.2	
26/05/2004	*91.13*		88.93
02/06/2004	*91.02*		88.88
12/06/2004	*90.97*		88.86
21/06/2004	91.05	91.06	
25/06/2004	*91.02*		88.88
06/07/2004	*90.93*		88.84
19/07/2004	90.91	90.93	88.81

	MB29	MB30	MB6
	m OD	m OD	m OD
04/08/2004	*90.77*		88.77
17/08/2004		90.78	
18/08/2004	*90.65*		88.72
25/08/2004	*90.59*		88.69
01/09/2004			
04/09/2004			
19/09/2004	*90.47*		88.64
21/09/2004		90.57	
22/09/2004			
05/10/2004	*90.36*		88.59
12/10/2004			
20/10/2004		90.42	
28/10/2004			
04/11/2004	*90.22*		88.53
17/11/2004		90.37	
08/12/2004	*90.15*	90.35	88.5
10/01/2005	*90.22*		88.53
11/01/2005		90.49	
31/01/2005	*90.47*		88.64
10/02/2005	*90.40*	90.8	88.61
27/02/2005			

	MB29	MB30	MB6
	m OD	m OD	m OD
28/02/2005	*90.65*		88.72
16/03/2005	*90.79*	90.86	88.78
31/03/2005			
04/04/2005	*90.81*	90.89	88.79
19/04/2005			
09/05/2005	*90.81*		88.79
12/05/2005		90.99	
24/05/2005	*90.81*		88.79
08/06/2005	*90.84*	90.93	88.8
21/06/2005	*90.70*		88.74
08/07/2005	*90.65*	90.86	88.72
18/07/2005	*90.63*		88.71
05/08/2005			
09/08/2005	*90.54*	90.73	88.67
25/08/2005	*90.56*	90.64	88.68
01/09/2005	*90.49*	90.57	88.65
15/09/2005	*90.65*		88.72
03/10/2005	*90.36*	90.42	88.59
14/10/2005	*90.11*		88.48
10/11/2005	*90.11*		88.48

** Regression equation: y = 2.286x-112.16*

	Water Levels [m OD]				Water Levels reduced by 65 m [m OD]				Indicative Flow [m^2/d]		
	MB30	MB29	MB6	Sp 31	MB30-65m	MB29-65m	MB6-65m	SP31-65m	MB29-MB6	MB29-SP31	MB6-SP31
Jan-98											
Feb-98											
Mar-98											
Apr-98											
May-98											
Jun-98											
Jul-98											
Aug-98											
Sep-98	92.04	91.84	89.23		27.04	26.84	24.23		2.22		
Oct-98	91.78	91.60	89.15		26.78	26.60	24.15		2.07		
Nov-98	91.94	91.75	89.12		26.94	26.75	24.12		2.23		
Dec-98	92.09	91.89	89.26		27.09	26.89	24.26		2.24		
Jan-99	92.59	92.54	89.46		27.59	27.54	24.46		2.67		
Feb-99	93.07	92.85	89.72		28.07	27.85	24.72		2.75		
Mar-99	93.12	92.92	89.71		28.12	27.92	24.71		2.82		
Apr-99	92.92	92.71	89.62		27.92	27.71	24.62		2.69		
May-99	92.65	92.45	89.50		27.65	27.45	24.50		2.55		
Jun-99	92.42	92.21	89.40		27.42	27.21	24.40		2.42		
Jul-99	92.16	91.95	89.26		27.16	26.95	24.26		2.30		
Aug-99	91.83	91.61	89.14		26.83	26.61	24.14		2.09		
Sep-99	91.72	91.50	89.07		26.72	26.50	24.07		2.04		
Oct-99	91.76	91.55	89.10		26.76	26.55	24.10		2.07		
Nov-99	91.70	91.48	89.10		26.70	26.48	24.10		2.01		
Dec-99	91.67	91.46	89.09		26.67	26.46	24.09		1.99		
Jan-00	92.18	91.98	89.30		27.18	26.98	24.30		2.29		
Feb-00	92.28	92.08	89.34		27.28	27.08	24.34		2.34		
Mar-00	92.34	92.13	89.34		27.34	27.13	24.34		2.39		
Apr-00	92.25	92.04	89.30		27.25	27.04	24.30		2.34		
May-00	92.50	92.29	89.29		27.50	27.29	24.29		2.58		
Jun-00	92.41	92.19	89.35		27.41	27.19	24.35		2.44		
Jul-00	92.21	92.09	89.32		27.21	27.09	24.32		2.38		
Aug-00	91.95	91.93	89.24		26.95	26.93	24.24		2.29		
Sep-00	91.68	91.65	89.15		26.68	26.65	24.15		2.12		
Oct-00	91.49	91.46	89.05		26.49	26.46	24.05		2.03		
Nov-00	91.79	91.80	89.11		26.79	26.80	24.11		2.29		
Dec-00	92.27	92.22	89.52		27.27	27.22	24.52		2.33		
Jan-01	92.84	92.80	89.65		27.84	27.80	24.65		2.75		
Feb-01	92.96	92.96	89.68	89.19	27.96	27.96	24.68	24.19	2.88	3.22	2.94
Mar-01											
Apr-01											
May-01	92.52	92.50	89.43	89.03	27.52	27.50	24.43	24.03	2.66	2.93	2.41
Jun-01	92.33	92.29	89.35	89.00	27.33	27.29	24.35	24.00	2.53	2.77	2.12
Jul-01	92.14	92.01	89.29	88.91	27.14	27.01	24.29	23.91	2.32	2.59	2.33
Aug-01	91.67	91.69	89.13	88.81	26.67	26.69	24.13	23.81	2.17	2.38	1.89
Sep-01	91.44	91.40	89.23	88.76	26.44	26.40	24.23	23.76	1.84	2.17	2.80
Oct-01	91.19	91.17	88.92	88.72	26.19	26.17	23.92	23.72	1.87	2.00	1.17
Nov-01	91.07	91.05	88.89	88.61	26.07	26.05	23.89	23.61	1.80	1.99	1.67
Dec-01	90.99	91.08	88.81	88.66	25.99	26.08	23.81	23.66	1.89	1.97	0.90
Jan-02	90.92	90.95	88.77	88.54	25.92	25.95	23.77	23.54	1.81	1.95	1.32
Feb-02	91.30	91.22	88.94	88.65	26.30	26.22	23.94	23.65	1.91	2.10	1.73
Mar-02	91.65	91.63	89.14	88.77	26.65	26.63	24.14	23.77	2.11	2.36	2.19

	Water Levels [m OD]				Water Levels reduced by 65 m [m OD]				Indicative Flow [m^2/d]		
	MB30	MB29	MB6	Sp 31	MB30-65m	MB29-65m	MB6-65m	SP31-65m	MB29-MB6	MB29-SP31	MB6-SP31
Apr-02	91.76	91.63	89.14	88.78	26.76	26.63	24.14	23.78	2.11	2.35	2.13
May-02	91.64	91.61	89.10	88.78	26.64	26.61	24.10	23.78	2.12	2.33	1.89
Jun-02	91.59	91.50	89.07	88.78	26.59	26.50	24.07	23.78	2.05	2.24	1.71
Jul-02	91.36	91.39	89.05	88.78	26.36	26.39	24.05	23.78	1.97	2.15	1.59
Aug-02	91.25	91.00	88.94	88.67	26.25	26.00	23.94	23.67	1.71	1.90	1.61
Sep-02	91.01	91.00	88.88	88.59	26.01	26.00	23.88	23.59	1.76	1.96	1.70
Oct-02	90.84	90.83	88.78	88.67	25.84	25.83	23.78	23.67	1.70	1.75	0.63
Nov-02	91.24	90.83	88.91	88.68	26.24	25.83	23.91	23.68	1.60	1.74	1.31
Dec-02	91.92	91.86	89.20	88.89	26.92	26.86	24.20	23.89	2.26	2.47	1.87
Jan-03	92.19	92.20	89.39	88.97	27.19	27.20	24.39	23.97	2.42	2.71	2.54
Feb-03	92.29	92.26	89.43	89.04	27.29	27.26	24.43	24.04	2.44	2.70	2.34
Mar-03	92.16	92.14	89.38	89.01	27.16	27.14	24.38	24.01	2.37	2.62	2.21
Apr-03	91.87	91.82	89.29	88.94	26.87	26.82	24.29	23.94	2.15	2.40	2.12
May-03	91.50	91.47	89.16	88.84	26.50	26.47	24.16	23.84	1.96	2.17	1.87
Jun-03	91.24	91.21	89.03	88.75	26.24	26.21	24.03	23.75	1.83	2.01	1.65
Jul-03	91.12	91.09	88.94	88.67	26.12	26.09	23.94	23.67	1.79	1.97	1.58
Aug-03	91.02	91.01	88.88	88.62	26.02	26.01	23.88	23.62	1.77	1.94	1.52
Sep-03	90.89	90.87	88.82	88.57	25.89	25.87	23.82	23.57	1.70	1.87	1.51
Oct-03	90.74	90.72	88.73	88.52	25.74	25.72	23.73	23.52	1.64	1.78	1.25
Nov-03	90.68	90.66	88.70	88.50	25.68	25.66	23.70	23.50	1.62	1.74	1.16
Dec-03	90.61	90.59	88.66	88.46	25.61	25.59	23.66	23.46	1.58	1.71	1.15
Jan-04	91.02	90.60	88.73	88.48	26.02	25.60	23.73	23.48	1.54	1.71	1.45
Feb-04	91.36	91.17	88.92	88.66	26.36	26.17	23.92	23.66	1.87	2.04	1.52
Mar-04	91.37	91.36	89.02	88.73	26.37	26.36	24.02	23.73	1.96	2.16	1.71
Apr-04	91.34	91.29	88.99	88.73	26.34	26.29	23.99	23.73	1.92	2.10	1.58
May-04	91.20	91.18	88.93	88.66	26.20	26.18	23.93	23.66	1.88	2.06	1.58
Jun-04	91.06	91.05	88.87	88.63	26.06	26.05	23.87	23.63	1.81	1.97	1.41
Jul-04	90.93	90.91	88.83	88.58	25.93	25.91	23.83	23.58	1.72	1.89	1.46
Aug-04	90.78	90.67	88.73	88.54	25.78	25.67	23.73	23.54	1.60	1.72	1.11
Sep-04	90.57	90.47	88.64	88.46	25.57	25.47	23.64	23.46	1.50	1.62	1.08
Oct-04	90.42	90.35	88.59	88.42	25.42	25.35	23.59	23.42	1.44	1.54	0.97
Nov-04	90.37	90.23	88.54	88.37	25.37	25.23	23.54	23.37	1.38	1.48	0.94
Dec-04	90.35	90.20	88.52	88.35	25.35	25.20	23.52	23.35	1.36	1.47	1.00
Jan-05	90.49	90.29	88.56	88.43	25.49	25.29	23.56	23.43	1.41	1.48	0.75
Feb-05	90.80	90.59	88.69	88.50	25.80	25.59	23.69	23.50	1.56	1.68	1.12
Mar-05	90.86	90.79	88.78	88.54	25.86	25.79	23.78	23.54	1.66	1.82	1.40
Apr-05	90.89	90.81	88.79	88.56	25.89	25.81	23.79	23.56	1.67	1.82	1.34
May-05	90.99	90.82	88.79	88.57	25.99	25.82	23.79	23.57	1.68	1.82	1.33
Jun-05	90.93	90.77	88.77	88.57	25.93	25.77	23.77	23.57	1.65	1.78	1.19
Jul-05	90.86	90.70	88.74	88.51	25.86	25.70	23.74	23.51	1.61	1.77	1.36
Aug-05	90.64	90.49	88.65	88.48	25.64	25.49	23.65	23.48	1.51	1.62	1.01
Sep-05	90.57	90.57	88.69	88.43	25.57	25.57	23.69	23.43	1.55	1.72	1.48
Oct-05	90.42	90.36	88.59	88.40	25.42	25.36	23.59	23.40	1.44	1.56	1.12

APPENDIX 33

Estimates of vertical permeability at the fen margin, Sites A-D

This appendix presents vertical hydraulic conductivities for various fen margins' locations within sites A-D. Type and thickness of relevant geological layers were established from borehole logs presented in Appendices: 15, 19, 22 and 25. Mean hydraulic conductivities were computed according to equation III-18, Volume I.

Site A

SP31/S10

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	4.5	371900.8264		
peat	0.00000119	1	840336.1345		
clay	0.00000011	1.5	13636363.64		
				14848600.8	4.71E-07

SP34

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1.5	123966.9421		
peat	0.00000119	1	840336.1345		
clay	0.00000011	0.5	4545454.545		
				5509757.622	5.44E-07

SP35

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1	82644.6281		
peat	0.00000119	1	840336.1345		
clay	0.00000011	1	9090909.091		
				10013889.85	3.00E-07

SP36

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1.3	107438.0165		
peat	0.00000119	1.2	1008403.361		
clay	0.00000011	1.4	12727272.73		
				13843114.11	2.82E-07

Site B

SP20

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0	0		
peat	0.00000119	1.2	1008403.361		
clay	0.00000011	1.8	16363636.36		
				17372039.72	1.73E-07

SP21

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0.5	41322.31405		
peat	0.00000119	1.5	1260504.202		
clay	0.00000011	1	9090909.091		
				10392735.61	2.89E-07

SP22

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0	0		
peat	0.00000119	1.5	1260504.202		
clay	0.00000011	2	18181818.18		
				19442322.38	1.80E-07

Site C

SP5/SP6

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1	82644.6281		
peat	0.00000119	1	840336.1345		
clay	0.00000011	3	27272727.27		
				28195708.04	1.77E-07

SP11/SP12

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0.3	24793.38843		
peat	0.00000119	3.7	3109243.697		
clay	0.00000011	2	18181818.18		
				21315855.27	2.81E-07

SP9/SP10

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1.5	123966.9421		
peat	0.00000119	4	3361344.538		
clay	0.00000011	2.5	22727272.73		
				26212584.21	3.05E-07

SP13/SP14

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0.2	16528.92562		
peat	0.00000119	3	2521008.403		
clay	0.00000011	1.3	11818181.82		
				14355719.15	3.13E-07

Site D

SP23

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0.6	49586.77686		
peat	0.00000119	0.8	672268.9076		
clay	0.00000011	1.6	14545454.55		
				15287310.23	1.96E-07

SP24

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1.6	132231.405		
peat	0.00000119	0.5	420168.0672		
clay	0.00000011	0.9	8181818.182		
				8734217.654	3.43E-07

SP25

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1	82644.6281		
peat	0.00000119	0.5	420168.0672		
clay	0.00000011	1.5	13636363.64		
				14139176.33	2.12E-07

SP27

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0.2	16528.92562		
peat	0.00000119	3	2521008.403		
clay	0.00000011	1.3	11818181.82		
				14355719.15	3.13E-07

SP27

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1.1	90909.09091		
peat	0.00000119	0.6	504201.6807		
clay	0.00000011	1.3	11818181.82		
				12413292.59	2.42E-07

SP28

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	1.4	115702.4793		
peat	0.00000119	0.7	588235.2941		
clay	0.00000011	0.9	8181818.182		
				8885755.955	3.38E-07

SP29

	permeability	layer depth		sum of di/ki	mean vertical permeability
	ki	di	di/ki		sum of di/sum of di/ki
	[m/s]	[m]	[s]	[s]	[m/s]
gravel	0.0000121	0.5	41322.31405		
peat	0.00000119	1.1	924369.7479		
clay	0.00000011	1.4	12727272.73		
				13692964.79	2.19E-07

APPENDIX 34

Photographs of Pollardstown Fen

This appendix contains photographs taken by myself during the study period.

1. Pollardstown Fen Public Entrance, 2002
2. Pollardstown Fen Public Entrance, 2002
3. View over *Phragmites australis* stands, Pollardstown Fen Public Entrance, 2002
4. Drains below the Spring Bank House, South Side, 2005
5. Bulrush at Site C, North Side, 2005
6. *Phragmites australis* stands, south of Site C, 2005
7. Bulrush at Site C, North Side, 2005
8. Crossing the northern fen margin between Sites C and D, 2005

9-12 Aerial panorama of Pollardstown Fen, 2002

13. Aerial view over the Duck Ponds, South Side, 2002
14. Aerial view of Site C, North Side, 2002

15-16. Site A, South Side, 2002

17-19. Site A, South Side, 2005

20-21. Piezometres upgradient from Site B, South Side

22-23. Site B, South Side, 2005

24. Site C, North Side, 2002

25-27. Site C, North Side, 2005

28-31. Side D, North Side, 2005

32-33. Microhabitat instrumentation within IQABQ2, July 2002

34. Microhabitat instrumentation within IQABQ3, July 2002
35. Microhabitat instrumentation within IQABQ1, May 2003
36. Microhabitat instrumentation within IQABQ2, May 2003

37-38. Microhabitat instrumentation within IQCBQ5, July 2002

39-41. Microhabitat instrumentation within IQCBQ4, July 2002

42. Microhabitat instrumentation within IQCBQ3, July 2002
43. Microhabitat instrumentation within Site C, 5th location next to the fly net, July 2002
44. Microhabitat instrumentation within IQDBQ3, May 2003

45-46. Microhabitat instrumentation within IQEBQ2, May 2003

47. Microhabitat instrumentation within IQEBQ1, May 2003
48. Thalimedes under the Hanged Man's Arch Bridge, Milltown, Co. Kildare
49. Preparation for measuring the flow using a standard flow meter, Hanged Man's Arch Bridge, Milltown, Co. Kildare

50-51. Installation of an automatic UDFM flow meter, Hanged Man's Arch Bridge, Milltown, Co. Kildare

52-53. Thalimedes at Seven Springs

54. Downloading data from the Thalimedes at Seven Springs and cleaning the canal from weeds prior to measuring the flow.
55. Thalimedes at a drain below Site A
56. Automatic weather station at Pollardstown Fen
57. Rain gauge at Pollardstown Fen
58. Automatic weather station at Pollardstown Fen

General Photos:

1.



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3.



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6.



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8.



9.



10.



11.



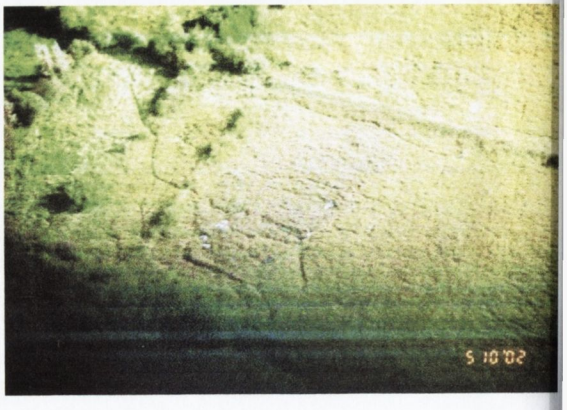
12.



13.



14.



Intensive Quadrates A-D

15.



16.



17.



18.



19.



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31. 

Microhabitat Study

32. 

33. 

34. 

35. 

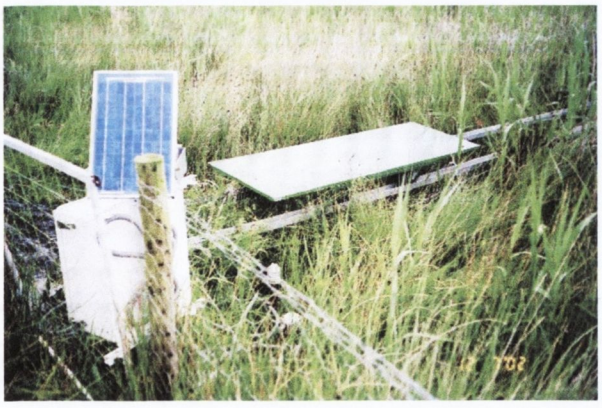
36. 

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44.



41.



45.



42.



46.



43.



47.



Flow Measurement

48.



52.



49.



53.



50.



54.



51.



55.



Weather Station

56. 

57. 

58. 