

IAN FARMER ASSOCIATES

Geotechnical and Environmental Investigations

Site
RO Bishopton

Borehole Number
BH1

Boring Method Cable Percussion	Diameter 200mm cased to 3.00m 150mm cased to 14.50m	Ground Level (mOD) 13.65	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243161 E 668083 N	Dates 15/04/2002- 16/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.30-0.60	B1				13.55	0.10	MADE GROUND: Gravelly soil. (Driller's description)			
0.80-1.20	B2					(1.40)	MADE GROUND: Grey silty fine SAND.			
1.50-1.95	B3				12.15	1.50	Spongy dark brown, black fibrous, locally pseudo fibrous plastic PEAT.			
2.50-2.95	U5	2.50	DRY	15/04/2002	8.35	(3.80)				
3.00	D6			16/04/2002 7 blows						
3.50-3.95	U7			10 blows						
4.00	D8									
4.50-4.95	U9	4.30	DRY	11 blows						
5.00	D10									
5.30	D11									
5.50-5.95	U12	5.40	DRY	12 blows	8.35	5.30	Soft brown, locally slightly sandy SILT.			
6.00	D13			Water strike(1) at 6.00m, rose to 5.16m in 20 mins.		(1.20)				
6.50-7.00	B14				7.15	6.50	Soft rare locally firm greyish brown slightly sandy CLAY.			
7.00-7.45	U15	7.00	FULL	25 blows						
7.50	D16									
8.00	D17									
8.50-8.95	U18	8.20	FULL	32 blows						
9.00	D19									
9.50	D20									

Remarks Hand dug inspection pit from 0.00m to 1.20m for 1.5 hours. Slotted pipe in gravel filter from 4.00m to 7.00m. Standpipe installed with stand-up cover.	Scale (approx) 1:50	Logged By JJ
Figure No. 2299.BH1		

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH1

Boring Method Cable Percussion	Diameter 200mm cased to 3.00m 150mm cased to 14.50m	Ground Level (mOD) 13.65	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243161 E 668083 N	Dates 15/04/2002- 16/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00-10.45	U21	9.80	2.80	30 blows						
10.50	D22					(8.50)				
11.00	D23						From 11.00m, Becomes very soft.			
11.50-11.95	U24	11.30	3.80	6 blows						
12.00	D25									
12.50	D26									
13.00-13.45	U27			8 blows						
13.50	D28									
14.00	D29									
14.50-15.00	D30									
				16/04/2002	-1.35	15.00	Complete at 15.00m			

Remarks	Scale (approx)	Logged By
	1:50	IJ
	Figure No. 2299.BH1	

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Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH2

Boring Method Cable Percussion	Diameter 200mm cased to 2.00m 150mm cased to 15.00m	Ground Level (mOD) 9.85	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243589 E 668418 N	Dates 17/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
							MADE GROUND: Fly ash fill and silty sand (Driller's description)			
					8.15	1.70 (0.60)	Soft brown PEAT (Driller's description)			
					7.55	2.30	Soft grey and brown alluvium CLAY (Driller's description)			
				Water strike(1) at 7.50m, rose to 7.40m in 20 mins.						

Remarks
 Falling Head test - Test zone 7.40m to 8.00m
 Standpipe installed, slotted pipe in gravel filter from 6.00m to 9.00m.
 Hand dug inspection pit 0.00m to 1.20m for 1.50 hours.
 No samples taken.

Scale (approx) 1:50
 Logged By GB

Figure No. 2299.BH2

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH2

Boring Method Cable Percussion	Diameter 200mm cased to 2.00m 150mm cased to 15.00m	Ground Level (mOD) 9.85	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243589 E 668418 N	Dates 17/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
						(12.70)	Soft grey and brown alluvium CLAY (Driller's description)			
					-5.15	15.00				

Remarks	Scale (approx) 1:50	Logged By GB
	Figure No. 2299.BH2	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH3

Boring Method Cable Percussion	Diameter 150mm cased to 10.90m	Ground Level (mOD) 11.54	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243280 E 668550 N	Dates 17/04/2002- 18/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B1						MADE GROUND: Grey silty fine SAND, predominantly fly ash.			
1.20-1.65	U2			20 blows		(1.50)				
1.70	D3				10.04	1.50	Soft dark brown plastic fibrous PEAT.			
2.00-2.50 2.00-2.65	B5 U4			40 blows		(1.00)				
2.50	D6				9.04	2.50	Firm brown slightly sandy, gravelly CLAY. Gravel is angular and sub-angular, fine and medium of mudstone. Occasional pockets of sand present.			
3.00-3.45	U7			70 blows						
3.50	D8									
4.00-4.45 4.00-4.45 4.00-4.50	SPT N=21 D9 B10			3,4/4,5,6,6			Firm to stiff			
5.00-5.25 5.00-5.25	B14 U12			200 blows						
5.50-5.95	U15			160 blows						
6.00	D16									
7.00-7.45 7.00-7.45 7.00-7.50	SPT N=28 D15 B16			4,5/5,6,8,9			Stiff			
8.00	D17									
8.50-8.95	U18			200 blows						
				Water strike(1) at 8.90m, rose to 8.80m in 20 mins.						
9.50	D19									
10.00-10.45	SPT N=26			3,5/6,6,7,7						

Remarks

Hand dug inspection from 0.00m to 1.20m for 1 hour.
Standpipe installed, installed pipe in gravel filter from 7.90m to 11.00m.
Chiselling from 5.25m to 5.50m for 0.75 hours. Chiselling from 7.70m to 7.90m for 0.5 hours. Chiselling from 8.90m to 9.20m for 1 hour.

Scale (approx)
1:50
Logged By
IJ

Figure No.
2299.BH3

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton

Borehole
 Number
BH3

Boring Method
 Cable Percussion

Diameter
 150mm cased to 10.90m

Ground Level (mOD)
 11.54

Client
 BAE SYSTEMS Properties Limited

Job
 Number
 2299

Location
 243280 E 668550 N

Dates
 17/04/2002-
 18/04/2002

Engineer
 BAE SYSTEMS Properties Limited

Sheet
 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00-10.45 10.00-10.50	D20 B21					(12.50)				
11.00	D22									
11.50-11.95	U23			140 blows						
12.00	D24									
12.40	D25									
13.00-13.45 13.00-13.50	D26 B27			17/04/2002						
13.00-13.45	SPT N=19			18/04/2002 2,3/3,5,5,6 18/04/2002						
14.00	D28									
14.50-14.95	U29			120 blows						
15.00	D30				-3.46	15.00	From 12.40m to 15.00m, Firm to stiff (Driller's description)			
							Complete at 15.00m			

Remarks
 Chiselling from 11.10m to 11.30m for 0.5 hours.

Scale (approx)
 1:50

Logged By
 IJ

Figure No.
 2299.BH3

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH4

Boring Method Cable Percussion	Diameter 200mm cased to 3.00m 150mm cased to 15.00m	Ground Level (mOD) 10.73	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242955 E 668895 N	Dates 18/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					10.43	(0.30) 0.30	MADE GROUND: Sandy gravelly soil fill (Driller's description)			
						(2.00)	MADE GROUND: Grey silty sand (Driller's description)			
					8.43	2.30	Soft brown PEAT (Driller's description)			
						(1.00)				
					7.43	3.30	Soft, grey and brown, alluvium CLAY (Driller's description)			

Remarks
Falling head test carried out - test zone 7.50 - 8.00m.
Standpipe installed, slotted pipe in gravel filter from 6.00m to 9.00m.
Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.
No groundwater encountered.
No samples taken.

Scale (approx) 1:50	Logged By GB
Figure No. 2299.BH4	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton

Borehole
 Number
BH4

Boring Method
 Cable Percussion

Diameter
 200mm cased to 3.00m
 150mm cased to 15.00m

Ground Level (mOD)
 10.73

Client
 BAE SYSTEMS Properties Limited

Job
 Number
 2299

Location
 242955 E 668895 N

Dates
 18/04/2002

Engineer
 BAE SYSTEMS Properties Limited

Sheet
 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
						(11.70)	Soft, grey and brown, alluvium CLAY (Driller's description)			
							Below 12.00m, Very soft (Driller's description)			
					-4.27	15.00	Complete at 15.00m			

Remarks

Scale (approx)	Logged By
1:50	GB
Figure No. 2299.BH4	

IAN FARMER ASSOCIATES

Geotechnical and Environmental Investigations

Site
RO Bishopton

Borehole Number
BH5

Client
BAE SYSTEMS Properties Limited

Job Number
2299

Boring Method
Cable Percussion

Diameter
150mm cased to 10.40m

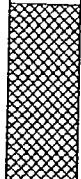



Ground Level (mOD)
11.28

Location
242615 E 668872 N

Dates
18/04/2002-
19/04/2002

Engineer
BAE SYSTEMS Properties Limited

Sheet
1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B1						MADE GROUND: Grey silty fine SAND, predominantly fly ash.			
1.20 1.20-1.65	D2 U3				10.08	1.20	Soft to firm brown slightly sandy, CLAY with organic odour.			
1.70	D4					(0.80)				
2.00-2.45 2.00-2.45 2.00-2.50	SPT N=2 D5 B6			1,1,1	9.28	2.00	Black plastic fibrous PEAT.			
2.50	D7				8.78	2.50	Soft, grey brown, slightly sandy CLAY, slight organic odour			
3.00-3.45	U8			15 blows						
3.50	D9									
4.00-4.45	U10			20 blows						
4.50	D11									
5.50-5.95	U12			55 blows						
6.00	D13									
6.50	D14					(7.40)				
7.00-7.45	U15			65 blows						
7.50	D16									
8.00	D17									
8.50-8.95	U18			60 blows						
9.00	D19									
9.90	D20			Water strike(1) at 9.20m, rose to 9.05m in 20 mins.	1.38	9.90				

Remarks
Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.
Standpipe installed, slotted pipe in gravel filter from 7.80m to 9.90m.

Scale (approx)
1:50

Logged By
IJ

Figure No.
2299.BH5



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Geotechnical and Environmental Investigations

Site
RO Bishopton

Borehole Number
BH5

Boring Method Cable Percussion	Diameter 150mm cased to 10.40m	Ground Level (mOD) 11.28	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242615 E 668872 N	Dates 18/04/2002- 19/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00-10.45	U21			200 blows		(0.60)	Soft brown slightly sandy, gravelly CLAY. Gravel is angular and sub-angular, fine to medium, occasional coarse of mudstone.			
10.50-10.51	SPT 50*/10			50/	0.78	10.50	Boulder (No Recovery)			
10.50	D22				0.68	10.60				
10.60-10.62	SPT 50*/20			50/						
10.60	D23						Complete at 10.60m			

Remarks
Chiselling from 10.30m to 10.60m for 1 hour.

Scale (approx)	Logged By
1:50	IJ
Figure No. 2299.BH5	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH6

Boring Method Cable Percussion	Diameter 200mm cased to 20.50m 150mm cased to 15.00m	Ground Level (mOD) 14.41	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242264 E 668949 N	Dates 18/04/2002- 19/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					14.11	(0.30) 0.30	MADE GROUND: Gravelly ash and soil fill (Driller's description)			
						(1.20)	MADE GROUND: Grey silty sand (Driller's description)			
					12.91	1.50	Soft brown PEAT (Driller's description)			
				Water strike(1) at 2.70m, rose to 2.65m in 20 mins.	11.61	2.80	Soft brown sandy gravelly CLAY (Driller's description)		▽1	
						(1.50)				
					10.11	4.30	Soft grey and brown (ALLUVIUM) (Driller's description) (Possibly SILT/CLAY)		▽2	
				Water strike(2) at 5.60m, rose to 4.97m in 20 mins.		(2.80)			▽2	
					7.31	7.10	Firm to stiff, grey brown, silty laminated CLAY (Driller's description)			

Remarks
No samples taken.
Hand dug inspection pit 0.00m to 1.20m for 1.50 hours.
Standpipe installed, slotted pipe in gravel filter from 4.00m to 7.00m.
Falling head test carried out, at 5.40m to 6.00m.

Scale (approx)
1:50
Logged By
GB
Figure No.
2299.BH6

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton

Borehole
 Number
BH6

Boring Method Cable Percussion	Diameter 200mm cased to 20.50m 150mm cased to 15.00m	Ground Level (mOD) 14.41	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242264 E 668949 N	Dates 18/04/2002- 19/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
						(4.90)	Firm to stiff, grey brown, silty laminated CLAY (Driller's description)			
					2.41	12.00	Firm to stiff, grey brown, silty, gravelly laminated Below 12.00m, Gravelly (Driller's description) CLAY (Driller's description)			
						(3.00)				
					-0.59	15.00	Complete at 15.00m			




Remarks	Scale (approx)	Logged By
	1:50	GB
	Figure No. 2299.BH6	

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Geotechnical and Environmental Investigations

Site
RO Bishopton

Borehole
Number
BH7

Boring Method Cable Percussion	Diameter 200mm cased to 0.80m	Ground Level (mOD)	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location	Dates 23/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.20-0.40	B1					0.20	Turf over gravelly TOPSOIL. (Driller's description)		
0.60-0.80 0.80-0.87	B2 SPT 25*/17 50/57			25/50		(0.60)	Highly weathered LIMESTONE rock recovered as soft brown sandy very gravelly clay.		
0.80-0.90 1.00-1.06	D3 CPT 25*/16 50/41			25/50		0.80 (0.30)	Very strong grey brown LIMESTONE.		
1.00-1.10	D4					1.10	Complete at 1.10m		

Remarks Hand dug inspection pit from 0.00m to 0.80m from 1 hour. Chiselling from 0.80m to 1.00m for 0.50 hours. Borehole backfilled on completion	Scale (approx)	Logged By
	1:50	IJ
	Figure No. 2299.BH7	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH8

Boring Method Cable Percussion	Diameter 200mm cased to 2.50m 150mm cased to 6.00m	Ground Level (mOD) 23.28	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242128 E 669389 N	Dates 22/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					22.48	0.80	MADE GROUND: Turf over ash soil fill (Driller's description)			
					21.48	1.80	MADE GROUND: Soft grey and brown alluvium clay with some brick fill.		▽1	
					20.48	2.80	Soft brown PEAT (Driller's description)		▽1	
				Water strike(1) at 2.80m, rose to 1.56m in 20 mins, sealed at 3.90m.	19.38	3.90	Grey and brown MUDSTONE and SANDSTONE fragments (Driller's description)			
					17.58	5.70	Firm blue grey silty sandy CLAY (Driller's description)			
					17.28	6.00	Stiff red brown boulder CLAY (Driller's description)			
					17.18	6.10	Grey and brown SANDSTONE (Driller's description)			
							Complete at 6.10m			


Remarks
No samples taken.
Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.
Chiselling from 6.00m to 6.10m for 0.50 hours.
Standpipe installed, slotted pipe in gravel filter from 2.00m to 5.00m.
Fallind head test carried out between 5.90m - 6.10m.

Scale (approx)
1:50
Logged By
GB
Figure No.
2299.BH8

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH9

Boring Method Cable Percussion	Diameter	Ground Level (mOD) 10.60	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241784 E 669669 N	Dates 19/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.40	B1				10.40 10.20 10.10	0.20 (0.20) 0.40 0.50 (0.10)	MADE GROUND: Compact grey fly ash (Driller's description) MADE GROUND: Hard brick and concrete foundations (Driller's description) MADE GROUND: CONCRETE. Complete at 0.40m		

Remarks
 Hand dug inspection pit from 0.00m to 0.40m for 0.50 hours.
 Chiselling from 0.40m to 0.40m for 0.50 hours
 Borehole abandoned due to concrete.

Scale (approx)
1:50
 Logged By
RL
 Figure No.
2299.BH9

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton

Borehole
 Number
BH9 A

Boring Method
 Cable Percussion

Diameter

Ground Level (mOD)
 10.60

Client
 BAE SYSTEMS Properties Limited

Job
 Number
 2299


Location

241785 E 667669 N

Dates
 19/04/2002

Engineer
 BAE SYSTEMS Properties Limited

Sheet
 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
0.00-0.40	B1								
0.00-0.40	B1				10.50	0.10 (0.30)	MADE GROUND: Compact grey fly ash (Driller's description)		
					10.20	0.40	MADE GROUND: Hard stony brick base (Driller's description)		
							Complete at 0.40m		

Remarks
 Borehole abandoned due to concrete
 Hand dug inspection pit from 0.00m to 0.40m for 0.3 hours.

Scale (approx)	Logged By
1:50	RL
Figure No. 2299.BH9 A	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH9 B

Boring Method Cable Percussion	Diameter 150mm cased to 10.40m	Ground Level (mOD) 10.61	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241784 E 669669 N	Dates 19/04/2002- 22/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B1				10.51	0.10	MADE GROUND: Compact grey fly ash (Driller's description)			
1.00	D2					(1.20)	MADE GROUND: Firm dark brown to black sandy gravelly CLAY. Gravel is angular and sub-angular, fine to coarse of ash and brick. Occasional cobbles.			
1.20-1.65 1.20-1.65 1.20-1.70	SPT N=8 D3 B4			1,1/2,2,2,2	9.31	1.30	Soft to firm brown slightly sandy CLAY with occasional bands of sand.			
1.90 2.00-2.40	D5 U6			40 blows						
2.50	D7									
3.00-3.45 3.00-3.45 3.00-3.50	SPT N=8 D8 B9			1,2/2,2,2,2						
4.00-4.45	U10			35 blows						
4.50	D11									
5.00-5.45	U12			40 blows						
5.50	D13									
6.00	D14									
6.50-6.95	U15			55 blows						
7.00	D16									
7.50 7.50	D18 D17									
8.00-8.45 8.00-8.50	U19 N/R B20			25 blows						
9.00	D21			Water strike(1) at 8.65m, rose to 8.70m in 20 mins. 19/04/2002						
9.50-9.95 9.50-10.00	U22 N/R B23			22/04/2002 90 blows			Below 7.00m, Clay becomes soft to firm.			

Remarks
Standpipe installed, slotted pipe in gravel filter from 6.90m to 10.00.
Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.

Scale (approx)
1:50
Logged By
IJ
Figure No.
2299.BH9 B

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH9 B

Boring Method Cable Percussion	Diameter 150mm cased to 10.40m	Ground Level (mOD) 10.61	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241784 E 669669 N	Dates 19/04/2002- 22/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.30-10.60 10.30-10.60 10.50-10.60	CPT 85/145 D24 B26			11,20/35,50 22/04/2002	0.31 -0.09	(9.00) 10.30 (0.40) 10.70	Dense grey brown mottled angular and rounded, fine to coarse GRAVEL of sandstone and mudstone. Cobbles present. Complete at 10.70m			

Remarks
 Chiselling from 10.60m to 10.70m for 1 hour.

Scale (approx)
1:50
 Logged By
IJ
 Figure No.
2299.BH9 B

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH10

Boring Method Cable Percussion	Diameter 150mm cased to 1.60m	Ground Level (mOD) 24.84	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241225 E 669843 N	Dates 22/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					24.64	0.20	Soft brown sandy TOPSOIL (Driller's description)			
						(1.70)	Firm, red brown, sandy silty CLAY (Driller's description)			
					22.94 22.84	1.90 2.00	Hard, dark brown wacke (Driller's description) (assume poorly sorted SANDSTONE?)			
							Complete at 2.00m			

Remarks
Groundwater not encountered. No samples taken.
Hand dug inspection pit from 0.00m to 1.20m for 1.25 hours.
Chiselling from 1.90m to 2.00m for 0.50 hours.
Standpipe installed, slotted pipe in gravel filter from 1.00m to 2.00m.
Falling hedd test carried out between 1.50m - 2.00m.

Scale (approx) 1:50	Logged By RL
Figure No. 2299.BH10	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton

Borehole
Number
BH11

Boring Method Cable Percussion	Diameter 150mm cased to 4.50m	Ground Level (mOD) 38.20	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 240996 E 670211 N	Dates 22/04/2002- 23/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B1						Brown slightly sandy clayey TOPSOIL with occasional grass roots.			
0.30	D2				37.90	(0.30) 0.30	Hard brown slightly sandy CLAY.			
1.20-1.65 1.20-1.70	D3 B4			22/04/2002						
1.20-1.65	SPT N=85			23/04/2002 9,14/18,19,21,27 23/04/2002		(2.70)				
2.00-2.45 2.00-2.45 2.00-2.50	SPT N=80 D5 B6			7,11/12,17,21,30						
3.00-3.44 3.00-3.40 3.00-3.50	SPT 114/295 D7 B8			8,9/13,21,30,50	35.20	3.00	Hard brown sandy SILT.			
4.00-4.45 4.00-4.45 4.00-4.50	SPT N=81 D9 B10			7,9/14,17,23,27		(1.50)				
4.90-4.90	SPT 50*/0			50/	33.70 33.30	4.50 (0.40) 4.90	Possibly moderately strong dark brown SILTSTONE. (No Sample)			
							Complete at 4.90m			

Remarks
Groundwater not encountered.
Hand dug inspection from 0.00m to 1.20m for 2 hours.
Chiselling from 3.40m to 3.60m for 0.50 hours, chiselling from 4.50m to 4.90m for 0.50 hours.
Standpipe installed, slotted pipe in gravel filter from 2.50m to 4.50m

Scale (approx)	Logged By
1:50	IJ
Figure No. 2299.BH11	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH12

Boring Method Cable Percussion	Diameter 150mm cased to 4.20m	Ground Level (mOD) 28.56	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241330 E 670617 N	Dates 23/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					28.16	(0.40) 0.40	Soft brown TOPSOIL (Driller's description)			
						(4.00)	Stiff brown sandy stoney CLAY (Driller's description)			
				Water strike(1) at 4.20m, rose to 4.10m in 20 mins.	24.16	4.40	Complete at 4.40m			

Remarks No sample taken. Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours. Chiselling from 2.90m to 3.10m for 0.50 hours, chiselling from 4.30m to 4.40m for 0.50 hours. Falling head test carried out between 2.60m - 3.00m.	Scale (approx)	Logged By
	1:50	RL
	Figure No. 2299.BH12	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH13

Boring Method Cable Percussion	Diameter 150mm cased to 8.00m	Ground Level (mOD) 32.46	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241862 E 670579 N	Dates 23/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.30-0.60	B1				32.26	0.20	Turf over gravelly TOPSOIL (Driller's description)			
0.80-1.20	B2						Firm becoming firm to stiff brown slightly sandy CLAY with occasional sub-rounded and rounded, fine and medium gravel of mudstone and sandstone			
1.50-1.95	U3		DRY	85 blows						
2.00	D4									
2.50-2.95 2.50-2.95 2.50-2.95	SPT N=16 B6 D5			2,3/3,4,4,5						
3.50-3.95	U7		DRY	90 blows						
4.00	D8									
4.50-4.95 4.50-4.95 4.50-4.95	SPT N=21 D9 B10			3,4/5,5,6,5		(8.50)				
5.50-5.95	U11		DRY	100 blows						
6.00	D12						Below 6.00m, Becoming reddish brown.			
6.50	D13									
7.00-7.45 7.00-7.45 7.00-7.45	SPT N=21 B15 D14			2,5/4,6,5,6						
8.00	D16									
8.50-8.70	B17									
8.80-8.90	D18				23.76	8.70	Blue grey very strong LIMESTONE recovered as gravel size fragments.			
					23.36	(0.40) 9.10	Complete at 9.10m			

Remarks
Groundwater not encountered.
Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.
Chiselling from 8.80m to 9.00m for 0.50 hours.
Standpipe installed, slotted pipe in gravel filter from 6.00m to 9.00m

Scale (approx)
1:50
Logged By
IJ
Figure No.
2299 BH13

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH14

Boring Method Cable Percussion	Diameter 150mm cased to 12.00m	Ground Level (mOD) 49.43	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242077 E 670984 N	Dates 23/04/2002- 24/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
				23/04/2002 24/04/2002	49.03	(0.40) 0.40	Soft brown clayey TOPSOIL (Driller's description)			
							Stiff, brown sandy stoney boulder CLAY (Driller's description)			

Remarks
 No samples taken, groundwater not encountered.
 Hand dug inspection pit from 0.00m to 1.20m for 1 hour.
 Standpipe installed, slotted pipe in gravel filter from 11.90m to 15.00m.
 Falling head test carried out between 12.00m - 15.00m.
 Chiselling from 3.90m to 4.10m for 0.5 hours. Chiselling from 5.50m to 6.00m for 0.5 hours.

Scale (approx)
1:50
 Logged By
IJ

Figure No.
2299.BH14

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton

Borehole
 Number
BH14

Boring Method
 Cable Percussion

Diameter
 150mm cased to 12.00m

Ground Level (mOD)
 49.43

Client
 BAE SYSTEMS Properties Limited




Job
 Number
 2299

Location
 242077 E 670984 N

Dates
 23/04/2002-
 24/04/2002

Engineer
 BAE SYSTEMS Properties Limited

Sheet
 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
						(14.60)	Stiff, brown sandy stoney boulder CLAY (Driller's description)			
				24/04/2002	34.43	15.00				
							Complete at 15.00m			

Remarks
 Chiselling from 13.10m to 13.50m for 1 hour.

Scale (approx)
 1:50

Logged By
 IJ

Figure No.
 2299.BH14

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH15

Boring Method Cable Percussion	Diameter 150mm cased to 5.70m	Ground Level (mOD) 29.33	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 422402 E 671079 N	Dates 30/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B1				29.13	0.20	Soft brown clayey TOPSOIL (Driller's description)			
0.20	D2				29.03	0.30	Stiff, brown/grey sandy CLAY (Driller's description)			
1.20-1.65	U3			110 blows		(1.30)	Stiff brown stoney boulder CLAY (Driller's description)			
1.70	D4				27.73	1.60	Stiff, brown very sandy CLAY (Driller's description)			
2.00-2.45 2.00-2.45 2.00-2.50	SPT N=27 D5 B6			3,4/6,6,7,8						
3.00-3.40	U7			200 blows		(4.20)				
4.00-4.45 4.00-4.45 4.00-4.50	SPT N=32 D8 B9			4,5/5,7,7,13						
5.00-5.40 5.00-5.60	U10 N/R B11			200 blows						
5.40-5.85 5.40-5.85 5.40-5.90	SPT N=61 D12 B13			3,7/10,11,15,25	23.53 23.43	5.80 5.90	Hard brown SANDSTONE (Driller's description)			
							Complete at 6.10m			

Remarks
No groundwater encountered.
Hand dug inspection from 0.00m to 1.20m for 1.50 hours.
Chiselling from 3.40m to 3.60m for 0.50 hours, chiselling from 5.90m to 6.10m for 0.50 hours.
Sandpipe installed, slotted pipe in gravel filter from 3.50m to 6.10m.

Scale (approx)	1:50	Logged By	IJ
Figure No.		2299.BH15	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH16

Boring Method Cable Percussion	Diameter 150mm cased to 4.70m	Ground Level (mOD) 15.25	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 242817 E 671058 N	Dates 26/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B3					(0.30)	MADE GROUND: Soft brown clayey TOPSOIL (Driller's description)			
0.30	D1				14.95	0.30	MADE GROUND: Black slightly sandy clayey angular and sub-angular, fine to coarse GRAVEL of brick and ash.			
1.10	D2			50 blows	14.15	1.10	Firm to stiff brown sandy CLAY with occasional sub-rounded and rounded, fine and medium, occasional coarse gravel of mudstone, few sandstone and quartz.			
1.20-1.65	U4									
1.70	D5									
2.00-2.45	SPT N=16			2,3/3,4,4,5						
2.00-2.45	D6									
2.00-2.45	B7									
3.00-3.20	U8			200 blows		(4.00)				
4.00-4.45	SPT N=36			4,5/7,7,10,12						
4.00-4.45	D9									
4.00-4.50	B10									
5.00-5.10	U11			200 blows	10.15	5.10	Brown SANDSTONE recovered as gravel size fragments.			
					10.05	5.20	Complete at 5.20m			

Remarks
No groundwater encountered.
Hand dug inspection from 0.00m to 1.20m for 1.50 hours.
Chiselling from 3.20m for 1 hours, chiselling from 5.10m for 0.50 hours.
Standpipe installed, slotted pipe in gravel filter from 3.20m to 5.20m

Scale (approx) 1:50
Logged By IJ
Figure No. 2299.BH16

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH17

Boring Method Cable Percussion	Diameter 150mm cased to 4.60m	Ground Level (mOD) 17.27	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243183 E 671088 N	Dates 24/04/2002- 26/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
						16.87	MADE GROUND: Loose black/grey stoney ash fill (Driller's description)			
						(0.40) 0.40	Stiff, brown, very sandy stoney CLAY (Driller's description)			
						(4.40)				
				24/04/2002			Hard, brown BEDROCK (Driller's description)			
				26/04/2002						
				26/04/2002	12.47 12.37	4.80 4.90				
							Complete at 4.90m			

Remarks
 Falling head test carried out between 4.30m - 4.40m.
 Standpipe installed, slotted pipe in gravel filter from 2.80m to 4.80m.
 Chiselling from 4.80m to 4.90m for 0.50 hours.
 Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.
 No samples taken, No groundwater encountered.

Scale (approx) 1:50	Logged By RL
Figure No. 2299.BH17	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH18

Boring Method Cable Percussion	Diameter 150mm cased to 4.80m	Ground Level (mOD) 13.30	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243280 E 670772 N	Dates 29/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B2						MADE GROUND: Hard grey, stoney, brick/ash base (Driller's description)			
0.20	D1				13.00	(0.30) 0.30	Stiff brown slightly sandy CLAY with pockets of pale white sandstone.			
1.20-1.65	U3			170 blows						
2.00-2.45 2.00-2.45 2.00-2.50	SPT N=66 D4 B5			9,12/15,16,15,20		(4.60)				
3.00-3.45	U6			170 blows						
3.50	D7									
3.95 4.00-4.45 4.00-4.45 4.00-4.50	D8 SPT N=29 D9 B10			5,6/6,7,7,9						
					8.40 8.20	4.90 (0.20) 5.10	Hard grey weathered SANDSTONE (Driller's description)			
							Complete at 5.10m			

Remarks
 No groundwater encountered.
 Hand dug inspection pit form 0.00m to 1.20m for 1 hour.
 Chiselling from 2.60m to 2.80m for 0.50 hours, chiselling from 6.90m to 5.10m for 1 hour.
 Standpipe installed, slotted pipe in gravel filter from 4.00m to 5.10m

Scale (approx)	Logged By
1:50	IJ
Figure No. 2299.BH18	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton

Borehole
Number
BH19

Boring Method Cable Percussion	Diameter 200mm cased to 1.50m 150mm cased to 2.20m	Ground Level (mOD) 15.30	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243464 E 670532 N	Dates 25/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					15.10	0.20	Turf over TOPSOIL (Driller's description)			
						(1.00)	Firm, brown gravelly CLAY (Driller's description)			
					14.10	1.20	Brown clayey weathered SANDSTONE (Driller's description)			
						(1.10)				
					13.00	2.30	Very strong brown SANDSTONE (Driller's description)			
					12.80	(0.20) 2.50				
							Complete at 2.50m			

Remarks
No samples taken, No groundwater encountered.
Hand dug inspection pit from 0.00m to 1.20m
Chiselling from 2.30m to 2.50m for 0.50 hours.
Standpipe installed, slotted pipe in gravel filter from 1.00m to 2.00m
Falling head test carried out between 2.20m - 2.30m.

Scale (approx)	Logged By
1:50	GB
Figure No. 2299.BH19	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH20

Boring Method Cable Percussion	Diameter 150mm cased to 12.20m	Ground Level (mOD) 9.87	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243766 E 670231 N	Dates 29/04/2002-30/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.00-1.20	B1						MADE GROUND: Compact grey brick and ash fill (Driller's description)			
0.80	D2				9.07	0.80	Soft to firm brown slightly sandy CLAY with occasional pockets of sand.			
1.20-1.65 1.20-1.65 1.20-1.70	PT N=12 D3 B4			1,2/2,3,3,4						
2.00-2.45	U5			75 blows		(2.60)	Soft, locally firm dark greyish brown, slightly sandy CLAY with occasional local angular and sub-angular, fine gravel of mudstone.			
2.50	D6									
3.00-3.45	U7			30 blows						
4.00-4.45	U8			25 blows						
4.50	D9						Very soft greyish brown, slightly sandy CLAY/SILT			
5.00-5.45	U10			50 blows						
6.00	D11					(5.00)				
6.50-6.95	U12			45 blows						
7.50	D13									
8.00-8.45	U14			35 blows						
9.00	D15						Very soft greyish brown, slightly sandy CLAY/SILT			
9.50-9.95	U16			30 blows						

Remarks
Standpipe installed, slotted pipe in gravel filter from 9.80m to 12.90m
Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours.
Chiselling from 12.80m to 12.90m from 0.50 hours.

Scale (approx)
1:50
Logged By
IJ
Figure No.
2299.BH20

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH20

Boring Method Cable Percussion	Diameter 150mm cased to 12.20m	Ground Level (mOD) 9.87	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 243766 E 670231 N	Dates 29/04/2002-30/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00	D17									
10.50	D18					(4.40)	Very soft greyish brown, slightly sandy CLAY/SILT			
11.00 11.00-11.45	D20 U19			35 blows						
12.00	D21									
12.50-12.80	U22			200 blows						
12.90	D23			Water strike(1) at 12.80m, rose to 11.40m in 20 mins. 50/	-2.93 -3.03	12.80 12.90	Hard brown SANDSTONE (Driller's description)			
12.90-12.91	PT 50*/10						Complete at 12.90m			

Remarks	Scale (approx)	Logged By
	1:50	IJ
Figure No. 2299.BH20		

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH21

Boring Method Cable Percussion	Diameter 200mm cased to 1.50m 150mm cased to 3.50m	Ground Level (mOD) 28.86	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 244059 E 669865 N	Dates 26/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					28.36	(0.50) 0.50	MADE GROUND: Turf over ash and brick fill (Driller's description)			
						(3.00)	Stiff, brown, sandy boulder CLAY (Driller's description)			
					25.36	3.50 (0.20)	Grey brown LIMESTONE (Driller's description)			
					25.16	3.70	Complete at 3.70m			

Remarks
 Standpipe installed, slotted pipe in gravel filter from 2.00m to 3.50m
 Chiselling from 3.50m to 3.70m for 0.50 hours.
 Hand dug inspection from 0.00m to 1.20m for 1.50 hours.
 No samples taken, No groundwater encountered.
 Falling head test carried out between 2.90m - 3.60m.

Scale (approx)	Logged By
1:50	GB
Figure No. 2299.BH21	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH22

Boring Method Cable Percussion	Diameter 200mm cased to 1.50m 150mm cased to 15.00m	Ground Level (mOD) 9.83	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241919 E 669933 N	Dates 24/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.30-0.60	B1					(0.80)	MADE GROUND: Firm brown slightly sandy gravelly CLAY. Gravel is angular and sub-angular, fine and medium, occasionally coarse of clinker and ash.			
0.80-1.20	B2				9.03	0.80 (0.70)	Soft brown sandy, gravelly CLAY. Gravel is sub-angular and sub-rounded, fine and medium of mudstone.			
1.50-1.95 1.50-1.95	CPT N=1 B3			1/,1	8.33	1.50	Very soft brown slightly sandy gravelly CLAY. Gravel is angular and sub-angular, fine and medium			
2.50-2.95	U4			10 blows		(2.50)				
3.00	D5									
3.50-3.95	U6			20 blows						
4.00	D7				5.83	4.00	Very soft greyish brown slightly sandy CLAY.			
4.50-4.95	U8			7 blows						
5.00	D9									
5.50-5.95	U10									
6.00	D11									
6.50	D12			DAMP(1) at 6.50m.						
7.00-7.45	U13			5 blows						
7.50	D14									
8.00	D15									
8.50-8.95	B16									
9.50	D17									

Remarks
Standpipe installed, slotted pipe in gravel filter from 5.50m to 8.50m
U100 sample taken at 10.00m to 10.45m : sank with weight of U100 hammer.
Hand dug inspection from 0.00m to 1.20m for 1.50 hours.

Scale (approx)
1:50
Logged By
IJ

Figure No.
2299.BH22

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton

Borehole
 Number
BH22

Boring Method
 Cable Percussion

Diameter
 200mm cased to 1.50m
 150mm cased to 15.00m

Ground Level (mOD)
 9.83

Client
 BAE SYSTEMS Properties Limited

Job
 Number
 2299

Location
 241919 E 669933 N

Dates
 24/04/2002

Engineer
 BAE SYSTEMS Properties Limited

Sheet
 2/2

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
10.00-10.45	U18			0 blows		(11.00)	Very soft greyish brown slightly sandy CLAY.			
10.50	D19									
11.50-12.00	B21									
12.50	D22									
13.00-13.50	B23									
14.00	D24									
14.50-15.00	B25									
					-5.17	15.00	Complete at 15.00m			

Remarks

Scale (approx)

Logged By

1:50

IJ

Figure No.

2299.BH22

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
 RO Bishopton
 Borehole Number
BH23

Boring Method Cable Percussion	Diameter 200mm cased to m 150mm cased to m	Ground Level (mOD) 12.27	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241593 E 670102 N	Dates 25/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
					11.47	0.80	Turf over gravelly TOPSOIL (Driller's description)			
				Slight seepage(1) at 2.50m.		(2.40)	Grey and brown clayey weathered LIMESTONE (Driller's description)			
					9.07	3.20 (0.30)	Very strong LIMESTONE (Driller's description)			
					8.77	3.50	Complete at 3.50m			

Remarks
 Falling head test carried out between 1.50m - 3.50m.
 Standpipe installed, slotted pipe in gravel filter from 1.50m to 3.00m
 Chiselling from 3.20m to 3.50m for 0.50 hours
 Hand dug inspection pit from 0.00m to 1.20m for 1.50 hours, No sample taken.

Scale (approx)	Logged By
1:50	GB
Figure No. 2299.BH23	

IAN FARMER ASSOCIATES
Geotechnical and Environmental Investigations

Site
RO Bishopton
Borehole Number
BH24

Boring Method Cable Percussion	Diameter 200mm cased to 1.50m 150mm cased to 2.80m	Ground Level (mOD) 13.99	Client BAE SYSTEMS Properties Limited	Job Number 2299
	Location 241371 E 670271 N	Dates 24/04/2002	Engineer BAE SYSTEMS Properties Limited	Sheet 1/1

Depth (m)	Sample / Tests	Casing Depth (m)	Water Depth (m)	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water	Instr
0.30-0.60	B1				13.79	0.20	Turf over TOPSOIL (Driller's description)			
0.80-1.20	B2					(1.10)	Soft brown sandy very gravelly CLAY. Gravel is sub-rounded and rounded, fine to coarse of mudstone and sandstone with occasional cobbles.			
1.50-1.95	SPT N=8			1,1/1,2,3,2	12.69	1.30	Brown sandy clayey, sub-rounded and rounded, fine to coarse GRAVEL.			
1.50-1.95	D3			Slight seepage(1) at 1.80m.	12.49	(0.20)				
1.50-1.95	B4					(1.30)	Soft to locally firm, greyish brown slightly sandy SILT with occasional gravel. Gravel is angular and sub-angular, fine and medium of mudstone.			
2.50-2.75	B5						Mottled blue grey weathered LIMESTONE recovered as gravel size fragments with intremixed brown slightly sandy silt.			
2.90-3.02	SPT 25*/60			25/50	11.19	2.80				
2.90-3.02	D6					(0.40)				
3.20-3.28	CPT 25*/22			25/50	10.79	3.20	Complete at 3.20m			

Remarks Standpipe installed, slotted pipe in gravel filter from 1.00m to 2.80m Chiselling from 2.80m to 3.10m for 0.50 hours. Hand dug inspection pit from 0.00m to 1.20m for 1 hours.	Scale (approx)	Logged By
	1:50	IJ
	Figure No. 2299.BH24	