PROPERTY ASSURANCE
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SITE INVESTIGATION
FACTUAL REPORT

Report No: [redacted]

Client: Sedgwick International UK - Maidstone

Site: 5 Frognal Close
London

Client Ref: [redacted]

Date of Visit: 01/11/18

ISO 9001 REGISTERED FIRM | ISO 14001 REGISTERED FIRM | OHSAS 18001 REGISTERED FIRM

Home Emergency Response - Subsidence Investigation - Drainage Services – Crack & Level Monitoring – Property Video Surveys

[redacted]

[redacted]

Investigation Layout Plan

Sheet: 1 of 1

Job No: [redacted]

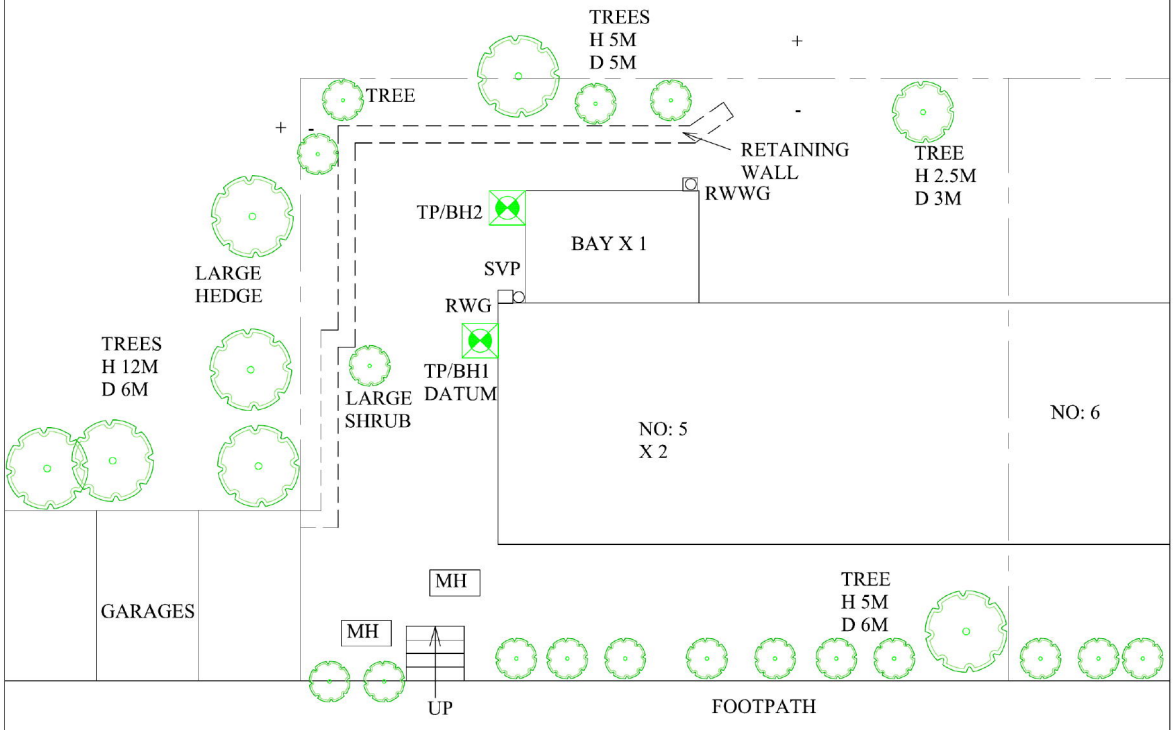
Date: 01/11/2018

Site: 5 Frognal Close NW3

Work carried out for: Sedgwick International UK

Weather: RAIN

(SI) SA (Checked) CFT (Drawn)



Water Supply : Inhouse - outside Tap
Power : Internal - External - None
Parking : Onsite - Road - red Route - Metered - Permit - Other
Site Access : Good - Bad (explain)

FROGNAL CLOSE

FRONT OF PROPERTY

ON SITE TREE IDENTIFICATION FOR GUIDANCE ONLY. NOT AUTHENTICATED.

Remarks:

Scale: N.T.S.

Key:

Combined Gulley	RWWG
Manhole	MH
Rain Water Pipe	RWP
Rain Water Gulley	RWG
Soil Vent Pipe	SVP
Waste Gulley	WG
Waste Pipe	WP

Surface Water Drain

Foul Water Drain

Tree / Bush (approx. ht in m)

Trial Pit

Borehole

O/D - Open Discharge

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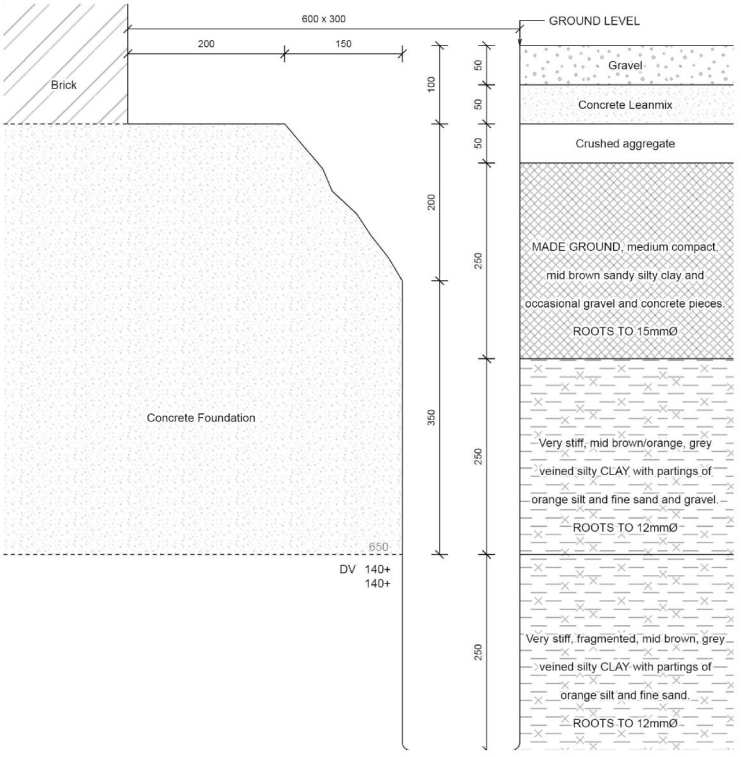
TEST REPORT: **Trial Pit**

REPORT NUMBER: [redacted]

TRIAL PIT REF:	TP1	DATE:	01/11/2018
CLIENT:	Sedgwick International UK	SITE:	5 Frognal Close,NW3 6YB
JOB NO:	[redacted]	WEATHER:	Raining
EXCAVATION METHOD:	Hand tools		



For Strata below 900mm see Bore Hole log

Curved steel pin driven 200mm under concrete foundation at 650mm below ground level.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon vane (kPa)
W	Water sample	M	Mackintosh probe

TDTD Too dense to drive

Remarks:

For and on behalf of CET
Scott Alger - Lab

Approved Signatory
02-Nov-18

Report Format: [redacted] [redacted] [redacted]

Borehole	1		Sheet:	1 of 1	Site:	5 Frognal Close
			Job No:	[redacted]		
			Date:	01/11/2018		
Boring Method:	Rotary Auger		Ground Level:		Client:	Sedgwick International UK - Maidstone
Diameter (mm):	100	Weather:	Raining			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	0.90				
0.90	Very stiff mid brown, grey veined silty CLAY with partings of orange silt and fine sand.	0.60		1.00	DV	140+
						140+
1.50	Very Stiff mid brown, grey veined silty CLAY with partings of orange silt and fine sand and crystals.	4.50		1.50	D	
				2.00	DV	140+
						140+
				2.50	D	
				3.00	DV	140+
						140+
				3.50	D	
				4.00	DV	140+
						140+
				4.50	D	
				5.00	DV	140+
6.00	End of BH					140+

Remarks:
BH ends at 6.0m. BH dry and open on completion. No roots observed below 1.5m. Datum installed at 6m ,no soil samples or insitu strength tests carried out below 5m.

Key:
D - Disturbed Sample
B - Bulk Sample
W - Water Sample
J - Jar Sample
V - Pilcon Shear Vane (kPa
M - Mackintosh Probe
TDTD - Too Dense To Drive
Roots
Roots
Roots
Depth to Water (m)

To Depth (m)	Max Dia (mm)
1.00	5
1.50	1

Logged:	AC	SA	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

PROPERTY ASSURANCE
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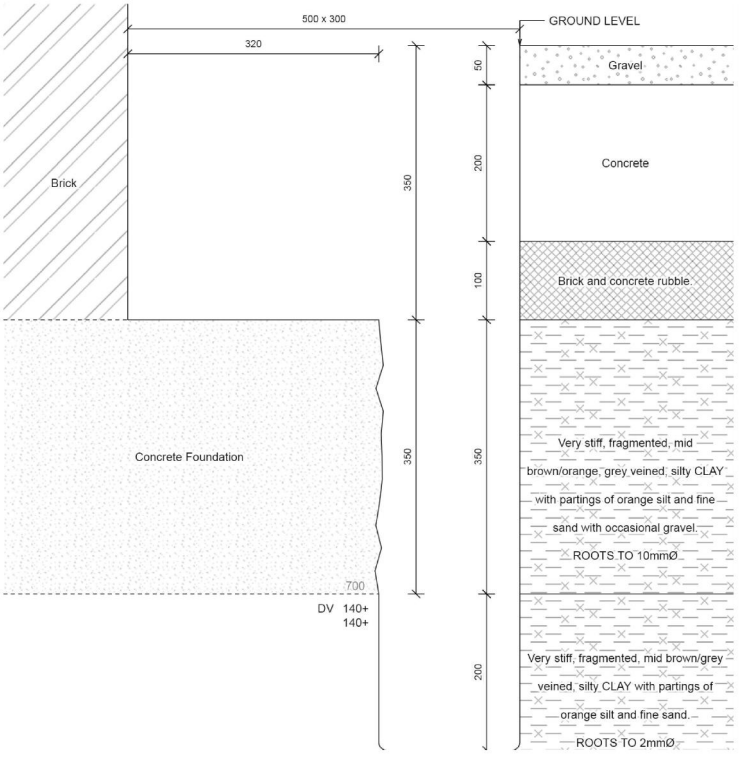
TEST REPORT: **Trial Pit**

REPORT NUMBER: [redacted]

TRIAL PIT REF:	TP2	DATE:	01/11/2018
CLIENT:	Sedgwick International UK	SITE:	5 Frognal Close,NW3 6YB
JOB NO:	[redacted]	WEATHER:	Raining
EXCAVATION METHOD:	Hand tools		



For Strata below 900mm see Bore Hole log

Curved steel pin driven 200mm under concrete foundation at 700mm below ground level.

Key:

D	Small disturbed sample	J	Jar sample
B	Bulk disturbed sample	V	Pilcon vane (kPa)
W	Water sample	M	Mackintosh probe
TDTD	Too dense to drive		

Remarks:

For and on behalf of CET
Scott Alger - Lab

Approved Signatory
02-Nov-18

Report Format:

[redacted]

[redacted]

[redacted]

Borehole	2		Sheet:	1 of 1	Site:	5 Frognal Close
			Job No:	[redacted]		
			Date:	01/11/2018		
Boring Method:	Hand Auger		Ground Level:		Client:	Sedgwick International UK - Maidstone
Diameter (mm):	75	Weather:	Raining			

Depth	Soil Description	Thickness	Legend	Samples and Tests		
(m)				Depth	Type	Result
0.00	See Trial Pit	0.90				
0.90	Very stiff fragmented mid brown, grey veined silty CLAY with partings of orange silt and fine sand.	0.60		1.00	DV	140+
						140+
1.50	Very stiff mid brown, grey veined silty CLAY with partings of orange silt and fine sand and crystals.	3.50		1.50	DV	140+
						140+
				2.00	DV	140+
						140+
				2.50	DV	140+
						140+
				3.00	DV	140+
						140+
				3.50	DV	140+
						140+
				4.00	DV	140+
						140+
				4.50	DV	140+
						140+
				5.00	DV	140+
5.00	End of BH					140+

Remarks:
BH ends at 5.0m. BH dry and open on completion. No roots observed below 1.4m.

Key:
D - Disturbed Sample
B - Bulk Sample
W - Water Sample
J - Jar Sample
V - Pilcon Shear Vane (kPa
M - Mackintosh Probe
TDTD - Too Dense To Drive

Roots
Roots
Roots
Depth to Water (m)

To Depth (m)	Max Dia (mm)
1.40	1

Logged:	AC	SA	Checked:	Approved:	Version	V1.0 28/01/16	N.T.S.

Laboratory Summary Results

Our Ref : [redacted]

Location : 5, Frognal Close, London, NW3 6YB

Client: Sedgwick International UK - Maidstone

Address: [redacted]

Date Sampled: 01/11/18

Date Received : 02/11/18

Date Tested : 02/11/18

Date of Report : 04/11/18

Sample Ref TP/BH No	Sample Ref Depth (m)	Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity * Index [5]	Modified * Plasticity Index (%) [6]	Soil * Class [7]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated Heave Potential (Dd) (mm)[10]	In situ * Shear Vane Strength (kPa) [11]	Organic * Content (%)[12]	pH * Value [13]	Sulphate Content * (g / l) SO_3 [14]	Sulphate Content * (g / l) SO_4 [15]	* Class [16]
1	U/S 0.65	D	30	<5	73	27	46	0.06	46	CV					> 140					
	1.0	D	28	<5											> 140					
	1.5	D	30	<5	73	28	45	0.05	45	CV										
	2.0	D	31	<5											> 140					
	2.5	D	31	<5	72	30	42	0.03	42	CV										
	3.0	D	30	<5											> 140					
	3.5	D	29	<5	72	28	44	0.02	44	CV										
	4.0	D	31	<5											> 140					
	4.5	D	31	<5																
	5.0	D	32	<5											> 140					

Test Methods / Notes

[1] BS 1377 : Part 2 : 1990, Test No 3.2

[2] Estimated if <5%, otherwise measured

[3] BS 1377 : Part 2 : 1990, Test No 4.4

[4] BS 1377 : Part 2 : 1990, Test No 5.3

[5] BS 1377 : Part 2 : 1990, Test No 5.4

[6] BRE Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

[8] In-house method S9a adapted from BRE IP 4/93

[9] In-house Test Procedure S17a: One Dimensional Swell/Strain Test

[10] Estimated Heave Potential (Dd)

[11] Values of shear strength were determined in situ by CET using a Pilcon hand vane or Geonor vane (GV).

[12] BS 1377 : Part 3 : 1990, Test No 4

[13] BS 1377 : Part 2 : 1990, Test No 9

[14] BS 1377 : Part 3 : 1990, Test No 5.6

[15] $SO_4 = 1.2 \times SO_3$

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005 Note that if the SO4 content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluable magnesium testing is undertaken to prove otherwise.

* These tests are not UKAS accredited

Full reports can be provided upon request.

Key

D	Disturbed sample (small)
B	Disturbed sample (bulk)
U	Undisturbed sample
W	Groundwater sample
ENP	Essentially Non-Plastic by inspection
U/S	Underside of Foundation

[redacted]

Version: 5BH V1.5 - 26.06.18

UKAS TESTING

8618

Our Ref : [redacted]

Laboratory Testing Results

Date Sampled : 01/11/18

Location : 5, Frognal Close, London, NW3 6YB

Date Received : 02/11/18

Client: Sedgwick International UK - Maidstone

Date Tested : 02/11/18

Address: [redacted]

Date of Report : 04/11/18

Sample Ref. TP/BH No.	Depth (m)	Type	Moisture Content (%) [1]	Soil Fraction > 0.425mm (%) [2]	Liquid Limit (%) [3]	Plastic Limit (%) [4]	Plasticity Index (%) [5]	Liquidity * Index [5]	Modified * Plasticity Index (%) [6]	Soil * Class [7]	Filter Paper Contact Time (h)	Soil Sample Suction (kPa) [8]	Oedometer Strain [9]	Estimated Heave Potential (Dd) (mm)[10]	In situ * Shear Vane Strength (kPa) [11]	Organic * Content (%)[12]	pH * Value [13]	Sulphate Content * (g / l) SO_3 [14]	Sulphate Content * (g / l) SO_4 [15]	* Class [16]
2	U/S 0.70	D	28	<5	74	24	50	0.08	50	CV					> 140					
	1.0	D	27	<5											> 140					
	1.5	D	31	<5	73	28	45	0.06	45	CV					> 140					
	2.0	D	30	<5											> 140					
	2.5	D	32	<5	72	28	44	0.08	44	CV					> 140					
	3.0	D	31	<5											> 140					
	3.5	D	32	<5	74	30	44	0.05	44	CV					> 140					
	4.0	D	32	<5											> 140					
	4.5	D	33	<5											> 140					
	5.0	D	32	<5											> 140					

Test Methods / Notes

[1] BS 1377 : Part 2 : 1990, Test No 3.2

[2] Estimated if <5%, otherwise measured

[3] BS 1377 : Part 2 : 1990, Test No 4.4

[4] BS 1377 : Part 2 : 1990, Test No 5.3

[5] BS 1377 : Part 2 : 1990, Test No 5.4

[6] BRE Digest 240 : 1993

[7] BS 5930 : 1981 : Figure 31 - Plasticity Chart for the classification of fine soils

[8] In-house method S9a adapted from BRE IP 4/93

[9] In-house Test Procedure S17a: One Dimensional Swell/Strain Test

[10] Estimated Heave Potential (Dd)

[11] Values of shear strength were determined in situ by CET using a Pilcon hand vane or Geonor vane (GV).

[12] BS 1377 : Part 3 : 1990, Test No 4

[13] BS 1377 : Part 2 : 1990, Test No 9

[14] BS 1377 : Part 3 : 1990, Test No 5.6

[15] $SO_4 = 1.2 \times SO_3$

[16] BRE Special Digest One (Concrete in Aggressive Ground) August 2005

Note that if the SO4 content falls into the DS-4 or DS-5 class, it would be prudent to consider the sample as falling into the DS-4M or DS-5M class respectively unless water soluable magnesium testing is undertaken to prove otherwise.

* These tests are not UKAS accredited

Full reports can be provided upon request

Key

D	Disturbed sample (small)
B	Disturbed sample (bulk)
U	Undisturbed sample
W	Groundwater sample
ENP	Essentially Non-Plastic by inspection
U/S	Underside of Foundation

UKAS TESTING

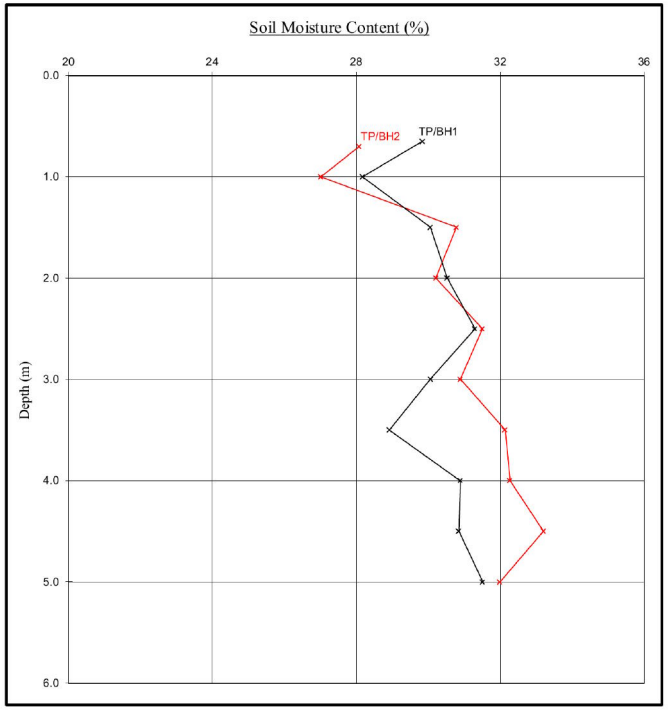
8618

Version: 5BH V1.5 - 26.06.18

[redacted]

Moisture Content Profiles

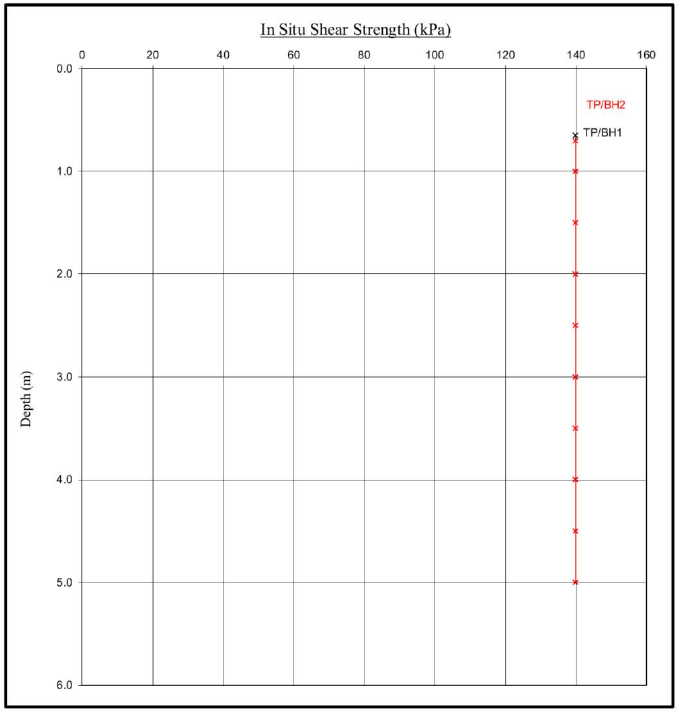
Our Ref : [redacted]
Location : 5, Frognal Close, London, NW3 6YB
Work carried out for: Sedgwick International UK - Maidstone



Notes
1. If plotted, 0.4 LL and PL+2 (after Driscoll, 1983) should only be applied to London Clay (and similarly overconsolidated clay) at shallow depths.
2. Unless specifically noted the profiles have not been related to a site datum.

Shear Strength Profiles

Date Sampled : 01/11/18
Date Received : 02/11/18
Date Tested : 02/11/18
Date of Report : 04/11/18



Note
1. Unless otherwise stated, values of Shear Strength were determined in situ by CET using a Pilcon Hand Vane the calibration of which is limited to a maximum reading of 140 kPa.
2. Unless specifically noted the profiles have not been related to a site datum.

EPSL ***European Plant Science Laboratory***	Sheet: 1 of 1 Job No: [redacted] Date: **07/11/2018** Order No: [redacted] EPSL Ref: [redacted]	Site: **5 Frognal Close,** Work carried out for: **Sedgwick International UK**

Certificate of Analysis

The following work was commissioned by CET on behalf of their client. Root samples were obtained in scaled packets from the above site with no reference given as to the types of tree or shrub from which they may have originated.
The results were as follows -

Trial pit/ Borehole number	**Root diameter (mm)**	**Tree, shrub or climber from which root originates**	**Result of starch test**
TP1 (USF)	8 mm	probably Catalpa spp. 4 roots	Positive
BH1 (to 1.5m)	6 mm	probably Catalpa spp. 2 roots	Positive
BH1 (to 1.5m)	1 mm	broadleaved species, too decayed for positive identification	Negative
TP2 (USF)	1 mm	probably Catalpa spp. 3 roots	Negative
BH2 (to 1.4m)	<1 mm	broadleaved species, too juvenile for positive identification * 2 roots	Negative

* Possibly Catalpa spp.

Catalpa spp. include the Indian bean tree.

[redacted]
MDM

[redacted]

Head of Laboratory Services : M D Mitchell B.Sc. (Hons), M.Phil.
Plant Anatomist : Dr G S Turner B.Sc. (Hons), M.Sc., Ph.D
Plant Anatomist : Dr R J Shaw B.Sc. (Hons), Ph.D
Consultant: Dr M P Denne B.Sc. (Hons), M.Sc., Ph.D

[redacted]