-TQ28/209

Project No: 4008 **Borehole Number:** 1

Project: Swiss Cottage

Engineer: Giffo & Prts **NGR:** TQ 268 843

Client: Camden BC **Elevation:** 56mOAD

Kinley Hill Farm,
Hawthorn, Seaham,
County Durham, SR7 8SW.
Tel: 0191 527 3970 (Northern)
Tel: 01473 236611 (Southern)

SUBSURFACE PROFILE				INSTALLATION DETAILS	
Depth	Legend	Description	Elevation	Well Completion Details	Remarks
49					
50					
51					
52					
53					
54					
55					
56					
57					
58					
59					
60					
61					
62					
63					
64					
65					
66					
67					
68					
69					
70					
71					
72					
73					

Drilled By: N.Snowball/L.Berry

Logged by: D Iller

Date step tested: 9-13 Nov 04

Date acidized: 2 Nov 04

Date geophysically logged: n/a

Sheet: 3 of 7

		DAY(-1)					
08/03/2005	3:00	1080	18	104.85	-48.75	16.1618	
	5:00	1200	20	105.00	-48.90	17.9971	
	7:00	1320	22	105.17	-49.07	19.6008	
	9:00	1440	24	105.22	-49.12	21.2826	
	11:00	1560	26	105.40	-49.30	23.0942	
	13:00	1680	28	105.55	-49.45	24.7759	
	15:00	1800	30	105.73	-49.63	26.3734	
	17:00	1920	32	105.87	-49.77	28.0647	
	19:00	2040	34	105.90	-49.80	29.7483	
	21:00	2160	36	106.06	-49.96	31.4874	
	23:00	2280	38	106.26	-50.16	33.0340	
09/03/2005	1:00	2400	40	106.39	-50.29		
	3:00	2520	42	106.50	-50.40	37.9108	
	5:00	2640	44	106.63	-50.53	38.0786	
	7:00	2760	46	106.62	-50.52	39.8777	
	9:00	2880	48	106.60	-50.50	41.4283	
	11:00	3000	50	106.61	-50.51	43.0615	Recovery started
		3001		106.20	-50.10		
		3002		105.97	-49.87		
		3003		105.82	-49.72		
		3004		105.60	-49.50		
		3005		105.40	-49.30		
		3006		105.19	-49.09		
		3007		105.03	-48.93		
		3008		104.86	-48.76		
		3009		104.63	-48.53		
		3010		104.40	-48.30		
		3015		103.52	-47.42		
		3020		102.68	-46.58		
		3025		101.95	-45.85		
		3030		101.45	-45.35		
		3035		100.94	-44.84		
		3040		100.34	-44.24		
		3045		100.00	-43.90		
		3050		99.63	-43.53		
		3055		99.22	-43.12		
	12:00	3060	51	98.90	-42.80		
		3070		98.33	-42.23		
		3080		97.80	-41.70		
		3090		97.39	-41.29		
		3100		96.98	-40.88		
	13:00	3120	52	96.42	-40.32		
		3150		95.70	-39.60		
	14:00	3180	53	95.17	-39.07		
		3210		94.75	-38.65		

CONSTANT RATE PUMPING TEST DATA SHEET

CONTRACT No	4006
Pumping Test at	*Swiss Cottage Open Space*
NGR	TQ 268 843
Observations From[1]	Top of Dip-Tube (100mm above ground level)
	GL = 56mAOD

[1] Description of datum point from which measurements were made (eg ground level, dip tube)

[2] height above ground level (m)

Date	Time	Elapsed Time		Depth of water level below datum (m) Pumping well	Depth of water level below datum (mAOD) Pumping well	Watermeter reading (cu.m)	Pumping rate
		Minutes	Hours				
		DAY (-3)					
		DAY(-2)					
		DAY(-1)					
09/03/2005	15:00	3240	54	94.40	-38.30		
	16:00	3300	55	93.90	-37.80		
	17:00	3360	56	93.57	-37.47		
	18:00	3420	57	93.21	-37.11		
	19:00	3480	58	93.01	-36.91		
10/03/2005	8:00	4200	70	89.98	-33.88		Pump test
							complete

Project No: 400[illegible] **Borehole Number:** 1

Project: Swiss Cottage

Engineer: Giffo[illegible] & Prts **NGR:** TQ 268 843

Client: Camden BC **Elevation:** 56mOAD

TQ28/209

Kinley Hill Farm,
Hawthorn, Seaham,
County Durham, SR7 8SW.
Tel: 0191 527 3970 (Northern)
Tel: 01473 236611 (Southern)

SUBSURFACE PROFILE				INSTALLATION DETAILS	Remarks
Depth	Legend	Description	Elevation	Well Completion Details	
74					
75					
76					
77					
78					
79					
80					
81					
82					
83					
84			-28.50		
85		SAND Sand and Gravel			
86			-30.50		
87		CLAY Brown Clay			
88					
89					
90					
91					
92					
93					
94					
95					
96			-40.10		
97		SAND Fine green sand -(Thanet Sand)			
98					

Standing water level approx 90m BGL

Drilled By: N Snowball/L.Berry

Logged by: Driller

Date step tested: 9-13 Nov 04

Date acidized: 2 Nov 04

Date geophysically logged: n/a

Sheet: 4 of 7

Project No: 4005 **Borehole Number:** 1

Project: Swiss Cottage

Engineer: Gifford & Prts **NGR:** TQ 268 843

Client: Camden BC **Elevation:** 56mOAD

TQ28/209

Kinley Hill Farm,
Hawthorn, Seaham,
County Durham, SR7 8SW.
Tel: 0191 527 3970 (Northern)
Tel: 01473 236611 (Southern)

SUBSURFACE PROFILE				INSTALLATION DETAILS	Remarks
Depth	Legend	Description	Elevation	Well Completion Details	
99					
100			-44.50		
101		CHALK Chalk and flint			
102			-47.10		
103		CLAY Grey clay			
104					
105					
106					
107					
108					
109					
110					
111			-56.00		
112		CHALK Chalk and flint			
113					
114					
115					
116					
117					
118					
119				113/103mm uPVC screen	
120					
121					
122					
123					

Drilled By: N. Snowball/L.Berry

Logged by: D. Iller

Date step tested: 9-13 Nov 04

Date acidized: 2 Nov 04

Date geophysically logged: n/a

Sheet: 5 of 7

Project No: 4085 **Borehole Number:** 1

Project: Swiss Cottage

Engineer: Gifford & Prts **NGR:** TQ 268 843

Client: Camden BC **Elevation:** 56mOAD

TQ28/209

Kinley Hill Farm,
Hawthorn, Seaham,
County Durham, SR7 8SW.
Tel: 0191 527 3970 (Northern)
Tel: 01473 236611 (Southern)

SUBSURFACE PROFILE				INSTALLATION DETAILS	Remarks
Depth	Legend	Description	Elevation	Well Completion Details	
124					
125					
126					
127					
128					
129					
130					
131					
132					
133					
134					
135					
136					
137					
138					
139					
140					
141					
142					
143					
144					
145					
146					
147					
148					

Drilled By: N.Snowball/L.Berry

Logged by: Driller

Date step tested: 9-13 Nov 04

Date acidized: 2 Nov 04

Date geophysically logged: n/a

Sheet: 6 of 7

Project No: 40[illegible]6 *Borehole Number: 1*

Project: Swiss Cottage

Engineer: Gifford & Prts **NGR:** TQ 268 843

Client: Camde[illegible] BC **Elevation:** 56mOAD

TQ28/20[illegible]

Kinley Hill Farm,
Hawthorn, Seaham,
County Durham, SR7 8SW.
Tel: 0191 527 3970 (Northern)
Tel: 01473 236611 (Southern)

SUBSURFACE PROFILE				INSTALLATION DETAILS	
Depth	Legend	Description	Elevation	Well Completion Details	Remarks
149					
150					Lowar 4" pump set at 130m on 2" flexible rising main.
151					
152					
153					
154					
155					
156					
157					
158			-103.00		
159		End of Borehole			
160					
161					
162					
163					
164					
165					
166					
167					
168					
169					
170					
171					
172					
173					

Drilled By: N Snowball/L.Berry

Logged by: Driller

Date step tested: 9-13 Nov 04

Date acidized: 2 Nov 04

Date geophysically logged: n/a

Sheet: [illegible] of 7

AC NO 45499

SWISS COTTAGE OPEN SPACE

TQ28/209

Owner	L B CAMDEN	Licence No	
Occupier		IGS Ref No	
Ground Level	56 m OD		ft OD
Level of Well Top	m OD		ft OD
Rest Water Level	90 m bwt		ft bwt
(Date 02/11/04)	m OD		ft OD
Construction	25/06/04		

Nat Grid Ref TQ 268 843

Status LIC

Aquifer UPPER CHALK

Depth bwt m	Diameter mm	Linings (below well top) From m	To m	Diameter mm	Type
0 - 9	250	0	117	150	SOLID STEEL
9 - 117	244	0	157	113/103	uPVC
117 - 157	150				

Summary of Geological Section	Thickness	Depth
MADE GROUND	0.5	0.5
TOP SOIL	0.7	1.2
LONDON CLAY	83.0	84.2
N. R. B.	12.0	96.2
THANET SAND	4.2	100.
PUTTY CHALK	11.6	112.
UPPER CHALK	47.0	159.

Abstraction Rates

gph

gpd

Type of Pump

Chem/Bact Anal YES NO

Well Driller DRILL CORP

If insufficient space has been allowed, continue in 'Notes' overleaf

RECEIVED FROM
- 4 JUL 2005
ENVIRON AGENCY

TQ28/209

Notes

- Source Was Acidised To Improve Yield, (on 2nd Nov '04).
- Pump Suction Depth: 130mbdat

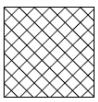
Site Plan

APPENDIX E

CGL Borehole Logs

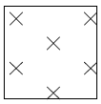
CGL Borehole Log Symbols and Abbreviations

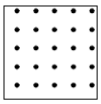
Strata — Superficial


Made Ground/ Top Soil

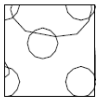

Peat

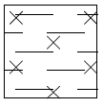

Clay

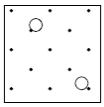

Silt


Sand


Gravel

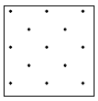

Cobbles & Boulders


Silty Clay

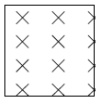

Gravelly Sand


Boulders and Clay

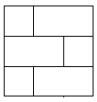
Strata — Bedrock


Sandstone

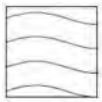

Mudstone

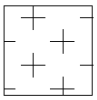

Siltstone


Coal


Limestone


Chalk


Igneous


metamorphic


Gypsum


Breccia

Backfill Materials/Installations


Bentonite Seal and Pipe


Bentonite Seal


Slotted Pipe and Gravel Pack


Backfill Material/Arisings

Groundwater


Standing Water Depth


Water Strike

Abbreviations

Rotary Core

TCR	Total Core recovery
SCR	Solid Core recovery
RQD	Rock Quality Index

Fracture Spacing— Min/Mean/Max

NI	Non-intact Core
NR	No Recovery
AZCL	Assessed Zone of Core loss

Sample Type

B	Bulk Sample
D	Disturbed Sample
C	Core Sample
U100/U70	Undisturbed Sample
ES	Environmental Sample
W	Water Sample
G	Gas Sample

Insitu Testing

HSV	Hand Share Vane
CBR	California Bearing Ratio
PID	Photoionization Detector Reading
SPT	Standard Penetration Test ('N' Value)

WINDOW SAMPLE LOG

Project				HOLE No
100 Swiss Cottage				WS1
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	10-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	
						(0.47) 0.47	Concrete 50:50 mix of concrete and flint gravel, no voids noted. [MADE GROUND]	
0.60 0.60	ES1 PID1	0.6					Firm to stiff brown silty CLAY with occasional fine gravel sized tabular selenite crystals. [WEATHERED LONDON CLAY FORMATION] 1.00 Becoming brown mottled dark grey. 1.50 No longer mottled.	
2.60 2.60	ES2 PID2	0				(4.53)		
3.00 3.00	ES3 PID3	0.1						
						5.00	*(Window sample terminated at 5m)*	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples, PID= Photo Ionisation Detector.
4. Hole termination due to reaching completion depth (5m bgl).
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Tracked window sample rig	Bainbridge Brothers Limited	TWF	HJG

WINDOW SAMPLE LOG

Project				HOLE No
100 Swiss Cottage				WS2
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	10-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	
						(0.40) 0.40	Concrete 50:50 mix of concrete and flint gravel, no voids noted. [MADE GROUND]	
							Firm brown mottled dark grey silty CLAY. [WEATHERED LONDON CLAY FORMATION] 0.40 - 1.00 Sample not recovered.	
1.50 1.50	ES1 PID1	4.5					1.50 - 1.55 Parting of yellow fine silty sand encountered.	
							2.30 Coarse gravel sized fragment of pyrite noted.	
2.50 2.50	ES2 PID2	2.6				(4.60)		
3.50 3.50	ES3 PID3	0.8						
						5.00	*(Window sample terminated at 5m)*	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples, PID= Photo Ionisation Detector.
4. Hole termination due to reaching completion depth (5m bgl).
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Tracked window sample rig	Bainbridge Brothers Limited	TWF	HJG

WINDOW SAMPLE LOG

Project				HOLE No
100 Swiss Cottage				**WS3A**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	10-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	
						(0.90) 0.90	Reinforced concrete 50:50 mix of concrete and flint gravel, no voids noted. [MADE GROUND]	
							(Window sample terminated at 0.9m)	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples.
4. Hole termination due to presence of rebar and concrete to 0.9m bgl/potential pile cap.
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Tracked window sample rig	Bainbridge Brothers Limited	TWF	HJG

WINDOW SAMPLE LOG

Project				HOLE No
100 Swiss Cottage				**WS3B**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	11-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	
						(0.90) 0.90	Reinforced concrete 50:50 mix of concrete and flint gravel, no voids noted. [MADE GROUND]	
							(Window sample terminated at 0.9m)	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples.
4. Hole termination due to presence of rebar and concrete to 0.9m bgl/potential pile cap.
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Tracked window sample rig	Bainbridge Brothers Limited	TWF	HJG

WINDOW SAMPLE LOG

Project				HOLE No
100 Swiss Cottage				**WS3C**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	11-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	
						(0.40) 0.40	Concrete 50:50 mix of concrete and flint gravel, no voids noted. [MADE GROUND]	
							Soft to firm brown silty CLAY with occasional fine gravel sized tabular selenite crystals noted. [WEATHERED LONDON CLAY FORMATION]	
1.00	ES1							
1.00		0						
1.00	SPT	N6						
2.00	ES2							
2.00		0						
2.00	SPT	N9				(4.60)		
3.00	ES3						3.00 Parting of orange fine silty sand encountered.	
3.00		0						
3.00	SPT	N13						
4.00	SPT	N14					4.00 Single coarse gravel sized fragment of pyritised wood encountered.	
						5.00	4.90 Parting of orange fine silty sand encountered.	
							(Window sample terminated at 5m)	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Installation details; 0.0m to 1.0m plain pipe backfilled with bentonite; 1.0m to 3.0m bgl slotted pipe backfilled with gravel; 3.0m to 5.0m bgl backfilled with airisings.
3. ES= Environmental samples, PID= Photo Ionisation Detector, N= SPT 'N' value.
4. Hole termination due to reaching completion depth (5m bgl).
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Tracked window sample rig	Bainbridge Brothers Limited	TWF	HJG

WINDOW SAMPLE LOG

Project				HOLE No
100 Swiss Cottage				**WS4**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	11-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	
						(0.80) 0.80	Concrete 50:50 mix of concrete and flint gravel, no voids noted. [MADE GROUND]	
0.80 0.80 1.00	ES1 PID1 SPT	 1 N9					Firm brown silty CLAY with occasional fine gravel sized fragments of selenite. [WEATHERED LONDON CLAY FORMATION] 1.00 - 2.00 Poor sample recovery approximately 25%.	
2.00 2.00 2.00	ES2 PID2 SPT	 0.8 N9				(4.20)	2.00 - 3.00 Poor sample recovery approximately 80%.	
3.00	SPT	N10					3.00 - 4.00 Poor sample recovery approximately 60%.	
4.00	SPT	N16					4.00 - 5.00 Poor sample recovery approximately 50%.	
						5.00	*(Window sample terminated at 5m)*	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples, PID= Photo Ionisation Detector, N= SPT 'N' value.
4. Hole termination due to reaching completion depth (5m bgl).
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Tracked window sample rig	Bainbridge Brothers Limited	TWF	HJG

CGL WS LOG CG28215.GPJ GINT STD AGS 3_1.GDT 30/8/17

HAND AUGER LOG

Project				HOLE No
100 Swiss Cottage				**HP1**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	11-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick -ness)	DESCRIPTION	
0.50 0.50	ES1 PID1	0				(0.70) 0.70	Brown gravelly medium SAND. Gravel is angular to subrounded fine to coarse of flint and concrete. [MADE GROUND]	
							(Hole terminated at 0.7m)	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples, PID= Photo Ionisation Detector.
4. Terminated on concrete obstruction/basement roof.
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Hand excavated	Bainbridge Brothers Limited	TWF	HJG

HAND AUGER LOG

Project				HOLE No
100 Swiss Cottage				**HP2**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	11-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				Instrument /Backfill
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick -ness)	DESCRIPTION	
0.10 0.10	ES1 PID1	0				(0.20) 0.20	Loose dark grey to black slightly gravelly fine to medium SAND. Gravel is rounded to subrounded fine of flint. [MADE GROUND]	
0.40 0.40	ES2 PID2	0				(0.80) 1.00	Light orange and brown, slightly clayey slightly gravelly fine SAND. Gravel is subangular to subrounded fine to medium of flint. [MADE GROUND]	
							(Hole terminated at 1m)	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Installation details; 0.0. to 0.4m bgl plain pipe backfilled with bentonite; 0.4m to 0.8m bgl slotted pipe backfilled with gravel; 0.8m to 1m backfilled with airisings.
3. ES= Environmental samples, PID= Photo Ionisation Detector.
4. Terminated on concrete obstruction.
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Hand excavated	Bainbridge Brothers Limited	TWF	HJG

HAND AUGER LOG

Project				HOLE No
100 Swiss Cottage				**HP3**
Job No	Date	Ground Level (m)	Co-Ordinates (m)	
CG/28215	11-07-17 11-07-17			
Client				Sheet
Essential living				1 of 1

SAMPLES & TESTS			Water	STRATA				
Depth (m)	Type No	Test Result (N/kPa/ppm)		Reduced Level	Legend	Depth (m) (Thick-ness)	DESCRIPTION	Instrument /Backfill
						0.05	Paving Slab. [MADE GROUND]	
						0.10	Orange medium SAND. [MADE GROUND]	
						0.20	Orange gravelly medium SAND. Gravel is subangular fine to coarse of concrete. Frequent cobbles of concrete encountered. [MADE GROUND]	
							(Hole terminated at 0.2m)	

Boring Progress and Water Observations

Date	Strike depth	Casing depth	Comment	Time measured	Standing Depth

General Remarks

1. All depths are measured from ground level (m bgl).
2. Hole back filled with airisings.
3. ES= Environmental samples.
4. Terminated on concrete obstruction.
5. Groundwater not encountered.

Method/ Plant Used	Field Crew	Logged By	Checked By
Hand excavated	Bainbridge Brothers Limited	TWF	HJG

APPENDIX F

Monitoring Record

GAS MONITORING RECORD SHEET

JOB DETAILS			
Site:	100 Avenue Road, Swiss Cottage	Job No:	CG/28215
Date:	21/07/2017	Engineer:	CRG
Time:	AM	Client	Essential Living

METEOROLOGICAL & SITE INFORMATION

State of ground:	Dry		Moist	X	Wet				
Wind:	Calm	X	Light		Moderate		Strong		
Cloud cover:	None	X	Slight		Cloudy		Overcast		
Precipitation:	None	X	Slight		Moderate		Heavy		

Barometric pressure (mb): 1002 to 1001 Local pressure system*: Steady Air temperature (°C): 23

Well No.	Time (s)	Flow (l/hr)	dA (PA)	O_2 (% vol. in air)	CO_2 (% vol. in air)	CH_4 (% vol. in air)	PID (ppm)	Depth to Groundwater (mbgl)	Depth to Base (m)
WS3C	0	<0.1	0	20.1	<0.1	<0.1	11.3	**3.87	4.08
	15	<0.1	0	18.1	4.5	<0.1			
	30	<0.1	0	17.8	4.6	<0.1			
	45	<0.1	0	17.7	4.6	<0.1			
	60	<0.1	0	17.7	4.7	<0.1			
	90	<0.1	0	17.6	4.7	<0.1			
	120	<0.1	0	17.6	4.7	<0.1			
	150	<0.1	0	17.6	4.7	<0.1			
	180	<0.1	0			<0.1			
	240	<0.1	0			<0.1			
	300	<0.1	0			<0.1			
HP2	0	<0.1	0	19.9	<0.1	<0.1	4.0	DRY	0.90
	15	<0.1	0	15.1	<0.1	<0.1			
	30	<0.1	0	14.7	5.5	<0.1			
	45	<0.1	0	14.7	5.5	<0.1			
	60	<0.1	0	14.6	5.5	<0.1			
	90	<0.1	0	14.5	5.6	<0.1			
	120	<0.1	0	14.6	5.6	<0.1			
	150	<0.1	0	14.5	5.6	<0.1			
	180	<0.1	0	14.4	5.6	<0.1			
	240	<0.1	0	14.4	5.7	<0.1			
	300	<0.1	0	14.4	5.7	<0.1			

Notes:

** With reference to the Weather Underground rolling weather archive for Swiss Cottage weather station.*

*** Small amount of sediment rich water in well base, insufficient amount to sample.*

NR= Not recorded

APPENDIX G

Chemical Laboratory Data

Table G1. Summary of testing

Location	Depth (mbgl)	Strata	PID (ppm)	Testing suite
CGL laboratory results				
Soil				
WS1	2.6	London Clay Formation	-	Full suite
WS2	1.5	London Clay Formation	-	Full suite
WS3C	1	London Clay Formation	-	Full suite
WS4	0.8	Made Ground	-	Full suite
HP1	0.5	Made Ground	-	Full suite + asbestos screen and ID
HP2	0.1	Made Ground	-	Full suite + asbestos screen and ID
	0.4	Made Ground	-	Full suite + asbestos screen and ID
Leachate				
-	-	-	-	-
Groundwater				
-	-	-	-	-
Concept laboratory results				
Soil				
BH101	0.5	London Clay Formation	-	Full suite except cyanide, total phenols and asbestos screen and ID
BH102	0.5	Made Ground	-	Full suite except cyanide, total phenols and asbestos screen and ID
BH105	0.5	Made Ground	-	Full suite except cyanide, total phenols and asbestos screen and ID
Leachate				
-	-	-	-	-
Groundwater				
-	-	-	-	-

Notes:
1. Full suite: metals, TPH, PAH, phenol, BTEX, cyanide, sulfate, pH

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Analytical Report Number : 17-54261

Project / Site name:	100 Swiss Cottage	**Samples received on:**	12/07/2017
Your job number:	CG-28215	**Samples instructed on:**	12/07/2017
Your order number:	4429	**Analysis completed by:**	21/07/2017
Report Issue Number:	1	**Report issued on:**	21/07/2017
Samples Analysed:	7 soil samples		

Signed:

Dr Irma Doyle
Senior Account Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

Excel copies of reports are only valid when accompanied by this PDF certificate.

Analytical Report Number: 17-54261

Project / Site name: 100 Swiss Cottage
Your Order No: 4429

Lab Sample Number				781814	781815	781816	781817	781818
Sample Reference				WS1	HP1	HP2	HP2	WS3C
Sample Number				ES2	ES1	ES1	ES2	ES1
Depth (m)				2.60	0.50	0.10	0.40	1.00
Date Sampled				11/07/2017	11/07/2017	11/07/2017	11/07/2017	11/07/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	21	4.1	6.1	4.5	21
Total mass of sample received	kg	0.001	NONE	1.1	1.5	1.8	2.0	1.2
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	-
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	6.8	7.6	7.2	7.4	7.6
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1	< 1	< 1	< 1
Total Sulphate as SO_4	mg/kg	50	MCERTS	15000	690	300	370	9100
Organic Matter	%	0.1	MCERTS	0.6	1.9	4.4	2.1	0.5
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	0.18	< 0.05	< 0.05	< 0.05
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.46	< 0.05	< 0.05	< 0.05
Pyrene	mg/kg	0.05	MCERTS	< 0.05	0.41	< 0.05	< 0.05	< 0.05
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	0.28	< 0.05	< 0.05	< 0.05
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.31	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.32	< 0.05	< 0.05	< 0.05
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	0.23	< 0.05	< 0.05	< 0.05
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.32	< 0.05	< 0.05	< 0.05
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	0.20	< 0.05	< 0.05	< 0.05
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	0.28	< 0.05	< 0.05	< 0.05
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.9	3.0	< 0.9	< 0.9	< 0.9
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2.0	1.5	1.2	< 1.0	< 1.0
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	8.8	5.2	6.0	15
Barium (aqua regia extractable)	mg/kg	1	MCERTS	65	34	25	39	83
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.4	0.35	0.28	0.60	1.3
Boron (water soluble)	mg/kg	0.2	MCERTS	4.1	1.6	0.7	1.8	1.9
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2	< 1.2	< 1.2	< 1.2
Chromium (III)	mg/kg	1	NONE	52	16	8.5	18	51
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	52	16	8.6	18	52
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	16	11	12	34
Lead (aqua regia extractable)	mg/kg	1	MCERTS	16	55	26	12	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	0.5	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	41	9.5	6.5	10	41
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	78	29	22	31	72
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	84	61	43	41	81

Analytical Report Number: 17-54261

Project / Site name: 100 Swiss Cottage
Your Order No: 4429

Lab Sample Number				781814	781815	781816	781817	781818
Sample Reference				WS1	HP1	HP2	HP2	WS3C
Sample Number				ES2	ES1	ES1	ES2	ES1
Depth (m)				2.60	0.50	0.10	0.40	1.00
Date Sampled				11/07/2017	11/07/2017	11/07/2017	11/07/2017	11/07/2017
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	10	< 8.0	< 8.0	14
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	10	< 10	< 10	18
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	18	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	21	< 10	< 10	< 10

Analytical Report Number: 17-54261

Project / Site name: 100 Swiss Cottage
Your Order No: 4429

Lab Sample Number				781819	781820			
Sample Reference				WS2	WS4			
Sample Number				ES1	ES1			
Depth (m)				1.50	0.80			
Date Sampled				11/07/2017	11/07/2017			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1			
Moisture Content	%	N/A	NONE	21	22			
Total mass of sample received	kg	0.001	NONE	1.3	1.4			
Asbestos in Soil	Type	N/A	ISO 17025	-	-			
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7.7	8.1			
Total Cyanide	mg/kg	1	MCERTS	< 1	< 1			
Total Sulphate as SO_4	mg/kg	50	MCERTS	14000	12000			
Organic Matter	%	0.1	MCERTS	0.3	0.4			
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(b)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(k)fluoranthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05			
Coronene	mg/kg	0.05	NONE	< 0.05	< 0.05			
Total PAH								
Total WAC-17 PAHs	mg/kg	0.85	NONE	< 0.9	< 0.9			
Heavy Metals / Metalloids								
Antimony (aqua regia extractable)	mg/kg	1	ISO 17025	2.4	< 1.0			
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	17			
Barium (aqua regia extractable)	mg/kg	1	MCERTS	72	79			
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.2	1.3			
Boron (water soluble)	mg/kg	0.2	MCERTS	2.8	1.8			
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2			
Chromium (hexavalent)	mg/kg	1.2	MCERTS	< 1.2	< 1.2			
Chromium (III)	mg/kg	1	NONE	44	57			
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	45	57			
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	75			
Lead (aqua regia extractable)	mg/kg	1	MCERTS	15	20			
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3			
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	39	45			
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0			
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	66	73			
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	81	93			

Analytical Report Number: 17-54261

Project / Site name: 100 Swiss Cottage
Your Order No: 4429

Lab Sample Number				781819	781820			
Sample Reference				WS2	WS4			
Sample Number				ES1	ES1			
Depth (m)				1.50	0.80			
Date Sampled				11/07/2017	11/07/2017			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	ug/kg	1	MCERTS	< 1.0	< 1.0			
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0			
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0			
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0			

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0			
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10			

TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.001	MCERTS	< 0.001	< 0.001			
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0			
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0			
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10			
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10			
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10			

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* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
781814	WS1	ES2	2.60	Brown clay.
781815	HP1	ES1	0.50	Light brown sand with gravel.
781816	HP2	ES1	0.10	Brown sandy loam.
781817	HP2	ES2	0.40	Light brown sand with gravel.
781818	WS3C	ES1	1.00	Brown clay.
781819	WS2	ES1	1.50	Brown clay.
781820	WS4	ES1	0.80	Brown clay.

Analytical Report Number : 17-54261

Project / Site name: 100 Swiss Cottage

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Water (PrW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073B-PL	W	MCERTS
Cr (III) in soil	In-house method by calculation from total Cr and Cr VI.	In-house method by calculation	L080-PL	W	NONE
Hexavalent chromium in soil (Lower Level)	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 2, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Organic matter (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests""	L009-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated WAC-17 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L038-PL	D	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L088/76-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

APPENDIX H

Human Health Assessment

ASSESSMENT CRITERIA

Table H1 below sets out CGL's rationale for generic assessment criteria (GAC) adoption in order to evaluate risks posed to potential receptors at Swiss Cottage, London from identified chemical contamination. Potential receptors have been identified with reference to the Part IIA regime and associated DEFRA guidance. As with the Part IIA regime, under the planning regime all receptors (humans, controlled waters, ecology, crops/livestock and buildings) have been considered if there is the potential for them to be adversely affected by exposure to contamination. The results of the assessment for Swiss Cottage are then presented in Tables H2 to H3 of this appendix.

Table H1. Rationale for Assessment Criteria Adoption

Source / Media	**CGL's Approach & Rationale**
Risks to Human Health (long-term chronic risks)	
Soil contaminants	· Laboratory test results have been compared against Generic Assessment Criteria (GACs) derived in-house by CGL using the Contaminated Land Exposure Assessment (CLEA) model and version 1.06 of the CLEA software. Where Soil Guideline Values (SGVs) have been published previously by the Environment Agency, the CGL GACs have updated these based on current exposure parameters (e.g. updated inhalation rates). · The GACs have been generated assuming a sandy loam soil type and a Soil Organic Material of 1% for the Made Ground and natural soils. · In the event impacts are identified on a site above the GAC level for arsenic, cadmium, chromium VI, benzene or benzo(a)pyrene, the results have been compared to the applicable Category 4 Screening Level (C4SL) published by DEFRA to further assess risks. · The exception to the above relates to lead. The SGV for lead has been withdrawn and the C4SL for lead is used by CGL directly as a first tier of assessment. · The CGL GACs represent conservative screening criteria (set at acceptable or minimal risk) and have generally been calculated using the default parameters for the standard land use scenarios set out in the CLEA technical report and toxicological inputs in line with the requirements of Science Report SC050021/SR2 and, in the case of petroleum hydrocarbons, Science Report P5-080/TR3. · Where a CGL GAC has not been derived alternative assessment criteria will be sourced from current commercially-available sources (including international standards where no suitable UK assessment criteria exists). · Concentrations of cyanide above the laboratory reporting limit are assessed against a Soil Screening Value (SSV) developed by Atkins. Atkins have based this assessment criteria on acute exposure to a 0 to 6 year old child. · Where the dataset is of appropriate size, assessment against the applicable GAC or C4SL is carried out at the 95th percentile of the sample mean (designated US_{95}), which is considered to represent a reasonable worst-case scenario. An assessment of the normality of the data has been undertaken. Where datasets are normally distributed the one sample t-test has been applied to calculate the US_{95}. In the case of non-parametric datasets, the Chebychev Theorem has been applied. The Grubbs Test has also been used to identify potential outliers within datasets. · It is noted that the British Geological Survey has published background levels for a number of organic and inorganic constituents. In the event that the C4SL or a GAC is found to be exceeded, the risk may still be considered to be low, unlikely to meet the definition of contaminated land under Part IIA and potentially suitable for use from a development perspective, if the contaminant concentrations are below local background levels, assuming no other contributing factors. · At this time an authoritative GAC is not available for asbestos fibres in soil. A positive identification of asbestos fibres in a soil sample by the laboratory is considered sufficient to warrant additional assessment of risks. Laboratory identification and quantification by microscopy may be required subject to source of material.
Dissolved contaminants	· Concentrations of organic constituents detected above the laboratory reporting limit in shallow groundwater or perched water have been assessed against groundwater vapour generic assessment criteria (GAC_{gwvap}) developed by the Society of Brownfield Remediation Risk Assessment (SoBRA). These assess chronic risks to human health via the indoor and outdoor air inhalation pathway only. The values assume a sand soil type, a soil organic matter of 1% and a depth below ground level of 650mm.
Ground gas	· Concentrations and flow rates of carbon dioxide and methane in ground gas are converted to Gas Screening Values (GSVs) in accordance with CIRIA (2007). Potential risks associated with gas chemistry are evaluated in accordance with guidance presented in CIRIA (2007), NHBC (2007), BSI (2007).

Source / Media	CGL's Approach & Rationale
Radon	· Risks from the radon content of soil gas are evaluated in accordance with BRE (2011).

Table 1 (continued). Rationale for Assessment Criteria Adoption

Risks to Controlled Waters	
Soil contaminants	· Results from any eluted liquids have been directly compared to Environmental Quality Standards (EQS) and Drinking Water Values (DWV) as an initial screen of water quality. These are considered to be conservative screening criteria.
Dissolved contaminants	· Results have been directly compared to Environmental Quality Standards (EQS) and Drinking Water Values (DWV) as an initial screen of water quality. These are considered to be conservative screening criteria.
Risks to Buildings & Structures	
Water supply pipes	· The evaluation of water supply pipe requirements at the site has been undertaken in general accordance with guidance and criteria produced by the UK Water Industry (2011).
Sulfate & pH conditions	· The evaluation of risks to buried concrete has followed the guidance and criteria produced by BRE (2005).
Risks to Vegetation & Plants	
Soil contaminants	· Risks to plant growth (i.e. phytotoxicity) have been assessed for specific contaminants where the limits for phytotoxic effect proposed (e.g. by BS 3882) are significantly lower than the health GAC.

Table H2. Data assessment summary – potential soil risks to human health (residential land use without homegrown produce consumption)

Determinand	GAC SOM = 1%	C4SL (based on 6% SOM)[1]	Note on SSL[2]	Measured range (mg/kg)	US_{95} (mg/kg)	US_{95} > Assessment Criteria? (Y/N) #- outlier detected
Antimony	*	*	-	<1 to 1.5	1.45	*
Arsenic	35	40	-	5.2 to 17	14.4	N
Barium	*	*	-	25 to 79	72.3	*
Beryllium	88	*	-	0.28 to 1.3	1.18	N
Boron (water soluble)	*	*	-	0.7 to 2.2	1.97	*
Cadmium	87	150	-	<0.2	0.2	N
Chromium (III)	3,300	*	-	8.5 to 57	50.52	N
Chromium (VI)	6.3	21	-	<1.2	1.2	N
Copper	9,400	*	-	11 to 75	69.65	N#
Lead[3]	310	310	-	12 to 55	41.96	N
Mercury (inorganic)	250	*	-	<0.3 to 0.5	0.47	N#
Nickel	190	*	-	6.5 to 45	57.59	N
Selenium	600	*	-	<1	1	N
Vanadium	1,100	*	-	22 to 73	65.99	N#
Zinc	20,000	*	-	41 to 110	91.95	N
Benzene	0.88	3.3	-	<0.001	1.25	N
Toluene	870	*	(c)	<0.001	1	N
Ethyl benzene	520	*	(c)	<0.001	1	N
m-xylene[4]	220	*	-	<0.001	1	N
o-xylene	230	*	-	<0.001	1	N
p-xylene	210	*	-	<0.001	1	N
Phenol[5]	2,000	*	-	<1	1	N
Cyanide[6]	34	*	-	<1	1	N
TPH aliphatic EC5-6	80	*	-	<0.001 to <0.1	0.001	N
TPH aliphatic EC>6-8	160	*	-	<0.001 to <0.1	0.001	N
TPH aliphatic EC>8-10	34	*	-	<0.001 to <0.1	0.001	N
TPH aliphatic EC>10-12	5,800	*	(b)	<1	1	N
TPH aliphatic EC>12-16	6,400	*	(b)	<2	2	N
TPH aliphatic EC>16-35	130,000 [8.6]	*	(a)	<18 to 10	9.78	N#
TPH aromatic EC5-7	0.88	*	-	<0.001 to <0.1	0.12	N
TPH aromatic EC>7-8	870	*	-	<0.001 to <0.1	0.12	N
TPH aromatic EC>8-10	55	*	-	<0.001 to <0.1	0.12	N
TPH aromatic EC>10-12	290	*	-	<1	1	N
TPH aromatic EC>12-16	2,500	*	(b)	<2	2	N
TPH aromatic EC>16-21	1,900 [60]	*	(a)	<10	10	N
TPH aromatic EC>21-35	1,900 [4.8]	*	(a)	<10 to 18	17.14	N
Naphthalene	6.3	*	-	<0.05	0.05	N
Acenaphthylene	5,800	*	(c)	<0.05 to <0.1	-	N
Acenaphthene	2,500	*	(b)	<0.05 to <0.1	0.11	N
Fluorene	3,000	*	(b)	<0.05 to <0.1	0.11	N#
Phenanthrene	1,300 [17]	*	(a)	<0.05 to 0.18	-	N
Anthracene	32,000	*	(b)	<0.05 to <0.1	0.11	N
Fluoranthene	4,900 [19]	*	(a)	<0.05 to 0.46	0.42	N
Pyrene	3,700 [2.2]	*	(a)	<0.05 to 0.41	0.37	N#
Benzo(a)anthracene	18 [1.7]	*	(a)	<0.05 to 0.28	0.26	N#
Chrysene	220 [0.4]	*	(a)	<0.05 to 0.31	0.28	N#
Benzo(b)fluoranthene	23 [1.2]	*	(a)	<0.05 to 0.32	0.29	N#
Benzo(k)fluoranthene	23 [0.7]	*	(a)	<0.05 to 0.23	0.22	N
Benzo(a)pyrene	3.6 [0.9]	5.3	(c)	<0.05 to 0.32	0.29	N#
Indeno(1,2,3-c,d)pyrene	26 [0.06]	*	(a)	<0.05 to 0.2	0.19	N
Dibenzo(a,h)anthracene	2.2 [0.004]	*	(a)	<0.05 to <0.1	0.11	N
Benzo(g,h,i)perylene	230 [0.02]	*	(a)	<0.05 to 0.28	0.25	N#

[1] *= No value currently defined.
[2] -= green; (a) = amber i.e. GAC set to model output, [SSL provided in square brackets]; (b) = red i.e. SSL exceeded & considered to affect interpretation. GAC calculated in accordance with CLEA Software Handbook; (c) = GAC limited to SSL.
[3] Published C4SL.
[4] Concentrations for total xylenes should be compared against m-xylene for fresh spills and to o-xylene for all other cases.
[5] GAC relates to phenol (C_6H_5OH) only.
[6] Assessment criteria for cyanide derived by Atkins based on acute exposure for a 0-6 year old child.

Determinand	GAC SOM = 1%	C4SL (based on 6% SOM)[1]	Note on SSL[2]	Measured range (mg/kg)	US_{95} (mg/kg)	US_{95} > Assessment Criteria? (Y/N) #- outlier detected
Coronene	*	*	-	<0.05		*

Table H3. Data assessment summary – potential soil risks to human health (residential land use without homegrown produce consumption)

Determinand	GAC SOM = 1%	C4SL (based on 6% SOM)[1]	Note on SSL[2]	Measured range (mg/kg)	US_{95} (mg/kg)	Result > Assessment Criteria? (Y/N) #- outlier detected
Antimony	*	*	-	<1 to 2.4	-	-
Arsenic	35	40	-	14 to 17	-	N
Barium	*	*	-	65 to 83	-	-
Beryllium	88	*	-	1.2 to 1.4	-	N
Boron (water soluble)	*	*	-	1.8 to 4.1	-	-
Cadmium	87	150	-	<0.2	-	N
Chromium (III)	3,300	*	-	44 to 52	-	N
Chromium (VI)	6.3	21	-	<1.2	-	N
Copper	9,400	*	-	31 to 70	-	N #
Lead[3]	310	310	-	15 to 19	-	N #
Mercury (inorganic)	250	*	-	<0.3	-	N
Nickel	190	*	-	39 to 44	-	N
Selenium	600	*	-	<1	-	N
Vanadium	1,100	*	-	66 to 78	-	N
Zinc	20,000	*	-	81 to 87	-	N
Benzene	0.88	3.3	-	<0.001	-	N
Toluene	870	*	(c)	<0.001	-	N
Ethyl benzene	520	*	(c)	<0.001	-	N
m-xylene[4]	220	*	-	<0.001	-	N
o-xylene	230	*	-	<0.001	-	N
p-xylene	210	*	-	<0.001	-	N
Phenol[5]	2,000	*	-	<1	-	N
Cyanide[6]	34	*	-	<1	-	N
TPH aliphatic EC5-6	80	*	-	<0.001 to <0.1	-	N
TPH aliphatic EC>6-8	160	*	-	<0.001 to <0.1	-	N
TPH aliphatic EC>8-10	34	*	-	<0.001 to <0.1	-	N
TPH aliphatic EC>10-12	5,800	*	(b)	<1	-	N
TPH aliphatic EC>12-16	6,400	*	(b)	<2	-	N
TPH aliphatic EC>16-35	130,000 [8.6]	*	(a)	<8 to 14	-	N
TPH aromatic EC5-7	0.88	*	-	<0.001 to <0.1	-	N
TPH aromatic EC>7-8	870	*	-	<0.001 to <0.1	-	N
TPH aromatic EC>8-10	55	*	-	<0.001 to <0.1	-	N
TPH aromatic EC>10-12	290	*	-	<1	-	N
TPH aromatic EC>12-16	2,500	*	(b)	<2	-	N
TPH aromatic EC>16-21	1,900 [60]	*	(a)	<10	-	N
TPH aromatic EC>21-35	1,900 [4.8]	*	(a)	<10	-	N
Naphthalene	6.3	*	-	<0.05	-	N
Acenaphthylene	5,800	*	(c)	<0.05 to <0.1	-	N
Acenaphthene	2,500	*	(b)	<0.05 to <0.1	-	N
Fluorene	3,000	*	(b)	<0.05 to <0.1	-	N
Phenanthrene	1,300 [17]	*	(a)	<0.05 to 0.18	-	N
Anthracene	32,000	*	(b)	<0.05 to <0.1	-	N
Fluoranthene	4,900 [19]	*	(a)	<0.05 to <0.1	-	N
Pyrene	3,700 [2.2]	*	(a)	<0.05 to <0.1	-	N
Benzo(a)anthracene	18 [1.7]	*	(a)	<0.05 to <0.1	-	N
Chrysene	220 [0.4]	*	(a)	<0.05	-	N
Benzo(b)fluoranthene	23 [1.2]	*	(a)	<0.05 to <0.1	-	N
Benzo(k)fluoranthene	23 [0.7]	*	(a)	<0.05 to <0.1	-	N
Benzo(a)pyrene	3.6 [0.9]	5.3	(c)	<0.05 to <0.1	-	N
Indeno(1,2,3-c,d)pyrene	26 [0.06]	*	(a)	<0.05 to <0.1	-	N
Dibenzo(a,h)anthracene	2.2 [0.004]	*	(a)	<0.05 to <0.1	-	N
Benzo(g,h,i)perylene	230 [0.02]	*	(a)	<0.05	-	N

[1] *= No value currently defined.
[2] -= green; (a) = amber i.e. GAC set to model output, [SSL provided in square brackets]; (b) = red i.e. SSL exceeded & considered to affect interpretation. GAC calculated in accordance with CLEA Software Handbook; (c) = GAC limited to SSL.
[3] Published C4SL.
[4] Concentrations for total xylenes should be compared against m-xylene for fresh spills and to o-xylene for all other cases.
[5] GAC relates to phenol (C_6H_5OH) only.
[6] Assessment criteria for cyanide derived by Atkins based on acute exposure for a 0-6 year old child.

Determinand	GAC SOM = 1%	C4SL (based on 6% SOM)[1]	Note on SSL[2]	Measured range (mg/kg)	US_{95} (mg/kg)	Result > Assessment Criteria? (Y/N) #- outlier detected
Coronene	*	*	-	<0.05		

Table H4. Standard Water Supply Pipe Assessment

Test Group[1]	Testing Required?	PE threshold (mg/kg)	Metal Pipes / Barrier Pipe	Laboratory Detection Limit (mg/kg)	Testing UKAS accredited Y/N	Maximum concentration at proposed pipeline depth[2] (mg/kg)	Maximum site concentration[3] (mg/kg)	Locations and depths where concentrations exceed proposed pipeline threshold.
Total VOCs	**Where Preliminary Risk Assessment (PRA) has identified land potentially affected by contamination**	**0.5**	**-**	-	-	-	-	-
Total BTEX & MTBE		**0.1**	**Pass**	0.001	Y	-	<0.001	-
Total SVOCs		**2**	**Pass**	-	-	-	-	-
EC5–EC10 aliphatic and aromatic hydrocarbons		**2**	**Pass**	0.01 to 0.1	Y	-	<0.001 to <0.1	-
EC10-EC16 aliphatic and aromatic hydrocarbons		**10**	**Pass**	1 to 2	Y	-	<1 to 5.3	-
EC16-EC40 aliphatic and aromatic hydrocarbons		**500**	**Pass**	8 to 10	Y	-	<8 to 18	-
Phenols		**2**	**Pass**	<1	Y	-	<1	-
Creosols and chlorinated phenols		**2**	**-**	-	-	-	-	-
Ethers	**Only where identified**	**0.5**	**-**	-	-	-	-	-
Nitrobenzene		**0.5**	**-**	-	-	-	-	-
Ketones		**0.5**	**-**	-	-	-	-	-
Aldehydes		**0.5**	**-**	-	-	-	-	-
Amines		**Fail**	**-**	-	-	-	-	-
Corrosive	**Conductivity Redox pH**	**Pass**	**Note[4]**	-	-	-	-	-

[1] Tests Groups as per Appendix G of UKWIR Guidance.

[2] Water pipes are normally laid 0.75-1.35 metres below finished ground level.

[3] State if liquid free product is present in soil or groundwater.

[4] Threshold: For wrapped steel, corrosive if pH<7 and conductivity >400 µs/cm. For wrapped ductile iron corrosive if pH<5, Eh not neutral and conductivity >400 µs/cm. For copper, corrosive if pH<5 or>8 and Eh positive.

APPENDIX I

Verification Plan

Reference	Principal requirements	Remediation or construction related	Site visit required by qualified geoenvironmental engineer	Supporting documentation
1.0 General principles	It is proposed to develop the site for a residential end use. It is understood that buildings are to be between 5 and 24 storeys in height with retail and community use and roof terraces. The existing basement is to be deepened by approximately 1m and extended further southeast. The site remediation requirements are as follows: • Asbestos survey and removal; • Removal of existing tanks/substation and buried obstructions and borehole decommissioning, if necessary; • Visual inspection of soils beneath the tanks and substation during deepening of the basement to confirm no visual evidence of contamination; • Appropriate management/disposal of basement excavation arisings; • Provision of growth medium in tree planters; • The use of appropriate water supply pipe material and correct design of concrete; • Watching brief and discovery strategy; and, • Verification reporting.	Construction Construction	**YES** • As detailed below	Details of construction programme to be provided by client/contractor. - Method statements -As built records and photographs
2.0 Compliance with leglisation	The construction and remediation activities on the site will be undertaken in accordance with all current health and safety and environmental legislation.	Remediation & construction	-	-
3.0 Health and Safety requirements	This verification plan does not specifically cover health and safety requirements. This will be addressed in the Contractor's Health and Safety Plan.	Remediation & construction	-	-
4.0 Asbestos survey and	An asbestos survey and removal should be undertaken by a specialist	Construction	-	-

Reference	Principal requirements	Remediation or construction related	Site visit required by qualified geoenvironmental engineer	Supporting documentation
removal	contractor prior to demolition of the existing buildings on site.			
5.0 Removal of tanks and buried obstructions and borehole decommissioning.	Visual inspection of the underlying soils should be undertaken following decommissioning of the above ground storage tanks. Visual or olfactory indicators of contamination should be dealt with under the Discovery Strategy.	Remediation & construction	**YES** – should indicators of contamination be identified.	Site visit records including photographs Chemical test results
6.0 Waste disposal and materials management	It is understood that the existing basement is to be deepened by approximately 1m and extended further southeast. Waste is likely to be generated, although primarily natural soils. Re-use of excavated and treated Made Ground, superficial soils or crushed concrete at the site could be accomplished through waste exemptions, environmental permits, WRAP Protocol or through the Development Industry Code of Practice, depending on the material in question and quantity of material. However, any material bound for disposal to landfill will require characterisation in accordance with the Hazardous Waste Regulations 2005 and disposal in accordance with the requirements of the Landfill Regulations (2002, as amended) and the Environmental Protection (Duty of Care) Regulations, 1991. See Sections 8 and 10.5 of report for preliminary waste classification. As an alternative to landfilling, surplus soils could be sent to a soil treatment facility where impacted with hydrocarbons. Natural uncontaminated gravels and clays would be deemed to be suitable for disposal to an inert facility as listed inert wastes (EWC-17 05 04).	Remediation & construction	**YES** • To observe remedial works and take validation samples • To sample groundwater monitoring points	Cut and fill records Duty of care records for disposal of waste, pumped groundwater and free product. Evidence of material management procedures in place for reuse of materials (i.e. permit, MMP and declaration by QP, exemption etc.) Laboratory test results
7.0 Growth Medium	Clean imported topsoil/subsoil to be used within the proposed tree planters should be from a known and reputable source and meet the	Construction	**No**	Source certificates and pre-delivery test data (to be provided by

Reference	Principal requirements	Remediation or construction related	Site visit required by qualified geoenvironmental engineer	Supporting documentation
	specification to be set by the landscape architect. This is anticipated to be in accordance with BS3882, including applicable human health assessment criteria, which is to be demonstrated by provision of source data and pre-import laboratory data of imported soil. All imported soils should be validated on site though chemical testing.			Contractor) and on site validation testing. Site visit records including photographs Layout drawings showing location of areas of gardens and soft landscaping
8.0 Services	The water supply company should be provided with copies of the ground investigation report so that they can make the necessary provisions to safe guard their installations.	Construction	-	Confirmation of pipework material and acceptance of material choice by water supply company. Installation photographs

Appendix C

Regeneration and Planning
Development Management
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Tel 020 7974 4444

planning@camden.gov.uk
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Mr Richard Evans
WYG
11th Floor 1 Angel Court London
EC2R 7HJ

Application Ref: **2017/5859/P**
Please ask for: **Jonathan McClue**
Telephone: 020 7974 **4908**

12 December 2017

Dear Sir/Madam

DECISION

Town and Country Planning Act 1990 (as amended)

Approval of Details Granted

Address:
100 Avenue Road
London
NW3 3HF

Proposal: Details of a Geoenvironmental Interpretative Report and Laboratory results calculations to discharge condition 14 (1) (land contamination survey and lab results) of planning permission 2014/1617/P dated 18/02/2016 for Demolition of existing building and redevelopment for a 24 storey building and a part 7 part 5 storey building comprising a total of 184 residential units (Class C3) and up to 1,041 sqm of flexible retail/financial or professional or café/restaurant floorspace (Classes A1/A2/A3) inclusive of part sui generis floorspace for potential new London Underground station access fronting Avenue Road and up to 1,350 sqm for community use(Class D1) with associated works including enlargement of existing basement level to contain disabled car parking spaces and cycle parking, landscaping and access improvements.

Drawing Nos: Geoenvironmental Interpretative Report - Revision 2 dated December 2017

The Council has considered your application and decided to grant approval of details.

Informatives:

1 Reasons for approving the details.

Condition 14 requires details of an intrusive land contamination survey with written laboratory results (part 1) and a remediation scheme (part 2). This submission has submitted the requirements of part 1, with the remediation scheme to be reserved for future submission (at the relevant time).

The submitted report has undertaken a data review and completed a supplementary investigation to the preliminary risk assessment and site investigation undertaken as part of the original planning submission. The supplementary investigation comprised of six window sampler boreholes and three hand dug pits to target identified potential sources of contamination and to provide additional site coverage.

The findings of the investigations indicate that measured concentrations of contaminants are below relevant screening criteria. Asbestos was not encountered. Based on the gas monitoring undertaken, one elevated concentration of carbon dioxide was recorded; however, the gas risk assessment has concluded that the concentrations recorded in this borehole are not representative of typical maximum concentrations beneath the site. Therefore, gas protection measures are not required.

Based on investigations to date, remediation/mitigation measures include removal of existing tanks and substation, asbestos survey and appropriate mitigation works by a specialist contractor, the correct design of concrete, provision of a growth medium in tree planters, and a watching brief and discovery strategy.

The Council's Contamination Officer has reviewed the submitted details, and confirms that the condition wording has been fully satisfied and that the condition 14(1) can therefore be discharged. Condition 14 (2) cannot be discharged until the verification report has been submitted.

One objection was received prior to making this decision and was duly considered. No material matters were raised in relation to the details being considered. The site's planning history and relevant appeal decisions were taken into account when coming to this decision.

The original permission was granted when the Local Development Framework was the relevant local policy document. Therefore, the details need to be assessed in accordance with policy CS5 of the London Borough of Camden Local Development Framework Core Strategy and policy DP26 of the London Borough of Camden Local Development Framework Development Policies. It is considered that the proposed details are in accordance with policies CS5 and DP26. The Camden Local Plan was adopted on 03/07/2017 with policy A1 being the relevant policy under the new plan. The details also conform to this replacement policy. As such, the proposed details are in general accordance with the relevant policies and can be formally discharged.

2 The applicant is advised that conditions 3, 5, 6, 9, 14 (2), 15 (partial for eastern boundary mitigation only), 16, 17, 18, 19, 22, 23, 25, 26, 29, and 30 of planning permission 2014/1617/P dated 18/02/2016 remain outstanding and must be

approved before the relevant stage of the development.

In dealing with the application, the Council has sought to work with the applicant in a positive and proactive way in accordance with paragraphs 186 and 187 of the National Planning Policy Framework.

You can find advice about your rights of appeal at:

http://www.planningportal.gov.uk/planning/appeals/guidance/guidancecontent

Yours faithfully

David T. Joyce

David Joyce
Director of Regeneration and Planning