

e-mail **Date: 5th September 2017**
Ref: 10037A/SC/SCW
Client: Quinn London Ltd
From: Stuart Childs

Dear Michael,

Re: Supplementary Ground Investigation –
St Pancras Community Centre, 30 Camden Street, London, NW1 0LG

A supplementary ground investigation has been carried out by Soil Consultants Ltd in connection with the proposed new 3 to 4 storey residential building [with no basement], at St Pancras Community Centre, 30 Camden Street, London, NW1 0LG. Our original investigation was limited due to site constraints and this phase of investigation has provided additional environmental sampling in order to establish the risk of potential contamination at the site.

This Report has been prepared for the benefit of the Client and associated parties directly involved with the project under direction of the Client. No reliance can be assumed by others without written agreement from Soil Consultants Limited.

As requested by the client our investigation comprised the construction of 7no trial pits which were excavated both by hand and by an excavator. The former 'lock up' style garages were identified as the main area of potential contamination which is to be replaced with a new landscape courtyard and car parking. This report re-assesses the contamination elements of the site which replaces our original assessment. Notwithstanding this, our earlier report should be read in conjunction with this addendum.

Exploratory work

This phase of investigation comprised the construction of 7no trial pits [TP1 to TP7] to a maximum depth of 1.90m below ground level. TP1-TP3 were constructed by hand excavation along the northern and western perimeters of the site with TP4-TP7 being excavated along the southern perimeter where lock up style garages were previously present. Where possible, the full thickness of Made Ground was identified and the natural deposits exposed at each location. The soils were tested for a range of commonly-occurring contaminants and PID headspace testing was undertaken, as requested by Camden's Environmental Health Officer, and the results of the tests are appended.

Summary of Ground Conditions

A summary of the ground conditions encountered on site is as follows:

	TP1	TP2	TP3	TP4	TP5	TP6	TP7	WS101	BH1
Made Ground	0.00-1.60 m	0.00-1.00 m	0.00-1.50 m	0.00-1.60m	0.00-1.65m	0.00-2.00m	0.00-1.60m	0.00-1.40m	0.00-1.65m
London Clay Formation	N/A*	N/A*	N/A*	1.60-1.90m	1.65m - 2.00m	N/A*	1.60-2.00m	1.40-5.20m	1.65m-25.00m

*N/A=not encountered

Environmental Appraisal

This appraisal adopts the current UK practice which uses the Source-Pathway-Receptor methodology to assess contamination risks. For a site to be designated as contaminated a plausible linkage between any identified sources and receptors must be identified, ie whether significant pollution linkages [SPLs] are present. In considering the potential for contamination to cause a significant effect, the extent and nature of the potential source are assessed and pathways/receptors identified; without an SPL there is theoretically no risk to the receptors from contamination. The assessed risks to the various potential receptors are summarised in the tabulated Conceptual Site Model.

Environmental setting and context

The Site is underlain by Unproductive bedrock aquifers [London Clay Formation] and is not located in a source protection zone, a flood zone or environmentally-sensitive area. There are no water abstractions or surface water features nearby. The solid geology of the site and surrounding area is largely of a cohesive nature and low permeability. Overall, the site is assessed as being of **Low to Medium Environmental Sensitivity**.

Potential contamination sources [on-site and off-site]

The Phase 1 [Desk Study] indicated the presence of an Unspecified Workhouse [188m E] and a Hospital [189m E] in the early 20th century. Other manufacturing/industrial usages have been identified within a 250m area of the site with the vast majority of use appearing to be residential and public buildings. Some garages/vehicle maintenance workshops and an electrical substation 56m N have been identified which may give rise to potential contamination however migration of contaminants would be restricted by the presence of clay soils. Potentially infilled ground has been noted and identified as a burial ground. The site has been developed through historical times where the ground use has changed from religious and residential purposes to commercial and storage uses, and thus there is a potential for made ground

From our walkover survey of the site no significant sources of potential contamination have been noted within the site or its immediate surroundings. It is noted that some lock-up style garages are present which could have the potential for contamination. Visual observations indicated there was no discernible evidence of significant spillages or discolouration.

Overall, based on the available information, prior to our contamination testing, we considered there to be a **Low to Medium** risk potential with regard to contaminative sources which could affect the site.

Contamination Testing

A range of soil samples were tested over varying depths from TP1-TP7. The results were assessed where relevant against the DEFRA Soil Guideline Values [SGV] and the LQM/CIEH Suitable 4 Use Level [S4UL] Generic Assessment Criteria [GAC] for Human Health Risk Assessment in which LQM/CIEH have derived additional SGVs from the current CLEA Model [2nd Edition, 2009]. Category 4 Screening Levels [C4SLs] have been introduced by DEFRA in 2014, which have been used to assess the results for Lead and for several other common contaminants. There are currently no published SGV's or GAC's for Extractable/Total Petroleum Hydrocarbons and the results were compared with the frequently used EA remedial target of 1,000mg/kg. We have used, where relevant, the most stringent trigger levels [residential with home grown produce] to assess the results of the contamination testing.

The contamination testing was carried out specifically for the purpose of providing a general guidance evaluation for the proposed development. Reference should be made to the Foreword to the appended contamination test results in order to fully understand the context in which this discussion should be viewed.

Given the proposed end use of a communal landscaped area [with no residential gardens] we have used, where relevant, the trigger levels for **Public Open Space [Residential]** to assess the results of the contamination testing.

The initial [limited] investigation dated January 2017 identified no elevated contaminants to be present in either BH1 [0.35m, 0.75m and 0.95m] or WS101 [1.30m]; lead concentrations of between 33 and 428mg/kg, all falling below the relevant Category 4 Screening Level value for lead for Public Open Space [Residential] being at 630mg/kg. The initial site investigation borehole logs and QTS test results are appended.

From this phase of investigation, several occurrences of lead concentrations above the C4SL threshold concentration of 630mg/kg were identified within made ground samples - in TP3 [1520mg/kg @ 1.50m], TP6 [2970mg/kg @ 0.50m, 4890mg/kg @ 1.00m, 3100mg/kg @ 2.00m] and TP7 [723mg/kg @ 0.50m]. Samples within the natural London Clay revealed no exceedances with lead concentrations ranging between 26-122mg/kg.

None of the other test results exceeded the relevant threshold concentrations; EPH results were all very low [$<84\text{mg/kg}$] and all speciated PAHs were below S4UL thresholds.

The trial pits themselves showed no obvious visual or olfactory evidence of contamination and PID headspace test results [see individual trial pit records] were all 'zero' indicating that no volatile hydrocarbons are present.

Taking this into account together with the results of the contamination testing, we conclude that with the exception of the localised exceedances of lead noted above of lead, there is no significant contamination present at the trial pit locations. We understand that for the proposed landscaping areas, a suitable thickness of certified 'clean' imported topsoil will be provided which would create a barrier between any residual made ground and the end user. We recommend a minimum thickness of 600mm is used however this should be discussed and agreed with the local Environmental Health Authority.

Although not detected in our samples, asbestos containing materials [ACMs] are common in made ground and in buildings constructed before 2000, and this aspect should be addressed in the construction/health and safety procedures.

Risk Assessment and Conceptual Model

Taking into account the above discussion, the assessed risks to potential receptors are summarised as follows:

Source/ hazard	Pathway	Receptor	Mitigation measures/explanation	Assessed Risk level
Contaminated soil: on-site and off-site sources [Made Ground]	Ingestion/ contact	End user and construction workers	<ul style="list-style-type: none"> No visual/olfactory evidence of gross soil contamination was observed with the exception of localised lead exceedances. All other contaminants were below threshold levels for Public Open Space [Residential end use] Structure and hard standing will reduce the possibility of end user contact In landscaped areas the upper 0.60m of made ground should be replaced with clean certified imported subsoil and topsoil Any residual risks to construction workers will be controlled by the use of appropriate PPE A careful watching brief should be kept during construction and if obvious or suspected contamination is encountered this should be dealt with prescriptively 	LOW [following mitigation measures]
[London Clay Formation]			<ul style="list-style-type: none"> No visual/olfactory evidence of gross soil contamination and all contaminants were below threshold levels for Public Open Space [Residential end use] 	
Contaminated soil: on-site sources	Migration of contaminated ground water and/or surface run-off through contaminated fill into aquifer	Aquifer and surface water	<ul style="list-style-type: none"> No visual/olfactory evidence of gross soil contamination was observed with the exception of localised lead exceedances. All other contaminants were below threshold levels for Public Open Space [Residential end use] The site is considered to be in a low to medium environmental sensitivity setting The site is underlain by very low permeability London clay which protects the main chalk aquifer present at depth The large majority of the site will remain fully covered by concrete/paving which should minimise any surface water infiltration into the underlying soils 	LOW
Ground gas: on-site and off-site sources	Migration	End-user and buildings	<ul style="list-style-type: none"> Burial ground to the east of the site which could be a potential gas source. No degradable materials were noted in the exploratory boreholes Gas monitoring indicates noxious gasses are not present No radon protection measures are necessary based on the Groundsure information 	LOW

In conclusion, based upon the information reviewed and the results of the investigation, our assessment is that the risks to potential receptors should be **LOW**, subject to some mitigation measures as mentioned above. It should be noted that access to the centre of the site where the new development currently sits is limited and it is self-evident that there may be zones of contamination within the site which were not encountered in our boreholes and trial pits. A careful watching brief should be kept during construction to ensure that any potentially contaminated soil encountered is disposed of in a safe and controlled manner. A suitable contingency plan should be in place should contaminated soils be encountered.

Site workers should observe normal hygiene precautions when handling soils. If material suspected of being contaminated is identified during construction, this material should be set aside under protective cover and further tests undertaken to verify the nature and levels of contamination present. If contamination is encountered, further site characterisation may be required.

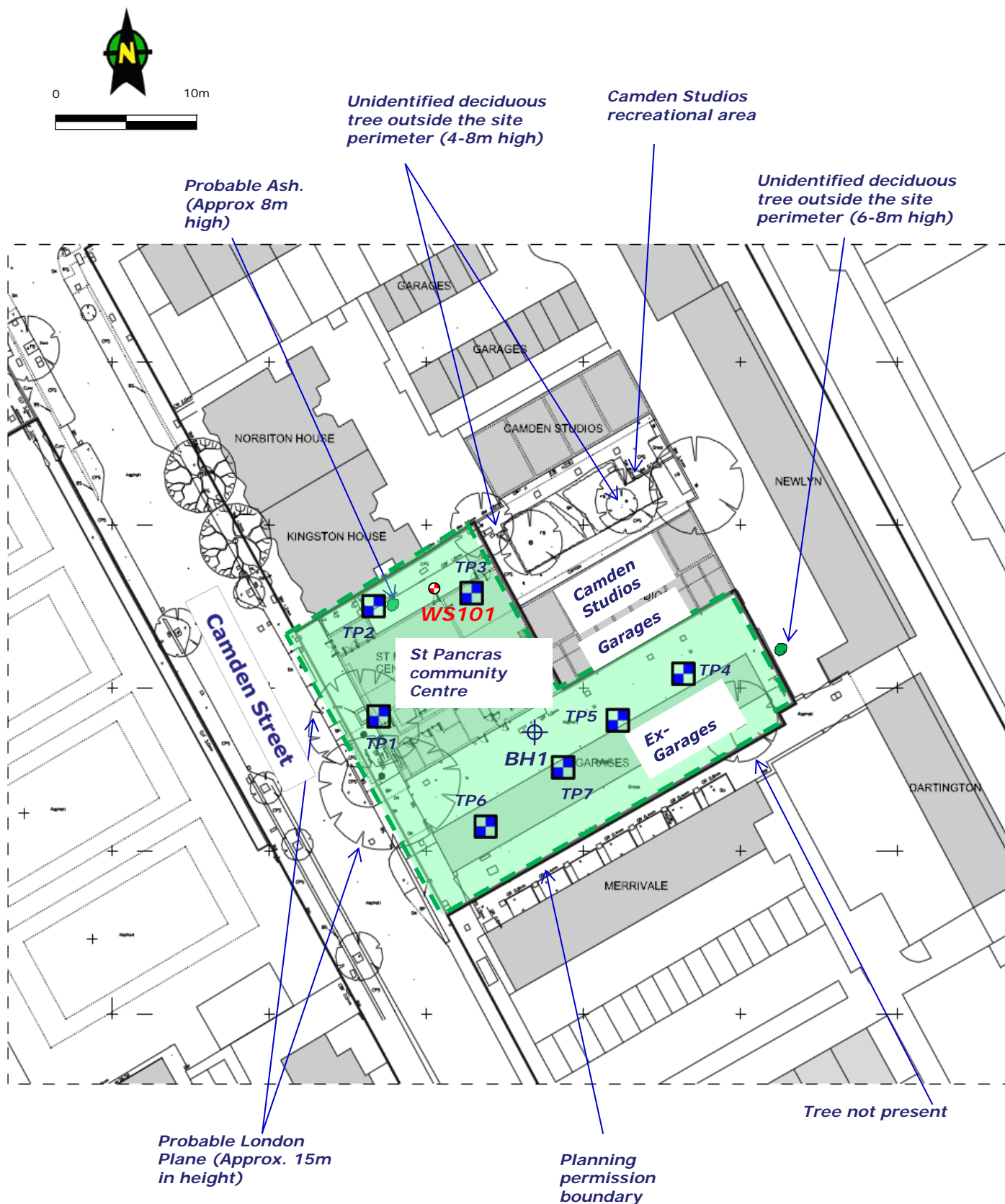
For Soil Consultants Ltd

Stuart Childs

Enc:

- Site plan
- CP borehole record & WS borehole record
- Trial Pit records
- QTS test records [14/11/16 & 30/8/17]

Site Plan





Stuart Wagstaff
Soil Consultants Ltd
Chiltern House
Earl Howe Road
Holmer Green
High Wycombe
Buckinghamshire
HP15 6QT



QTS Environmental Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410
russell.jarvis@qtsenvironmental.com

QTS Environmental Report No: 16-51407

Site Reference: Camden

Project / Job Ref: 10037

Order No: 10037

Sample Receipt Date: 08/11/2016

Sample Scheduled Date: 08/11/2016

Report Issue Number: 1

Reporting Date: 14/11/2016

Authorised by:

Kevin Old
Associate Director of Laboratory

Authorised by:


Ela Mysiara
Inorganics & ICP Section Head

Site & Location: St Pancras Community Centre 30 Camden Street, London, NW1 0LG					Borehole No: BH1				
Client: Quinn London Ltd					Coordinates: 529398E, 183578N		Sheet 1 of 3		
Engineer: Michael Barclay Partnership LLP					Ground Level: +22.84mOD		Report No: 10037/SC		
Progress & Observations	Samples & Tests		Field Test Results	Strata		Legend	Strata Descriptions	Backfill / Installation	
	Type	Depth (m)		Depth (m)	Level (m)				
BH commenced: 31/10/16				0.05	22.79		TARMAC		
BH/casing dia: 150mm	D	0.30		0.25	22.59		CONCRETE		
	B	0.65					MADE GROUND: soft brown mottled black ashy silty clay with cinder, brick, wood and concrete fragments		
	D	0.75							
	D	0.95		0.95	21.89		MADE GROUND: soft orangish brown silty CLAY with rare fine ironstone fragments and fine brick fragments		1
BH cased to 1.60m	S	1.20	N=5	1.20	21.64		MADE GROUND: soft brown mottled black silty clay with rare gravel. Gravel is fine to medium, sub angular flint with brick and ash fragments		
	SPT/S	1.20	N ₆₀ =5				Soft orangish brown silty CLAY with occasional grey gleying		
				1.65	21.19				
	D	1.90							2
	U	2.20							
50mm pipe installation at 3.00m	D	2.95		2.90	19.94		Firm fissured orangish brown silty CLAY. Occasional orange sand pockets and partings. Rare becoming occasional grey gleying associated with decayed root pathways. Rare selenite crystals throughout		3
	S	3.20	N=16			becoming stiff below 3.20m		
	SPT/S	3.20	N ₆₀ =18						
	D	3.90							4
	U	4.20							
	D	4.90							5
	S	5.20	N=19						
	SPT/S	5.20	N ₆₀ =21						
	D	5.90							6
Claystone at 6.20m	U	6.20				claystone fragment at 6.20m		
	D	6.90		6.70	16.14		Stiff fissured dark brown silty CLAY with rare grey gleying and rare sand/silt partings.		7
	S	7.20	N=20						
	SPT/S	7.20	N ₆₀ =22						
	D	7.90				at 7.90m pyritised wood fragments and rare selenite crystals		8
	U	8.20							
	D	8.90		8.85	13.99		Stiff fissured grey silty CLAY with rare light brown silt/sand pockets		9
	S	9.20	N=31						
	SPT/S	9.20	N ₆₀ =34						
	D	9.90		10.00	12.84				10
Continued on next sheet									
Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet								Borehole type: Cable Percussion	
Remarks: Ground levels taken from Cartwright Pickard architects' 'Camden Street - Ground floor GA Plan', Ref: 634-AD-2000, 01/05/2013								Borehole No: BH1	

Site & Location: St Pancras Community Centre 30 Camden Street, London, NW1 0LG										Borehole No: BH1	
Client: Quinn London Ltd						Coordinates: 529398E, 183578N				Sheet 2 of 3	
Engineer: Michael Barclay Partnership LLP						Ground Level: +22.84mOD				Report No: 10037/SC	
Progress & Observations	Samples & Tests		Field Test Results	Strata		Legend	Strata Descriptions	Backfill / Installation			
	Type	Depth (m)		Depth (m)	Level (m)						
Chiselling on claystone at 13.95m to 14.10m for 30mins Seepage at 13.95m - not sealed	U	10.20	N=30 N ₆₀ =33	10.90	11.94		Stiff fissured grey silty CLAY with rare light brown silt/sand pockets		11		
	D	10.90					Stiff fissured grey silty CLAY with occasional light grey silt/sand pockets and partings and rare pyrite nodules				
	S	11.20									
	SPT/S	11.20									
	D	11.90									
	U	12.20									
	D	12.90	N=29 N ₆₀ =32	12.90	9.94		Very stiff fissured grey silty CLAY with rare fossil fragments and pyrite nodules		13		
	S	13.20									
	SPT/S	13.20									
	D	13.95				at 13.80m to 13.90m 10cm lignite horizon				
	U	14.20									
	D	14.95				N=35 N ₆₀ =38	14.90			7.94	
	S	15.20									
	SPT/S	15.20									
	D	15.90									
	U	16.20									
	D	16.90	N=38 N ₆₀ =42								
	S	17.20									
	SPT/S	17.20									
	D	17.90				at 17.90m clay has a bluish grey colouration				
U	18.20										
D	18.90	N=41 N ₆₀ =45									
S	19.20										
SPT/S	19.20										
D	19.90										
Continued on next sheet							20				
Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet										Borehole type: Cable Percussion	
Remarks: Ground levels taken from Cartwright Pickard architects' 'Camden Street - Ground floor GA Plan', Ref: 634-AD-2000, 01/05/2013										Borehole No: BH1	

Site & Location: St Pancras Community Centre 30 Camden Street, London, NW1 0LG							Borehole No: BH1	
Client: Quinn London Ltd				Coordinates: 529398E, 183578N		Sheet 3 of 3		
Engineer: Michael Barclay Partnership LLP				Ground Level: +22.84mOD		Report No: 10037/SC		
Progress & Observations	Samples & Tests		Field Test Results	Strata		Legend	Strata Descriptions	Backfill / Installation
	Type	Depth (m)		Depth (m)	Level (m)			
End of shift: 01/11/16 BH depth: 20.00m Casing depth: 1.60m Water depth: dry BH continued: 02/11/16 Water depth: dry Seepage at 20.20m - not sealed	U	20.20	N=44 N ₆₀ =48	22.90	-0.06		Very stiff fissured grey slightly sandy silty CLAY with occasional light grey sand pockets at 20.95m pyritised wood fragments	
	D	20.90						
	S	21.20						
	SPT/S	21.20						
	D	21.90						
	U	22.20						
	D	22.90						
	S	23.20						
	SPT/S	23.20						
	D	24.05						
End of BH: 02/11/16 BH depth: 25.00m Casing depth: 1.60m Water depth: dry After pulling casing water level: dry	U	24.55	N=46 N ₆₀ =51	25.00	-2.16		Very stiff fissured grey silty CLAY with rare light grey silt/sand pockets.at 23.20m pyritic wood fragments and increased occurrence in sand partings/pockets pyrite nodules at 24.05m End of hole at 25.00m	
Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet								
Remarks: Ground levels taken from Cartwright Pickard architects' 'Camden Street - Ground floor GA Plan', Ref: 634-AD-2000, 01/05/2013								
Borehole type: Cable Percussion Borehole No: BH1								

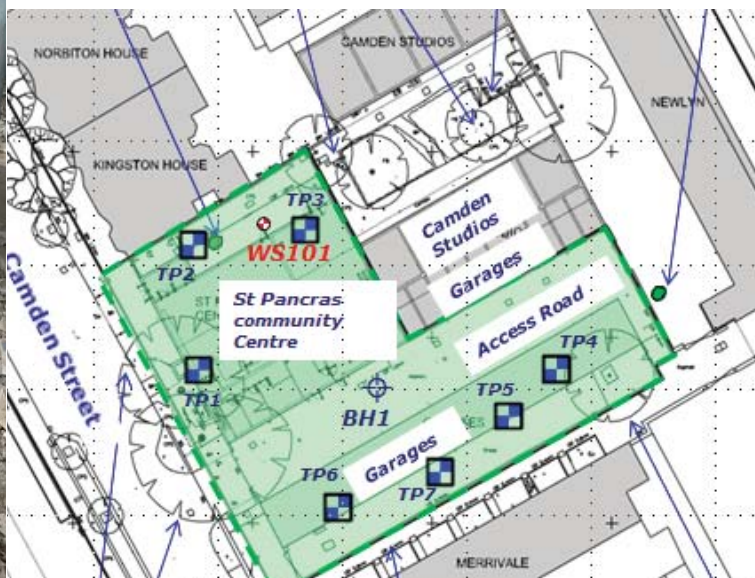
Site & Location: St Pancras Community Centre 30 Camden Street, London, NW1 0LG							Borehole No: WS101	
Client: Quinn London Ltd					Coordinates: 529380E, 183592N		Sheet 1 of 1	
Engineer: Michael Barclay Partnership LLP					Ground Level: +23.23mOD		Report No: 10037/SC	
Progress & Observations	Samples & Tests		Field Test Results	Strata		Legend	Strata Descriptions	Backfill / Installation
	Type	Depth (m)		Depth (m)	Level (m)			
WS Commenced: 03/11/16 Nominal diameter of 90mm from GL to 1.0m. Decreasing with depth.				0.05	23.18		RUBBER MATTING	
				0.10	23.13		WOOD CHIPPING	
				0.20	23.03		MADE GROUND: pink hardcore	
	D	0.30		0.40	22.83		MADE GROUND: brown and yellow sand with occasional gravel. Gravel is fine to medium sub angular to sub rounded flint with brick and concrete fragments	
	D	0.40					MADE GROUND: soft brown iron stained silty clay with occasional gravel. Gravel is fine to coarse, sub angular to sub rounded flint with brick, glass, asphalt and concrete fragments. Live rootlets through to 0.80m	
	D	0.50					Stiff brown silty CLAY with live roots and rootlets between 1.50m and 1.80m	
	D	0.70	2.5			claystone fragments between 1.40m and 1.80m	
	D	0.70						
	PP	0.70	3.0					
	PP	0.80	3.2					
	D	0.90						
	D	1.00		1.40	21.83			
	PP	1.00	3.5					
	D	1.20	3.0					
	PP	1.20						
	D	1.30						
	PP	1.30	4.5					
	D	1.40						
	PP	1.40	2.8					
	D	1.50						
	HV	1.50	86					
	PP	1.50	3.1					
	HV	1.60	91					
	D	1.70						
	HV	1.70	84					
	HV	1.80	93	3.10	20.13		Stiff brown silty CLAY with grey gleying. Rare becoming occasional orange sand pockets and partings	
	D	1.90						
	HV	1.90	86					
	HV	2.00	81					
	D	2.10						
	HV	2.10	91					
	HV	2.20	72					
	D	2.30						
HV	2.30	62						
D	2.40							
HV	2.40	62						
HV	2.60	62						
D	2.70							
HV	2.70	57						
HV	2.80	69						
D	2.90		5.20	18.03		End of hole at 5.20m		
D	2.90	69						
D	3.10							
HV	3.10	77						
D	3.30							
HV	3.30	74						
D	3.50							
HV	3.50	81						
D	3.70							
HV	3.70	101						
HV	3.90	101						
D	4.10							
HV	4.20	101						
HV	4.40	81						
D	4.50							
HV	4.60	72						
D	4.70							
HV	4.80	115						
D	5.00							
HV	5.00	86						
End of Shift: 03/11/16 WS depth: 5.20m WS cased to: N/A 35mm pipe installation at 5.00m								
Key: U = Undisturbed B = Bulk D = Small disturbed W = Water ES = glass jar & plastic tub E = glass jar SPT/S = split spoon SPT/C = solid cone PP = Pocket Penetrometer [kg/cm²] HV = Hand Vane [kPa] PID = Photo Ionisation Detector [ppm - Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp] * = full SPT penetration not achieved - see summary sheet								
Remarks: Ground level taken from Cartwright pickard architects' 'Camden Street - Ground floor GA Plan', Ref: 634-AD-2000, 01/05/2014								
Borehole type: Cable Percussion								
Borehole No: WS101								



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP1
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description	Samples / Tests			
		Depth (m)	Type	Results	
GL – 1.60	MADE GROUND: brown clayey sand and gravel. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete with porcelain fragments	0.50	E/PID	0.00	
		1.00	E/PID	0.00	
		1.50	E/PID	0.00	
Date of Excavation		14/8/17		Groundwater	Dry
Equipment		Hand tools		Logged by	SC
Stability		Stable		Checked by	OT
Remarks: Pit abandoned at 1.50m due to time constraints and extensive made ground in the area which was backfilled by Quinn upon infilling the basement that existed prior to construction.					

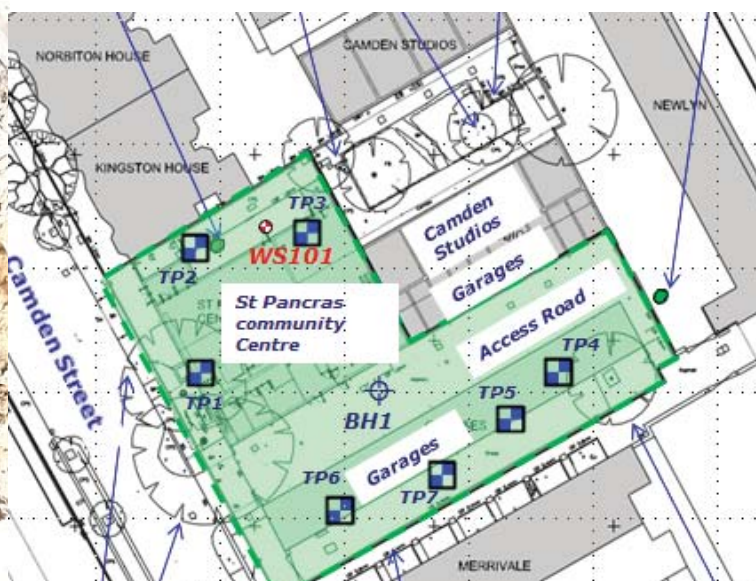
Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP2
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description		Samples / Tests		
			Depth (m)	Type	Results
GL – 1.00	MADE GROUND: brown clayey sand and gravel. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete fragments		0.50	E/PID	0.00
Date of Excavation		14/8/17	Groundwater		Dry
Equipment		Hand tools	Logged by		SC
Stability		Stable	Checked by		OT
Remarks: Pit abandoned at 1.00m due to time constraints and extensive made ground in the area which was backfilled by Quinn when infilling the basement that existed prior to construction.					

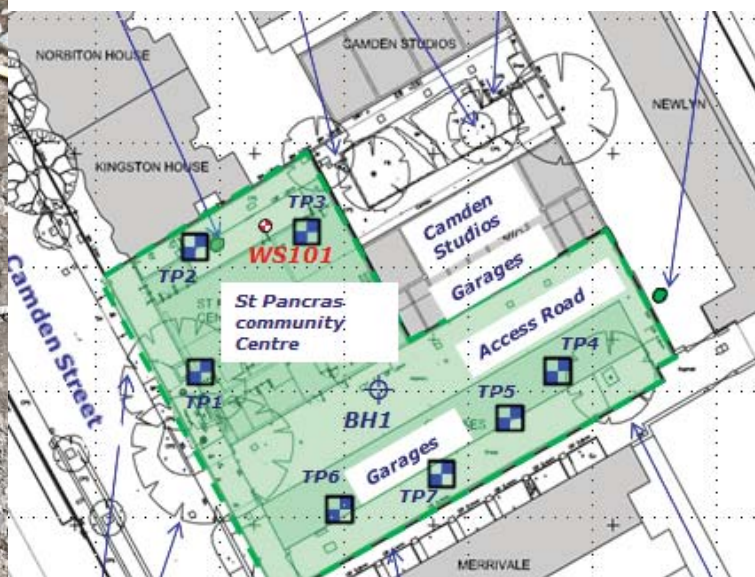
Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP3
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description		Samples / Tests		
			Depth (m)	Type	Results
GL – 1.50	MADE GROUND: brown clayey sand and gravel. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete with porcelain fragments		0.50	E/PID	0.00
			1.00	E/PID	0.00
			1.50	E/PID	0.00
Date of Excavation		14/8/17	Groundwater		Dry
Equipment		Hand tools	Logged by		SC
Stability		Stable	Checked by		OT
Remarks: Pit abandoned at 1.50m due to time constraints and extensive made ground in the area which was backfilled by Quinn upon infilling the basement that existed prior to construction.					

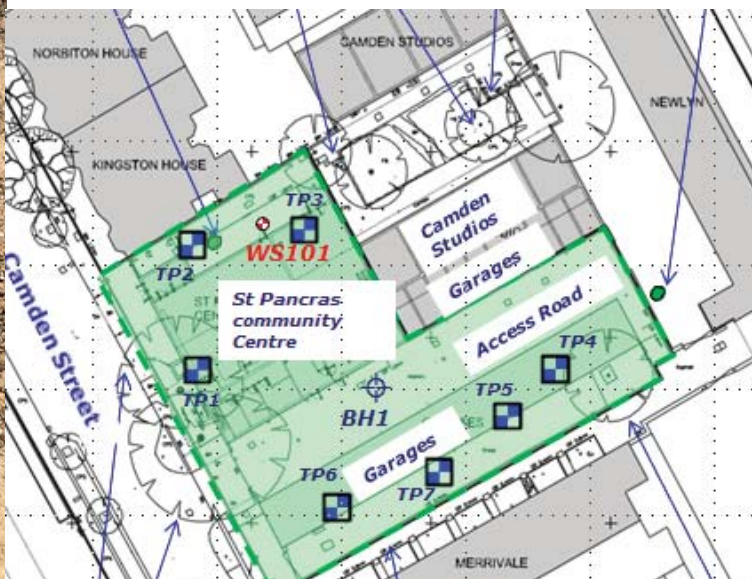
Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP4
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description		Samples / Tests		
			Depth (m)	Type	Results
GL – 1.10	MADE GROUND: brown clayey sand and gravel. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete with porcelain fragments.		0.50	E/PID	0.00
			1.00	E/PID	0.00
0.50-1.60	MADE GROUND: brown mottled black sandy gravelly clay. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete with porcelain fragments.				
1.60-1.90	Firm brown fissured silty CLAY		1.90	E/PID	0.00
Date of Excavation		14/8/17	Groundwater		Dry
Equipment		Hand tools	Logged by		SC
Stability		Stable	Checked by		OT
Remarks:					

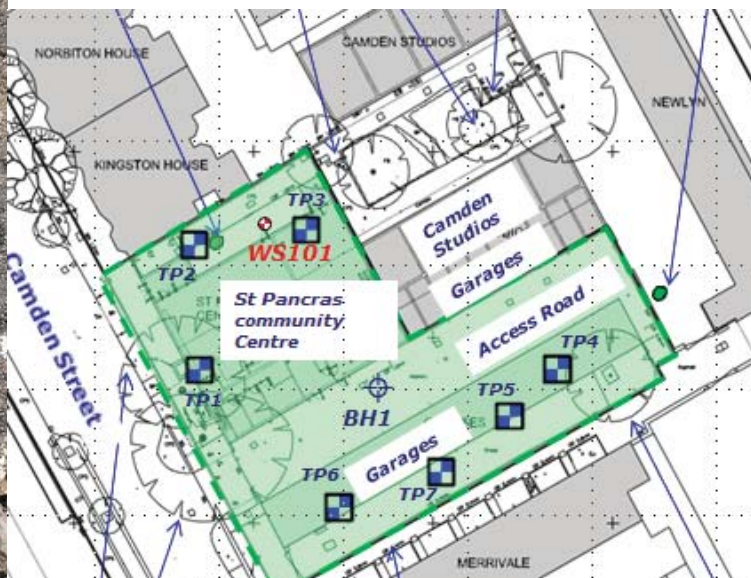
Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP5
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description		Samples / Tests		
			Depth (m)	Type	Results
GL – 1.65	MADE GROUND: brown mottled black clayey sand and gravel. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete with porcelain fragments. ...becoming a sandy gravelly clay below 1.00m		0.50	E/PID	0.00
			1.00	E/PID	0.00
1.50-2.00	Firm brown fissured silty CLAY		1.90	E/PID	0.00
Date of Excavation		18/8/17	Groundwater		Dry
Equipment		Hand tools	Logged by		SC
Stability		Stable	Checked by		OT
Remarks:					

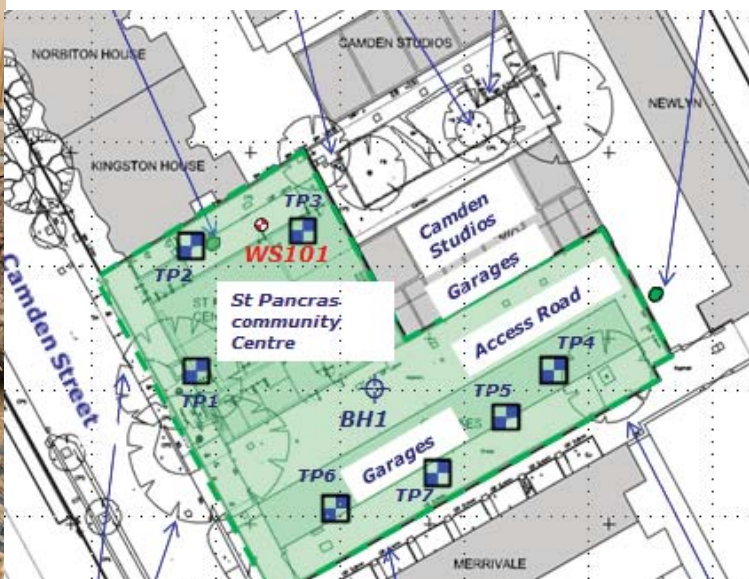
Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP6
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description		Samples / Tests		
			Depth (m)	Type	Results
GL – 2.00	MADE GROUND: brown and red sand and gravel. Gravel is fine to coarse concrete and brick fragments		0.50	E/PID	0.00
			1.00	E/PID	0.00
			1.50	E/PID	0.00
			2.00	E/PID	0.00
Date of Excavation		18/8/17	Groundwater		Dry
Equipment		Hand tools	Logged by		SC
Stability		Stable	Checked by		OT
Remarks: Unable to extend pit further as the digger arm could only get to 2.00m					

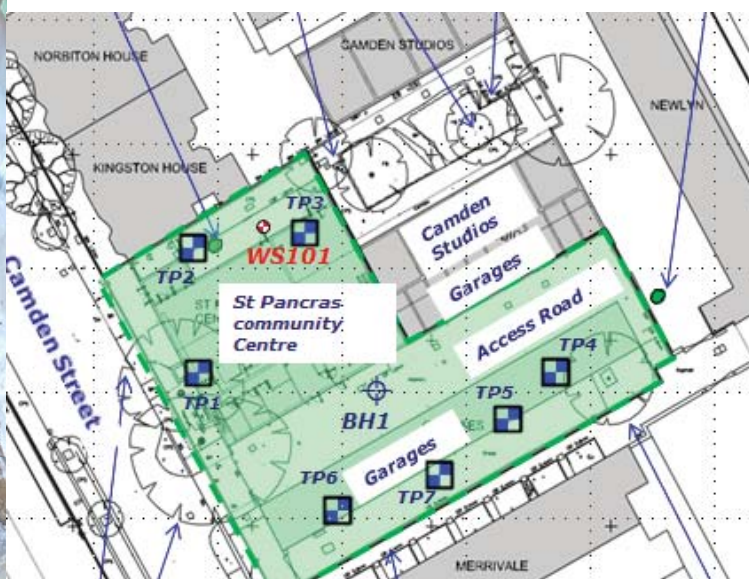
Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Site & Location	St Pancras Community Centre 30 Camden Street, London, NW1 0LG	Trial Pit No.	TP7
Client	Quinn London Ltd	Report No.	10037A/SC
Engineer	Michael Barclay Partnership LLP		

Depth (m)	Strata Description		Samples / Tests		
			Depth (m)	Type	Results
GL – 1.60	MADE GROUND: brown clayey sand and gravel. Gravel is fine to coarse sub angular to sub rounded flint, brick and concrete with porcelain fragments. ...increased clay content below 1.00m		0.50	E/PID	0.00
			1.00	E/PID	0.01
1.60-2.00	Firm brown fissured silty CLAY		1.90	E/PID	0.00
Date of Excavation		18/8/17	Groundwater		Dry
Equipment		Hand tools	Logged by		SC
Stability		Stable	Checked by		OT
Remarks:					

Key: E = Environmental PID = Photo Ionisation Detector [ppm- Isobutylene Equivalent, PhoCheck Tiger, 10.6eV lamp]



Soil Analysis Certificate

QTS Environmental Report No: 16-51407	Date Sampled	01/11/16	01/11/16	01/11/16	01/11/16	01/11/16
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Camden	TP / BH No	BH1	BH1	BH1	BH1	BH1
Project / Job Ref: 10037	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: 10037	Depth (m)	0.30	0.75	0.95	1.90	5.90
Reporting Date: 14/11/2016	QTSE Sample No	237001	237002	237003	237004	237005

Determinand	Unit	RL	Accreditation					
Asbestos Screen	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected		
pH	pH Units	N/a	MCERTS	9.9	9.1	7.9	7.8	7.6
Electrical Conductivity	uS/cm	< 5	NONE	383	518	269		
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2		
Total Sulphate as SO ₄	mg/kg	< 200	NONE	3266	2120	702	1003	13030
Total Sulphate as SO ₄	%	< 0.02	NONE	0.33	0.21	0.07	0.10	1.30
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	723	675	199	526	2960
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.72	0.68	0.20	0.53	2.96
Total Sulphur	%	< 0.02	NONE	0.11	0.08	0.02	0.04	0.41
Organic Matter	%	< 0.1	MCERTS	0.9	1.3	0.8		
Arsenic (As)	mg/kg	< 2	MCERTS	10	15	12		
W/S Boron	mg/kg	< 1	NONE	< 1	1.3	1		
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2		
Chromium (Cr)	mg/kg	< 2	MCERTS	15	25	41		
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2		
Copper (Cu)	mg/kg	< 4	MCERTS	42	91	26		
Lead (Pb)	mg/kg	< 3	MCERTS	238	428	33		
Mercury (Hg)	mg/kg	< 1	NONE	< 1	1.5	< 1		
Nickel (Ni)	mg/kg	< 3	MCERTS	15	21	32		
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3		
Zinc (Zn)	mg/kg	< 3	MCERTS	132	227	83		
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2		
EPH (C10 - C40)	mg/kg	< 6	MCERTS	54	< 6	15		

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Asbestos Analyst: Rosie Head

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis ⁽⁵⁾

Soil Analysis Certificate						
QTS Environmental Report No: 16-51407	Date Sampled	01/11/16	01/11/16	01/11/16	04/11/16	04/11/16
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: Camden	TP / BH No	BH1	BH1	BH1	WS101	WS101
Project / Job Ref: 10037	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Order No: 10037	Depth (m)	11.90	16.90	21.90	1.30	4.00
Reporting Date: 14/11/2016	QTSE Sample No	237006	237007	237008	237009	237010

Determinand	Unit	RL	Accreditation					
Asbestos Screen	N/a	N/a	ISO17025				Not Detected	
pH	pH Units	N/a	MCERTS	7.9	7.9	9.1	7.9	7.5
Electrical Conductivity	uS/cm	< 5	NONE				70	
Total Cyanide	mg/kg	< 2	NONE				< 2	
Total Sulphate as SO ₄	mg/kg	< 200	NONE	1759	1300	897	781	69260
Total Sulphate as SO ₄	%	< 0.02	NONE	0.18	0.13	0.09	0.08	6.93
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	814	528	343	51	2560
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.81	0.53	0.34	0.05	2.56
Total Sulphur	%	< 0.02	NONE	0.58	2.73	0.58	0.06	2.25
Organic Matter	%	< 0.1	MCERTS				2.7	
Arsenic (As)	mg/kg	< 2	MCERTS				15	
W/S Boron	mg/kg	< 1	NONE				< 1	
Cadmium (Cd)	mg/kg	< 0.2	MCERTS				< 0.2	
Chromium (Cr)	mg/kg	< 2	MCERTS				28	
Chromium (hexavalent)	mg/kg	< 2	NONE				< 2	
Copper (Cu)	mg/kg	< 4	MCERTS				52	
Lead (Pb)	mg/kg	< 3	MCERTS				241	
Mercury (Hg)	mg/kg	< 1	NONE				< 1	
Nickel (Ni)	mg/kg	< 3	MCERTS				23	
Selenium (Se)	mg/kg	< 3	NONE				< 3	
Zinc (Zn)	mg/kg	< 3	MCERTS				97	
Total Phenols (monohydric)	mg/kg	< 2	NONE				< 2	
EPH (C10 - C40)	mg/kg	< 6	MCERTS				< 6	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

Asbestos Analyst: Rosie Head

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis ⁽⁵⁾



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Tel : 01622 850410



Soil Analysis Certificate - Speciated PAHs

QTS Environmental Report No: 16-51407	Date Sampled	01/11/16	01/11/16	01/11/16	04/11/16	
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied	
Site Reference: Camden	TP / BH No	BH1	BH1	BH1	WS101	
Project / Job Ref: 10037	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied	
Order No: 10037	Depth (m)	0.30	0.75	0.95	1.30	
Reporting Date: 14/11/2016	QTSE Sample No	237001	237002	237003	237009	

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Phenanthrene	mg/kg	< 0.1	MCERTS	0.39	< 0.1	< 0.1	< 0.1	
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Fluoranthene	mg/kg	< 0.1	MCERTS	0.83	< 0.1	< 0.1	< 0.1	
Pyrene	mg/kg	< 0.1	MCERTS	0.75	< 0.1	< 0.1	< 0.1	
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	0.46	< 0.1	< 0.1	< 0.1	
Chrysene	mg/kg	< 0.1	MCERTS	0.48	< 0.1	< 0.1	< 0.1	
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.89	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	0.31	< 0.1	< 0.1	< 0.1	
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	0.65	< 0.1	< 0.1	< 0.1	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	0.44	< 0.1	< 0.1	< 0.1	
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.35	< 0.1	< 0.1	< 0.1	
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	5.6	< 1.6	< 1.6	< 1.6	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Soil Analysis Certificate - Sample Descriptions

QTS Environmental Report No: 16-51407

Soil Consultants Ltd

Site Reference: Camden

Project / Job Ref: 10037

Order No: 10037

Reporting Date: 14/11/2016

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
237001	BH1	None Supplied	0.30	12.3	Brown sandy gravel with stones and concrete
237002	BH1	None Supplied	0.75	21.2	Brown clay with brick and concrete
237003	BH1	None Supplied	0.95	23.3	Light brown clay
237004	BH1	None Supplied	1.90	23.1	Light brown clay
237005	BH1	None Supplied	5.90	19.1	Brown clay
237006	BH1	None Supplied	11.90	18.3	Brown clay
237007	BH1	None Supplied	16.90	15.9	Brown clayey sand
237008	BH1	None Supplied	21.90	15.5	Brown clayey sand
237009	WS101	None Supplied	1.30	17.7	Brown clayey sand
237010	WS101	None Supplied	4.00	18.2	Brown clayey sand

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{U/S}

Unsuitable Sample ^{U/S}

Soil Analysis Certificate - Methodology & Miscellaneous Information

QTS Environmental Report No: 16-51407

Soil Consultants Ltd

Site Reference: Camden

Project / Job Ref: 10037

Order No: 10037

Reporting Date: 14/11/2016

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazine followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

D Dried
AR As Received



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QTS Environmental Report No: 17-63365

Site Reference: St Pancras Community Centre

Project / Job Ref: 10037/SC

Order No: 10037/SC

Sample Receipt Date: 23/08/2017

Sample Scheduled Date: 23/08/2017

Report Issue Number: 1

Reporting Date: 30/08/2017

Authorised by:

Kevin Old
Associate Director of Laboratory

Authorised by:

Russell Jarvis
Associate Director of Client Services

QTSE is the trading name of DETS Ltd, company registration number 03705645



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Soil Analysis Certificate					
QTS Environmental Report No: 17-63365	Date Sampled	21/08/17	21/08/17	21/08/17	21/08/17
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: St Pancras Community Centre	TP / BH No	T1	T1	T3	T4
Project / Job Ref: 10037/SC	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
Order No: 10037/SC	Depth (m)	1.00	1.50	0.50	1.50
Reporting Date: 30/08/2017	QTSE Sample No	286992	286993	286994	286995

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	10.3	8.8	8.7	8.9	8.0
Electrical Conductivity	uS/cm	< 5	NONE	677	644	294	234	173
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Total Sulphate as SO ₄	mg/kg	< 200	NONE	6658	2678	1095	957	404
Total Sulphate as SO ₄	%	< 0.02	NONE	0.67	0.27	0.11	0.10	0.04
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	1030	873	208	69	78
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	1.03	0.87	0.21	0.07	0.08
Total Sulphur	%	< 0.02	NONE	0.30	0.08	0.04	0.04	0.02
Organic Matter	%	< 0.1	MCERTS	1	1	1.4	1.5	2.2
Arsenic (As)	mg/kg	< 2	MCERTS	21	18	13	14	17
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	1.9	1.1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.4	0.3	< 0.2	< 0.2	0.2
Chromium (Cr)	mg/kg	< 2	MCERTS	20	32	25	30	26
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	30	71	39	48	60
Lead (Pb)	mg/kg	< 3	MCERTS	264	240	193	1520	277
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	18	31	22	22	22
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	MCERTS	235	266	116	138	131
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
EPH (C10 - C40)	mg/kg	< 6	MCERTS	84	< 6	26	20	< 6

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

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RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis (S)



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Soil Analysis Certificate					
QTS Environmental Report No: 17-63365	Date Sampled	21/08/17	21/08/17	21/08/17	21/08/17
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: St Pancras Community Centre	TP / BH No	T4	T5	T5	T6
Project / Job Ref: 10037/SC	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
Order No: 10037/SC	Depth (m)	1.90	1.30	1.90	0.50
Reporting Date: 30/08/2017	QTSE Sample No	286997	286998	286999	287000

Determinand	Unit	RL	Accreditation					
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	Not Detected	Not Detected
pH	pH Units	N/a	MCERTS	8.0	7.8	7.9	9.6	9.9
Electrical Conductivity	uS/cm	< 5	NONE	106	131	85	475	693
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Total Sulphate as SO ₄	mg/kg	< 200	NONE	< 200	295	< 200	1725	2590
Total Sulphate as SO ₄	%	< 0.02	NONE	< 0.02	0.03	< 0.02	0.17	0.26
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	25	67	31	211	545
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.02	0.07	0.03	0.21	0.54
Total Sulphur	%	< 0.02	NONE	< 0.02	< 0.02	< 0.02	0.06	0.10
Organic Matter	%	< 0.1	MCERTS	1	1.3	1	1.1	1.6
Arsenic (As)	mg/kg	< 2	MCERTS	12	12	12	16	17
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	1.5	< 1	< 1
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2	0.3	0.4
Chromium (Cr)	mg/kg	< 2	MCERTS	39	31	39	22	23
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
Copper (Cu)	mg/kg	< 4	MCERTS	25	26	19	42	62
Lead (Pb)	mg/kg	< 3	MCERTS	37	66	26	2970	4890
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1	< 1	< 1
Nickel (Ni)	mg/kg	< 3	MCERTS	23	17	19	13	13
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	< 3	< 3
Zinc (Zn)	mg/kg	< 3	MCERTS	67	70	62	196	267
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	< 2	< 2
EPH (C10 - C40)	mg/kg	< 6	MCERTS	< 6	< 6	< 6	< 6	< 6

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

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RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis (S)



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Soil Analysis Certificate						
QTS Environmental Report No: 17-63365	Date Sampled	21/08/17	21/08/17	21/08/17		
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: St Pancras Community Centre	TP / BH No	T6	T7	T7		
Project / Job Ref: 10037/SC	Additional Refs	None Supplied	None Supplied	None Supplied		
Order No: 10037/SC	Depth (m)	2.00	0.50	1.90		
Reporting Date: 30/08/2017	QTSE Sample No	287002	287003	287004		

Determinand	Unit	RL	Accreditation				
Asbestos Screen ^(S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected	
pH	pH Units	N/a	MCERTS	9.4	8.0	8.2	
Electrical Conductivity	uS/cm	< 5	NONE	485	195	197	
Total Cyanide	mg/kg	< 2	NONE	< 2	< 2	< 2	
Total Sulphate as SO ₄	mg/kg	< 200	NONE	3460	1045	267	
Total Sulphate as SO ₄	%	< 0.02	NONE	0.35	0.10	0.03	
W/S Sulphate as SO ₄ (2:1)	mg/l	< 10	MCERTS	25	202	92	
W/S Sulphate as SO ₄ (2:1)	g/l	< 0.01	MCERTS	0.03	0.20	0.09	
Total Sulphur	%	< 0.02	NONE	0.11	0.05	< 0.02	
Organic Matter	%	< 0.1	MCERTS	1.3	3	0.8	
Arsenic (As)	mg/kg	< 2	MCERTS	14	26	13	
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1	
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	0.3	0.4	< 0.2	
Chromium (Cr)	mg/kg	< 2	MCERTS	30	25	38	
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2	
Copper (Cu)	mg/kg	< 4	MCERTS	36	78	24	
Lead (Pb)	mg/kg	< 3	MCERTS	3100	723	122	
Mercury (Hg)	mg/kg	< 1	NONE	< 1	2	< 1	
Nickel (Ni)	mg/kg	< 3	MCERTS	13	22	25	
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3	
Zinc (Zn)	mg/kg	< 3	MCERTS	231	187	72	
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	< 2	
EPH (C10 - C40)	mg/kg	< 6	MCERTS	9	< 6	< 6	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C

Analysis carried out on the dried sample is corrected for the stone content

The samples have been examined to identify the presence of asbestiform minerals by polarising light microscopy and dispersion staining technique to In-House Procedures QTSE600 Determination of Asbestos in Bulk Materials; Asbestos in Soils/Sediments (fibre screening and identification)

This report refers to samples as received, and QTS Environmental Ltd, takes no responsibility for the accuracy or competence of sampling by others.

The material description shall be regarded as tentative and is not included in our scope of UKAS Accreditation.

Opinions and interpretations expressed herein are outside the scope of UKAS Accreditation.

RL: Reporting Limit

Pinch Test: Where pinch test is positive it is reported "Loose Fibres - PT" with type(s).

Subcontracted analysis (S)



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Soil Analysis Certificate - Speciated PAHs					
QTS Environmental Report No: 17-63365	Date Sampled	21/08/17	21/08/17	21/08/17	21/08/17
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: St Pancras Community Centre	TP / BH No	T1	T1	T3	T4
Project / Job Ref: 10037/SC	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
Order No: 10037/SC	Depth (m)	1.00	1.50	0.50	1.50
Reporting Date: 30/08/2017	QTSE Sample No	286992	286993	286994	286995

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	1.38	< 0.1	0.50	0.21	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	0.44	< 0.1	0.18	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	3.52	0.19	1.66	0.73	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	2.43	0.18	1.61	0.73	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	1.72	< 0.1	0.66	0.35	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	1.83	< 0.1	0.68	0.38	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	2.41	< 0.1	0.67	0.46	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	1.01	< 0.1	0.36	0.23	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	1.54	< 0.1	0.59	0.39	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	1.01	< 0.1	0.30	0.22	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	0.14	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	0.92	< 0.1	0.30	0.29	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	18.4	< 1.6	7.5	4	< 1.6

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



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Soil Analysis Certificate - Speciated PAHs					
QTS Environmental Report No: 17-63365	Date Sampled	21/08/17	21/08/17	21/08/17	21/08/17
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied	None Supplied
Site Reference: St Pancras Community Centre	TP / BH No	T4	T5	T5	T6
Project / Job Ref: 10037/SC	Additional Refs	None Supplied	None Supplied	None Supplied	None Supplied
Order No: 10037/SC	Depth (m)	1.90	1.30	1.90	0.50
Reporting Date: 30/08/2017	QTSE Sample No	286997	286998	286999	287000

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.12	< 0.1
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	0.12	< 0.1
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	< 1.6	< 1.6

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



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Soil Analysis Certificate - Speciated PAHs						
QTS Environmental Report No: 17-63365	Date Sampled	21/08/17	21/08/17	21/08/17		
Soil Consultants Ltd	Time Sampled	None Supplied	None Supplied	None Supplied		
Site Reference: St Pancras Community Centre	TP / BH No	T6	T7	T7		
Project / Job Ref: 10037/SC	Additional Refs	None Supplied	None Supplied	None Supplied		
Order No: 10037/SC	Depth (m)	2.00	0.50	1.90		
Reporting Date: 30/08/2017	QTSE Sample No	287002	287003	287004		

Determinand	Unit	RL	Accreditation				
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	0.13	< 0.1	
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1	
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6	

Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C



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Soil Analysis Certificate - Sample Descriptions

QTS Environmental Report No: 17-63365

Soil Consultants Ltd

Site Reference: St Pancras Community Centre

Project / Job Ref: 10037/SC

Order No: 10037/SC

Reporting Date: 30/08/2017

QTSE Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
286992	T1	None Supplied	1.00	13.2	Brown sandy clay with stones
286993	T1	None Supplied	1.50	20.2	Brown sandy clay
286994	T3	None Supplied	0.50	16.4	Brown sandy clay with stones
286995	T3	None Supplied	1.50	17.9	Brown sandy clay with stones
286996	T4	None Supplied	1.00	19.4	Brown sandy clay with stones
286997	T4	None Supplied	1.90	20.5	Light brown clay
286998	T5	None Supplied	1.30	21.1	Brown clay
286999	T5	None Supplied	1.90	20	Light brown clay
287000	T6	None Supplied	0.50	14	Brown sandy clay with brick and concrete
287001	T6	None Supplied	1.00	18	Brown sandy clay with brick and concrete
287002	T6	None Supplied	2.00	14.6	Brown sandy clay with brick and concrete
287003	T7	None Supplied	0.50	15.4	Brown sandy clay with gravel
287004	T7	None Supplied	1.90	19.8	Brown clay

Moisture content is part of procedure E003 & is not an accredited test

Insufficient Sample ^{U/S}

Unsuitable Sample ^{U/S}



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Soil Analysis Certificate - Methodology & Miscellaneous Information

QTS Environmental Report No: 17-63365

Soil Consultants Ltd

Site Reference: St Pancras Community Centre

Project / Job Ref: 10037/SC

Order No: 10037/SC

Reporting Date: 30/08/2017

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 – C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001