

4.5 Collapsible Deposits

The following Collapsible Rocks information is provided by the British Geological Survey:

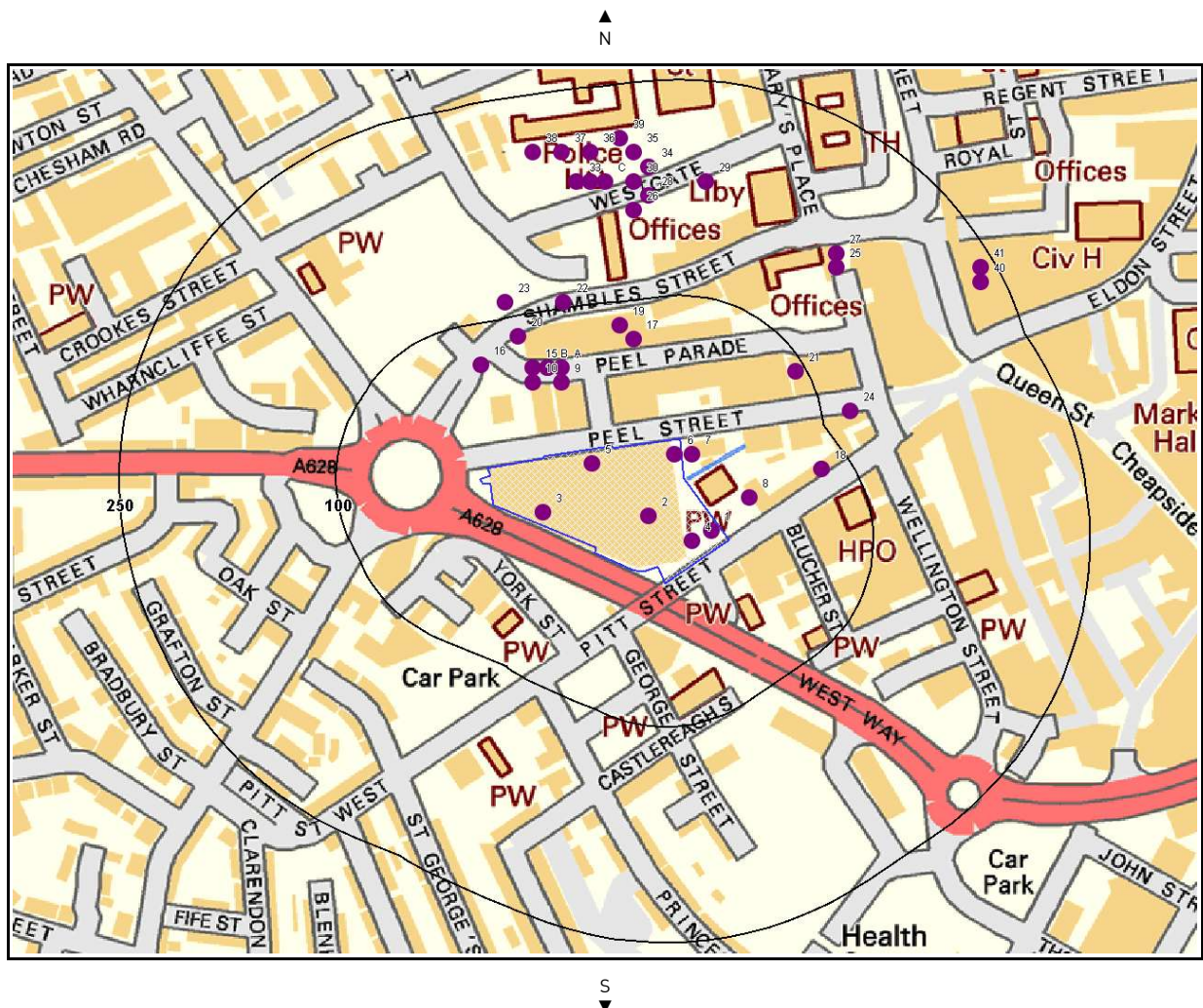
Distance (m)*	Direction	Hazard Rating	Details
0	On site	Null-Negligible	No Indicators for collapsible deposits identified. No Special actions required to avoid problems due to collapsible deposit.

4.6 Running Sands

The following Running Sands information is provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build – consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property – no significant increase in insurance risk due to running sand problems is likely.
2	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5. Borehole Records Map



Borehole Records Legend



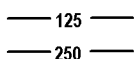
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Site Outline



Borehole Locations



Search Buffers (m)

5. Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

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ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length (m)	Borehole Name
1	0.0	On Site	434284,0406237	SE30NW280	8.0	PEEL ST BARNSLEY 1
2	0.0	On Site	434240,0406247	SE30NW282	2.0	PEEL ST BARNSLEY 3
3	0.0	On Site	434167,0406250	SE30NW284	8.0	EEL ST BARNSLEY 5
4	0.0	On Site	434270,0406230	SE30NW673	-1.0	PEEL STREET BARNSLEY 2
5	0.0	On Site	434201,0406284	SE30NW283	1.0	PEEL ST BARNSLEY 4
6	0.0	On Site	434258,0406290	SE30NW281	8.0	PEEL ST BARNSLEY 2
7	7.0	E	434270,0406290	SE30NW672	-1.0	PEEL STREET BARNSLEY 1
8	28.0	NE	434310,0406260	SE30NW674	-1.0	PEEL STREET BARNSLEY 3
9	49.0	N	434180,0406340	SE30NW258	8.0	PEEL ST/SHAMBLES ST 9
10	52.0	N	434160,0406340	SE30NW255	7.0	PEEL ST/SHAMBLES ST 6
11A	59.0	N	434180,0406350	SE30NW252	15.0	PEEL ST/SHAMBLES ST 3
12A	60.0	N	434170,0406350	SE30NW256	2.0	PEEL ST/SHAMBLES ST 7
13B	60.0	N	434170,0406350	SE30NW251	9.0	PEEL ST/SHAMBLES ST 2
14B	60.0	N	434170,0406350	SE30NW257	2.0	PEEL ST/SHAMBLES ST 8
15	62.0	N	434160,0406350	SE30NW250	17.0	PEEL ST/SHAMBLES ST 1
16	71.0	N	434124,0406352	SE30NW39/A	2.5	SHAMBLES STREET BARNSLEY 1
17	73.0	N	434230,0406370	SE30NW254	14.0	PEEL ST/SHAMBLES ST 5
18	81.0	NE	434360,0406280	SE30NW675	-1.0	PEEL STREET BARNSLEY 4
19	84.0	N	434220,0406380	SE30NW253	15.0	PEEL ST/SHAMBLES ST 4
20	85.0	N	434150,0406372	SE30NW39/B	2.5	SHAMBLES STREET BARNSLEY 2
21	93.0	NE	434342,0406348	SE30NW762	6.0	13 PEEL STREET, BARNSLEY 1
22	104.0	N	434181,0406396	SE30NW39/D	12.5	SHAMBLES STREET BARNSLEY 3
23	110.0	N	434141,0406396	SE30NW39/C	12.0	SHAMBLES STREET BARNSLEY 4
24	120.0	E	434380,0406320	SE30NW676	-1.0	PEEL STREET BARNSLEY 5
25	161.0	NE	434370,0406420	SE30NW259	15.0	SHAMBLES ST BARNSLEY 1
26	162.0	N	434230,0406460	SE30NW873	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 15
27	168.0	NE	434370,0406430	SE30NW260	8.0	SHAMBLES ST BARNSLEY 2
28	170.0	N	434240,0406470	SE30NW872	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 14
29	180.0	N	434280,0406480	SE30NW871	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 13
30	182.0	N	434230,0406480	SE30NW866	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 6
31C	184.0	N	434210,0406480	SE30NW867	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 7
32C	185.0	N	434200,0406480	SE30NW868	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 8
33	186.0	N	434190,0406480	SE30NW869	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 11
34	190.0	N	434240,0406490	SE30NW865	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 5
35	201.0	N	434230,0406500	SE30NW870	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 12
36	205.0	N	434200,0406500	SE30NW863	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 3
37	207.0	N	434180,0406500	SE30NW862	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 2
38	210.0	N	434160,0406500	SE30NW861	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 1
39	213.0	N	434220,0406510	SE30NW864	-1.0	BARNSLEY COUNCIL OFFICES DEVELOPMENT 4
40	235.0	NE	434470,0406410	SE30NW553	2.0	YORKSHIRE BANK MARKET HILL BARNSLEY 2
41	240.0	NE	434470,0406420	SE30NW552	3.5	YORKSHIRE BANK MARKET HILL BARNSLEY 1

Contacts

GroundSure Helpline

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Acknowledgements

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This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:

"Beneficiary" means the Client or the customer of the Client for whom the Client has procured the Services.

"Commission" means an order for Consultancy Services submitted by a Client.

"Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.

"Contract" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with condition 11.

"Client" means the party that submits an Order or Commission.

"Data Provider" means any third party providing Content to GroundSure.

"Data Report" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.

"Home Information Pack" means a combination of reports required when selling a residential property.

"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trade mark or any other intellectual property rights.

"Mapping" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure.

"Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site.

"Order Website" means online platform via which Orders may be placed.

"Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.

"Risk Screening Report" means one of GroundSure's risk screening reports such as GroundSure Homebuyers, GroundSure Home Environmental GroundSure SiteGuard, GroundSure Screening, GroundSure Review, GroundSure Developer Review, or any other risk screening report available from GroundSure.

"Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site.

"Site" means the landsite in respect of which GroundSure provides the Services.

"User Guide" means the relevant current version of the user guide, available upon request from GroundSure.

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.

2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.

2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.

2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others.

2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore.

2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

3 The Client's obligations

3.1 The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.

3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).

3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party, but such third party cannot rely on the same unless expressly permitted under condition 4.

3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to use the information contained in the Report, Mapping or in a report prepared by GroundSure in respect of or arising out of the Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in conditions 4.2 and 4.3.

4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. For the avoidance of doubt, such persons shall include any entity necessary under the Housing Act 2004 (as amended). Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in condition 7 shall apply.

4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.

4.4 Save as set out in conditions 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.

4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report shall not except as permitted herein or by separate agreement with GroundSure: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.

4.6 Notwithstanding condition 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.

5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgement) at the rate of five per cent per annum above the Bank of England base rate from time to time.

5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute.

6 Intellectual Property

6.1 Subject to the provisions of condition 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.

6.2 The Client shall acknowledge the ownership of the Content where such Content is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.

6.3 Data Providers may enforce any breach of condition 6.1 against the Client or Beneficiary.

Report Reference: HMD-283-599240

Brought to you by GroundSure

If you would like any further assistance regarding this report then please contact GroundSure on (T) 01273 819700, (F) 01273 377902, email: info@groundsure.com

7. Liability

- 7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or wilful default.
- 7.2 Save as otherwise set out in these conditions, any information provided by one party ("Disclosing party") to the other party ("Receiving Party") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.
- 7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.
- 7.4 In relation to Data Reports, Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.
- 7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed.
- 7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report, Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.
- 7.7 GroundSure shall not be liable if the Data Reports, Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.
- 7.8 Subject to the provisions of condition 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.
- 7.9 Subject to the provisions of clause 7.1 notwithstanding anything to the contrary contained elsewhere in the Contract, and irrespective of whether multiple parties make use of the same Services, the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed £5 million per claim or series of connected claims.
- 7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.
- 7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them save for where a Risk Screening Report comprises part of a Home Information Pack:
- (i) the Data Providers set out in the relevant User Guide shall be responsible for the quality and accuracy of the data supplied by them; and
 - (ii) where GroundSure makes an assessment of a Site to determine if it is likely to fall within Part II(A) of the Environmental Protection Act 1990, GroundSure shall be responsible for the interpretation of any Content provided by a Data Provider subject to the limitations set out in these terms and conditions.
- 7.12 GroundSure shall provide the Services using reasonable skill and care, however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.
- 7.13 Subject to the provisions of clause 7.1, GroundSure shall not be liable for any losses (whether direct or indirect) and including (but not limited to) loss of profit caused by the suspension or reduction of activity on a Site, business interruption, all third party off-Site claims or any loss in value of a Site, loss of goodwill, loss of business opportunity or other similar losses alleged to be sustained by the Client, the Beneficiary or any third party.
- 7.14 GroundSure undertakes for the duration of the liability periods referred to in conditions 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities in respect of the Contract for £5 million in the aggregate which amount shall first include the whole of any sum payable for death or personal injury provided such insurance is readily available at commercially viable rates or for a lesser amount to be agreed with the Client should the cost of such insurance become commercially unviable. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8 GroundSure right to suspend or terminate

- 8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:
- (i) the Client shall fail to pay any sum due to GroundSure within 28 days of the due date for payment; or
 - (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
 - (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
 - (iv) the Client breaches any material term of the Contract (including, but not limited to, the obligations in condition 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

9. Client's Right to Terminate and Suspend

- 9.1 Subject to condition 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.
- 9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10 Consequences of Withdrawal, Termination or Suspension

- 10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.
- 10.2 In the event of termination/suspension of the Contract under conditions 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11 General

- 11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.
- 11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.
- 11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.
- 11.4 Save as expressly provided in conditions 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey, may enforce breach of conditions 6.1 or 11.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
 - (ii) fire, storm, flood, tempest or epidemic;
 - (iii) Acts of God or the public enemy;
 - (iv) riot, civil commotion or war;
 - (v) strikes, labour disputes or industrial action;
 - (vi) acts or regulations of any governmental or other agency;
 - (vii) suspension or delay of services at public registries by Data Providers; or
 - (viii) changes in law.
- 11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.
- 11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
- 11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.
- 11.12 If the Client or Beneficiary has a complaint about the Services, notice should be given in writing to the Compliance Officer at GroundSure who will respond in a timely manner.

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APPENDIX C

BGS BOREHOLE RECORDS



BOREHOLE :- ONE

B. H. DIA. :- 200mm

TYPE OF BORING :- Shell and Auger

GROUND LEVEL :-

DATE OF BORING :- 22nd/24th October 1978.

WATER LEVEL :- 'DRY'

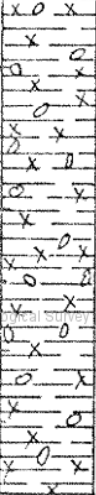
SCALE :- 1 : 50

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'N' = Number of blows/305mm for Standard Penetration Test (SPT)

Description of Strata	Sample	Depth	B. H.	Depth	O. D.	Remarks
				G.L.		N
Medium dense, clay, ash, brick and rubble FILL.	CPT 1	0.50 0.95		3.50		'N' = 14
	CPT 2	1.50 1.95				'N' = 16
	B 3	G.L. 2.50				
	CPT 4	2.50 2.95				'N' = 14
	B 5	2.50 3.50				
Grey/brown MUDSTONE fragments in a matrix of firm/stiff, grey/yellow silty CLAY.	CPT 6	3.50 3.95		7.00		'N' = 22
	CPT 7	4.50 4.95				'N' = 19
	B 8	3.50 6.00				
	CPT 9	5.50 5.95				'N' = 26
	CPT 10	6.50 6.95				'N' = 76
Hard, grey/brown flaggy MUDSTONE.	B 11	6.00 7.00				
	CPT 12	7.50 7.95				'N' = 50 blows for 75mm penetration.
	B 13	7.00 8.00		8.00		
End of Borehole 8.00m						
PEEL STREET, BARNSELEY.			U - Undisturbed B - Bulk D - Disturbed		Ref: 235	
					B. H. 1	

STRATA TEST LIMITED



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 84150 : BGS Reference: SE30NW284

British National Grid (27700) : 434167,406250

[Report an issue with this borehole](#)

<<

< Prev

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>>

BOREHOLE LOG

SE30NW

284

BOREHOLE :- FIVE

B.H. DIA. :- 200mm

TYPE OF BORING :- Shell and Auger

GROUND LEVEL :-

DATE OF BORING :- 26th/27th October 1978.

WATER LEVEL :- 2.00m below ground level.

SCALE :- 1 : 50

'N' = Number of blows/305mm for Standard Penetration Test (SPT)

Description of Strata	Sample	Depth	B. H.	Depth	O. D.	Remarks
				G.L.		N
Soil FILL.	B 1	G.L.		0.40		
	CPT 2	0.40 0.50 0.95				'N' = 5
	CPT 3	1.50 1.95				'N' = 4
Very soft/soft, grey black organic SILT.	B 4	0.40 2.00				
	CPT 5	2.50 2.95				'N' = 7
	CPT 6	3.50 3.95				'N' = 4
	B 7	2.00 4.00		4.00		
	CPT 8	4.50 4.95				'N' = 20
Grey/brown MUDSTONE Fragments in a firm/stiff, grey/yellow silty CLAY matrix.	CPT 9	5.50 5.95				'N' = 26
	B 10	4.00 6.50				
	CPT 11	6.50 6.95		6.50		'N' = 61
	CPT 12	7.50 7.95				'N' = 68 blows for 75mm penetration.
Hard, grey/brown flaggy MUDSTONE.	B 13	6.50 8.00				
	W 14	8.00		8.00		
End of Borehole 8.00m						
PEEL STREET, BARNSELEY.			U - Undisturbed B - Bulk D - Disturbed		Ref: 236 B.H. 5	

STRATA TEST LIMITED



APPENDIX D

PREVIOUS GROUND INVESTIGATION INFORMATION

**REPORT C3547
OCTOBER 2009**

PRELIMINARY APPRAISAL

**for land at
PEEL STREET, BARNSELY**

**prepared for
OPUS LAND (NORTH) LTD**



REPORT NUMBER:	C3547	REPORT STATUS:	FINAL
REPORT TYPE:	PRELIMINARY APPRAISAL		
REPORT DATE:	OCTOBER 2009		
SITE:	PEEL STREET, BARNSELY		
PREPARED FOR:	OPUS LAND (NORTH) LTD		
PREPARED BY:	Sirius Geotechnical and Environmental Ltd 4245 Park Approach Thorpe Park Leeds LS15 8GB	Tel: 01132 649 960 Fax: 01132 649 962	

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PRELIMINARY APPRAISAL (DESK TOP STUDY)**For land at****PEEL STREET, BARNSELEY****Prepared for****OPUS LAND (North) LTD****CONTENTS****EXECUTIVE SUMMARY**

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APPENDICES

APPENDIX A FIGURES AND DRAWINGS

Drawing No.	Title	Scale
C3547/01	Site Location Plan	1:50,000
C3547/02	Site Plan	NTS
C3547/03	Conceptual Site Model	NTS

NTS: Not to Scale

APPENDIX B GROUNDSURE REPORT

APPENDIX C COAL AUTHORITY SEARCH

EXECUTIVE SUMMARY

Introduction	Sirius Geotechnical and Environmental Ltd (Sirius) were commissioned by Opus Land (North) Ltd to undertake a preliminary appraisal (desk top study) of land at Peel Street, Barnsley. The site is currently a former supermarket unit, with associated car parking. We understand the site is to be redeveloped for a commercial / retail end use.
Site Details	The site comprises a single building, approximately triangular in plan area. It includes a now disused retail (supermarket) unit in the eastern half of the site, with a 2 storey car park area over the western half of the site, which extends over the entire building at roof level. A concrete service yard exists to the east and south of the main building, with the southern part of the site cut into a former slope to leave an estimated 4m high retaining wall, which effectively retains the public highway of Pitt Street to the south. Pitt Street is linked to the site via a steel footbridge from the roof of the car park. The roof car park is currently leaking water into the former retail unit below, and some elements of structural distress are noted at the eastern and southern parts of the building exterior.
Site History	The site has had a long and relatively complex history, however in summary the southern part of the site was a Linen Mill with associated residential house to the south east until approximately 1948, when a cinema was built over the central area of the site. In the northern half of the site were 2 reservoirs straddling the west and north east boundaries, which were infilled / removed by 1960 / 1929 respectively. A watercourse, Sough Dike, is shown to pass west to east through approximately the centre of the site on maps pre-dating the construction of the existing building. The northern part of the site has been occupied by a variety of smaller structures which were part of a builder's yard with weighbridge and travelling crane, and to the north west of the site were the buildings associated with a depot.
Anticipated Ground Conditions	The solid geology is Coal Measures strata, including the Kent's Thick and Kent's Thin coal seams outcropping / subcropping below the site. There is likely to be softer ground/ alluvium associated with the former

	stream crossing the site (now assumed to be in culvert below the centre of the site). There may be made ground associated with the former reservoirs. The reservoir to the north east of the site was formerly part overlain by a petrol filling station and garage immediately beyond the site boundary. The southern parts of the site appear to have been significantly cut into the former slope of the surrounding land, so we would anticipate the remains of the Linen Mill on site (and to some extent the reservoir at the western extent of the site), to have been removed (at least in part) by the cut and fill process.
Ground Stability	Ground stability may be affected by • Unrecorded shallow mining within coal seams. • Soft soils (alluvium and made ground associated with former stream and reservoirs). • Variable weathering profile. The structural integrity and suitable design of the highways retaining wall to Pitt Street should be confirmed by an appropriately qualified structural engineer, and by confirmation that the Local Council has approved the existing / possible proposed design.
Foundations	Foundation designs may vary if shallow mining is proven, however if not present, we would anticipate a design comprising pad foundations to the rear / south of the site, and deeper foundations (possibly piled) to the north of the site. The foundation designs should take into account the possible presence of softer soils associated with the former stream (suspected to be in culvert), and possible made ground associated with the former reservoirs. If shallow mining is proven the workings should be treated by drilling and pressure grouting, and the building foundations designed accordingly. Shallow groundwater local to the culvert below the site may cause some difficulties for construction. Extensive substructures should be anticipated.
Contamination	Possible made ground associated with former builders yard, and depot to the north of the site may be present, as may be contaminated backfill to the former reservoirs, particularly the eastern reservoir, which was part overlain at one time by a garage and petrol filling station. There was

	also a petrol filling station to the north west of the site (the current location of KFC) in the past which may affect the site.
Gas Risk	There is a gas risk from the backfilled former reservoirs, possible organic rich natural soils associated with the former stream below the site and mines gas.
Further Works	An asbestos survey of the building, and a services search, in particular with respect to the former stream probably in culvert below the site, is advised; and implications on design thereon considered. An intrusive site investigation will be required in due course, either pre or post demolition to further assess issues raised by the desk study.

1. INTRODUCTION

Sirius Geotechnical and Environmental Ltd (Sirius) were commissioned by Opus Land (North) Ltd to undertake a preliminary appraisal (desk top study) of land at Peel Street, Barnsley (the “site”). It is understood that consideration is being given to the redevelopment of the site for a commercial (retail) end-use.

The objectives of this appraisal were:

- To establish the historical development of the site and immediate surrounding area from a review of available in-house and third party information.
- To establish the environmental setting of the site.
- To evaluate whether past mining or other extractive industries could have an influence on the site.
- To determine if historical or current activities could give rise to significant ground contamination.
- To assess the potential for hazardous ground gas, including radon.
- To determine the potential risks from contamination, both within the site and from adjacent properties and/or processes, specifically to include the potential for designation under Part IIA EPA.
- To make a preliminary assessment of potential construction constraints.

As part of this investigation, information from the following sources has been reviewed: GroundSure Environmental reports, the British Geological Survey (BGS), and the Coal Authority (CA).

This report presents the factual information derived during this investigation and includes a Conceptual Site Model, which presents ground-related risks/hazards.

This report, which was designed to meet the requirements of all relevant current guidance, presents the factual information available during this appraisal, interpretation of the data obtained and recommendations relevant to the defined objectives.

It has been assumed in the production of this report that the site is to be redeveloped for a commercial (retail) end-use. In addition, it is assumed that ground levels will not change significantly from those existing at the present time. If this is not the case, then amendments to the recommendations made in this report may be required.

Where the report refers to the potential presence of invasive plants (such as Japanese Knotweed) or asbestos-containing materials, such observations are for information only and should be verified by a suitably qualified expert.

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2. SITE DETAILS AND DESCRIPTION

Table 2.1 Current Site Overview

Location	The site at Peel Street, Barnsley lies approximately 300m to the southwest of the town centre. A site location plan is included as Drawing No. C3547/01 within Appendix A.
National Grid Reference	E 434259, N 406274.
Topography and Features	The site is approximately triangular in plan, and appears to be cut into the surrounding natural ground which slopes from a level of approximately 110m AOD on Pitt Lane to the south, to a level of approximately 104m AOD on Peel Street to the north.
Approximate Site Area	0.97 hectares (2.4 acres)
Site Boundaries	The northern boundary with Peel Street is at street level. Other boundaries are marked by a series of concrete retaining walls to various heights. The southern site boundary with Pitt Street appears to comprise an older retaining wall, comprising sandstone blocks, which has been further retained subsequently by a concrete retaining wall when the current store was built. (The store is first shown on maps of 1982). The car park and grounds of the former Pitt Street Methodist Church (now a children's nursery), is similarly supported by a retaining wall varying from a retaining height of approximately 1.5m up to 3.5m, within the site boundary. The West Way Road to the south west of the site is at grade with the main site levels at the roundabout to the west of the site, but is elevated by a maximum of approximately 1.5m above site levels at the southern corner of the site.

Current Land Use	The site is currently a disused retail (supermarket) unit over the eastern half of the site, with car parking access over the western half of the site, which leads to a roof car park over the entire plan area of the building. External to the building is a concrete service yard to the south and east. The main building, particularly over its eastern elevations, shows signs of generally minor structural distress, and the roof car park has been leaking water into the retail unit area below.
Invasive Plant Species	None noted.
Adjacent Land Uses	The site lies close to Barnsley town centre, and is therefore surrounded by predominantly commercial / retail land uses, and car parking. There is a relatively high number of Churches in the vicinity of the site, and a number of residential premises over shops etc. A former swimming baths to the west of the site has been part demolished, with new build and old building converted to sheltered housing. There is some light industrial activity (a wrought iron fence manufacturer / fencing supplier and furniture manufacturer) off Race Common Road to the west of the site.

The main site features are shown on Drawing No. C3547/02 within Appendix A.

3. ENVIRONMENTAL SETTING

3.1. Introduction

Published environmental, geological and historical data relating to the site has been reviewed. A summary of relevant information is provided below and a copy of the GroundSure report is enclosed as Appendix B. A copy of the Coal Authority Mining Report is included in Appendix C.

3.2. Site History

Table 3.1 presents a summary of the site history from 1889 to 2008. It is not the intention of this report to describe, in detail, all of the changes that have occurred on or adjacent to the site, only those pertinent to the proposed development.

Table 3.1 Site History

Map Dates	On-Site Features	Off-Site Features of Significance
1889 1: 500 scale 1890 1:10,560 scale 1893 1:2,500 scale	The main building which occupies the southern 30% of the site, and extends beyond the site boundary to the south west is the Bore Spring Mill (a linen mill). There are 3 smaller attached buildings to the immediate east of the mill building within the site, a possible residential building (Ivy House), plus 3 smaller buildings that may be outhouses, or mill buildings, plus some greenhouses. The site is bisected by a watercourse, the Sough Dike (shown to flow from west to east on later maps). Two reservoirs, presumably associated with the Linen Mill building on site (and a second mill to the north of Peel Street) straddle the west and north east site boundaries. There are 3 smaller unnamed buildings that mark the site's northern boundary with Peel Street; however to the south of these buildings is a large area of open land with no buildings or uses noted.	The site surrounds are already well built up by 1889, with many buildings and land uses noted within 250m of the site, which include: • 5 no timber yards to the north west and east / south east. • 4 no textiles mills (for linen and calendar), all with associated water reservoirs, the closest of which is the Taylor Linen Mill to the immediate north of Peel Street. • A Corn Mill (with 2 associated smaller reservoirs) 50m to the east. • A Mill 100m to the south east (no product specified). • 2 no foundries plus associated reservoirs 240m to the south east. • 2 no carriage works at 50m to the south east, and 240m to the south west. • Many other uses including chapels, schools, churches, and to the immediate west of the site a 'Circus'. • A gas works is present 450m to the east.

Map Dates	On-Site Features	Off-Site Features of Significance
1904 1:10,560 scale 1906 1:2,500 scale	All the above buildings remain, however there are 3 new buildings added within the area of former vacant land in the northern half of the site, plus a number of smaller outhouse sized structures.	Most of the buildings described above remain, although they are not all labelled with their function. A mill building approximately 100m to the north west (Unity Mill) plus 2 associated reservoirs are removed by this date.
1929 1:10,560 scale	There have been further new buildings within the northern half of the site, and a new building has been built over the reservoir area that formerly straddled the eastern site boundary.	Several buildings /houses 200m and 400m to the south east of the site have been cleared; no other significant changes.
1938 1:10,560 scale 1948 1:10,560 scale	No significant changes shown on 1938 plan. Mill building in south of site reduced in size significantly on 1948 plan.	No significant changes.
1951 1:10,560 scale	Building (use unrecorded) in centre of site, extended to north (to Peel Street), crossing Sough Dike.	The 'Circus' to the immediate west of the site is now removed. No other significant changes.
1959-60 1:2,500 scale 1960-61 1:2,500 scale 1965-66 1:10,560 scale	Main building on site annotated as Ritz Cinema. There are some small buildings present to the north of the site that are labelled as a builder's yard with a weighbridge and a travelling crane. A number of small buildings are present within the north western quarter of the site, some may be of residential use, and the very western part of the site straddles a car park that formerly was part of the 'Circus' land. New buildings are also now present within the sites north eastern boundary, including the area of former reservoir. The reservoir straddling the western boundary of the site is now removed, and shown as an area of earthworks, with a small watercourse emerging from its former location. Sough Dike is shown to be culverted in 2 or 3 locations.	The building shown over the location of the former reservoir, beyond the eastern site boundary, is shown to be a garage premises. Many of the former surrounding mill buildings are shown as 'works' buildings and warehouses. The vicinity of the site is becoming increasingly commercial and non residential / non industrial in nature.

Map Dates	On-Site Features	Off-Site Features of Significance
1968-72 1:1,250 scale 1973-74 1:10,000 scale	Various buildings in the north western part of the site have been removed with new buildings in their place. This part of the site is now shown as a 'depot'.	The garage building to the immediate north east of the site is now shown as a smaller building, probably a petrol filling station. The former Taylors Linen Mill to the immediate north of Peel Street is now removed and replaced with a series of smaller units. A former iron foundry 240m to the south east is now shown as a textile engineering works, and a former textile works 230m to the north west, is now shown as a 'metal box works.'
1981-86 1:1,250 scale 1982-87 1:1,250 scale 1982 1:10,000 scale 1984-89 1:1,250 scale	The site is shown as completely cleared with a single new building, triangular in plan view, occupying the majority of the site area, apart from the eastern and southern boundaries. A footbridge is shown from Pitt Street to the south of the site. A roof car park is shown on the 1984 - 89 map. An electricity substation is shown in the north western corner of the site.	A new garage forecourt has been built to the immediate north west of the site, to the opposite side of Peel Street. A building 25m to the south west of the site is shown as County Council Offices.
1991 1:1,250 scale 1992-93 1:10,000 scale	No significant changes.	The Council Offices and other buildings to the immediate south west of the site have been removed.
1993 1:250 scale 2002 1:10,000 scale 2008 1:10,000 scale 2008 1:2,500 scale	No significant changes.	The West Way Road constructed to the immediate south west of the site.

3.3. Published Geological Information

A summary of available published geological information is provided in Table 3.2 below.

Table 3.2 Geological Summary

Sources of Information	BGS 1:50,000 scale geological map Sheet 87 – Barnsley (Solid and Drift edition). BGS 1:10,000 scale geological map SE30NW (Solid and Drift edition).
Made Ground	None recorded on the published maps, but likely to be present given the history of the site.

Drift Geology	None shown, but alluvium or softer soils associated with the former stream through the site is likely.
Solid Geology	Carboniferous Middle Coal Measures. The succession shows the range from the Kent's Rock sandstone, through the Kent's Thin and Kent's Thick coals, and including coal measures strata including sandstones and mudstones. The Kent's Thick coal is known to often be subject to recorded and unrecorded shallow mining activities. Shallow mining is also known in the Kent's Thin coal where it is sufficiently thick. There are no faults shown within influencing distance of the site. Strata are shown to dip to the east and southeast at between 5-7 degrees.
Mining and Quarrying	Coal Seams: Two coal seams are shown outcropping on site and lying at shallow depth beneath. The Kent's Thin coal 0.29m to 0.76m in thickness, and the Kent's Thick, 0.91 to 1.22m in thickness. Recorded Coal Mining: Workings recorded in one seam of coal at 100m depth. Last date of working 1875. Known Mine Entries: None recorded on site or within 20m of the site. Opencast Coal: None in the vicinity of the site. Quarries: None known.

Anticipated Ground Conditions	Made ground probably comprising reworked natural soils, with ash and associated historic industrial waste. These soils may be up to around 3-5m deep in area of former basements/reservoirs. The reservoir backfill may be more recent materials and could possibly contain organic soils if the reservoirs were not cleaned out prior to infilling / removal. Natural soils are expected to be residual Coal Measures clays and sands overlying less weathered strata, including mudstone, sandstone and coal seams. Shallow groundwater may be anticipated local to the former stream, also localised perched water is likely, particularly in the locations of former reservoirs, where puddle clay may be present.
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3.4. Hydrology and Hydrogeology

A summary of available information pertaining to hydrology and hydrogeology is present in Tables 3.3 to 3.5 below.

Table 3.3 Surface Water Features

	Presence/location	Comments
EA GQA Classified Watercourses (within 500m)	None	
Unclassified Watercourses (within 500m)	One within 250m. Assumed to be the former Sough Dike, thought to now be in culvert below the site. Sough Dike emerges to the east of the site to the immediate north of the former Pitt Street Methodist Church.	The watercourse is overgrown with weeds and contained rubbish when we did the site walkover. No water flow was evident.
Licensed Surface Water Abstractions (within 1000m)	None	

	Presence/location	Comments
Surface Water Features (Canals, Ponds, Lakes, etc.) (within 250m)	None, but refer to historical search regarding former reservoirs on and local to site.	
Flood Risk Status	Not in a zone 2 or 3 floodplain.	
Other	Culvert runs beneath site – once fed mill reservoirs.	Status / location, and implication on redevelopment, needs to be ascertained.

Environment Agency GQA assessments: A = very good to E = poor

Table 3.4 Groundwater Occurrence and Abstraction

	Presence/location	Comments
Licensed Abstractions (within 1000m)	4 no - but none within 474m of site.	Abstraction 474m south west of site for potable water; taken from Middle Coal Measures.
Private Wells	NR	
Source Protection Zones (within 500m)	NR	
Springs	NR	

NR - none recorded.

Table 3.5 Groundwater Vulnerability Status

	Environment Agency Classification
Groundwater Classification	Coal Measures are a Minor Aquifer (variably permeable)
Soil Classification	Intermediate leaching potential

3.5. Landfilling and Waste Management

Table 3.6 Waste Management Activities

	Presence / Location	Comments
EA Historic Recorded Landfills (within 1500m)	20	None considered of significance – refer to GroundSure report. The closest is 291m to the south.
Local Authority Landfills (within 1500m)	5	None considered of significance.
Other Licensed Waste Management Facilities (within 500m)	2	Transfer station 388m south east of the site.
Evidence of Landfilling On or Within 250m of Site	Yes. Former reservoirs revealed in historical searches.	Further works required to assess the possible risks.
Walkover Evidence of Fly-Tipping on Site?	None	
Ground Gas Risk Assessment Required?	Yes	Associated with possible made ground, natural organic (alluvial) soils and potential unrecorded shallow mineworkings.

NR - none recorded

3.6. Radon Risk

To determine whether the site is at risk from radon gas, the BRE Document “BRE 211 - Radon: Guidance on the protective measures for new dwellings” together with the National Radiological Protection Board (NRPB) “Radon Atlas of England and Wales” have been referenced.

These documents, together with a geological assessment contained within the GroundSure report, which includes information obtained from the Health Protection Agency and British Geological Survey, state that the site lies within an area in which **no radon protective measures are required**.

3.7. Other

Other potentially contaminative activities or environmental constraints are listed below. The entries relate to activities within approximately 250m of the site, with the exception of COMAH facilities where the assessment is extended to a distance of approximately 1km from the site.

- None other than mentioned in historical searches and environmental summaries above.

4. CONCEPTUAL SITE MODEL

Based on the desk study, a conceptual site model has been developed for the site. This summarises the understanding of surface and sub-surface features, the potential contaminant sources, transport pathways and receptors in order to assess potential pollutant linkages. In assessing the potential contaminants present at the site, reference has been made to the relevant sections of CLR 8, the Industry Profile report series issued by the Department of the Environment and other relevant supporting documentation.

A qualitative risk assessment has been made of the likelihood of any pollutant linkage operating and its potential significance.

The conceptual model is presented in schematic form in Drawing No. C3547/03 in Appendix A.

In summary, the CSM has identified the following potential pollutant linkages which could result in an unacceptable risk to the proposed end-use:

- Ingestion, inhalation of dust and dermal contact with potential heavy metals and hydrocarbons in made ground and from hydrocarbon spillages associated with the former site activities, including linen mill, council depot, builder's yard and adjacent petrol forecourt uses.
- Inhalation of vapours from possible hydrocarbon spillages.
- Leachate migrating to / from adjacent properties, and the underlying aquifer.
- Surface water contamination of Sough Dike.
- Gas risk from made ground, natural organic rich soils and potential shallow mineworkings.