VILLAGE HOMES FOLKESTONE LTD

SITE AT ROMNEY AVENUE, FOLKESTONE CT20 3AJ

GEOENVIRONMENTAL SITE INVESTIGATION AND SLOPE STABILITY REPORT

Reference: 1145/SI 2.0

15th April 2019

CLIENT: Village Homes Folkestone Ltd
2-4 South Street
Folkestone
Kent
CT20 1RW

SITE: Site at Romney Avenue
Folkestone
Kent
CT20 3QJ

GEOENVIRONMENTAL SITE INVESTIGATION AND SLOPE STABILITY REPORT

Reference: 1145/SI 2.0

15th April 2019

Prepared By:

Peter Baxter Associates
Suite 7, Beaufort House
Sir Thomas Longley Road
Medway City Estate
Rochester
Kent, ME2 4FB

Tel: 01634 717974

www.peterbaxterassociates.co.uk

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REFERENCES

Reference 1 Desk Study Report 1145/DS, Peter Baxter Associates Ltd 15/04/19

Reference 2 BS 5930: Code of Practice for Site Investigations, BSI 2015

Reference 3 BS 1377: Methods of Tests for Soils for Civil Engineering Purposes

Reference 4 BRE Special Digest 1:2005

Reference 5 NHBC Specification Chapter 4.2 "Building Near Trees"

Reference 6 CLR 11 Model Procedures for the Management of Land Contamination

Reference 7 BS10175 Investigation of Potentially Contaminated Sites 2011

Reference 8 LQM/CIEH S4ULs for Human Health Risk Assessment 2016

Reference 9 C4SLs, DEFRA 2014

Reference 10 Dutch Soil Guidelines, Dutch Ministry of Housing 2000

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FOREWORD

This document has been prepared by Peter Baxter Associates Ltd with all reasonable skill, care and diligence within the terms of the contract with the Client and within the limitations of the resources devoted to it by agreement with the client.

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1.0 SUMMARY

1.1 A steeply sloping undeveloped area of land approximately 3200m^2 in area, situated to the south of Romney Avenue, Folkestone, Kent CT20 3QJ (the Site), is to be developed with ten three storey houses arranged in four blocks.

1.2 Peter Baxter Associates (PBA) was commissioned by the Client; Village Homes Folkestone Ltd, to carry out a geotechnical site investigation and slope stability analysis. The investigation comprised the desk study of historical data, two boreholes to 15m depth, one borehole to 6m depth, three boreholes to 3m depth, and insitu testing and groundwater monitoring at each borehole location. Soil samples were tested for a range of geotechnical parameters, and three samples were tested for contamination levels. The objectives of the investigation were to obtain sufficient data for slope stability analysis, foundation, and retaining wall design. All boreholes were surveyed and related to ground levels with respect to Ordnance Datum.

1.3 This Site Investigation Report is revision 2.0 of a version dated 23rd October 2018. This report includes the presentation of the soil contamination results against generic Acceptance Criteria and the assessment of environmental risk, to address a planning query. This report describes the Site's geology, history, nearby mining and ground movement, field works, visual observations and laboratory testing, details and discusses the slope stability analyses, recommends a foundation type, retaining wall design parameters, and design sulphate class, and assesses the environmental risks associated with the Site.

1.4 The Site comprises a 1 in 1.5 10m high slope over two thirds of its area that is overgrown with trees. The remaining, western third had been temporarily levelled with loose fill during the investigation and will form the development area. Significant level changes will be required by the planned development. The Site had no history of development and there were no adjacent mining or quarrying operations. The western part of the Site was in a landslip area, but reported ground movements were low. No radon gas protection measures were required.

1.5 The site investigation described in this report was carried out between 20th September and 9th October. The Site's insitu soils comprised a medium dense orange grey clayey Sand to approximately 38m AOD over a dense grey clayey Sand below that level. These findings were consistent with the published geology. Placed fill was logged as a loose clayey Sand. Groundwater levels were found to

be relatively high and groundwater seepages were observed in the existing slope. No slope failures were observed.

1.6 The three categories of Site soils were treated as granular for the stability analyses. The soil strength parameters were derived from an empirical relationship between insitu test results and the internal angle of friction of the clayey sands. Effective strength parameters were used, with effective cohesion values of zero. The existing slope and existing fill were calculated to be stable but close to failure with factors of safety estimated as slightly greater than 1.

1.7 The fill must be stabilised before trafficking by heavy plant. Any excavations would require retaining structures. A bored pile or sheet pile retaining wall solution is recommended, which must be installed in advance of significant excavation. The design and analysis of such measures will depend on the final house and paving layout and levels, but a hypothetical study of a 1.5m high piled cantilever retaining wall indicated a satisfactory factor of safety greater than 1.5 for an 8m long 600mm diameter pile reinforced with 6 x 16mm reinforcing bars. Piled retaining walls are normally designed by specialist design and build piling contractors. Retaining wall design parameters are listed in Section 6.

1.8 It is recommended that the existing upper slope be monitored and the vegetation left in place and maintained, as the predicted failure mode would be shallow, and the tree roots would improve stability from that calculated. If this is unsatisfactory or found to be unsustainable, a soil nailing solution could be investigated. No construction on this upper slope will be possible.

1.9 Piled foundations are recommended for the house foundations. These would be designed by specialist piling contractors from the information presented in this report, but as an illustration a 300mm dimeter bored pile founding 12m below the current fill level is estimated to have a safe working load of 300kN. These bearing piles may also improve the slope stability and reduce the cost of piled retaining structures. Heave precautions are required for the ground floor slab and detailed in Section 6.

1.10 The recommended design sulphate class for concrete in contact with the soil is DS-2.

1.11 The environmental risks associated with the Site were assessed as low, verifying the conclusion of a separate Phase 1 Desk Study Report (Reference 1). The levels of contamination measured in the soils were below the limits of detection or

less than the adopted generic Acceptance Criteria for residential gardens with vegetable uptake. No remediation measures are considered necessary.

1.12 The expected waste category is "Inert" although leaching sulphate levels slightly exceed the minimum value.

2.0 SITE DESCRIPTION

2.1 Site Location and Description

2.1.1 The Site is a 3200m^2 undeveloped plot of land on the south side of Romney Avenue, Folkestone, Kent CT20 3QJ. The National Grid coordinates of the Site are 620610E, 136060N.

2.1.2 The Site comprises a steep wooded slope over approximately two thirds of its area. The remaining third, occupying the western part of the Site, was sloping but less steeply, and had been levelled with fill material in mid-2018. The main slope is some 10m high and slopes upwards to the east at approximately 1 in 1.5. The filled area is about 3m higher than its toe, and its western slope is 1 in 1.5. The steep slope contains badger sets, some of which were inhabited at the time of the investigation. There were no signs of slope instability observed during the investigation. Water seepages were observed in the slope just above the lower fill area.

2.1.3 The Site is shown on Figure 1, and photographs illustrating the Site are presented in Appendix E.

2.2 Proposed Development

2.2.1 It is proposed to develop the lower third of the Site with ten town houses in four blocks, with small gardens and off-street parking areas. The development will require excavation into the slope and retaining structures.

2.3 Site Investigation Objectives

2.3.1 The site investigation objectives were to confirm the Site geology, including groundwater conditions, to carry out slope stability analyses based on the investigation findings, to establish foundation and retaining wall design parameters, and to assess the environmental risks associated with the Site by comparing measured contamination levels with Acceptance Criteria.

2.3.2 Peter Baxter Associates (PBA) developed an investigation methodology that is detailed in Section 3. The methodology was constrained by the lack of drilling space at the top of the upper slope, the ecological constraint of the live badger's set, and the heavy undergrowth on the slope.

2.3.3 The field works, observations, and testing are detailed in Sections 3 and 4 of this report. The slope stability analysis is discussed in Section 5, and conclusions and interpretations presented in Section 7.

2.4 Published Geology

2.4.1 A desk study of the Site was carried out and is reported separately (Reference 1). Geological and historical maps and a Mining and Stability Report were obtained from Envirocheck. The geological map of the area indicated that the Site's natural geology is Folkestone Formation (Sandstone) over Sandgate Formation (sandstone, siltstone and mudstone). The western part of the Site was indicated as being within a landslip area. No made ground was indicated within 1000m of the Site. An area of Peat was shown approximately 20m west of the Site. Geological maps detailing the strata are presented in Appendix A1.

2.5 Published Geological Hazards and Radon

2.5.1 Reference 1 indicated a moderate risk of landslide, low risks of running sand, a very low risk of collapsible ground, and reported no hazards from compressible ground, ground dissolution, and shrinking and swelling clay.

2.5.2 The Site was in a lower probability radon area and no radon protection measures were reported necessary. The report from Public Health England, listing this assessment, is reproduced in Appendix A4.

2.6 Published History

2.6.1 Historical maps from Reference 1 are presented in Appendix A2. They indicated that the Site has remained undeveloped from 1873 to the present day. No quarries or artificially excavated faces were shown on the Site at any date. The houses on Eversley Way, whose gardens are at the top of the Site slope, were first shown on a 1957 map. Development of Romney Avenue dates from the early 1960s, and a block of flats bounding the Site to the west, Turner's Court, was shown on a 1978 map.

2.7 Published Mining and Ground Stability

2.7.1 The nearest recorded mining in Reference 1 was a quarry 785m north west of the Site. An area of infilled land was recorded 782m from the Site. Inconclusive coal mining was reported. Deep coal mining was conducted in the Folkestone area

from the early 20th century but the coal seams are hundreds of metres deep. The Mining and Ground Stability Report is included in Appendix A3.

2.7.2 Reference 1 contained ground movements around the Site measured by satellite radar techniques. These movements were all reported as -1mm per year or less. (Appendix A3).

3.0 FIELDWORK

3.1 Description of Field Works

3.1.1 Two boreholes denoted BH1 and BH2 were drilled to 15m depth using a cable percussion technique from the filled western area of the Site on 21st and 24th September 2018 by PBA's drilling contractor, South Eastern Drilling Services Ltd, Minster, Kent.

3.1.2 Four boreholes (WS1 to WS4) were drilled on 20th and 21st September using a window sampling rig by Siteserve Ltd, Canterbury. WS1 was drilled to 6m and WS2, WS3, and WS3 were drilled to 3m depth in the steep slope. Access for the window sample boreholes was prepared by an excavator provided by the Client.

3.1.3 Insitu testing was carried out at all borehole locations. All wells were fitted with groundwater monitoring installations. The works were carried out under the visiting supervision of a PBA geologist.

3.1.4 Recovered samples were logged by a PBA geologist and selected samples were tested. The borehole locations were surveyed to Ordnance Survey grid coordinates and levels by a Siteserve land surveyor.

3.1.5 The site investigation was carried out in accordance with BS5930 (Reference 2). The borehole locations are shown in Figure 1. The borehole logs are presented in Appendix B1.

3.2 Ground Conditions and Observations

3.2.1 The Site soils on the fill area comprised made ground of between 0.5m and 0.8m depth. Topsoil 0.45m in depth was found in WS1 but in no other borehole. The soils above a level of approximately 38m AOD comprised a medium dense orange brown silty Sand. Below that level was a dense dark grey silty Sand. The fill encountered in boreholes BH 1 and BH2 comprised a loose clayey Sand with rootlets in some samples. Some layers of sandy Clay were observed.

3.2.2 These observations were consistent with descriptions of the Folkestone Formation and Sandgate Formation shown on geological maps.

3.2.3 No signs or smells of contamination were observed in the soil samples recovered. Some loose rubbish was noted on the filled area.

3.2.4 Photographs of the recovered window sample cores recovered from WS1 to WS4 are presented in Appendix E.

3.3 Groundwater Conditions

3.3.1 Groundwater was encountered in boreholes BH1 and BH2, rising slowly to 2.5m depth in both boreholes (approximately 33 to 34 mAOD). Groundwater levels were measured on 9th October and groundwater levels ranging from 35.74m AOD in BH1 to 45.15m AOD in borehole WS1 were observed. These equilibrium groundwater levels are presented on Table 3. The weather during this period was dry. Groundwater seepages in the slope at approximately 37m AOD were observed.

3.4 Insitu Testing

3.4.1 Standard Penetration Test (SPT) testing was carried out in boreholes BH1 and BH2, at 1m intervals in the top 5m then at 2m intervals. The SPT N-values are summarised on Table 1 and presented on the borehole logs in Appendix B1, and ranged from N5 in the fill to N40+ at around 27m AOD (10m depth) in the dark grey silty Sand.

3.4.2 Super heavy dynamic probing tests (DPSH) were carried out adjacent to boreholes WS1 to WS4 to depths of 6m (7m at WS1) using a rig mounted tool. This tool comprises a 63.5kg weight falling 760mm, which drives a 50.5mm diameter cone into the ground via rods. The numbers of blows per 100mm of penetration are recorded. Plots of the DPSH values with depth are presented in Appendix B2. The number of blows recorded over 300mm are taken as equivalent to the Standard Penetration Test (SPT) values. Equivalent SPT values at each metre depth at each borehole were derived by inspection and are presented on Table 1.

3.5 Intrusive Environmental Investigation

3.5.1 Three soil samples were recovered from boreholes WS1, BH1, and BH2, from the fill material and natural ground. The samples were stored and transported in accordance with best practice guidelines. The sampling frequency of one sample per 330m^2 of developed land was in accordance with Reference 7.

3.5.2 The samples were tested for a range of contaminants recommended in the Desk Study. The test parameters were asbestos trace, soil organic matter, the "CLEA" suite of heavy metals, oils and selected volatile organic compounds (TPH-CWG) and polyaromatic hydrocarbons (PAH). The results of this testing are summarised on Table 6 and are their environmental implications discussed in Section 7.

4.0 LABORATORY TESTING

4.1 General

4.1.1 Geotechnical testing was carried out by Peter Baxter Associates Laboratories, Gillingham, Kent in accordance with BS 1377 (Reference 3). Contamination testing was carried out by DETS Ltd, Lenham, Kent. Geotechnical test results are summarised in Table 2. Contamination test results are summarised in Table 6.

4.2 Particle Size Distribution Testing

4.2.1 Seven samples, recovered from all boreholes at a range of depths, were tested for particle size distribution. The test reports are included in Appendix C1. The results indicated a clayey Sand becoming a silty Sand, with fines contents between 6% to 26%.

4.3 Atterberg Limits Testing

4.3.1 Eight samples, recovered from a range of depths from boreholes BH1, BH2, WS1 and WS3, WS2, were tested to determine natural moisture content and liquid and plastic limits. The test reports are included in Appendix C2. The plasticity indices ranged between 6% and 36%.

4.4 Sulphate and pH Testing

4.4.1 Water soluble sulphate and pH testing was carried out on six samples recovered from a range of depths from boreholes BH1, BH2, WS1 and WS3. The laboratory test report is included in Appendix C3 and indicates sulphate contents ranging from 0.0 to 0.5 g/l, indicating a design sulphate value of DS-2.

4.5 Loss on Ignition Testing

4.5.1 Loss on ignition testing was carried out on five samples recovered from boreholes BH1, BH2, WS1 and WS3. The laboratory test report is included in Appendix C4 and values range between 1.2% to 2.4%, indicating a low organic content in the samples tested.

4.6 Contamination Testing

4.6.1 Three soil samples recovered from shallow depths from borehole BH1, BH2, and WS1 were tested for the solid content of a range of potential contaminants; asbestos trace, a suite of heavy metals, polyaromatic hydrocarbons (PAH), total petroleum hydrocarbons (TPH), and selected volatile organic compounds. The

sample from BH1 was also tested for leaching potential to BSEN12457 (the "WAC Test"). The test reports are included in Appendix C5. The samples were stored and transported in accordance with best practice guidelines. The samples were recovered and tested for waste characterization purposes but have been compared in this Report with generic Acceptance Criteria to verify the level of environmental risk associated with the Site.

4.6.2 Contamination test results are summarised in Table 6. Asbestos was not detected. Levels of heavy metals were detected at levels below acceptance criteria in guidance or below the detection limit. Levels of TPH were lower than the selected Acceptance Criteria. Levels of volatile organic compounds were lower than detection limits. Levels of PAH compounds were detected at levels below acceptance criteria in guidance, or below the detection limit.

5.0 SLOPE STABILITY ASSESSMENTS

5.1 Soil Parameters

5.1.1 The soil parameters used in the analysis are summarised on Table 4. From laboratory testing and observations, the soils were regarded as granular for the purposes of the stability assessment. The soil's drained parameters were used in the stability assessment as being representative of the soil's long-term condition.

5.1.2 The drained shear strength parameters of the silty sand above 37.50m AOD, taken as being the Folkestone Formation, were derived from an empirical correlation between the effective angle of internal friction ϕ' and SPT values. An SPT N value of N30 was adopted from the results summarised on Table 1, giving a ϕ' value of 34^0. The effective cohesion was conservatively assumed to be zero.

5.1.3 The drained shear strength parameters of the insitu silty sand below 37.50m AOD, taken as being the Sandgate Formation, were derived from an empirical correlation between the effective angle of internal friction ϕ' and SPT values. An SPT N value of N40 was adopted from the results summarised on Table 1, giving a ϕ' value of 36^0. The effective cohesion was conservatively assumed to be zero.

5.1.4 The drained shear strength parameters of the loose sand fill were derived from an empirical correlation between the effective angle of internal friction ϕ' and SPT values. An SPT N value of N8 was adopted from the results summarised on Table 1, giving a ϕ' value of 30^0. The effective cohesion was conservatively assumed to be zero.

5.1.5 The bulk density of all soils was defined as 20kN/m^3, from literature. The groundwater table was derived from the groundwater level readings summarised in Table 3.

5.2 Slope Analysis Methodology

5.2.1 The analysis sections were derived from a Client's survey of March 2018, shown as the basis of Figure 1. The section line is shown on Figure 1. The slope stability analyses were carried out with GeoSlope software using Bishop's Method of Slices. For each section a large area was initially defined for the location of the slip circle centroid, which was then more closely defined to confirm a worst-case factor of safety. The output is summarised on Table 5, and plots from the analysis software are included in Appendix D.

5.2.2 Section 1-1 was an analysis of the pre-existing slope shown on the March 2018 survey. Sections 2-2 and 3-3 were an analysis of the current slope including the recent fill. Section 4-4 studied the effect of a 1 in 2 slope excavated to form a level platform at 33.25mAOD. Section 5-5 reviewed the effect of a 1.5m retaining wall.

5.3 Analysis Output

5.3.1 The factors of safety of each section are summarised on Table 5 along with a description of the failure mode. The graphical output from the final analysis on each section are presented in Appendix D.

5.3.2 The factor of safety of the previously existing slope Section 1-1 was calculated as 1.03 with a shallow failure on the upper slope. From the Site's history (Section 2.6) the slope is considered to be natural. No indications of slope failure were observed, and published ground movement was low, so it is considered a reasonable assumption that the slope is stable but close to failure, as implied by the calculated safety value of Section 1-1 that is slightly greater than unity.

5.3.3 The factor of safety of the current profile Section 2-2 was calculated as 1.08, with a shallow failure on the upper slope, as discussed in Section 5.3.2 above.

5.3.4 The factor of safety of the current fill profile Section 3-3 was calculated as 1.02 by examining different failure surface limits. This implies that the fill, the angle of which was assumed to be 1:1.5, is close to failure, with a relatively deep failure mode. Movement of heavy plant near the edge may be expected to destabilise the fill.

5.3.5 The factor of safety of a hypothetical excavation profile Section 4-4 (1:2 excavation to form a level platform at 33.25mAOD), was 0.89. This excavation profile would be unstable, suggesting that retaining measures will be required for the development.

5.3.6 The factor of safety of a hypothetical retained excavation profile Section 5-5 (1.5m retained height with a 1 in 7 slope in front of the 8m long piled retaining wall) was 1.62. This exceeds a factor of safety of 1.50 considered to be the minimum acceptable for permanent structures, suggesting that this retention solution would be stable. Other cases with the same section but shorter pile lengths were studied but indicated factors of safety less than 1.50. The factor of safety against shallow failures of the upper slope remained at 1.03.

6.0 ENVIRONMENTAL RISK ASSESSMENT

6.1 Summary of Desk Study Report

6.1.1 Reference 1 indicated that the Site geology was Sandgate Formation or Folkestone Formation sandstone, that the risks of landslide was moderate and other geological hazards were of low risk. The Site was within a low probability radon area and no protective measures were required. Geological maps are included in Appendix A1.

6.1.2 The Site was shown as undeveloped during its recorded history. The residential development above the Site's slope dated from 1957 and other neighbouring properties were completed by 1978. No significant sources of contamination within 1000m were indicated on the historical maps.

6.1.3 No areas of sensitive land use were within 1000m of the Site. The Site overlay a minor aquifer and the nearest surface water feature was 395m away.

6.1.4 Two mineral workings, no landfills, four permitted activities and 136 active and defunct trades were identified within 1000m of the Site. The closest trade, a dry cleaners, was at 121m distance.

6.1.5 No rubbish or signs of contamination were observed on the Site during a walkover survey in September 2018.

6.1.6 The environmental risks to on site receptors from on and off-site sources were assessed as low in the Desk Study Report. The environmental risks to off-site receptors including controlled waters from on-site sources were assessed as low in the Desk Study Report.

6.2 Acceptance Criteria

6.2.1 The generic Acceptance Criteria for the Site were derived from several sources; the LQM/CIEH S4UL levels for human health risk assessment (Reference 8), "Category Four Screening Levels" (C4SL) limits (Reference 9) and Dutch guidelines for soil contamination (Reference 10). The S4UL and C4SL levels given for residential land use with vegetable uptake were adopted along with the "Intervention Levels" from the Dutch guidelines. The Soil Organic Matter content was assumed to be 1%. The adopted Acceptance Criteria are given in Table 6, shaded in yellow.

6.2.2 The lowest Acceptance Criteria were generally adopted when contaminants had varying criteria from multiple sources.

6.3 Contamination Test Results

6.3.1 The contamination test report is included in Appendix C5 and the results summarised in Table 6. Asbestos was not detected. Levels of heavy metals were detected at levels below acceptance criteria in guidance or below the detection limit. Levels of TPH were lower than the selected Acceptance Criteria. Levels of volatile organic compounds were lower than detection limits. Levels of PAH compounds were detected at levels below acceptance criteria in guidance, or below the detection limit.

6.3.2 The loss on ignition test results discussed in Section 4.5 and included in Appendix C4 indicated low levels of organic matter. Ground gas generation from on site soils was therefore considered unlikely.

6.3.3 A sample from BH1 was tested for leaching potential to BSEN12457 (the "WAC Test"). The report is included in Appendix C5 and shows low levels of leaching contaminants.

6.4 Generic Environmental Risk Assessment

6.4.1 A generic environmental risk assessment based on the results discussed above and the recommendations of Reference 6 is presented in Table 7 and concluded that the environmental risk to the off-site receptors groundwater and surface water from on Site sources was low. The measured concentrations of contaminants in the soil were below the Acceptance Criteria.

7.0 CONCLUSIONS AND RECOMMENDATIONS

7.1 Slope Stability Conclusions

7.1.1 The existing upper slope is considered to be stable but close to failure. The expected failure mode is a shallow slip or translational failure. The existing trees and vegetation are expected to improve the slope stability from the values presented in Table 5, and it is recommended that these are left in place, with larger trees maintained and trimmed on an ongoing basis as necessary. The slope should be visually monitored over a period of years to confirm stability and failure modes. No construction on this upper slope will be possible. If further stability measures are required, or if the slope is not sustainable, a soil nailing solution may be investigated. This would require the clearance of most of the existing trees, which may raise aesthetic, ecological, and neighbor relation issues.

7.1.2 The fill is considered to be stable but close to failure. The toe of the fill slope must be stabilized or the current 1 in 1.5 slope reduced before the use of heavy plant, such as piling rigs, is permitted.

7.1.3 Excavations must be retained by retaining measures designed by a competent organization or individual. The soil strength values summarised on Table 4 and a minimum factor of safety of 1.50 are recommended. It is recommended that bored pile retaining walls or sheet piled retaining walls be installed prior to excavation. The study of a hypothetical 1.5m deep excavation indicated that a 600mm diameter 8m deep bored pile wall at 750mm centres, reinforced with 6 x T16 reinforcement will provide a satisfactory factor of safety. Any design solution must account for the final maximum retained height, and may incorporate a suitably designed slab as a prop. Such solutions are typically designed by piling contractors as part of a design and build package.

7.2 Recommended Foundation Type and Design Parameters

7.2.1 Piled foundations are recommended for the new houses. Shallow strip footings are not considered to be viable and deep trench foundations could create slope stability problems during construction. Suitably reinforced bearing piles would also improve the factor of safety against slope failure from that discussed in Section 6.1.3, potentially reducing the cost of a piled retaining wall. Piles are generally designed by a piling contractor, but as an illustration, a 300mm diameter bored pile, drilled to a depth of 12m from the current fill level, estimated to have a safe working load of 300 kN.

7.2.2 If treated as a sandy Clay, the soils between 45m AOD and 31m AOD are considered to be of low volume potential. The planned north western houses in particular may be within the zone of influence of nearby or removed trees (Reference 5). If the floor slabs are not suspended, with a void dimension of at least 125mm, a void former of Celotex or similar with a void dimension of 50mm is recommended. Such void formers are also recommended for the underside of ground beams.

7.3 Recommended Design Sulphate Class

7.3.1 The soil sulphate tests discussed in Section 4.4 and reported in Appendix C3 measured sulphate contents ranging from 0.1 to 0.5g/l. A design sulphate value of DS-2 is therefore recommended for all concrete in contact with the ground. (Reference 4).

7.4 Environmental Risk and Assessed Waste Category

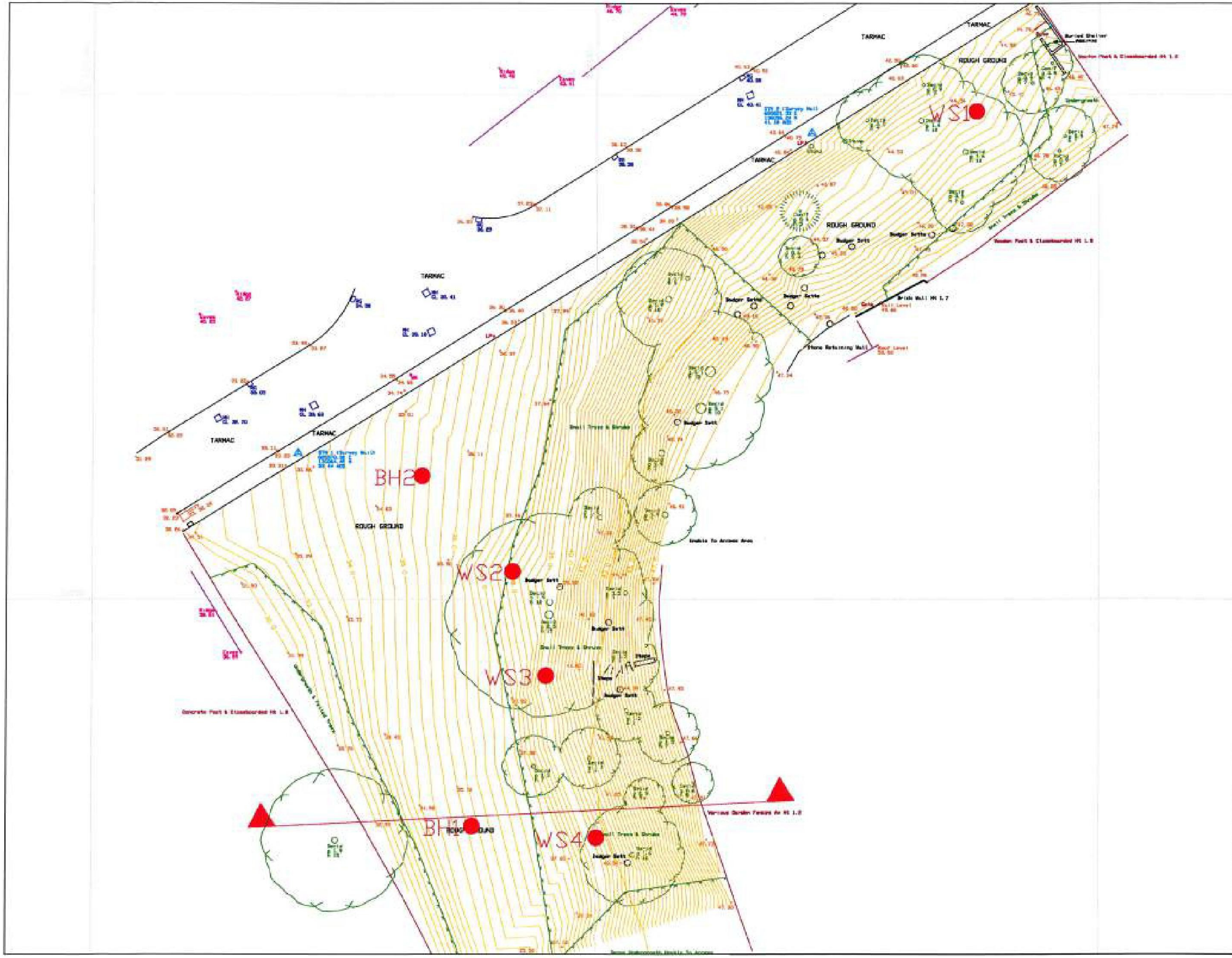
7.4.1 A Phase 1 Desk Study (Reference 1) concluded that the environmental risks associated with the Site were low. Soil contamination testing discussed in Section 4.6 and reported in Appendix C5 carried out on samples recovered from the Site for the purpose of waste characterization, indicated that the measured contamination levels were less than the adopted Acceptance criteria, and so confirmed that the environmental risks associated with the Site were low. No environmental remediation measures are considered necessary.

7.4.2 The contamination tests indicate no contamination, and the leaching test indicates compliance with the inert waste criteria, with the exception of sulphate. Any waste timber or buried debris discovered should be separated and disposed of separately.

Peter Baxter BEng CEng MICE

For and on behalf of Peter Baxter Associates Ltd

FIGURES



Notes

Based on Client's survey Sitech 9922
March 2018

PETER BAXTER ASSOCIATES

Peter Baxter Associates Ltd, Beaufort House, Sir Thomas Longley Road, Medway City Estate, Rochester, Kent ME2 4FB. Tel: +44 (0)1634 717904

Client

VILLAGE HOMES FOLKESTONE

Project

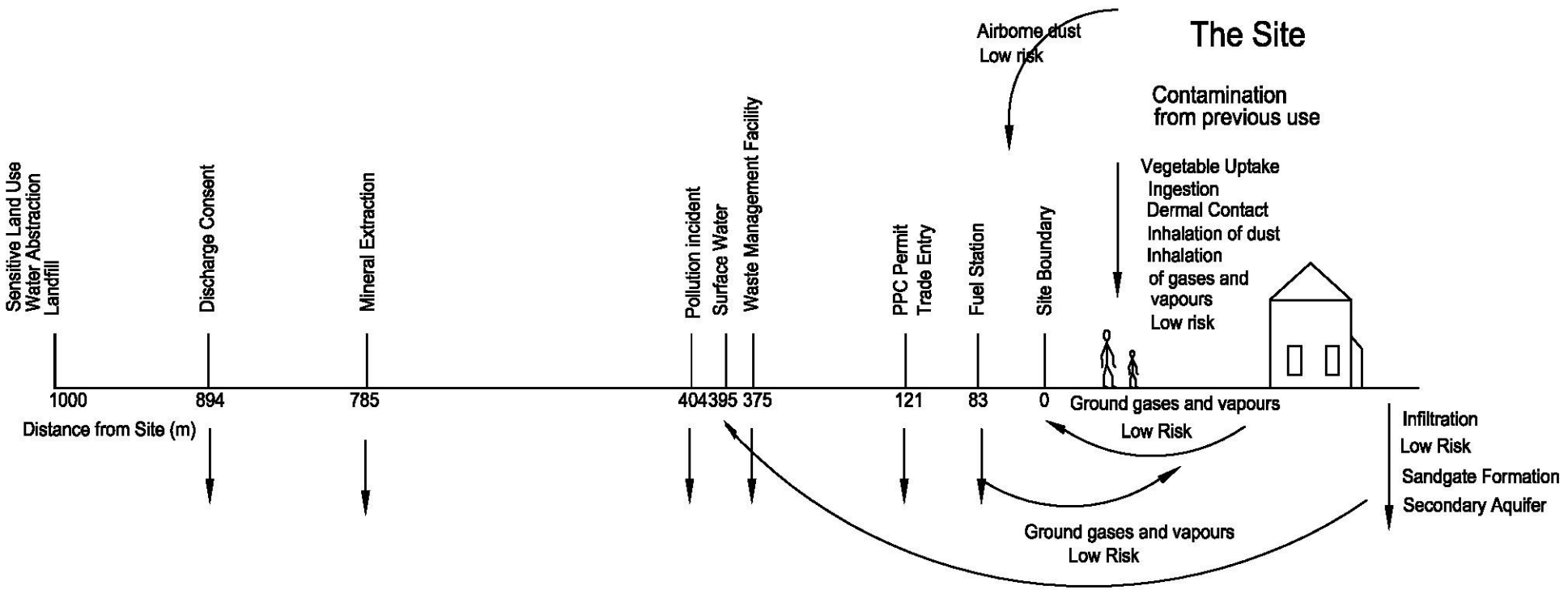
ROMNEY AVENUE, FOLKESTONE

Title

BOREHOLE LOCATION PLAN

Rev	Date	Drn	App	Revision

Drawn: PB	Checked: PB
Size: A1	Scale: NTS
Status: Information	
Drawing No: 1145/FIG 1	Rev: A



Rev.	Date	Drn.	App.	Revision
			A	Information

Client: Village Homes Folkestone Ltd

Project: Romney Avenue

Title: Illustration of Conceptual Model

Drawn: PB | Checked: PB

Size: A4 | Scale: N.T.S. | Status: Information

Drawing No.: 1145/Figure 2 | Rev.: A

Peter Baxter Associates Ltd, Suite 7, Beaufort House,
Sir Thomas Longley Road, Medway City Estate,
Rochester, Kent ME2 4FB Tel: 01634 717974

TABLES

Project: **Folkestone Romney Avenue 1145**

Client: **Village Homes Folkestone Ltd**

Date: October 2018

Table 1 - In Situ Testing Summary

EQUIVALENT SPT					SPT	
Level mAOD	WS1	WS2	WS3	WS4	BH1	BH2
45	21					
44	2					
43	30					
42	30					
41	30					
40	45					
39	30					
38	45	3	3	6		
37		3	3	6		
36		9	9	9		5
35		12	12	12	7	8
34		15	24	27	8	7
33		21	15	21	10	11
32					12	12
31					14	
30						23
29					21	
28						25
27					48	
26						44
25					49	
24						46
23					50	
22						48
21					52	

Project: Folkestone Romney Avenue **Job No.** 1145

Client: Village Homes Folkestone Ltd **Date:** October 2018

Table 2 - Geotechnical Laboratory Testing Summary

Location	Depth	GL	Sample Level	% Fines	Description	PI %	SO4 g/L	pH	LOI %
WS1	0.50	45.15	**44.65**			6			
WS1	0.50	45.15	**44.65**				0.150	7.0	
WS1	1.50	45.15	**43.65**			18			
WS1	1.50	45.15	**43.65**						1.9
WS1	3.30	45.15	**41.85**	26	Clayey SAND				
WS1	4.00	45.15	**41.15**	19	Clayey SAND				
WS1	5.10	45.15	**40.05**						
WS1	5.50	45.15	**39.65**			22			
WS3	0.70	38.78	**38.08**			25			
WS3	0.70	38.78	**38.08**						2.0
WS4	1.40	38.93	**37.53**	8	Clayey SAND				
WS3	1.50	38.78	**37.28**	10	Clayey SAND				
WS2	1.50	38.70	**37.20**	10	Clayey SAND				
BH2	1.20	36.69	**35.49**			13			
BH2	2.00	36.69	**34.69**						2.4
BH1	1.50	35.74	**34.24**	16	Silty SAND				
BH1	2.00	35.74	**33.74**				0.030	7.3	
BH1	2.00	35.74	**33.74**						1.4
BH2	5.00	36.69	**31.69**			14			
BH2	5.00	36.69	**31.69**				0.050	7.2	
BH1	7.00	35.74	**28.74**			20			
BH2	9.00	36.69	**27.69**			36			
BH1	9.00	35.74	**26.74**				0.380	7.0	
BH2	11.00	36.69	**25.69**				0.500	7.0	
BH2	11.00	36.69	**25.69**						1.2
BH2	15.00	36.69	**21.69**						
BH2	15.00	36.69	**21.69**				0.450		
BH1	15.00	35.74	**20.74**	18	Silty SAND				

Project **Folkestone Romney Avenue**

Client **Village Homes Folkestone Ltd**

No **1145**

TABLE 3 - Groundwater Level Readings

Borehole Reference	Sample Date	Time	Water Level (mbgl)	Depth of Well (mbgl)	GL	WL
BH1	09/10/2018	16:05	2.3	12.0	35.74	33.5
BH2	09/10/2018	16:10	3.6	12.0	36.69	33.1
WS1	09/10/2018	15:45	Dry	5.9	45.15	<39.25
WS2	09/10/2018	15:50	0.7	3.0	38.7	38.0
WS3	09/10/2018	15:55	1.9	3.0	38.78	36.9
WS4	09/10/2018	16:00	2.0	3.0	38.93	36.9

TABLE 4 SUMMARY OF SOIL PARAMETERS

Soil Description	ϕ' degrees	c ' KN/m^2	Bulk Density kN/m^3
Recent Fill	30	0	20
Folkestone Formation Above 37.50mAOD	34	0	20
Sandgate Formation Below 37.50mAOD	36	0	20

TABLE 5 SLOPE STABILITY CALCULATION OUTPUT

Analysis	Description	Factor of Safety	Failure Mode
1-1	Pre-existing slope	1.03	Shallow failure in lower slope
2-2	Current slope with fill	1.08	Shallow failure in upper slope
3-3	Stability of Fill	1.02	Failure in fill slope
4-4	1:2 excavation in Sandgate Formation to 33.25mAOD	0.89	Unacceptable
5-5	1.5m cut retained by 8m long piled retaining wall.	1.62 1.03	Failure through retaining wall Shallow failure in upper slope

Project:	**Folkestone Romney Avenue**	**Job No.**	**1145**
Client:	**Village Homes Folkestone Ltd**	**Date:**	**15/04/2019**

Table 6 - Measured Contamination Levels and Acceptance Criteria

Date Sampled TP/BH Depth (m) Lab Sample Ref	**Generic Acceptance Criteria**			21/09/18 WS1 0.50 365770	21/09/18 BH1 1.50 365771	21/09/18 BH2 1.50 365772
Parameter	**LQM/CIEH S4UL[8]**	**C4SL[9]**	**Dutch Soil Guidelines 2000[10]**	**Measured Values (mg/kg)**	**Measured Values (mg/kg)**	**Measured Values (mg/kg)**
Moisture Content (%)						
Soil Description				Brown sandy clay	Brown sandy clay	Brown sandy clay with stones
Asbestos Screen				Not Detected	Not Detected	Not Detected
Arsenic (As)	37	37	55	< 2	< 2	< 2
Barium (Ba)			625	29	11	21
Beryllium (Be)	1.7		30	0.6	< 0.5	< 0.5
W/S Boron	290			< 1	< 1	< 1
Cadmium (Cd)	11		12	< 0.2	< 0.2	< 0.2
Chromium (Cr)	910		380	18	10	13
Copper (Cu)	2400		190	< 4	< 4	4
Lead (Pb)		200	530	4	6	10
Mercury (Hg)	1.2		10	< 1	< 1	< 1
Nickel (Ni)	180		210	18	4	10
Selenium (Se)	250		100	< 3	< 3	< 3
Vanadium (V)	410		250	25	14	18
Zinc (Zn)	3700		720	31	13	26
PAH Naphthalene	2.3			< 0.1	< 0.1	< 0.1
PAH Pyrene	620.0			0.12	0.12	0.19
PAH Benzo(a)pyrene	2.2*			< 0.1	< 0.1	0.19
PAH Indeno(1,2,3-cd)pyrene	27			< 0.1	< 0.1	0.39
Total PAH			40	< 1.6	< 1.6	1.7
TPH Total	1600*			< 42	< 42	< 42
Benzene	0.087					
Toluene	130			<0.005	<0.005	<0.005
Ethylbenzene	47		50	<0.002	<0.002	<0.002
xylene	60		25	<0.002	<0.002	<0.002
MTBE			100	<0.005	<0.005	<0.005

Notes

Adopted Generic Acceptance Criteria are shaded in yellow. References in brackets
Orange shaded values exceed the adopted Generic Acceptance Criteria
Residential land use with homegrown produce adopted
Dutch Soil Guidelines Intervention Values Selected
(8) (9) (10) Refer to contents page for Full References

TABLE 7

Conceptual Model and Generic Environmental Risk Assessment

Source	Pathway	Receptor	Assessed Environmental Risk
On site contaminants from previous site use and placed fill.	Vegetable uptake, ingestion, inhalation of dust and vapours and dermal contact	Future occupants	Low. The former uses were considered low risk, the fill was sourced from adjacent natural ground, and levels of measured contamination were less than the adopted generic Acceptance Criteria
On site contaminants: as above	Infiltration, airborne dust	Surface Water and ecological systems	Low. The uses were considered low risk and the receptors are far from the Site.
On site contaminants: as above	Leaching into groundwater	Groundwater	Low. The Site overlies a minor aquifer but levels of measured contamination were less than the adopted generic Acceptance Criteria
Offsite contaminants Migrating gases and vapours from nearby sources	Inhalation of dust gases and vapours	Human occupants of the site	Low. No sources were identified within 1000m

APPENDICES

APPENDIX A
DESK STUDY DATA

APPENDIX A1

Geological Maps

Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Quaternary - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Ryazanian
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian
	STOB	Storm Beach Deposits	Gravel	Quaternary - Ryazanian
	BTFU	Beach and Tidal Flat Deposits (Undifferentiated)	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GLT	Gault Formation	Mudstone	Albian - Albian
	FO	Folkestone Formation	Sandstone	Albian - Aptian
	SAB	Sandgate Formation	Sandstone, Siltstone and Mudstone	Aptian - Aptian
	HY	Hythe Formation	Sandstone and [Subequal/subordinate] Limestone, Interbedded	Aptian - Aptian
	AC	Atherfield Clay Formation	Mudstone, Sandy	Aptian - Aptian
	WC	Weald Clay Formation	Sandstone	Barremian - Hauterivian

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Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

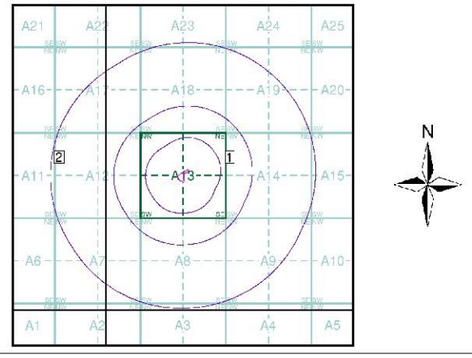
Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:10,000 Maps Coverage

Map ID:	1	**Map ID:**	2
Map Name:	TR23NW	**Map Name:**	TR13NE
Map Date:	1967	**Map Date:**	1967
Bedrock Geology:	Available	**Bedrock Geology:**	Available
Superficial Geology:	Available	**Superficial Geology:**	Available
Artificial Geology:	Not Available	**Artificial Geology:**	Not Available
Faults:	Not Supplied	**Faults:**	Not Supplied
Landslip:	Available	**Landslip:**	Available
Rock Segments:	Not Supplied	**Rock Segments:**	Not Supplied

Map ID:	
Map Name:	TR13SE
Map Date:	1967
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Not Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:10,000 Maps - Slice A



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Customer Ref:	1145
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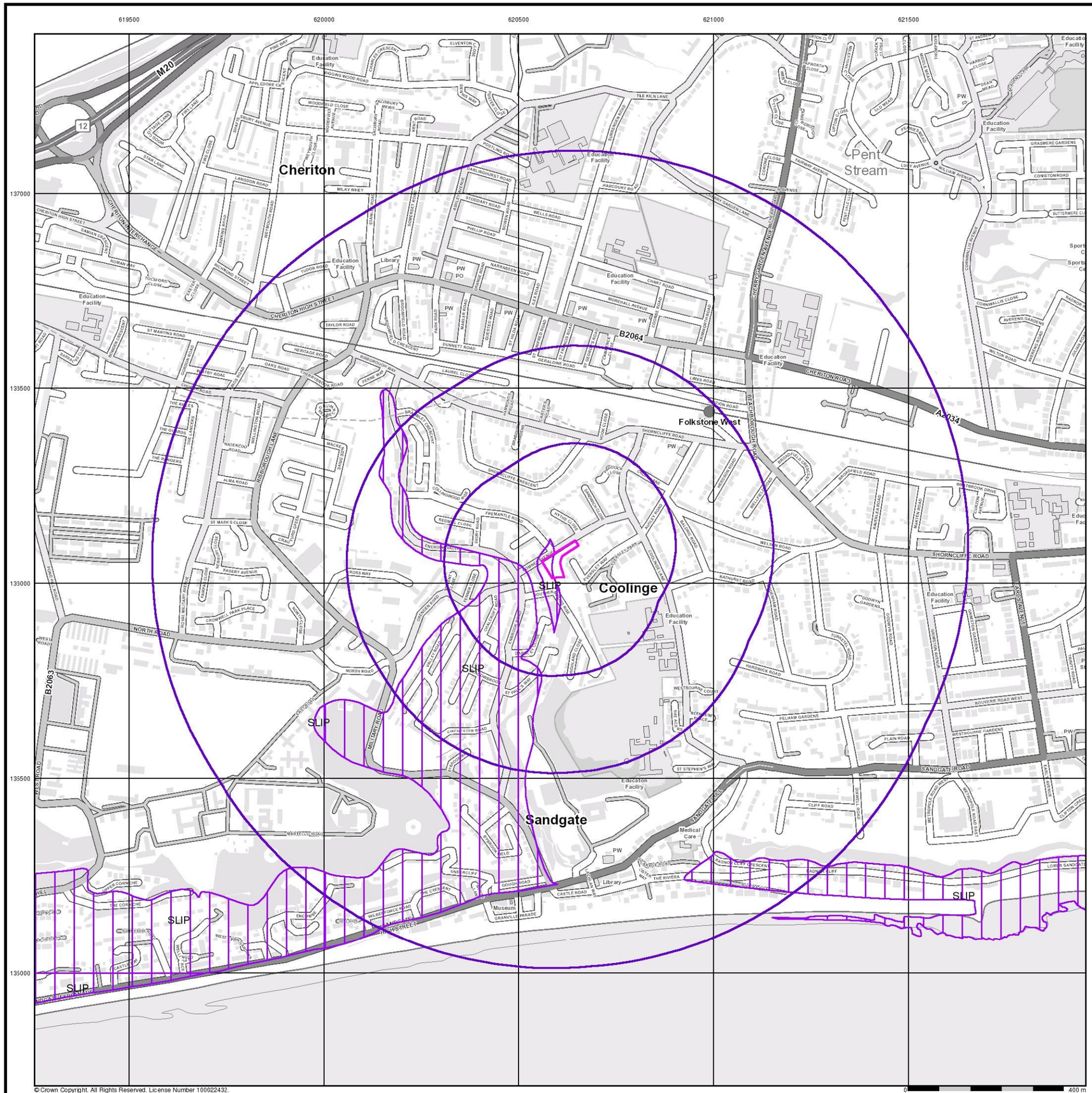
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ



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Artificial Ground and Landslip

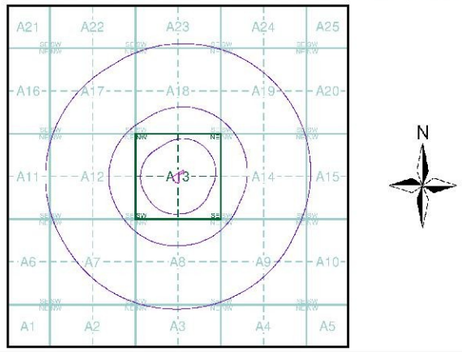
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



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Customer Ref:	1145
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Slice:	A
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Search Buffer (m):	1000

Site Details

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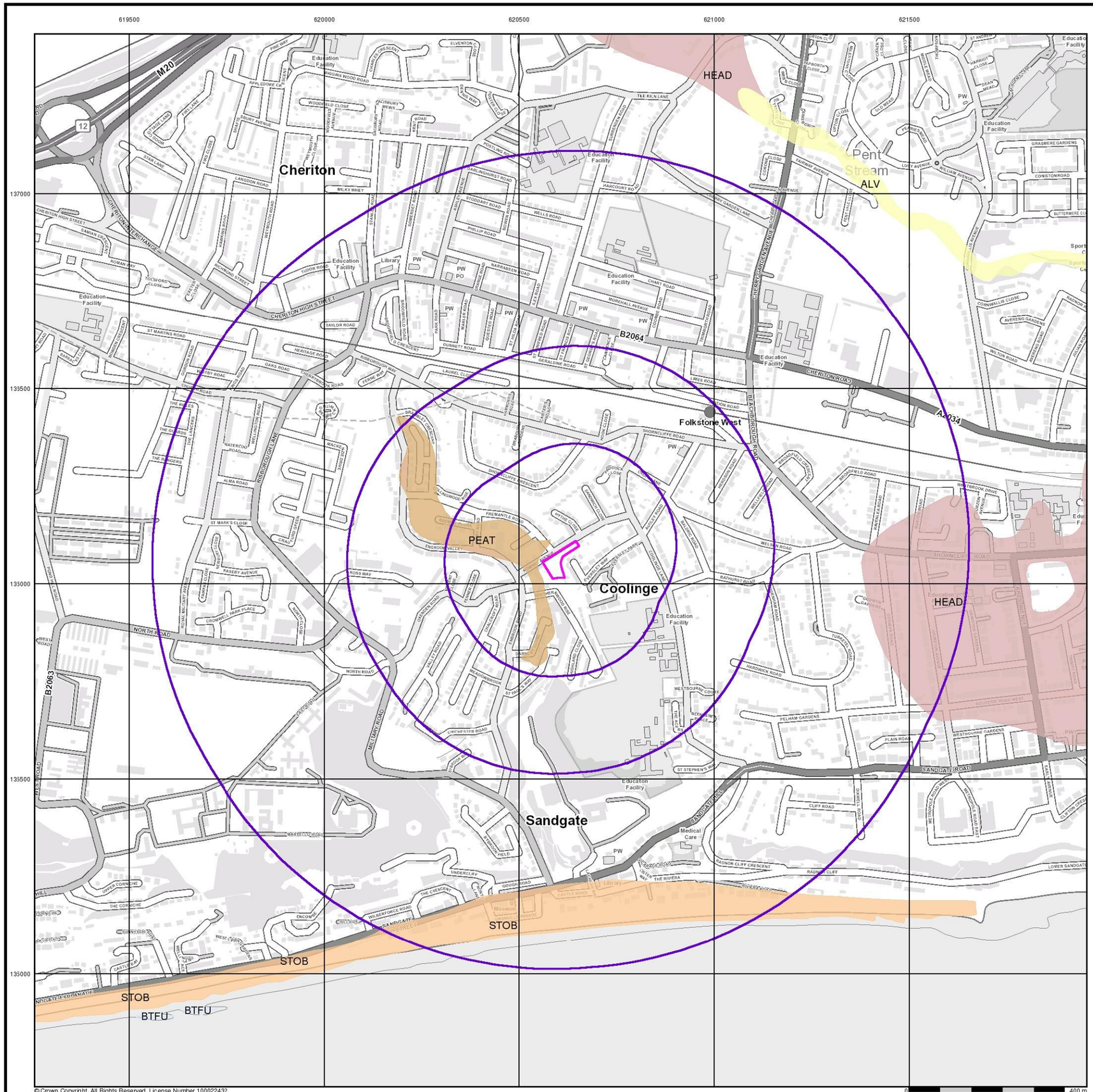

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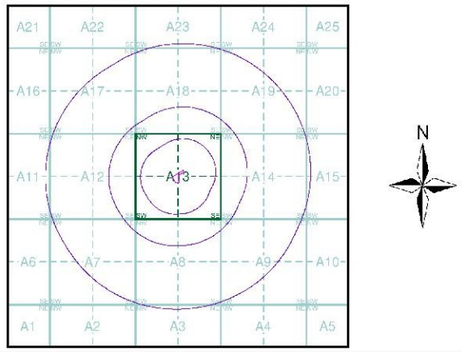
Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



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Customer Ref:	1145
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Slice:	A
Site Area (Ha):	0.32
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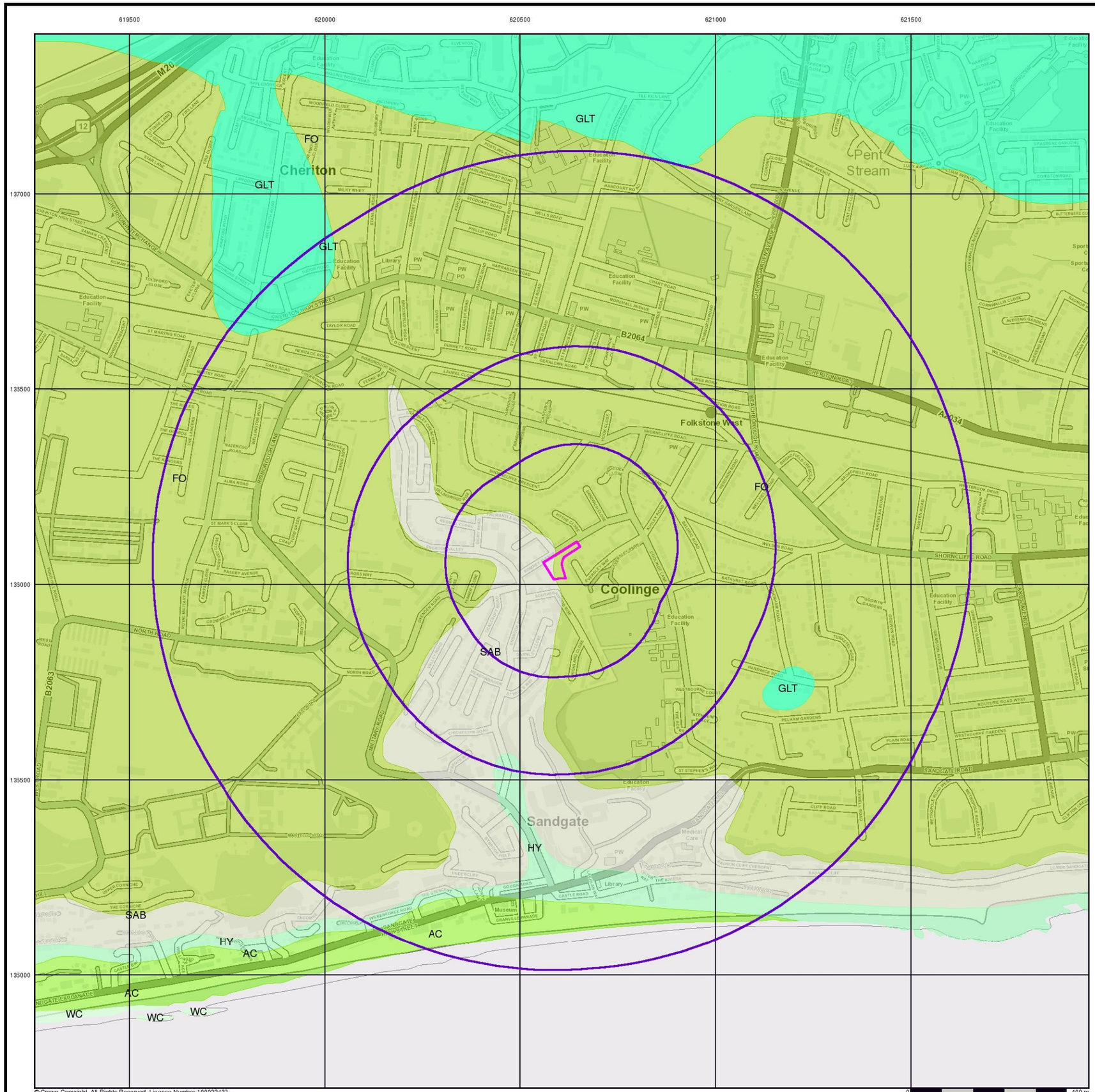
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Bedrock and Faults

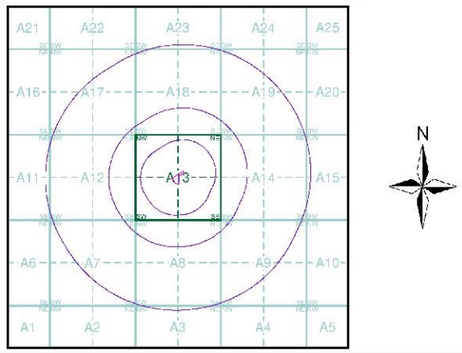
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A



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Site Details

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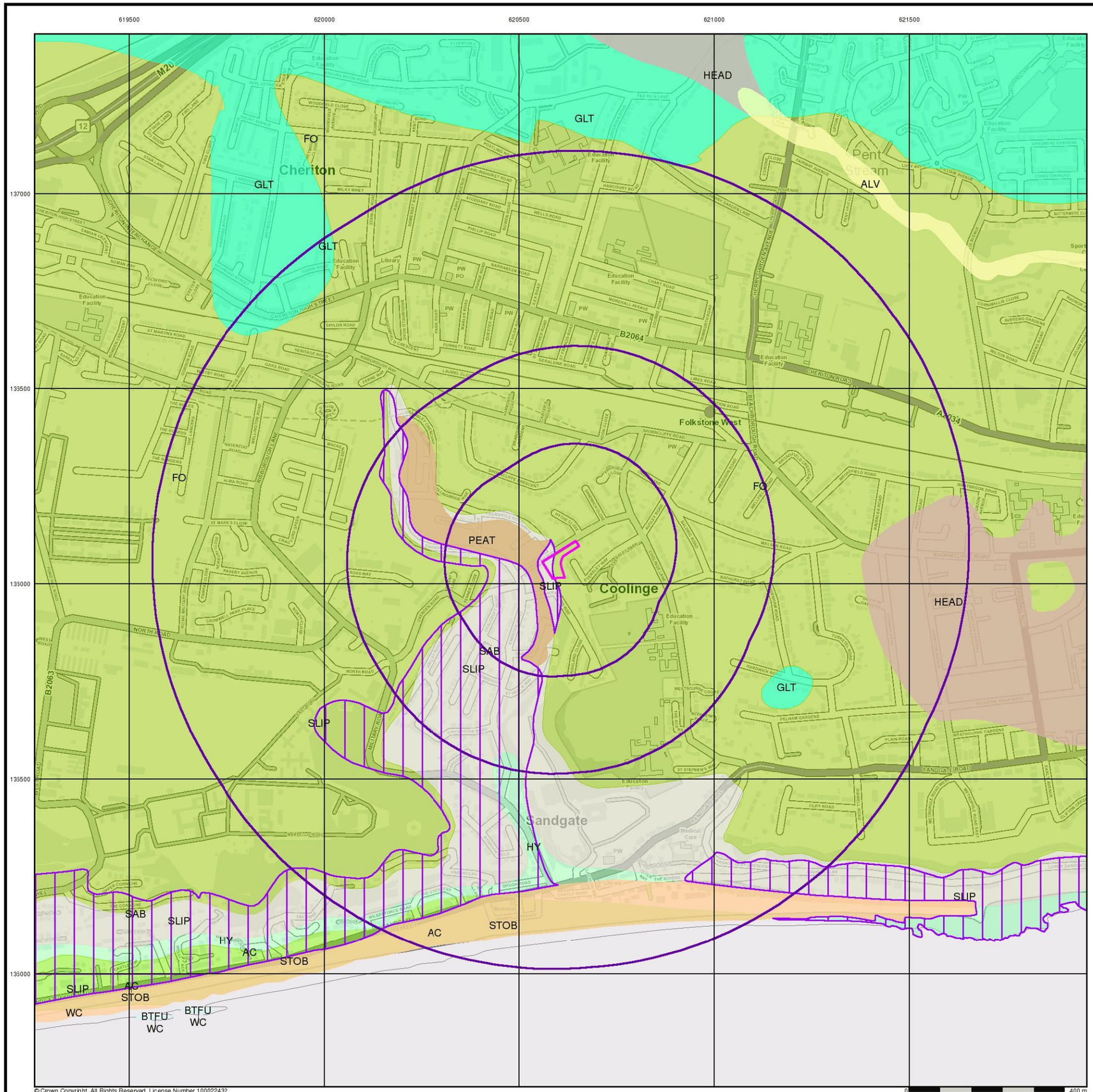
Web: www.envirocheck.co.uk



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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

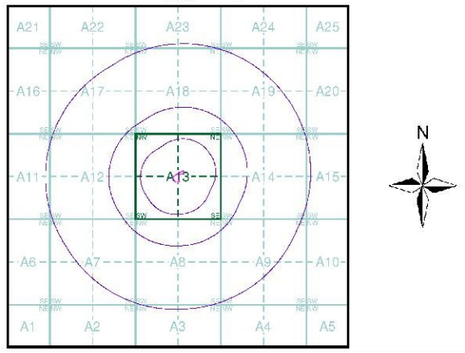
Additional Information

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



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Search Buffer (m):	1000

Site Details

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APPENDIX A2

Selected Historical Maps

Historical Mapping Legends

Ordnance Survey County Series 1:10,560

Gravel Pit
Sand Pit
Other Pits
Quarry
Shingle
Orchard
Osiers
Reeds
Marsh
Mixed Wood
Deciduous
Brushwood
Fir
Furze
Rough Pasture
Arrow denotes flow of water
Trigonometrical Station
Site of Antiquities
Bench Mark
Pump, Guide Post, Signal Post
Well, Spring, Boundary Post
•285 Surface Level
Sketched Contour
Instrumental Contour
Main Roads
Fenced
Un-Fenced
Minor Roads
Fenced
Un-Fenced
Sunken Road
Raised Road
Road over Railway
Railway over River
Railway over Road
Level Crossing
Road over River or Canal
Road over Stream
Road over Stream
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
Co. Boro. Bdy. County Borough Boundary (England)
Co. Burgh Bdy. County Burgh Boundary (Scotland)
R.D. Bdy. Rural District Boundary
Civil Parish Boundary

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Sloping Masonry
Electricity Transmission Line
Pole
Cutting
Embankment
Standard Gauge Multiple Track
Standard Gauge Single Track
Road Under
Road Over
Level Crossing
Foot Bridge
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Mud
Sand
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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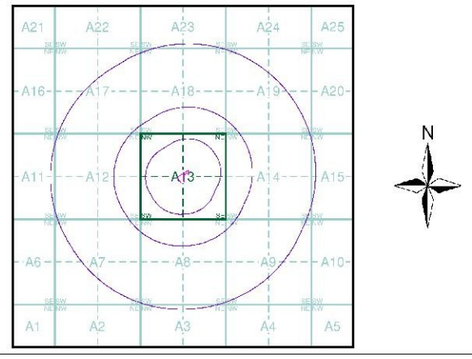
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Kent	1:10,560	1877	2
Kent	1:10,560	1899	3
Kent	1:10,560	1908	4
Kent	1:10,560	1908	5
Kent	1:10,560	1931	6
Kent	1:10,560	1931	7
Kent	1:10,560	1938	8
Kent	1:10,560	1938 - 1951	9
Ordnance Survey Plan	1:10,000	1961 - 1962	10
Ordnance Survey Plan	1:10,000	1961	11
Ordnance Survey Plan	1:10,000	1973 - 1976	12
Ordnance Survey Plan	1:10,000	1988	13
Ordnance Survey Plan	1:10,000	1990 - 1994	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2018	17

Historical Map - Slice A



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National Grid Reference: 620610, 136060
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 1000

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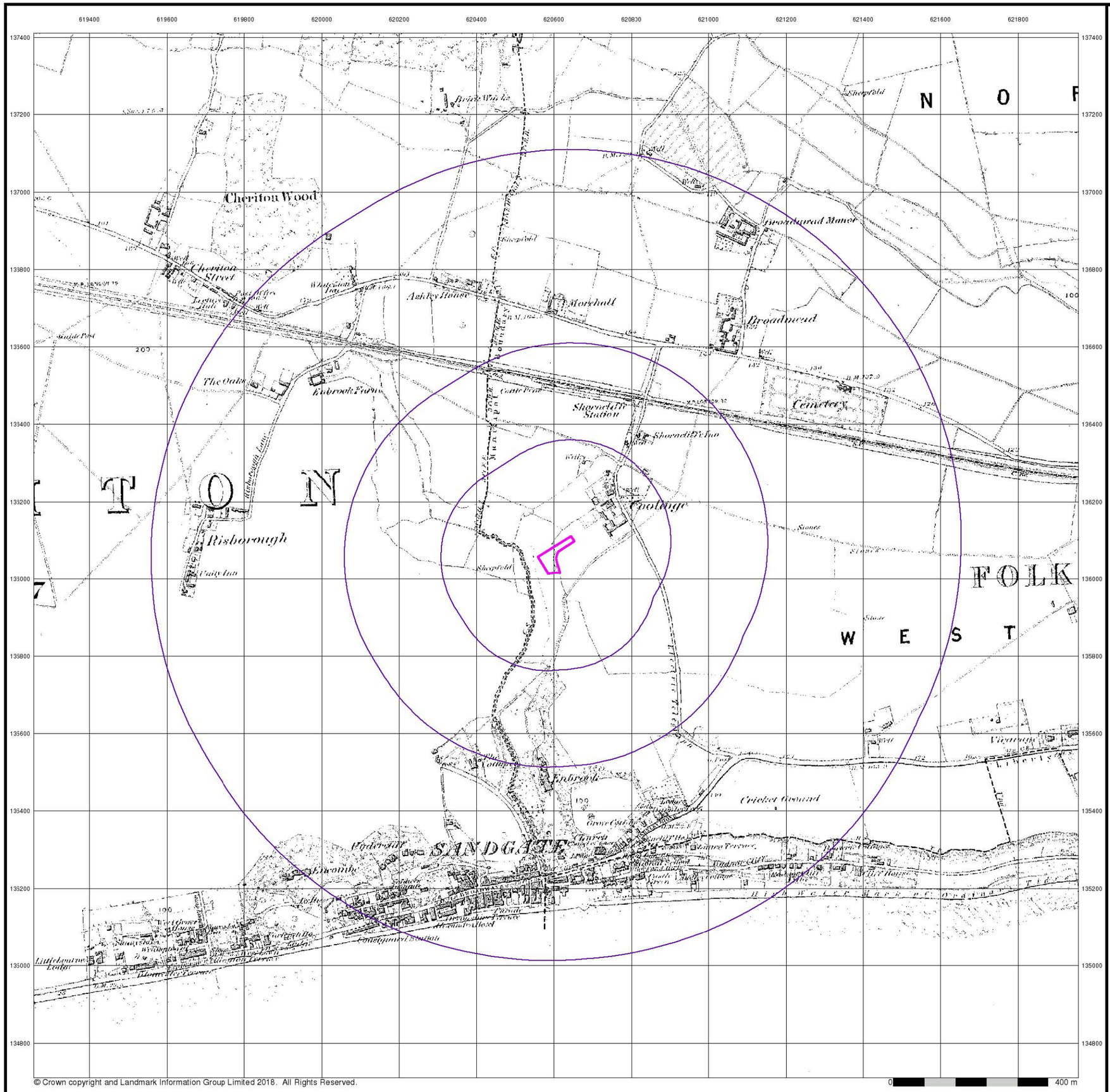

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Kent

Published 1877

Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

🟩 07500
1877
1:10,560

Historical Map - Slice A

N

Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
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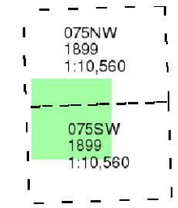
Kent

Published 1899

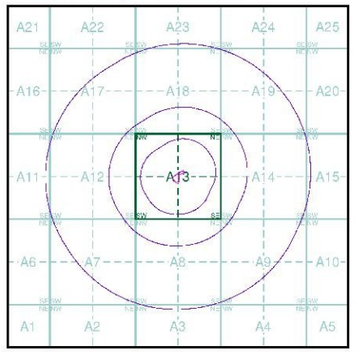
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940`s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

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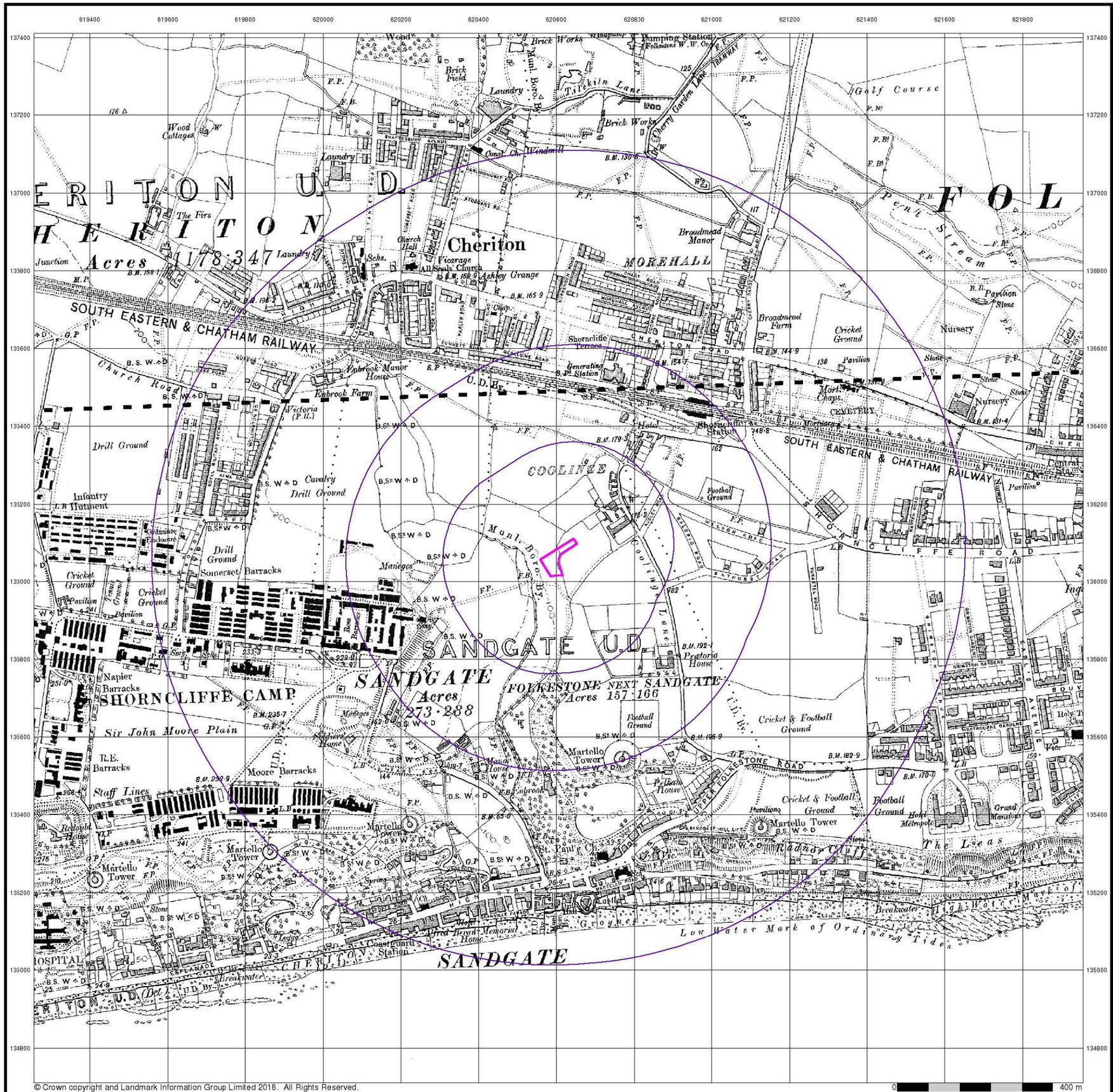

0 400 m

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Kent

Published 1908

Source map scale - 1:10,560

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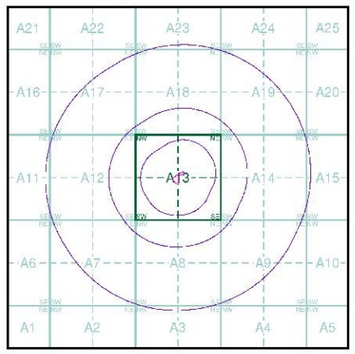
Map Name(s) and Date(s)

075NW
1908
1:10,560

075SW
1908
1:10,560

Historical Map - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
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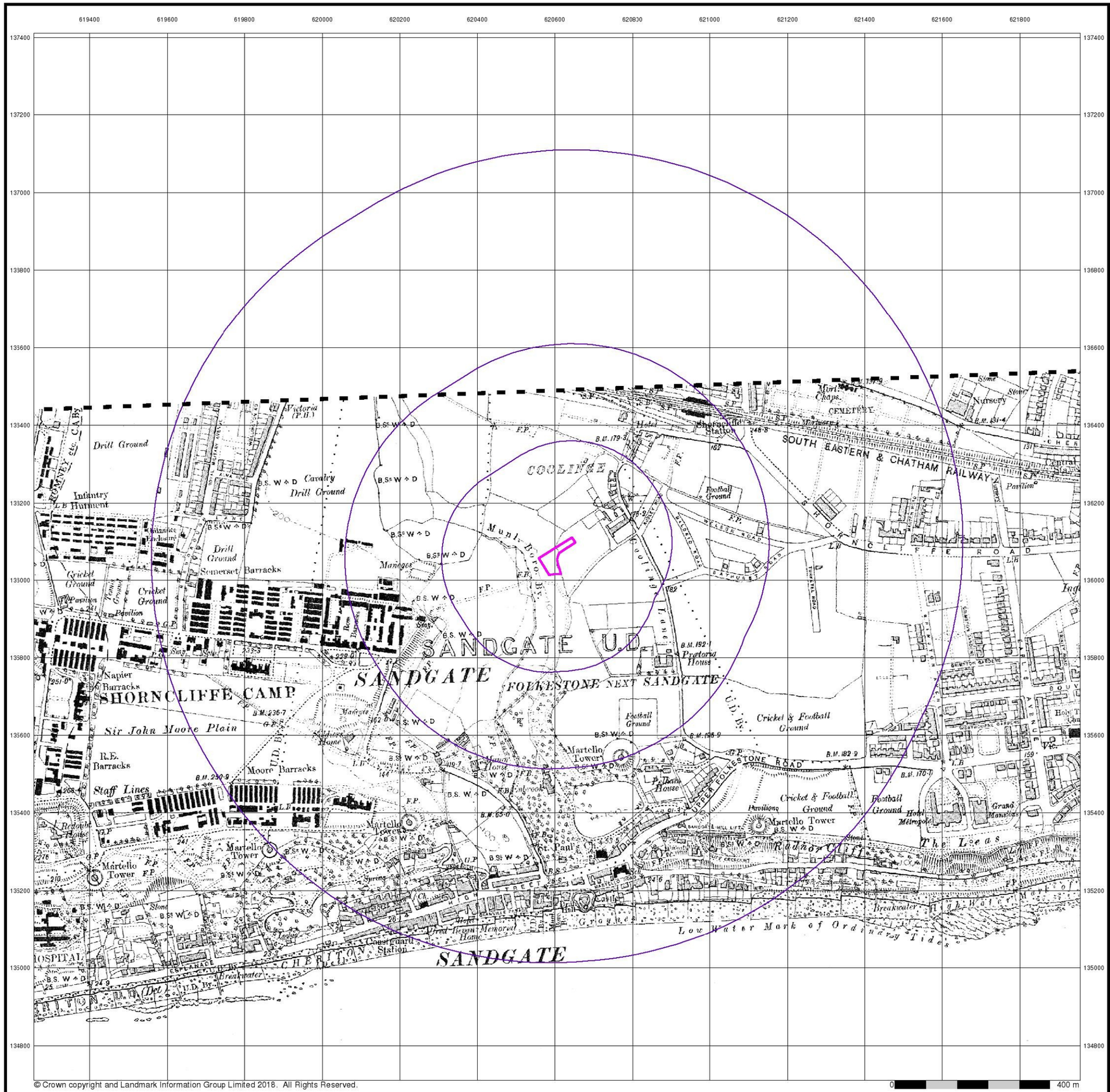

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Published 1908

Source map scale - 1:10,560

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Map Name(s) and Date(s)

Historical Map - Slice A

Order Details

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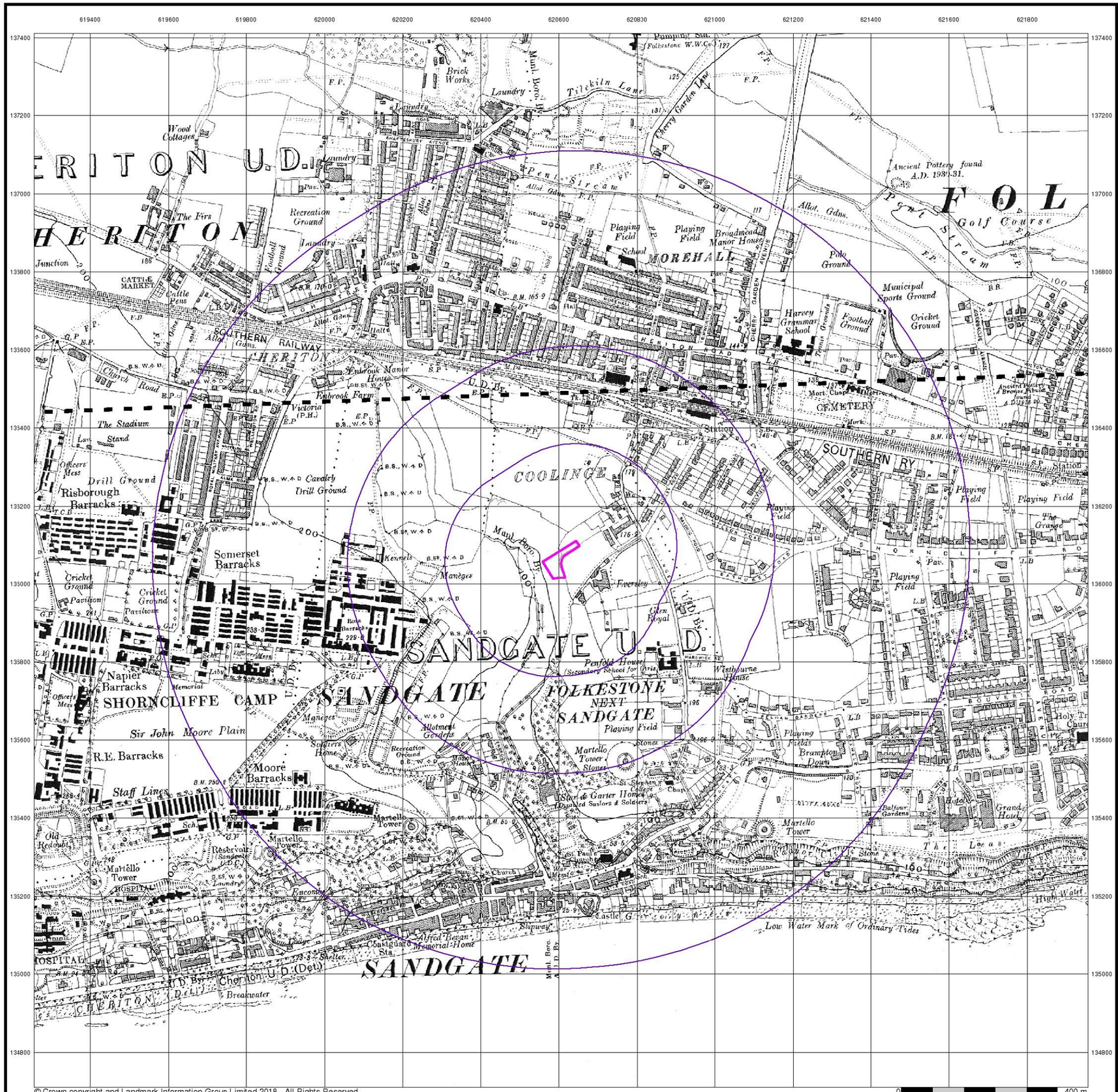

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Published 1931

Source map scale - 1:10,560

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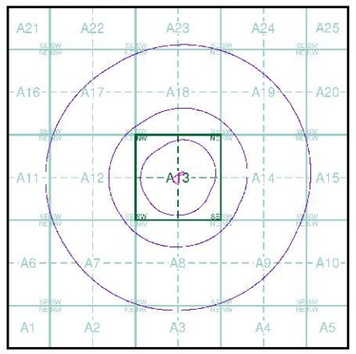
Map Name(s) and Date(s)

075NW
1931
1:10,560

075SW
1931
1:10,560

Historical Map - Slice A



Order Details

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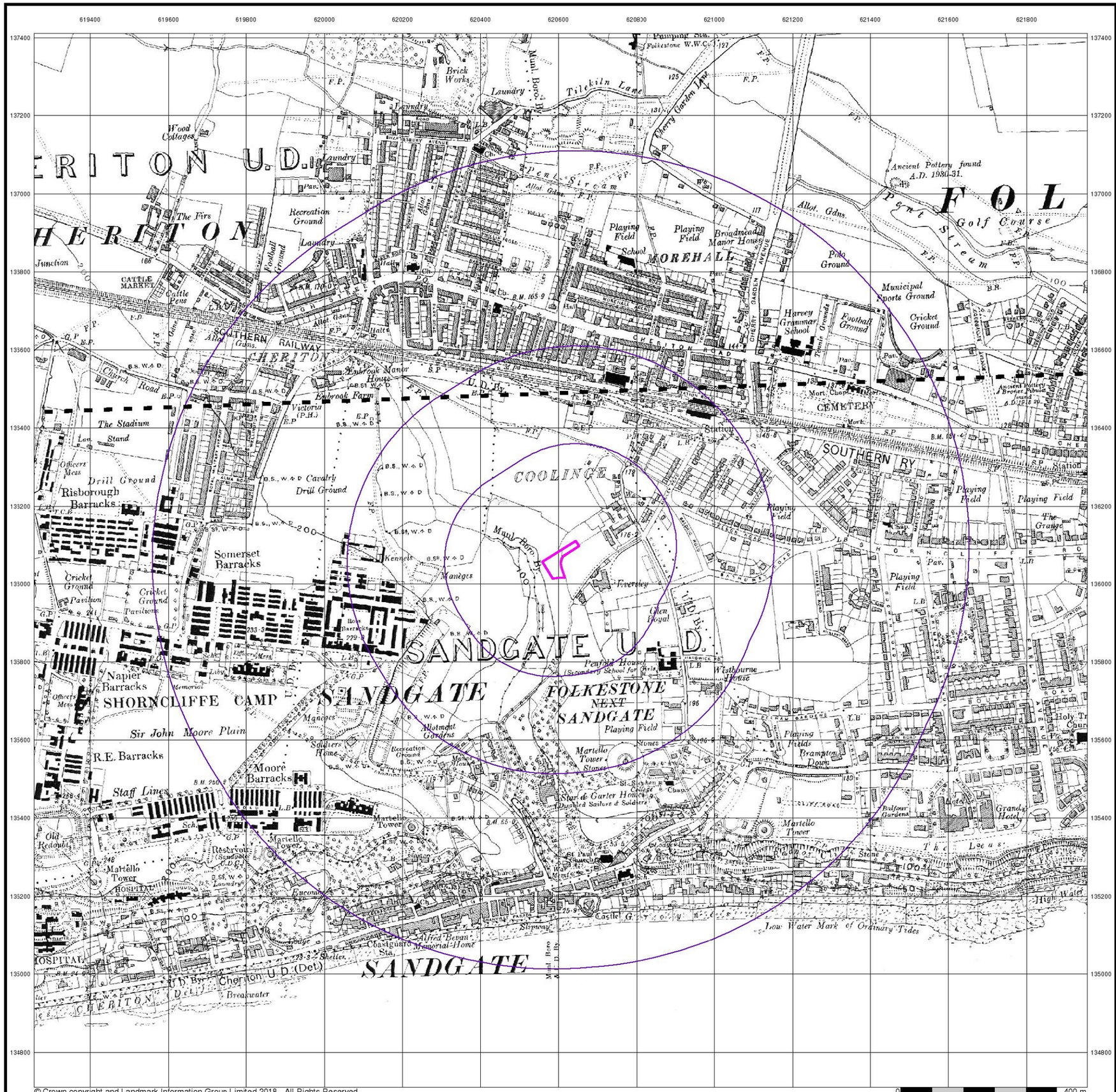

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Published 1931

Source map scale - 1:10,560

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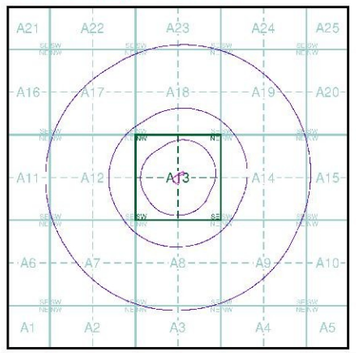
Map Name(s) and Date(s)

075NW
1931
1:10,560

075SW
1931
1:10,560

Historical Map - Slice A



Order Details

Order Number:	183346564_1_1
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Site Area (Ha):	0.32
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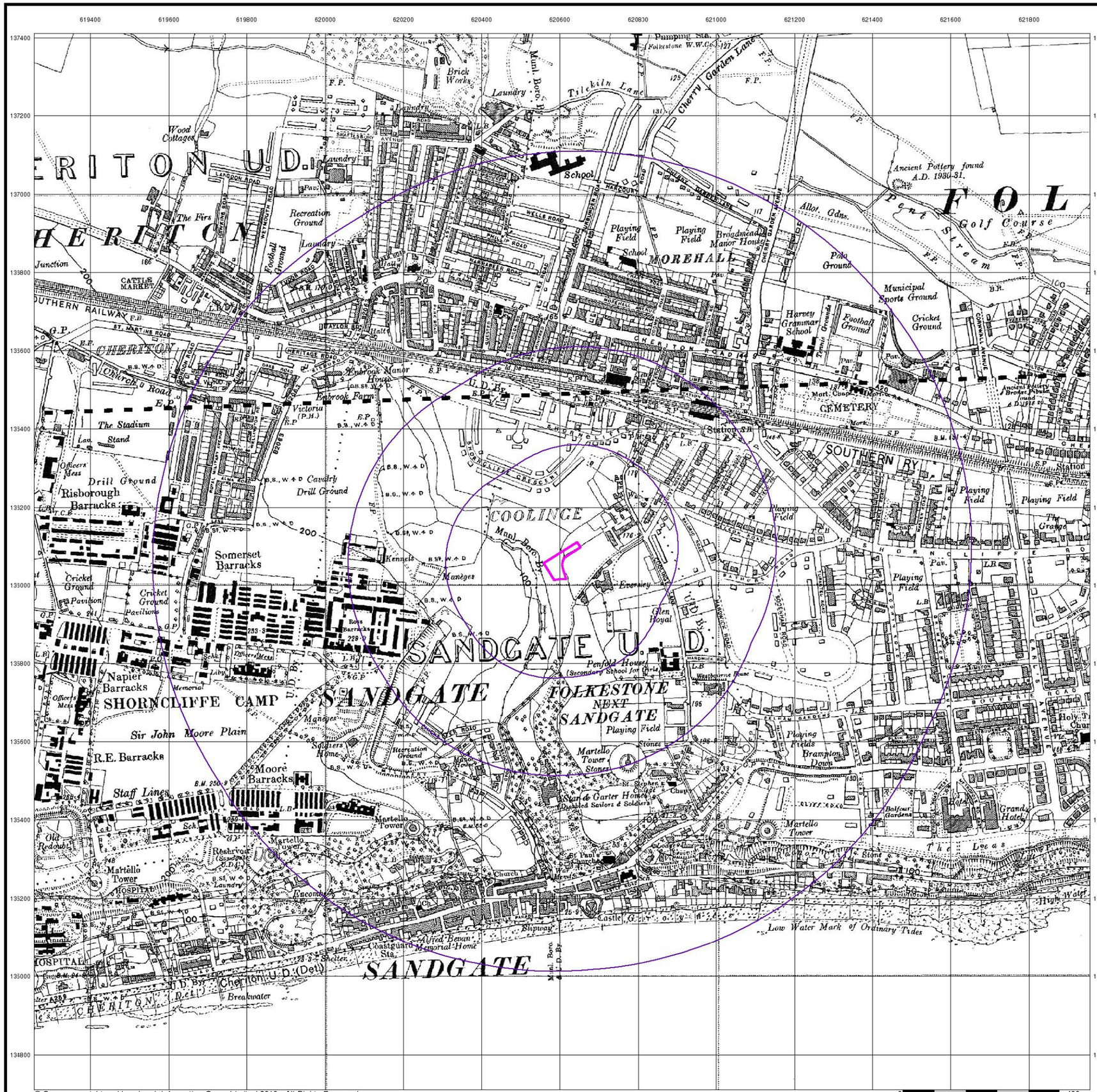

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Kent

Published 1938

Source map scale - 1:10,560

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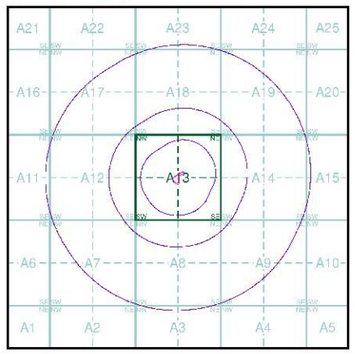
Map Name(s) and Date(s)

075NW
1938
1:10,560

075SW
1938
1:10,560

Historical Map - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
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Published 1938 - 1951

Source map scale - 1:10,560

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Map Name(s) and Date(s)

Historical Map - Slice A

Order Details

Order Number:	183346564_1_1
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Ordnance Survey Plan

Published 1961 - 1962

Source map scale - 1:10,000

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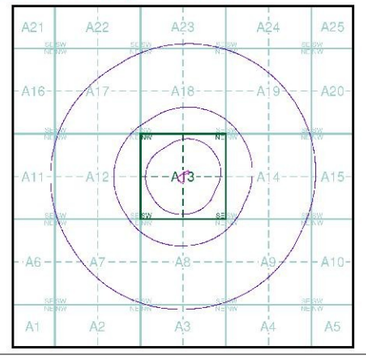
Map Name(s) and Date(s)

TR13NE 1961 1:10,560	TR23NW 1962 1:10,560
TR13SE 1961 1:10,560	

Historical Map - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
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Site Area (Ha):	0.32
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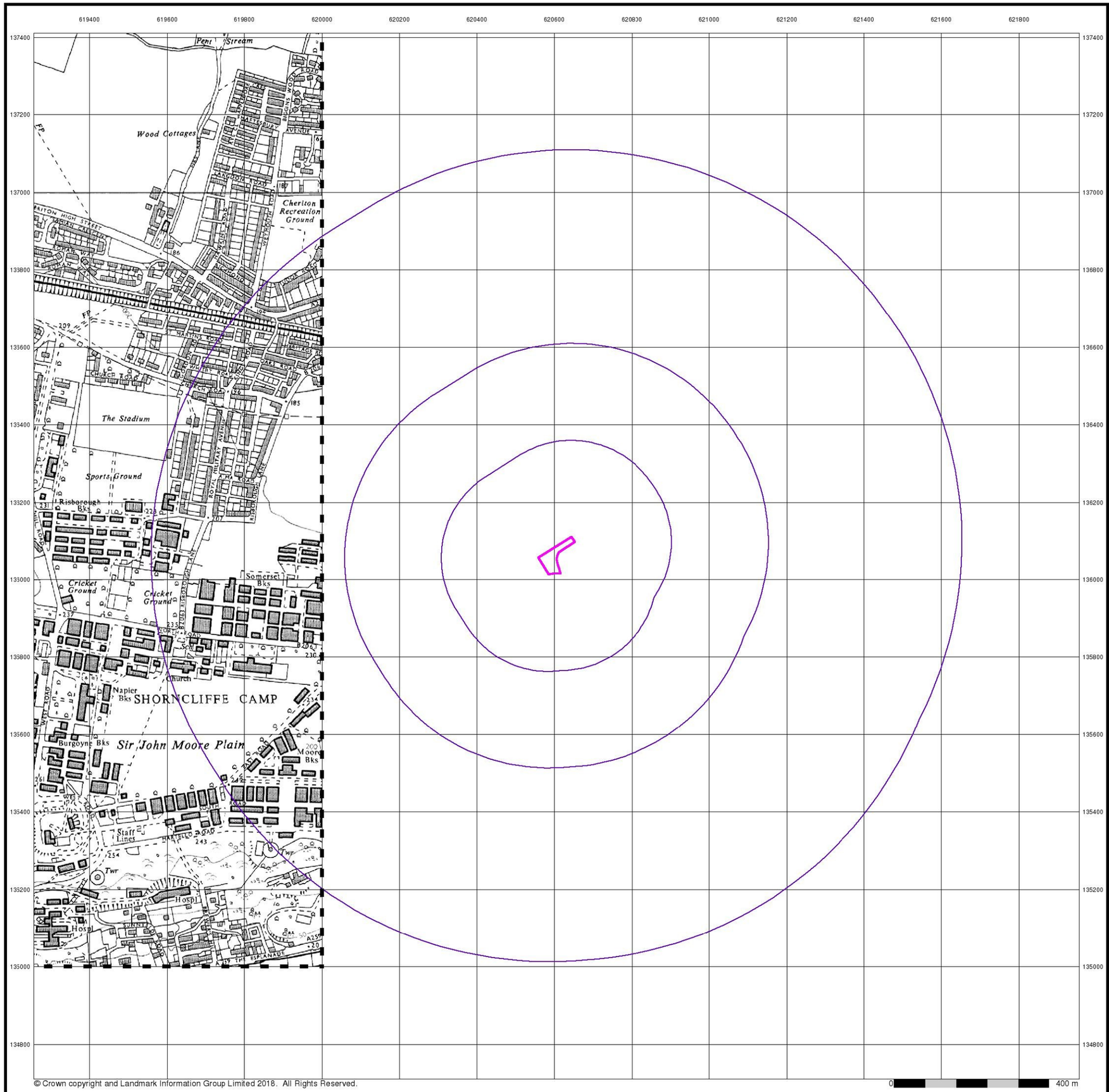

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Ordnance Survey Plan

Published 1961

Source map scale - 1:10,000

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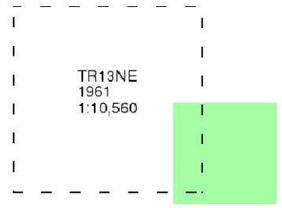
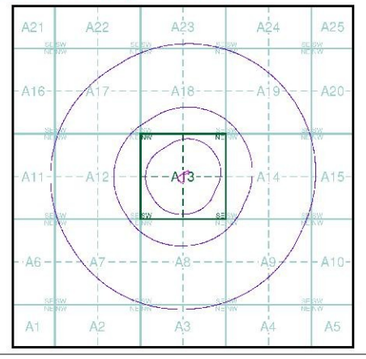
Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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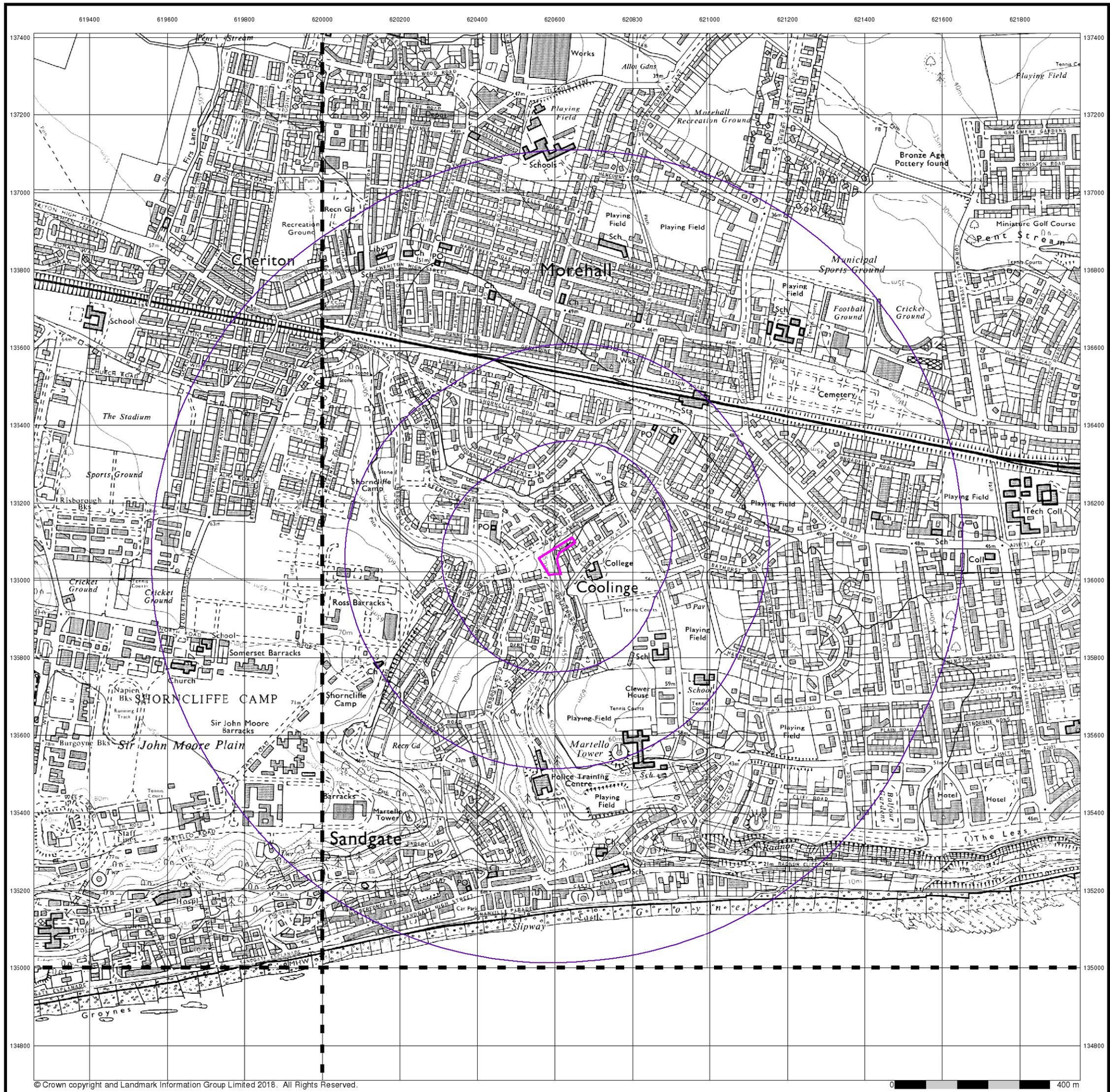

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Ordnance Survey Plan

Published 1973 - 1976

Source map scale - 1:10,000

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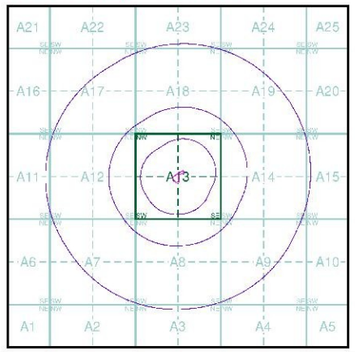
Map Name(s) and Date(s)

TR13NE 1973 1:10,000	TR23NW 1975 1:10,000
TR13SE 1976 1:10,000	

Historical Map - Slice A



Order Details

Order Number:	183346564_1_1
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National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

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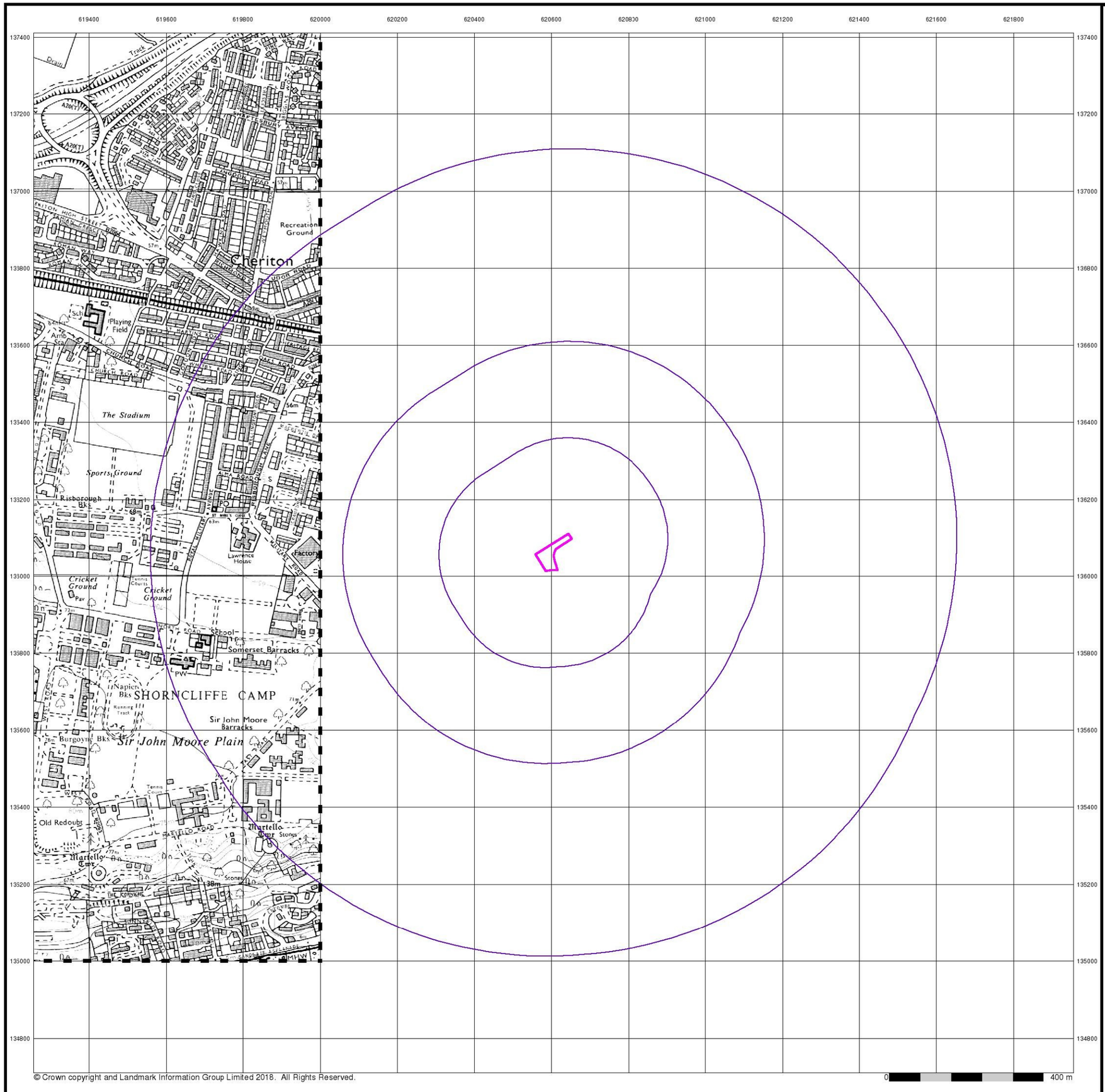

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Ordnance Survey Plan

Published 1988

Source map scale - 1:10,000

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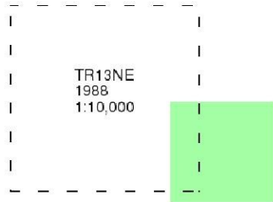
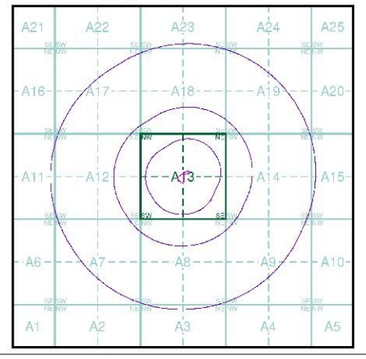
Map Name(s) and Date(s)



Historical Map - Slice A



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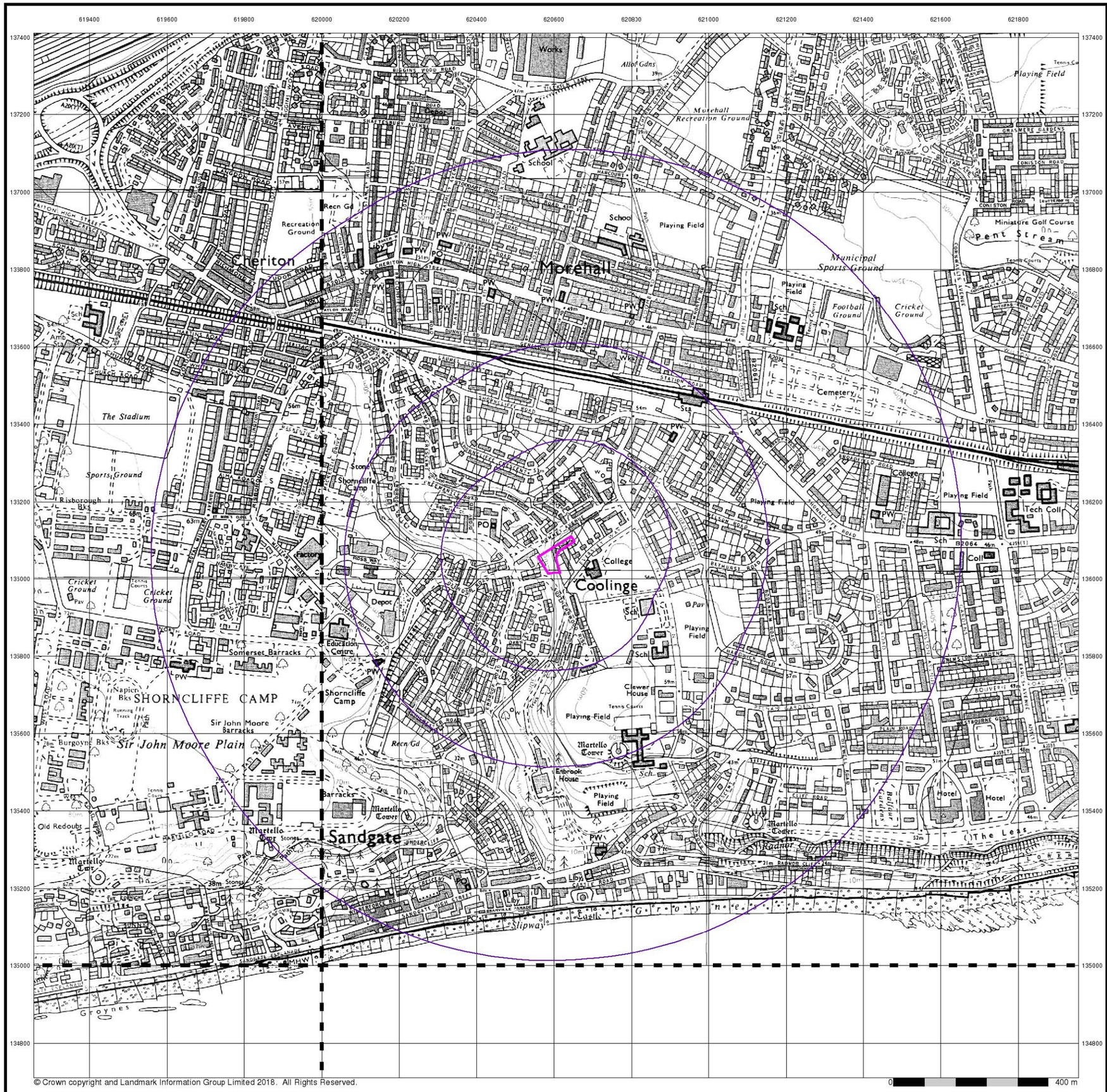

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Ordnance Survey Plan

Published 1990 - 1994

Source map scale - 1:10,000

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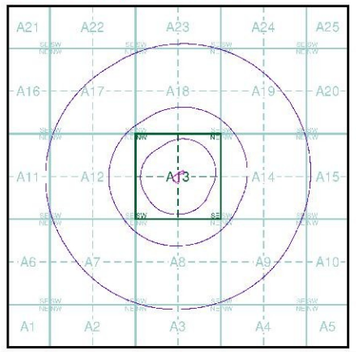
Map Name(s) and Date(s)

TR13NE 1994 1:10,000
TR23NW 1994 1:10,000
TR13SE 1990 1:10,000

Historical Map - Slice A



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10k Raster Mapping

Published 1999

Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

Historical Map - Slice A

Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
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10k Raster Mapping

Published 2006

Source map scale - 1:10,000

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Map Name(s) and Date(s)

Historical Map - Slice A

Order Details

Order Number:	183346564_1_1
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National Grid Reference:	620610, 136060
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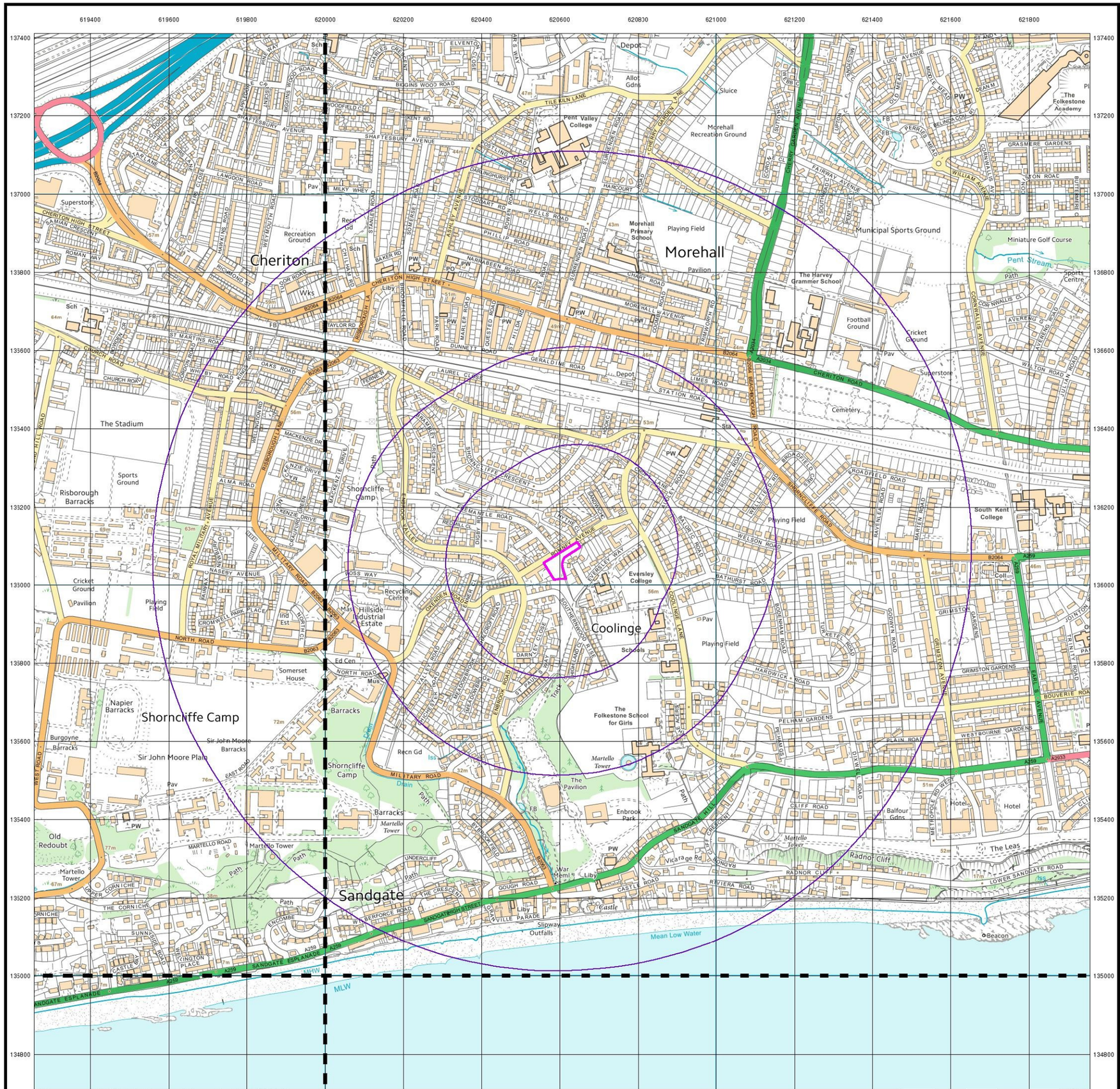

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VectorMap Local

Published 2018

Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

TR13NE 2018 Variable	TR23NW 2018 Variable
TR13SE 2018 Variable	TR23SW 2018 Variable

Historical Map - Slice A

N

Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

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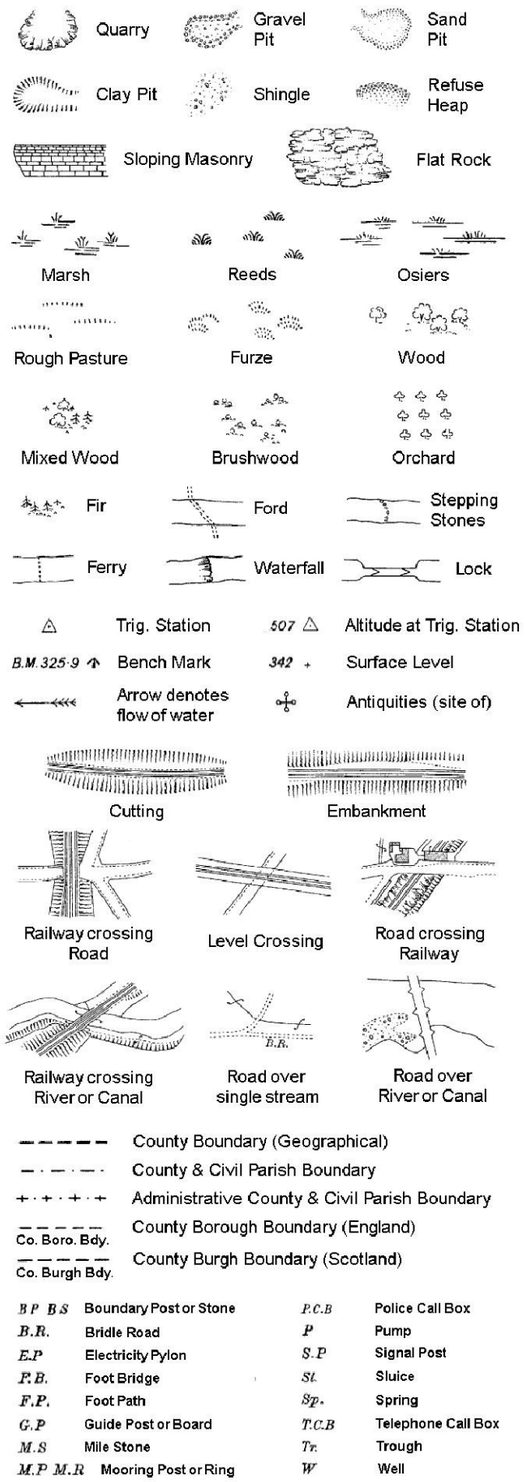
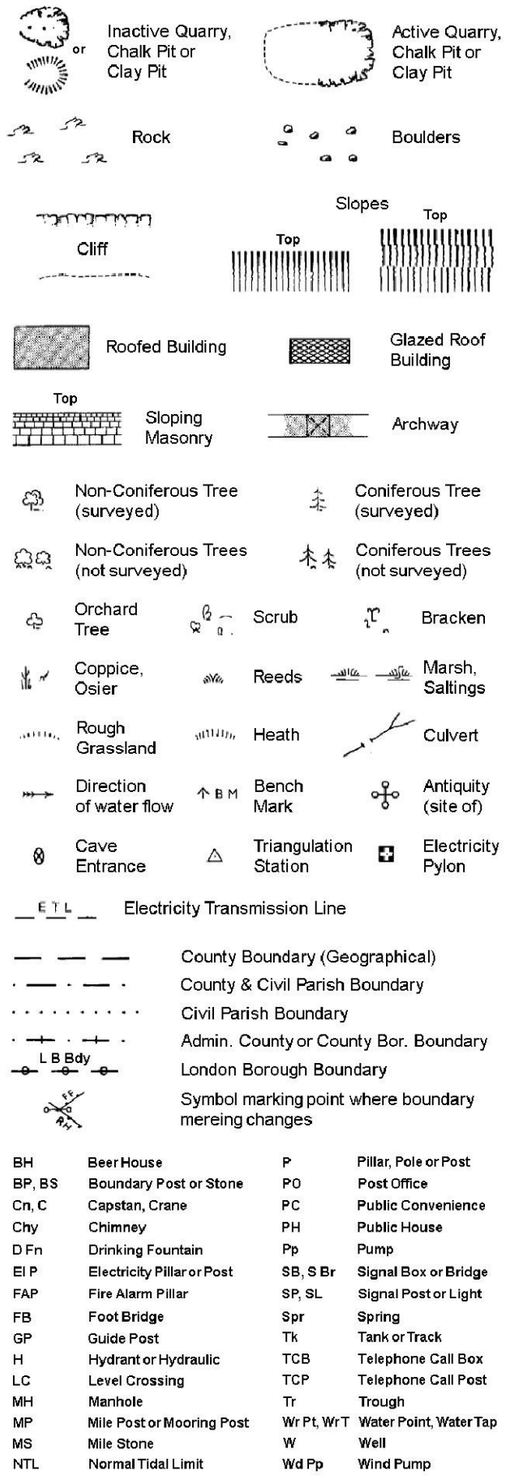
Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



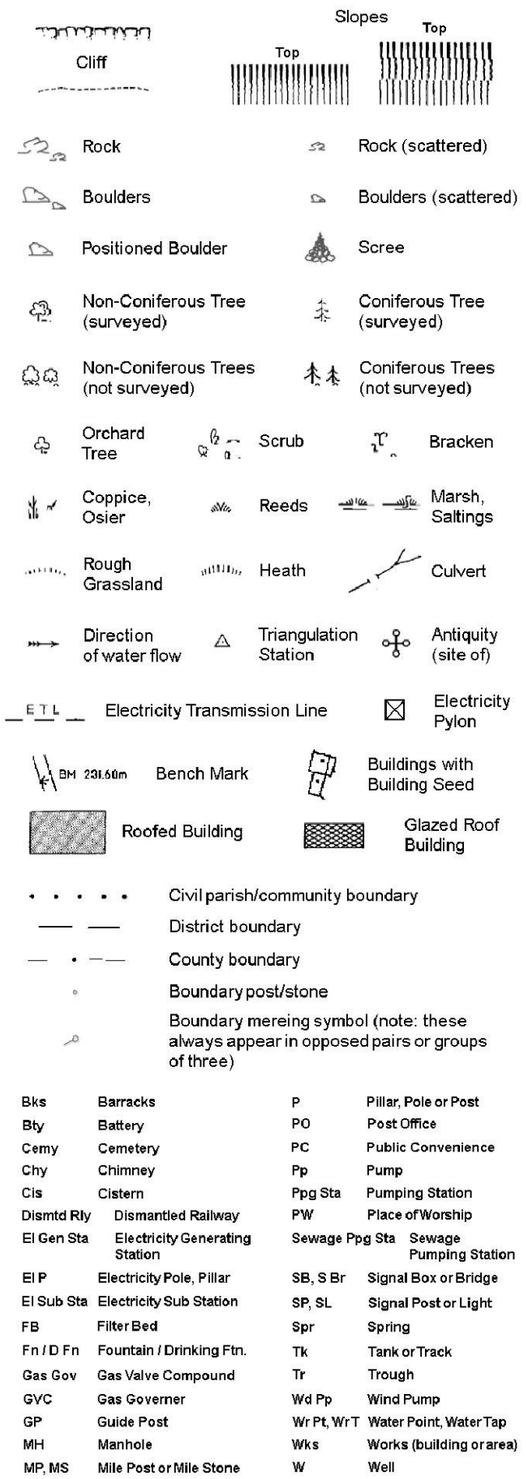
B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250



Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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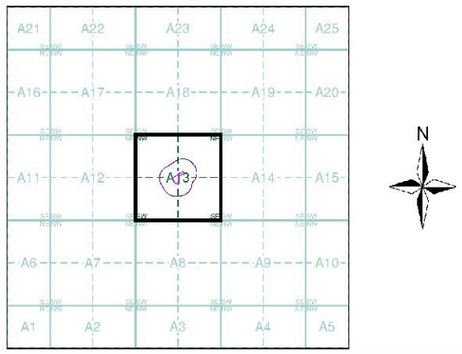
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Kent	1:2,500	1873	2
Kent	1:2,500	1898	3
Kent	1:2,500	1907	4
Kent	1:2,500	1938	5
Ordnance Survey Plan	1:2,500	1957 - 1958	6
Ordnance Survey Plan	1:1,250	1957	7
Ordnance Survey Plan	1:1,250	1963 - 1972	8
Ordnance Survey Plan	1:1,250	1970	9
Supply of Unpublished Survey Information	1:1,250	1973	10
Additional SIMs	1:1,250	1977 - 1982	11
Additional SIMs	1:1,250	1987	12
Ordnance Survey Plan	1:1,250	1989	13
Large-Scale National Grid Data	1:1,250	1992	14
Large-Scale National Grid Data	1:1,250	1996	15
Historical Aerial Photography	1:2,500	1999	16

Historical Map - Segment A13



Order Details

Order Number: 183346564_1_1
Customer Ref: 1145
National Grid Reference: 620610, 136060
Slice: A
Site Area (Ha): 0.32
Search Buffer (m): 100

Site Details

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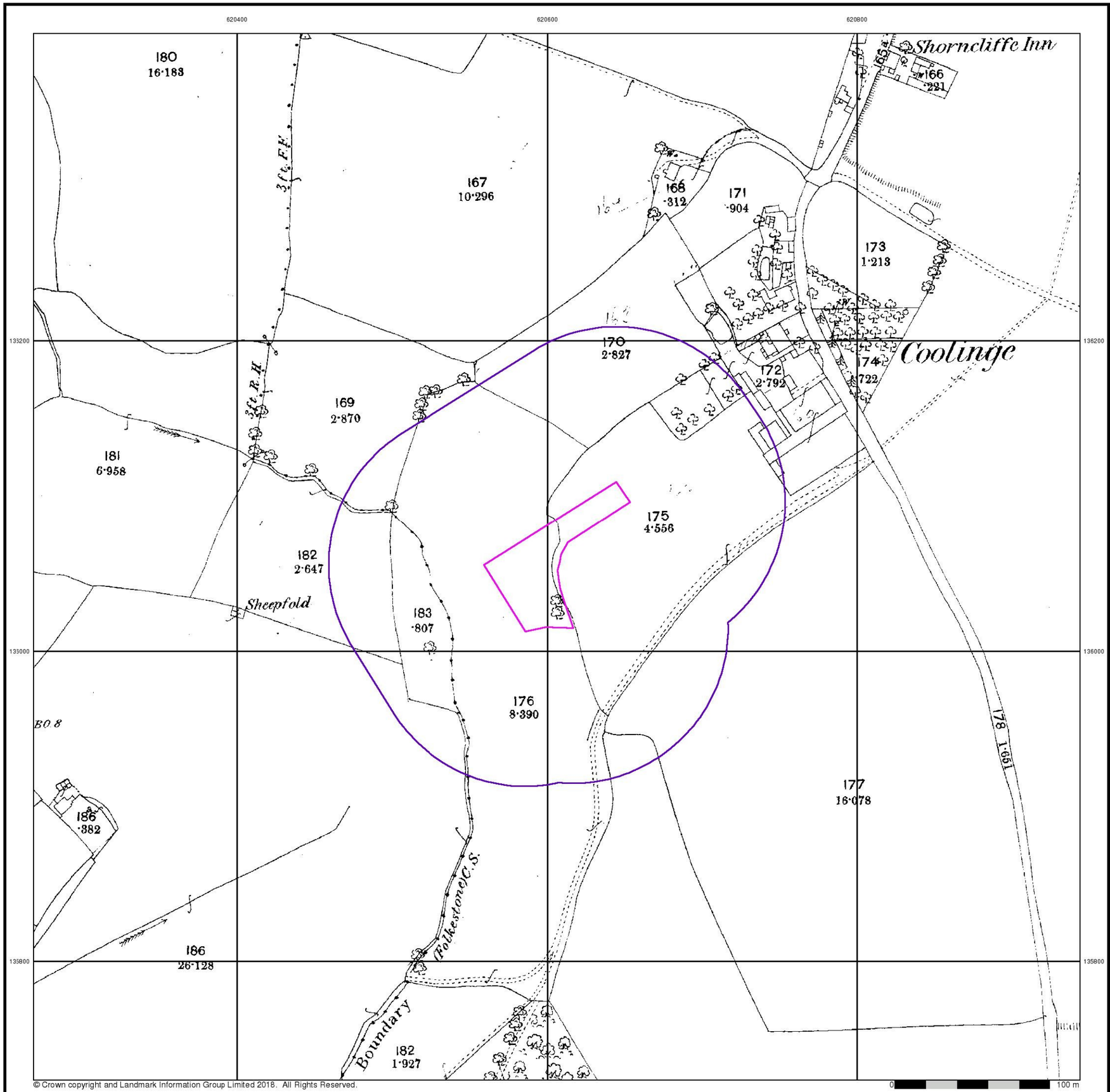

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Kent

Published 1873

Source map scale - 1:2,500

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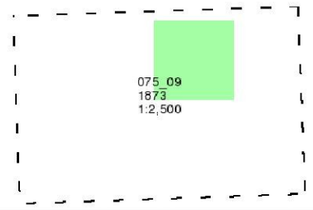
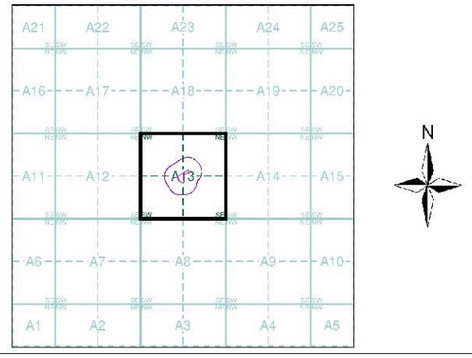
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

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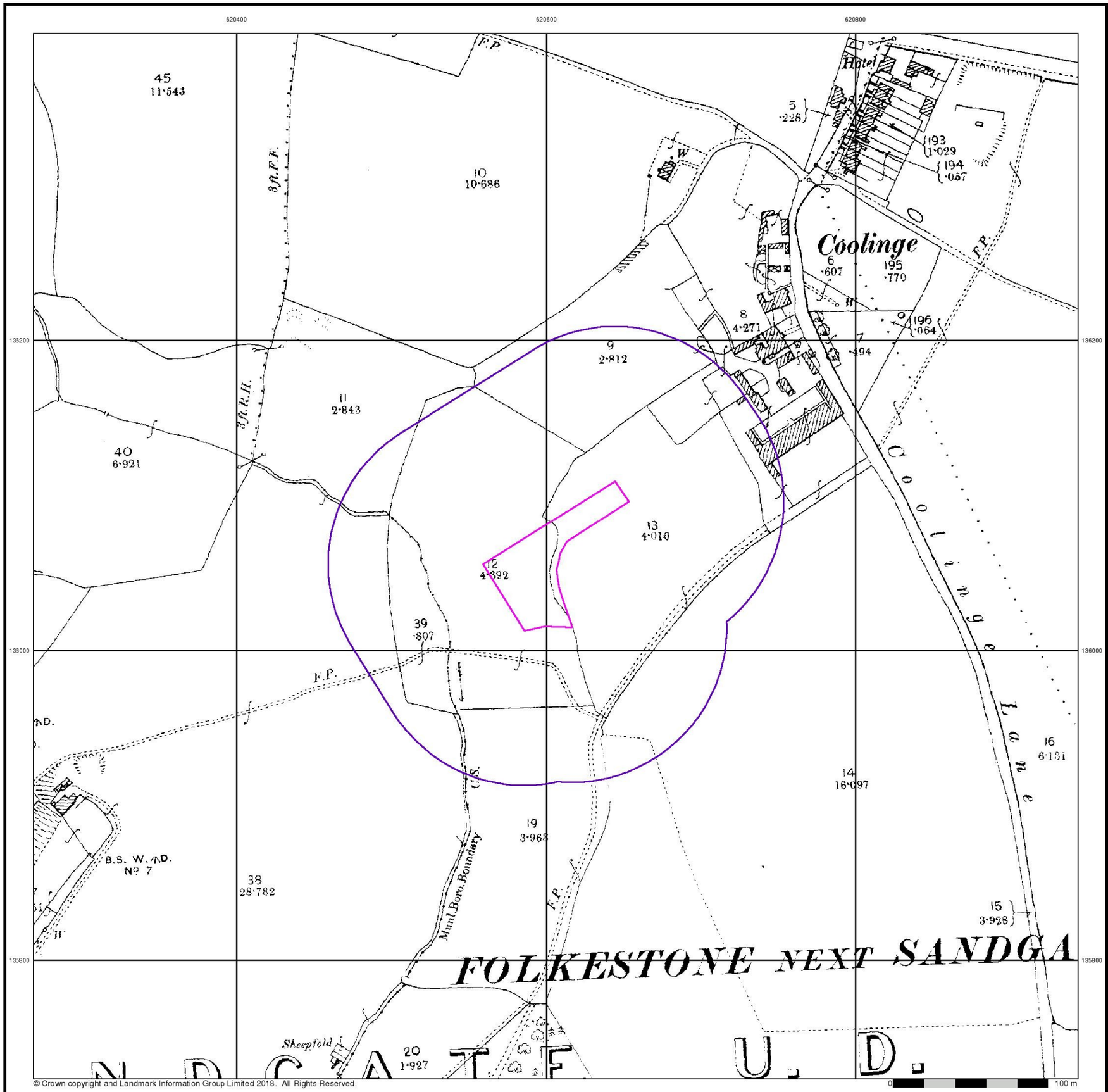

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Kent

Published 1898

Source map scale - 1:2,500

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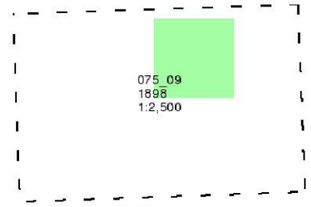
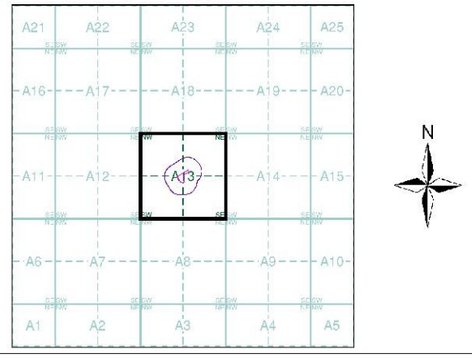
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

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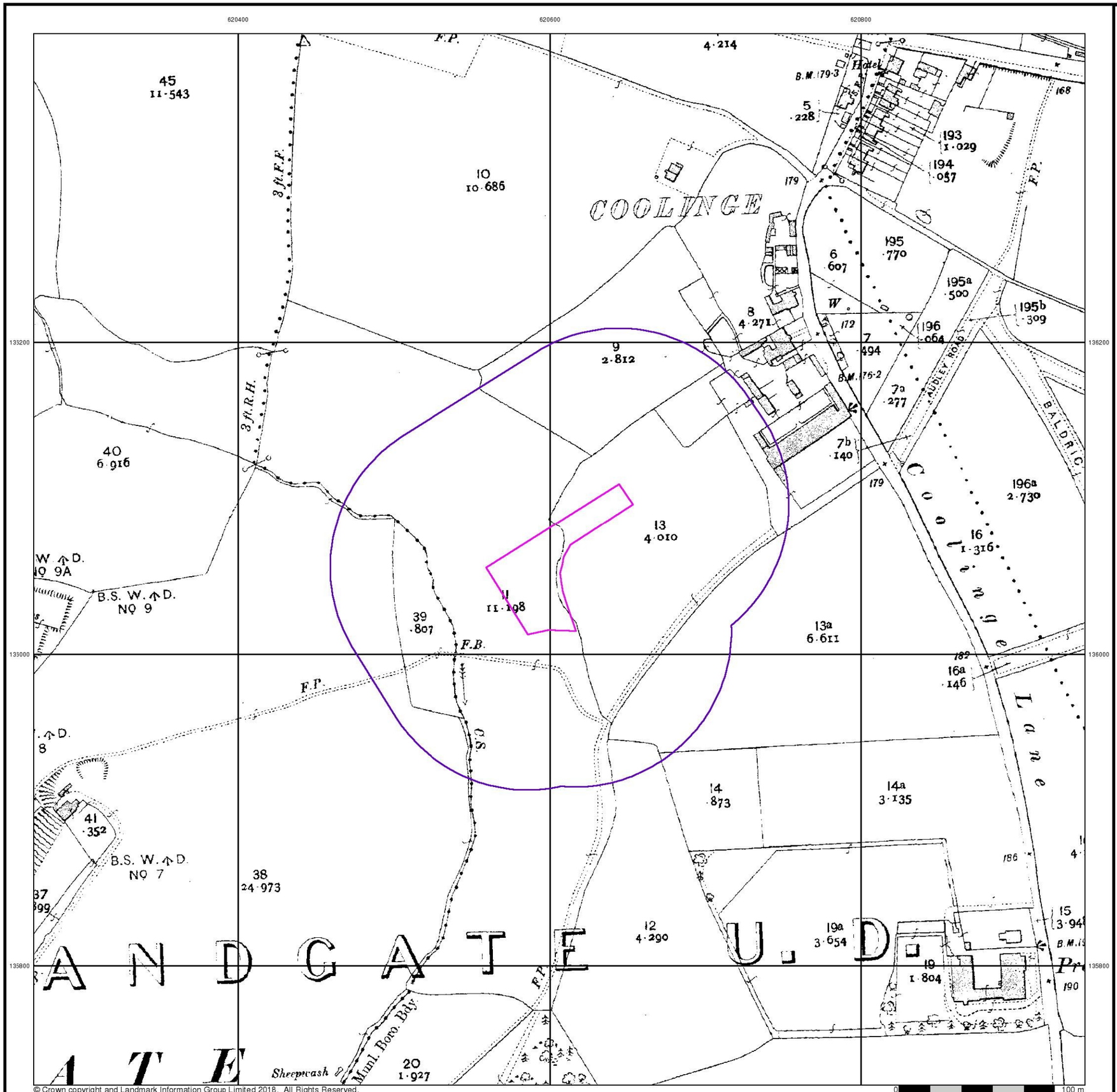

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Kent

Published 1907

Source map scale - 1:2,500

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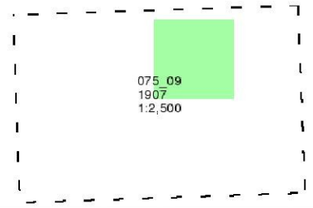
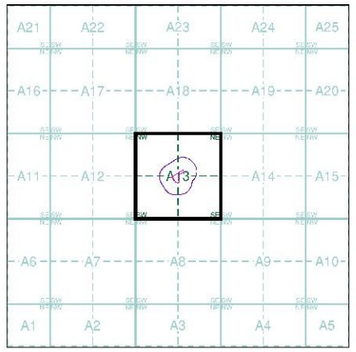
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

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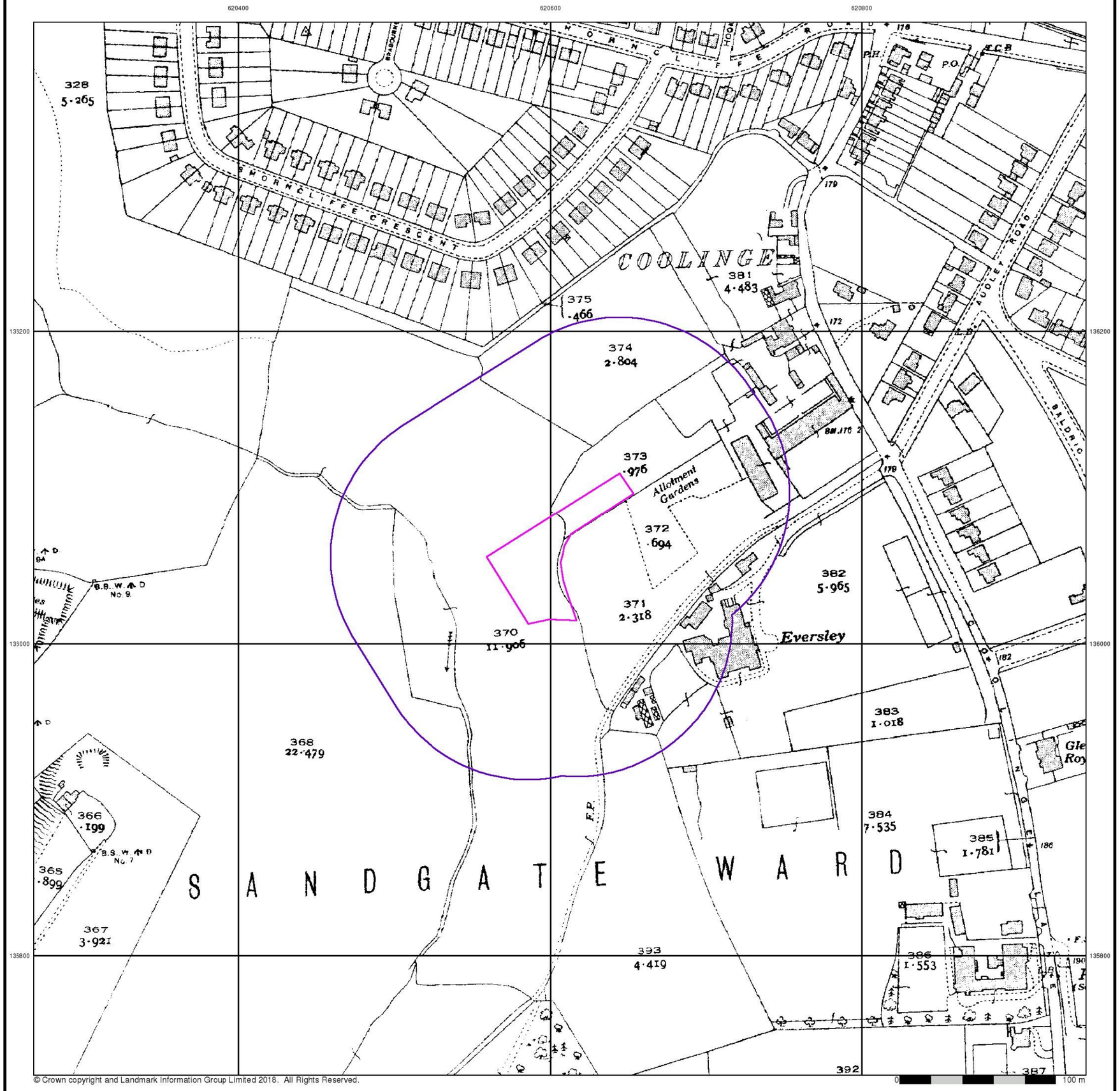

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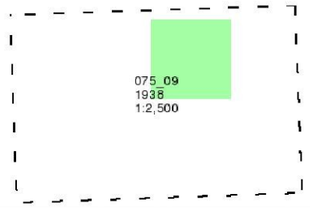
Kent

Published 1938

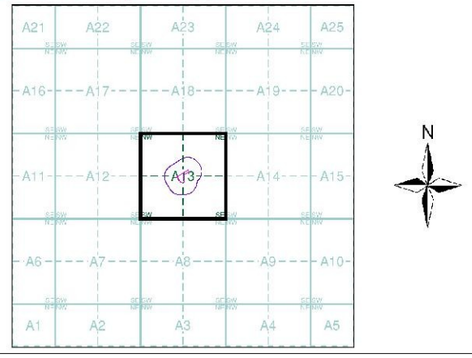
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

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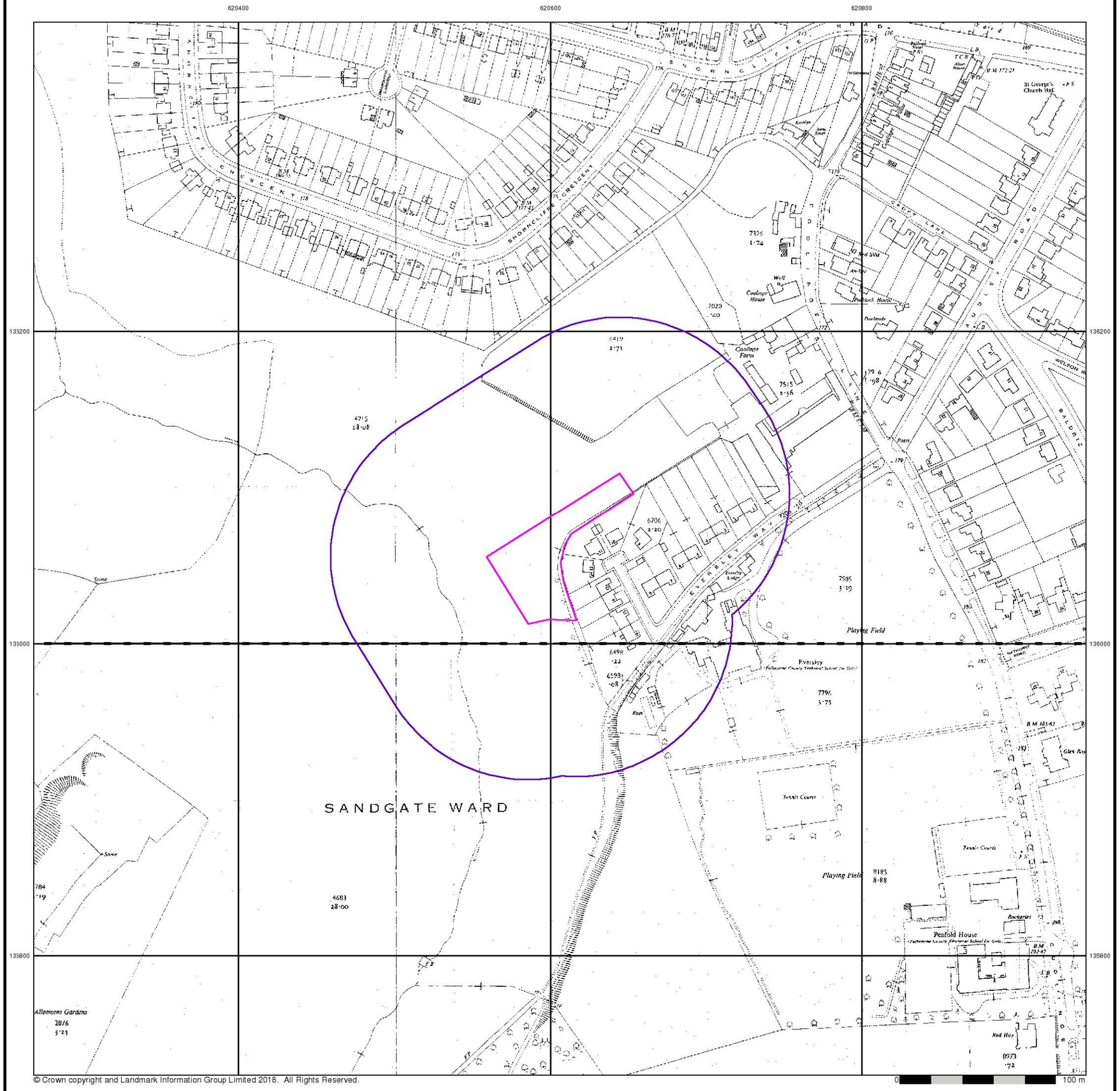

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Ordnance Survey Plan

Published 1957 - 1958

Source map scale - 1:2,500

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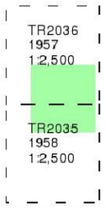
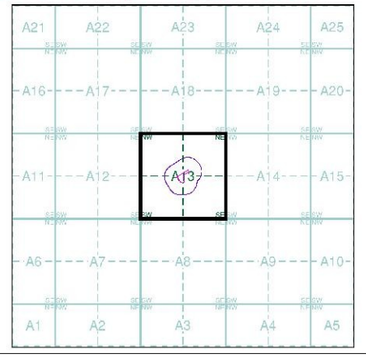
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

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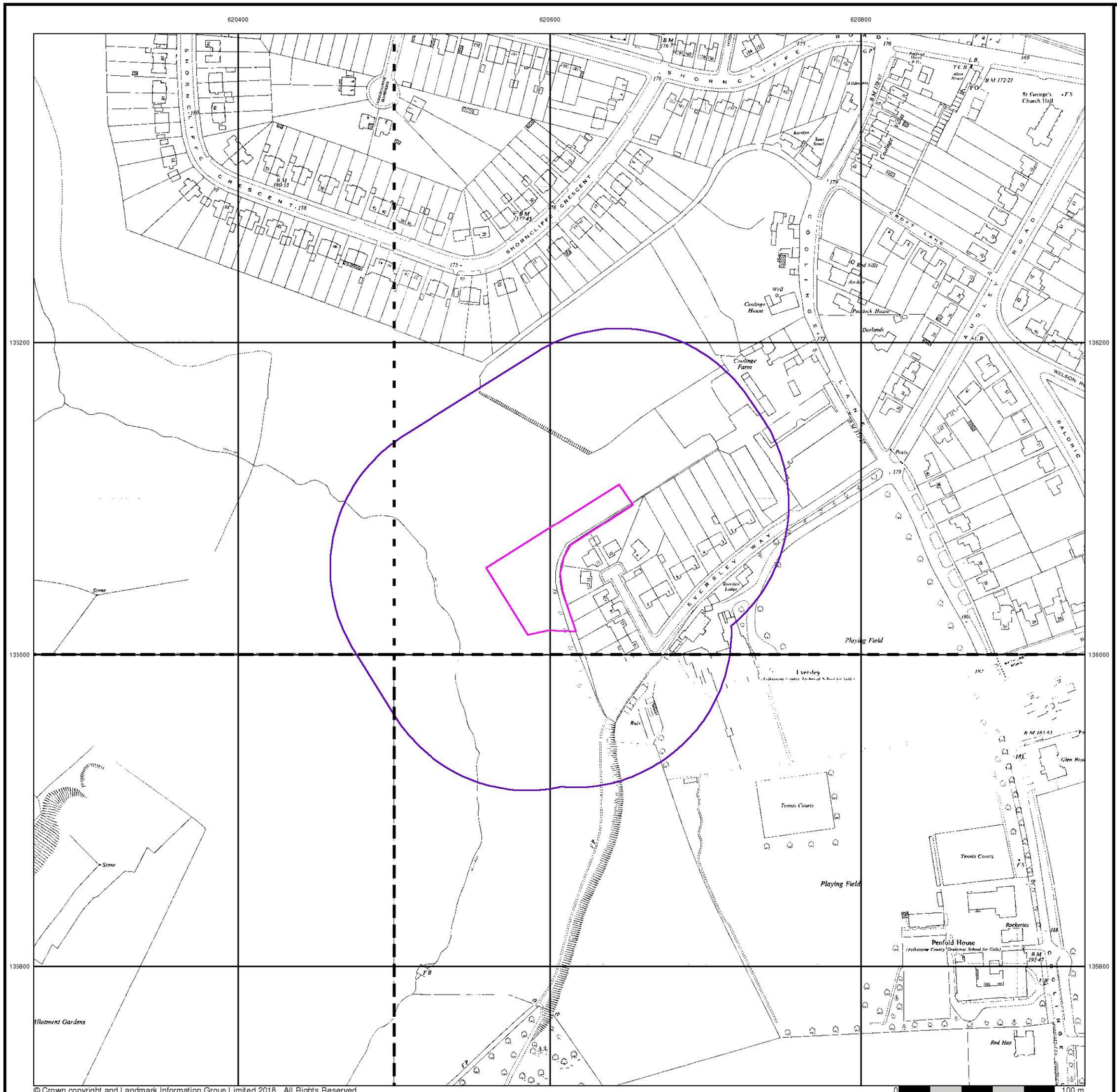

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Ordnance Survey Plan

Published 1957

Source map scale - 1:1,250

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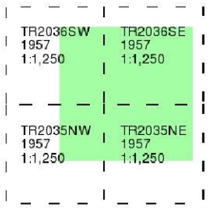
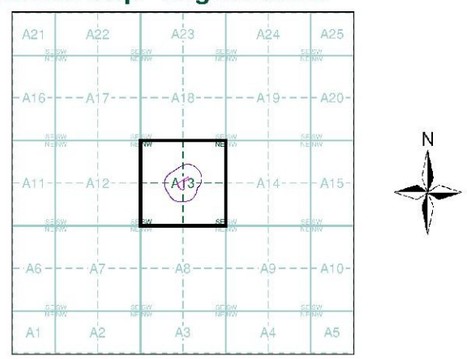
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

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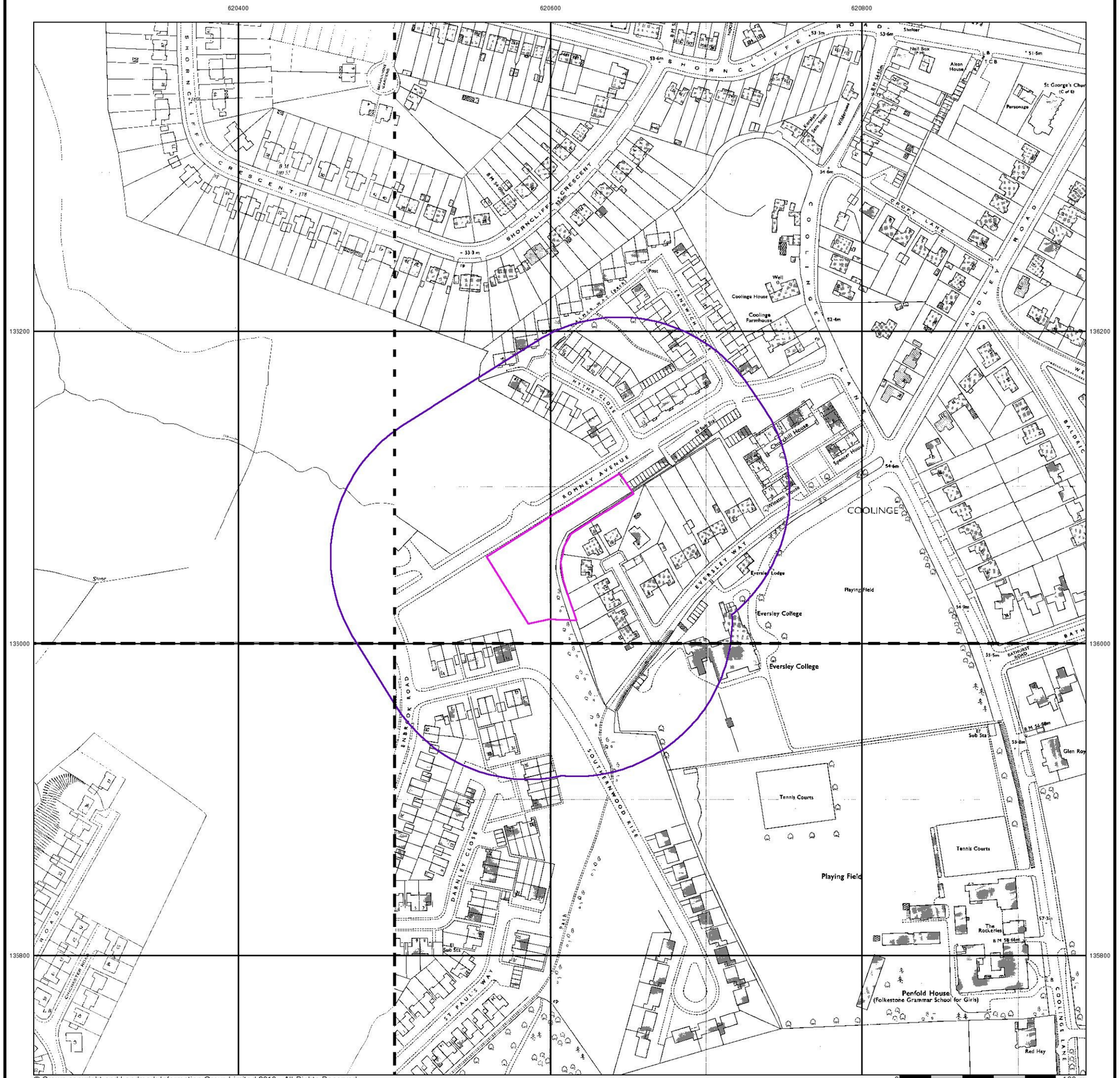
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Ordnance Survey Plan

Published 1963 - 1972

Source map scale - 1:1,250

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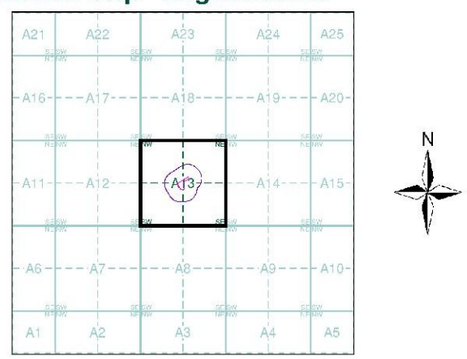
Map Name(s) and Date(s)

TR2036SW 1963 1:1,250	TR2036SE 1972 1:1,250
TR2035NW 1963 1:1,250	TR2035NE 1971 1:1,250

Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

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Ordnance Survey Plan

Published 1970

Source map scale - 1:1,250

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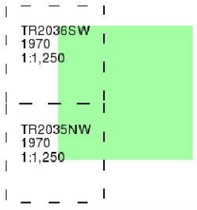
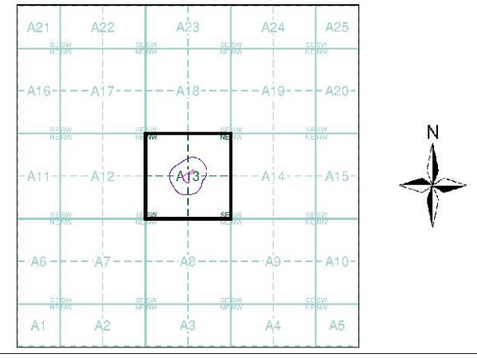
Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
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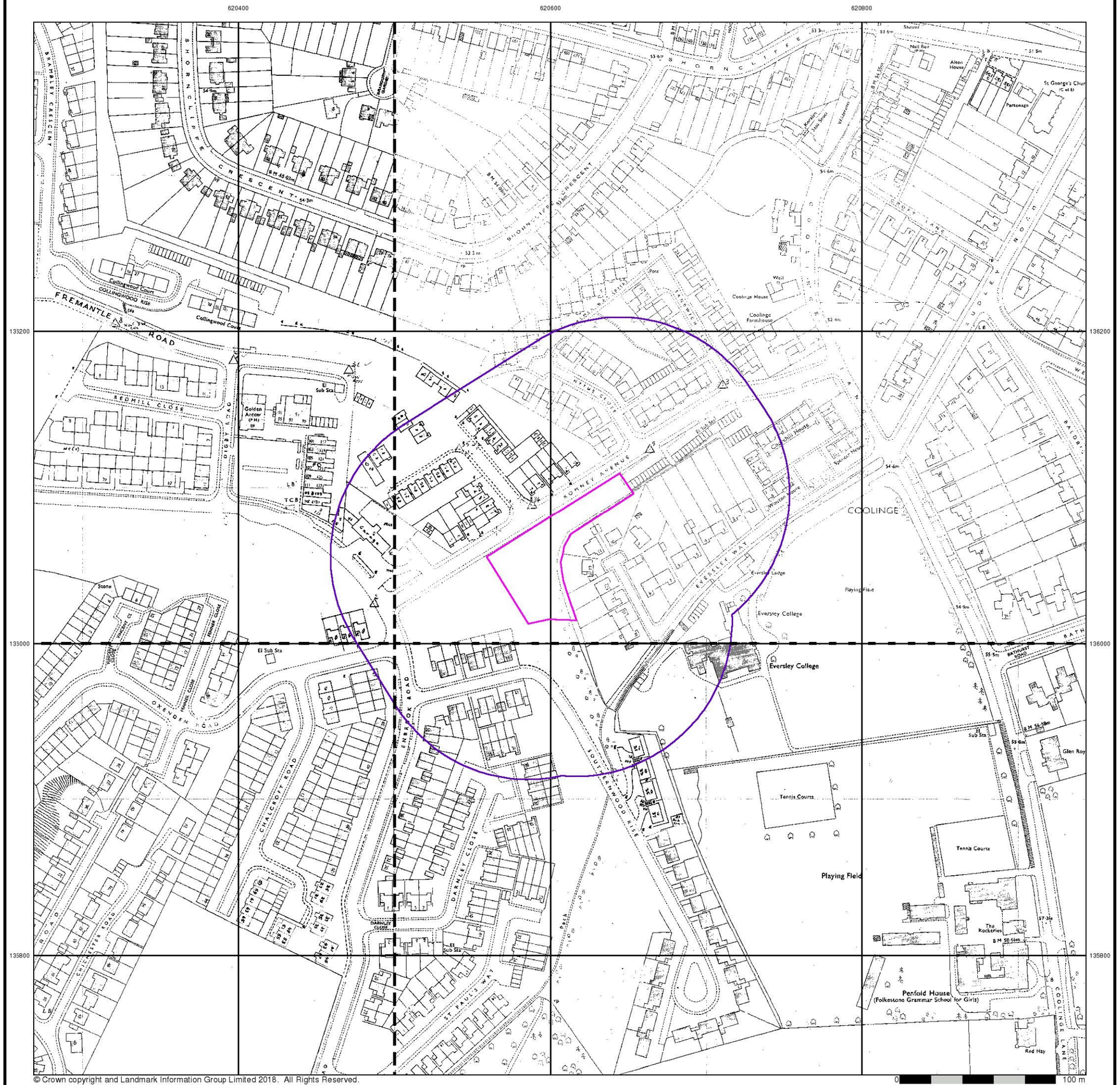

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Supply of Unpublished Survey Information

Published 1973

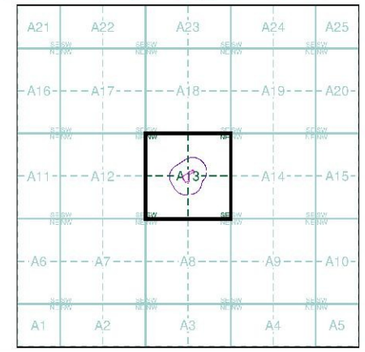
Source map scale - 1:1,250

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a `work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

TR2036SW 1973 1:1,250	TR2036SE 1973 1:1,250
TR2035NW 1973 1:1,250	TR2035NE 1973 1:1,250

Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

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620400 620600 620800

133200 136200

133000 136000

135800 135800

FREMANTLE ROAD

SHORNCLIFFE CRESCENT

COOLINGE

FOLKESTONE SANDGATE WARD

0 100 m

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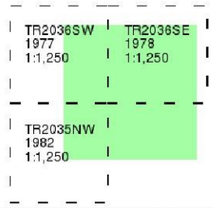
Additional SIMs

Published 1977 - 1982

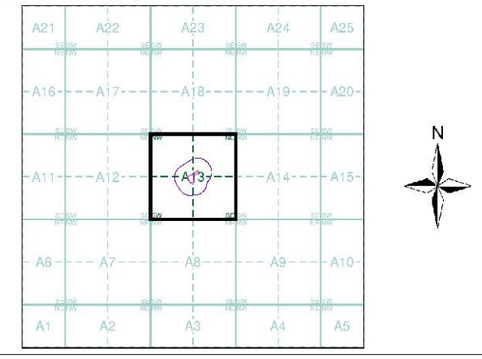
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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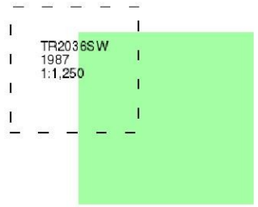
Additional SIMs

Published 1987

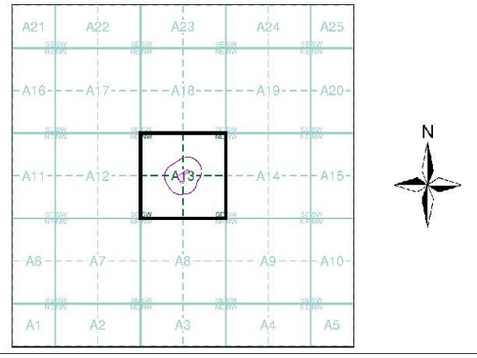
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

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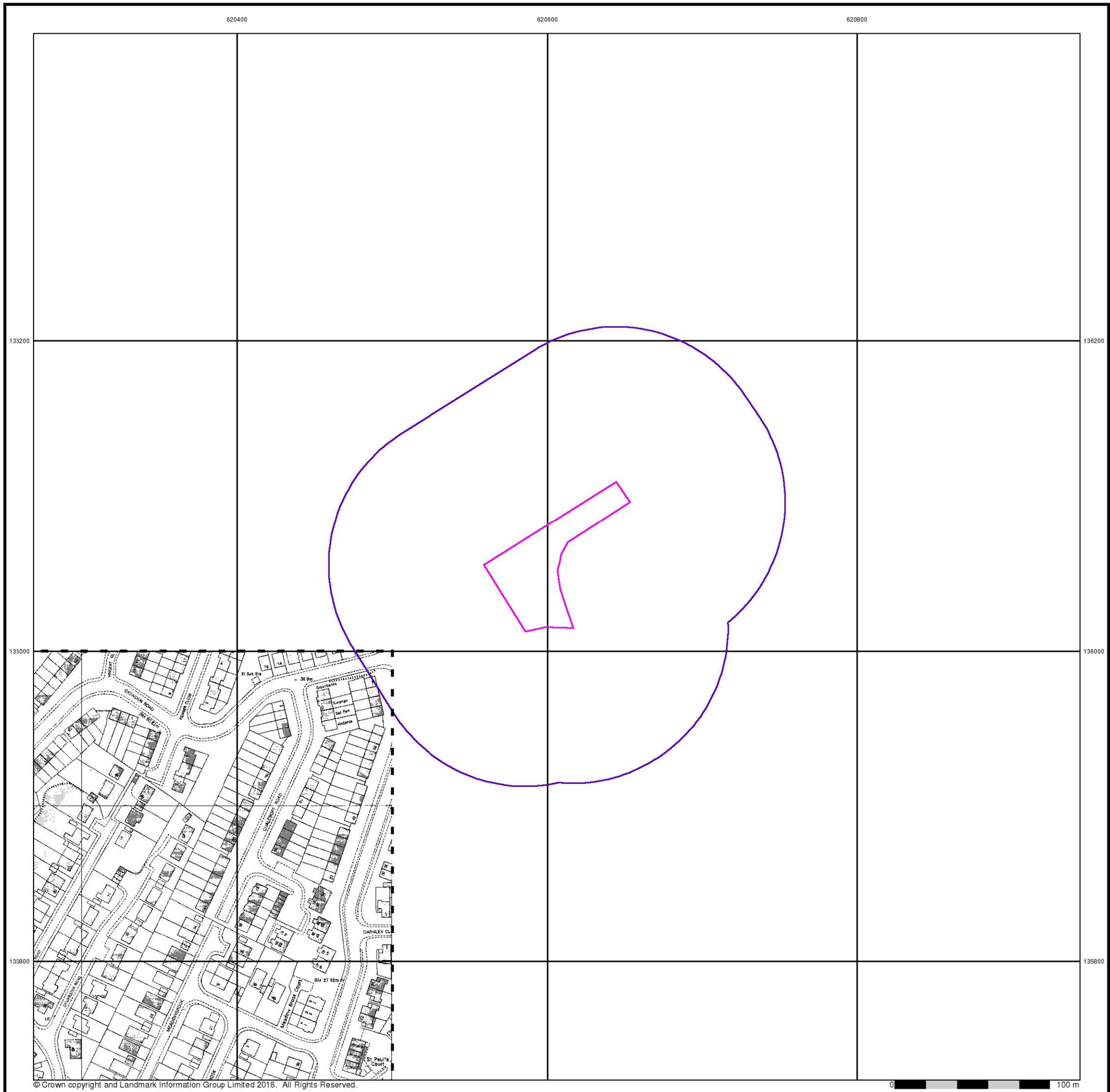

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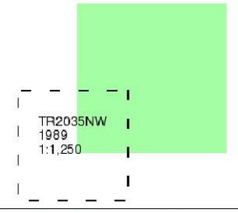
Ordnance Survey Plan

Published 1989

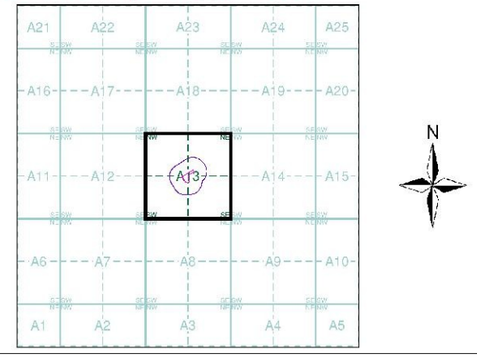
Source map scale - 1:1,250

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

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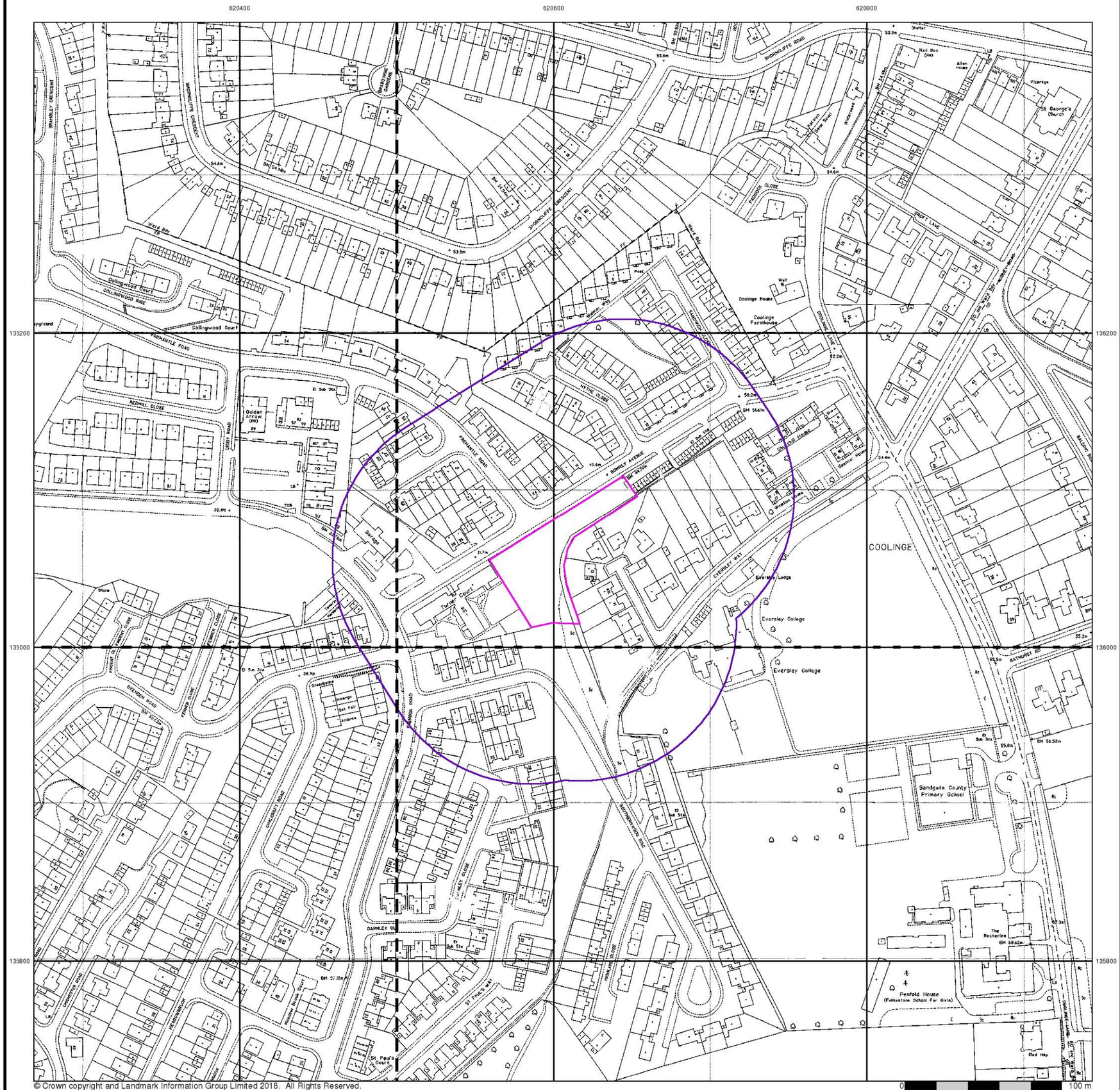

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Large-Scale National Grid Data

Published 1992

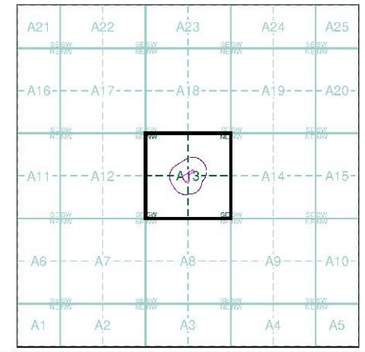
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

TR2036SW 1992 1:1,250	TR2036SE 1992 1:1,250
TR2035NW 1992 1:1,250	TR2035NE 1992 1:1,250

Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

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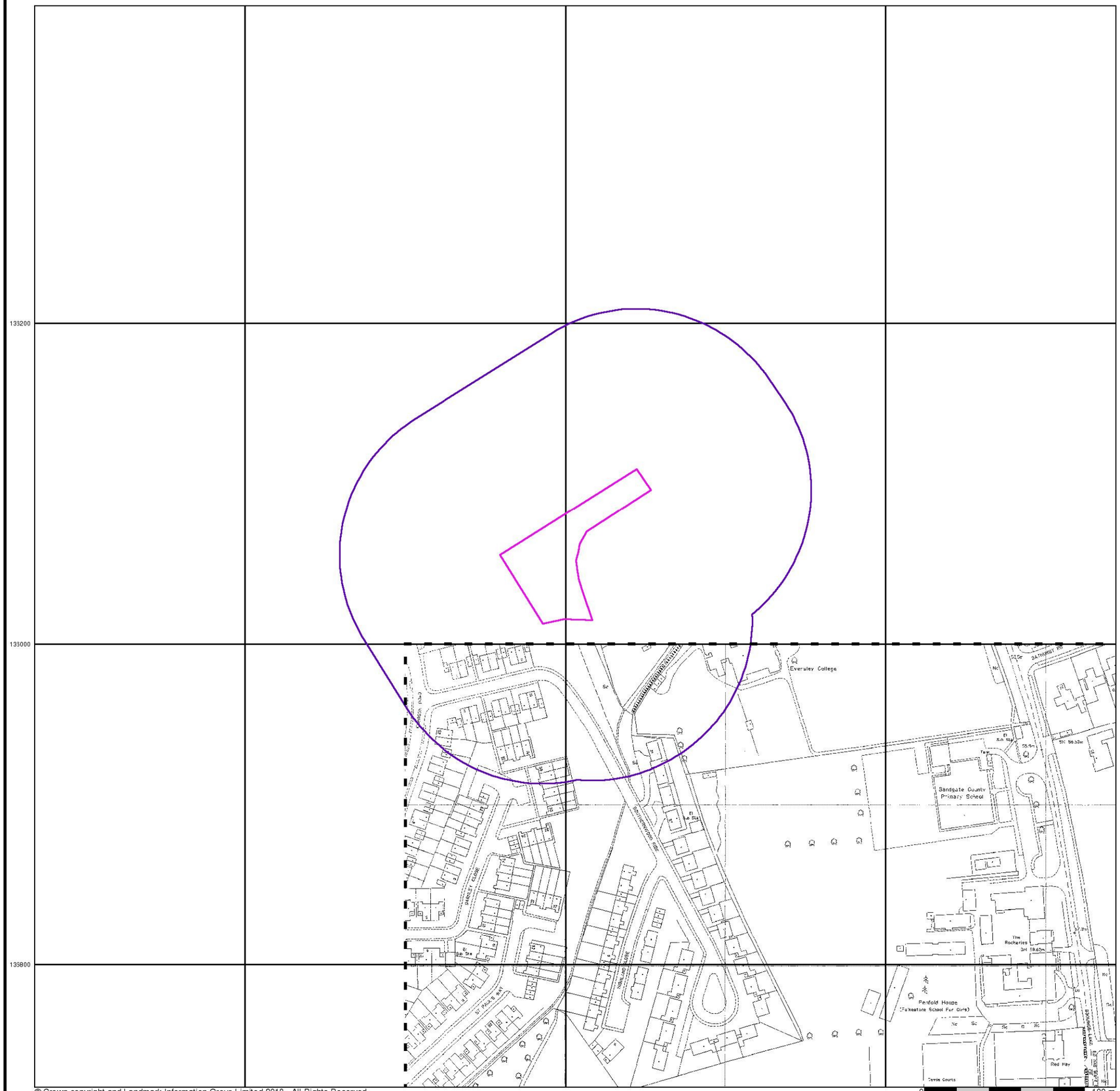

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LANDMARK INFORMATION GROUP®

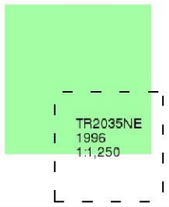
Large-Scale National Grid Data

Published 1996

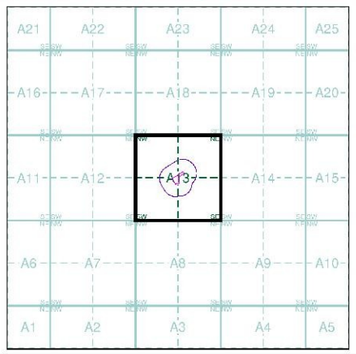
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

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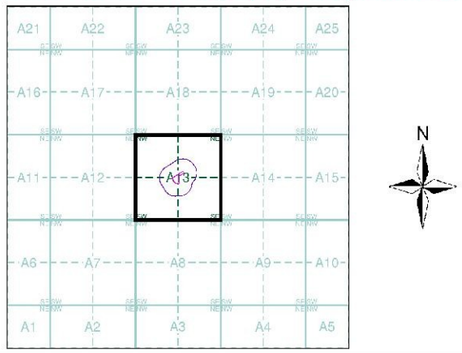
Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

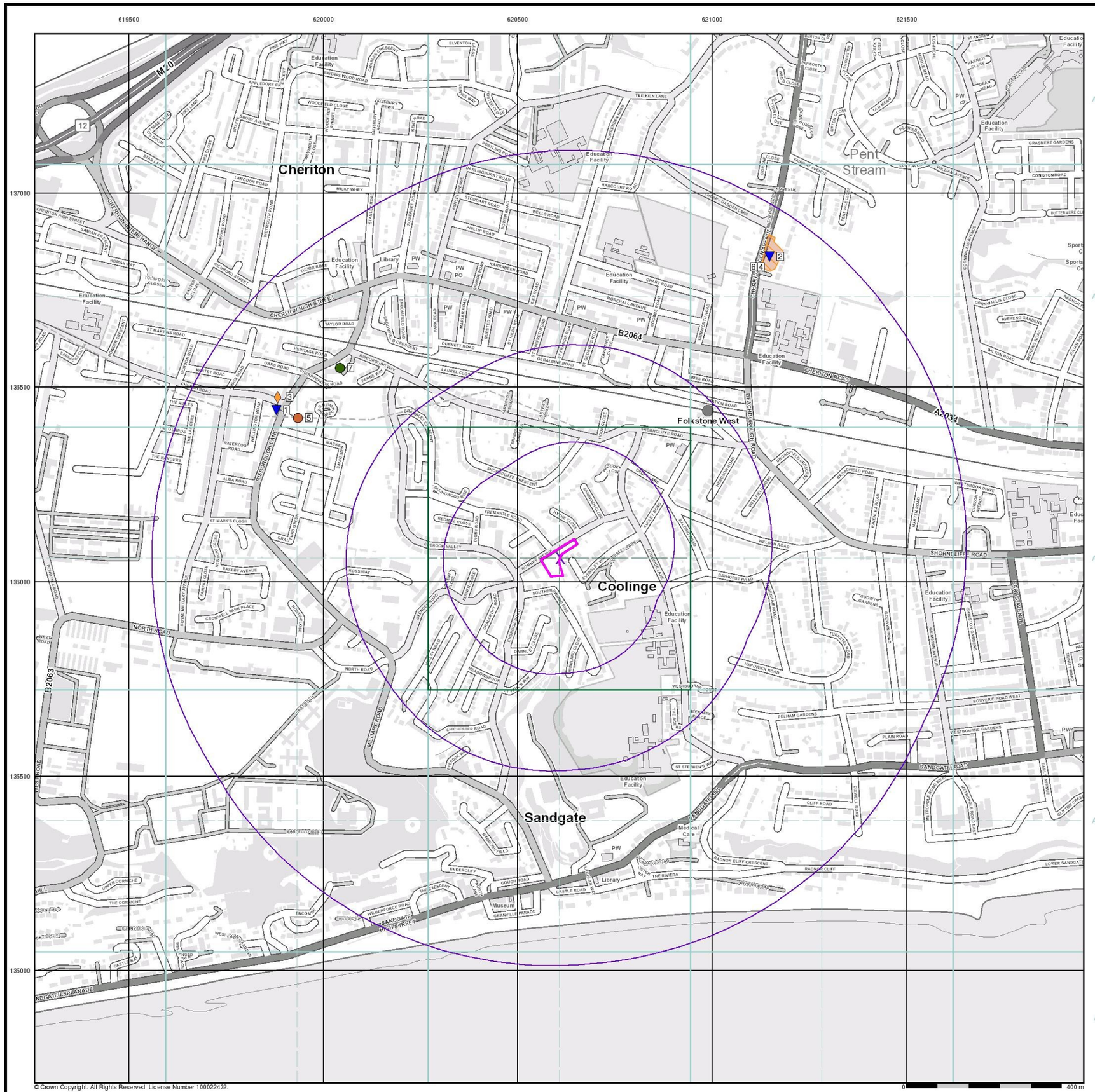
Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	100

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

APPENDIX A3

Mining and Ground Stability Report



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Historical Land Use Information (1:10,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

	Point	Line	Polygon
Air Shafts	◆		
Disturbed Ground	◆		
General Quarrying	◆		
Heap, unknown constituents	◆		
Mineral Railway	◆		
Mining and Quarrying General	◆		
Mining of Coal & Lignite	◆		
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits	◆		

Historical Land Use

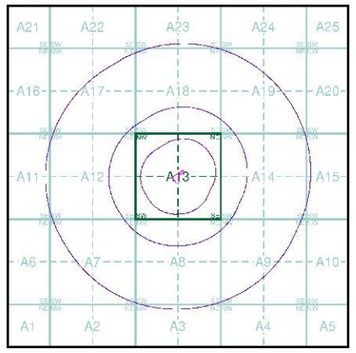
	Point	Line	Polygon
Potentially Infilled Land (Non-Water)	●		
Potentially Infilled Land (Water)	●		
Former Marsh	✠		

Mining Data

Potential Mining Area

BGS Recorded Mineral Site

Mining and Ground Stability - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

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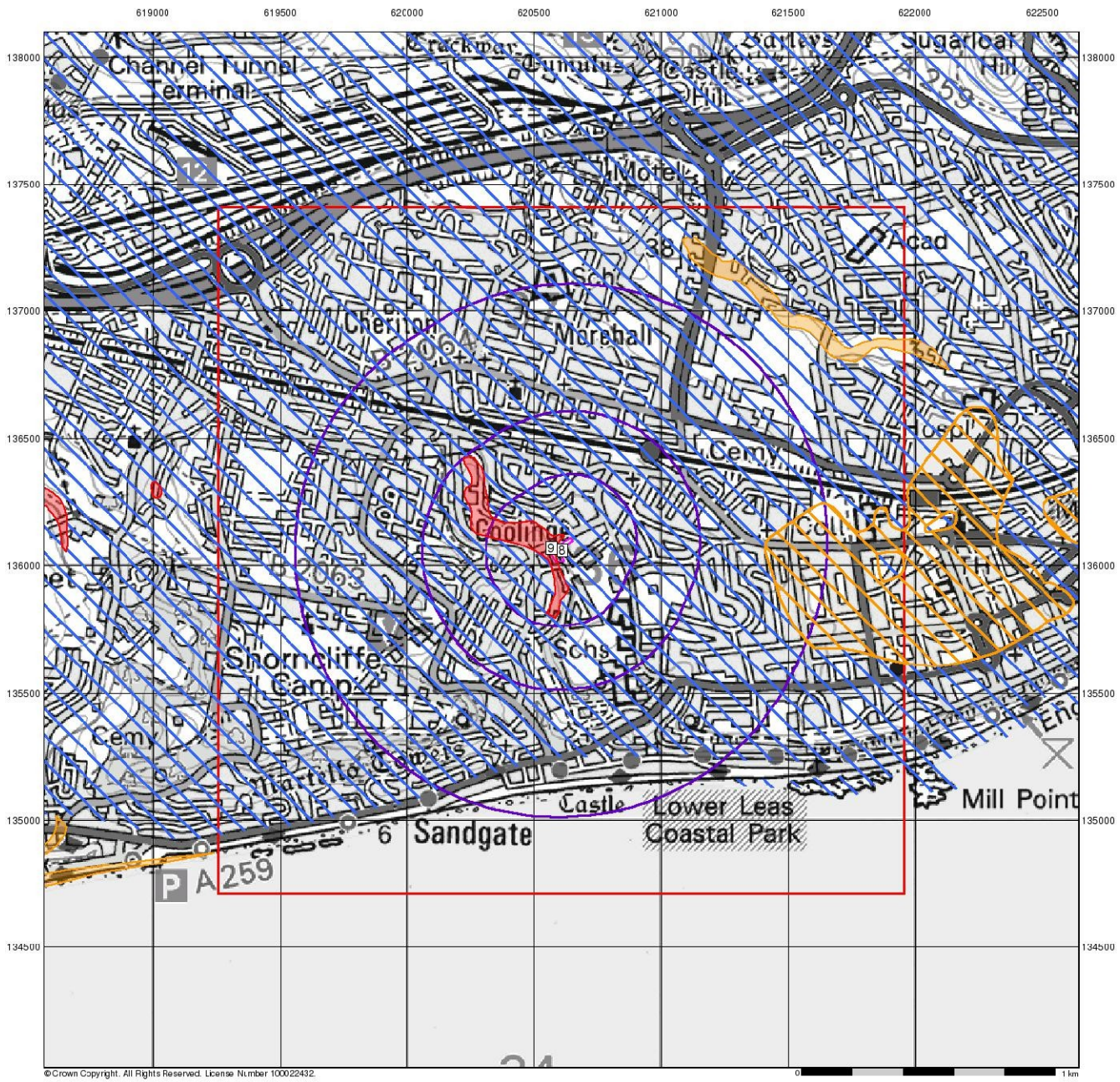
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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Ground Stability Data (1:50,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

Potential for Compressible Ground Stability Hazards

High | Low | Moderate | Very Low

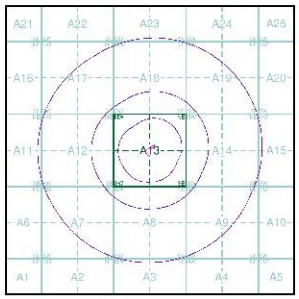
Potential for Collapsible Ground Stability Hazards

High | Low | Moderate | Very Low

Brine Pumping and Salt Mining

	Point	Polygon
Brine Pumping Related Feature	▲	▨
Salt Mining Related Feature	▲	▨

Mining and Ground Stability - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

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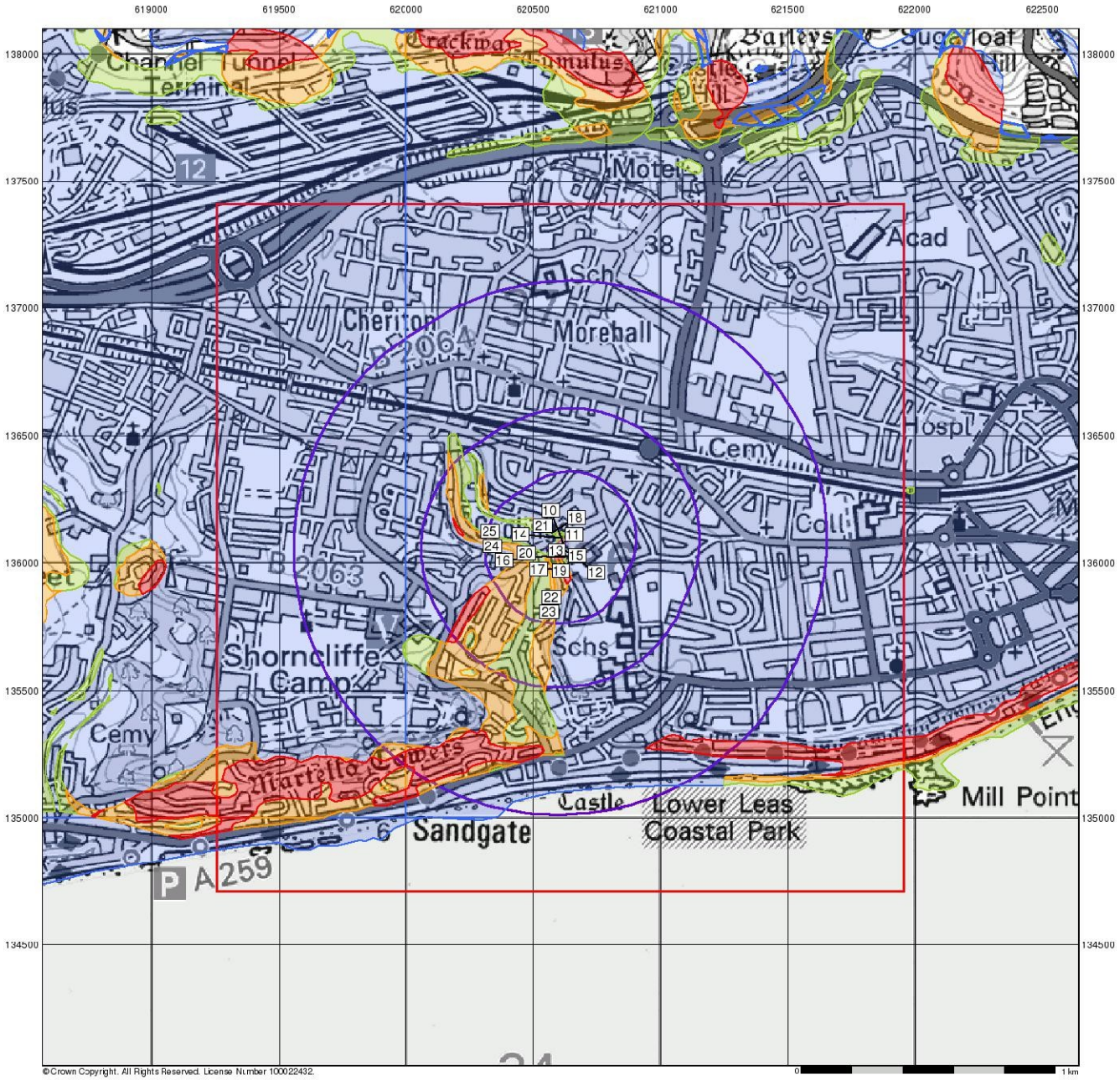

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Ground Stability Data (1:50,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

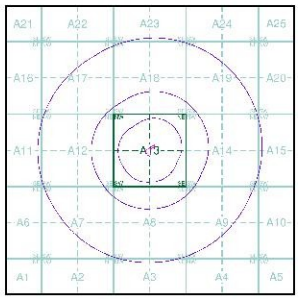
Potential for Landslide Ground Stability Hazards

High | Low | Moderate | Very Low

Potential for Ground Dissolution Stability Hazards

High | Low | Moderate | Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

16, Romney Avenue, FOLKESTONE, CT20 3QJ

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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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Ground Stability Data (1:50,000)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

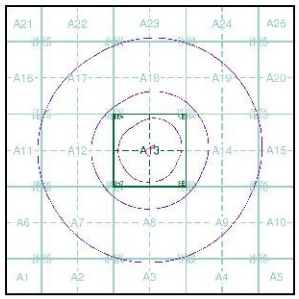
Potential for Running Sand Ground Stability Hazards

High | Low | Moderate | Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

High | Low | Moderate | Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Search Buffer (m):	1000

Site Details

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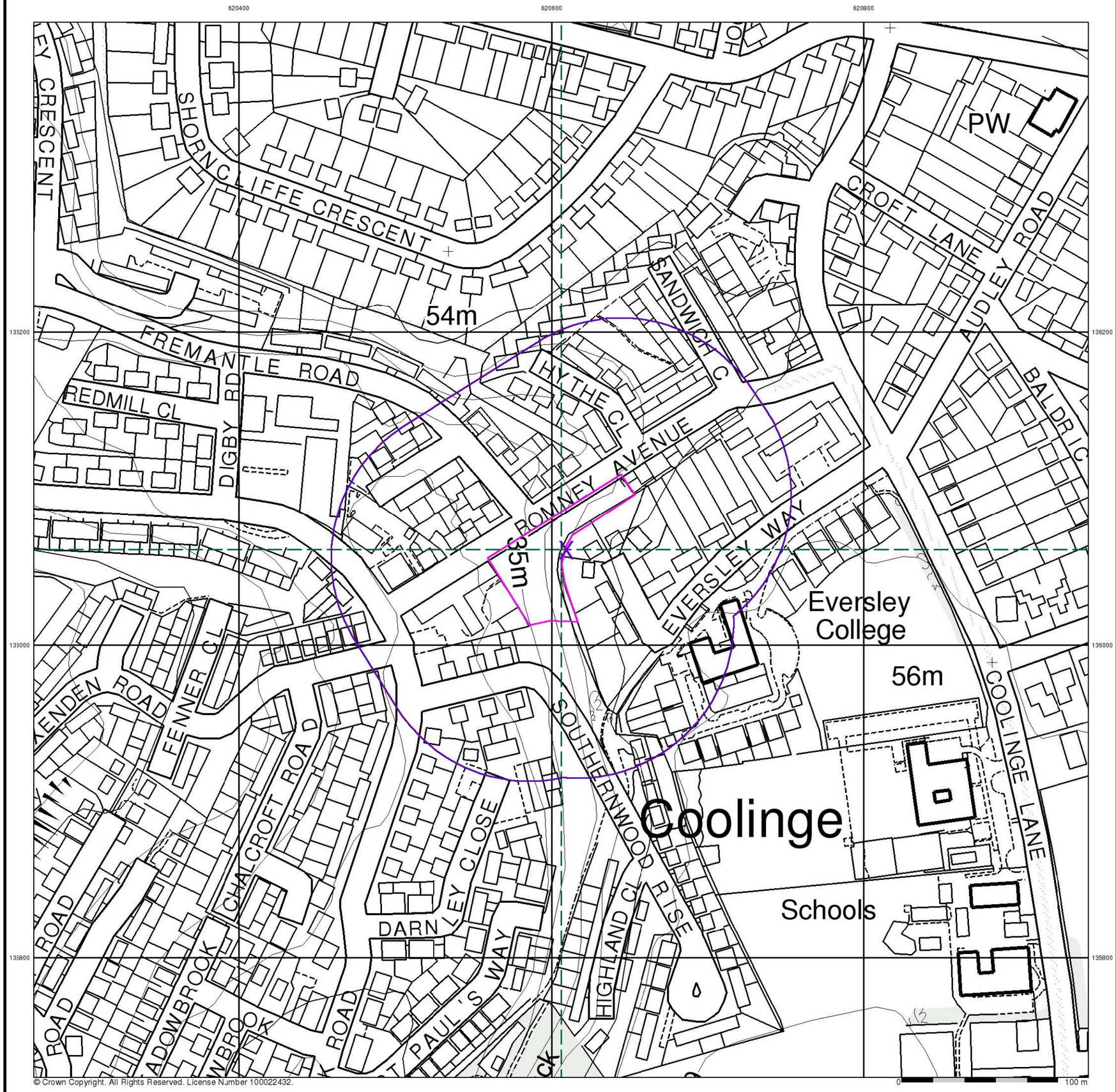

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Historical Land Use Information (1:2,500)

General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

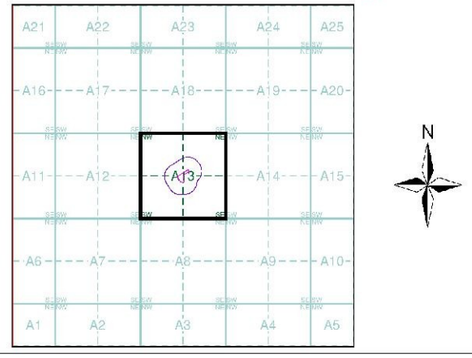
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909	▲	—	▭
Extractive Industries Activity from 1893 - 1915	▲	—	▨
Extractive Industries Activity from 1906 - 1937	▲	—	▭
Extractive Industries Activity from 1924 - 1949	▲	—	▨
Extractive Industries Activity from 1950 - 1980	▲	—	▭

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	- - -	▭

Mining and Ground Stability - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Plot Buffer (m):	100

Site Details

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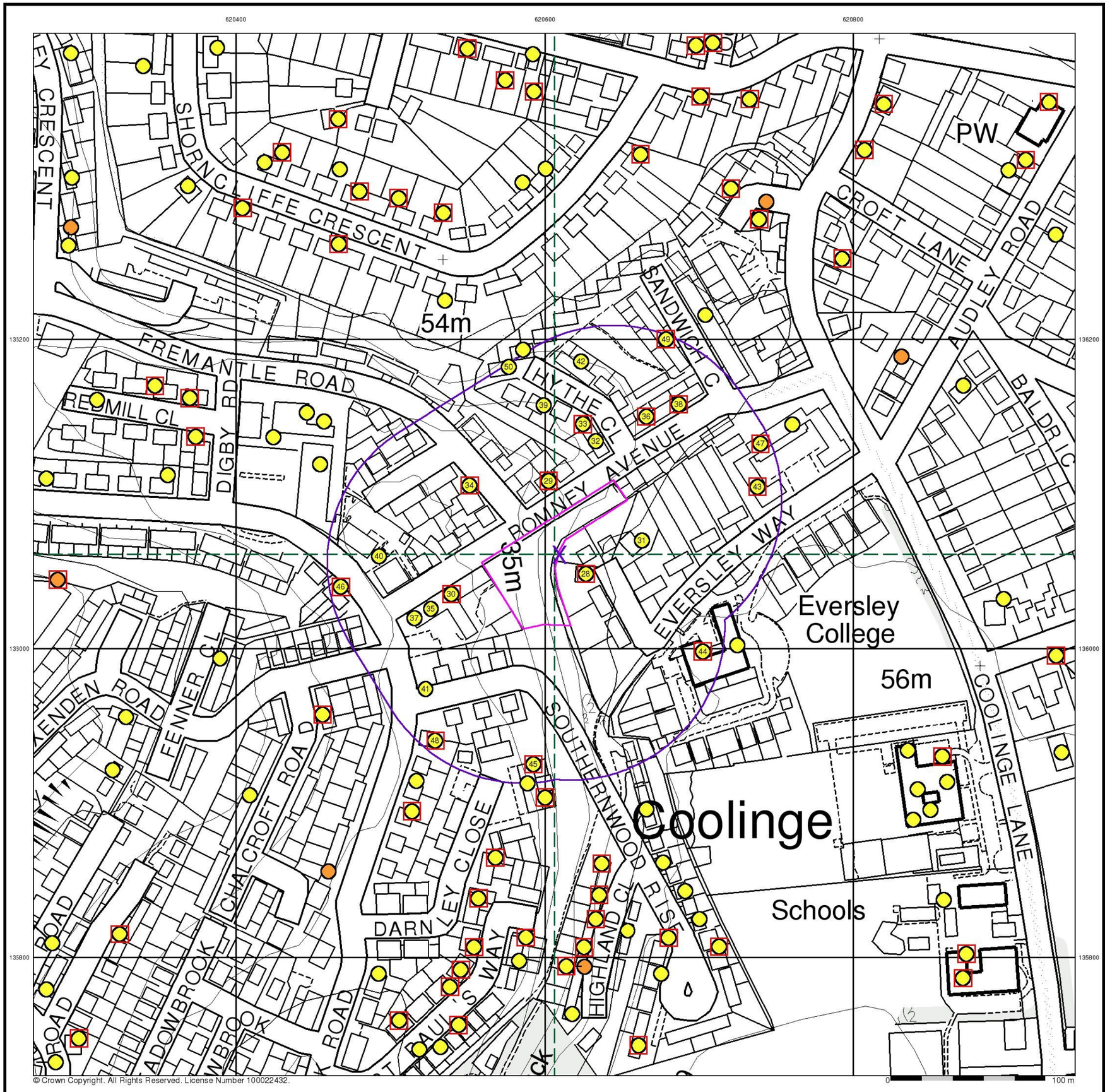

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Motion Map Data (1:2,500)

General

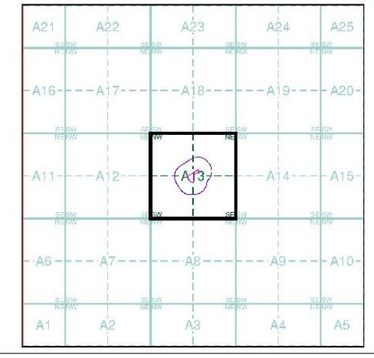
Specified Site | Specified Buffer(s) | Bearing Reference Point | Map ID

Several of Type at Location

Average Velocity Gradient

- Upward Movement > 3.5mm per year
- Upward Movement 1.5mm to 3.5mm per year
- Stable 1.5mm to -1.5mm per year
- Downward Movement -1.5mm to -3.5mm per year
- Downward Movement > -3.5mm per year

Mining and Ground Stability - Segment A13



Order Details

Order Number:	183346564_1_1
Customer Ref:	1145
National Grid Reference:	620610, 136060
Slice:	A
Site Area (Ha):	0.32
Plot Buffer (m):	100

Site Details

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Envirocheck® Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:
183346564_1_1

Customer Reference:
1145

National Grid Reference:
620610, 136060

Slice:
A

Site Area (Ha):
0.32

Search Buffer (m):
1000

Site Details:

16, Romney Avenue
FOLKESTONE
CT20 3QJ

Client Details:

Mr P Baxter
Peter Baxter Associates Ltd
Suite 7
Beaufort House
Sir Thomas Longley Road
Rochester
Kent
ME2 4FB

Prepared For:

Village Homes Folkestone Ltd

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Contents

Report Version v53.0

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1				2
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability	pg 1	Yes	n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 1	Yes		n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 2				2
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 2				2
Potentially Infilled Land (Water)	pg 2				1

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 3	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 3	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 3	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 4	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 4	Yes		n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims	pg 4		1	n/a	n/a
Subsidence Investigations	pg 4		1	n/a	n/a
Motion Map Data (1:2,500)					
Motion Map (100m)	pg 5		41	n/a	n/a

Report Version v53.0

Mining and Natural Cavities Data

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**BGS Recorded Mineral Sites** Site Name: Sandgate Sand Pit Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 117737 Type: Opencast **Status: Ceased** Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Folkestone Formation Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A17SW (NW)	785	1	619879 136446
2	**BGS Recorded Mineral Sites** Site Name: Cheriton Sand Pit Location: Not Supplied Source: British Geological Survey, National Geoscience Information Service Reference: 132856 Type: Opencast **Status: Ceased** Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: Folkestone Formation Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	888	1	621146 136841
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13SE (SE)	0	3	620610 136061
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Quarrying of sand & clay, operation of sand & gravel pits** Use: Not Supplied Date of Mapping: 1899	A17SW (NW)	782	-	619882 136446
4	**Quarrying of sand & clay, operation of sand & gravel pits** Use: Not Supplied Date of Mapping: 1899	A19NW (NE)	851	-	621124 136811
5	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A17SW (NW)	782	-	619882 136446
6	**Potentially Infilled Land (Non-Water)** Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1994	A19NW (NE)	851	-	621124 136811
7	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1877	A17SE (NW)	715	-	620043 136550

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
8	**Potential for Collapsible Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	0	1	620587 136070
9	**Potential for Compressible Ground Stability Hazards** Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	0	1	620587 136070
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061
10	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	620622 136061
11	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	0	1	620583 136051
12	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061
13	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	0	1	620592 136048
14	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	16	1	620603 136101
15	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	21	1	620555 136023
16	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	22	1	620553 136024
17	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	39	1	620593 135975
18	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	45	1	620573 136117
19	**Potential for Landslide Ground Stability Hazards** Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	45	1	620608 135970
20	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	90	1	620471 136038
21	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	90	1	620537 136147
22	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	156	1	620571 135858
23	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	207	1	620562 135807

Ground Stability Data (1:50,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
24	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	222	1	620337 136067
25	**Potential for Landslide Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NW (W)	239	1	620328 136112
26	**Potential for Running Sand Ground Stability Hazards** Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	0	1	620622 136061
27	**Potential for Running Sand Ground Stability Hazards** Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	0	1	620610 136061
	Subsidence Investigations Site Investigation Date: 7th November 2002 Root Survey: No CCTV Drain Survey: No Depth of Foundation Footing: 0.64 Soil Classification: Clay of Low Plasticity			-	
	Subsidence Insurance Claims Case Date: 6th September 2001 Movement Trend Indication: Active cyclical movement of up to 5mm Damage Classification: Not Supplied			-	

Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	**Motion Map** Average Velocity Gradient (mmyear): -1.0	A13SE (SE)	18	-	620624 136049
28	**Motion Map** Average Velocity Gradient (mmyear): -1.2	A13SE (SE)	18	-	620625 136052
28	**Motion Map** Average Velocity Gradient (mmyear): -0.9	A13SE (SE)	20	-	620626 136048
29	**Motion Map** Average Velocity Gradient (mmyear): -1.2	A13NW (N)	22	-	620602 136109
29	**Motion Map** Average Velocity Gradient (mmyear): -1.3	A13NE (N)	26	-	620607 136116
30	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13SW (W)	26	-	620539 136039
30	**Motion Map** Average Velocity Gradient (mmyear): -1.4	A13SW (W)	28	-	620540 136035
31	**Motion Map** Average Velocity Gradient (mmyear): -0.3	A13NE (E)	28	-	620663 136070
32	**Motion Map** Average Velocity Gradient (mmyear): -0.7	A13NE (N)	29	-	620633 136135
33	**Motion Map** Average Velocity Gradient (mmyear): -0.9	A13NE (N)	38	-	620625 136141
33	**Motion Map** Average Velocity Gradient (mmyear): -0.7	A13NE (N)	42	-	620624 136145
34	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13NW (NW)	44	-	620552 136102
34	**Motion Map** Average Velocity Gradient (mmyear): 0.1	A13NW (NW)	47	-	620551 136106
35	**Motion Map** Average Velocity Gradient (mmyear): -0.5	A13SW (SW)	44	-	620526 136026
36	**Motion Map** Average Velocity Gradient (mmyear): -1.1	A13NE (NE)	47	-	620666 136150
36	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13NE (NE)	50	-	620665 136154
37	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13SW (SW)	57	-	620515 136020
38	**Motion Map** Average Velocity Gradient (mmyear): -1.2	A13NE (NE)	65	-	620687 136158
38	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13NE (NE)	68	-	620687 136162
39	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13NW (N)	66	-	620599 136158

Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	**Motion Map** Average Velocity Gradient (mmyear): 0.1	A13SW (W)	67	-	620492 136060
41	**Motion Map** Average Velocity Gradient (mmyear): -0.9	A13SW (SW)	75	-	620523 135974
42	**Motion Map** Average Velocity Gradient (mmyear): -0.4	A13NE (N)	80	-	620623 136186
43	**Motion Map** Average Velocity Gradient (mmyear): -0.9	A13NE (E)	85	-	620738 136105
43	**Motion Map** Average Velocity Gradient (mmyear): -0.7	A13NE (E)	87	-	620739 136109
44	**Motion Map** Average Velocity Gradient (mmyear): -0.6	A13SE (SE)	88	-	620702 135998
44	**Motion Map** Average Velocity Gradient (mmyear): 0.0	A13SE (SE)	88	-	620703 136002
44	**Motion Map** Average Velocity Gradient (mmyear): -0.8	A13SE (SE)	89	-	620704 135998
44	**Motion Map** Average Velocity Gradient (mmyear): -0.4	A13SE (SE)	90	-	620705 136002
45	**Motion Map** Average Velocity Gradient (mmyear): -0.4	A13SW (S)	89	-	620593 135925
45	**Motion Map** Average Velocity Gradient (mmyear): -0.6	A13SW (S)	92	-	620591 135921
46	**Motion Map** Average Velocity Gradient (mmyear): -0.7	A13SW (W)	92	-	620470 136036
46	**Motion Map** Average Velocity Gradient (mmyear): -0.7	A13SW (W)	93	-	620468 136040
46	**Motion Map** Average Velocity Gradient (mmyear): -0.7	A13SW (W)	98	-	620462 136045
47	**Motion Map** Average Velocity Gradient (mmyear): -0.3	A13NE (NE)	92	-	620737 136133
47	**Motion Map** Average Velocity Gradient (mmyear): 0.3	A13NE (NE)	94	-	620740 136133
48	**Motion Map** Average Velocity Gradient (mmyear): -1.2	A13SW (SW)	93	-	620529 135940
48	**Motion Map** Average Velocity Gradient (mmyear): -1.2	A13SW (SW)	94	-	620526 135941
49	**Motion Map** Average Velocity Gradient (mmyear): 0.5	A13NE (NE)	94	-	620678 136196
49	**Motion Map** Average Velocity Gradient (mmyear): 0.5	A13NE (NE)	98	-	620678 136200

Motion Map Data (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	**Motion Map** Average Velocity Gradient (mmyear): -0.6	A13NW (N)	98	-	620577 136182

Historical Map List

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Kent	075_09	1873
Kent	075_09	1898
Kent	075_09	1907
Kent	075_09	1938
Ordnance Survey Plan	TR2036	1957

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Kent	075_00	1877
Kent	075_NW	1899
Kent	075_SW	1899
Kent	075_NW	1908
Kent	075_SW	1908
Kent	075_NW	1938
Kent	075_SW	1938
Ordnance Survey Plan	TR13NE	1961
Ordnance Survey Plan	TR13SE	1961
Ordnance Survey Plan	TR23NW	1962
1:10,000	**Mapsheet**	**Published Date**
Ordnance Survey Plan	TR13SE	1990
Ordnance Survey Plan	TR13NE	1994
Ordnance Survey Plan	TR23NW	1994

Data Currency

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2018	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Man Made Mining Cavities Peter Brett Associates	May 2018	Bi-Annually
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural Cavities Peter Brett Associates	May 2018	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	**Version**	**Update Cycle**
Subterranean Features Landmark Information Group Limited	August 2018	Bi-Annually
Ground Stability Data (1:50,000)	**Version**	**Update Cycle**
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	As notified
Subsidence Insurance Claims SP Property Services	July 2018	Quarterly
Subsidence Investigations CET Structures Ltd	July 2018	Quarterly
Brine Subsidence Solution Area Johnson Poole & Bloomer	January 2015	As notified

Motion Map Data (1:2,500)	Version	Update Cycle
Motion Map		
Nigel Press Associates - Hampshire	February 2011	As notified
Nigel Press Associates - Cambridge	January 2011	As notified
Nigel Press Associates - Ipswich	January 2011	As notified
Nigel Press Associates - Norwich	January 2011	As notified
Nigel Press Associates - Peterborough	January 2011	As notified
Nigel Press Associates - Barnstaple	July 2010	As notified
Nigel Press Associates - Derbyshire	July 2010	As notified
Nigel Press Associates - Humberside	July 2010	As notified
Nigel Press Associates - Kent	July 2010	As notified
Nigel Press Associates - Lincolnshire	July 2010	As notified
Nigel Press Associates - Nottinghamshire	July 2010	As notified
Nigel Press Associates - Birmingham	May 2009	As notified
Nigel Press Associates - Bournemouth	May 2009	As notified
Nigel Press Associates - Brighton	May 2009	As notified
Nigel Press Associates - Bristol	May 2009	As notified
Nigel Press Associates - Cardiff	May 2009	As notified
Nigel Press Associates - Central London	May 2009	As notified
Nigel Press Associates - Cheltenham	May 2009	As notified
Nigel Press Associates - Coventry	May 2009	As notified
Nigel Press Associates - Crawley	May 2009	As notified
Nigel Press Associates - Edinburgh	May 2009	As notified
Nigel Press Associates - Exeter	May 2009	As notified
Nigel Press Associates - Glasgow	May 2009	As notified
Nigel Press Associates - Isle of Wight	May 2009	As notified
Nigel Press Associates - Leeds	May 2009	As notified
Nigel Press Associates - Leicester	May 2009	As notified
Nigel Press Associates - Liverpool	May 2009	As notified
Nigel Press Associates - Manchester	May 2009	As notified
Nigel Press Associates - Milton Keynes	May 2009	As notified
Nigel Press Associates - Newcastle	May 2009	As notified
Nigel Press Associates - Northwich	May 2009	As notified
Nigel Press Associates - Nottingham	May 2009	As notified
Nigel Press Associates - Oxford	May 2009	As notified
Nigel Press Associates - Plymouth	May 2009	As notified
Nigel Press Associates - Portsmouth	May 2009	As notified
Nigel Press Associates - Preston	May 2009	As notified
Nigel Press Associates - Reading	May 2009	As notified
Nigel Press Associates - Sheffield	May 2009	As notified
Nigel Press Associates - Stoke	May 2009	As notified
Nigel Press Associates - Swindon	May 2009	As notified
Nigel Press Associates - Tonbridge	May 2009	As notified
Nigel Press Associates - North London	November 2008	As notified
Nigel Press Associates - Head Office	September 2008	As notified

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	The Coal Authority
Ove Arup	ARUP
Peter Brett Associates	pba peterbrett
Wardell Armstrong	wardell armstrong your earth our world
Johnson Poole & Bloomer	JPB

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**The Coal Authority - Property Searches** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
3	**Ove Arup & Partners** Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

APPENDIX A4
Radon Report

Public Health England

Report of address search for radon risk

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

Radon Risk Report for addresses in England and Wales

Address searched: 16 Romney Avenue, Folkestone, CT203QJ
Date of report: 24 October 2018

Guidance for existing properties

Is this property in a radon Affected Area? - No

A radon Affected Area is defined as where the radon level in at least one property in every hundred is estimated to exceed the Action Level.

The estimated probability of the property being above the Action Level for radon is: 0-1%

The result may not be valid for buildings larger than 25 metres.
If this site if for redevelopment, you should undertake a GeoReport provided by the British Geological Survey.

This report informs you of the estimated probability that this particular property is above the Action Level for radon. This does not necessarily mean there is a radon problem in the property; the only way to find out whether it is above or below the Action Level is to carry out a radon measurement in an existing property.

Radon Affected Areas are designated by the Public Health England. PHE advises that radon gas should be measured in all properties within Radon Affected Areas.

If you are buying a currently occupied property in a Radon Affected Area, you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were above the Radon Action Level and if so, whether remedial measures were installed, radon levels were re-tested, and the results of re-testing confirmed the effectiveness of the measures.

Further information is available from PHE or https://www.ukradon.org

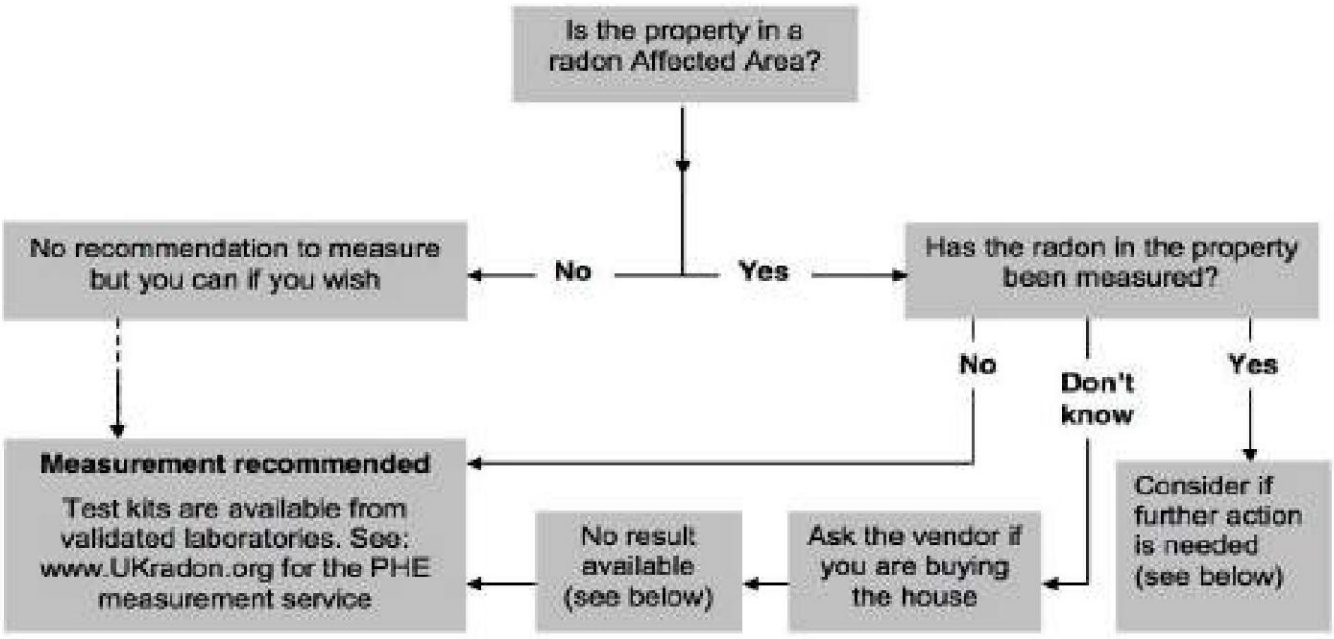
Guidance for new buildings and extensions to existing properties

What is the requirement under Building Regulations for radon protection in new buildings and extensions at the property location? - None

If you are buying a new property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

See the Radon and Building Regulations for more details.

PHE guidance for occupiers and prospective purchases



Existing radon test results: There is no public record of individual radon measurements. Results of previous tests can only be obtained from the seller. Radon levels can be significantly affected by changes to the building or its use, particularly by alterations to the heating and ventilation which can also be affected by changes in occupier. If in doubt, test again for reassurance.

Radon Bond: This is simply a retained fund, the terms of which are negotiated between the purchaser and the vendor. It allows the conveyance of the property to proceed without undue delay. The purchaser is protected against the possible cost of radon reduction work and the seller does not lose sale proceeds if the result is low. Make sure the agreement allows enough time to complete the test, get the result and arrange the work if needed.

High Results: Exposure to high levels of radon increases the risk of developing lung cancer. If a test in a home gives a result at or above the Action Level of 200 Becquerels per cubic metre of air (Bq/m3), formal advice will be given to lower the level. Radon reduction will also be recommended if the occupants include smokers or ex-smokers when the radon level is at or above the Target Level of 100 Bq/m3; these groups have a higher risk. Information on health risks and radon reduction work is available from PHE. Guidance about radon reduction work is also available from some Local Authorities, the Building Research Establishment and specialist contractors.

PHE designated radon website: https://www.ukradon.org
Building Research Establishment: http://www.bre.co.uk/page.jsp?id=3137

APPENDIX B
FIELD DATA

APPENDIX B1

Borehole Logs

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date: 21/09/2018
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	Co-ords: E620588.28 N136026.13
Project No. : 1145	Crew Name: Craig	Drilling Equipment: Dando 2000

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
BH1	CP	35.74m AoD	KB	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								MADE GROUND (concrete fragments and sand)
					0.80	34.94		
		1.20	D					Loose brown silty SAND
		1.20	SPT	N=7 (0,0/1,2,2,2)				
		1.50	B					
		2.00	D					
		2.00	SPT	N=8 (1,2/2,2,2,2)				
		2.50	B		2.40	33.34		Medium dense orange brown mottled grey clayey silty SAND
		3.00	D					
		3.00	SPT	N=10 (1,2/2,2,3,3)				
		3.50	B					
		4.00	D					
		4.00	SPT	N=12 (2,3/3,3,3,3)				
		4.50	B					
		5.00	D					
		5.00	SPT	N=14 (0,2/3,3,4,4)				
		5.50	B					
					5.60	30.14		Firm grey sandy CLAY
		7.00	D					
		7.00	SPT	N=21 (4,4/5,5,5,6)				
		7.50	B					
					7.90	27.84		Dense dark grey silty SAND
		9.00	D					
		9.00	SPT	N=48 (5,7/8,12,13,15)				
		9.50	B					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
15.45	150										

Remarks

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date: 21/09/2018
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	Co-ords: E620588.28 N136026.13
Project No. : 1145	Crew Name: Craig	Drilling Equipment: Dando 2000

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
BH1	CP	35.74m AoD	KB	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		11.00	D					
		11.00	SPT	N=49 (5,7/9,13,13,14)				
		11.50	B					
		13.00	D					
		13.00	SPT	N=50 (5,8/10,13,13,14)				
		13.50	B					
		15.00	D					
		15.00	SPT	N=52 (5,8/10,13,14,15)				
					15.45	20.29		End of Borehole at 15.450m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
15.45	150										

Remarks

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date: 24/09/2018
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	Co-ords: E620585.69 N136062.13
Project No. : 1145	Crew Name: Craig - South Eastern Drilling	Drilling Equipment: Dando 2000

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
BH2	CP	36.69m AoD	KB	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
								MADE GROUND
					0.50	36.19		Soft dark brown slightly gravelly sandy CLAY with rootlets
		1.20	D					
		1.20	SPT	N=5 (0,1/1,1,1,2)				
		1.50	B					
		2.00	D					
		2.00	SPT	N=8 (1,1/2,2,2,2)				
	▼	2.50	B					
		3.00	D					
		3.00	SPT	N=7 (1,1/2,1,2,2)				
		3.50	B					
		4.00	D					
		4.00	SPT	N=11 (1,2/3,2,3,3)	4.10	32.59		Firm grey brown mottled orange brown sandy CLAY with trace gravel
		4.50	B					
	▼							
		5.00	D					
		5.00	SPT	N=12 (1,2/3,3,3,3)				
		5.50	B					
					6.80	29.89		Stiff dark grey CLAY with lenses of sand
		7.00	D					
		7.00	SPT	N=23 (3,4/5,6,6,6)				
		7.50	B					
		9.00	D		9.00	27.69		Dense grey clayey silty SAND
	▽	9.00	SPT	N=25 (3,4/6,6,6,7)				
		9.50	B					

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
		15.45 15.45	150								

Remarks

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date: 24/09/2018
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	Co-ords: E620585.69 N136062.13
Project No. : 1145	Crew Name: Craig - South Eastern Drilling	Drilling Equipment: Dando 2000

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
BH2	CP	36.69m AoD	KB	1:50	Sheet 2 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		11.00	D					Dense grey clayey silty SAND
		11.00	SPT	N=44 (5,6/7,10,13,14)				
		11.50	B					
		13.00	D					
		13.00	SPT	N=46 (5,6/8,11,13,14)				
		13.50	B					
		15.00	D					
		15.00	SPT	N=48 (5,7/8,13,13,14)				
					15.45	21.24		End of Borehole at 15.450m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation
		15.45 15.45	150								

Remarks

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date: 20/09/2018
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	Co-ords: E620638.55 N136098.23
Project No. : 1145	Crew Name: Site Serve Ltd	Drilling Equipment: Windowless Sampler

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS1	WLS	45.15m AoD	KB	1:50	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.50	D					Very stiff brown slightly gravelly very sandy CLAY
		1.50	D		1.40	43.75		Very stiff olive brown very sandy CLAY with layers of limestone fragments
		3.30	D		3.30	41.85		Very stiff olive grey brown clayey SAND
		4.00	D					
		5.10	D					
		5.50	D		5.40	39.75		Stiff orange brown sandy CLAY
					5.80	39.35		Dense grey silty SAND
					6.00	39.15		End of Borehole at 6.000m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

AGS

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date: 21/09/2018
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	
Project No. : 1145	Crew Name: Site Serve Ltd	Drilling Equipment: Windowless Sampler

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS2	WLS	38.92m AoD	KB	1:50	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00 - 0.40	B					TOPSOIL
					0.45	38.47		
		0.60	D					Soft olive brown sandy CLAY with occasional rootlets
					0.75	38.17		
								Medium dense orange brown silty SAND
		1.50	D					
					3.00	35.92		End of Borehole at 3.000m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date:
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	
Project No. : 1145	Crew Name: Site Serve Ltd	Drilling Equipment: Windowless Sampler

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS3	WLS	38.78m AoD	KB	1:50	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.70	D					Stiff olive brown very sandy CLAY with rootlets
					1.00	37.78		
		1.50	D					Dense grey silty SAND
		2.50	D					
					3.00	35.78		End of Borehole at 3.000m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

Remarks

Percussion Drilling Log

Project Name: Folkestone Romney Avenue SI	Client: CLArchitects	Date:
Location: Land at Romney avenue, Folkestone CT20 3QJ	Contractor: Peter Baxter Associates Ltd	
Project No. : 1145	Crew Name: Site Serve Ltd	Drilling Equipment: Windowless Sampler

Borehole Number	Hole Type	Level	Logged By	Scale	Page Number
WS4	WLS	38.70m AoD	KB	1:50	Sheet 1 of 1

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
		Depth (m)	Type	Results				
		0.00	B					Dense brown slightly clayey SAND with limestone fragments
					0.75	37.95		
		1.40	D					Dense olive brown mottled orange brown silty SAND
		2.50	D					
					3.00	35.70		End of Borehole at 3.000m

Hole Diameter		Casing Diameter		Chiselling				Inclination and Orientation			
Depth Base	Diameter	Depth Base	Diameter	Depth Top	Depth Base	Duration	Tool	Depth Top	Depth Base	Inclination	Orientation

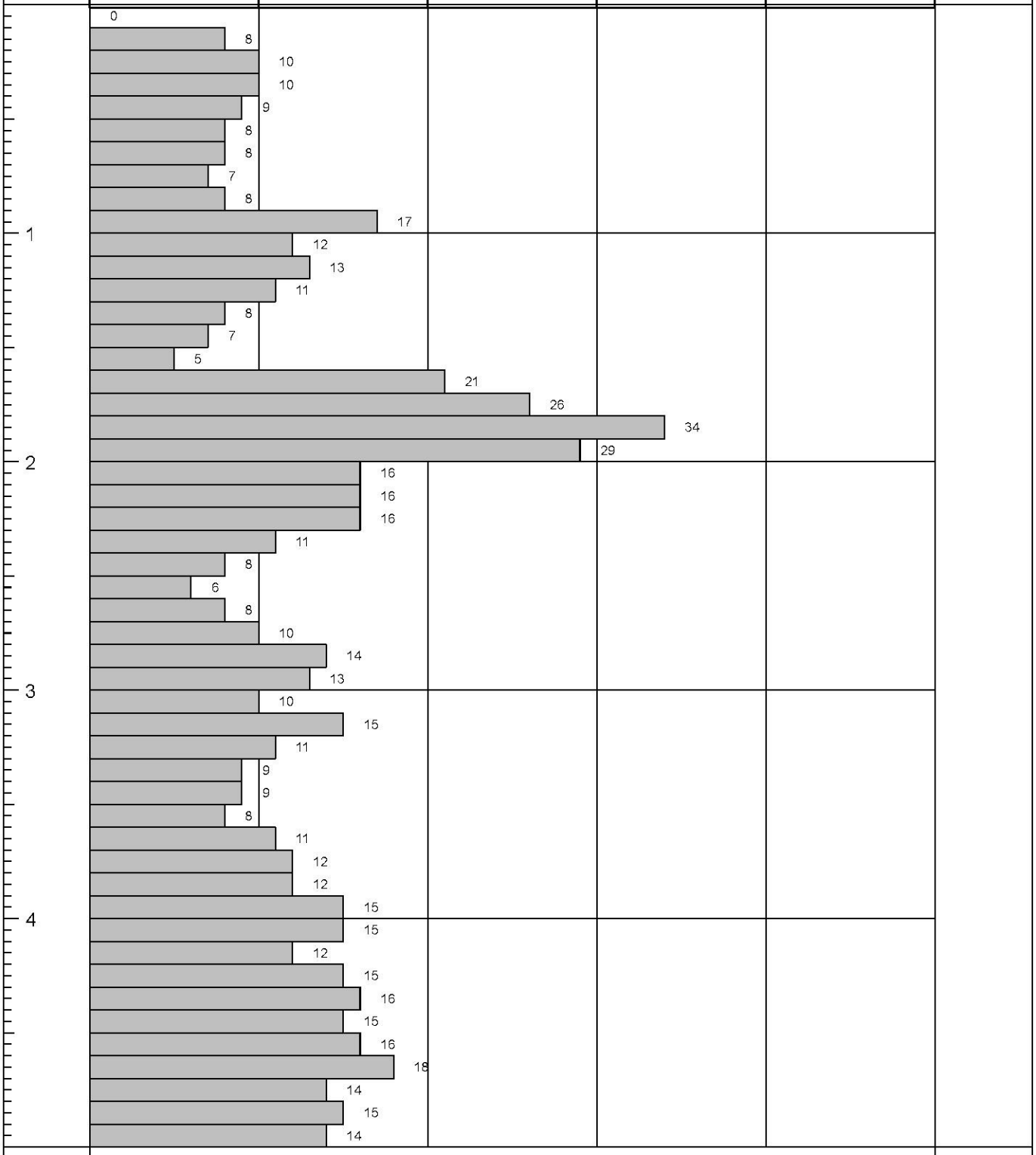
Remarks

APPENDIX B2
DPSH Plots

Probe Log

Probe No
DP-WS1
Sheet 1 of 2

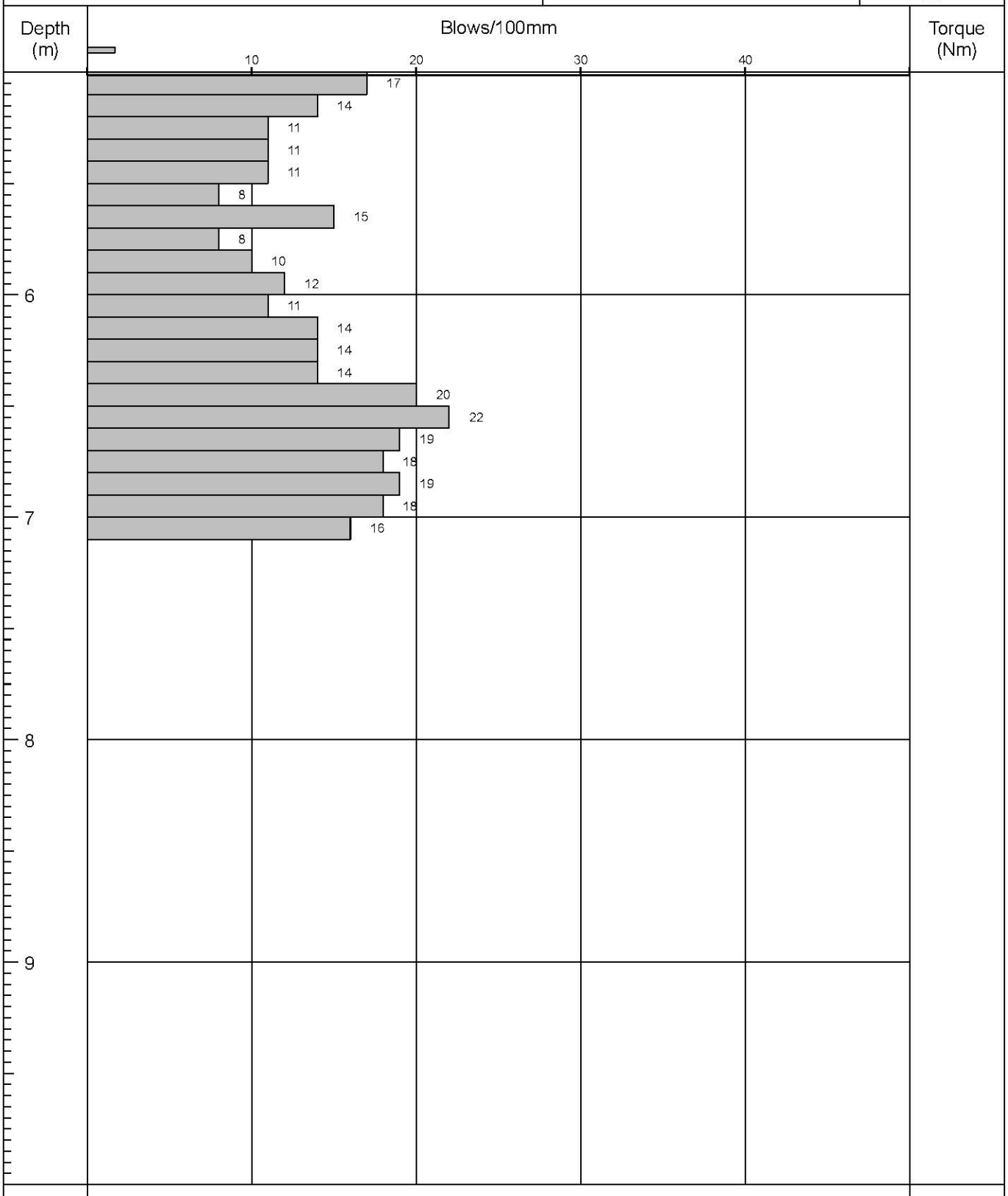
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 620638.55 - 136098.23	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 45.15	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 20/09/2018	Logged By KB



Remarks:	Fall Height 300	Cone Base Diameter	
	Hammer Wt 63	Final Depth 7.00	
	Probe Type DPH		

Probe Log

			Probe No DP-WS1 Sheet 2 of 2
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 620638.55 - 136098.23	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 45.15	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 20/09/2018	Logged By KB

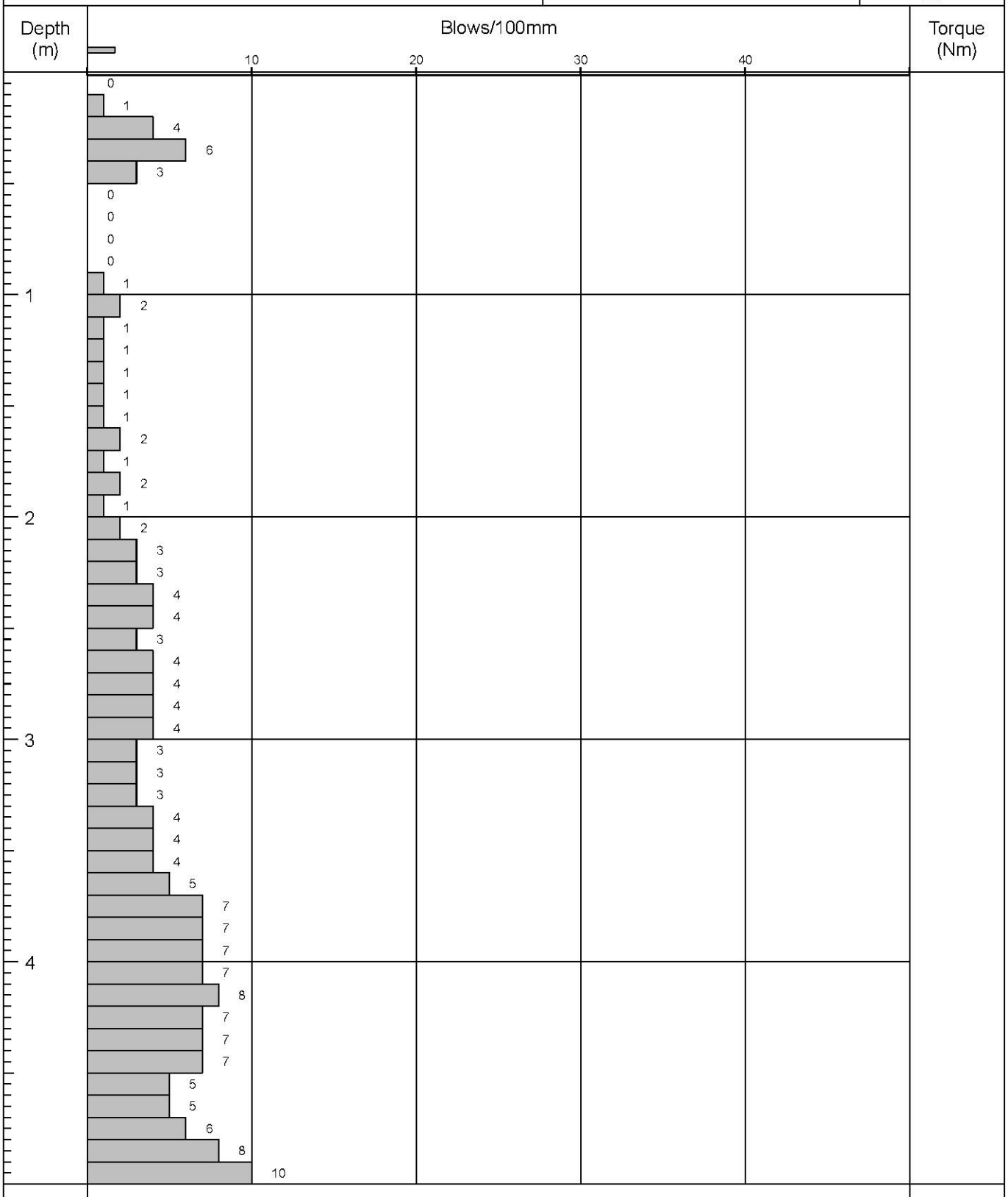


Remarks:	Fall Height	300	Cone Base Diameter	
	Hammer Wt	63	Final Depth	7.00
	Probe Type	DPH		

Probe Log

Probe No
DP-WS2
Sheet 1 of 2

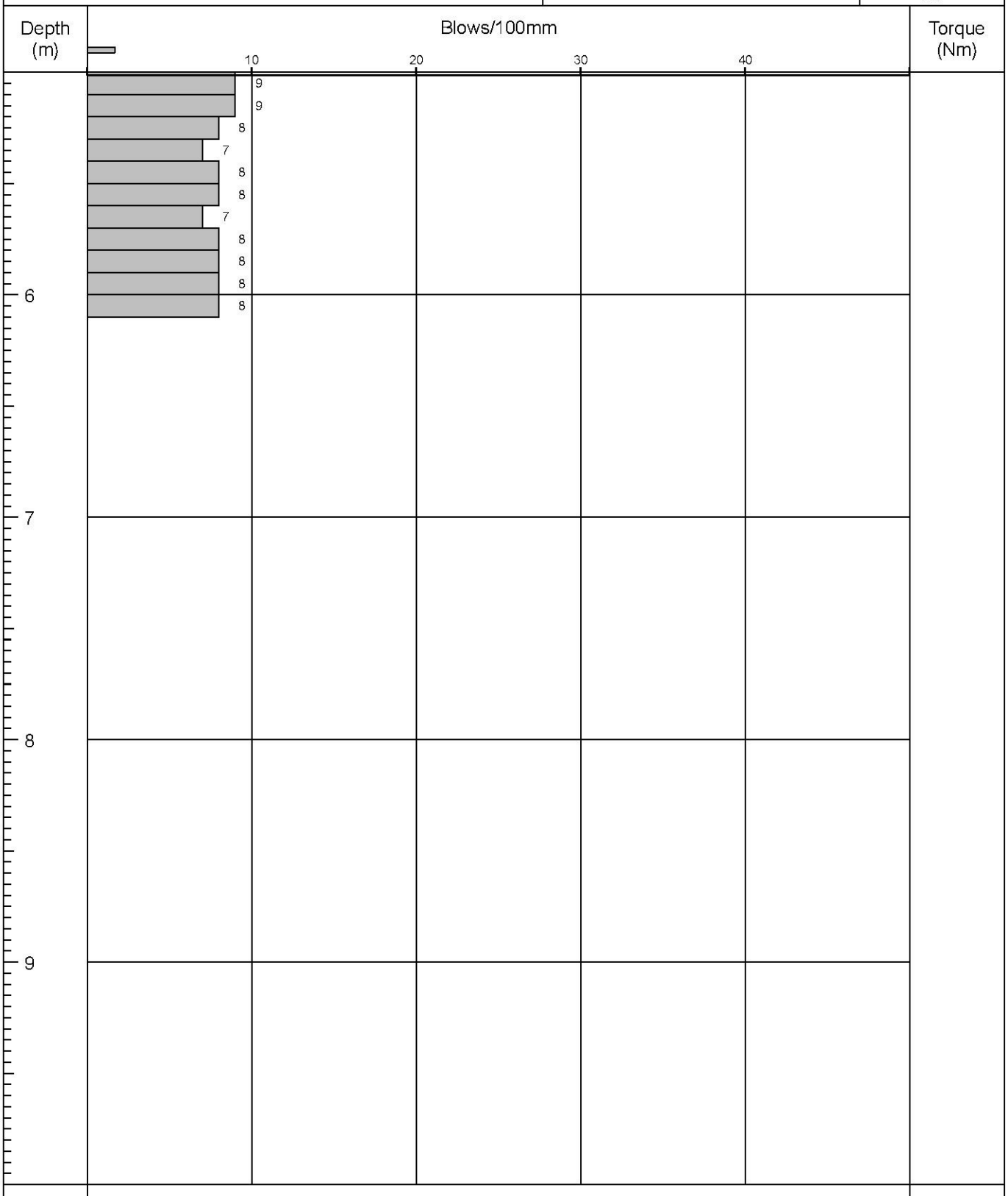
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 620590.92 - 136052.48	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 38.70	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 21/09/2018	Logged By KB



Remarks:	Fall Height	750	Cone Base Diameter
	Hammer Wt	63	Final Depth 6.00
	Probe Type	DPH	

Probe Log

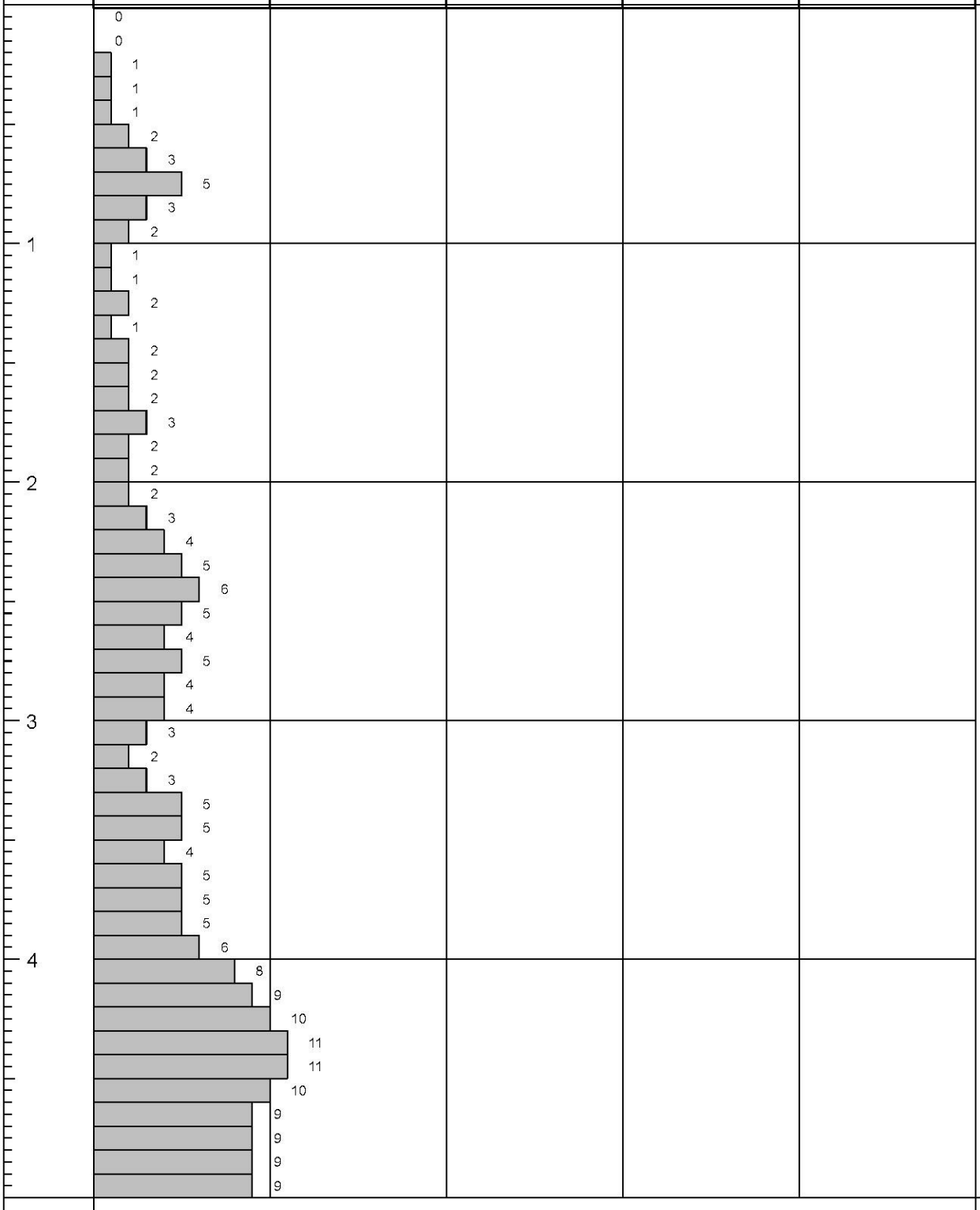
			Probe No DP-WS2 Sheet 2 of 2
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 620590.92 - 136052.48	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 38.70	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 21/09/2018	Logged By KB



Remarks:	Fall Height	750	Cone Base Diameter	
	Hammer Wt	63	Final Depth	6.00
	Probe Type	DPH		

Probe Log

			Probe No DP-WS3 Sheet 1 of 2
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 620594.99 - 136041.62	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 38.78	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 21/09/2018	Logged By KB

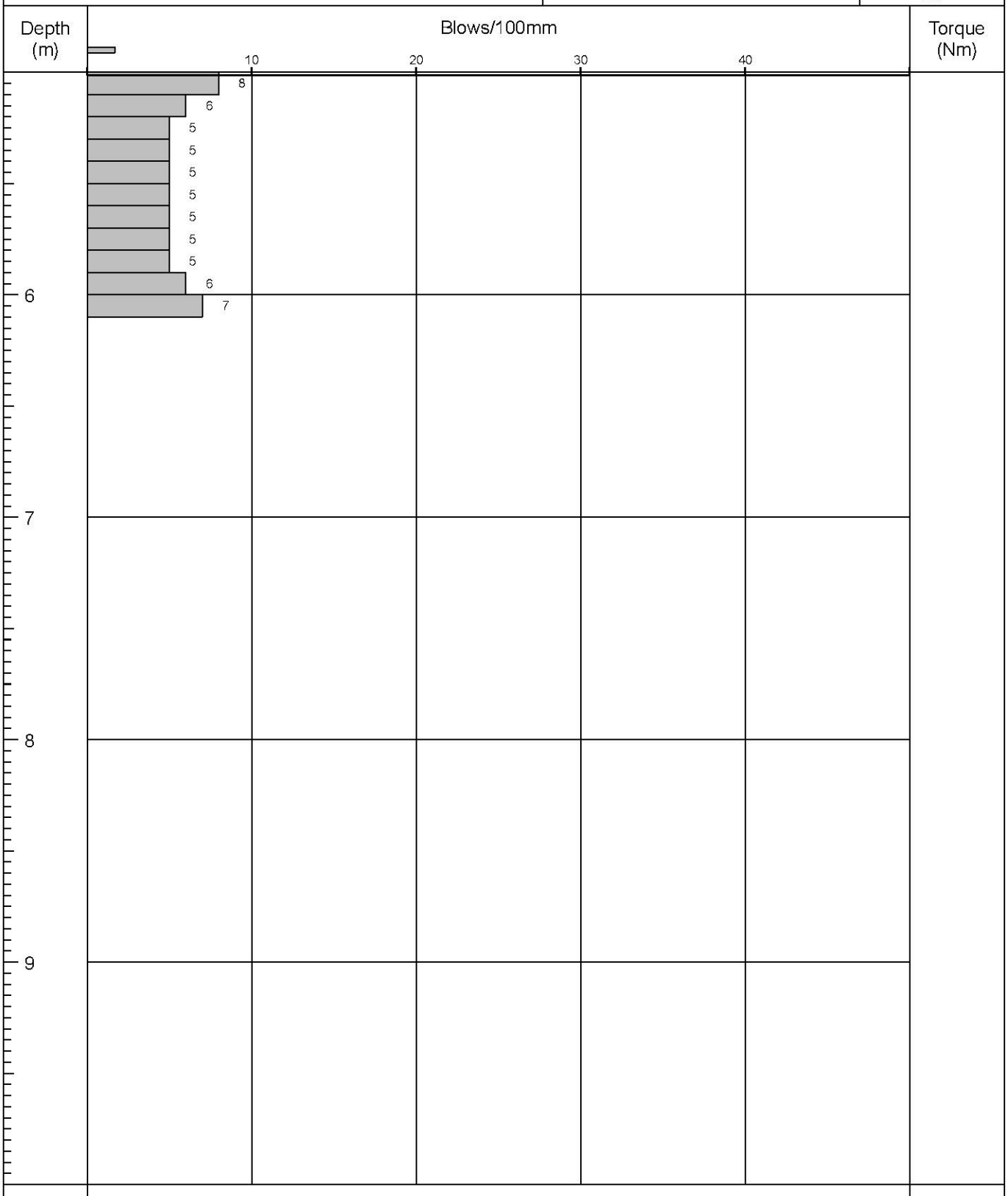


Remarks:	Fall Height 750	Cone Base Diameter	
	Hammer Wt 63	Final Depth 6.00	
	Probe Type DPH		

Probe Log

Probe No
DP-WS3
Sheet 2 of 2

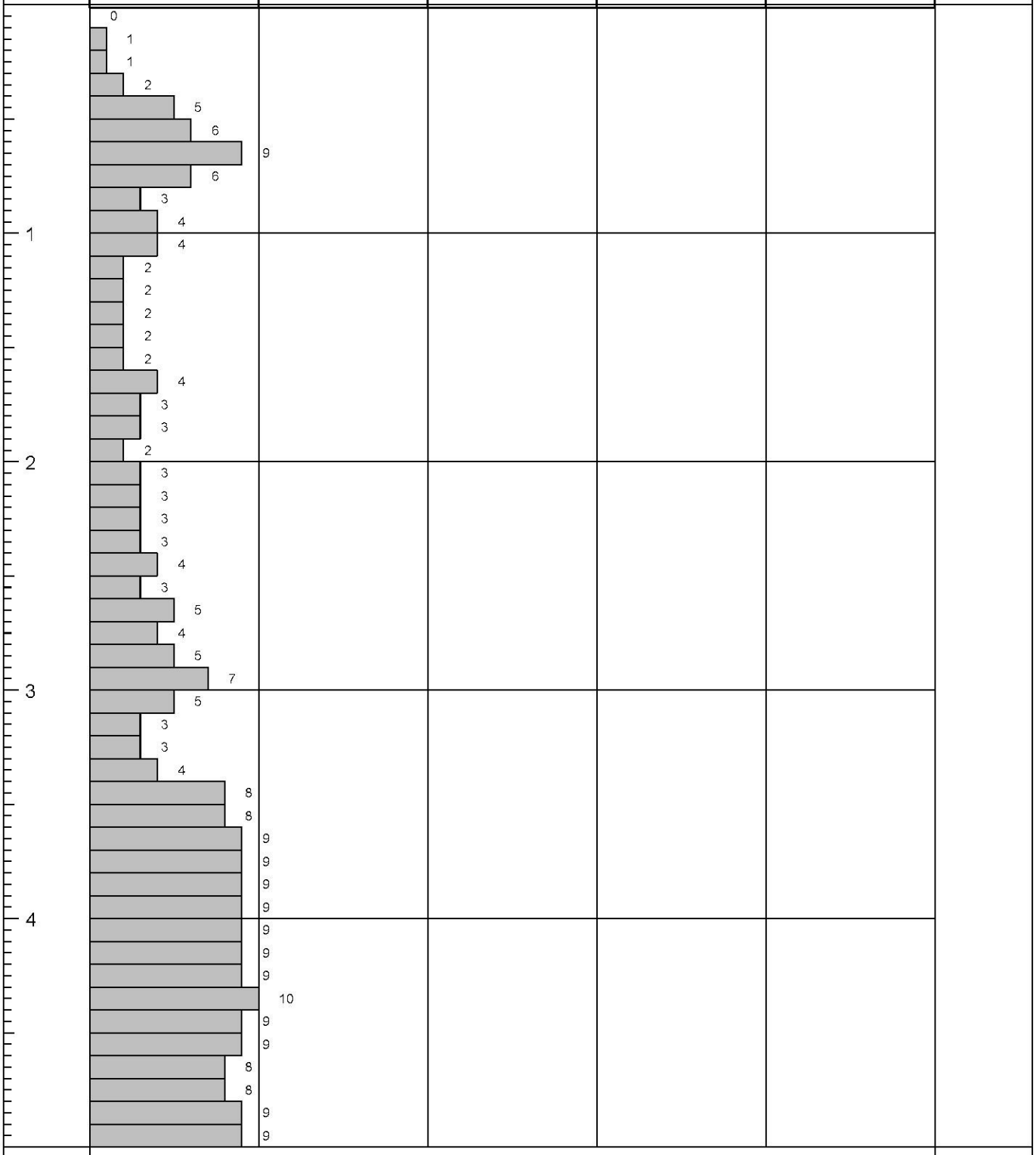
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 620594.99 - 136041.62	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 38.78	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 21/09/2018	Logged By KB



Remarks:	Fall Height	750	Cone Base Diameter	
	Hammer Wt	63	Final Depth	6.00
	Probe Type	DPH		

Probe Log

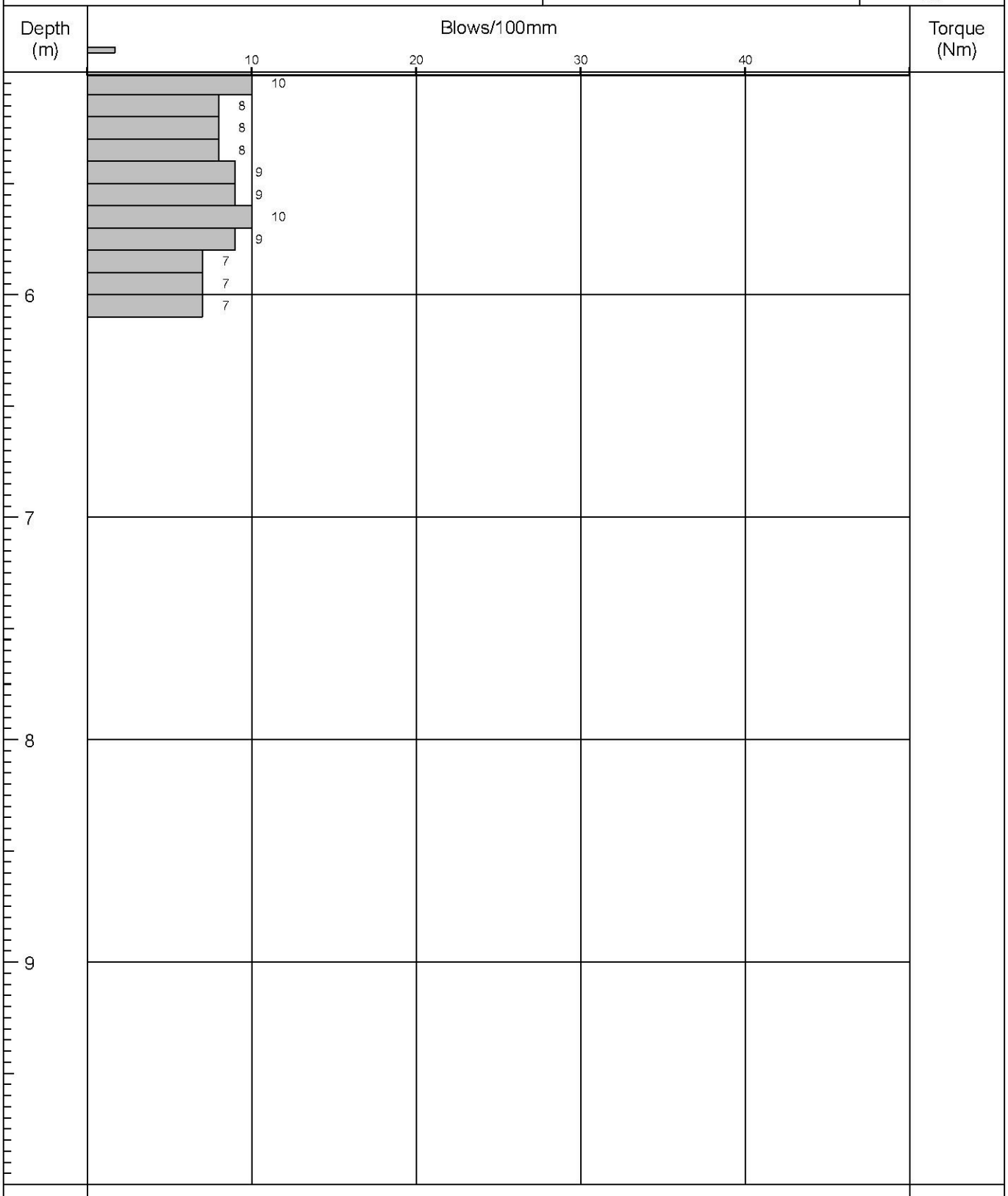
			Probe No DP-WS4 Sheet 1 of 2
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 602599.51 - 136025.40	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 38.93	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 21/09/2018	Logged By KB



Remarks:	Fall Height	750	Cone Base Diameter
	Hammer Wt	63	Final Depth 6.00
	Probe Type	DPH	

Probe Log

			Probe No DP-WS4 Sheet 2 of 2
Project Name: Folkestone Romney Avenue SI	Project No. 1145	Co-ords: 602599.51 - 136025.40	Hole Type DCP
Location: Land at Romney Avenue, Folkestone CT20 3QJ		Level: 38.93	Scale 1:25
Client: Village Homes Folkestone Ltd		Dates: 21/09/2018	Logged By KB



Remarks:	Fall Height	750	Cone Base Diameter	
	Hammer Wt	63	Final Depth	6.00
	Probe Type	DPH		

APPENDIX C
LABORATORY TEST REPORTS

APPENDIX C1

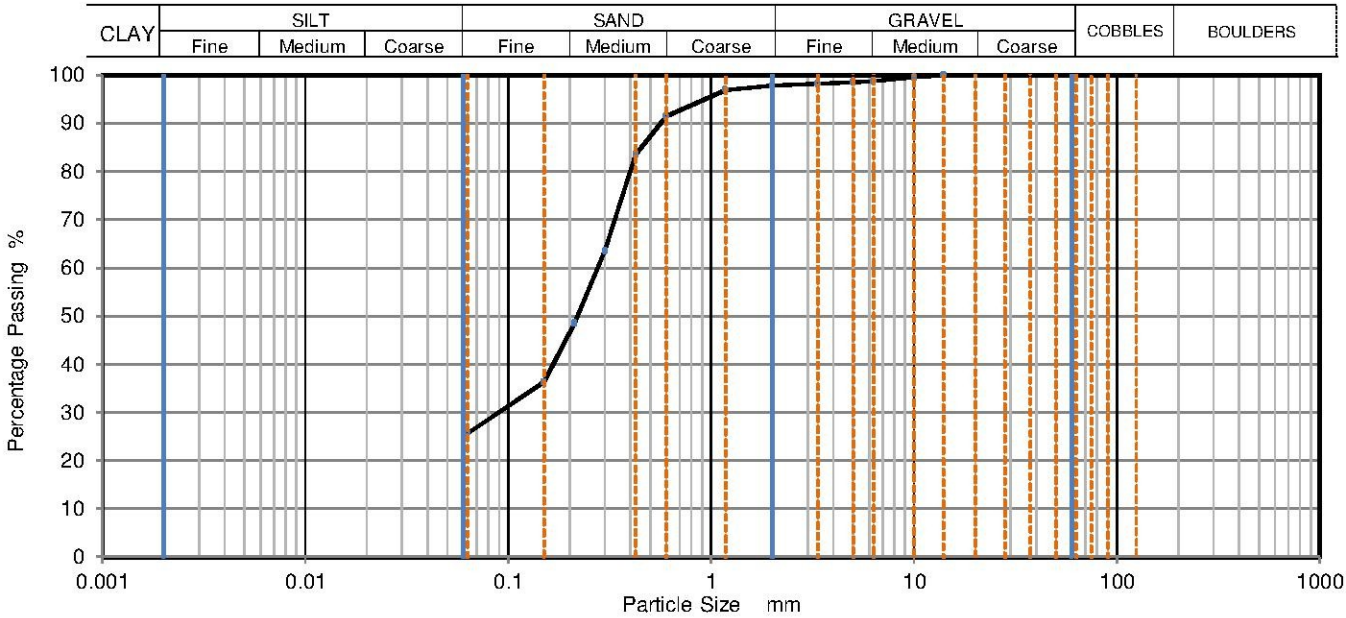
Particle Size Distribution Test Reports

Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	WS1
Site Name	Romney Avenue, Folkestone			Sample No.	3
Soil Description				Depth, m	3.30
Specimen Reference	2	Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	PBAL201810032



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
14	100		
10	100		
6.3	99		
5	99		
3.35	98		
2	98		
1.18	97		
0.6	91		
0.425	84		
0.3	64		
0.212	49		
0.15	36		
0.063	26		

Dry Mass of sample, g	448

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	2.2
Sand	72.2
Fines <0.063mm	26.0

Grading Analysis		
D100	mm	14
D60	mm	0.277
D30	mm	0.0902
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	Fig 1
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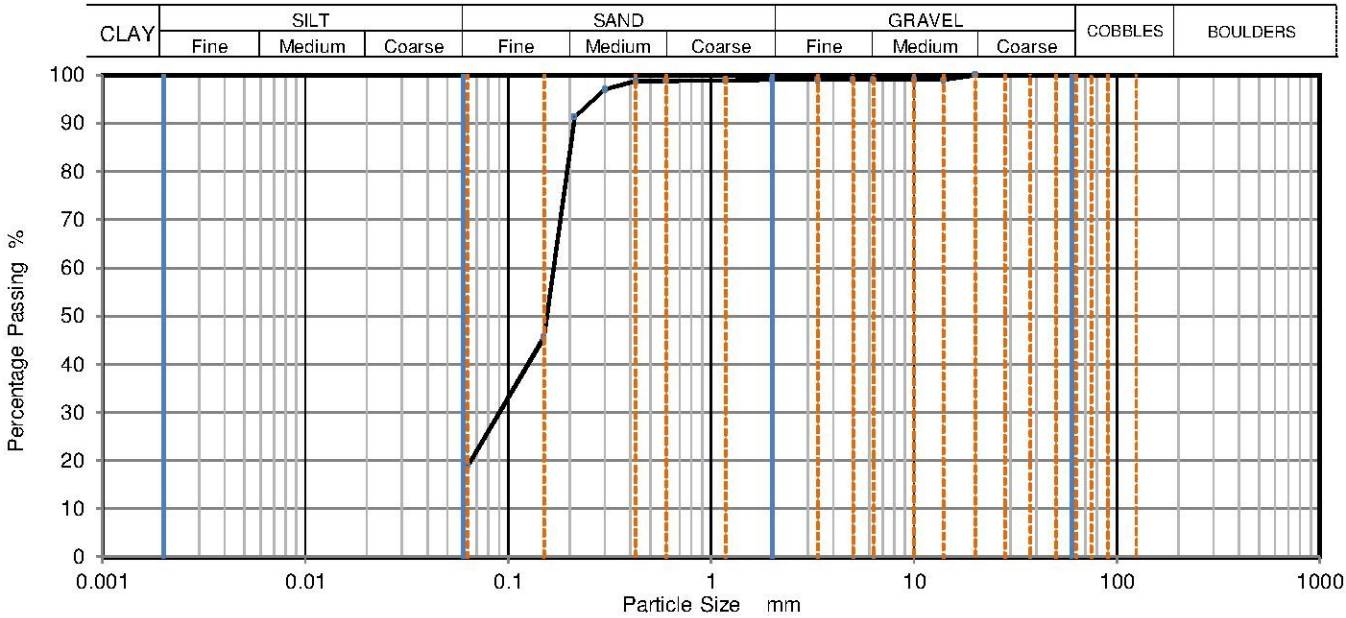
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	WS1
Site Name	Romney Avenue, Folkestone			Sample No.	4
Soil Description	Olive grey brown clayey silty SAND			Depth, m	4.00
Specimen Reference	3	Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	PBAL201810033



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
20	100		
14	99		
10	99		
6.3	99		
5	99		
3.35	99		
2	99		
1.18	99		
0.6	99		
0.425	99		
0.3	97		
0.212	91		
0.15	46		
0.063	19		

Dry Mass of sample, g	385

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	1.0
Sand	80.2
Fines <0.063mm	19.0

Grading Analysis		
D100	mm	20
D60	mm	0.167
D30	mm	0.0905
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

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Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
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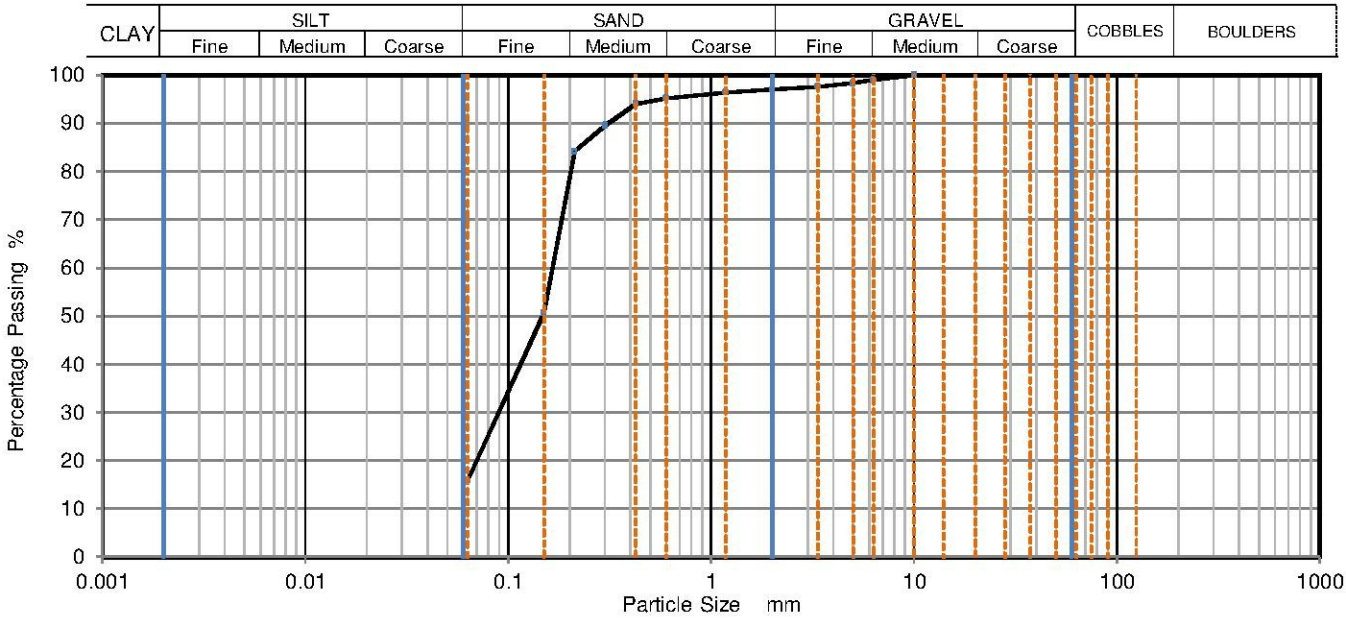
PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	BH1
Site Name	Romney Avenue, Folkestone			Sample No.	2
Soil Description	Grey silty SAND			Depth, m	1.50
Specimen Reference	2	Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	PBAL201810081



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
10	100		
6.3	99		
5	98		
3.35	98		
2	97		
1.18	96		
0.6	95		
0.425	94		
0.3	90		
0.212	84		
0.15	51		
0.063	16		

Dry Mass of sample, g	430

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	3.0
Sand	81.2
Fines <0.063mm	16.0

Grading Analysis		
D100	mm	10
D60	mm	0.165
D30	mm	0.0898
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

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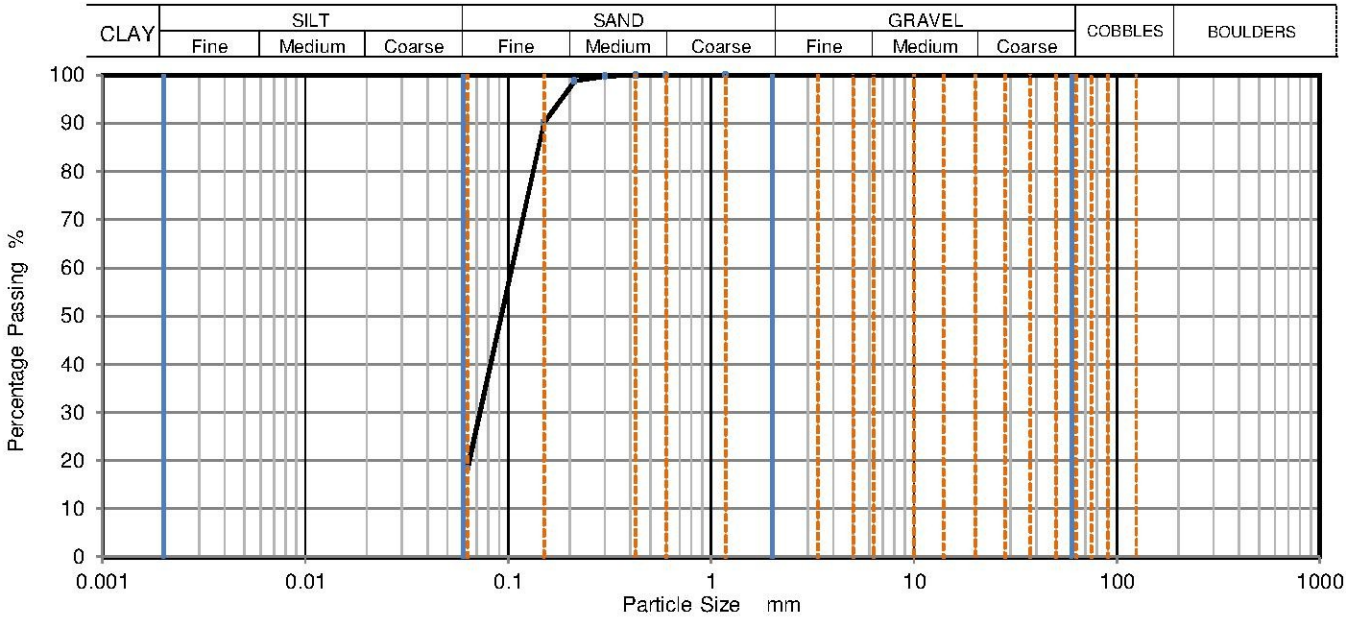
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	BH1
Site Name	Romney Avenue, Folkestone			Sample No.	14
Soil Description	Grey silty SAND			Depth, m	9.50
Specimen Reference	2	Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	PBAL2018100813



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
1.18	100		
0.6	100		
0.425	100		
0.3	100		
0.212	99		
0.15	90		
0.063	18		

Dry Mass of sample, g	149

Sample Proportions	% dry mass
Very coarse	-2146826273.0
Gravel	
Sand	
Fines <0.063mm	18.0

Grading Analysis		
D100	mm	1.18
D60	mm	0.104
D30	mm	0.0726
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

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Kent
ME8 6PL

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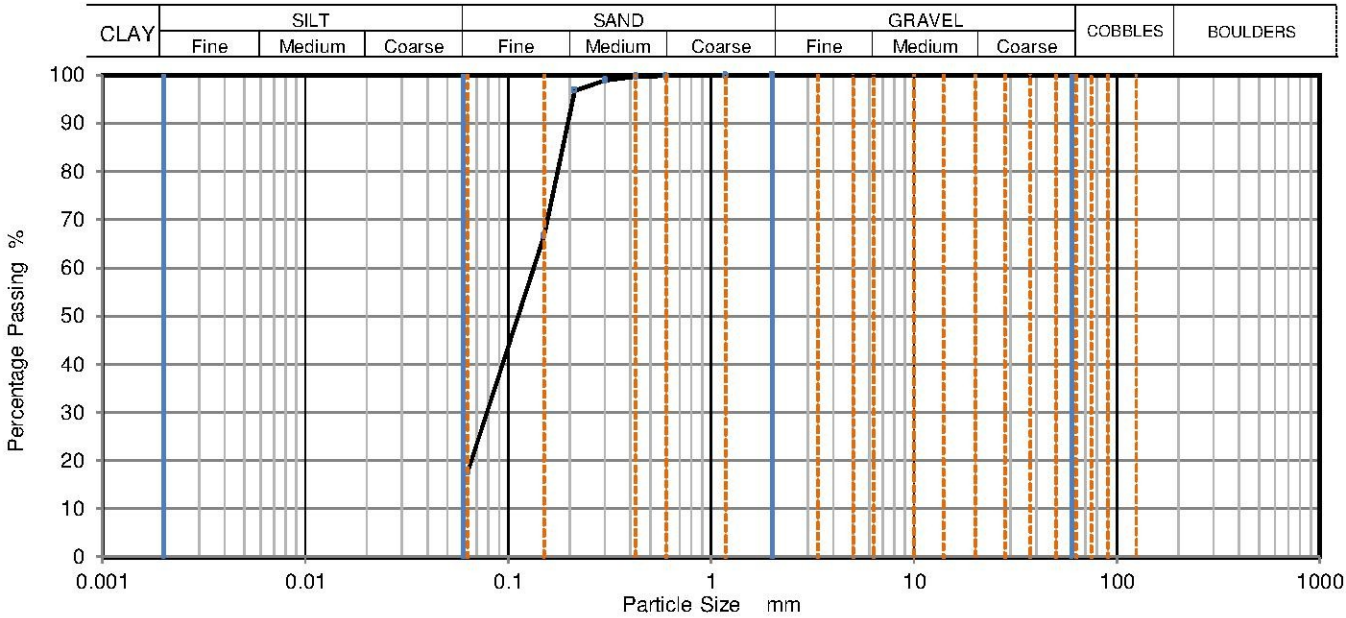
PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	BH1
Site Name	Romney Avenue, Folkestone			Sample No.	19
Soil Description	Grey silty SAND			Depth, m	15.00
Specimen Reference	2	Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clause 9.2			KeyLAB ID	PBAL2018100818



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
2	100		
1.18	100		
0.6	100		
0.425	100		
0.3	99		
0.212	97		
0.15	67		
0.063	18		

Dry Mass of sample, g: 796

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.0
Sand	82.5
Fines <0.063mm	18.0

Grading Analysis		
D100	mm	2
D60	mm	0.134
D30	mm	0.0786
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

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Operator	Checked	Approved	Sheet printed	Fig 1
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Gillingham
Kent
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www.peterbaxterassociates.co.uk
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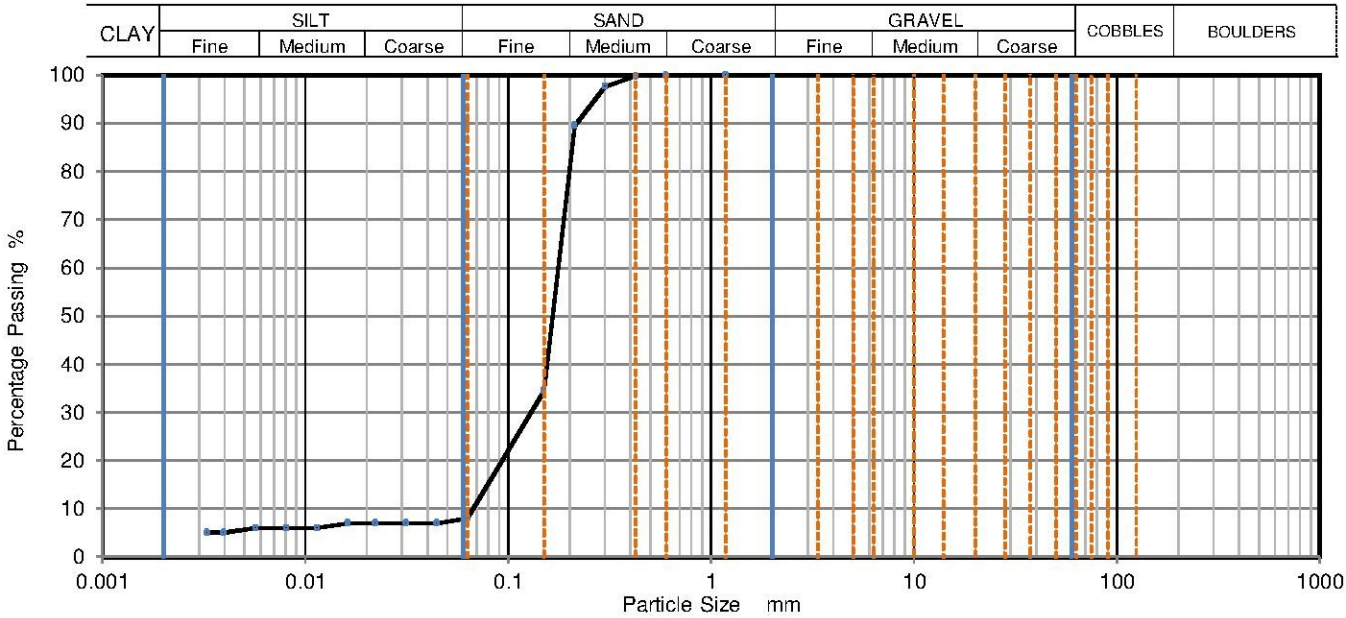
PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	WS4
Site Name	Romney Avenue, Folkestone			Sample No.	2
Soil Description	Grey brown clayey SAND			Depth, m	1.40
Specimen Reference	1	Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clauses 9.2 and 9.5			KeyLAB ID	PBAL2018101514



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
		0.0630	8
		0.0631	8
		0.0445	7
		0.0314	7
		0.0222	7
		0.0162	7
		0.0114	6
		0.0081	6
		0.0057	6
		0.0040	5
		0.0033	5
		0.0017	5
		0.0017	5
1.18	100		
0.6	100	Particle density	(assumed)
0.425	100	2.68	Mg/m3
0.3	98		
0.212	90		
0.15	35		
0.063	8		

Dry Mass of sample, g	331

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	
Sand	
Clay	-2146826273.0

Grading Analysis		
D100	mm	1.18
D60	mm	0.176
D30	mm	0.129
D10	mm	0.0677
Uniformity Coefficient		2.6
Curvature Coefficient		1.4

Remarks

Preparation and testing in accordance with BS1377 unless noted below

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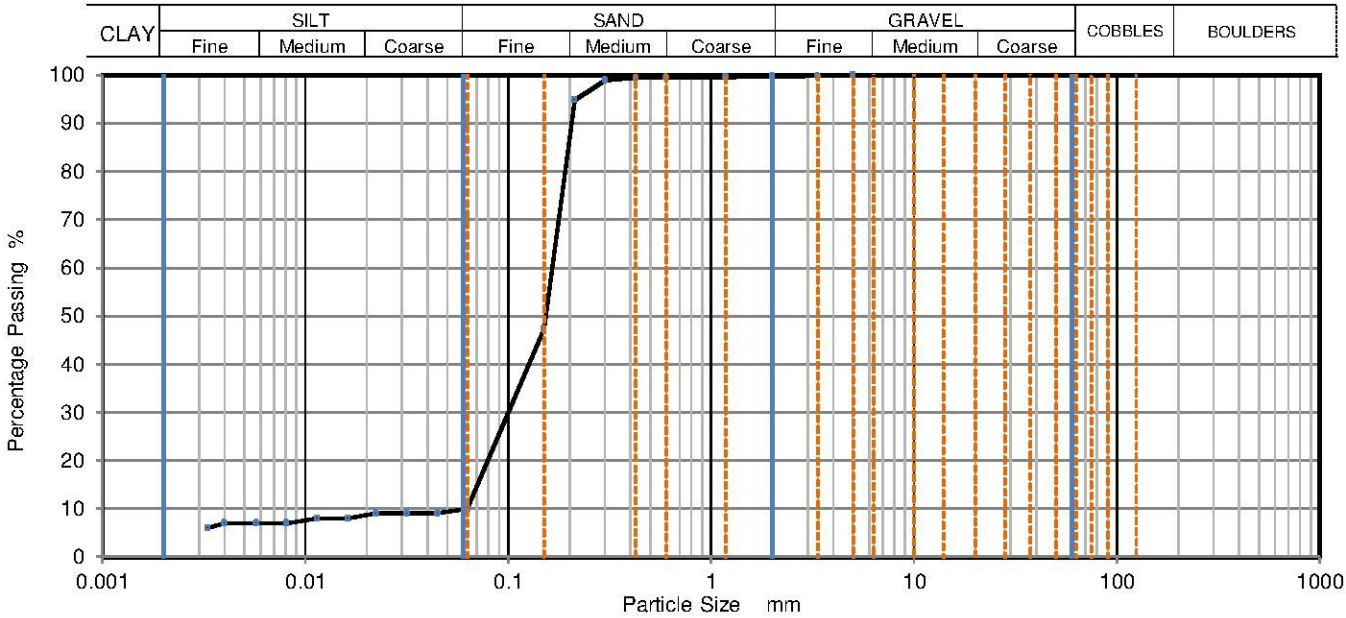
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	BH2
Site Name	Romney Avenue, Folkestone			Sample No.	2
Soil Description	Grey brown clayey SAND			Depth, m	1.50
Specimen Reference	1	Specimen Depth	m	Sample Type	B
Test Method	BS1377:Part 2:1990, clauses 9.2 and 9.5			KeyLAB ID	PBAL2018100829



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
		0.0630	10
		0.0635	10
		0.0448	9
		0.0316	9
		0.0223	9
		0.0162	8
		0.0114	8
		0.0081	7
		0.0057	7
		0.0040	7
		0.0033	6
5	100	0.0017	6
3.35	100	0.0017	6
2	100		
1.18	100		
0.6	100	Particle density (assumed)	
0.425	99	2.68 Mg/m3	
0.3	99		
0.212	95		
0.15	47		
0.063	10		

Dry Mass of sample, g	199

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.3
Sand	89.6
Silt	4.1
Clay	6.0

Grading Analysis		
D100	mm	5
D60	mm	0.165
D30	mm	0.101
D10	mm	0.0633
Uniformity Coefficient		2.6
Curvature Coefficient		0.98

Remarks

Preparation and testing in accordance with BS1377 unless noted below

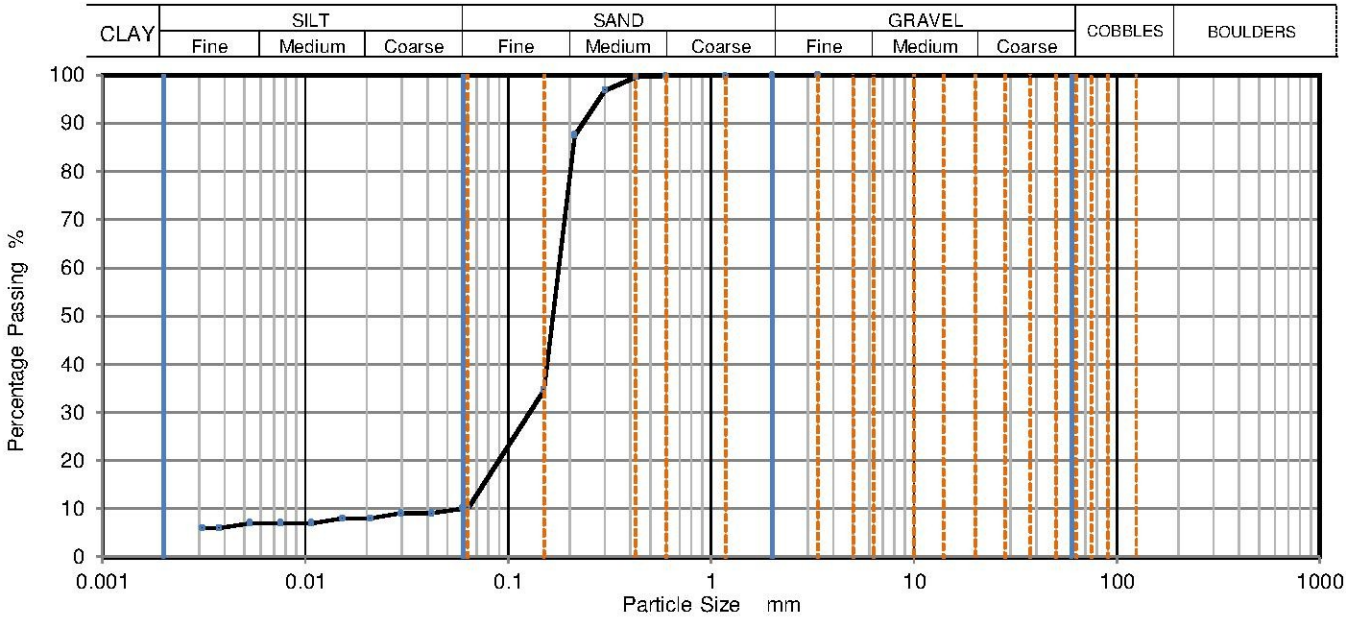
Operator	Checked	Approved	Sheet printed	Fig 1
LI/FN/KB	LI/FN/KB	KB/PB	19/10/2018 13:45	Sheet

Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	WS3
Site Name	Romney Avenue, Folkestone			Sample No.	2
Soil Description	Grey brown clayey SAND			Depth, m	1.50
Specimen Reference	1	Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clauses 9.2 and 9.5			KeyLAB ID	PBAL2018101511



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
		0.0630	10
		0.0594	10
		0.0419	9
		0.0296	9
		0.0209	8
		0.0152	8
		0.0107	7
		0.0076	7
		0.0053	7
		0.0038	6
		0.0031	6
		0.0016	6
3.35	100	0.0016	6
2	100		
1.18	100		
0.6	100	Particle density (assumed)	
0.425	100	2.68 Mg/m3	
0.3	97		
0.212	88		
0.15	35		
0.063	10		

Dry Mass of sample, g: 265

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.1
Sand	89.9
Silt	4.0
Clay	6.0

Grading Analysis		
D100	mm	3.35
D60	mm	0.177
D30	mm	0.127
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	Fig 1
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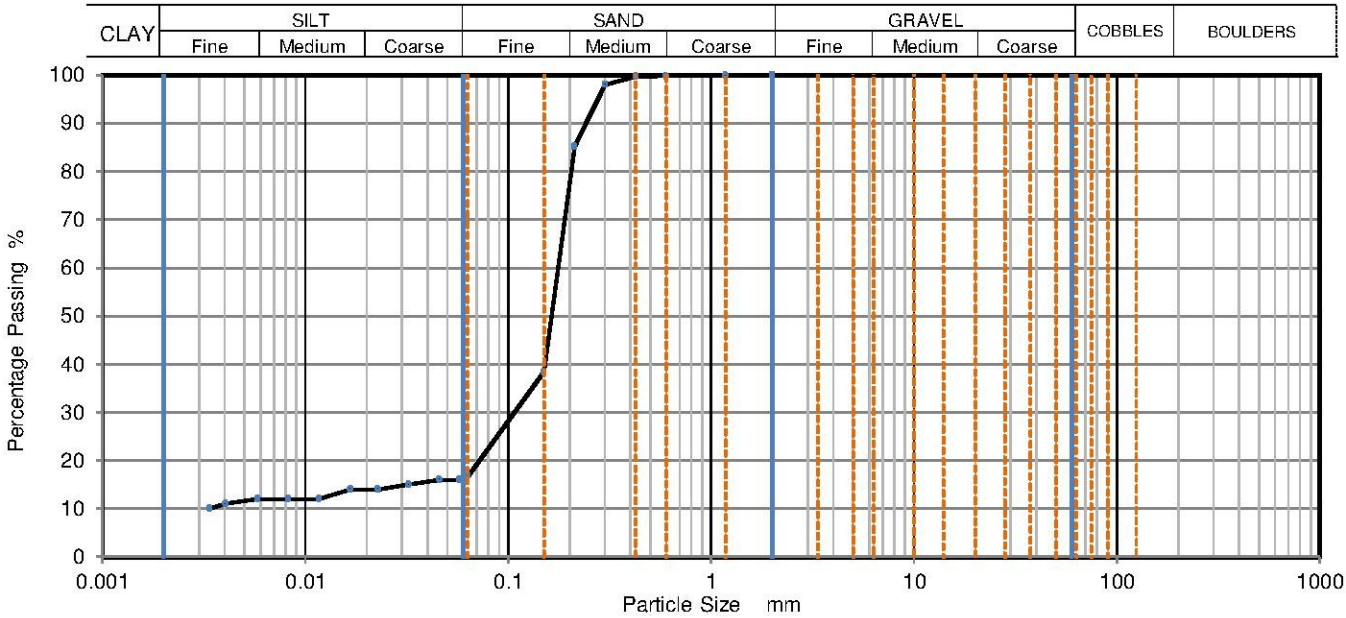
Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

PARTICLE SIZE DISTRIBUTION

	PARTICLE SIZE DISTRIBUTION			Job Ref	1145
				Borehole/Pit No.	WS1
Site Name	Romney Avenue, Folkestone			Sample No.	4
Soil Description	Olive grey brown clayey silty SAND			Depth, m	4.00
Specimen Reference	3	Specimen Depth	m	Sample Type	D
Test Method	BS1377:Part 2:1990, clauses 9.2 and 9.5			KeyLAB ID	PBAL201810033



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
		0.0630	17
		0.0571	16
		0.0459	16
		0.0323	15
		0.0228	14
		0.0166	14
		0.0117	12
		0.0082	12
		0.0058	12
		0.0040	11
		0.0034	10
		0.0017	10
		0.0017	10
2	100		
1.18	100		
0.6	100	Particle density (assumed)	
0.425	100	2.68	Mg/m3
0.3	98		
0.212	85		
0.15	38		
0.063	17		

Dry Mass of sample, g: 221

Sample Proportions	% dry mass
Very coarse	0.0
Gravel	0.0
Sand	83.3
Silt	6.5
Clay	10.2

Grading Analysis		
D100	mm	2
D60	mm	0.176
D30	mm	0.107
D10	mm	
Uniformity Coefficient		
Curvature Coefficient		

Remarks

Preparation and testing in accordance with BS1377 unless noted below

Operator	Checked	Approved	Sheet printed	Fig 1
LI/FN/KB	LI/FN/KB	KB/PB	19/10/2018 13:45	Sheet

APPENDIX C2
Atterberg Limits Test Reports

Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

Summary of Classification Test Results

Project No.: 1145

Project Name: Romney Avenue, Folkestone

Hole No.	Sample Ref	Sample Top	Sample Base	Sample Type	Soil Description	Density bulk Mg/m3	Density dry Mg/m3	w %	Pass 425µm %	LL %	PL %	PI %	Particle density Mg/m3	Remarks
BH2	1	1.20		D	Grey brown sandy CLAY with occasional brick fragments & rootlets			24.0		34 -1pt	21	13		
BH2	9	5.00		D	Grey sandy CLAY			30.0		35 -1pt	21	14		
BH1	11	7.00		D	Grey sandy CLAY			25.0		35 -1pt	15	20		
BH2	13	9.00		D	Grey slightly sandy CLAY			22.0		53 -1pt	17	36		
BH2	19	15.00		D	Grey slightly clayey SAND			31.0						

All tests performed in accordance with BS1377:1990 unless specified otherwise

Key

Density test
Linear measurement unless :
wd - water displacement
wi - immersion in water

Liquid Limit
4pt cone unless :
cas - Casagrande method
1pt - single point test

Particle density
sp - small pyknometer
gj - gas jar

Date Printed: 19/10/2018

Approved By:

Table 1

sheet 1

Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

Summary of Classification Test Results

Project No.: 1145

Project Name: Romney Avenue, Folkestone

Hole No.	Sample Ref	Top	Base	Type	Soil Description	Density bulk Mg/m3	Density dry Mg/m3	w %	Pass 425µm %	LL %	PL %	PI %	Particle density Mg/m3	Remarks
WS1	1	0.50	0.70	D	Brown slightly gravelly very sandy CLAY			7.9		18 -1pt	12	6		
WS1	2	1.50	1.70	D	Olive brown sandy CLAY with limestone fragments			8.4		33 -1pt	15	18		
WS1	5	5.50	5.70	D	Orange brown slightly sandy CLAY			21.0		41 -1pt	19	22		

All tests performed in accordance with BS1377:1990 unless specified otherwise

Key

Density test
Linear measurement unless :
wd - water displacement
wi - immersion in water

Liquid Limit
4pt cone unless :
cas - Casagrande method
1pt - single point test

Particle density
sp - small pyknometer
gj - gas jar

Date Printed: 19/10/2018

Approved By:

Table 1

sheet 1

Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

Summary of Classification Test Results

Project No.: 1145

Project Name: Romney Avenue, Folkestone

Hole No.	Sample Ref	Sample Top	Sample Base	Sample Type	Soil Description	Density bulk Mg/m3	Density dry Mg/m3	w %	Pass 425µm %	LL %	PL %	PI %	Particle density Mg/m3	Remarks
WS3	1	0.70		D	Brown slightly sandy CLAY with rootlets			12.0		39 -1pt	14	25		

All tests performed in accordance with BS1377:1990 unless specified otherwise

Key

Density test
Linear measurement unless :
wd - water displacement
wi - immersion in water

Liquid Limit
4pt cone unless :
cas - Casagrande method
1pt - single point test

Particle density
sp - small pyknometer
gj - gas jar

Date Printed: 19/10/2018

Approved By:

Table 1

sheet 1

APPENDIX C3
Sulphate and pH Test Report

Peter Baxter Associates Laboratories
A subsidiary of Peter Baxter Associates
Kestner Works
Bredgar Road
Gillingham
Kent
ME8 6PL

www.peterbaxterassociates.co.uk
E info@peterbaxterassociates.co.uk
T +44 (0) 1634 234332 / 717974

Summary of Geotechnical Chemical Test Results

Project No.: 1145

Project Name: Romney Avenue, Folkestone

Hole No.	Sample Ref	Top	Base	Type	Soil Description	Org %	LOI %	pH	Sulphate as SO_4 Total acid sol. %	Sulphate as SO_4 2:1 water :soil g/l	Sulphate as SO_4 ground water g/l	Chloride, Cl water sol. %	Chloride, Cl acid sol. %	CO_2 %	TDS mg/l	<2mm %	Remarks
WS1	1	0.50	0.70	D	Brown slightly gravelly very sandy CLAY			7.0		0.15						97	
BH1	3	2.00		D	Brown sandy CLAY		1.4	7.3		0.03							
WS1	4	4.00	5.00	D	Olive grey brown clayey silty SAND			7.6		0.10							
WS1	4	4.00	5.00	D	Olive grey brown clayey silty SAND												
BH2	9	5.00		D	Grey sandy CLAY			7.2		0.05							
BH1	13	9.00		D				7.0		0.38							
BH2	15	11.00		D			1.2	7.0		0.50						99	
BH2	19	15.00		D	Grey slightly clayey SAND					0.45							

Key

Tests performed in accordance with BS 1377 unless annotated otherwise

Org Organic matter content
LOI Mass loss on ignition at 440°C
Cl Chloride content
CO_2 Carbonate content (rapid titration)
TDS Total Dissolved Solids

Date Printed: 24/10/2018

Approved By:

Table 1 sheet 1

APPENDIX C4
Loss on Ignition Test Report

Loss On Ignition - Summary of Results

Project No.	Project Name
1145	Romney Avenue, Folkestone

Hole No.	Sample				Spec Ref.	Visual description	Loss on Ignition %	Remarks
	Ref	Top	Base	Type				
BH2	3	2.00		D	2		2.4	
BH1	3	2.00		D	4		1.4	
BH2	15	11.00		D	4		1.2	

Key

Tested in accordance with BS1377 : Part 3 : 1990, clause 4 unless annotated otherwise.

Approved By

KB/PB

Table 1

sheet 1

Loss On Ignition - Summary of Results

Project No.	Project Name
1145	Romney Avenue, Folkestone

Hole No.	Sample				Spec Ref.	Visual description	Loss on Ignition %	Remarks
	Ref	Top	Base	Type				
WS3	1	0.70		D	3		2	
WS1	2	1.50	1.70	D	5		1.9	

Key	Approved By	Table
Tested in accordance with BS1377 : Part 3 : 1990, clause 4 unless annotated otherwise.	KB/PB	1
		sheet 1

APPENDIX C5
Contamination Test Reports

Peter Baxter
Peter Baxter Associates Ltd
Beaufort House
Sir Thomas Longley Road
Medway City Estate
Rochester
Kent
ME2 4FB

DETS Ltd
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410
russell.jarvis@dets.co.uk

DETS Report No: 18-83510

Site Reference:	Romney Avenue, Folkstone, CT20 3QJ
Project / Job Ref:	1145
Order No:	QMS000021
Sample Receipt Date:	11/10/2018
Sample Scheduled Date:	12/10/2018
Report Issue Number:	1
Reporting Date:	18/10/2018

Authorised by:

[redacted]

Russell Jarvis
Associate Director of Client Services

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate						
DETS Report No: 18-83510	**Date Sampled**	21/09/18	21/09/18	21/09/18		
Peter Baxter Associates Ltd	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Romney Avenue, Folkstone, CT20 3QJ	**TP / BH No**	WS1	BH1	BH2		
Project / Job Ref: 1145	**Additional Refs**	None Supplied	None Supplied	None Supplied		
Order No: QMS000021	**Depth (m)**	0.50	1.50	1.50		
Reporting Date: 18/10/2018	**DETS Sample No**	365770	365771	365772		

Determinand	Unit	RL	Accreditation					
Asbestos Screen (S)	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected		
Arsenic (As)	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Barium (Ba)	mg/kg	< 5	NONE	29	11	21		
Beryllium (Be)	mg/kg	< 0.5	NONE	0.6	< 0.5	< 0.5		
W/S Boron	mg/kg	< 1	NONE	< 1	< 1	< 1		
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2		
Chromium (Cr)	mg/kg	< 2	MCERTS	18	10	13		
Copper (Cu)	mg/kg	< 4	MCERTS	< 4	< 4	4		
Lead (Pb)	mg/kg	< 3	MCERTS	4	6	10		
Mercury (Hg)	mg/kg	< 1	NONE	< 1	< 1	< 1		
Nickel (Ni)	mg/kg	< 3	MCERTS	18	4	10		
Selenium (Se)	mg/kg	< 3	NONE	< 3	< 3	< 3		
Vanadium (V)	mg/kg	< 2	NONE	25	14	18		
Zinc (Zn)	mg/kg	< 3	MCERTS	31	13	26		

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

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 18-83510	**Date Sampled**	21/09/18	21/09/18	21/09/18		
Peter Baxter Associates Ltd	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Romney Avenue, Folkstone, CT20 3QJ	**TP / BH No**	WS1	BH1	BH2		
Project / Job Ref: 1145	**Additional Refs**	None Supplied	None Supplied	None Supplied		
Order No: QMS000021	**Depth (m)**	0.50	1.50	1.50		
Reporting Date: 18/10/2018	**DETS Sample No**	365770	365771	365772		

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	0.14	0.16	0.22		
Pyrene	mg/kg	< 0.1	MCERTS	0.12	0.12	0.19		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.27		
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	0.20	< 0.1	0.28		
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	0.19		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	0.39		
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	0.20		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	1.7		

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

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate - TPH CWG Banded						
DETS Report No: 18-83510	**Date Sampled**	21/09/18	21/09/18	21/09/18		
Peter Baxter Associates Ltd	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Romney Avenue, Folkstone, CT20 3QJ	**TP / BH No**	WS1	BH1	BH2		
Project / Job Ref: 1145	**Additional Refs**	None Supplied	None Supplied	None Supplied		
Order No: QMS000021	**Depth (m)**	0.50	1.50	1.50		
Reporting Date: 18/10/2018	**DETS Sample No**	365770	365771	365772		

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aliphatic >C6 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aliphatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C12 - C16	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C21 - C34	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aliphatic (C5 - C34)	mg/kg	< 21	NONE	< 21	< 21	< 21		
Aromatic >C5 - C7	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aromatic >C7 - C8	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aromatic >C8 - C10	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C10 - C12	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C12 - C16	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C16 - C21	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aromatic >C21 - C35	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aromatic (C5 - C35)	mg/kg	< 21	NONE	< 21	< 21	< 21		
Total >C5 - C35	mg/kg	< 42	NONE	< 42	< 42	< 42		

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

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 18-83510	**Date Sampled**	21/09/18	21/09/18	21/09/18		
Peter Baxter Associates Ltd	**Time Sampled**	None Supplied	None Supplied	None Supplied		
Site Reference: Romney Avenue, Folkstone, CT20 3QJ	**TP / BH No**	WS1	BH1	BH2		
Project / Job Ref: 1145	**Additional Refs**	None Supplied	None Supplied	None Supplied		
Order No: QMS000021	**Depth (m)**	0.50	1.50	1.50		
Reporting Date: 18/10/2018	**DETS Sample No**	365770	365771	365772		

Determinand	Unit	RL	Accreditation					
Benzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
Toluene	ug/kg	< 5	MCERTS	< 5	< 5	< 5		
Ethylbenzene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
p & m-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
o-xylene	ug/kg	< 2	MCERTS	< 2	< 2	< 2		
MTBE	ug/kg	< 5	MCERTS	< 5	< 5	< 5		

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

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Waste Acceptance Criteria Analytical Certificate - BS EN 12457/3

					Landfill Waste Acceptance Criteria Limits		
DETS Report No: 18-83510		**Date Sampled**	21/09/18		**Inert Waste Landfill**	**Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill**	**Hazardous Waste Landfill**
Peter Baxter Associates Ltd		**Time Sampled**	None Supplied				
Site Reference: Romney Avenue, Folkstone, CT20 3QJ		**TP / BH No**	BH1				
Project / Job Ref: 1145		**Additional Refs**	None Supplied				
Order No: QMS000021		**Depth (m)**	1.50				
Reporting Date: 18/10/2018		**DETS Sample No**	365771				
Determinand	**Unit**	**MDL**					
TOC[MU]	%	< 0.1	0.4		3%	5%	6%
Loss on Ignition	%	< 0.01	0.90		--	--	10%
BTEX[MU]	mg/kg	< 0.05	< 0.05		6	--	--
Sum of PCBs	mg/kg	< 0.1	< 0.1		1	--	--
Mineral Oil[MU]	mg/kg	< 10	< 10		500	--	--
Total PAH[MU]	mg/kg	< 1.7	< 1.7		100	--	--
pH[MU]	pH Units	N/a	7.8		--	>6	--
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1		--	To be evaluated	To be evaluated

Eluate Analysis	**2:1 mg/l**	**8:1 mg/l**		**Cumulative 10:1 mg/kg**	**Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg (mg/kg)**		
Arsenic[U]	< 0.01	< 0.01		< 0.2	0.5	2	25
Barium[U]	0.04	< 0.02		0.2	20	100	300
Cadmium[U]	< 0.0005	< 0.0005		< 0.02	0.04	1	5
Chromium[U]	< 0.005	< 0.005		< 0.20	0.5	10	70
Copper[U]	< 0.01	< 0.01		< 0.5	2	50	100
Mercury[U]	< 0.005	< 0.005		< 0.01	0.01	0.2	2
Molybdenum[U]	0.005	0.002		< 0.1	0.5	10	30
Nickel[U]	< 0.007	< 0.007		< 0.2	0.4	10	40
Lead[U]	< 0.005	< 0.005		< 0.2	0.5	10	50
Antimony[U]	< 0.005	< 0.005		< 0.06	0.06	0.7	5
Selenium[U]	< 0.005	< 0.005		< 0.1	0.1	0.5	7
Zinc[U]	0.007	< 0.005		< 0.2	4	50	200
Chloride[U]	9	1		21	800	15000	25000
Fluoride[U]	0.7	0.5		5.2	10	150	500
Sulphate[U]	658	100		1575	**1000**	20000	50000
TDS	630	147		1967	4000	60000	100000
Phenol Index	< 0.01	< 0.01		< 0.5	1	-	-
DOC	6.5	6.1		61.6	500	800	1000
Leach Test Information							
Sample Mass (kg)	0.22						
Dry Matter (%)	81.2						
Moisture (%)	23.2						
Stage 1							
Volume Eluate L2 (litres)	0.31						
Filtered Eluate VE1 (litres)	0.18						

Results are expressed on a dry weight basis, after correction for moisture content where applicable
Stated limits are for guidance only and QTS Environmental cannot be held responsible for any discrepencies with current legislation
M Denotes MCERTS accredited test
U Denotes ISO17025 accredited test

DETS Ltd
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

4480

Soil Analysis Certificate - Sample Descriptions	
DETS Report No: 18-83510	
Peter Baxter Associates Ltd	
Site Reference: Romney Avenue, Folkstone, CT20 3QJ	
Project / Job Ref: 1145	
Order No: QMS000021	
Reporting Date: 18/10/2018	

DETS Sample No	TP / BH No	Additional Refs	Depth (m)	Moisture Content (%)	Sample Matrix Description
$ 365770	WS1	None Supplied	0.50	5.3	Brown sandy clay
$ 365771	BH1	None Supplied	1.50	18.8	Brown sandy clay
$ 365772	BH2	None Supplied	1.50	14.7	Brown sandy clay with stones

Moisture content is part of procedure E003 & is not an accredited test
Insufficient Sample I/S
Unsuitable Sample U/S

$ samples exceeded recommended holding times

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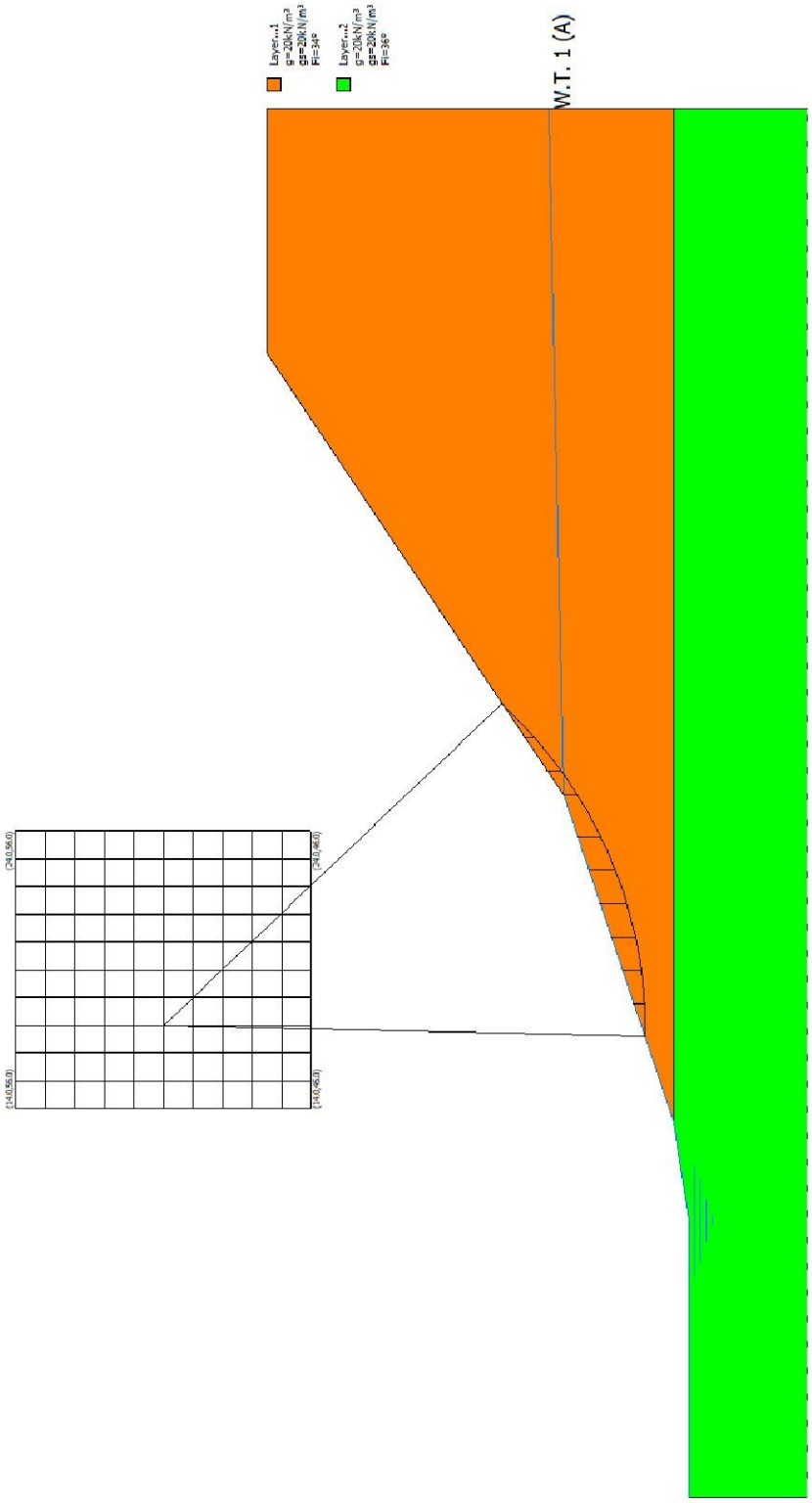
Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 18-83510
Peter Baxter Associates Ltd
Site Reference: Romney Avenue, Folkstone, CT20 3QJ
Project / Job Ref: 1145
Order No: QMS000021
Reporting Date: 18/10/2018

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

D Dried
AR As Received

APPENDIX D
SLOPE STABILITY ANALYSIS PLOTS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Layer...2
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Fi=36°
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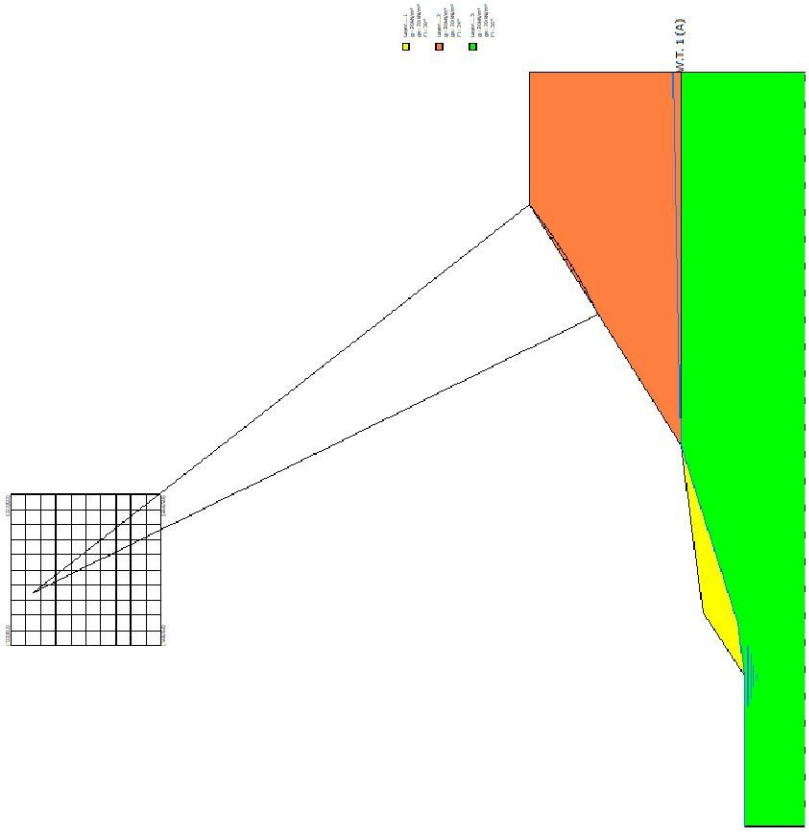
(140,960)
(140,480)

Section 1-1



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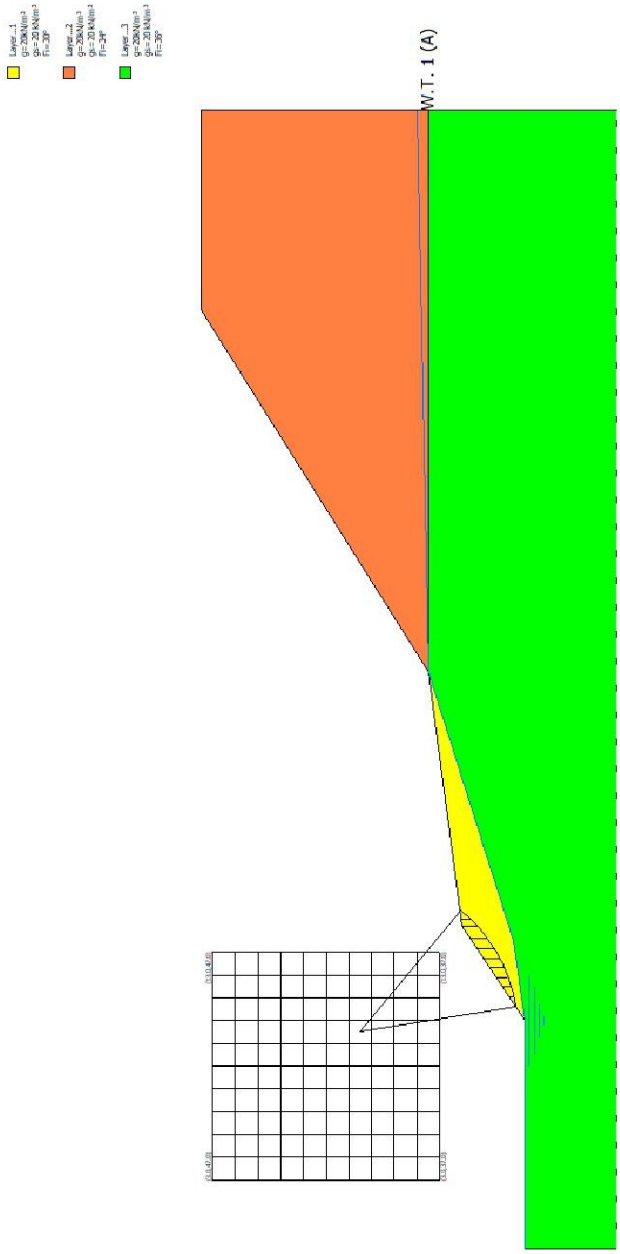

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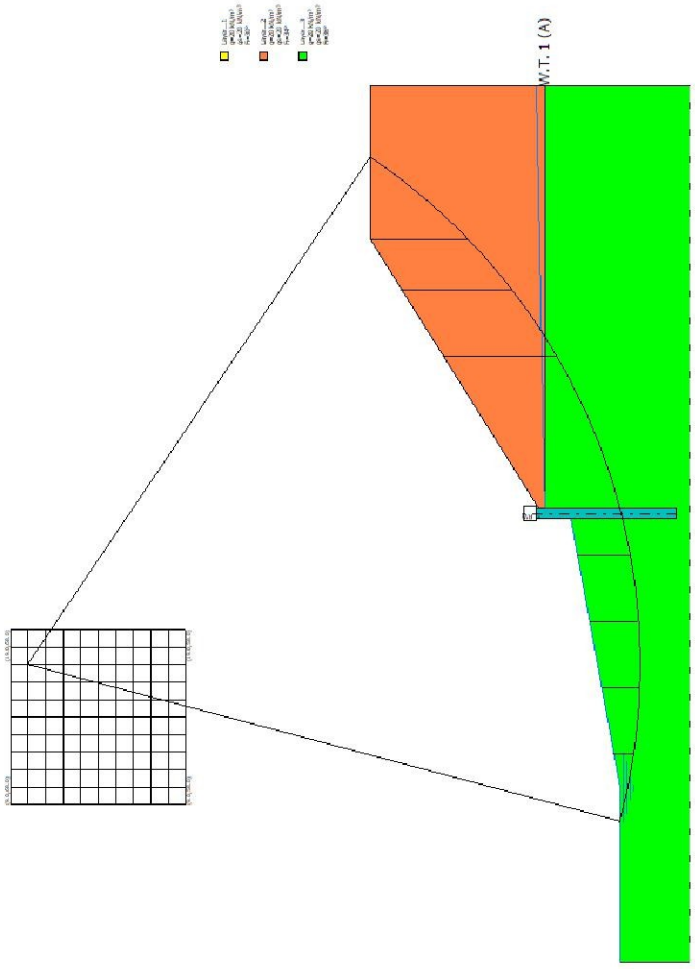

Section 5-5

APPENDIX E
PHOTOGRAPHS

View from Romney Avenue to south east

View from Romney Avenue to south

View to south across Site showing filled area

View to north west across Site showing fill slope

View along Romney Avenue showing Site on left

View south east across Romney Avenue


JOB NO: 1145
FOLKESTONE
WS1 GL - 6·00m


JOB NO: 1145
FOLKESTONE
WS2 GL - 3·00m


JOB NO: 1145
FOLKESTONE
WS3 GL -3·00m


JOB NO: 1145
FOLKESTONE
WS4 GL -3·00m